

January 13, 2025

George Glasier Pinon Ridge Mining LLC P O Box 825 31161 Highway 90 Nucla, CO 08142-4000

#### Re: Topaz Mine - File No. M-1980-055-HR Pinon Ridge Mining LLC Surety Increase (SI-4) Surety Revision

Dear George Glasier:

On January 13, 2025 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$162,630.00, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$62,737.00.

Regular Surety Increase based on Inspection and inflationary increases.

Please see the November 13, 2024 inspection report for details regarding why this surety increase is required.

On January 13, 2025, the Division ordered amendment of the current Financial Warranty or submittal of a new Financial Warranty reflecting the increase, within 60 days.

Please make arrangements with Sara M. Stevenson-Benn at the Division's Denver office for submittal of the financial warranty. Any other questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara M. Stevenson-Benn by telephone at (303) 866-3567, or by email at Sara.stevenson-benn@state.co.us.

The Permittee for this site may be scheduled for a Formal Board Hearing for possible revocation of the permit if the amount of any increased Financial Warranty has not been provided by March 14, 2025.

Bond Held:	\$99,893.00
Prior Liability:	\$99,893.00



Change in Liability:	\$62,737.00
Revised Liability:	\$162,630.00
Prior Permit Acreage:	1,674.60
Change in Permit Acreage:	0.00
Revised Permit Acreage:	1,674.60
Prior Affected Acreage:	30.00
Change in Affected Acreage:	0.00
Revised Affected Acreage:	30.00

If you have any questions, please contact me by telephone at (303) 919-2997, or by email at Lucas.west@state.co.us.

Sincerely,

Agar

Lucas J. West Environmental Protection Specialist

M-GR-04

# COST SUMMARY WORK

Task descrip	Cost Summary					
Site: <u>Topaz Mi</u>	ne	Per	rmit Action:	2024 Update	Permit/Joł	o#: M1980055HR
-	000 11/27/2024	ATION State: County:	Colorado San Miguel	l	Abbreviation: Filename:	None M055-000

Agency or organization name: DRMS

## TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001a	Demo of Vent Fan T-1	DEMOLISH	1	36.00	\$1,366
001b	Vent Shaft Closure T-1	MINESEAL	1	16.00	\$4,218
002a	Demo of Vent Fan T-4	DEMOLISH	1	36.00	\$1,366
002b	Vent Shaft Closure T-4	MINESEAL	1	16.00	\$4,218
003a	Demo of Vent Fan T-5	DEMOLISH	1	36.00	\$1,366
003b	Vent Shaft Closure T-5	MINESEAL	1	16.00	\$4,218
004	Demolition of structures at portal and pad, onsite disposal	DEMOLISH	1	36.00	\$4,145
005	Install atmospheric bulkhead underground	MINESEAL	1	16.00	\$5,247
006	Portal closure	MINESEAL	1	40.00	\$10,212
007	Recontour Vent Access Roads	DOZER	1	1.56	\$743
008	Rip compaction on vent pad areas	RIPPER	1	2.99	\$1,443
009	Grade vent pad areas	DOZER	1	6.14	\$2,916
010	Revegetate vent pad areas	REVEGE	1	8.00	\$1,472
011	Rip compaction on vent roads	RIPPER	1	3.72	\$1,802
012	Grade vent access roads	DOZER	1	3.13	\$1,485
013	Revegetate vent access roads	REVEGE	1	8.00	\$4,373
014	Grade dump slopes, push up to 2:1	DOZER	2	17.12	\$16,261
015	Grade dump pad, push against cut face	DOZER	2	14.59	\$13,862
016	Rip compaction on waste dump pad and access road	RIPPER	1	11.26	\$5,432
017	Contour portal and cut face, shape pad	DOZER	1	7.67	\$3,643
018	Haul topsoil for placement	LOADER	2	10.60	\$2,309
019	Spread topsoil on contoured waste dump pad	DOZER	1	2.34	\$1,112
020	Close and seal water quality monitoring wells	BOREHOLE	1	30.00	\$584
021	Grade and contour access roads	DOZER	1	2.68	\$1,274
022	Recontour upland diversions and runoff catchments	DOZER	1	0.36	\$169
023	Revegetate waste dump, access road, and SWMPs	REVEGE	1	20.00	\$23,023
024	Haul reclamation equipment to and from site	MOBILIZE	1	7.00	\$4,521
		<u>SUBTO</u>	TALS:	405.16	\$122,780

# **INDIRECT COSTS**

### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Performance bond:	1.05	Total =	\$1,289
Job superintendent:	202.58	Total =	\$16,059
Profit:	10.00	Total =	\$12,278
		TOTAL O & P =	\$32,106
		CONTRACT AMOUNT (direct + O & P) =	\$154,886

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0		Total =	= \$0
Engineering work and/or contract/bid preparation:	0.00		Total =	= \$0
Reclamation management and/or administration:	5.00			\$7,744
CONTINGENCY:	0.00		Total =	=\$0
		TOTAL IN	DIRECT COST =	= \$39,850
TOTAL BO	ND AN	AOUNT (di	rect + indirect) =	= \$162,630

## **DEMOLITION WORK**

Site: T	opaz Mine	Permit Action:	2024 Update	Permit	/Job#:	M1980055HR
ROJECT	DENTIFICAT	ION				
Task #:	001A	State: Colorado		Abbreviation:	None	
Date:	11/27/2024	County: San Miguel		Filename:	M055	5-001a
Llaam	LJW	·				

## UNIT COSTS

# Location adjustment: 86.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove Steel Fan/	6x6x4	USER PROVIDED	5.00	CY	\$50.00	\$250.00
Diffuser		ITEM				
Break Concrete	12x12x1	Demo. and on-site	144.00	SF	\$2.27	\$326.23
Collar, downshaft		disposal in existing pit,				
disp		12 in. thick - Max. 50				
		ft. push				
Cut off Casing	6ft Diam x 3	USER PROVIDED	1.00	EA	\$1,001.70	\$1,001.70
C		ITEM				

				<b>Total Cost</b>	
		Subtotal		(adjusted for	
Job Hours:	36.00	(unadjusted):	\$1,577.93	location):	\$1,366.49

### SAFEGUARDING UNDERGROUND OPENINGS

Site: <u>T</u>	opaz Mine		Permit Action:	2024 Update	Permit	/Job#: <u>M1980055HR</u>
<b>ROJEC</b>	<u>I IDENTIFICAT</u>	ION				
Task #:	001B	State:	Colorado		Abbreviation:	None
Date:	11/27/2024	County:	San Miguel		Filename:	M055-001b
	LJW					

## UNIT COSTS

<b>Opening Description</b>	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Shaft Closure	6x6x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$19.53	\$4,218.48

Job Hours: 16.00

Total Cost: \$4,218.48

## **DEMOLITION WORK**

Tas	sk description:	Demo of Ver	nt Fan T-4				
Site: T	opaz Mine		Permit Action:	2024 Update	Permit	/Job#:	M1980055HR
<b>ROJEC</b> 1	<b>IDENTIFICATIO</b>	N					
Task #:	002A	State:	Colorado		Abbreviation:	None	;
Date:	11/27/2024	County:	San Miguel		Filename:	M05	5-002a
Lagen	LJW	•					

## UNIT COSTS

# Location adjustment: 86.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove Steel Fan/	6x6x4	USER PROVIDED	5.00	CY	\$50.00	\$250.00
Diffuser		ITEM				
Break Concrete	12x12x1	Demo. and on-site	144.00	SF	\$2.27	\$326.23
Collar, downshaft		disposal in existing pit,				
disp		12 in. thick - Max. 50				
		ft. push				
Cut off Casing	6ft Diam x 3	USER PROVIDED	1.00	EA	\$1,001.70	\$1,001.70
		ITEM				

				<b>Total Cost</b>	
		Subtotal		(adjusted for	
Job Hours:	36.00	(unadjusted):	\$1,577.93	location):	\$1,366.49

### SAFEGUARDING UNDERGROUND OPENINGS

Site: <u>T</u>	opaz Mine		Permit Action:	2024 Update	Permit	/Job#: <u>M1980055HR</u>
<b>ROJEC</b>	<u> FIDENTIFICAT</u>	<u>'ION</u>				
Task #:	002B	State:	Colorado		Abbreviation:	None
Data	11/27/2024	County:	San Miguel		Filename:	M055-002b
Date:						

## UNIT COSTS

<b>Opening Description</b>	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Shaft Closure	6x6x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$19.53	\$4,218.48

Job Hours: 16.00

Total Cost: \$4,218.48

## **DEMOLITION WORK**

Tas	sk description:	Demo of Ve	nt Fan T-5				
Site: T	opaz Mine		Permit Action:	2024 Update	Permit	/Job#:	M1980055HR
PROJECT	<b>IDENTIFICATION</b>	<u>N</u>					
Task #:	003A	State:	Colorado		Abbreviation:	None	;
Date:	11/27/2024	County:	San Miguel		Filename:	M05	5-003a
User:	LJW						

## UNIT COSTS

# Location adjustment: 86.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove Steel Fan/	6x6x4	USER PROVIDED	5.00	CY	\$50.00	\$250.00
Diffuser		ITEM				
Break Concrete	12x12x1	Demo. and on-site	144.00	SF	\$2.27	\$326.23
Collar, downshaft		disposal in existing pit,				
disp		12 in. thick - Max. 50				
		ft. push				
Cut off Casing	6ft Diam x 3	USER PROVIDED	1.00	EA	\$1,001.70	\$1,001.70
		ITEM				

				<b>Total Cost</b>	
		Subtotal		(adjusted for	
Job Hours:	36.00	(unadjusted):	\$1,577.93	location):	\$1,366.49

### SAFEGUARDING UNDERGROUND OPENINGS

Site: T	opaz Mine		Permit Action:	2024 Update	Permit	/Job#: <u>M1980055HR</u>
ROJECT	<u>IDENTIFICAT</u>	ION				
Task #:	003B	State:	Colorado		Abbreviation:	None
Date:	11/27/2024	County:	San Miguel		Filename:	M055-003b
	LJW					

## UNIT COSTS

<b>Opening Description</b>	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Shaft Closure	6x6x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$19.53	\$4,218.48

Job Hours: 16.00

Total Cost: \$4,218.48

## **DEMOLITION WORK**

Site: T	opaz Mine	·	Permit Action:	2024 Update	Permit	/Job#:	M1980055HR
ROJECT	<u>IDENTIFICATI</u>	<u>ION</u>					
Task #:	004	State:	Colorado		Abbreviation:	None	
Date:	11/27/2024	County:	San Miguel		Filename:	M055	5-004
User:	LJW						

## UNIT COSTS

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Shop building	35x20x20	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	14,000.00	CF	\$0.24	\$3,306.80
Shop bldg concrete slab	35x20	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	700.00	SF	\$0.79	\$554.54
Water tanks with cribbing	10x10x10 ft mass	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	1,000.00	CF	\$0.24	\$236.20
Hydrocarbon storage	10x5x5 ft	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	250.00	CF	\$0.24	\$59.05
Electric switch gear	10x5x5 ft	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	250.00	CF	\$0.24	\$59.05
Receiver tank and piping	10x10x5 ft	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	500.00	CF	\$0.24	\$118.10
Portal shed, steel sets, timbers	10x10x15 ft	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 50 ft. push	1,500.00	CF	\$0.22	\$323.40

				<b>Total Cost</b>	
		Subtotal		(adjusted for	
<b>Job Hours:</b>	36.00	(unadjusted):	\$4,657.14	location):	\$4,144.85

## Location adjustment: 89.00 %

### SAFEGUARDING UNDERGROUND OPENINGS

	sk description: ` <b>opaz Mine</b>		pheric bulkhes Permit Action:	ad underground 2024 Update	Permit	/Job#:	M1980055HR
<u>ROJEC'</u>	<u> FIDENTIFICAT</u>	ION					
Task #: Date: User:	005 11/27/2024 LJW	State: County:	Colorado San Miguel		Abbreviation: Filename:	None M053	
	Agency or orga	nization name:	DRMS				
<b>NIT CO</b>	STS						

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Underground workings	12x15	Adit closure - bulkhead seal (per opening)	1.00	EA	\$5,246.60	\$5,246.60

Job Hours: 16.00

Total Cost: \$5,246.60

## SAFEGUARDING UNDERGROUND OPENINGS

				2024 Update			M1980055HR
ROJECT I	DENTIFICATIO	<u>DN</u>					
Date:	006 11/27/2024 LJW	State: County:	Colorado San Miguel		Abbreviation: Filename:	None M055	

# UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Place debris in adit	10x10	Adit closure - backfilling (per cu. yd.)	150.00	CY	\$43.75	\$6,562.50
Earthen backfill, 30 ft.	10x10	Adit closure - backfilling (per opening)	1.00	EA	\$3,649.41	\$3,649.41

Job Hours: 40.00

Total Cost: \$10,211.91

## BULLDOZER WORK

	Permit Action:	2024 Update	Permit/Jo	o#: <u>M1980055HI</u>
ROJECT IDENTIFIC	CATION			
Task #: 007	State: Colorado		Abbreviation:	None
Date: $11/27/2024$	County: San Miguel		Filename:	M055-007
User: LJW	County:		i nonume.	10000 007
Agency or organi	zation name: <u>DRMS</u>			
IOURLY EQUIPMEN	<u>T COST</u>			
	D9T - 9SU	_		
Horsepower: 405		_		
×1	ii-Universal	_		
	ank ripper	_		
	r day	_		
Data Source: (CR	G)	_		
ost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$253.16	NA		
Operating Cost/Hour:	\$164.35	100		
Ripper own.	\$18.79	NA		
Cost/Hour:				
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.59	NA		
Total unit Cost/Hour:	\$474.89			
Total Fleet Cost/Hour:	\$474.89			
ATTERIAL OHANTI	TIFS			
IATERIAL QUANTI Initial Volume: 1,110 Swell factor: 1,125	)			
	)			
Initial Volume: <u>1,110</u> Swell factor: <u>1.125</u>	0 5 0 LCY	on, Mining & Safety		
Initial Volume:1,110Swell factor:1.125Loose volume:1,249	DLCY me:Division of Reclamation	on, Mining & Safety		
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell	DECY me: Division of Reclamation Cat Handbook	on, Mining & Safety		
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor:	DECY me: Division of Reclamation Cat Handbook	on, Mining & Safety		
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI	DLCY ne: Division of Reclamation Cat Handbook ON	on, Mining & Safety		
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production:	DLCY me: Division of Reclamation Cat Handbook ON 50 feet			
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production: Materials consistency des Average push	Division of Reclamation Division of Reclamation Cat Handbook ON 50 feet 2,110.5 LCY/hr			
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient:	DLCY me: Division of Reclamation Cat Handbook ON <u>50 feet</u> 2,110.5 LCY/hr coription: Consolidated stockp 0 %			
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude:	0			
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient:	DLCY me: Division of Reclamation Cat Handbook ON <u>50 feet</u> 2,110.5 LCY/hr coription: Consolidated stockp 0 %			
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude:	0			
Initial Volume: 1,110 Swell factor: 1.125 Loose volume: 1,249 Source of estimated volum Source of estimated swell factor: IOURLY PRODUCTI Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude: Material weight:	DLCY ne: Division of Reclamation Cat Handbook ON 50 feet 2,110.5 LCY/hr cription: Consolidated stockp 0 % 7,000 feet 2,650 lbs/LCY Decomposed rock - 25% Rock,			

Material consistency:	1.000	(CAT HB)
		· · · · · · · · · · · · · · · · · · ·
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3782

Adjusted unit production:	798.19 LCY/hr
Adjusted fleet production:	<b>798.19</b> LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.595/LCY

Total job time:	<b>1.56</b> Hours
Total job cost:	\$743

## BULLDOZER RIPPING WORK

	Task description:	Rip	compaction on ve	nt pad a	reas				
Site:	Topaz Mine		Permit A	ction:	2024 Update	:	Permit/Jo	b#: <u>M19800</u>	55HR
<u>P</u>	PROJECT IDE	NTIFICATI	<u>ON</u>						
	Task #: 003	3	State: Cold	orado		Abł	previation:	None	
		27/2024		Miguel			Filename:	M055-008	
	User: LJ								
	Agency	or organizatior	n name: DRMS						_
H	HOURLY EQU	IPMENT CO	<u>DST</u>						
	Basic	Machine: Ca	at D9T - 9SU			Horsepower:		405	
	Ripper Atta		Shank Ripper			Shift Basis:		per day	_
	11					Data Source:		CRG)	-
C	Cost Breakdown:							/	_
<u> </u>						Utilization %			
		Ownership C	ost/Hour:		\$253.16	NA			
		Operating C	ost/Hour:		\$164.35	100			
		r Ownership C			\$15.77	NA	_		
	Ripp	er Operating C			\$10.35	100	_		
		Operator C			\$38.59	NA	_		
		Total Unit C	ost/Hour:		\$482.22				
		Total Fleet C	ost/Hour:	\$482.2	2				
Ν	MATERIAL Q	UANTITIES		Selecte	d estimating	method: Are	a		
	Alternate Methods			Servere	a ostillating				
		-	D 1 W	1	NT A	DOV			
Seismic:	<u>NA</u> 1.50		Bank Vo Bin Donti		NA 1.00	BCY	2 420	NA	BCY or CC
Area:	1.50	acres	Rip Dept	1 (11):	1.00	Volume:	2,420		BUT OF CU
		Source of esti	mated quantity:I	Permit m	aps				_
I	HOURLY PRO	<b>DUCTION</b>							
5	Seismic:								
<u>c</u>	<u>seisime.</u>		Seismic Velocity:		NA	feet/se	cond		
			Seisinie Veloeity.		141		cond		
<u>A</u>	Area:				4 o <b>-</b>	<b>2</b> /			
			ge Ripping Depth:		4.05	feet/pa			
			ge Ripping Width:		6.08	feet/pa			
			e Ripping Length: age Dozer Speed:		100.00 88.00	feet/pa feet/m			
			e Maneuver Time:		0.25	ninute			
			tion per unit area:		0.604	acres/l	1		
L	ob Condition Cor		•						
<u>.</u>			_		0.004		1		
	Una	djusted Hourly	Unit Production:		0.604	Acres/	hr		
			Site Altitude:		7,000	feet			
			Altitude Adj:		1.00	(CAT	· ·		
			Job Efficiency:		0.83	(1 shif	• /		
			Net Correction:		0.83	multip	lier		
		Adjusted	Hourly Unit Produc	ction:	0.50	Acres/hr			
		Adjusted	Hourly Fleet Produc	ction:	0.50	Acres/hr			
J	OB TIME AN	D COST							
	Fleet size:	1	Grader(s)	-	Total job tim	e:	2.99	Hours	5
		<b>40/1 5</b> 0 <b>1</b>	_						
	Unit cost:	\$961.784	Per acre		Total job cos	st:	\$1,443		

CIRCES Cost Estimating Software

## BULLDOZER WORK

	Permit Action:	2024 Update	Permit/Jo	o#: <u>M1980055HR</u>
PROJECT IDENTIFI	CATION			
Task #: 009	State: Colorado		Abbreviation:	None
Date: $11/27/2024$		el	Filename:	M055-009
User: LJW	000000 <u></u>			
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
	t D9T - 9SU			
Horsepower: 40:				
1	ni-Universal			
<b>7</b> 1	hank ripper			
	er day			
	RG)			
Cost Breakdown:				
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$253.16	NA		
Operating Cost/Hour:	\$164.35	100		
Ripper own. Cost/Hour:	\$18.79	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.59	NA		
Total unit Cost/Hour:	\$474.89			
Total Fleet Cost/Hour:	\$474.89			
MATERIAL QUANT Initial Volume: 4,35 Swell factor: 1.12 Loose volume: 4,90	6			
		ion, Mining & Safety		
Source of estimated volu Source of estimated swe factor:	ll Cat Handbook			
Source of estimated swe				
Source of estimated swe factor: HOURLY PRODUCT	<u>10N</u>			
Source of estimated swe factor:				
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production:	<u>ION</u> _50 feet	pile 1.0		
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push	<u>50 feet</u> 2,110.5 LCY/hr	pile 1.0		
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	ION 50 feet 2,110.5 LCY/hr escription: Consolidated stock 0 %	pile 1.0		
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push	ION 50 feet 2,110.5 LCY/hr escription: Consolidated stock	pile 1.0		
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	ION 50 feet 2,110.5 LCY/hr escription: Consolidated stock 0 %	 pile 1.0		
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	ION         50 feet         2,110.5 LCY/hr         escription:       Consolidated stock         0 %         7,000 feet			
Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	ION         50 feet         2,110.5 LCY/hr         escription: Consolidated stock         0 %         7,000 feet         2,650 lbs/LCY         Decomposed rock - 25% Rock			

Material consistency:	1.000	(CAT HB)
		· · · · · · · · · · · · · · · · · · ·
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3782

Adjusted unit production:	798.19 LCY/hr
Adjusted fleet production:	<b>798.19</b> LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.595/LCY

Total job time:	<b>6.14</b> Hours
Total job cost:	\$2,916

# **REVEGETATION WORK**

Task descr	ption:	Revegetate vent	pad areas			
ite: <u>Topaz N</u>	line	Per	mit Action:	2024 Update	Permit/Job	o#: <u>M1980055HR</u>
<u>PROJECT</u>	<b>IDENTIFIC</b>	CATION				
Task #:	010	State:	Colorado		Abbreviation:	None
Date:	11/27/2024	County:	San Migue	1	Filename:	M055-010
	LJW					

# **FERTILIZING**

#### **Materials**

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

# Application

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

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
Total Tilling Cost/Acre	\$117.61

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$20.47
Indian Ricegrass - Native	7.42	24.02	\$128.31
Sand Dropseed	0.14	16.71	\$1.82
Bottlebrush Squirreltail	4.08	17.98	\$103.65
Galleta	4.94	18.03	\$273.86
Muttongrass	0.20	4.13	\$9.53
Sagebrush, Mountain or Big	0.20	10.56	\$16.54
Saltbush, Four Wing	0.50	0.69	\$9.94
Winter Fat	0.50	1.27	\$23.36

Totals Seed Mix 18.94 109.07 \$587.48	\$587.48	109.07	18.94	Totals Seed Mix
---------------------------------------	----------	--------	-------	-----------------

#### Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$272.56
	Total Seed Application Cost/Acre	\$272.56

## **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.50	ACRE	\$4.13	\$6.19
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$991.75

## Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Weed spray, hand, non-aquatic area, nox. [DMG]		\$209.61
	<b>Total Mulch Application Cost/Acre</b>	\$294.98

### **NURSERY STOCK PLANTING**

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

No. of Acres:	0.5	Cost /Acre:	\$2,264.38
Estimated Failure Rate:	30%	Cost /Acre*:	\$2,264.38
*Selected Replanting Work Items:	TILLING,SEEDIN	G,MULCHING	

Initial Job Cost:	\$1,132.19
Reseeding Job Cost:	\$339.66
Total Job Cost:	\$1,472
Job Hours:	8.00

## BULLDOZER RIPPING WORK

Task description:	<b>Rip compaction</b>	on vent road	ls				
Site: <b>Topaz Mine</b>	Pe	rmit Action:	2024 Update	2	Permit/Jol	b#: <u>M19800</u>	55HR
PROJECT IDENTIFI	<b>CATION</b>						
Task #: 011	State:	Colorado		Abb	reviation:	None	
Date: 11/27/2024	4 County:	San Migue	1	]	Filename:	M055-011	
User: LJW							
Agency or organ	nization name:	RMS					-
HOURLY EQUIPME	NT COST						
Basic Machine	e: Cat D9T - 9SU			Horsepower:		405	
Ripper Attachmen	t: 3-Shank Ripper	ſ		Shift Basis:	1 p	oer day	-
				Data Source:	((	CRG)	-
Cost Breakdown:							
				Utilization %			
	rship Cost/Hour:		\$253.16	NA	-		
	ating Cost/Hour:		\$164.35 \$18.79	100 NA	-		
	rship Cost/Hour: ating Cost/Hour:		\$18.79	NA 100	-		
	erator Cost/Hour:		\$38.59	NA	-		
	Unit Cost/Hour:		\$484.37	1.112	_		
	Fleet Cost/Hour:	\$484	·				
Total		<b>J404</b>					
<u>MATERIAL QUANT</u> <u>Alternate Methods:</u> Seismic: NA		Selec	ted estimating NA	method: <u>Area</u> BCY	a	NA	_
		Depth (ft):	1.00	Volume:	4,437		BCY or CCY
Source	e of estimated quanti	tv· Permit	mans				
HOURLY PRODUCT	-	<u> </u>	inapo				
<u>Seismic:</u>	с · · у 1	•	NT A	C 4/	1		
	Seismic Velo	city:	NA	feet/sec	cond		
<u>Area:</u>		_					
	Average Ripping D		2.63	feet/pa			
	Average Ripping W Average Ripping Ler		7.67 500.00	feet/pas feet/pas			
1	Average Ripping Lei Average Dozer St		88.00	feet/mi			
A	Average Maneuver T		0.25	minute			
	Production per unit	area:	0.891	acres/h	our		
Job Condition Correction	Factors						
Unadjusted	Hourly Unit Produc	tion:	0.891	Acres/I	ır		
	Site Alti	tude:	7,000	feet			
		Adj:	/	(CAT I	HB)		
		ency:		(1 shift	,		
	Net Correc		0.83	multipl	ier		
	djusted Hourly Unit ljusted Hourly Fleet		0.74 <b>0.74</b>	Acres/hr Acres/hr			
JOB TIME AND COS	<u>ST</u>						
Fleet size:			Total job tim	ie:	3.72	Hours	
Unit cost:\$655	5.327 Per acre		Total job cos	st:\$	1,802		

CIRCES Cost Estimating Software

## BULLDOZER WORK

	Permit Action:	2024 Update	Permit/Jo	b#: <u>M1980055HR</u>
PROJECT IDENTIFI	CATION			
Task #: 012	State: Colorado		Abbreviation:	None
Date: $\frac{012}{11/27/2024}$			Filename:	M055-012
User: LJW		·	T monume.	11000 012
	ization name: DRMS			
Agency of organ				
HOURLY EQUIPME	NT COST			
	D9T - 9SU	_		
Horsepower: 405		_		
×1	ni-Universal	_		
	nank ripper	_		
	er day	_		
Data Source: (CH	RG)	_		
Cost Breakdown:				
COST DIVARAUWII		Utilization %		
Ownership Cost/Hour:	\$253.16	NA		
Operating Cost/Hour:	\$164.35	<u> </u>		
Ripper own.				
Cost/Hour:	\$18.79	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.59	NA		
Total unit Cost/Hour:	\$474.89			
Total Fleet Cost/Hour:	\$474.89 \$474.89			
MATERIAL QUANTI Initial Volume: 2,21	8			
Swell factor: 1.12	0			
Swell factor: 1.12	5 5 LCY			
Swell factor: 1.12	5 LCY me: Division of Reclamatic	on, Mining & Safety		
Swell factor:       1.12         Loose volume:       2,49         Source of estimated volu       Source of estimated volu	5 LCY me: Division of Reclamation l Cat Handbook	on, Mining & Safety		
Swell factor: 1.12 Loose volume: 2,49 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT	5 LCY me: Division of Reclamation l Cat Handbook	on, Mining & Safety		
Swell factor: 1.12 Loose volume: 2,49 Source of estimated volu Source of estimated swe factor:	5 LCY me: Division of Reclamation l Cat Handbook	on, Mining & Safety 		
Swell factor:       1.12         Loose volume:       2,49         Source of estimated volu       Source of estimated swell         Source of estimated swell       factor:         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:	5 LCY me: <u>Division of Reclamation</u> l Cat Handbook <u>ION</u> 50 feet			
Swell factor:       1.12         Loose volume:       2,49         Source of estimated volu       Source of estimated swell         Source of estimated swell       factor:         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:	5 LCY         me:       Division of Reclamatic         1       Cat Handbook         ION			
Swell factor:       1.12         Loose volume:       2,49         Source of estimated volu       Source of estimated swe         Source of estimated swe       factor:         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency de         Average push         gradient:	5 LCY         me:       Division of Reclamatic         1       Cat Handbook         ION			
Swell factor:       1.12         Loose volume:       2,49         Source of estimated volu       Source of estimated swe         Source of estimated swe       factor:         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency de         Average push	5 LCY         me:       Division of Reclamation         1       Cat Handbook         I       50 feet         2,110.5 LCY/hr         scription:       Consolidated stockp			
Swell factor:       1.12         Loose volume:       2,49         Source of estimated volu       Source of estimated swe         Source of estimated swe       factor:         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency de         Average push         gradient:	5 LCY         me:       Division of Reclamatic         1       Cat Handbook         ION			
Swell factor:1.12Loose volume:2,49Source of estimated volu Source of estimated swe factor:HOURLY PRODUCTAverage push distance: Unadjusted hourly production:Materials consistency de Average push gradient: Average site altitude:	5 LCY         me:       Division of Reclamatic         1       Cat Handbook         ION	  ile 1.0		
Swell factor:1.12Loose volume:2,49Source of estimated volu Source of estimated swell factor:HOURLY PRODUCTAverage push distance: Unadjusted hourly production:Materials consistency de Average push gradient: Average site altitude:Material weight:	5 LCY         me:       Division of Reclamatic         1       Cat Handbook         ION	  ile 1.0		

Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3782

Adjusted unit production:	798.19 LCY/hr
Adjusted fleet production:	798.19 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.595/LCY

Total job time:	<b>3.13</b> Hours
Total job cost:	\$1,485

# **REVEGETATION WORK**

Task descrip	otion:	Revegetate vent	access roads	5		
Site: <u>Topaz M</u>	ine	Per	mit Action:	2024 Update	Permit/Job	o#: M1980055HR
PROJECT	IDENTIFIC	CATION				
Date:	013 11/27/2024 LJW	State: County:	Colorado San Miguel	1	Abbreviation: Filename:	None M055-013
Age	ency or organiz	zation name:	MS			

# **FERTILIZING**

#### **Materials**

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

# Application

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

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
Total Tilling Cost	:/Acre \$117.61

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$20.47
Indian Ricegrass - Native	7.42	24.02	\$128.31
Sand Dropseed	0.14	16.71	\$1.82
Bottlebrush Squirreltail	4.08	17.98	\$103.65
Galleta	4.94	18.03	\$273.86
Muttongrass	0.20	4.13	\$9.53
Sagebrush, Mountain or Big	0.20	10.56	\$16.54
Saltbush, Four Wing	0.50	0.69	\$9.94
Winter Fat	0.50	1.27	\$23.36

10tais Secu Mix 10.94 109.07 \$307.40	Totals Seed Mix	18.94	109.07	\$587.48	
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#### Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$272.56
	<b>Total Seed Application Cost/Acre</b>	\$272.56

## **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.75	ACRE	\$4.13	\$11.35
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$996.91

## Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Weed spray, hand, non-aquatic area, nox. [DMG]		\$209.61
	<b>Total Mulch Application Cost/Acre</b>	\$294.98

### **NURSERY STOCK PLANTING**

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

	No. of Acres:	1.5	Cost /Acre:	\$2,269.54	
Estimate	d Failure Rate:	30%	Cost /Acre*:	\$2,151.93	
*Selected Replantir	ng Work Items:	SEEDING, MULCHING			
Initial Job Cost:	\$3,404.31				
Desceding Job Cost	¢060 27				

minuter boo cook.	\$0,10 1101
Reseeding Job Cost:	\$968.37
Total Job Cost:	\$4,373
Job Hours:	8.00

## BULLDOZER WORK

Topaz Mine	Permit Action:	2024 Update	Permit/Job	#: <u>M1980055HR</u>
ROJECT IDENTIFI	<u>CATION</u>			
Task #: 014	State: Colorado		Abbreviation:	None
Date: 11/27/2024	County: San Miguel		Filename:	M055-014
User: LJW			-	
A	intin memory DDMC			
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
	t D9T - 9SU			
Horsepower: 405				
<i>•</i> • • • • • • • • • • • • • • • • • •	ni-Universal			
	hank ripper			
	er day			
Data Source: (CI	RG)			
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$253.16	NA		
Operating Cost/Hour:	\$164.35	100		
Ripper own. Cost/Hour:	\$18.79	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.59	NA		
MATERIAL QUANT Initial Volume: 7,00 Swell factor: 1.21	5			
Initial Volume: <u>7,00</u> Swell factor: <u>1.21</u>				
Initial Volume: <u>7,00</u> Swell factor: <u>1.21</u>	5 5 LCY Ime: Division of Reclamatio	n, Mining & Safety		
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe	5 5 LCY Ime: Division of Reclamatio Il Cat Handbook	n, Mining & Safety		
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly	5 5 LCY Ime: Division of Reclamatio Il Cat Handbook	n, Mining & Safety 		
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production:	5 5 LCY Ime: Division of Reclamatio Cat Handbook ION 150 feet			
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production:	5 5 LCY Ime: Division of Reclamatio Cat Handbook ION 150 feet 910.5 LCY/hr			
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	5 5 LCY Ime: Division of Reclamatio Cat Handbook ION 150 feet 910.5 LCY/hr escription: Consolidated stockpi			
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push	5 5 LCY Ime: Division of Reclamatio Cat Handbook ION 150 feet 910.5 LCY/hr escription: Consolidated stockpi			
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	5         5 LCY         ime:       Division of Reclamatio         II       Cat Handbook         III       Item         ION       Item         150 feet       910.5 LCY/hr         escription:       Consolidated stockpi         10 %       Item			
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	5         5 LCY         Ime:       Division of Reclamatio         II       Cat Handbook         III       Intervention         ION       Intervention         ISO feet       910.5 LCY/hr         escription:       Consolidated stockpi         10 %       5,800 feet	  le 1.0		
Initial Volume: 7,00 Swell factor: 1.21 Loose volume: 8,50 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	5         5 LCY         Ime:       Division of Reclamatio         II       Cat Handbook         ION	  le 1.0		

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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2728

Adjusted unit production:	248.38 LCY/hr
Adjusted fleet production:	<b>496.76</b> LCY/hr

Fleet size:	2 Dozer(s)
Unit cost:	\$1.912/LCY

Total job time:	<b>17.12</b> Hours
Total job cost:	\$16,261

# BULLDOZER WORK

	I	Permit Action:	2024 Update	Permit/Jo	o#: <u>M1980055HR</u>
ROJECT IDENTIFIC	CATION				
Task #: 015 Date: 11/27/2024 User: LJW	State County			Abbreviation: Filename:	None M055-015
Agency or organ	ization name: I	DRMS			
OURLY EQUIPMEN	NT COST				
Basic Machine: <u>Cat</u> Horsepower: 405	D9T - 9SU				
1	ni-Universal				
	nank ripper				
	er day				
Data Source: (CR	(G)				
ost Breakdown:					
0 11 0 77		<b>AABACAAAAAAAAAAAAA</b>	Utilization %		
Ownership Cost/Hour:		\$253.16 \$164.35	NA 100		
Operating Cost/Hour: Ripper own.			100		
Cost/Hour:		\$18.79	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$38.59	NA		
IATERIAL QUANTI					
Initial Volume: 6,000 Swell factor: 1.213	5				
Swell factor:1.21Loose volume:7,29	5 D LCY				
Swell factor: 1.21	5 D LCY me: Divisio	n of Reclamation	n, Mining & Safety		
Swell factor: 1.21: Loose volume: 7,290 Source of estimated volu Source of estimated swel	5 D LCY me: <u>Divisio</u> l Cat Ha		n, Mining & Safety 		
Swell factor: 1.21: Loose volume: 7,290 Source of estimated volu Source of estimated swel factor:	5 D LCY me: <u>Divisio</u> l Cat Ha	ndbook	n, Mining & Safety		
Swell factor: 1.21: Loose volume: 7,29 Source of estimated volu Source of estimated swel factor: OURLY PRODUCT Average push distance: Unadjusted hourly	5 0 LCY me: <u>Divisio</u> 1 Cat Ha  ION <u>150 feet</u> 910.5 LC	ndbook Y/hr			
Swell factor:       1.212         Loose volume:       7,290         Source of estimated volu       Source of estimated swel         Source of estimated swel       factor:         OURLY PRODUCTION       Average push distance:         Unadjusted hourly       production:         Materials consistency dest       Average push	5 0 LCY me: <u>Divisio</u> 1 Cat Ha  ION <u>150 feet</u> 910.5 LC	ndbook Y/hr			
Swell factor:       1.212         Loose volume:       7,290         Source of estimated volu       Source of estimated swel         Source of estimated swel       factor:         OURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency des       Average push         Average push       gradient:	5 0 LCY me: 1 Cat Ha  ION  150 feet  910.5 LC  scription:Cons	ndbook Y/hr			
Swell factor:       1.21:         Loose volume:       7,29         Source of estimated volu       Source of estimated swel         Source of estimated swel       factor:         OURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency des       Average push         gradient:       Average site altitude:	5 0 LCY me: <u>Divisio</u> 1 Cat Ha  ION <u>150 feet</u> 910.5 LC scription: <u>Cons</u> 5 %	ndbook Y/hr			
Swell factor:       1.21:         Loose volume:       7,290         Source of estimated volu       Source of estimated swel         Source of estimated swel       factor:         COURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency destance:       Materials consistency destance	5 D LCY me: <u>Divisio</u> 1 Cat Ha  ION <u>150 feet</u> 910.5 LC scription: <u>Cons</u> 5 % 5,800 feet <u>3,300 lbs/LCY</u>	ndbook Y/hr	 		

Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2743

Adjusted unit production:	249.75 LCY/hr		
Adjusted fleet	<b>499.5</b> LCY/hr		
production:	4)).5 EC 1/m		

Fleet size:	2 Dozer(s)
Unit cost:	\$1.901/LCY

Total job time:	14.59 Hours
Total job cost:	\$13,862

# BULLDOZER RIPPING WORK

Task description:	Rip co	ompaction on waste du	ump pad and a	access road			
Site: <b>Topaz Mine</b>		Permit Action:	2024 Update	e	Permit/Job	o#: <u>M19800</u>	55HR
PROJECT IDEN	<b>FIFICATIO</b>	N					
Task #: 016		State: Colorado		Abbr	eviation:	None	
Date: 11/27	/2024	County: San Migu	el	F	ilename:	M055-016	
User: LJW							
Agency or	organization n	ame: DRMS					-
HOURLY EQUIP	MENT COS	<u>ST</u>					
Basic Ma		D9T - 9SU		Horsepower:		405	_
Ripper Attach	ment: <u>1-Sh</u>	ank Ripper		Shift Basis:		er day	-
				Data Source:	((	CRG)	-
Cost Breakdown:				Utilization %			
C	wnership Cos	t/Hour:	\$253.16	NA			
	Operating Cos		\$164.35	100			
	Wership Cos Operating Cos		\$15.77 \$10.35	NA 100			
- app -	Operator Cos		\$38.59	NA			
- -	Fotal Unit Cos	t/Hour:	\$482.22				
Т	otal Fleet Cos	t/Hour: <b>\$48</b>	2.22				
MATERIAL QUA	<b>NTITIES</b>	Sele	cted estimating	method: Area	L		
Alternate Methods:							
Seismic: NA		Bank Volume:	NA	BCY		NA	
Area: 6.60	acres	Rip Depth (ft):		Volume:	10,648		BCY or CCY
So	ource of estimation	ted quantity: Permit	maps				
HOURLY PROD	UCTION						
Seismic:							
<u>Beisinie.</u>	Se	ismic Velocity:	NA	feet/sec	ond		
<u>Area:</u>							
		Ripping Depth:	4.05	feet/pas			
		Ripping Width: Ripping Length:	<u>6.08</u> 500.00	feet/pas feet/pas			
		e Dozer Speed:	88.00	feet/mir			
		Ianeuver Time:	0.25	minutes			
		on per unit area:	0.706	acres/ho	our		
Job Condition Correc	tion Factors						
Unadju	isted Hourly U	Init Production:	0.706	Acres/h	r		
		Site Altitude:	7,000	feet			
		Altitude Adj:			· ·		
		Job Efficiency: Net Correction:		(1 shift/ multipli	• /		
		ourly Unit Production:		Acres/hr			
		ourly Fleet Production:	0.39 0.59	Acres/hr			
JOB TIME AND	•	-					
Fleet size:		Grader(s)	Total ich tim	ne: 1	1 26	Hours	
			-			110015	
Unit cost:	\$823.034	Per acre	Total job cos	st: \$	5,432		

CIRCES Cost Estimating Software

# BULLDOZER WORK

	Permit Action:	2024 Update	Permit/Job#:	M1980055HR
ROJECT IDENTIFIC	CATION			
Task #: 017 Date: 11/27/2024 User: LJW	State: Colorado County: San Migue	l		lone 1055-017
Agency or organ	ization name: DRMS			
OURLY EQUIPMEN				
	D9T - 9SU	_		
Horsepower: 405		_		
	ni-Universal	_		
	nank ripper	_		
	er day	_		
Data Source: (CR	.(J)	_		
ost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$253.16	NA		
Operating Cost/Hour:	\$164.35	100		
Ripper own. Cost/Hour:	\$18.79	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.59	NA		
IATERIAI OHANTI	TIFS			
IATERIAL QUANTI Initial Volume: <u>3,000</u> Swell factor: <u>1.16</u>	5			
Initial Volume: <u>3,000</u> Swell factor: <u>1.16</u>	)			
Initial Volume: 3,000 Swell factor: 1.16 Loose volume: 3,49 Source of estimated volu Source of estimated swel	5 5 5 LCY me: Division of Reclamation	on, Mining & Safety		
Initial Volume: 3,000 Swell factor: 1.16 Loose volume: 3,49 Source of estimated volu Source of estimated swel factor:	) 5 5 LCY me: <u>Division of Reclamation</u> l Cat Handbook	on, Mining & Safety		
Initial Volume: <u>3,000</u> Swell factor: <u>1.163</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>OURLY PRODUCT</b> Average push distance: Unadjusted hourly	) 5 5 LCY me: <u>Division of Reclamation</u> l Cat Handbook	on, Mining & Safety		
Initial Volume: <u>3,000</u> Swell factor: <u>1.163</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>IOURLY PRODUCTI</b> Average push distance: Unadjusted hourly production:	) 5 5 5 CY me: Division of Reclamation Cat Handbook (ON 80 feet			
Initial Volume: <u>3,000</u> Swell factor: <u>1.163</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>IOURLY PRODUCTI</b> Average push distance: Unadjusted hourly production:	Division of Reclamation S LCY me: Division of Reclamation Cat Handbook ION 80 feet 1,460.1 LCY/hr			
Initial Volume: <u>3,000</u> Swell factor: <u>1.16</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>COURLY PRODUCT</b> Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient:	0         5         5         5         5         5         1         Cat Handbook         1         Cat Handbook         1         80 feet         1,460.1 LCY/hr         scription:         Consolidated stockp         5 %			
Initial Volume: <u>3,000</u> Swell factor: <u>1.163</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>IOURLY PRODUCTI</b> Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude:	0       5         5       LCY         me:       Division of Reclamation         1       Cat Handbook         ION       80 feet         1,460.1 LCY/hr         5 %         5,800 feet			
Initial Volume: <u>3,000</u> Swell factor: <u>1.163</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>DURLY PRODUCTI</b> Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude: Material weight:	)         5         5         5         5         1         Cat Handbook         ION         80 feet         1,460.1 LCY/hr         scription:         Consolidated stockp         5 %         5,800 feet         2,900 lbs/LCY			
Initial Volume: <u>3,000</u> Swell factor: <u>1.163</u> Loose volume: <u>3,499</u> Source of estimated volu Source of estimated swel factor: <b>IOURLY PRODUCTI</b> Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude:	0       5         5       LCY         me:       Division of Reclamation         1       Cat Handbook         ION       80 feet         1,460.1 LCY/hr       1,460.1 LCY/hr         5 %       5,800 feet         2,900 lbs/LCY       Decomposed rock - 50% Rock,			

Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3120

Adjusted unit production:	455.55 LCY/hr		
Adjusted fleet production:	455.55 LCY/hr		

Fleet size:	1 Dozer(s)
Unit cost:	\$1.042/LCY

Total job time:	<b>7.67</b> Hours
Total job cost:	\$3,643

## WHEEL LOADER - LOAD AND CARRY WORK

	Haul topsoil for pla	acement				
e: <u>Topaz Mine</u>	Permi	it Action:	2024 Update	e	Permit/Jo	b#: <u>M1980055H</u>
PROJECT IDENTIFIC	CATION					
Task #: 018	State: C	Colorado			Abbreviation:	None
Date: 11/27/2024	County: S	San Migue	1		Filename:	M055-018
User: LJW						
Agency or organ	ization name: <u>DRM</u>	S				
HOURLY EQUIPMEN	NT COST					
Basic Machine:	САТ 950Н			Horsepow	ver:	197
	ROPS Cab			Shift Bas		per day
				Data Sour		CRG)
Cost Breakdown:						
Cost Breakdown.			Utilization %			
Ownership Cost/H	Iour: \$36.61		NA			
Operating Cost/H			100			
Operator Cost/H	Hour: \$36.85		NA			
Total Unit Cost/H	Iour: \$108.89					
Total Fleet Cost/H	Hour: \$217.79	)				
	10ui. <u>\$217.7</u>	<u>,                                     </u>				
MATERIAL QUANTI	TIES					
Initial volume: 3,	254	CCY	~ !! ^			
			Swell fa	ctor: 1.21	5	
		LCY	Swell fa	ctor: <u>1.21</u>	5	
Loose volume:	3,954	LCY				
Loose volume: Source of	3,954	LCY Division o	of Reclamation			
Loose volume: Source of	3,954	LCY	of Reclamation			
Loose volume: Source of Source of esti	3,954 f estimated volume: imated swell factor:	LCY Division o	of Reclamation			
Loose volume: Source of Source of esti HOURLY PRODUCT	3,954 f estimated volume: imated swell factor: ION	LCY Division c Cat Handl	of Reclamation book	n, Mining &		
Loose volume: Source of Source of esti HOURLY PRODUCT	3,954 f estimated volume: imated swell factor: ION	LCY Division c Cat Handl	of Reclamation book Cycle Time (lo	n, Mining & ad, dump,	Safety	minutes
Loose volume: Source of Source of esti <u>HOURLY PRODUCT</u> I Loader Cycle Time:	3,954 f estimated volume: imated swell factor: ION Unadjust	LCY Division c Cat Handl	of Reclamation book Cycle Time (lo	n, Mining & ad, dump, naneuver):	Safety 0.500	
Loose volume: Source of Source of esti <u>HOURLY PRODUCTI</u> Loader Cycle Time: Cycle Time Factor	3,954 f estimated volume: imated swell factor: ION Unadjusto	LCY <u>Division c</u> Cat Handl ed Basic C	of Reclamation book Cycle Time (lo	n, Mining & ad, dump, naneuver):	Safety 0.500 actor (min.)	Source
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia	3,954 f estimated volume: imated swell factor: ION Unadjusta rs II:Mixed material 0.	LCY <u>Division c</u> Cat Handl ed Basic C	of Reclamation book Cycle Time (lo	n, Mining & ad, dump, naneuver):	Safety 0.500 actor (min.) 0.020	Source (Cat HB)
Loose volume: Source of Source of esti <u>HOURLY PRODUCT</u> Loader Cycle Time: Cycle Time Factor Materia Stockpile	3,954 f estimated volume: imated swell factor: ION Unadjusto rs I: Mixed material 0. e: Dumped by truck	LCY <u>Division c</u> Cat Handl ed Basic C .02 0.02	of Reclamation book Cycle Time (lo m	n, Mining & ad, dump, naneuver):	0.500 actor (min.) 0.020 0.020	Source (Cat HB) (Cat HB)
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia	3,954 f estimated volume: imated swell factor: ION Unadjusto rs I: Mixed material 0. e: Dumped by truck	LCY <u>Division c</u> Cat Handl ed Basic C .02 0.02	of Reclamation book Cycle Time (lo m	n, Mining & ad, dump, naneuver):	Safety 0.500 actor (min.) 0.020	Source (Cat HB)
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersl 0.04 n: Constant operatio	LCY Division of Cat Handl ed Basic C .02 .0.02 hip of truck m -0.04	of Reclamation book Cycle Time (lo m	n, Mining & ad, dump, naneuver):	0.500 0.500 actor (min.) 0.020 -0.040 -0.040	Source (Cat HB) (Cat HB)
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersl 0.04 n: Constant operatio	LCY Division of Cat Handl ed Basic C .02 0.02 hip of truck m -0.04 00	of Reclamation book Cycle Time (lo m ks and loaders	n, Mining & ad, dump, naneuver): F	0.500           actor (min.)           0.020           -0.040           -0.040           0.000	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersl 0.04 n: Constant operatio	LCY Division of Cat Handl ed Basic C 0.02 0.02 hip of truck on -0.04 00 Net Cycle	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust	n, Mining & ad, dump, naneuver): F	0.500           actor (min.)           0.020           -0.040           -0.040           -0.040           -0.040	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersl 0.04 n: Constant operatio	LCY Division of Cat Handl ed Basic C 0.02 0.02 hip of truck on -0.04 00 Net Cycle	of Reclamation book Cycle Time (lo m ks and loaders	n, Mining & ad, dump, naneuver): F	0.500           actor (min.)           0.020           -0.040           -0.040           0.000	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpild Truck Ownership Operatior Dump Targe	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersh 0.04 n: Constant operatio et: Nominal target 0.	LCY Division of Cat Handl ed Basic C 0.02 0.02 hip of truck on -0.04 00 Net Cycle	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust	n, Mining & ad, dump, naneuver): F	0.500           actor (min.)           0.020           -0.040           -0.040           -0.040           -0.040	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersl 0.04 n: Constant operatio et: Nominal target 0.	LCY Division of Cat Handl ed Basic C 0.02 0.02 hip of truck on -0.04 00 Net Cycle	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust	n, Mining & ad, dump, naneuver): F	0.500           actor (min.)           0.020           -0.040           -0.040           -0.040           -0.040	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpild Truck Ownership Operatior Dump Targe	3,954 f estimated volume: imated swell factor: ION Unadjuste rs I: Mixed material 0. e: Dumped by truck p: Common ownersl 0.04 n: Constant operatio et: Nominal target 0.	LCY Division of Cat Handl ed Basic C 0.02 0.02 hip of truck on -0.04 00 Net Cycle Adjusted	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust l Basic Cycle	ad, dump, naneuver):F	0.500           actor (min.)           0.020           -0.040           -0.040           -0.040           0.000           -0.040	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	3,954 f estimated volume: imated swell factor: ION Unadjusta rs I: Mixed material 0. e: Dumped by truck p: Common owners1 0.04 n: Constant operatio et: Nominal target 0. Conditions	LCY Division of Cat Handl ed Basic C 02 0.02 hip of truck m -0.04 00 Net Cycle Adjusted	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust l Basic Cycle 7	n, Mining & ad, dump, naneuver): 5 - 5 - ment: Time:	0.500           actor (min.)           0.020           -0.040           -0.040           0.000           -0.040           2.0	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership Operatior Dump Targe Rolling Resistance – Road Haul: Return:	3,954         f estimated volume:         imated swell factor:         imated swell factor:         ION         Unadjustant         rs         ul:       Mixed material 0.         e:       Dumped by truck         p:       Common ownersl         0.04       0.04         n:       Constant operation         ot:       Nominal target 0.         Conditions	LCY Division of Cat Handl ed Basic C 02 0.02 hip of truck m -0.04 00 Net Cycle Adjusted	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust l Basic Cycle 7	n, Mining & ad, dump, naneuver): 5 - 5 - ment: Time:	0.500           actor (min.)           0.020           -0.040           -0.040           0.000           -0.040           2.0	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe Rolling Resistance – Road Haul: Return: Haul and Return Time	3,954         f estimated volume:         imated swell factor:         Imated swell factor:         ION         Unadjustant         rs         I:       Mixed material 0.         e:       Dumped by truck         p:       Common ownersl         0.04       0.04         n:       Constant operation         tt:       Nominal target 0.         Conditions	LCY Division of Cat Handl ed Basic C 02 0.02 hip of truck m -0.04 00 Net Cycle Adjusted lized, surfa	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust l Basic Cycle 7 aced, watered, aced, watered,	n, Mining & ad, dump, naneuver): F - - - - - - - - - - - - - - - - - -	0.500           actor (min.)           0.020           -0.040           -0.040           0.000           -0.040           2.0           2.0	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loose volume: Source of Source of esti HOURLY PRODUCTI Loader Cycle Time: Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe Rolling Resistance – Road Haul: Return: Haul and Return Time	3,954         f estimated volume:         imated swell factor:         imated swell factor:         ION         Unadjustant         rs         ul:       Mixed material 0.         e:       Dumped by truck         p:       Common ownersl         0.04       0.04         n:       Constant operation         ot:       Nominal target 0.         Conditions	LCY Division c Cat Handl ed Basic C .02 .02 .02 .02 .02 .02 .02 .02	of Reclamation book Cycle Time (lo m ks and loaders e Time Adjust l Basic Cycle 7 aced, watered, aced, watered,	n, Mining & ad, dump, naneuver): 5 - 5 - ment: Time:	0.500           actor (min.)           0.020           -0.040           -0.040           0.000           -0.040           2.0	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Loader Worksheet Con	t'd	,	Task # 018			Page 2 of 2
--	----------------	-----------------	-------------------------------------	-----------------------------	-------------------------	----------------------
Haul Route: Return Route:	500 500	0.00 0.00	2.00 2.00	2.00 2.00	0.3829 0.3631	(Cat HB) (Cat HB)
				Travel Time: Cycle Time:	0.7460 <b>1.2060</b>	minutes minutes
Load Bucket Capacity						
Rated Capac Bucket Fill Fac Adjusted Capac	ctor: 1.0		Y (heaped) ist loam or sand Y	ly clay (100% -	110%) 1.050	
Job Condition Correction Site Altitude: 7000 feet	on Factors					
		S	ource			
Altitude Adj		· · · ·	AT HB)			
Job Efficiency			nift/day)			
Net Correction	: 0.83	mult	tiplier			
U	nadjusted Hour	lv Unit Produc	tion: 224	.63 LCY	/Hour	
	Adjusted Hour	•			/Hour	
	Adjusted Hour	ly Fleet Produc	etion: <b>372</b>	.89 LCY	/Hour	
JOB TIME AND C	<u>OST</u>					
Fleet size:	2 L	oader(s)	Total job	time:	10.60	Hours
Unit cost:	\$0.584 /I	.CY	Total job	o cost:	\$2,309	

## BULLDOZER WORK

	Permi	t Action: 2	024 Update	Permit/Jo	b#: <u>M1980055HR</u>
PROJECT IDENTIF	<b>EICATION</b>				
Task #: 019	State: C	Colorado		Abbreviation:	None
Date: 11/27/20	24 County: S	an Miguel		Filename:	M055-019
User: LJW					
Agency or org	anization name: DRM	S			
HOURLY EQUIPM	FNT COST				
	Cat D9T - 9SU				
	05				
	emi-Universal				
• I	-shank ripper				
	per day				
	CRG)				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour	:	253.16	NA		
Operating Cost/Hour		164.35	100		
Ripper own					
Cost/Hour		\$18.79	NA		
Ripper op. Cost/Hour	:	\$0.00	0		
Operator Cost/Hour	:	\$38.59	NA		
	<u>1111E5</u>				
MATERIAL QUAN Initial Volume: <u>3,</u> 9	954				
Initial Volume: <u>3,9</u> Swell factor: <u>1.0</u>	954 000 <b>954</b> LCY				
Initial Volume: <u>3,9</u> Swell factor: <u>1.0</u>	000 954 LCY blume: Division of 2		Mining & Safety		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated sw	000 954 LCY blume: <u>Division of</u> vell Cat Handbo		, Mining & Safety 		
Initial Volume: $3,9$ Swell factor: $1.0$ Loose volume: $3,9$ Source of estimated vo Source of estimated sw factor:	000 954 LCY olume: <u>Division of</u> vell Cat Handbo TION		<u>Mining &amp; Safety</u>		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated sw factor: HOURLY PRODUC	000 954 LCY olume: <u>Division of</u> vell Cat Handbo TION	ok	, Mining & Safety		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly production:	000 954 LCY blume: <u>Division of</u> cat Handbo TION : <u>60 feet</u>	ok nr	Mining & Safety		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated vo Source of estimated sw factor: <b>HOURLY PRODUC</b> Average push distance Unadjusted hourly production: Materials consistency of Average push	D00           954 LCY           Division of           Cat Handbo           Cat Handbo           TION           :         60 feet           1,872.0 LCY/I	ok nr	Mining & Safety		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency of Average push gradient:	000 <b>954</b> LCY         olume:       Division of         vell       Cat Handbo         TION         :       60 feet         1,872.0 LCY/l         description:       Loose stor         0 %	ok nr	Mining & Safety		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated vo Source of estimated sw factor: <b>HOURLY PRODUC</b> Average push distance Unadjusted hourly production: Materials consistency of Average push	D00           954 LCY           olume:         Division of fill           vell         Cat Handbo           TION	ok nr	, Mining & Safety 		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency of Average push gradient:	000 <b>954</b> LCY         olume:       Division of         vell       Cat Handbo         TION         :       60 feet         1,872.0 LCY/l         description:       Loose stor         0 %	ok nr	. Mining & Safety 		
Initial Volume: 3,9 Swell factor: 1.0 Loose volume: 3,9 Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency of Average push gradient: Average site altitude:	000           954 LCY           olume:         Division of f           vell         Cat Handbo           TION         Cat Handbo           'TION         Cat Handbo           'Construction'         Loose stor           'Construction'         Loose stor           'Construction'         Construction'           'Construction'         Loose stor           'Construction'         Construction'           'Construction'         Construction'           'Construction'         Construction'           'Construction'         Construction' <th'construction'< th="">         Construction'</th'construction'<>	ok nr	Mining & Safety		
Initial Volume: 3.9 Swell factor: 1.0 Loose volume: 3.9 Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency of Average push gradient: Average site altitude: Material weight:	000 <b>954</b> LCY         olume:       Division of         vell       Cat Handbo         TION         :       60 feet         1,872.0 LCY/I         description:       Loose stor         0 %         7,000 feet         1,600 lbs/LCY         Top Soil         n Factor	ok nr ckpile 1.2	Mining & Safety		

Material consistency:	1.200	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9023

Adjusted unit production:	1,689.11 LCY/hr
Adjusted fleet production:	1689.11 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.281/LCY

Total job time:	2.34 Hours
Total job cost:	\$1,112

## BOREHOLE SEALING WORK

-	Task description:	Close and se	eal water qualit	y monitoring wells		
Site:	Topaz Mine		Permit Action:	2024 Update	Permit	/Job#: <u>M1980055HR</u>
<u>PROJE</u>	CT IDENTIFICATION	N				
Task ‡		State:	Colorado		Abbreviation:	None
Date		County:	San Miguel		Filename:	M055-020
Use	r: <u>LJW</u> Agency or organiza	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Shallow GW well, cut off casing	Exposed casing removal - Calculate Circumference in Linear Feet	2	24	4.00	LF	\$3.23	\$12.92
Shallow GW well, remove metal cover	Exposed casing removal - Calculate Circumference in Linear Feet	6	4	4.00	LF	\$3.23	\$12.92
Shallow GW well, backfill bentonite	Bentonite seal - 2 in. (labor, equip, materials)	2	22	1.00	LF	\$8.80	\$8.80
Shallow GW well, cement seal top	Portland cement grout - 2 in. (labor, equip, materials)	2	2	2.00	LF	\$8.57	\$17.14
Ambient well, remove metal cover	Exposed casing removal - Calculate Circumference in Linear Feet	6	4	4.00	LF	\$3.23	\$12.92
Ambient well, cut off casing	Exposed casing removal - Calculate Circumference in Linear Feet	4.5	700	4.00	LF	\$3.23	\$12.92
Ambient well, bentonite thru aquifer	Bentonite seal - 4 in. (labor, equip, materials)	4	100	1.00	LF	\$9.61	\$9.61
Ambient well, mech plug	PVC plug - 4 in. diameter borehole	4	1	1.00	EA	\$36.06	\$36.06
Ambient well, cement seal top	Portland cement grout - 4 in. (labor, equip, materials)	4	4	4.00	LF	\$8.71	\$34.85
Monitoring well (west), remove metal cover	Exposed casing removal - Calculate Circumference in Linear Feet	6	4	4.00	LF	\$3.23	\$12.92
Monitoring well (west), cut off casing	Exposed casing removal - Calculate Circumference in Linear Feet	4.5	700	4.00	LF	\$3.23	\$12.92
Monitoring well (west), bentonite thru aquifer	Bentonite seal - 4 in. (labor, equip, materials)	4	100	1.00	LF	\$9.61	\$9.61
Monitoring well (west), mech plug	PVC plug - 4 in. diameter borehole	4	1	1.00	EA	\$36.06	\$36.06

Monitoring well (west), cement	Portland cement grout - 4 in. (labor, equip,	4	4	4.00	LF	\$8.71	\$34.85
seal top Mon well (south), remove metal cover	materials) Exposed casing removal - Calculate Circumference in Linear Feet	6	4	4.00	LF	\$3.23	\$12.92
Mon well (south), cut off casing	Exposed casing removal - Calculate Circumference in Linear Feet	4.5	700	4.00	LF	\$3.23	\$12.92
Mon well (south), bentonite thru aquifer	Bentonite seal - 4 in. (labor, equip, materials)	4	100	1.00	LF	\$9.61	\$9.61
Mon well (south), mech plug	PVC plug - 4 in. diameter borehole	4	1	1.00	EA	\$36.06	\$36.06
Mon well (south), cement seal top	Portland cement grout - 4 in. (labor, equip, materials)	4	4	4.00	LF	\$8.71	\$34.85
Compliance well (west), remove metal cover	Exposed casing removal - Calculate Circumference in Linear Feet	6	4	4.00	LF	\$3.23	\$12.92
Compliance well (west), cut off casing	Exposed casing removal - Calculate Circumference in Linear Feet	4.5	700	4.00	LF	\$3.23	\$12.92
Compliance well (west), bentonite thru aquifer	Bentonite seal - 4 in. (labor, equip, materials)	4	100	1.00	LF	\$9.61	\$9.61
Compliance well (west), mech plug	PVC plug - 4 in. diameter borehole	4	1	1.00	EA	\$36.06	\$36.06
Compliance well (west), cement seal top	Portland cement grout - 4 in. (labor, equip, materials)	4	4	4.00	LF	\$8.71	\$34.85
Comp well (east), remove metal cover	Exposed casing removal - Calculate Circumference in Linear Feet	6	4	4.00	LF	\$3.23	\$12.92
Comp well (east), cut off casing	Exposed casing removal - Calculate Circumference in Linear Feet	4.5	700	4.00	LF	\$3.23	\$12.92
Comp well (east), bentonite thru aquifer	Bentonite seal - 4 in. (labor, equip, materials)	4	100	1.00	LF	\$9.61	\$9.61
Comp well (east), mech plug	PVC plug - 4 in. diameter borehole	4	1	1.00	EA	\$36.06	\$36.06
Comp well (east), cement seal top	Portland cement grout - 4 in. (labor, equip, materials)	4	4	4.00	LF	\$8.71	\$34.85

Job Hours: 30.00

Total Cost: \$584.00

## BULLDOZER WORK

		Permit Action:	2024 Update	Permit/Jo	b#: <u>M1980055HR</u>
PROJECT IDENTI	FICATION				
Task #: 021 Date: 11/27/20 User: LJW	O24 Sta			Abbreviation: Filename:	None M055-021
Agency or org	ganization name:	DRMS			
HOURLY EQUIPM	ENT COST				
	Cat D9T - 9SU				
	105 Semi-Universal				
×1	3-shank ripper				
	l per day				
	(CRG)				
Cost Breakdown:		I	TT4:1:0/		
Our analy Cost/Hour		¢252 16	Utilization %		
Ownership Cost/Hour Operating Cost/Hour		\$253.16 \$164.35	NA 100		
Ripper owr					
Cost/Hour		\$18.79	NA		
Ripper op. Cost/Hour		\$0.00	0		
Operator Cost/Hour		\$38.59	NA		
VIATERIAL VUAN					
Swell factor: 1.	500 090				
Initial Volume: <u>1</u> , Swell factor: <u>1</u> .					
Initial Volume: <u>1</u> , Swell factor: <u>1</u> .	090 635 LCY olume: Divis	ion of Reclamation Iandbook	ı, Mining & Safety		
Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated so	090 635 LCY olume: <u>Divis</u> well Cat H		ı, Mining & Safety		
Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly	090 635 LCY olume: <u>Divis</u> well Cat H <u>CTION</u> e:80 feet		ı, Mining & Safety 		
Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated so factor: HOURLY PRODUC	090 635 LCY olume: <u>Divis</u> well Cat H <u>CTION</u> e: <u>80 feet</u> 1,460.1	Iandbook LCY/hr			
Initial Volume: 1, Swell factor: 1. Loose volume: 1, Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance Unadjusted hourly production:	090 635 LCY olume: <u>Divis</u> well Cat H <u>CTION</u> e: <u>80 feet</u> 1,460.1	Iandbook LCY/hr			
Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated so factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency Average push gradient:	090           635 LCY           olume:         Divis           well         Cat H           CTION         80 feet           e:         80 feet           1,460.1         Comparison           0 %         Comparison	Iandbook LCY/hr			
Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated so factor: <b>HOURLY PRODUC</b> Average push distance Unadjusted hourly production: Materials consistency Average push	090           635 LCY           olume:         Divis           well         Cat F	Iandbook LCY/hr			
Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated so factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency Average push gradient:	090           635 LCY           olume:         Divis           well         Cat H           CTION         80 feet           e:         80 feet           1,460.1         Comparison           0 %         Comparison	landbook LCY/hr nsolidated stockpile			
Initial Volume: 1, Swell factor: 1. Loose volume: 1, Source of estimated vo Source of estimated so factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency Average push gradient: Average site altitude:	090 635 LCY olume: <u>Divis</u> well Cat F <u>CTION</u> e: <u>80 feet</u> 1,460.1 description: <u>Co</u> 0 % <u>5,800 feet</u>	Iandbook LCY/hr nsolidated stockpil			
Initial Volume: 1, Swell factor: 1. Loose volume: 1, Source of estimated vo Source of estimated so factor: HOURLY PRODUC Average push distance Unadjusted hourly production: Materials consistency Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction	090           635 LCY           olume:         Divis           well         Cat H           CTION           e:         80 feet           1,460.1           description:         Co           0 %         5,800 feet           2,400 lbs/LCY         Clay and grav	Iandbook LCY/hr nsolidated stockpil			

Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4174

Adjusted unit production:	609.45 LCY/hr
Adjusted fleet production:	609.45 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.779/LCY

Total job time:	2.68 Hours
Total job cost:	\$1,274

# BULLDOZER WORK

Topaz Mine		Permit Action:	2024 Undate	Permit/Io	b#: M1980055HF
			20210paulo		
ROJECT IDENTIF	<b>ICATION</b>				
Task #:         022           Date:         11/27/202           User:         LJW		ate: <u>Colorado</u> nty: <u>San Miguel</u>		Abbreviation: Filename:	None M055-022
Agency or orga	anization name:	DRMS			
IOURLY EQUIPMI	ENT COST				
Basic Machine: C	at D9T - 9SU		_		
I	05		_		
* I	emi-Universal		_		
	-shank ripper		_		
	per day		_		
Data Source: (C	CRG)		_		
ost Breakdown:					
ost DivaKuUwii.			Utilization %		
Ownership Cost/Hour:		\$253.16	NA		
Operating Cost/Hour:		\$164.35	100		
Ripper own.					
Cost/Hour:		\$18.79	NA		
Ripper op. Cost/Hour:	:	\$0.00	0		
Operator Cost/Hour:	:	\$38.59	NA		
Total Fleet Cost/Hour:	\$474.89				
IATERIAL QUANT	<u>FITIES</u>				
IATERIAL QUANT Initial Volume: 250 Swell factor: 1.2	<b><u>FITIES</u></b> 0				
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       31	<b>FITIES</b> 0 250 <b>3</b> LCY	  ision of Reclamatic	on, Mining & Safety		
IATERIAL QUANT Initial Volume: 250 Swell factor: 1.2	FITIES       0       250       3 LCY       lume:     Div	ision of Reclamatic	on, Mining & Safety		
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       313         Source of estimated vo	FITIES       0       250       3 LCY       lume:     Div		on, Mining & Safety		
Initial Volume:       250         Swell factor:       1.2         Loose volume:       31.3         Source of estimated vo       Source of estimated sw         factor:       1.2	FITIES       0       250       3 LCY       Jume:     Div       vell     Cat		on, Mining & Safety		
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       313         Source of estimated vo       Source of estimated sw         factor:       IOURLY PRODUCT	TITIES 0 250 3 LCY lume: Div rell Cat TION	Handbook	on, Mining & Safety		
Initial Volume:       250         Swell factor:       1.2         Loose volume:       313         Source of estimated vo       Source of estimated sw         factor:       Initial Volume:         IOURLY PRODUC'       Average push distance:	FITIES         0         250         3 LCY         Jume:       Div         vell       Cat            TION         :      50 fee	Handbook t	on, Mining & Safety		
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       313         Source of estimated vo       Source of estimated sw         factor:       IOURLY PRODUCT	FITIES         0         250         3 LCY         Jume:       Div         vell       Cat            TION         :      50 fee	Handbook	on, Mining & Safety		
Initial Volume:       250         Swell factor:       1.2         Loose volume:       31.3         Source of estimated vo       Source of estimated sw         factor:       IOURLY PRODUC'         Average push distance:       Unadjusted hourly	<b>FITIES</b> 0         250 <b>3</b> LCY         Jume:       Div         vell       Cat	Handbook t 5 LCY/hr			
Initial Volume:       250         Swell factor:       1.2         Loose volume:       313         Source of estimated vo       Source of estimated sw         factor:       IOURLY PRODUCC         Average push distance:       Unadjusted hourly         production:       Initial Volume:	<b>FITIES</b> 0         250 <b>3</b> LCY         Jume:       Div         vell       Cat	Handbook t 5 LCY/hr			
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       31         Source of estimated vo       Source of estimated sw         Source of estimated sw       factor:         IOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency of	<b>FITIES</b> 0         250 <b>3</b> LCY         lume:       Div         vell       Cat <b>TION</b> :       50 fee         2,110.         description:       P.	Handbook t 5 LCY/hr			
Initial Volume:       250         Swell factor:       1.2         Loose volume:       31         Source of estimated vo       Source of estimated sw         Source of estimated sw       factor:         IOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency of         Average push	<b>FITIES</b> 0         250 <b>3</b> LCY         lume:       Div         vell       Cat <b>TION</b> :       50 fee         2,110.         description:       P.	Handbook t 5 LCY/hr			
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       31         Source of estimated vo       Source of estimated vo         Source of estimated sw       factor:         IOURLY PRODUC'       Average push distance:         Unadjusted hourly       production:         Materials consistency of       Average push         gradient:       1	<b>FITIES</b> 0         250 <b>3</b> LCY         Jume:       Div         vell       Cat	Handbook t 5 LCY/hr artly consolidated s			
IATERIAL QUANT         Initial Volume:       250         Swell factor:       1.2         Loose volume:       313         Source of estimated vo       Source of estimated sw         Source of estimated sw       factor:         IOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency of       Average push         gradient:       Average site altitude:	<b>TITIES</b> 0         250 <b>3</b> LCY         Jume:       Div         vell       Cat <b>TION</b> :       50 fee         2,110         description:       P         0 %         7,000 feet         2,650 lbs/LC	Handbook t 5 LCY/hr artly consolidated s	tockpile 1.1		
Initial Volume:       250         Swell factor:       1.2         Loose volume:       31.         Source of estimated vo       Source of estimated sw         Source of estimated sw       factor:         IOURLY PRODUC'       Average push distance:         Unadjusted hourly       production:         Materials consistency of       Average push         gradient:       Average site altitude:         Material weight:       Material weight:	FITIES         0         250         3 LCY         Jume:       Div         vell       Cat         TION         :       50 fee         2,110.         description:       P         0 %         7,000 feet         2,650 lbs/LC         Decomposed	Handbook t 5 LCY/hr artly consolidated s	tockpile 1.1		

Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4161

Adjusted unit production:	878.18 LCY/hr
Adjusted fleet production:	878.18 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.541/LCY

Total job time:	<b>0.36</b> Hours
Total job cost:	\$169

# **REVEGETATION WORK**

Task descri	ption:	Revegetate waste dump, access	road, and SWMPs		
te: <b>Topaz M</b>	line	Permit Action: _20	2024 Update	Permit/Job	#: <u>M1980055HR</u>
<u>PROJECT</u>	IDENTIFIC	<u>ATION</u>			
Task #:	023	State: Colorado		Abbreviation:	None
Date:	11/27/2024	County: San Miguel		Filename:	M055-023
	LJW			-	

# **FERTILIZING**

#### **Materials**

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

# Application

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

## **TILLING**

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

## **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$20.47
Indian Ricegrass - Native	7.42	24.02	\$128.31
Sand Dropseed	0.14	16.71	\$1.82
Bottlebrush Squirreltail	4.08	17.98	\$103.65
Galleta	4.94	18.03	\$273.86
Muttongrass	0.20	4.13	\$9.53
Sagebrush, Mountain or Big	0.20	10.56	\$16.54
Saltbush, Four Wing	0.50	0.69	\$9.94
Winter Fat	0.50	1.27	\$23.36

Application				Cost /Acre
	Totals Seed Mix	18.94	109.07	\$587.48

Description		Cost /Acre
Broadcast seeding [DMG]		\$272.56
	Total Seed Application Cost/Acre	\$272.56

## **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	8.50	ACRE	\$4.13	\$35.08
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$1,020.64

#### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Weed spray, hand, non-aquatic area, nox. [DMG]		\$209.61
	<b>Total Mulch Application Cost/Acre</b>	\$294.98

## **NURSERY STOCK PLANTING**

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

	No. of Acres:	8.14		Cost /Acre:	\$2,175.66
Estimate	ed Failure Rate:	30%		Cost /Acre*:	\$2,175.66
*Selected Replanti	ng Work Items:	SEEDING,MUI	LCHING		
Initial Job Cost: Reseeding Job Cost: Total Job Cost:	\$5,312.96 \$23,023				
Job Hours:	20.00				

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

: Topaz Mine		Permit	Action: _2024	Update	1	Permit/Job#:	M1980055HR
PROJECT IDE	NTIFICAT	ION					
Task #: 024	ł	State: Co	olorado		Abbre	eviation: 1	None
Date: 11/	27/2024	County: Sa	n Miguel		Fi	lename: N	M055-024
User: LJV	N						
Agency	or organizatio	n name: DRMS					
EQUIPMENT 1	RANSPOR	<u>T RIG COST</u>					
				C	Shift ba ost Data Sour		er day G Data
Truck	Tractor Desc	cription: GENE	RIC ON-HIGH		CK TRACTO (2ND HALF,		ESEL POWERED,
Truc	k Trailer Desc	cription: G	ENERIC FOLD				EQUIPMENT
		1			25T, 50T, AN		×
Cost Breakdown:							
Available Rig C		0-25 Tons	26-50 Tons		Tons		
	Cost/Hour:	\$10.44	\$22.18		3.94		
	<u>cost/Hour:</u>	\$26.48 \$22.52	\$54.55 \$22.52		<u>5.65</u> 2.52		
	Cost/Hour: Cost/Hour:	\$22.32	\$22.52		3.53		
	t Cost/Hour:	\$59.44	\$122.78		<u>5.55</u> 25.64		
Total Ulli	. Cost/110u1.	\$J <b>7.</b> ++	\$122.70	φ12	23.04		
NON ROADAB		MENIT.					
NUN KUADAD	LE EQUIT						
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Tri	
Machine	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fl	eet Cost/ fleet
Description			t		fleet		
Description	(TONS)				A207.50	\$125.64	¢250.00
Description Cat D9T - 9SU	66.13	\$271.95	\$125.64	1	\$397.59		\$250.00
Description	· /	\$271.95 \$26.01	\$125.64 \$59.44	1	\$397.59 \$85.45	\$123.64 \$59.44	\$250.00
Description Cat D9T - 9SU	66.13		\$59.44	-			\$250.00

## **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 10-12 cy, 6x4	\$108.12	2	\$216.24	\$216.24
Drill/Broadcast Seeder with	\$79.16	1	\$79.16	\$79.16
Tractor				
Power Mulcher (Bowie LD-90)	\$58.47	1	\$58.47	\$58.47
Light Duty Pickup, 4x4, 3/4 T.	\$13.77	1	\$13.77	\$13.77
		Subtotals:	\$367.64	\$367.64

CIRCES Cost Estimating Software

# **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	NATURITA	
Total one-way travel distance:	40.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$3,785.36	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$735.28	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.00	1.00
Return Time (Hours):	1.00	1.00
Loading Time (Hours):	0.75	NA
Unloading Time (Hours):	0.75	NA
Subtotals:	3.50	2.00

#### JOB TIME AND COST

Total job time: 7.00 Hours

Total job cost: **\$4,521**