

## COST SUMMARY WORK

Task description: Cost Summary of Reclamation Tasks

Site: 9 to 5 Permit Action: New App Permit/Job#: M2022029

### PROJECT IDENTIFICATION

Task#: 000 State: Colorado Abbreviation: None  
Date: 1/13/2023 County: Teller Filename: M029-000  
User: ERR

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Earthwork (Backfill, Topsoil Replacement, Minor Grading)	LOADER	1	2.90	\$254
002	Revegetate the Site	REVEGE	1	2.00	\$164
003	Mob/Demob	MOBILIZE	1	4.13	\$1,061
<b><u>SUBTOTALS:</u></b>				<b>9.03</b>	<b>\$1,479</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$30
Performance bond:	1.05	Total =	\$16
Job superintendent:	0.00	Total =	\$0
Profit:	10.00	Total =	\$148
		TOTAL O & P =	\$193
		CONTRACT AMOUNT (direct + O & P) =	\$1,672

#### 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		\$84
CONTINGENCY: 3.00		Total =	\$44
		TOTAL INDIRECT COST =	\$321
		TOTAL BOND AMOUNT (direct + indirect) =	\$1,800

**WHEEL LOADER – LOAD AND CARRY WORK**Task description: **Earthwork (Backfill, Topsoil Replacement, Minor Grading)**Site: **9 to 5**Permit Action: **New App**Permit/Job#: **M2022029****PROJECT IDENTIFICATION**Task#: **001**State: **Colorado**Abbreviation: **None**Date: **1/12/2023**County: **Teller**Filename: **M029-001**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **CAT 246C**Horsepower: **73**Attachment 1: **ROPS Cab**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$24.85	NA
Operating Cost/Hour:	\$22.12	100
Operator Cost/Hour:	\$40.71	NA
Total Unit Cost/Hour:	\$87.68	
Total Fleet Cost/Hour:	\$87.68	

**MATERIAL QUANTITIES**Initial volume: **50**

CCY

Swell factor: **1.430**Loose volume: **72**

LCY

Source of estimated volume: **Application: 10' x 15' x 7' + 4 CY Topsoil, rounded to 50CY**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION****Loader Cycle Time:** Unadjusted Basic Cycle Time (load, dump, maneuver): **0.425** minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	Small target 0.04	0.040	(Cat HB)
Net Cycle Time Adjustment:		0.120	minutes
Adjusted Basic Cycle Time:		0.545	minutes

**Rolling Resistance – Road Conditions**Haul: **Rutted dirt, little maintenance, no water, 2" tire penetration 5.0**Return: **Rutted dirt, little maintenance, no water, 2" tire penetration 5.0****Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	320	7.50	5.00	12.50	0.4162	(Cat HB)
Return Route:	320	-7.50	5.00	-2.50	0.1578	(Cat HB)

Total Travel Time: 0.5740 minutes  
 Total Cycle Time: 1.1190 minutes

Load Bucket Capacity

Rated Capacity: 0.53 LCY (heaped)  
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100  
 Adjusted Capacity: 0.58 LCY

Job Condition Correction Factors

Site Altitude: 8660 feet

Altitude Adj:	<u>0.95</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.79</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 31.26 LCY/Hour  
 Adjusted Hourly Unit Production: 24.65 LCY/Hour  
 Adjusted Hourly Fleet Production: 24.65 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 2.90 Hours  
 Unit cost: \$3.557 /LCY Total job cost: \$254

**REVEGETATION WORK**Task description: **Revegetate the Site**Site: **9 to 5**Permit Action: **New App**Permit/Job#: **M2022029****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **1/13/2023**County: **Teller**Filename: **M2029-002**User: **ERR**Agency or organization name: **DRMS****FERTILIZING****Materials**

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

**Application**

Description	Cost/Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost/Acre
Subsoil scarification, (MEANS 32 91 13.23 3100)	\$217.80
<b>Total Tilling Cost/Acre</b>	<b>\$217.80</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost/Acre
Arizona Fescue - Redondo	0.90	10.33	\$8.33
Blue Grama - Native	1.00	16.32	\$13.73
Mountain Brome - Bromar	10.00	16.07	\$38.00
Bottlebrush Squirreltail	0.90	3.97	\$14.60
Slender Wheatgrass - Native	5.50	20.08	\$25.44
Muttongrass	0.20	4.13	\$6.88
Western Wheatgrass - Native	1.60	4.04	\$9.60
Prairie Junegrass	0.10	5.32	\$2.60
Spike Muhly	0.30	11.02	\$2.91

<b>Totals Seed Mix</b>	20.50	91.27	<b>\$122.08</b>
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**Application**

Description	Cost/Acre
Broadcast seeding [DMG]	\$267.22
<b>Total Seed Application Cost/Acre</b>	<b>\$267.22</b>

**MULCHING and MISCELLANEOUS****Materials**

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

**Application**

Description	Cost/Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres: 0.2                      Cost/Acre: \$607.10  
 Estimated Failure Rate: 35%                      Cost/Acre\*: \$607.10  
 \*Selected Replanting Work Items: TILLING,SEEDING

Initial Job Cost: **\$121.42**  
 Reseeding Job Cost: **\$42.50**  
 Total Job Cost: **\$164**  
 Job Hours: **2.00**

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob**Site: **9 to 5**Permit Action: **New App**Permit/Job#: **M2022029****PROJECT IDENTIFICATION**Task #: **003**State: **Colorado**Abbreviation: **None**Date: **1/13/2023**County: **Teller**Filename: **M2029-003**User: **ERR**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,  
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT  
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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 246C	3.58	\$24.85	\$68.22	1	\$93.07	\$68.22	\$250.00
Subtotals:					<b>\$93.07</b>	<b>\$68.22</b>	<b>\$250.00</b>

**ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/fleet	Return Trip Cost/hr/fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$124.78	1	\$124.78	\$124.78
Subtotals:			<b>\$124.78</b>	<b>\$124.78</b>

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>53.00</u>	miles
Average Travel Speed:	<u>60.00</u>	mph
Total Non-Roadable Mob/Demob Cost *	<u>\$840.79</u>	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	<u>\$220.44</u>	
** one round trip, no haul rig:		

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.88</u>	<u>0.88</u>
Return Time (Hours):	<u>0.88</u>	<u>0.88</u>
Loading Time (Hours):	<u>0.15</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.15</u>	<u>NA</u>
Subtotals:	<u>2.07</u>	<u>1.77</u>

**JOB TIME AND COST**

Total job time:	<u>4.13</u>	Hours
Total job cost:	<u>\$1,061</u>	