

## COST SUMMARY WORK

Task description: Cost Summary of Reclamation Tasks

Site: LGPD2 Mine

Permit Action: New App

Permit/Job#: M2019026

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 7/22/2019

County: Park

Filename: M026-000

User: ERR

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill and Contour Open Pit (1)	DOZER	1	4.25	\$673
002	Replace Salvaged Topsoil on Open Pit (1)	DOZER	1	0.13	\$21
003	Revegetate the Site	REVEGE	1	2.00	\$1,631
004	Mob/Demob of Reclamation Equipment	MOBILIZE	1	5.35	\$1,893
<b><u>SUBTOTALS:</u></b>				<b>11.73</b>	<b>\$4,218</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$85

Performance bond: 1.05

Total = \$44

Job superintendent: 0.00

Total = \$0

Profit: 10.00

Total = \$422

TOTAL O & P = \$551

CONTRACT AMOUNT (direct + O & P) = \$4,769

#### 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

\$238

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$790

TOTAL (direct + indirect) = \$5,008

**TOTAL BOND AMOUNT (rounded) = \$5,000**

**BULLDOZER WORK**Task description: **Backfill and Contour Open Pit (1)**Site: **LGPD2 Mine** Permit Action: **New App** Permit/Job#: **M2019026****PROJECT IDENTIFICATION**

Task #: **001** State: **Colorado** Abbreviation: **None**  
 Date: **7/22/2019** County: **Park** Filename: **M026-001**  
 User: **ERR**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D6T LGP**  
 Horsepower: **200**  
 Blade Type: **Straight**  
 Attachment: **3-shank ripper**  
 Shift Basis: **1 per day**  
 Data Source: **(CRG)**

**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$59.16	NA
Operating Cost/Hour:	\$50.06	100
Ripper own. Cost/Hour:	\$6.80	NA
Ripper op. Cost/Hour:	\$1.17	25
Operator Cost/Hour:	\$41.24	NA

Total unit Cost/Hour: **\$158.43**  
 Total Fleet Cost/Hour: **\$158.43**

**MATERIAL QUANTITIES**

Initial Volume: **504**  
 Swell factor: **1.430**  
 Loose volume: **721 LCY**

Source of estimated volume: **Application: 30' W x 40' L x 10' D**  
 Source of estimated swell factor: **Cat Handbook**

**HOURLY PRODUCTION**

Average push distance: **50 feet**  
 Unadjusted hourly production: **444.6 LCY/hr**

Materials consistency description: **Partly consolidated stockpile 1.1**

Average push gradient: **0 %**  
 Average site altitude: **8,200 feet**

Material weight: **3,300 lbs/LCY**Weight description: **Decomposed rock - 75% Rock, 25% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3818

Adjusted unit production: 169.75 LCY/hr

Adjusted fleet production: **169.75** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.933/LCY

Total job time: **4.25** Hours

Total job cost: **\$673**

**BULLDOZER WORK**Task description: **Replace Salvaged Topsoil on Open Pit (1)**Site: **LGPD2 Mine** Permit Action: **New App** Permit/Job#: **M2019026****PROJECT IDENTIFICATION**

Task #: 002 State: Colorado Abbreviation: None  
 Date: 7/22/2019 County: Park Filename: M026-002  
 User: ERR

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D6T LGP  
 Horsepower: 200  
 Blade Type: Straight  
 Attachment: 3-shank ripper  
 Shift Basis: 1 per day  
 Data Source: (CRG)

**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$59.16</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$50.06</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$6.80</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$1.17</u>	<u>25</u>
Operator Cost/Hour:	<u>\$41.24</u>	<u>NA</u>

Total unit Cost/Hour: \$158.43  
 Total Fleet Cost/Hour: **\$158.43**

**MATERIAL QUANTITIES**

Initial Volume: 22  
 Swell factor: 1.250  
 Loose volume: **28 LCY**

Source of estimated volume: Application 30' W x 40' L x 6" D  
 Source of estimated swell factor: Cat Handbook

**HOURLY PRODUCTION**

Average push distance: 50 feet  
 Unadjusted hourly production: 444.6 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %  
 Average site altitude: 8,200 feet

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.100</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>
Job efficiency:	<u>0.830</u>	<u>(1 SHIFT/DAY)</u>

Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4755

Adjusted unit production: 211.41 LCY/hr

Adjusted fleet production: **211.41** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.749/LCY

Total job time: **0.13** Hours

Total job cost: **\$21**

**REVEGETATION WORK**Task description: Revegetate the SiteSite: LGPD2 MinePermit Action: New AppPermit/Job#: M2019026**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 7/22/2019County: ParkFilename: M026-003User: ERRAgency 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
Subsoiling, light {(DMG}	\$175.31
Weed control spraying (MEANS 31 31 16.13 3100)	\$193.60
<b>Total Tilling Cost/Acre</b>	<b>\$368.91</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arizona Fescue - Redondo	2.00	22.96	\$18.50
Blue Grama - Native	2.00	32.64	\$27.45
Mountain Brome - Bromar	2.00	3.21	\$7.60
Bottlebrush Squirreltail	2.00	8.82	\$32.45
Slender Wheatgrass - Native	2.00	7.30	\$9.25
Muttongrass	2.00	41.32	\$68.80
Western Wheatgrass - Arriba	2.00	5.05	\$13.00
Prairie Junegrass	2.00	106.31	\$52.00
Spike Muhly	2.00	73.46	\$19.40

<b>Totals Seed Mix</b>	18.00	301.07	<b>\$248.45</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
Silt fence, Materials (MEANS 31 25 14.16 1000)	150.00	LINEAR FOOT	\$0.49	\$73.50
<b>Total Mulch Materials Cost/Acre</b>				<b>\$73.50</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
Pine, Ponderosa	100	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.31	\$0.00	\$231.00
Totals Nursery Stock Cost / Acre					\$231.00

## JOB TIME AND COST

No. of Acres:	<u>1</u>	Cost /Acre:	<u>\$1,189.08</u>
Estimated Failure Rate:	<u>50%</u>	Cost /Acre*:	<u>\$884.58</u>
*Selected Replanting Work Items:	<u>TILLING,SEEDING</u>		
Initial Job Cost:	<u><b>\$1,189.08</b></u>		
Reseeding Job Cost:	<u><b>\$442.29</b></u>		
Total Job Cost:	<u><b>\$1,631</b></u>		
Job Hours:	<u><b>2.00</b></u>		

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob of Reclamation Equipment**Site: **LGPLD2 Mine**Permit Action: **New App**Permit/Job#: **M2019026****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **7/22/2019**County: **Park**Filename: **M026-004**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:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

**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 D6T LGP	28.63	\$65.96	\$123.81	1	\$189.77	\$123.81	\$250.00
Subtotals:					<b>\$189.77</b>	<b>\$123.81</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	\$119.41	1	\$119.41	\$119.41
Light Duty Pickup, 4x4, 1 T. Crew	\$119.41	1	\$119.41	\$119.41
Subtotals:			<b>\$238.82</b>	<b>\$238.82</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>49.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,372.68</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$520.10</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.09</u>	<u>1.09</u>
Return Time (Hours):	<u>1.09</u>	<u>1.09</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>2.68</u>	<u>2.18</u>

**JOB TIME AND COST**

Total job time:	<u>5.36</u>	Hours
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Total job cost:	<u>\$1,893</u>
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