

## COST SUMMARY WORK

Task description: Cost Summary of Reclamation Tasks

Site: Bad Boys Pit

Permit Action: AM-01

Permit/Job#: M1996081

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 11/20/2018

County: Teller

Filename: 96-081

User: ERR

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill Pit	DOZER	1	54.86	\$11,439.00
002	Replace Topsoil	DOZER	1	3.95	\$824.00
003	Revegetate the Site	REVEGE	1	6.00	\$2,527.00
004	Mob/Demob of Reclamation Equipment	MOBILIZE	1	5.67	\$1,730.00
<b><u>SUBTOTALS:</u></b>				<b>70.48</b>	<b>\$16,520</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 0.00  
Profit: 10.00

Total = \$333.70

Total = \$173.46

Total = \$0.00

Total = \$1,652.00

TOTAL O & P = \$2,159.16

CONTRACT AMOUNT (direct + O & P) = \$18,679.16

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$933.96

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$3,093.12

**TOTAL BOND AMOUNT (direct + indirect) = \$19,613.12**

**BULLDOZER WORK**Task description: **Backfill Pit**Site: **Bad Boys Pit**Permit Action: **AM-01**Permit/Job#: **M1996081****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **11/20/2018**County: **Teller**Filename: **96-081**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: **\$208.49**Total Fleet Cost/Hour: **\$208.49****MATERIAL QUANTITIES**Initial Volume: **27,777**Swell factor: **1.000**Loose volume: **27,777 LCY**Source of estimated volume: **Application: max pit 100' x 150' x 50'**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **150 feet**Unadjusted hourly production: **634.3 LCY/hr**Materials consistency description: **Partly consolidated stockpile 1.1**Average push gradient: **-10 %**Average site altitude: **9,765 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**Operator Skill: **0.750**Source  
(AVG.)

Material consistency:	1.100	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7982

Adjusted unit production: 506.30 LCY/hr

Adjusted fleet production: **506.3** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.412/LCY

Total job time: **54.86** Hours

Total job cost: **\$11,439**

**BULLDOZER WORK**Task description: **Replace Topsoil**Site: **Bad Boys Pit**Permit Action: **AM-01**Permit/Job#: **M1996081****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **11/20/2018**County: **Teller**Filename: **M081-002**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: **\$208.49**Total Fleet Cost/Hour: **\$208.49****MATERIAL QUANTITIES**Initial Volume: **2,420**Swell factor: **1.000**Loose volume: **2,420 LCY**Source of estimated volume: **Application: 6" on 3 acres**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **150 feet**Unadjusted hourly  
production: **634.3 LCY/hr**Materials consistency description: **Partly consolidated stockpile 1.1**Average push  
gradient: **-10 %**Average site altitude: **9,765 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**Operator Skill: **0.750**Source  
(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:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9650

Adjusted unit  
production: 612.10 LCY/hr

Adjusted fleet  
production: **612.1** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.341/LCY

Total job time: **3.95** Hours

Total job cost: **\$824**

**REVEGETATION WORK**Task description: Revegetate the SiteSite: Bad Boys PitPermit Action: AM-01Permit/Job#: M1996081**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 11/20/2018County: TellerFilename: M081-003User: ERRAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	121.20	pound	\$0.34	\$41.21
Triple superphosphate, 0-46-0	86.90	pound	\$0.44	\$38.24
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$79.44</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$34.72
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$34.72</b>

**TILLING**

Description	Cost /Acre
Chisel plowing {DMG}	\$92.77
<b>Total Tilling Cost/Acre</b>	<b>\$92.77</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Meadow Brome - Fleet	8.30	7.62	\$42.50
Arizona Fescue - Redondo	1.60	18.37	\$19.39
Russian Wildrye - Bozoisky	4.00	16.07	\$25.92
Streambank Wheatgrass - Sodar	5.70	18.58	\$35.51
Western Wheatgrass - Arriba	12.00	30.30	\$99.36
<b>Totals Seed Mix</b>	<b>31.60</b>	<b>90.94</b>	<b>\$222.68</b>

**Application**

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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:	3	Cost /Acre:	\$696.83
Estimated Failure Rate:	25%	Cost /Acre*:	\$582.67
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost:	<b>\$2,090.49</b>		
Reseeding Job Cost:	<b>\$437.00</b>		
Total Job Cost:	<b>\$2,527</b>		
Job Hours:	<b>6.00</b>		

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob of Reclamation Equipment**Site: **Bad Boys Pit**Permit Action: AM-01Permit/Job#: M1996081**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 11/20/2018County: TellerFilename: M081-004User: ERRAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

**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 D8T - 8SU	53.08	\$102.55	\$125.45	1	\$228.00	\$125.45	\$250.00
Subtotals:					<b>\$228.00</b>	<b>\$125.45</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	\$74.99	1	\$74.99	\$74.99
Subtotals:			<b>\$74.99</b>	<b>\$74.99</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>52.60</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,554.29</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$175.31</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.17</u>	<u>1.17</u>
Return Time (Hours):	<u>1.17</u>	<u>1.17</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>2.84</u>	<u>2.34</u>

**JOB TIME AND COST**

Total job time:	<u>5.68</u>	Hours
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Total job cost:	<u>\$1,730</u>
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