

COST SUMMARY WORK

Task description: Cost Summary for Reclamation Tasks

Site: JJ Collecting Project #1

Permit Action: New App

Permit/Job#: M2018064

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 3/11/2019

County: Teller

Filename: M064-000

User: ERR

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill Open Excavations	DOZER	1	3.79	\$549
002	Replace Topsoil	DOZER	1	2.41	\$350
003	Re-contour Site and Trails	DOZER	1	4.63	\$672
004	Revegetate the Site	REVEGE	1	5.00	\$1,271
005	Mob/Demob of Reclamation Equipment	MOBILIZE	1	6.00	\$1,408
<u>SUBTOTALS:</u>				21.83	\$4,250

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$86

Performance bond: 1.05

Total = \$45

Job superintendent: 0.00

Total = \$0

Profit: 10.00

Total = \$425

TOTAL O & P = \$555

CONTRACT AMOUNT (direct + O & P) = \$4,805

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

\$240

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$796

TOTAL AMOUNT (direct + indirect) = \$5,046

TOTAL BOND AMOUNT (rounded) = \$5,050

BULLDOZER WORKTask description: **Backfill Open Excavations**Site: **JJ Collecting Project #1**Permit Action: **New App**Permit/Job#: **M2018064****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **3/11/2019**County: **Teller**Filename: **M064-001**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D6T XL**Horsepower: **185**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$52.66	NA
Operating Cost/Hour:	\$46.34	100
Ripper own. Cost/Hour:	\$3.84	NA
Ripper op. Cost/Hour:	\$0.63	25
Operator Cost/Hour:	\$41.52	NA
Total unit Cost/Hour:	\$145.00	
Total Fleet Cost/Hour:	\$145.00	

MATERIAL QUANTITIESInitial Volume: **500**Swell factor: **1.330**Loose volume: **665 LCY**Source of estimated volume: **Application**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly
production: **444.6 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push
gradient: **0 %**Average site altitude: **8,600 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:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3949

Adjusted unit
production: 175.57 LCY/hr

Adjusted fleet
production: **175.57** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.826/LCY

Total job time: **3.79** Hours

Total job cost: **\$549**

BULLDOZER WORKTask description: **Replace Topsoil**Site: **JJ Collecting Project #1**Permit Action: **New App**Permit/Job#: **M2018064****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **3/11/2019**County: **Teller**Filename: **M064-002**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D6T XL**Horsepower: **185**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$52.66	NA
Operating Cost/Hour:	\$46.34	100
Ripper own. Cost/Hour:	\$3.84	NA
Ripper op. Cost/Hour:	\$0.63	25
Operator Cost/Hour:	\$41.52	NA
Total unit Cost/Hour:	\$145.00	
Total Fleet Cost/Hour:	\$145.00	

MATERIAL QUANTITIESInitial Volume: **645**Swell factor: **1.429**Loose volume: **921 LCY**Source of estimated volume: **Max 8" across 0.6 acres**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly
production: **444.6 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push
gradient: **0 %**Average site altitude: **8,600 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**Operator Skill: **0.750**Source
(AVG.)

Material consistency:	1.200	(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:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit
production: 382.04 LCY/hr

Adjusted fleet
production: **382.04** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.380/LCY

Total job time: **2.41** Hours

Total job cost: **\$350**

BULLDOZER WORKTask description: **Re-contour Site and Trails**Site: **JJ Collecting Project #1**Permit Action: **New App**Permit/Job#: **M2018064****PROJECT IDENTIFICATION**Task #: **003**State: **Colorado**Abbreviation: **None**Date: **3/11/2019**County: **Teller**Filename: **M064-003**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D6T XL**Horsepower: **185**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$52.66	NA
Operating Cost/Hour:	\$46.34	100
Ripper own. Cost/Hour:	\$3.84	NA
Ripper op. Cost/Hour:	\$0.63	25
Operator Cost/Hour:	\$41.52	NA
Total unit Cost/Hour:	\$145.00	
Total Fleet Cost/Hour:	\$145.00	

MATERIAL QUANTITIESInitial Volume: **698**Swell factor: **1.165**Loose volume: **813 LCY**Source of estimated volume: **DRMS: Avg 6" across 0.6 acres + 0.266 acres**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly
production: **444.6 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push
gradient: **0 %**Average site altitude: **8,600 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:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3949

Adjusted unit
production: 175.57 LCY/hr

Adjusted fleet
production: **175.57** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.826/LCY

Total job time: **4.63** Hours

Total job cost: **\$672**

REVEGETATION WORKTask description: Revegetate the SiteSite: JJ Collecting Project #1Permit Action: New AppPermit/Job#: M2018064**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 3/11/2019County: TellerFilename: M064-004User: ERRAgency or organization name: DRMS**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
Chisel plowing {DMG}	\$92.77
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$199.06

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	4.00	65.29	\$66.64
Canby Bluegrass - Canbar	2.00	42.52	\$19.46
Mountain Brome - Bromar	8.00	12.86	\$35.60
Great Basin Wildrye - Magnar	4.00	16.25	\$46.20
Strawberry Clover (coated)	0.80	5.42	\$5.14
Sheep Fescue - Covar	6.00	93.66	\$32.16
Thickspike Wheatgrass - Critana	9.20	32.53	\$54.00
Prairie Junegrass	6.00	318.93	\$186.36

Totals Seed Mix	40.00	587.45	\$445.57
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Application

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

MULCHING and MISCELLANEOUS**Materials**

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

Application

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

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	<u>1.39</u>	Cost /Acre:	<u>\$911.85</u>
Estimated Failure Rate:	<u>0.25%</u>	Cost /Acre*:	<u>\$911.85</u>
*Selected Replanting Work Items:	<u>TILLING,SEEDING</u>		

Initial Job Cost:	<u>\$1,267.47</u>
Reseeding Job Cost:	<u>\$3.17</u>
Total Job Cost:	<u>\$1,271</u>
Job Hours:	<u>5.00</u>

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob of Reclamation Equipment**Site: **JJ Collecting Project #1**Permit Action: New AppPermit/Job#: M2018064**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 3/11/2019County: TellerFilename: M064-005User: 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:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
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 D6T XL	25.01	\$56.50	\$88.67	1	\$145.17	\$88.67	\$250.00
Subtotals:					\$145.17	\$88.67	\$250.00

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:			\$74.99	\$74.99

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>55.00</u>	miles
Average Travel Speed:	<u>55.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,258.02</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$149.98</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.00</u>	<u>1.00</u>
Return Time (Hours):	<u>1.00</u>	<u>1.00</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.00</u>	<u>2.00</u>

JOB TIME AND COST

Total job time:	<u>6.00</u>	Hours
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Total job cost:	<u>\$1,408</u>
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