

COST SUMMARY WORK

Task description: Cost Summary

Site: Mineral Joe Claims

Permit Action: AM01 EPP

Permit/Job#: M1977284

PROJECT IDENTIFICATION

Task #: M01

State: Colorado

Abbreviation: None

Date: 12/5/2013

County: Montrose

Filename: M284-M01

User: SJM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Recontour waste dump	DOZER	1	143.93	\$18,108.83
002	Pocking	EXCAVATE	1	4.91	\$462.00
003	Mobilization to site	MOBILIZE	1	1.12	\$1,229.02
005	Backfill Escapeway Portal	MINESEAL	1	0.00	\$1,415.48
006	PUF Mine Joe 12 Shaft	MINESEAL	1	0.00	\$4,394.75
007	Seeding	REVEGE	1	0.00	\$6,933.22
008	Rip Road	RIPPER	1	4.49	\$948.00
009	Topsoil replacement	EXCAVATE	1	17.84	\$1,676.00
<u>SUBTOTALS:</u>				172.29	\$35,167.30

REVEGETATION WORKTask description: SeedingSite: Mineral Joe ClaimsPermit Action: AM01 EPPPermit/Job#: M1977284PROJECT IDENTIFICATIONTask #: 007State: ColoradoAbbreviation: NoneDate: 12/5/2013County: MontroseFilename: M284-007User: SJMAgency or organization name: DRMSFERTILIZING**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 - Hachita	2.00	32.64	\$21.30
Indian Ricegrass - Paloma	4.00	12.95	\$34.84
Galleta	2.00	7.30	\$50.40
Slender Wheatgrass - Native	2.00	7.30	\$4.50
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Needle and Thread	1.00	2.64	\$46.99
Needlegrass, Green - Lodorm	2.00	8.31	\$10.78
Flax, Lewis Blue	1.00	6.63	\$16.52
Saltbush, Four Wing	3.00	4.13	\$32.19
Globemallow, Scarlet (or copper)	0.30	3.40	\$42.14

Winter Fat	1.00	2.55	\$32.69
Penstemon, Palmer	0.50	11.06	\$15.50
Totals Seed Mix	22.80	109.01	\$322.57

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

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: 9.5
 Estimated Failure Rate: 25%
 *Selected Replanting Work Items: SEEDING

Cost /Acre: \$583.85
 Cost /Acre*: \$583.85

Initial Job Cost: **\$5,546.58**
 Reseeding Job Cost: **\$1,386.64**
 Total Job Cost: **\$6,933.22**
 Job Hours: **0.00**

BULLDOZER RIPPING WORK

Task description: Rip Road

Site: Mineral Joe Claims

Permit Action: AM01 EPP

Permit/Job#: M1977284

PROJECT IDENTIFICATION

Task #: 008

State: Colorado

Abbreviation: None

Date: 12/5/2013

County: Montrose

Filename: M284-008

User: SJM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 310

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$63.00	NA
Operating Cost/Hour:	\$104.03	100
Ripper Operating Cost/Hour:	\$6.53	100
Operator Cost/Hour:	\$37.41	NA
Total Unit Cost/Hour:	\$210.98	
Total Fleet Cost/Hour:	\$210.98	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 1.00 acres

Rip Depth (ft): 2.00

Volume: 3,227 BCY or CCY

Source of estimated quantity: 4000

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.56</u>	mph
Average Ripping Width:	<u>7.08</u>	degrees
Average Ripping Length:	<u>10.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.268</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.268</u>	Acres/hr
Site Altitude:	<u>6,200</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier
Adjusted Hourly Unit Production:	<u>0.22</u>	Acres/hr
Adjusted Hourly Fleet Production:	<u>0.22</u>	Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 4.49 Hours

Unit cost: \$947.837 Per acre Total job cost: \$948.00

HYDRAULIC EXCAVATOR WORK

Task description: Topsoil replacement

Site: Mineral Joe Claims

Permit Action: AM01 EPP

Permit/Job#: M1977284

PROJECT IDENTIFICATION

Task #: 009

State: Colorado

Abbreviation: None

Date: 12/5/2013

County: Montrose

Filename: M284-009

User: SJM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 315D L 8'-6" Stick

Attachment 1: ROPS Cab

Horsepower: 115

Weight (MT): 17.32

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$23.85	NA
Operating Cost/Hour:	\$36.12	100
Operator Cost/Hour:	\$33.94	NA
Total Unit Cost/Hour:	\$93.91	
Total Fleet Cost/Hour:	\$93.91	

MATERIAL QUANTITIES

Initial volume: 2,500

CCY

Swell factor: 1.000

Loose volume: 2,500

LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.256 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 0.80 LCY (heaped)

Bucket Fill Factor: 0.900 Other - soil, boulders, roots (80 -100%) 0.900

Adjusted Capacity: 0.72 LCY

Job Condition Correction Factors

Site Altitude: 6200 feet

Altitude Adj:	1.00	Source (CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Unadjusted Hourly Unit Production: 168.75 LCY/Hour

Adjusted Hourly Unit Production: 140.06 LCY/Hour

Adjusted Hourly Fleet Production: 140.06 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 17.85 Hours

Unit cost: \$0.670 /LCY Total job cost: \$1,676.00

BULLDOZER WORKTask description: Recontour waste dumpSite: Mineral Joe ClaimsPermit Action: AM01 EPPPermit/Job#: M1977284PROJECT IDENTIFICATIONTask #: 001State: ColoradoAbbreviation: NoneDate: 12/5/2013County: MontroseFilename: M284-001User: SJMAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D6THorsepower: 185Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$30.43	NA
Operating Cost/Hour:	\$57.97	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$125.81Total Fleet Cost/Hour: \$125.81MATERIAL QUANTITIESInitial Volume: 9,000Swell factor: 1.060Loose volume: 9,540 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 75 feetUnadjusted hourly production: 357.1 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 25 %Average site altitude: 6,200 feetMaterial weight: 2,900 lbs/LCYWeight description: Sand and gravel - DryJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.100	(50% SL)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.422	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.1856

Adjusted unit production: 66.28 LCY/hr

Adjusted fleet production: 66.28 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.898/LCY

Total job time: 143.93 Hours

Total job cost: \$18,108.83

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Backfill Escapeway Portal

Site: Mineral Joe Claims

Permit Action: AM01 EPP

Permit/Job#: M1977284

PROJECT IDENTIFICATION

Task #: 005

State: Colorado

Abbreviation: None

Date: 12/5/2013

County: Montrose

Filename: M284-005

User: SJM

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Backfill Escapeway Portal	5'x5'	Adit closure - backfilling (per opening)	1.00	EA	\$1,415.48	\$1,415.48

Job Hours: 0.00

Total Cost: \$1,415.48

HYDRAULIC EXCAVATOR WORK

Task description: Pocking

Site: Mineral Joe Claims

Permit Action: AM01 EPP

Permit/Job#: M1977284

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 12/5/2013

County: Montrose

Filename: M284-002

User: SJM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 315D L 8'-6" Stick

Attachment 1: ROPS Cab

Horsepower: 115

Weight (MT): 17.32

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$23.85	NA
Operating Cost/Hour:	\$36.12	100
Operator Cost/Hour:	\$33.94	NA
Total Unit Cost/Hour:	\$93.91	
Total Fleet Cost/Hour:	\$93.91	

MATERIAL QUANTITIES

Initial volume: 746

CCY

Swell factor: 1.000

Loose volume: 746

LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.256 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 0.80 LCY (heaped)
Bucket Fill Factor: 0.975 Sand and gravel (95% - 100%) 0.975
Adjusted Capacity: 0.78 LCY

Job Condition Correction Factors

Site Altitude: 6200 feet

Altitude Adj:	1.00	Source
Job Efficiency:	0.83	(CAT HB)
Net Correction:	0.83	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 182.81 LCY/Hour
Adjusted Hourly Unit Production: 151.73 LCY/Hour
Adjusted Hourly Fleet Production: 151.73 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 4.92 Hours

Unit cost: \$0.619 /LCY Total job cost: \$462.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Mobilization to siteSite: Mineral Joe ClaimsPermit Action: AM01 EPPPermit/Job#: M1977284**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 12/5/2013County: MontroseFilename: M284-003User: SJMAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per day
Cost 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	23.25	\$30.43	\$88.67	1	\$119.10	\$88.67	\$250.00
Cat 315D L 8'-6" Stick	19.05	\$23.85	\$88.67	1	\$112.52	\$88.67	\$250.00

Subtotals: **\$231.62** **\$177.34** **\$500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
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Subtotals: **\$0.00** **\$0.00**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	NATURITA	
Total one-way travel distance:	14.00	miles
Average Travel Speed:	50.00	mph

Total Non-Roadable Mob/Demob Cost *	\$1,229.02
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$0.00
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.28	0.28
Return Time (Hours):	0.28	0.28
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	0.56	0.56

JOB TIME AND COST

Total job time:	1.12	Hours
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Total job cost:	\$1,229.02
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