

COST SUMMARY WORK

Task description: _____

Site: A.P.S. Trucking and
Excavating, Inc.

Permit Action: 2018 Update

Permit/Job#: M2000103

PROJECT IDENTIFICATION

Task #: 000
Date: 12/18/2018
User: LJW

State: Colorado
County: La Plata

Abbreviation: None
Filename: M103-000

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Finish grade mined slope and pad area	DOZER	1	1.52	\$343.00
002	Rip compacted areas of pit floor	RIPPER	1	1.28	\$289.00
003	Revegetate affected lands	REVEGE	1	8.00	\$709.00
004	Mobilization	MOBILIZE	1	2.26	\$1,737.00
<u>SUBTOTALS:</u>				13.06	\$3,078

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 6.53
Profit: 10.00

Total = \$62.18
Total = \$32.32
Total = \$477.02
Total = \$307.80

TOTAL O & P = \$879.32

CONTRACT AMOUNT (direct + O & P) = \$3,957.32

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00
Engineering work and/or contract/bid preparation: 0.00
Reclamation management and/or administration: 5.00

Total = 500.00
Total = \$0.00
Total = \$197.87

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$1,577.19

TOTAL BOND AMOUNT (direct + indirect) = \$4,655.19

BULLDOZER WORKTask description: Finish grade mined slope and pad areaSite: A.P.S. Trucking and
Excavating, Inc.Permit Action: 2018 UpdatePermit/Job#: M2000103**PROJECT IDENTIFICATION**Task #: 001
Date: 12/18/2018
User: LJWState: Colorado
County: La PlataAbbreviation: None
Filename: M103-001Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$93.62</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$73.35</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$8.93</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.78</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$225.20</u>	
Total Fleet Cost/Hour:	<u>\$225.20</u>	

MATERIAL QUANTITIESInitial Volume: 1,008
Swell factor: 1.000
Loose volume: 1,008 LCYSource of estimated volume: 1.25 Acres, 6" deep
Source of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feet
Unadjusted hourly
production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push
gradient: 0 %
Average site altitude: 6,440 feetMaterial weight: 2,100 lbs/LCYWeight description: Earth - Loam

Job 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:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4724

Adjusted unit
production: 661.36 LCY/hr
Adjusted fleet
production: 661.36 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.341/LCY

Total job time: 1.52 Hours
Total job cost: \$343

BULLDOZER RIPPING WORK

Task description: Rip compacted areas of pit floor

Site: A.P.S. Trucking and
Excavating, Inc.

Permit Action: 2018 Update

Permit/Job#: M2000103

PROJECT IDENTIFICATION

Task #: 002
Date: 12/18/2018
User: LJW

State: Colorado
County: La Plata

Abbreviation: None
Filename: M103-002

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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper Ownership Cost/Hour:	\$8.93	NA
Ripper Operating Cost/Hour:	\$7.78	100
Operator Cost/Hour:	\$41.52	NA
Total Unit Cost/Hour:	\$225.20	
Total Fleet Cost/Hour:	\$225.20	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA
Area: 0.75 acres
Bank Volume: NA BCY
Rip Depth (ft): 18.00 Volume: 21,780 BCY or CCY

Source of estimated quantity: Reclamation Plan

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>100.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.703</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.703</u>	Acres/hr
Site Altitude:	<u>6,440</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>0.58</u>	Acres/hr
Adjusted Hourly Fleet Production:	<u>0.58</u>	Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 1.28 Hours

Unit cost: \$385.719 Per acre

Total job cost: \$289

REVEGETATION WORKTask description: Revegetate affected landsSite: A.P.S. Trucking and
Excavating, Inc.Permit Action: 2018 UpdatePermit/Job#: M2000103**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 12/18/2018County: La PlataFilename: M103-003User: LJWAgency 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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Sand Dropseed	0.60	71.63	\$6.66
Ryegrass, Annual/Gulf	0.30	1.31	\$0.34
Smooth Brome - Manchar	0.60	2.00	\$2.62
Western Wheatgrass - Arriba	1.00	2.53	\$8.28
Totals Seed Mix	2.50	77.46	\$17.90

Application

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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
Wood Cellulose Fiber Mulch	1.00	Pound	\$0.38	\$0.38
Total Mulch Materials Cost/Acre				\$0.38

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$68.78
Total Mulch Application Cost/Acre	\$68.78

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:	1.25	Cost /Acre:	\$460.57
Estimated Failure Rate:	30%	Cost /Acre*:	\$354.28
*Selected Replanting Work Items:	SEEDING,MULCHING		
Initial Job Cost:	\$575.71		
Reseeding Job Cost:	\$132.86		
Total Job Cost:	\$709		
Job Hours:	8.00		

EQUIPMENT MOBILIZATION/DEMobilIZATIONTask description: **Mobilization**Site: **A.P.S. Trucking and
Excavating, Inc.**Permit Action: **2018 Update**Permit/Job#: **M2000103****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **12/18/2018**County: **La Plata**Filename: **M103-004**User: **LJW**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:**

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 D8T - 8SU	53.08	\$102.55	\$125.45	1	\$228.00	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$15.54	\$88.67	1	\$104.21	\$88.67	\$250.00

Subtotals: **\$332.21** **\$214.12** **\$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: DURANGO
 Total one-way travel distance: 2.00 miles
 Average Travel Speed: 30.00 mph

Total Non-Roadable Mob/Demob Cost * \$1,737.26
 * 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):	0.07	0.07
Return Time (Hours):	0.07	0.07
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.13	0.13

JOB TIME AND COST

Total job time: 2.27 Hours

Total job cost: \$1,737