



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman St. Room 215  
Denver, CO 80203

October 25, 2019

Steve and Joyce Wright  
Arboles Sand & Stone, LLC  
12577 Highway 151  
Pagosa Springs, CO 81147

**Re: Lob Lolly Pit, Permit No. M-2013-066, Financial Warranty Increase, Revision No. SI-2**

Dear Wright:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed). This estimate was updated in response to the Request to Reconsider Surety Increase SI-01. The details of the reconsideration are listed in the table below.

Task	Requested Change	Form Used	Change	Discussion
001	Use Dozer rather than Excavator	Excavator	N/A	The Hydraulic Excavator was more efficient for this task
002	Use Dozer rather than Excavator	Excavator	N/A	The Hydraulic Excavator was more efficient for this task
003	Adjust average ripping depth	Ripper	N/A	Correcting this task resulted in no change
004A	Correct Topsoil Depth to 6"	Scraper	—	Volume corrected based on 6" Topsoil replacement Depth
005	Correct Topsoil Depth to 6"	Scraper	—	Volume corrected based on 6" Topsoil replacement Depth



007a	Bond only for secondary Seeding	Reveg	—	Evidence of seeding received, bonding only for secondary seeding
007b	Bond only for secondary Seeding	Reveg	—	Evidence of seeding received, bonding only for secondary seeding

Division calculations estimate the cost to reclaim the above referenced site to be \$98,585.00. This is an increase of \$51,756.68 over the \$46,828.68 currently held by the Division. This estimate is based on the details of the Approved Reclamation Plan, Technical Revision TR-01 and site conditions during the May 14, 2019 inspection. The additional amount needs to be accepted prior to **Tuesday, December 24, 2019**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Gabriel Benvenuti at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Gabriel Benvenuti.

If you require additional information, or have questions or concerns, please feel free to contact me. Lucas West at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-243-6368 or by email at lucas.west@state.co.us.

If you have any questions, please contact me.

Sincerely,



Lucas J. West  
Environmental Protection Specialist

cc: Gabriel R. Benvenuti, DRMS  
Ec: Nathan Barton, Wasteline Inc.

## COST SUMMARY WORK

Task description: Cost Summary

Site: Lob Lolly Pit

Permit Action: 2019 Update

Permit/Job#: M2013066

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 8/28/2019

County: Archuleta

Filename: M066-000

User: LJW

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Reduce Highwalls of Pond F2	EXCAVATE	1	11.36	\$1,789
001a	Verify Depth of Ponds	SITEMAINT ENANCE	1	16.00	\$3,500
002	Relax Highwalls of Pond F3	EXCAVATE	1	7.95	\$1,252
003	Rip compacted areas of the North Parcel	RIPPER	1	21.75	\$5,355
004a	Distribute topsoil on North Area	SCRAPER1	1	7.91	\$9,049
005	Spread topsoil across affected lands	DOZER	1	13.40	\$3,185
006a	Revegetate North Area, semi-irrigated mix	REVEGE	1	16.00	\$8,141
006b	Revegetate North Area, Grazing Mix	REVEGE	1	16.00	\$14,816
007a	Secondary seeding of South Area, Grazing Mix	REVEGE	1	8.00	\$15,959
007b	Secondary Seeding of South Area, Semi irrigated mix	REVEGE	1	4.00	\$1,636
008	Haul reclamation equipment to and from jobsite	MOBILIZE	1	6.32	\$12,655
<b><u>SUBTOTALS:</u></b>				<b>128.69</b>	<b>\$77,337</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 92.89  
Profit: 10.00

Total = \$1,562

Total = \$812

Total = \$6,446

Total = \$7,734

TOTAL O & P = \$16,554

CONTRACT AMOUNT (direct + O & P) = \$93,891

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0  
Engineering work and/or contract/bid preparation: 0.00  
Reclamation management and/or administration: 5.00

Total = \$0

Total = \$0

\$4,695

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$21,248

**TOTAL BOND AMOUNT (direct + indirect) = \$98,585**

## HYDRAULIC EXCAVATOR WORK

Task description: Reduce Highwalls of Pond F2

Site: Lob Lolly Pit

Permit Action: 2019 Update

Permit/Job#: M2013066

### PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 10/25/2019

County: Archuleta

Filename: M066-001

User: LJW

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick

Attachment 1: ROPS Cab

Horsepower: 268

Weight (MT): 29.30

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$55.49	NA
Operating Cost/Hour:	\$64.62	100
Operator Cost/Hour:	\$37.27	NA
Total Unit Cost/Hour:	\$157.37	
Total Fleet Cost/Hour:	\$157.37	

### MATERIAL QUANTITIES

Initial volume: 4,858

CCY

Swell factor: 1.330

Loose volume: 6,461

LCY

Source of estimated volume: Height=25' Length 583' Relax to 3:1

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: 0.321 minutes

#### Load Bucket Capacity

Bucket Size Class: Large

Rated Capacity: 3.33

LCY (heaped)

Bucket Fill Factor: 1.100

Other - rock/dirt mixtures (100-120%) 1.100

Adjusted Capacity: 3.66

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: 684.67 LCY/Hour

Adjusted Hourly Unit Production: 568.28 LCY/Hour

Adjusted Hourly Fleet Production: 568.28 LCY/Hour

### JOB TIME AND COST

Fleet size: 1

Excavator

Total job time: 11.37

Hours

Unit cost: \$0.277 /LCY

Total job cost: \$1,789

## SITE MAINTENANCE

Task description: Verify Depth of Ponds

Site: Lob Lolly Pit

Permit Action: 2019 Update

Permit/Job#: M2013066

### PROJECT IDENTIFICATION

Task #: 001A

State: Colorado

Abbreviation: None

Date: 8/28/2019

County: Archuleta

Filename: M066-001a

User: LJW

Agency or organization name: DRMS

### UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Verify Depth of Pond F3	8.00	USER PROVIDED ITEM	1.00	EA	\$1,750.00	\$1,750.00
Verify Depth of Pond F2	8.00	USER PROVIDED ITEM	1.00	EA	\$1,750.00	\$1,750.00

Job Hours: 16.00

Total Cost: \$3,500.00

## HYDRAULIC EXCAVATOR WORK

Task description: Relax Highwalls of Pond F3

Site: Lob Lolly Pit

Permit Action: 2019 Update

Permit/Job#: M2013066

### PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 10/25/2019

County: Archuleta

Filename: M066-002

User: LJW

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick

Attachment 1: ROPS Cab

Horsepower: 268

Weight (MT): 29.30

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$55.49</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$64.62</u>	<u>100</u>
Operator Cost/Hour:	<u>\$37.27</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$157.37</u>	
Total Fleet Cost/Hour:	<u>\$157.37</u>	

### MATERIAL QUANTITIES

Initial volume: 3,400

CCY

Swell factor: 1.330

Loose volume: 4,522

LCY

Source of estimated volume: Height=20', Length 918 LF Relax to 3:1

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: 0.321 minutes

#### Load Bucket Capacity

Bucket Size Class: Large

Rated Capacity: 3.33

LCY (heaped)

Bucket Fill Factor: 1.100

Other - rock/dirt mixtures (100-120%) 1.100

Adjusted Capacity: 3.66

LCY

#### Job Condition Correction Factors

Site Altitude: 6200 feet

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

Unadjusted Hourly Unit Production: 684.67 LCY/Hour

Adjusted Hourly Unit Production: 568.28 LCY/Hour

Adjusted Hourly Fleet Production: 568.28 LCY/Hour

### JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 7.96 Hours

Unit cost: \$0.277 /LCY Total job cost: \$1,252

## BULLDOZER RIPPING WORK

Task description: Rip compacted areas of the North Parcel

Site: Lob Lolly Pit

Permit Action: 2019 Update

Permit/Job#: M2013066

### PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 8/28/2019

County: Archuleta

Filename: M066-003

User: LJW

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU

Horsepower: 310

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$103.86	NA
Operating Cost/Hour:	\$82.26	100
Ripper Ownership Cost/Hour:	\$10.43	NA
Ripper Operating Cost/Hour:	\$8.38	100
Operator Cost/Hour:	\$41.24	NA
Total Unit Cost/Hour:	\$246.17	
Total Fleet Cost/Hour:	\$246.17	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 12.70 acres

Rip Depth (ft): 1.00

Volume: 20,489

BCY or CCY

Source of estimated quantity: \_\_\_\_\_

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>1.00</u>	feet/pass
Average Ripping Width:	<u>7.08</u>	feet/pass
Average Ripping Length:	<u>100.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.703</u>	acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.703 Acres/hr

Site Altitude: 6,200 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.58 Acres/hr

Adjusted Hourly Fleet Production: 0.58 Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 21.75 Hours

Unit cost: \$421.636 Per acre

Total job cost: \$5,355





**SCRAPER TEAM WORK**Task description: **Distrubute topsoil on North Area**Site: **Lob Lolly Pit**Permit Action: **2019 Update**Permit/Job#: **M2013066****PROJECT IDENTIFICATION**Task #: **004A**State: **Colorado**Abbreviation: **None**Date: **8/28/2019**County: **Archuleta**Filename: **M066-004a**User: **LJW**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 637G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	100
Ownership cost/hour:	\$174.06	\$103.86	NA	NA	NA	\$44.05
Operating cost/hour:	\$190.35	\$82.26	NA	NA	NA	\$71.83
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$10.43	NA	NA	NA	\$0.00
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	\$0.00
Operator cost/hour:	\$30.86	\$41.24	NA	NA	NA	\$0.00
Unit Subtotals:	\$395.26	\$237.79	NA	NA	NA	\$115.88
Number of Units:	2	1	0	0	0	1
Group Subtotals:	Work:	\$1,028.31	Support:	\$0.00	Maint:	\$115.88

Total work team cost/hour: **\$1,144.19****MATERIAL QUANTITIES**Initial volume: **10,244**

CCY

Swell factor: **1.000**Loose volume: **10,244**

LCY

Source of estimated volume: **6" deep across 12.7 AC**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**

Scraper Bowl (volume) Basis:

Material weight: **1,600 lbs/LCY**  
 Material description: **Top Soil**  
 Rated Payload: **81,600 pounds**  
 Payload Capacity: **51.00 LCY**

Struck Volume: **24.00** LCY  
 Heaped Volume: **34.00** LCY  
 Average Volume: **29.00** LCY  
 Adjusted Capacity: **29.00** LCY

**Cycle Time:**Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 Minutes**Job Condition Correction:**

Site Altitude: 6200 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

**Travel Time:**Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0**Haul Route:**

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	3.00	3.00	2800	0.35

Haul Time: 0.35 minutes**Return Route:**

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	3.00	3.00	2949	0.28

Return Time: 0.28 minutesTotal Scraper team cycle time: 2.23 minutesAdjusted for job conditions: 1,295.25 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,295.25 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,295.25 LCY/HourUnadjusted unit production/hour: 1,560.54 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 7.91 HoursUnit cost: \$0.883 /LCYTotal job cost: \$9,049

**BULLDOZER WORK**Task description: Spread topsoil across affected landsSite: Lob Lolly PitPermit Action: 2019 UpdatePermit/Job#: M2013066**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 8/28/2019County: ArchuletaFilename: M066-005User: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$103.86	NA
Operating Cost/Hour:	\$82.26	100
Ripper own. Cost/Hour:	\$10.43	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.24	NA

Total unit Cost/Hour: \$237.79Total Fleet Cost/Hour: \$237.79**MATERIAL QUANTITIES**Initial Volume: 10,244Swell factor: 1.000Loose volume: 10,244 LCYSource of estimated volume: 6" deep across 12.7 acresSource of estimated swell  
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly  
production: 1,017.1 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push  
gradient: 0 %Average site altitude: 6,200 feetMaterial weight: 1,600 lbs/LCYWeight description: Top SoilJob Condition Correction FactorSource

Operator Skill:	0.750	(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:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7519

Adjusted unit  
production: 764.76 LCY/hr

Adjusted fleet  
production: 764.76 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.311/LCY

Total job time: 13.40 Hours

Total job cost: \$3,185

**REVEGETATION WORK**Task description: Revegetate North Area, semi-irrigated mixSite: Lob Lolly PitPermit Action: 2019 UpdatePermit/Job#: M2013066**PROJECT IDENTIFICATION**Task #: 006AState: ColoradoAbbreviation: NoneDate: 8/28/2019County: ArchuletaFilename: M066-006aUser: LJWAgency 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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
<b>Total Tilling Cost/Acre</b>	<b>\$101.93</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Rye, Annual Tetraploid - Barmultra	10.00	43.62	\$16.50
Meadow Brome - Paddock	5.00	4.59	\$19.88
Orchardgrass - Paiute	10.00	123.97	\$40.75
Smooth Brome - Manchar	5.00	16.64	\$16.63
Intermediate Wheatgrass - Rush	7.50	16.01	\$21.00
Burnett, Small (or Little) - Delar	5.00	6.31	\$12.50
Sainfoin - Remont	7.50	3.27	\$23.70
<b>Totals Seed Mix</b>	<b>50.00</b>	<b>214.42</b>	<b>\$150.95</b>

## 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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$295.00	\$590.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$590.00</b>

## Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Weed spray, hand, non-aquatic area, nox. [DMG]	\$180.00
<b>Total Mulch Application Cost/Acre</b>	<b>\$250.17</b>

## 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:	4.5	Cost /Acre:	\$1,360.27
Estimated Failure Rate:	33%	Cost /Acre*:	\$1,360.27
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		

Initial Job Cost:	<b>\$6,121.22</b>
Reseeding Job Cost:	<b>\$2,020.00</b>
Total Job Cost:	<b>\$8,141</b>
Job Hours:	<b>16.00</b>

**REVEGETATION WORK**Task description: Revegetate North Area, Grazing MixSite: Lob Lolly PitPermit Action: 2019 UpdatePermit/Job#: M2013066**PROJECT IDENTIFICATION**Task #: 006BState: ColoradoAbbreviation: NoneDate: 8/28/2019County: ArchuletaFilename: M066-006bUser: LJWAgency 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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
<b>Total Tilling Cost/Acre</b>	<b>\$101.93</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Rye, Annual Tetraploid - Barmultra	2.00	8.72	\$3.30
Orchardgrass - Paiute	8.00	99.17	\$32.60
Crested Wheatgrass - Standard	6.00	27.55	\$24.90
Russian Wildrye - VNS	4.00	16.07	\$23.68
Smooth Brome - Manchar	10.00	33.29	\$33.25
Pubescent Wheatgrass - VNS	10.00	20.66	\$31.50
<b>Totals Seed Mix</b>	<b>40.00</b>	<b>205.46</b>	<b>\$149.23</b>

**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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$295.00	\$590.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$590.00</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Weed spray, hand, non-aquatic area, nox. [DMG]	\$180.00
<b>Total Mulch Application Cost/Acre</b>	<b>\$250.17</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:	8.2	Cost /Acre:	\$1,358.55
Estimated Failure Rate:	33%	Cost /Acre*:	\$1,358.55
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		
Initial Job Cost:	\$11,140.11		
Reseeding Job Cost:	\$3,676.24		
Total Job Cost:	\$14,816		
Job Hours:	16.00		



**REVEGETATION WORK**Task description: Secondary seeding of South Area, Grazing MixSite: Lob Lolly PitPermit Action: 2019 UpdatePermit/Job#: M2013066**PROJECT IDENTIFICATION**Task #: 007AState: ColoradoAbbreviation: NoneDate: 8/28/2019County: ArchuletaFilename: M066-007aUser: LJWAgency 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
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Rye, Annual Tetraploid - Barmultra	2.00	8.72	\$3.30
Orchardgrass - Paiute	8.00	99.17	\$32.60
Crested Wheatgrass - Standard	6.00	27.55	\$24.90
Russian Wildrye - VNS	4.00	16.07	\$23.68
Smooth Brome - Manchar	10.00	33.29	\$33.25
Pubescent Wheatgrass - VNS	10.00	20.66	\$31.50
<b>Totals Seed Mix</b>	<b>40.00</b>	<b>205.46</b>	<b>\$149.23</b>

**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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$295.00	\$590.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$590.00</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Weed spray, hand, non-aquatic area, nox. [DMG]	\$180.00
<b>Total Mulch Application Cost/Acre</b>	<b>\$250.17</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:	12.7	Cost /Acre:	\$1,256.62
Estimated Failure Rate:	33%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		

Initial Job Cost:	\$15,959.07
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$15,959
Job Hours:	8.00

**REVEGETATION WORK**Task description: Secondary Seeding of South Area, Semi irrigated mixSite: Lob Lolly PitPermit Action: 2019 UpdatePermit/Job#: M2013066**PROJECT IDENTIFICATION**Task #: 007BState: ColoradoAbbreviation: NoneDate: 8/28/2019County: ArchuletaFilename: M066-007bUser: LJWAgency 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
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Rye, Annual Tetraploid - Barmultra	10.00	43.62	\$16.50
Meadow Brome - Paddock	5.00	4.59	\$19.88
Orchardgrass - Paiute	10.00	123.97	\$40.75
Smooth Brome - Manchar	5.00	16.64	\$16.63
Intermediate Wheatgrass - Rush	7.50	16.01	\$21.00
Burnett, Small (or Little) - Delar	5.00	6.31	\$12.50
Sainfoin - Remont	7.50	3.27	\$23.70
<b>Totals Seed Mix</b>	<b>50.00</b>	<b>214.42</b>	<b>\$150.95</b>

**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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$295.00	\$590.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$590.00</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Weed spray, hand, non-aquatic area, nox. [DMG]	\$180.00
<b>Total Mulch Application Cost/Acre</b>	<b>\$250.17</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:	1.3	Cost /Acre:	\$1,258.34
Estimated Failure Rate:	33%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		

Initial Job Cost:	\$1,635.84
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$1,636
Job Hours:	4.00

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Haul reclamation equipment to and from jobsite**Site: **Lob Lolly Pit**Permit Action: **2019 Update**Permit/Job#: **M2013066****PROJECT IDENTIFICATION**Task #: **008**State: **Colorado**Abbreviation: **None**Date: **8/28/2019**County: **Archuleta**Filename: **M066-008**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:**

<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:**

<b>Machine Description</b>	<b>Weight/ Unit (TONS)</b>	<b>Owner ship Cost/hr/ unit</b>	<b>Haul Rig Cost/hr/unit</b>	<b>Fleet Size</b>	<b>Haul Trip Cost/hr/ fleet</b>	<b>Return Trip Cost/hr/ fleet</b>	<b>DOT Permit Cost/ fleet</b>
Cat D8T - 8SU	53.08	\$114.29	\$141.54	1	\$255.83	\$141.54	\$250.00
Cat 637G w/push-pull	59.59	\$174.06	\$141.54	2	\$631.20	\$283.08	\$500.00
Water Tanker, 7,000 Gal.	29.65	\$44.05	\$123.81	1	\$167.86	\$123.81	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$18.15	\$67.39	2	\$171.08	\$134.78	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$9.74	\$67.39	2	\$154.26	\$134.78	\$250.00
Cat 336D L 10'-6" Stick	32.23	\$55.49	\$123.81	1	\$179.30	\$123.81	\$250.00

Subtotals: **\$1,559.53** **\$941.80** **\$1,750.00****ROADABLE EQUIPMENT:**

<b>Machine Description</b>	<b>Total Cost/hr/ unit</b>	<b>Fleet Size</b>	<b>Haul Trip Cost/hr/ fleet</b>	<b>Return Trip Cost/hr/ fleet</b>
Light Duty Pickup, 4x4, 3/4 T.	\$12.96	1	\$12.96	\$12.96

Subtotals: **\$12.96** **\$12.96**



**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>PAGOSA SPRINGS</u>	
Total one-way travel distance:	<u>29.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$12,639.66</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$15.03</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.58	0.58
Return Time (Hours):	0.58	0.58
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	3.16	1.16

**JOB TIME AND COST**

Total job time:	<u>6.32</u>	Hours
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Total job cost:	<u>\$12,655</u>
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