

October 3, 2014

Jordan Sasser  
Hard Rock Paving and Redi-Mix, Inc.  
P.O. Box 37  
Salida, CO 81201



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

***RE: Hard Rock 291 Pit, Permit No. M-1977-195, Reclamation Costs Update and Notice of Surety Increase (SI-2)***

Dear Mr. Sasser:


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). ***Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Wednesday, December 03, 2014**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Staff calculations estimate the cost to reclaim the above referenced site to be \$26,823.65. This is an increase of \$10,823.65 over the \$16,000.00 currently held by the Division. This estimate is based on conditions observed during the September 10, 2014 inspection.

Please make arrangements with Barbara Coria 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 Barbara Coria.

If you require additional information, have questions or concerns, please contact me at the DRMS Grand Junction Field Office.

Sincerely,



**Dustin Czaplak**  
Environmental Protection Specialist  
Department of Natural Resources  
Division of Reclamation, Mining and Safety  
101 South 3<sup>rd</sup>, Suite 301  
Grand Junction, CO 81501  
Phone: (970) 243-6299  
Fax: (970) 241-1516

Enc: Financial Warranty Cost Estimate (10/3/2014)



## COST SUMMARY WORK

Task description: Review reclamation costs following inspection

Site: Hard Rock 291 Pit

Permit Action: 2014-09-10

Inspection

Permit/Job#: M1977195

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/3/2014

County: Chaffee

Filename: M195-000

User: DMC

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Backfill and grade pit 2H:1V	DOZER	1	15.81	\$3,304.00
02a	Replace topsoil	SCRAPER1	1	10.44	\$4,623.00
03a	Revegetate slopes and upland areas	REVEGE	1	5.00	\$4,626.00
04a	Revegetate pit floor	REVEGE	1	5.00	\$4,845.00
05a	Mobilize reclamation crew and equipment	MOBILIZE	1	2.57	\$3,484.00
<b><u>SUBTOTALS:</u></b>				<b>38.82</b>	<b>\$20,882</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02%

Total = \$421.82

Performance bond: 1.05%

Total = \$219.26

Job superintendent: 19.41 hrs

Total = \$1,458.86

Profit: 10.00%

Total = \$2,088.20

TOTAL O & P = \$4,188.14

CONTRACT AMOUNT (direct + O & P) = \$25,070.14

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00

Total = 500.00

Engineering work and/or contract/bid preparation: 0.00%

Total = \$0.00

Reclamation management and/or administration: 5.00%

\$1,253.51

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$5,941.65

**TOTAL BOND AMOUNT (direct + indirect) = \$26,823.65**

**BULLDOZER WORK**Task description: **Backfill and grade pit 2H:1V**Site: **Hard Rock 291 Pit**Permit Action: **2014-09-10 Inspection**Permit/Job#: **M1977195****PROJECT IDENTIFICATION**Task #: **01A**State: **Colorado**Abbreviation: **None**Date: **10/3/2014**County: **Chaffee**Filename: **M195-01a**User: **DMC**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8U**Horsepower: **310**Blade Type: **Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$62.67	NA
Operating Cost/Hour:	\$108.22	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: **\$208.90**Total Fleet Cost/Hour: **\$208.90****MATERIAL QUANTITIES**Initial Volume: **6,400**Swell factor: **1.000**Loose volume: **6,400 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **931.6 LCY/hr**Materials consistency description: **Partly consolidated stockpile 1.1**Average push gradient: **0 %**Average site altitude: **7,200 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4344

Adjusted unit production: 404.69 LCY/hr

Adjusted fleet production: **404.69** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.516/LCY

Total job time: **15.81** Hours

Total job cost: **\$3,304**

**SCRAPER TEAM WORK**Task description: Replace topsoilSite: Hard Rock 291 PitPermit Action: 2014-09-10 InspectionPermit/Job#: M1977195**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 10/3/2014County: ChaffeeFilename: M195-02aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 627G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8U
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<b><u>Cost Breakdown:</u></b>	<b>Scraper Work Team</b>		<b>Support Equipment</b>		<b>Maintenance Equipment</b>	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	50	NA	NA
Ownership cost/hour:	\$69.99	NA	NA	\$62.67	NA	NA
Operating cost/hour:	\$184.31	NA	NA	\$54.11	NA	NA
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Operator cost/hour:	\$33.56	NA	NA	\$38.01	NA	NA
Unit Subtotals:	\$287.87	NA	NA	\$154.79	NA	NA
Number of Units:	1	0	0	1	0	0
Group Subtotals:	Work: \$287.87		Support: \$154.79		Maint:	\$0.00

Total work team cost/hour: **\$442.66****MATERIAL QUANTITIES**Initial volume: 4,977

CCY

Swell factor: 1.000Loose volume: 4,977

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 1,600 lbs/LCY  
 Material description: Top Soil  
 Rated Payload: 52,800 pounds  
 Payload Capacity: 33.00 LCY

Struck Volume: 15.70 LCY  
 Heaped Volume: 22.00 LCY  
 Average Volume: 18.85 LCY  
 Adjusted Capacity: 18.85 LCY

Cycle Time:Scraper Loading Time: 0.70 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 7200 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	0.00	5.00	5.00	2218	0.35

Haul Time: 0.35 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	0.00	5.00	5.00	2814	0.32

Return Time: 0.32 minutesTotal Scraper team cycle time: 1.97 minutesAdjusted for job conditions: 476.51 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 476.51 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 476.51 LCY/HourUnadjusted unit production/hour: 574.11 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 10.44 HoursUnit cost: \$0.929 /LCYTotal job cost: \$4,623

**REVEGETATION WORK**Task description: **Revegetate slopes and upland areas**Site: **Hard Rock 291 Pit**Permit Action: **2014-09-10 Inspection**Permit/Job#: **M1977195****PROJECT IDENTIFICATION**Task #: **03A**State: **Colorado**Abbreviation: **None**Date: **10/3/2014**County: **Chaffee**Filename: **M195-03a**User: **DMC**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
8-24-24, 10-15-15, 10-20-20	25.00	pound	\$0.31	\$7.65
<b>Total Fertilizer Materials Cost/Acre</b>				<b>\$7.65</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$52.71</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$98.01
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
<b>Total Tilling Cost/Acre</b>	<b>\$243.21</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	1.00	16.32	\$10.35
Indian Ricegrass - Native	6.00	19.42	\$40.44
Pubescent Wheatgrass - Luna	8.00	16.53	\$17.92
Western Wheatgrass - Native	8.00	20.20	\$24.32
<b>Totals Seed Mix</b>	<b>23.00</b>	<b>72.47</b>	<b>\$93.03</b>

**Application**

Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20
<b>Total Seed Application Cost/Acre</b>	<b>\$88.20</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$530.00</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
<b>Total Mulch Application Cost/Acre</b>	<b>\$152.57</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: 3.17 Cost /Acre: \$1,167.37  
 Estimated Failure Rate: 25% Cost /Acre\*: \$1,167.37  
 \*Selected Replanting Work Items: FERTILIZING, TILLING, SEEDING,  
MULCHING

Initial Job Cost: \$3,700.56  
 Reseeding Job Cost: \$925.14  
 Total Job Cost: \$4,626  
 Job Hours: 5.00



**REVEGETATION WORK**Task description: Revegetate pit floorSite: Hard Rock 291 PitPermit Action: 2014-09-10 InspectionPermit/Job#: M1977195**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 10/3/2014County: ChaffeeFilename: M195-04aUser: DMCAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
8-24-24, 10-15-15, 10-20-20	25.00	pound	\$0.31	\$7.65
<b>Total Fertilizer Materials Cost/Acre</b>				<b>\$7.65</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$52.71</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$98.01
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
<b>Total Tilling Cost/Acre</b>	<b>\$243.21</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Russian Wildrye - VNS	8.00	32.14	\$29.68
Yellow Sweet Clover - Madrid	2.00	11.94	\$5.10
Streambank Wheatgrass - Sodar	8.00	26.08	\$33.68
Western Wheatgrass - Native	8.00	20.20	\$24.32
<b>Totals Seed Mix</b>	<b>26.00</b>	<b>90.36</b>	<b>\$92.78</b>

**Application**

Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20
<b>Total Seed Application Cost/Acre</b>	<b>\$88.20</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$530.00</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
<b>Total Mulch Application Cost/Acre</b>	<b>\$152.57</b>

**NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Squaw or Wax	20	Tubling, 3 cu. in. container (MEANS)	\$0.96	\$2.40	\$19.20
Mahogany, Mountain	20	Tubling, 3 cu. in. container (MEANS)	\$0.96	\$2.40	\$19.20
Rabbitbrush, Rubber	20	Tubling, 3 cu. in. container (MEANS)	\$0.96	\$2.40	\$19.20
Sagebrush, Mountain or Big	20	Tubling, 3 cu. in. container (MEANS)	\$3.36	\$2.40	\$67.20
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$124.80</b>

**JOB TIME AND COST**

No. of Acres:	3	Cost /Acre:	\$1,291.92
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,291.92
*Selected Replanting Work Items:	FERTILIZING, TILLING, SEEDING, NURSERY, MULCHING		
Initial Job Cost:	\$3,875.76		
Reseeding Job Cost:	\$968.94		
Total Job Cost:	\$4,845		
Job Hours:	5.00		

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mobilize reclamation crew and equipment**Site: **Hard Rock 291 Pit**Permit Action: **2014-09-10 Inspection**Permit/Job#: **M1977195****PROJECT IDENTIFICATION**Task #: **05A**State: **Colorado**Abbreviation: **None**Date: **10/3/2014**County: **Chaffee**Filename: **M195-05a**User: **DMC**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:	\$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:**

<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 - 8U	48.33	\$62.67	\$117.55	1	\$180.22	\$117.55	\$250.00
Cat 627G	41.80	\$69.99	\$117.55	1	\$187.54	\$117.55	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$591.72** **\$412.44** **\$1,000.00****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.	\$15.30	1	\$15.30	\$15.30
Fuel Tanker, 4x2, 170 HP	\$33.99	1	\$33.99	\$33.99

Subtotals: **\$49.29** **\$49.29**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>SALIDA</u>	
Total one-way travel distance:	<u>5.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	
** two round trips with haul rig:	<u>\$3,470.34</u>
Total Roadable Mob/Demob Cost **	
** one round trip, no haul rig:	<u>\$14.08</u>

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

**JOB TIME AND COST**

Total job time: 2.57 Hours

Total job cost: \$3,484