

# STATE OF COLORADO

## DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



John W. Hickenlooper  
Governor

Mike King  
Executive Director

Loretta E. Pineda  
Director

May 14, 2012

Christy Woodward  
Denison Mines (USA) Corp.  
1050 17<sup>th</sup> Street, Suite 950  
Denver, CO 80265

Re: St. Jude Mine, Permit No. M-1978-039 HR, Amendment AM-1, Approval of  
Environmental Protection Plan, and Notice of Financial Warranty Increase.

Dear Ms. Woodward,

On May 10, 2012 the Division of Reclamation, Mining and Safety approved Amendment AM-1 to the St. Jude Mine 110d permit, which incorporates the Environmental Protection Plan (EPP) into the permit, as required by Hard Rock/Metal Rule 6.4.21.

The EPP includes requirements for the installation of a PVC ore pad liner, with said installation to commence during this 2012 construction season.

As part of the approval to incorporate these changes into this permit under Amendment AM-1, the amount of financial warranty (bond) was reviewed. The existing amount of financial warranty is \$29,885. The Division's review of the reclamation costs reveals that the current bond amount is insufficient. The updated reclamation costs were estimated to be \$47,700. This is a shortage of \$17,815. The updated reclamation costs are shown in the enclosed packet.

Please consider this letter to be your Notice of Financial Warranty increase. The additional amount must be provided to the Division, in an approvable format, within 60 days from the date of this letter. The present bond is in the form of a corporate surety, whose amount may be modified by providing a rider to the surety. Please direct all questions or submittals pertaining to the bond to Ms. Barbara Coria in the Division's Denver Office (see address in letterhead, above). You may reach her by phone at 303-866-3567 ext 8148.

In accordance with the MOU between the Division and the Bureau of Land Management (BLM), the two agencies have coordinated on the updated permit plans, and the BLM has had opportunity to review the Division's updated reclamation cost estimate. The BLM will inform the Division as to whether it accepts the current estimate, and subsequent adjustment may be made if necessary.

Page 1

Christy Woodward/M-1978-039 HR

May 14, 2012

Page 2

The Division appreciates the diligence and cooperation shown by Denison throughout this amendment process. If you have questions, please contact me at the Division's Durango Field Office: 691 CR 233, Room A-2, Durango, CO 81301; telephone 970-247-5193.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Oswald". The signature is fluid and cursive, with the first name "Bob" being more prominent than the last name "Oswald".

Bob Oswald

Environmental Protection Specialist

Encl: Updated reclamation costs (3/7/12)

Ec(w/encl): Steve Shuey, DRMS, Grand Junction

Barbara Coria, DRMS, Denver

Cc: James Blair, BLM Tres Rios Field Office, Dolores

(c:\12-05 docs\St Jude AM-1 Appr\rc0)

## COST SUMMARY WORK

Task description: Reclamation Cost Summary

Site: St Jude Mine

Permit Action: AM-1

Permit/Job#: M1978039HR

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 3/7/2012

County: San Miguel

Filename: M039-000

User: RCO

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demolish onsite structures; underground or surface disposal	DEMOLISH	1	30.00	\$10,648.28
002	Remove and backfill ore pad liner and gravel	LOADER	1	2.13	\$209.00
003	Portal closure (backfill and recontour)	MINESEAL	1	40.00	\$1,500.21
004	Grade waste dump (DRA), pad and portal areas	DOZER	1	34.25	\$8,882.23
005	Rip compaction on pad	RIPPER	1	5.63	\$1,503.00
006	Spread topsoil on pad areas	DOZER	1	2.84	\$735.41
007	Carry topsoil to pad for spreading	LOADER	1	5.74	\$563.00
008	Grade access road	DOZER	1	0.52	\$134.67
009	Revegetate disturbed areas	REVEGE	1	10.00	\$9,467.06
010	Haul reclamation equipment to and from site	MOBILIZE	1	8.00	\$4,802.52
<b><u>SUBTOTALS:</u></b>				<b>139.11</b>	<b>\$ \$38,445.38</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 25.00  
Profit: 10.00

Total = \$776.60

Total = \$403.68

Total = \$1,482.50

Total = \$3,844.54

TOTAL O & P = \$6,507.32

CONTRACT AMOUNT (direct + O & P) = \$44,952.70

#### 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

\$2,247.64

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$9,254.96

**TOTAL BOND AMOUNT (direct + indirect) = \$47,700.34**

## DEMOLITION WORK

Task description: Demolish onsite structures; underground or surface disposal

Site: St Jude Mine

Permit Action: AM-1

Permit/Job#: M1978039HR

### PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 3/7/2012

County: San Miguel

Filename: M039-001

User: RCO

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 96.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Shop/dry/office metal bldg.	40x50x15	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	30,000.00	CF	\$0.16	\$4,680.00
Shop/dry/office bldg. concrete slab	40x50	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	2,000.00	SF	\$1.05	\$2,100.00
Denison-owned powerlines	630 LF	Powerline or telephone line, overhead, wood - Single pole	630.00	LF	\$2.60	\$1,636.74
Electric substation, fenced	10x15x6	Fencing, chain link, including posts and fabric - to 6 ft. high	50.00	LF	\$2.35	\$117.50
Electric transformers, non-PCB	20x36 in	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	2.00	DRUM	\$415.65	\$831.30
Wood-cribbed loadouts	40x15x5	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	3,000.00	CF	\$0.15	\$456.00
Underground steel tank	10x3.7 ft. cyl.	Excavate and load tank onto trailer, non-leaking - 3,000 gal. to 5,000 gal.	1.00	EA	\$515.00	\$515.00
Underground steel tank	16x4 ft. cyl.	Excavate and load tank onto trailer, non-leaking - 3,000 gal. to 5,000 gal.	1.00	EA	\$515.00	\$515.00
Misc parts and debris	20x20x10 mass	Push demolished materials/rubble/debris into pit - Max. 100 ft. push	150.00	CY	\$0.46	\$68.70
Low-grade stockpile, place underground	25x30x10	Push demolished materials/rubble/debris into pit - Max. 200 ft. push	100.00	CY	\$0.69	\$68.70

Job Hours: 30.00

Subtotal  
(unadjusted): \$10,988.94

Total Cost  
(adjusted for location): \$10,648.28

Note: Debris to be backfilled underground as much as possible prior to recontouring portal.

**WHEEL LOADER – LOAD AND CARRY WORK**Task description: **Remove and backfill ore pad liner and gravel**Site: **St Jude Mine** Permit Action: **AM-1** Permit/Job#: **M1978039HR****PROJECT IDENTIFICATION**

Task #: **002** State: **Colorado** Abbreviation: **None**  
 Date: **3/7/2012** County: **San Miguel** Filename: **M039-002**  
 User: **RCO**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **CAT 938H** Horsepower: **172**  
 Attachment 1: **ROPS Cab** Shift Basis: **1 per day**  
 Data Source: **(CRG)**

**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	<b><u>\$22.07</u></b>	<b><u>NA</u></b>
Operating Cost/Hour:	<b><u>\$37.34</u></b>	<b><u>100</u></b>
Operator Cost/Hour:	<b><u>\$38.49</u></b>	<b><u>NA</u></b>
Total Unit Cost/Hour:	<b><u>\$97.90</u></b>	
Total Fleet Cost/Hour:	<b><u>\$97.90</u></b>	

**MATERIAL QUANTITIES**

Initial volume: **500** CCY Swell factor: **1.060**  
 Loose volume: **530** LCY

Source of estimated volume: **Division of Reclamation, Mining & Safety**  
 Source of estimated swell factor: **Cat Handbook**

**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): **0.483** minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	<b><u>0.000</u></b>	<b><u>(Cat HB)</u></b>
Stockpile:	No adjustment - factor not applicable 0.00	<b><u>0.000</u></b>	<b><u>(Cat HB)</u></b>
Truck Ownership:	No adjustment - factor not applicable 0.00	<b><u>0.000</u></b>	<b><u>(Cat HB)</u></b>
Operation:	Constant operation -0.04	<b><u>-0.040</u></b>	<b><u>(Cat HB)</u></b>
Dump Target:	No adjustment - factor not applicable 0.00	<b><u>0.000</u></b>	<b><u>(Cat HB)</u></b>
Net Cycle Time Adjustment:		<b><u>-0.040</u></b>	<b><u>minutes</u></b>
Adjusted Basic Cycle Time:		<b><u>0.443</u></b>	<b><u>minutes</u></b>

**Rolling Resistance – Road Conditions**

Haul: **Rutted dirt, little maintenance, no water, 1" tire penetration 4.0**  
 Return: **Rutted dirt, little maintenance, no water, 1" tire penetration 4.0**

**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	<b><u>200</u></b>	<b><u>0.00</u></b>	<b><u>4.00</u></b>	<b><u>4.00</u></b>	<b><u>0.1651</u></b>	<b><u>(Cat HB)</u></b>
Return Route:	<b><u>200</u></b>	<b><u>0.00</u></b>	<b><u>4.00</u></b>	<b><u>4.00</u></b>	<b><u>0.1540</u></b>	<b><u>(Cat HB)</u></b>

Total Travel Time: 0.3191 minutes  
 Total Cycle Time: 0.7616 minutes

Load Bucket Capacity

Rated Capacity:	<u>3.90</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.975</u>	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	<u>3.80</u>	LCY

Job Condition Correction FactorsSite Altitude: 5800 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:	<u>299.55</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>248.63</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>248.63</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Loader(s)	Total job time:	<u>2.13</u>	Hours
Unit cost:	<u>\$0.394</u>	/LCY	Total job cost:	<u>\$209.00</u>	

Note: Liner material, bedding and cover gravel all to be backfilled in adit prior to recontouring.

## SAFEGUARDING UNDERGROUND OPENINGS

Task description: Portal closure (backfill and recontour)

Site: St Jude Mine

Permit Action: AM-1

Permit/Job#: M1978039HR

### PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 3/7/2012

County: San Miguel

Filename: M039-003

User: RCO

Agency or organization name: DRMS

### UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Backfill inert debris/rock in adit	10x10	Adit closure - backfilling (per cu. yd.)	600.00	CY	\$2.11	\$1,266.00
Backfill earth and recontour portal	10x10	Adit closure - backfilling (per cu. yd.)	111.00	CY	\$2.11	\$234.21

Job Hours: 40.00

Total Cost: \$1,500.21

**BULLDOZER WORK**Task description: Grade waste dump (DRA), pad and portal areasSite: St Jude MinePermit Action: AM-1Permit/Job#: M1978039HR**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 3/7/2012County: San MiguelFilename: M039-004User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 12,000Swell factor: 1.335Loose volume: 16,020 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 1,514.3 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 10 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(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:	0.700	(FND-MF)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3089

Adjusted unit production: 467.77 LCY/hr

Adjusted fleet production: **467.77 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.554/LCY

Total job time: **34.25 Hours**

Total job cost: **\$8,882.23**

Note: Volume based on current DRA configuration, per 2010 site map. Estimated length of DRA crest is 420 ft, and slope is 0.7:1 (horiz:vert). Final slope is 2:1.

## BULLDOZER RIPPING WORK

Task description: Rip compaction on pad

Site: St Jude Mine

Permit Action: AM-1

Permit/Job#: M1978039HR

### PROJECT IDENTIFICATION

Task #: 005

State: Colorado

Abbreviation: None

Date: 3/7/2012

County: San Miguel

Filename: M039-005

User: RCO

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper Operating Cost/Hour:	\$7.17	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$266.52	
Total Fleet Cost/Hour:	\$266.52	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 4.00 acres

Rip Depth (ft): 1.00

Volume: 6,453 BCY or CCY

Source of estimated quantity: AM-1 maps

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.63</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>250.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.855</u>	acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.855 Acres/hr

Site Altitude: 5,800 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.71 Acres/hr

Adjusted Hourly Fleet Production: 0.71 Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 5.64 Hours

Unit cost: \$375.785 Per acre Total job cost: \$1,503.00

**BULLDOZER WORK**Task description: Spread topsoil on pad areasSite: St Jude MinePermit Action: AM-1Permit/Job#: M1978039HR**PROJECT IDENTIFICATION**Task #: 006State: ColoradoAbbreviation: NoneDate: 3/7/2012County: San MiguelFilename: M039-006User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 1,500Swell factor: 1.125Loose volume: 1,688 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 1,514.3 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 0 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(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:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3930

Adjusted unit production: 595.12 LCY/hr  
 Adjusted fleet production: **595.12 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.436/LCY

Total job time: **2.84 Hours**  
 Total job cost: **\$735.41**

**WHEEL LOADER – LOAD AND CARRY WORK**Task description: Carry topsoil to pad for spreadingSite: St Jude MinePermit Action: AM-1Permit/Job#: M1978039HR**PROJECT IDENTIFICATION**Task #: 007State: ColoradoAbbreviation: NoneDate: 3/7/2012County: San MiguelFilename: M039-007User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 938HAttachment 1: ROPS CabHorsepower: 172Shift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$22.07	NA
Operating Cost/Hour:	\$37.34	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$97.90	

**MATERIAL QUANTITIES**Initial volume: 1,500

CCY

Swell factor: 1.000Loose volume: 1,500

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.020	minutes
Adjusted Basic Cycle Time:		0.463	minutes

**Rolling Resistance – Road Conditions**Haul: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Return: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	200	0.00	4.00	4.00	0.1651	(Cat HB)
Return Route:	200	0.00	4.00	4.00	0.1540	(Cat HB)

Total Travel Time: 0.3191 minutes  
Total Cycle Time: 0.7816 minutes

Load Bucket Capacity

Rated Capacity:	<u>3.90</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.050</u>	Moist loam or sandy clay (100% - 110%) 1.050
Adjusted Capacity:	<u>4.10</u>	LCY

Job Condition Correction FactorsSite Altitude: 5800 feet

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

Unadjusted Hourly Unit Production:	<u>314.34</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>260.90</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>260.90</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Loader(s)	Total job time:	<u>5.75</u>	Hours
Unit cost:	<u>\$0.375</u>	/LCY	Total job cost:	<u>\$563.00</u>	

**BULLDOZER WORK**Task description: Grade access roadSite: St Jude MinePermit Action: AM-1Permit/Job#: M1978039HR**PROJECT IDENTIFICATION**Task #: 008State: ColoradoAbbreviation: NoneDate: 3/7/2012County: San MiguelFilename: M039-008User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 325Swell factor: 1.165Loose volume: 379 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 0 %Average site altitude: 5,800 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(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:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3455

Adjusted unit production: 729.18 LCY/hr  
Adjusted fleet production: 729.18 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.356/LCY

Total job time: 0.52 Hours  
Total job cost: \$134.67



**REVEGETATION WORK**Task description: Revegetate disturbed areasSite: St Jude MinePermit Action: AM-1Permit/Job#: M1978039HR**PROJECT IDENTIFICATION**Task #: 009State: ColoradoAbbreviation: NoneDate: 3/7/2012County: San MiguelFilename: M039-009User: RCOAgency 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)	\$92.35
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
<b>Total Tilling Cost/Acre</b>	<b>\$237.55</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$9.72
Indian Ricegrass - Native	7.42	24.02	\$48.97
Sand Dropseed	0.14	16.71	\$0.96
Bottlebrush Squirreltail	4.08	17.98	\$99.27
Galleta	4.94	18.03	\$121.87
Muttongrass	0.20	4.13	\$7.20
Sagebrush, Mountain or Big	0.20	10.56	\$6.60
Saltbush, Four Wing	0.50	0.69	\$5.25
Winter Fat	0.50	1.27	\$16.00

<b>Totals Seed Mix</b>	18.94	109.07	<b>\$315.84</b>
------------------------	-------	--------	-----------------

**Application**

Description	Cost /Acre
Broadcast seeding [DMG]	\$255.76
<b>Total Seed Application Cost/Acre</b>	<b>\$255.76</b>

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

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

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</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:	9	Cost /Acre:	\$809.15
Estimated Failure Rate:	30%	Cost /Acre*:	\$809.15
*Selected Replanting Work Items:	TILLING,SEEDING		

Initial Job Cost:	<b>\$7,282.35</b>
Reseeding Job Cost:	<b>\$2,184.71</b>
Total Job Cost:	<b>\$9,467.06</b>
Job Hours:	<b>10.00</b>

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: Haul reclamation equipment to and from siteSite: St Jude MinePermit Action: AM-1Permit/Job#: M1978039HR**PROJECT IDENTIFICATION**Task #: 010State: ColoradoAbbreviation: NoneDate: 3/7/2012County: San MiguelFilename: M039-010User: RCOAgency 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:**

<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:**

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 D9T - 9SU	66.13	\$80.19	\$125.45	1	\$205.64	\$125.45	\$250.00
CAT 938H	16.34	\$22.07	\$88.67	1	\$110.74	\$88.67	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$44.44	\$88.67	1	\$133.11	\$88.67	\$250.00

Subtotals: **\$449.49** **\$302.79** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
---------------------	---------------------	------------	-----------------------------	-------------------------------

Subtotals: **\$0.00** **\$0.00**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>NATURITA</u>	
Total one-way travel distance:	<u>40.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$4,802.52</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$0.00</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>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>4.00</u>	<u>2.00</u>

**JOB TIME AND COST**

Total job time:	<u>8.00</u>	Hours
-----------------	-------------	-------

Total job cost:	<u>\$4,802.52</u>
-----------------	-------------------