



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman St. Room 215
Denver, CO 80203

April 5, 2018

Mr. George Glasier
Pinon Ridge Mining LLC
P O Box 825
31161 Highway 90
Nucla, CO 81424

Re: Sunday Mine, Permit No. M-1977-285, Financial Warranty Increase, Revision No. SI-1

Dear Mr. Glasier:

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 34-32-117(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 **Friday, June 08, 2018**. 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 \$330,242.00. This is an increase of \$32,316.00 over the \$297,926.00 currently held by the Division. This estimate is based on conditions observed during the March 28, 2018 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 or by email at lucas.west@state.co.us.

Sincerely,

Lucas J. West
Environmental Protection Specialist
Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203
Phone: (970)-243-6368



Enclosure: Reclamation Cost Estimate Worksheets

cc: Barbara J. Coria, DRMS
George Glasier, Pinon Ridge Mining LLC
Russ Means, Senior Environmental Protection Specialist

Ec: James Blair, Bureau of Land Management

COST SUMMARY WORK

Task description: Cost summary

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-000

User: LJW

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demolition of structures, underground or onsite disposal	DEMOLISH	1	32.00	\$21,388.61
002	Portal closure (backfilling)	MINESEAL	1	40.00	\$19,197.00
003	Downhill dozing of waste dump	DOZER	2	28.25	\$13,592.00
004	Rough grading on top of pad and against cut face	DOZER	2	70.06	\$33,714.00
005	Lateral dozing of dump face	DOZER	2	12.99	\$6,250.00
006	Vent shaft closure S-1	MINESEAL	1	24.00	\$3,098.22
007	Vent shaft closure S-2	MINESEAL	1	24.00	\$3,098.22
008	Vent shaft closure S-3	MINESEAL	1	24.00	\$3,098.22
009	Vent shaft closure S-4	MINESEAL	1	24.00	\$3,098.22
010	Vent shaft closure S-7	MINESEAL	1	24.00	\$3,098.22
011	Vent shaft closure S-8	MINESEAL	1	24.00	\$3,098.22
012	Vent shaft closure S-15	MINESEAL	1	24.00	\$3,098.22
014	Install atmospheric bulkheads underground	MINESEAL	1	48.00	\$2,668.00
015	Rip (older) vent shaft roads	RIPPER	1	1.59	\$395.00
016	Rip new vent shaft pads	RIPPER	1	1.69	\$418.00
017	Rip new vent shaft roads	RIPPER	1	3.58	\$887.00
018	Rip (older) vent shaft pads	RIPPER	1	1.69	\$418.00
019	Rip portal pad and dump areas	RIPPER	1	8.11	\$2,009.00
020	Grade new vent shaft roads	DOZER	1	2.23	\$537.00
021	Grade (older) vent shaft roads	DOZER	1	1.38	\$331.00
022	Grade (older) vent shaft pads	DOZER	1	1.40	\$337.00
024	Carry topsoil up to pad for spreading	TRUCK1	1	3.95	\$1,165.00
025	Spread topsoil on pad	DOZER	1	1.37	\$329.00
026	Haul low grade ore underground	LOADER	4	152.36	\$48,487.00
027	Remove and backfill ore pad liner and gravel	LOADER	1	3.96	\$378.00
028	Revegetate (older) vent shaft pads and vent roads	REVEGE	1	4.00	\$3,007.00
029	Revegetate new vent shaft pads and vent roads	REVEGE	1	6.00	\$4,887.00
030	Revegetate "affected area" at portal pad and dump	REVEGE	1	24.00	\$41,349.00
031	Haul reclamation equipment to and from site	MOBILIZE	1	8.00	\$9,288.00
<u>SUBTOTALS:</u>				624.61	\$232,718

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$4,700.90

Performance bond:	1.05	Total =	<u>\$2,443.54</u>
Job superintendent:	341.21	Total =	<u>\$24,925.39</u>
Profit:	10.00	Total =	<u>\$23,271.80</u>
		TOTAL O & P =	<u>\$55,341.63</u>
		CONTRACT AMOUNT (direct + O & P) =	<u>\$288,059.63</u>

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>0.00</u>	Total =	<u>0.00</u>
Engineering work and/or contract/bid preparation:	<u>7.22</u>	Total =	<u>\$20,797.91</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$14,402.98</u>

CONTINGENCY:	3.00	Total =	<u>\$6,981.54</u>
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TOTAL INDIRECT COST =	<u>\$97,524.06</u>
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TOTAL BOND AMOUNT (direct + indirect) =	<u>\$330,242.06</u>
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DEMOLITION WORK

Task description: Demolition of structures, underground or onsite disposal

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-001

User: LJW

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
Warehouse/wash bay	44x16x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	4,884.00	CF	\$0.18	\$874.24
Auxiliary bldg.	14x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	2,800.00	CF	\$0.18	\$501.20
West shop	40x40x15	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	24,000.00	CF	\$0.18	\$4,296.00
Office and dry	50x36x15	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	27,000.00	CF	\$0.17	\$4,698.00
Small items warehouse	28x12x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	3,360.00	CF	\$0.17	\$584.64
Compressor bldg.	20x40x15	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	12,000.00	CF	\$0.17	\$2,088.00
Warehouse/wash bay slab	44x16	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	704.00	SF	\$0.41	\$286.53
Warehouse/wash bay ext. slab	19x19	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	361.00	SF	\$0.41	\$146.93
Auxiliary bldg. slab	14x20	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	280.00	SF	\$0.41	\$113.96
West shop slab	40x40	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	1,600.00	SF	\$0.41	\$651.20
West shop ext. (W) slab	36x36	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	1,296.00	SF	\$0.41	\$527.47

West shop sidewalk	4x36	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	144.00	SF	\$0.41	\$58.61
West shop ext. (S) slab	12x40	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	480.00	SF	\$0.41	\$195.36
East shop slab	41x35	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	1,435.00	SF	\$0.41	\$584.05
Attached storage slab	12x26	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	312.00	SF	\$0.41	\$126.98
Attached storage slab	12x12	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	144.00	SF	\$0.41	\$58.61
East shop ext. (W) slab	35x13	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	455.00	SF	\$0.41	\$185.19
Office and dry slab	50x36	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	1,800.00	SF	\$0.41	\$732.60
Office and dry sidewalk	90x4	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	360.00	SF	\$0.40	\$143.28
Small items warehouse slab	28x12	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	336.00	SF	\$0.40	\$133.73
Compressor bldg. slab	20x16	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	320.00	SF	\$0.40	\$127.36
Compressor bldg. slab	20x40	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	800.00	SF	\$0.40	\$318.40
Denison-owned powerlines	3800 LF single poles	Disposal of utility pole cross arms and hardware surplus material	3,800.00	LF	\$0.01	\$38.00
Misc debris/materials	50x60x10 mass	Push demolished materials/rubble/debris into pit - Max. 200 ft. push	1,111.00	CY	\$0.83	\$917.69
Denison-owned non-PCB transformers	20x20x48 inch	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	6.00	DRUM	\$614.14	\$3,684.84

Job Hours:	<u>32.00</u>	Subtotal (unadjusted):	<u>\$22,072.87</u>	Total Cost (adjusted for location):	<u>\$21,388.61</u>
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SAFEGUARDING UNDERGROUND OPENINGS

Task description: Portal closure (backfilling)

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-002

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Portal, backfill debris in adit	10x10	Adit closure - backfilling (per cu. yd.)	600.00	CY	\$27.00	\$16,200.00
Portal, backfill overburden/earth	10x10	Adit closure - backfilling (per cu. yd.)	111.00	CY	\$27.00	\$2,997.00

Job Hours: 40.00

Total Cost: \$19,197.00

BULLDOZER WORKTask description: Downhill dozing of waste dumpSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-003User: LJWAgency 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:	<u>\$100.59</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$87.23</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$10.94</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.85</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$240.61</u>	
Total Fleet Cost/Hour:	<u>\$481.21</u>	

MATERIAL QUANTITIESInitial Volume: 31,500Swell factor: 1.335Loose volume: 42,053 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 120 feetUnadjusted hourly
production: 1,093.1 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push
gradient: -25 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor****Source**

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:	0.800	(FND-RF)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6810

Adjusted unit
production: 744.40 LCY/hr

Adjusted fleet
production: 1488.8 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.323/LCY

Total job time: 28.25 Hours

Total job cost: \$13,592

BULLDOZER WORKTask description: Rough grading on top of pad and against cut faceSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-004User: LJWAgency 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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper own. Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$240.61	
Total Fleet Cost/Hour:	\$481.21	

MATERIAL QUANTITIESInitial Volume: 29,800Swell factor: 1.335Loose volume: 39,783 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly
production: 700.0 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push
gradient: 5 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor****Source**

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit
production: 283.92 LCY/hr

Adjusted fleet
production: 567.84 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.847/LCY

Total job time: 70.06 Hours

Total job cost: \$33,714

BULLDOZER WORKTask description: Lateral dozing of dump faceSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-005User: LJWAgency 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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper own. Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$240.61	
Total Fleet Cost/Hour:	\$481.21	

MATERIAL QUANTITIESInitial Volume: 9,750Swell factor: 1.335Loose volume: 13,016 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feetUnadjusted hourly
production: 910.5 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****Source**

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:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5503

Adjusted unit
production: 501.05 LCY/hr

Adjusted fleet
production: 1002.1 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.480/LCY

Total job time: 12.99 Hours

Total job cost: \$6,250

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-1

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 006

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-006

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-2

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 007

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-007

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-3

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 008

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-008

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-4

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 009

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-009

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-7

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 010

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-010

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-8

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 011

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-011

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-15

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 012

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-012

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	USER PROVIDED ITEM	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	USER PROVIDED ITEM	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	USER PROVIDED ITEM	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	USER PROVIDED ITEM	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	216.00	CF	\$6.67	\$1,440.72
Set location monument	NA	USER PROVIDED ITEM	1.00	EA	\$20.00	\$20.00

Job Hours: 24.00

Total Cost: \$3,098.22

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Install atmospheric bulkheads underground

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 014

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-014

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Underground workings	12x15	Adit closure - bulkhead seal (per opening)	1.00	EA	\$2,668.00	\$2,668.00

Job Hours: 48.00

Total Cost: \$2,668.00

BULLDOZER RIPPING WORK

Task description: Rip (older) vent shaft roads

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 015

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-015

User: LJW

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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper Ownership Cost/Hour:	\$10.94	NA
Ripper Operating Cost/Hour:	\$6.82	100
Operator Cost/Hour:	\$41.85	NA
Total Unit Cost/Hour:	\$247.43	
Total Fleet Cost/Hour:	\$247.43	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 1.18 acres

Rip Depth (ft): 1.00

Volume: 1,904

BCY or CCY

Source of estimated quantity: Permit file

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.891 Acres/hr

Site Altitude: 7,200 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 1.60 Hours

Unit cost: \$334.760 Per acre

Total job cost: \$395

BULLDOZER RIPPING WORK

Task description: Rip new vent shaft pads

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 016

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-016

User: LJW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 405

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper Ownership Cost/Hour:	\$10.94	NA
Ripper Operating Cost/Hour:	\$6.82	100
Operator Cost/Hour:	\$41.85	NA
Total Unit Cost/Hour:	\$247.43	
Total Fleet Cost/Hour:	\$247.43	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA
Area: 1.25 acres

Bank Volume: NA BCY
Rip Depth (ft): 1.00 Volume: 2,017 BCY or CCY

Source of estimated quantity: AM-2 (approved in 2007)

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.891</u>	Acres/hr
Site Altitude:	<u>7,200</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: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 1.69 Hours

Unit cost: \$334.760 Per acre

Total job cost: \$418

BULLDOZER RIPPING WORK

Task description: Rip new vent shaft roads

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 017

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-017

User: LJW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 405

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper Ownership Cost/Hour:	\$10.94	NA
Ripper Operating Cost/Hour:	\$6.82	100
Operator Cost/Hour:	\$41.85	NA
Total Unit Cost/Hour:	\$247.43	
Total Fleet Cost/Hour:	\$247.43	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 2.65 acres Rip Depth (ft): 1.00 Volume: 4,275 BCY or CCY

Source of estimated quantity: Amendment

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.00 mph
Average Ripping Width: 7.67 degrees
Average Ripping Length: 500.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.891 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.891 Acres/hr
Site Altitude: 7,200 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 3.59 Hours

Unit cost: \$334.760 Per acre Total job cost: \$887

BULLDOZER RIPPING WORK

Task description: Rip (older) vent shaft pads

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 018

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-018

User: LJW

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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper Ownership Cost/Hour:	\$10.94	NA
Ripper Operating Cost/Hour:	\$6.82	100
Operator Cost/Hour:	\$41.85	NA
Total Unit Cost/Hour:	\$247.43	
Total Fleet Cost/Hour:	\$247.43	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 1.25 acres

Rip Depth (ft): 1.00

Volume: 2,017

BCY or CCY

Source of estimated quantity: Permit file (7 vent shaft pads)

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.891 Acres/hr

Site Altitude: 7,200 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 1.69 Hours

Unit cost: \$334.760 Per acre

Total job cost: \$418

BULLDOZER RIPPING WORK

Task description: Rip portal pad and dump areas

Site: Sunday Mine

Permit Action: 2018 Update

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 019

State: Colorado

Abbreviation: None

Date: 4/3/2018

County: San Miguel

Filename: M285-019

User: LJW

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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper Ownership Cost/Hour:	\$10.94	NA
Ripper Operating Cost/Hour:	\$6.82	100
Operator Cost/Hour:	\$41.85	NA
Total Unit Cost/Hour:	\$247.43	
Total Fleet Cost/Hour:	\$247.43	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 6.00 acres

Rip Depth (ft): 1.00

Volume: 9,680

BCY or CCY

Source of estimated quantity: Permit file

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.891 Acres/hr

Site Altitude: 7,200 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 8.12 Hours

Unit cost: \$334.760 Per acre

Total job cost: \$2,009

BULLDOZER WORKTask description: Grade new vent shaft roadsSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 020State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-020User: LJWAgency 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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper own. Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$240.61	
Total Fleet Cost/Hour:	\$240.61	

MATERIAL QUANTITIESInitial Volume: 2,138Swell factor: 1.000Loose volume: 2,138 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: Loose stockpile 1.2Average push
gradient: 0 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor****Source**

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:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4539

Adjusted unit
production: 957.96 LCY/hr

Adjusted fleet
production: 957.96 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.251/LCY

Total job time: 2.23 Hours

Total job cost: \$537

BULLDOZER WORKTask description: Grade (older) vent shaft roadsSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 021State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-021User: LJWAgency 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:	<u>\$100.59</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$87.23</u>	<u>100</u>
Ripper own.		
Cost/Hour:	<u>\$10.94</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.85</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$240.61</u>	
Total Fleet Cost/Hour:	<u>\$240.61</u>	

MATERIAL QUANTITIESInitial Volume: 952Swell factor: 1.000Loose volume: 952 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: Loose stockpile 1.2Average push gradient: 5 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor****Source**

Operator Skill:	0.600	(POOR)
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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3279

Adjusted unit
production: 692.03 LCY/hr

Adjusted fleet
production: **692.03** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.348/LCY

Total job time: 1.38 Hours

Total job cost: **\$331**

BULLDOZER WORKTask description: Grade (older) vent shaft padsSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 022State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-022User: LJWAgency 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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper own. Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$240.61	
Total Fleet Cost/Hour:	\$240.61	

MATERIAL QUANTITIESInitial Volume: 1,210Swell factor: 1.000Loose volume: 1,210 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: Loose stockpile 1.2Average push
gradient: 5 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor****Source**

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4099

Adjusted unit
production: 865.09 LCY/hr

Adjusted fleet
production: 865.09 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.278/LCY

Total job time: 1.40 Hours

Total job cost: \$337

BULLDOZER WORKTask description: Grade new vent shaft padsSite: Sunday MinePermit Action: .2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 023State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-023User: LJWAgency 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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper own. Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$240.61	
Total Fleet Cost/Hour:	\$240.61	

MATERIAL QUANTITIESInitial Volume: 1,210Swell factor: 1.000Loose volume: 1,210 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: Loose stockpile 1.2Average push
gradient: 5 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor****Source**

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4099

Adjusted unit
production: 865.09 LCY/hr

Adjusted fleet
production: 865.09 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.278/LCY

Total job time: 1.40 Hours

Total job cost: \$337

TRUCK/LOADER TEAM WORKTask description: Carry topsoil up to pad for spreadingSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 024State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-024User: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

Equipment Description	
Truck Loader Team -Truck:	Generic 8-10 cy, 6x4
-Loader:	Cat 324D L 9'-8" Stick
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<u>Cost Breakdown:</u>	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$27.37	\$38.54	NA	NA	NA	NA
Operating cost/hour:	\$32.23	\$40.22	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$37.79	NA	NA	NA	NA
Unit Subtotals:	\$59.60	\$116.55	NA	NA	NA	NA
Number of Units:	3	1	0	0	0	0
Group Subtotals:	Work: \$295.35		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$295.35**MATERIAL QUANTITIES**Initial volume: 1,555

CCY

Swell factor: 1.000Loose volume: 1,555

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 2,550 Pounds/LCYDescription: Earth - Dry packedRated Payload: 27,280 Pounds

Payload Capacity: 10.70 LCYTruck Bed (volume) Basis:

Struck Volume: 8.00 LCY
 Heaped Volume: 10.00 LCY
 Average Volume: 9.00 LCY
 Adjusted Volume: 10.00 LCY

Final Truck Volume Based on Number of Loader Passes: 9.39 LCYLoading Tool CapacityBucket Size Class: Large

Rated Capacity: 2.980 LCY (heaped)
 Bucket Fill Factor: 1.050 Moist loam or sandy clay (100% - 110%) 1.050
 Adjusted Capacity: CADJC LCY

Job Condition Corrections:Site Altitude (ft.): CASA feet

	Truck	Loader	Source
Altitude Adj:	CACFR	CACFD	CACFS
Job Efficiency:	CJECFR	CJECFD	CACFS
Net Correction:	CNetCR	CNetCD	

Loading Tool Cycle Time:Number of Loading Tool Passes Required to Fill
Truck: CNLTPrFT passesExcavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: AVERAGE
 Selected Value within this Basic Rating: AVERAGE
 Track Loaders – Material Description: CTLMaterialDescription

Cycle Time Elements (min.):

Load: CLCTE Maneuver: CMCTE Dump: CDCTEWheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): CUBCTime minutes

Cycle Time Factors		Factor (min.)	Source
Material:	CCTmD	CCTMF	(Cat HB)
Stockpile:	CCTsD	CCTSF	(Cat HB)
Truck Ownership:	CCTToD	CCTTOF	(Cat HB)
Operation:	CCToD	CCTOF	(Cat HB)
Dump Target:	CCTdTD	CCTDTF	(Cat HB)
Net Cycle Time Adjustment:		CNCT	minutes
Adjusted Loader Cycle Time:		CABCT	minutes
Net Load Time per Truck:		CNLTPT	minutes

Truck Cycle Time:

Truck Exchange Time: CUTET Minutes Adjusted for site altitude: CATET Minutes
 Truck Load Time: CUTLT Minutes Adjusted for site altitude: CATLT Minutes
 Truck Maneuver and Dump Time: CUTMDt Minutes Adjusted for site altitude: CATMDt Minutes

Truck Travel (Haul & Return) Time:Road Condition: CRoadCondition

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)

Haul Time: CHTime minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)

Return Time: CRTime minutesTotal Truck Cycle Time: CTTCTime minutes

Loading Tool unit Production CLTUP LCY/Hour Adjusted for job efficiency: CALTUP LCY/Hour
 Truck Unit Production CTUP LCY/Hour Adjusted for job efficiency: CATUP LCY/Hour
 Optimal No. of Trucks: CTNS Truck(s) Selected Number of Trucks: CSNT Truck(s)
 Adjusted hourly truck team production: CAHTTP LCY/Hour
 Adjusted single truck/loader team production: CASTTP LCY/Hour
 Adjusted multiple truck/loader team production: CAMTTP LCY/Hour

JOB TIME AND COSTFleet size: CFLeet Team(s) Total job time: CTJT HoursUnit cost: CUnitCost /LCY Total job cost: CTJC

BULLDOZER WORKTask description: Spread topsoil on padSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 025State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-025User: LJWAgency 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:	\$100.59	NA
Operating Cost/Hour:	\$87.23	100
Ripper own.		
Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$240.61	
Total Fleet Cost/Hour:	\$240.61	

MATERIAL QUANTITIESInitial Volume: 1,555Swell factor: 1.000Loose volume: 1,555 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: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 7,200 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor****Source**

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:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5390

Adjusted unit
production: 1,137.56 LCY/hr
Adjusted fleet
production: **1137.56 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.212/LCY

Total job time: 1.37 Hours
Total job cost: **\$329**

WHEEL LOADER – LOAD AND CARRY WORKTask description: Haul low grade ore undergroundSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 026State: ColoradoAbbreviation: NoneDate: 4/5/2018County: San MiguelFilename: M285-026User: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 924HHorsepower: 128Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$18.14	NA
Operating Cost/Hour:	\$20.22	100
Operator Cost/Hour:	\$41.20	NA
Total Unit Cost/Hour:	\$79.56	
Total Fleet Cost/Hour:	\$318.23	

MATERIAL QUANTITIESInitial volume: 100,000

CCY

Swell factor: 1.000Loose volume: 100,000

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):

0.475

minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.050	minutes
Adjusted Basic Cycle Time:		0.425	minutes

Rolling Resistance – Road ConditionsHaul: Hard, smooth, stabilized, surfaced, watered, maintained 2.0Return: Hard, smooth, stabilized, surfaced, watered, maintained 2.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	400	0.00	2.00	2.00	0.1972	(Cat HB)
Return Route:	400	0.00	2.00	2.00	0.1972	(Cat HB)

Total Travel Time: 0.3945 minutes
Total Cycle Time: 0.8195 minutes

Load Bucket Capacity

Rated Capacity: 2.70 LCY (heaped)
Bucket Fill Factor: 1.000 Rock - Well Blasted (95%-105%) 1.000
Adjusted Capacity: 2.70 LCY

Job Condition Correction Factors

Site 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: 197.69 LCY/Hour
Adjusted Hourly Unit Production: 164.08 LCY/Hour
Adjusted Hourly Fleet Production: 656.32 LCY/Hour

JOB TIME AND COST

Fleet size: 4 Loader(s) Total job time: 152.37 Hours
Unit cost: \$0.485 /LCY Total job cost: \$48,487

WHEEL LOADER – LOAD AND CARRY WORKTask description: **Remove and backfill ore pad liner and gravel**Site: **Sunday Mine**Permit Action: **2018 Update**Permit/Job#: **M1977285****PROJECT IDENTIFICATION**Task #: **027**State: **Colorado**Abbreviation: **None**Date: **4/3/2018**County: **San Miguel**Filename: **M285-027**User: **LJW**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **CAT 950H high lift**Horsepower: **197**Attachment 1: **ROPS Cab**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	<u>\$25.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$28.79</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.20</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$95.37</u>	
Total Fleet Cost/Hour:	<u>\$95.37</u>	

MATERIAL QUANTITIESInitial volume: **556**

CCY

Swell factor: **1.060**Loose volume: **589**

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): **0.500** minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:		<u>-0.040</u>	minutes
Adjusted Basic Cycle Time:		<u>0.460</u>	minutes

Rolling Resistance – Road ConditionsHaul: **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:	<u>400</u>	<u>5.00</u>	<u>4.00</u>	<u>9.00</u>	<u>0.5019</u>	(Cat HB)

Return Route:	400	5.00	4.00	9.00	0.4418	(Cat HB)
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Total Travel Time:	0.9437	minutes
Total Cycle Time:	1.4037	minutes

Load Bucket Capacity

Rated Capacity:	4.30	LCY (heaped)
Bucket Fill Factor:	0.975	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	4.19	LCY

Job Condition Correction FactorsSite Altitude: 5800 feet

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

Unadjusted Hourly Unit Production:	179.21	LCY/Hour
Adjusted Hourly Unit Production:	148.74	LCY/Hour
Adjusted Hourly Fleet Production:	148.74	LCY/Hour

JOB TIME AND COST

Fleet size:	1	Loader(s)	Total job time:	3.96	Hours
Unit cost:	\$0.641	/LCY	Total job cost:	\$378	

REVEGETATION WORKTask description: Revegetate (older) vent shaft pads and vent roadsSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 028State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-028User: 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
Weed control spraying (MEANS 31 31 16.13 3100)	\$242.00
Total Tilling Cost/Acre	\$348.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost / Acre
Blue Grama - Native	0.96	15.67	\$13.92
Indian Ricegrass - Native	7.42	24.02	\$51.94
Sand Dropseed	0.14	16.71	\$1.52
Bottlebrush Squirreltail	4.08	17.98	\$95.88
Galleta	4.94	18.03	\$122.02
Muttongrass	0.20	4.13	\$6.91
Sagebrush, Mountain or Big	0.20	10.56	\$3.95
Saltbush, Four Wing	0.50	0.69	\$6.25
Winter Fat	0.50	1.27	\$10.25

Totals Seed Mix	18.94	109.07	\$312.63
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Application

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
			\$	\$
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:	2.4	Cost /Acre:	\$928.14
Estimated Failure Rate:	35%	Cost /Acre*:	\$928.14
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost:	\$2,227.54		
Reseeding Job Cost:	\$779.64		
Total Job Cost:	\$3,007		
Job Hours:	4.00		

REVEGETATION WORKTask description: Revegetate new vent shaft pads and vent roadsSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 029State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-029User: 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
Weed control spraying (MEANS 31 31 16.13 3100)	\$242.00
Total Tilling Cost/Acre	\$348.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost / Acre
Blue Grama - Native	0.96	15.67	\$13.92
Indian Ricegrass - Native	7.42	24.02	\$51.94
Sand Dropseed	0.14	16.71	\$1.52
Bottlebrush Squirreltail	4.08	17.98	\$95.88
Galleta	4.94	18.03	\$122.02
Muttongrass	0.20	4.13	\$6.91
Sagebrush, Mountain or Big	0.20	10.56	\$3.95
Saltbush, Four Wing	0.50	0.69	\$6.25
Winter Fat	0.50	1.27	\$10.25

Totals Seed Mix	18.94	109.07	\$312.63
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Application

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
			\$	\$
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: 3.9 Cost /Acre: \$928.14
 Estimated Failure Rate: 35% Cost /Acre*: \$928.14
 *Selected Replanting Work Items: TILLING,SEEDING
 Initial Job Cost: \$3,619.75
 Reseeding Job Cost: \$1,266.91
 Total Job Cost: \$4,887
 Job Hours: 6.00

REVEGETATION WORKTask description: Revegetate "affected area" at portal pad and dumpSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 030State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-030User: 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
Weed control spraying (MEANS 31 31 16.13 3100)	\$242.00
Total Tilling Cost/Acre	\$348.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$13.92
Indian Ricegrass - Native	7.42	24.02	\$51.94
Sand Dropseed	0.14	16.71	\$1.52
Bottlebrush Squirreltail	4.08	17.98	\$95.88
Galleta	4.94	18.03	\$122.02
Muttongrass	0.20	4.13	\$6.91
Sagebrush, Mountain or Big	0.20	10.56	\$3.95
Saltbush, Four Wing	0.50	0.69	\$6.25
Winter Fat	0.50	1.27	\$10.25

Totals Seed Mix	18.94	109.07	\$312.63
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Application

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
			\$	\$
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: 33 Cost /Acre: \$928.14
 Estimated Failure Rate: 35% Cost /Acre*: \$928.14
 *Selected Replanting Work Items: TILLING,SEEDING
 Initial Job Cost: \$30,628.62
 Reseeding Job Cost: \$10,720.02
 Total Job Cost: \$41,349
 Job Hours: 24.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Haul reclamation equipment to and from siteSite: Sunday MinePermit Action: 2018 UpdatePermit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 031State: ColoradoAbbreviation: NoneDate: 4/3/2018County: San MiguelFilename: M285-031User: LJWAgency 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:**

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 D9T - 9SU	60.01	\$100.59	\$125.45	2	\$452.08	\$250.90	\$250.00
Cat 324D L 9'-8" Stick	27.33	\$38.54	\$117.55	1	\$156.09	\$117.55	\$250.00
CAT 924H	12.69	\$18.14	\$88.67	4	\$427.24	\$354.68	\$250.00

Subtotals: **\$1,035.41** **\$723.13** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$30.89	1	\$30.89	\$30.89
Power Mulcher (Bowie LD-90)	\$21.31	1	\$21.31	\$21.31
Light Duty Pickup, 4x4, 3/4 T.	\$12.26	1	\$12.26	\$12.26

Subtotals: **\$64.46** **\$64.46**

EQUIPMENT HAUL DISTANCE and Time

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

Total Non-Roadable Mob/Demob Cost * \$9,158.72
 ** two round trips with haul rig:
Total Roadable Mob/Demob Cost ** \$128.92
 ** 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: 8.00 Hours

Total job cost: \$9,288