

COST SUMMARY WORK

Task description: Permit Renewal No. 9 Reclamation Cost Summary

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 00A

State: Colorado

Abbreviation: None

Date: 3/2/2021

County: Garfield

Filename: C004-00A

User: CCW

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01A	Regrade Mine Bench Areas and Reconstruct Ephemeral Drainages	DOZER	1	165.52	\$56,549
02A	Regrade Steep Slope Area South of Shop	EXCAVATE	1	15.74	\$2,234
03A	Recontour East Salt Creek Bridge Area	EXCAVATE	1	0.16	\$24
05A	Regrade Construction Material Stockpile	DOZER	1	2.98	\$1,017
06A	Spread and Compact Uncompacted Refuse Coal Mine Waste Pile	COMPACT	1	6.18	\$968
07A	Place Three Feet of Cover on Coal Mine Waste Pile	SCRAPER1	1	24.97	\$7,254
08A	Rip Backfilled and Rough Graded Areas	RIPPER	1	9.63	\$3,391
09A	Rip McClane to Munger Haul Road	RIPPER	1	0.69	\$243
10A	Rip Construction Material Stockpile	RIPPER	1	0.79	\$278
11A	Pull Main Haul Road Fill Material to Base of Cut Slope Bench	EXCAVATE	1	20.19	\$2,866
12A	Recontour Main Haul Road Surfaces	DOZER	1	32.12	\$10,974
13A	Recontour Main Haul Road Surfaces	DOZER	1	16.06	\$5,487
14A	Finish Grade All Backfilled Areas	GRADER	1	4.69	\$474
15A	Stream Channel Erosion Protection	NA	1	24.00	\$60,329
16A	Backfill and Regrade Sediment Pond, Drying Area and Office	DOZER	1	12.52	\$4,279
17A	Regrade Diversion Ditches	EXCAVATE	1	0.71	\$101
18A	Regrade Coal Mine Waste Pile Pond	DOZER	1	12.04	\$4,112
19A	Replace Topsoil from Stockpile to Mine Bench Area	SCRAPER1	1	5.90	\$1,715
20A	Replace Topsoil from Stockpile to Sediment Pond and Office	SCRAPER1	1	2.33	\$677
21A	Replace Topsoil from Stockpile to Road from McClane to Munger	SCRAPER1	1	4.92	\$1,430
22A	Replace Topsoil from Stockpile to Coal Mine Waste Pile	SCRAPER1	1	25.32	\$7,356
23A	Replace Topsoil from Stockpile to Coal Mine Waste Pile Pond	DOZER	1	3.58	\$1,222
25A	Replace Topsoil from Stockpile to Light Use Road	DOZER	1	4.46	\$1,524
26A	Seal and Backfill Portals	MINESEAL	1	160.00	\$28,576
27A	Seal Monitoring Well GW-1	BOREHOLE	1	6.00	\$1,014
28A	Demolish and Remove All Structures	DEMOLISH	1	330.00	\$82,906
29A	Juniper Woodland Seed Mix	REVEGE	1	5.00	\$5,924
30A	Shadescale Shrubland Seed Mix	REVEGE	1	3.00	\$2,954
31A	Greasewood Shrubland Seed Mix	REVEGE	1	10.00	\$11,089

32A	Reseed Coal Mine Waste Pile	REVEGE	1	9.50	\$10,534
33A	Reseed Coal Mine Waste Pile Pond	REVEGE	1	2.00	\$2,218
35A	Weed Spraying (Assume 1/3 of the Area 2 Times)	REVEGE	1	24.00	\$1,011
36A	Mobilize/Demobilize Equipment for Initial Reclamation	MOBILIZE	1	5.55	\$8,197
37A	Mobilize/Demobilize Equipment for Pond Removal	MOBILIZE	1	4.55	\$2,495
38A	Mobilize/Demobilize Equipment for Site Maintenance	MOBILIZE	1	9.55	\$9,100
39A	10 year site maintenance	SITEMAINT ENANCE	1	0.00	\$38,532
<u>SUBTOTALS:</u>				964.65	\$379,054

INDIRECT COSTS**OVERHEAD AND PROFIT:**

Liability insurance:	2.02	Total =	\$7,657
Performance bond:	1.05	Total =	\$3,980
Job superintendent:	482.32	Total =	\$33,545
Profit:	10.00	Total =	\$37,905
		TOTAL O & P =	\$83,088
		CONTRACT AMOUNT (direct + O & P) =	\$462,142

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	6.59	Total =	\$30,455
Reclamation management and/or administration:	4.89		\$22,599

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$136,642

TOTAL BOND AMOUNT (direct + indirect) = \$515,696

BULLDOZER WORKTask description: **Regrade Mine Bench Areas and Reconstruct Ephemeral Drainages**Site: **McClane Canyon Mine**Permit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 3/2/2021County: GarfieldFilename: C004-01AUser: CCWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D9T - 9SU
 Horsepower: 405
 Blade Type: Semi-Universal
 Attachment: 3-shank ripper
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$156.88</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$127.87</u>	<u>100</u>
Ripper own.		
Cost/Hour:	<u>\$15.59</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$341.63</u>	
Total Fleet Cost/Hour:	<u>\$341.63</u>	

MATERIAL QUANTITIES

Initial Volume: 41,810
 Swell factor: 1.165
 Loose volume: **48,709 LCY**

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**

Average push distance: 100 feet
 Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 15 %
 Average site altitude: 5,600 feet

Material weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% EarthJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2367

Adjusted unit
production: 294.27 LCY/hr
Adjusted fleet
production: **294.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.161/LCY

Total job time: **165.52** Hours
Total job cost: **\$56,549**

HYDRAULIC EXCAVATOR WORK

Task description: Regrade Steep Slope Area South of Shop

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 3/2/2021

County: Garfield

Filename: C004-02A

User: CCW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 324D L 9'-8" Stick

Attachment 1: ROPS Cab

Horsepower: 194

Weight (MT): 24.85

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$50.59	NA
Operating Cost/Hour:	\$54.04	100
Operator Cost/Hour:	\$37.32	NA
Total Unit Cost/Hour:	\$141.95	
Total Fleet Cost/Hour:	\$141.95	

MATERIAL QUANTITIES

Initial volume: 4,125

CCY

Swell factor: 1.250

Loose volume: 5,156

LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: BELOW AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.335 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 2.26 LCY (heaped)

Bucket Fill Factor: 0.975 Sand and gravel (95% - 100%) 0.975

Adjusted Capacity: 2.20 LCY

Job Condition Correction Factors

Site Altitude: 5600 feet

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

Unadjusted Hourly Unit Production: 394.66 LCY/Hour

Adjusted Hourly Unit Production: 327.57 LCY/Hour

Adjusted Hourly Fleet Production: 327.57 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 15.74 Hours

Unit cost: \$0.433 /LCY Total job cost: \$2,234

HYDRAULIC EXCAVATOR WORK

Task description: Recontour East Salt Creek Bridge Area

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 03A

State: Colorado

Abbreviation: None

Date: 3/2/2021

County: Garfield

Filename: C004-03A

User: CCW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 324D L 9'-8" Stick

Attachment 1: ROPS Cab

Horsepower: 194

Weight (MT): 24.85

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$50.59	NA
Operating Cost/Hour:	\$54.04	100
Operator Cost/Hour:	\$37.32	NA
Total Unit Cost/Hour:	\$141.95	
Total Fleet Cost/Hour:	\$141.95	

MATERIAL QUANTITIES

Initial volume: 50

CCY

Swell factor: 1.250

Loose volume: 63

LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description:	<u>AVERAGE</u>
Secondary Job Condition within Basic Description:	<u>AVERAGE</u>
Cycle Time Value:	<u>0.293</u> minutes

Load Bucket Capacity

Rated Capacity:	<u>2.26</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.975</u>	Sand and gravel (95% - 100%) <u>0.975</u>
Adjusted Capacity:	<u>2.20</u>	LCY

Bucket Size Class: Medium

Job Condition Correction Factors

Site Altitude: 5600 feet

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

Unadjusted Hourly Unit Production:	<u>451.23</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>374.52</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>374.52</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Excavator	Total job time:	<u>0.17</u>	Hours
Unit cost:	<u>\$0.379</u>	/LCY	Total job cost:	<u>\$24</u>	

BULLDOZER WORKTask description: **Regrade Construction Material Stockpile**Site: **McClane Canyon Mine**Permit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 3/3/2021County: GarfieldFilename: C004-05AUser: CCWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D9T - 9SU
 Horsepower: 405
 Blade Type: Semi-Universal
 Attachment: 3-shank ripper
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$156.88</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$127.87</u>	<u>100</u>
Ripper own.		
Cost/Hour:	<u>\$15.59</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$341.63</u>	
Total Fleet Cost/Hour:	<u>\$341.63</u>	

MATERIAL QUANTITIES

Initial Volume: 1,700
 Swell factor: 1.165
 Loose volume: **1,981 LCY**

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

HOURLY PRODUCTION

Average push distance: 60 feet
 Unadjusted hourly production: 1,872.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
 Average site altitude: 5,600 feet

Material weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% EarthJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3554

Adjusted unit
production: 665.31 LCY/hr
Adjusted fleet
production: **665.31** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.513/LCY

Total job time: **2.98** Hours
Total job cost: **\$1,017**

COMPACTION WORK

Task description: Spread and Compact Uncompacted Refuse Coal Mine Waste Pile

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 06A

State: Colorado

Abbreviation: None

Date: 3/3/2021

County: Garfield

Filename: C004-06A

User: CCW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 815F

Horsepower: 240

Compactor Type: Soil - tamping foot

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

Ownership Cost/Hour:	\$63.43	Utilization %	NA
Operating Cost/Hour:	\$67.04		100
Operator Cost/Hour:	\$26.02		NA
Total Unit Cost/Hour:	\$156.49		
Total Fleet Cost/Hour:	\$156.49		

MATERIAL QUANTITIES

Loose volume: 5,000

LCY

Shrinkage factor: 0.870

Compacted volume: **4,350**

CCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated shrinkage factor: Cat Handbook

HOURLY PRODUCTION

Unadjusted hourly production = $(W \times S \times L \times C) / P$

Compacted width per pass (W):	<u>6.50</u>	feet
Average Compactor Speed (S):	<u>4.00</u>	mph
Compacted thickness of each lift (L):	<u>10.00</u>	inches
Conversion Constant (C):	<u>16.3</u>	(5,280ft./12in./27cu.ft.)
Required number of machine passes (P):	<u>5</u>	passes
Unadjusted Hourly Unit Production:	<u>847.60</u>	CCY/hour

Job Condition Correction Factors

Site Altitude: 5,600 feet

Altitude Adj:	<u>1.00</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.8300</u>	(1 shift/day)
		multiplier

Adjusted Hourly Unit Production: 703.51 CCY/Hour

Adjusted Hourly Fleet Production: **703.51** CCY/Hour

JOB TIME AND COST

Fleet size: 1 Compactor(s)

Total job time: **6.18** Hours

Unit cost: \$0.222 per CCY

Total job cost: **\$968**

SCRAPER TEAM WORKTask description: **Place Three Feet of Cover on Coal Mine Waste Pile**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **07A**State: **Colorado**Abbreviation: **None**Date: **3/3/2021**County: **Garfield**Filename: **C004-07A**User: **CCW**Agency 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:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$109.10	NA	NA	NA	NA	NA
Operating cost/hour:	\$150.55	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$290.54	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$290.54	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$290.54****MATERIAL QUANTITIES**Initial volume: **7,500**

CCY

Swell factor: **1.250**Loose volume: **9,375**

LCY

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

Material weight:	<u>2,650 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Decomposed rock - 25% Rock, 75% Earth</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>19.92 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

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

Site Altitude: 5600 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	5.00	3.00	8.00	1381	0.79

Haul Time: 0.79 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	3.00	-2.00	2938	0.41

Return Time: 0.41 minutesTotal Scraper team cycle time: 2.50 minutesAdjusted for job conditions: 375.49 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 375.49 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 375.49 LCY/HourUnadjusted unit production/hour: 452.40 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 24.97 HoursUnit cost: \$0.774 /LCYTotal job cost: \$7,254

BULLDOZER RIPPING WORK

Task description: Rip Backfilled and Rough Graded Areas

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 08A

State: Colorado

Abbreviation: None

Date: 3/3/2021

County: Garfield

Filename: C004-08A

User: CCW

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:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper Ownership Cost/Hour:	\$15.59	NA
Ripper Operating Cost/Hour:	\$10.23	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$351.87	
Total Fleet Cost/Hour:	\$351.87	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 6.70 acres

Rip Depth (ft): 2.00

Volume: 21,619

BCY or CCY

Source of estimated quantity: Operator Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.63</u>	feet/pass
Average Ripping Width:	<u>7.67</u>	feet/pass
Average Ripping Length:	<u>200.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.838</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.838 Acres/hr

Site Altitude: 5,600 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.70 Acres/hr

Adjusted Hourly Fleet Production: **0.70** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: **9.64** Hours

Unit cost: \$506.158 Per acre

Total job cost: **\$3,391**

BULLDOZER RIPPING WORK

Task description: Rip McClane to Munger Haul Road

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 09A

State: Colorado

Abbreviation: None

Date: 3/4/2021

County: Garfield

Filename: C004-09A

User: CCW

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:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper Ownership Cost/Hour:	\$15.59	NA
Ripper Operating Cost/Hour:	\$10.23	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$351.87	
Total Fleet Cost/Hour:	\$351.87	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 0.48 acres

Rip Depth (ft): 2.00

Volume: 1,549

BCY or CCY

Source of estimated quantity: Figure 2-2-2; Operator Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.63</u>	feet/pass
Average Ripping Width:	<u>7.67</u>	feet/pass
Average Ripping Length:	<u>200.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.838</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.838 Acres/hr

Site Altitude: 5,600 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.70 Acres/hr

Adjusted Hourly Fleet Production: 0.70 Acres/hr

JOB TIME AND COST

Fleet size: 1

Grader(s)

Total job time: 0.69

Hours

Unit cost: \$506.158

Per acre

Total job cost: \$243

BULLDOZER RIPPING WORK

Task description: Rip Construction Material Stockpile

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 10A

State: Colorado

Abbreviation: None

Date: 3/4/2021

County: Garfield

Filename: C004-10A

User: CCW

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:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper Ownership Cost/Hour:	\$15.59	NA
Ripper Operating Cost/Hour:	\$10.23	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$351.87	
Total Fleet Cost/Hour:	\$351.87	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 0.50 acres

Rip Depth (ft): 2.00

Volume: 1,613

BCY or CCY

Source of estimated quantity: Figure 2.2-3

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.63</u>	feet/pass
Average Ripping Width:	<u>7.67</u>	feet/pass
Average Ripping Length:	<u>100.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.762</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.762 Acres/hr

Site Altitude: 5,600 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.63 Acres/hr

Adjusted Hourly Fleet Production: 0.63 Acres/hr

JOB TIME AND COST

Fleet size: 1

Grader(s)

Total job time: 0.79

Hours

Unit cost: \$556.317

Per acre

Total job cost: \$278

HYDRAULIC EXCAVATOR WORK

Task description: Pull Main Haul Road Fill Material to Base of Cut Slope Bench

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 11A

State: Colorado

Abbreviation: None

Date: 3/4/2021

County: Garfield

Filename: C004-11A

User: CCW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 324D L 9'-8" Stick

Attachment 1: ROPS Cab

Horsepower: 194

Weight (MT): 24.85

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$50.59	NA
Operating Cost/Hour:	\$54.04	100
Operator Cost/Hour:	\$37.32	NA
Total Unit Cost/Hour:	\$141.95	
Total Fleet Cost/Hour:	\$141.95	

MATERIAL QUANTITIES

Initial volume: 6,050

CCY

Swell factor: 1.250

Loose volume: 7,563

LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description:	<u>AVERAGE</u>
Secondary Job Condition within Basic Description:	<u>AVERAGE</u>
Cycle Time Value:	<u>0.293</u> minutes

Load Bucket Capacity

Rated Capacity:	<u>2.26</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.975</u>	Sand and gravel (95% - 100%) <u>0.975</u>
Adjusted Capacity:	<u>2.20</u>	LCY

Bucket Size Class: Medium

Job Condition Correction Factors

Site Altitude: 5600 feet

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

Unadjusted Hourly Unit Production:	<u>451.23</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>374.52</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>374.52</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Excavator	Total job time:	<u>20.19</u>	Hours
Unit cost:	<u>\$0.379</u>	/LCY	Total job cost:	<u>\$2,866</u>	

BULLDOZER WORKTask description: **Recontour Main Haul Road Surfaces**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **12A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-12A**User: **CCW**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper own.	\$15.59	NA
Cost/Hour:		
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$341.63**Total Fleet Cost/Hour: **\$341.63****MATERIAL QUANTITIES**Initial Volume: **9,577**Swell factor: **1.165**Loose volume: **11,157 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: **1,243.2 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **10 %**Average site altitude: **5,600 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2794

Adjusted unit
production: 347.35 LCY/hr
Adjusted fleet
production: **347.35** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.984/LCY

Total job time: **32.12** Hours
Total job cost: **\$10,974**

BULLDOZER WORKTask description: **Recontour Main Haul Road Surfaces**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **13A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-13A**User: **CCW**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper own.		
Cost/Hour:	\$15.59	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$341.63**Total Fleet Cost/Hour: **\$341.63****MATERIAL QUANTITIES**Initial Volume: **5,500**Swell factor: **1.165**Loose volume: **6,408 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: **1,243.2 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **5 %**Average site altitude: **5,600 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit
production: 398.94 LCY/hr
Adjusted fleet
production: **398.94** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.856/LCY

Total job time: **16.06** Hours
Total job cost: **\$5,487**

MOTOR GRADER WORK

Task description: Finish Grade All Backfilled Areas

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 14A

State: Colorado

Abbreviation: None

Date: 3/4/2021

County: Garfield

Filename: C004-14A

User: CCW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 12M

Horsepower: 158

Ripper Attachment: Multi-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$34.52	NA
Operating Cost/Hour:	\$35.50	100
Ripper Ownership Cost/Hour:	\$2.57	NA
Ripper Operating Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$28.56	NA
Total Unit Cost/Hour:	\$101.13	
Total Fleet Cost/Hour:	\$101.13	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 6.09 acres

Source of estimated acreage: Operator Estimate

HOURLY PRODUCTION

Average Grader Speed:	<u>1.50</u>	mph
Selected Application:	<u>Finish grading (0-2.5 mph) - 1.5</u>	
Selected Blade Angle:	<u>30</u>	degrees
Effective Blade Length:	<u>10.40</u>	feet
Width of blade overlap per pass:	<u>2.00</u>	feet
Net grading or ripping width per pass:	<u>8.40</u>	feet
Unadjusted Hourly Unit Production:	<u>1.5273</u>	acres/hour

Job Condition Correction Factors

Site Altitude: 5600 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.85</u>	(1sh/d, mod.)
Net Correction:	<u>0.8500</u>	multiplier

Adjusted Hourly Unit Production: 1.2982 acres/Hour

Adjusted Hourly Fleet Production: **1.2982** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.69** Hours

Unit cost: \$77.90 per acre Total job cost: **\$474**



March 4, 2021
C-1980-004

Task 015 – Stream Channel Erosion Protection **\$60,329.00**

Riprap protection for channel R-2, R-5, R-6 and R-8 require 650 cu. yrd of riprap for slope protection (from RS Means Building Construction Cost Data, 2020 Edition; Section 31 37 13.10 0200) has a cost of \$79.30/cubic yard.

$$(650 \text{ cu. yd.}) \times (\$79.30/\text{cu.yd.}) = \$51,545.00$$

Erosion blanket protection for channels R-1, R-3, R-4, R-7 and R-12 requires 1912 sq. yd. of blanket. The cost of the blanket including installation is \$1.79/sq. yd. (from RS Means Construction Cost Data, 2020 Edition; Section 31 25 14.16 0020).

$$(1,912 \text{ sq. yd.}) \times (\$1.79/\text{sq. yd.}) = \$3,422.48$$

$$\text{Total erosion control} = (\$51,545.00) + (\$3,422.48) = \$54,967.48$$

Using 1 Cat 324D L Excavator for 40 hours (from RS Means Construction Cost Data, 2019 Edition); \$134.03 x 40hrs = \$5,361.20

Stream Channel Erosion Protection – Total Cost

$$(\$54,967.48) + (\$5,361.20) = \$60,328.68$$



BULLDOZER WORKTask description: **Backfill and Regrade Sediment Pond, Drying Area and Office**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **16A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-16A**User: **CCW**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper own.	\$15.59	NA
Cost/Hour:		
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$341.63**Total Fleet Cost/Hour: **\$341.63****MATERIAL QUANTITIES**Initial Volume: **4,750**Swell factor: **1.165**Loose volume: **5,534 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: **1,243.2 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **0 %**Average site altitude: **5,600 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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: 0.3554

Adjusted unit
production: 441.83 LCY/hr
Adjusted fleet
production: **441.83** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.773/LCY

Total job time: **12.52** Hours
Total job cost: **\$4,279**

HYDRAULIC EXCAVATOR WORK

Task description: Regrade Diversion Ditches

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 17A

State: Colorado

Abbreviation: None

Date: 3/4/2021

County: Garfield

Filename: C004-17A

User: CCW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 324D L 9'-8" Stick

Attachment 1: ROPS Cab

Horsepower: 194

Weight (MT): 24.85

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$50.59	NA
Operating Cost/Hour:	\$54.04	100
Operator Cost/Hour:	\$37.32	NA
Total Unit Cost/Hour:	\$141.95	
Total Fleet Cost/Hour:	\$141.95	

MATERIAL QUANTITIES

Initial volume: 175

CCY

Swell factor: 1.330

Loose volume: 233

LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: BELOW AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.335 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 2.26 LCY (heaped)

Bucket Fill Factor: 0.975 Sand and gravel (95% - 100%) 0.975

Adjusted Capacity: 2.20 LCY

Job Condition Correction Factors

Site Altitude: 5600 feet

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

Unadjusted Hourly Unit Production: 394.66 LCY/Hour

Adjusted Hourly Unit Production: 327.57 LCY/Hour

Adjusted Hourly Fleet Production: 327.57 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 0.71 Hours

Unit cost: \$0.433 /LCY Total job cost: \$101

BULLDOZER WORKTask description: **Regrade Coal Mine Waste Pile Pond**Site: **McClane Canyon Mine**Permit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 18AState: ColoradoAbbreviation: NoneDate: 3/4/2021County: GarfieldFilename: C004-18AUser: CCWAgency 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:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper own.	\$15.59	NA
Cost/Hour:		
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$341.63Total Fleet Cost/Hour: **\$341.63****MATERIAL QUANTITIES**Initial Volume: 3,500Swell factor: 1.165Loose volume: **4,078 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 125 feetUnadjusted hourly production: 1,055.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 5 %Average site altitude: 5,600 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit
production: 338.74 LCY/hr
Adjusted fleet
production: **338.74** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.009/LCY

Total job time: **12.04** Hours
Total job cost: **\$4,112**

SCRAPER TEAM WORKTask description: **Replace Topsoil from Stockpile to Mine Bench Area**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **19A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-19A**User: **CCW**Agency 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:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$109.10	NA	NA	NA	NA	NA
Operating cost/hour:	\$150.55	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$290.54	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$290.54	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$290.54****MATERIAL QUANTITIES**Initial volume: **1,078**

CCY

Swell factor: **1.115**Loose volume: **1,202**

LCY

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

Material weight:	<u>2,100 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Loam</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>25.14 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

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

Site Altitude: 5600 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	2100.00	8.30	5.00	13.30	834	2.54

Haul Time: 2.54 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	-8.30	5.00	-3.30	2938	0.77

Return Time: 0.77 minutesTotal Scraper team cycle time: 4.61 minutesAdjusted for job conditions: 203.63 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 203.63 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 203.63 LCY/HourUnadjusted unit production/hour: 245.34 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 5.90 HoursUnit cost: \$1.427 /LCYTotal job cost: \$1,715

SCRAPER TEAM WORKTask description: **Replace Topsoil from Stockpile to Sediment Pond and Office**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **20A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-20A**User: **CCW**Agency 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:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$109.10	NA	NA	NA	NA	NA
Operating cost/hour:	\$150.55	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$290.54	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$290.54	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$290.54****MATERIAL QUANTITIES**Initial volume: **1,078**

CCY

Swell factor: **1.115**Loose volume: **1,202**

LCY

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

Material weight:	<u>2,100 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Loam</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>25.14 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

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

Site Altitude: 5600 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	300.00	0.00	5.00	5.00	2218	0.28

Haul Time: 0.28 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	0.00	5.00	5.00	2814	0.24

Return Time: 0.24 minutesTotal Scraper team cycle time: 1.82 minutesAdjusted for job conditions: 515.79 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 515.79 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 515.79 LCY/HourUnadjusted unit production/hour: 621.43 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 2.33 HoursUnit cost: \$0.563 /LCYTotal job cost: \$677

SCRAPER TEAM WORKTask description: **Replace Topsoil from Stockpile to Road from McClane to Munger**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **21A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-21A**User: **CCW**Agency 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:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$109.10	NA	NA	NA	NA	NA
Operating cost/hour:	\$150.55	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$290.54	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$290.54	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$290.54****MATERIAL QUANTITIES**Initial volume: **1,719**

CCY

Swell factor: **1.115**Loose volume: **1,917**

LCY

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

Material weight:	<u>2,100 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Loam</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>25.14 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

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

Site Altitude: 5600 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	850.00	4.00	5.00	9.00	1249	0.72

Haul Time: 0.72 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	850.00	-4.00	5.00	1.00	2913	0.39

Return Time: 0.39 minutesTotal Scraper team cycle time: 2.41 minutesAdjusted for job conditions: 389.51 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 389.51 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 389.51 LCY/HourUnadjusted unit production/hour: 469.29 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 4.92 HoursUnit cost: \$0.746 /LCYTotal job cost: \$1,430

SCRAPER TEAM WORKTask description: **Replace Topsoil from Stockpile to Coal Mine Waste Pile**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **22A**State: **Colorado**Abbreviation: **None**Date: **3/4/2021**County: **Garfield**Filename: **C004-22A**User: **CCW**Agency 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:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$109.10	NA	NA	NA	NA	NA
Operating cost/hour:	\$150.55	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$290.54	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$290.54	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$290.54****MATERIAL QUANTITIES**Initial volume: **7,760**

CCY

Swell factor: **1.230**Loose volume: **9,545**

LCY

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

Material weight:	<u>2,100 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Loam</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>25.14 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

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

Site Altitude: 5600 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	5.00	3.00	8.00	1381	0.78

Haul Time: 0.78 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	3.00	-2.00	2938	0.41

Return Time: 0.41 minutesTotal Scraper team cycle time: 2.49 minutesAdjusted for job conditions: 377.00 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 377.00 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 377.00 LCY/HourUnadjusted unit production/hour: 454.22 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 25.32 HoursUnit cost: \$0.771 /LCYTotal job cost: \$7,356

BULLDOZER WORKTask description: **Replace Topsoil from Stockpile to Coal Mine Waste Pile Pond**Site: **McClane Canyon Mine**Permit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 23AState: ColoradoAbbreviation: NoneDate: 3/4/2021County: GarfieldFilename: C004-23AUser: CCWAgency 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:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper own.		
Cost/Hour:	\$15.59	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$341.63Total Fleet Cost/Hour: **\$341.63****MATERIAL QUANTITIES**Initial Volume: 1,000Swell factor: 1.125Loose volume: **1,125 LCY**Source 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: 0 %Average site altitude: 5,600 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob Condition Correction FactorSource

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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4492

Adjusted unit production: 314.44 LCY/hr

Adjusted fleet production: **314.44** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.086/LCY

Total job time: **3.58** Hours

Total job cost: **\$1,222**

BULLDOZER WORKTask description: **Replace Topsoil from Stockpile to Light Use Road**Site: **McClane Canyon Mine**Permit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 25AState: ColoradoAbbreviation: NoneDate: 3/4/2021County: GarfieldFilename: C004-25AUser: CCWAgency 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:	\$156.88	NA
Operating Cost/Hour:	\$127.87	100
Ripper own.		
Cost/Hour:	\$15.59	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$341.63Total Fleet Cost/Hour: **\$341.63****MATERIAL QUANTITIES**Initial Volume: 2,000Swell factor: 1.125Loose volume: **2,250 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 5 %Average site altitude: 5,600 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob Condition Correction FactorSource

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: 504.24 LCY/hr
Adjusted fleet
production: **504.24** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.678/LCY

Total job time: **4.46** Hours
Total job cost: **\$1,524**

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Seal and Backfill Portals

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 26A

State: Colorado

Abbreviation: None

Date: 3/5/2021

County: Garfield

Filename: C004-26A

User: CCW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Seal Entry #1 (Main Roadway)	8'x20'	Aduit closure - bulkhead seal (per opening)	1.00	EA	\$4,730.00	\$4,730.00
Backfill Entry #1	8'x20'	Aduit closure - backfilling (per opening)	1.00	EA	\$2,105.30	\$2,105.30
Seal Entry #2 (Converyor Entry)	8'x20'	Aduit closure - bulkhead seal (per opening)	1.00	EA	\$4,730.00	\$4,730.00
Backfill Entry #2	8'x20'	Aduit closure - backfilling (per opening)	1.00	EA	\$2,105.30	\$2,105.30
Seal Entry #3 (Intake Entry)	8'x20'	Aduit closure - bulkhead seal (per opening)	1.00	EA	\$4,730.00	\$4,730.00
Backfill Entry #3	8'x20'	Aduit closure - backfilling (per opening)	1.00	EA	\$2,105.30	\$2,105.30
Seal Entry #4 (Renum Entry)	8'x20'	Aduit closure - bulkhead seal (per opening)	1.00	EA	\$4,730.00	\$4,730.00
Backfill Entry #4	8'x20'	Aduit closure - backfilling (per opening)	1.00	EA	\$2,105.30	\$2,105.30
Drain Pipe for Entry #4	100 LF	PVC drain pipe, 6 in. diameter (per ln. ft. incl. mat. & labor)	100.00	LF	\$12.35	\$1,235.00

Job Hours: 160.00

Total Cost: \$28,576.20

BOREHOLE SEALING WORK

Task description: Seal Monitoring Well GW-1

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 27A

State: Colorado

Abbreviation: None

Date: 3/5/2021

County: Garfield

Filename: C004-27A

User: CCW

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal GW-1	Portland cement grout (Bag, material cost only...94 lb. bag)	3"	18.5'	2.00	bag	\$15.95	\$31.90
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$35.50	\$35.50
- Drill Rige Time	SCHRAMM T450WS	NA	NA	2.00	EA	\$415.81	\$831.62
- Water Truck Time	Water Tanker, 2,500 Gal.	NA	NA	4.00	EA	\$28.84	\$115.36

Job Hours: 6.00

Total Cost: \$1,014.00

DEMOLITION WORK

Task description: Demolish and Remove All Structures

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 28A

State: Colorado

Abbreviation: None

Date: 3/5/2021

County: Garfield

Filename: C004-28A

User: CCW

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 98.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Trailer #1	10'x32'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,560.00	CF	\$0.21	\$527.36
Trailer #2	12'x54'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	5,184.00	CF	\$0.21	\$1,067.90
- Footers	2@3'x1.5'x54'	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft. - Max. 10,000 ft. haul	108.00	LF	\$7.51	\$811.08
Trailer #3	12'x54'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	5,184.00	CF	\$0.21	\$1,067.90
- Footers	2@3'x1.5'x54'	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft. - Max. 10,000 ft. haul	108.00	LF	\$7.51	\$811.08
Trailer #4	12'x54'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	5,184.00	CF	\$0.21	\$1,067.90
- Footers	2@3'x1.5'x54'	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft. - Max. 10,000 ft. haul	108.00	LF	\$7.51	\$811.08
Warehouse Trailer	8'x40'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,560.00	CF	\$0.21	\$527.36
Sasser Substation	12'x40'x10'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,800.00	CF	\$0.21	\$988.80
- Floor	10'x40'x6"	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	480.00	SF	\$0.84	\$400.80
- Footers	3'x1.5'x104 LF	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft. - Max. 10,000 ft. haul	104.00	LF	\$7.51	\$781.04

Line Power Substation	10'x20'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,600.00	CF	\$0.21	\$329.60
Crusher/Screeners	25'x15'x25'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	9,375.00	CF	\$0.21	\$1,931.25
- Wing Walls	2 (15'x8'x6")	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	240.00	SF	\$0.84	\$200.40
- Floor	10'x25'x6"	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	250.00	SF	\$0.84	\$208.75
Collection Conveyor	40 LF	Conveyor, Horizontal Belt 24" Belt, 41.5' Length	1.00	EA	\$2,225.00	\$2,225.00
Stacker Conveyor	110 LF	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	2.00	EA	\$2,975.00	\$5,950.00
10,000 Gallon Water Tank	10,000 Gallons	Excavate and load tank onto trailer, non-leaking - 9,000 gal. to 12,000 gal.	1.00	EA	\$1,245.00	\$1,245.00
Water/Septic Tank	3,750 Gallons	Excavate and load tank onto trailer, non-leaking - 3,000 gal. to 5,000 gal.	1.00	EA	\$583.50	\$583.50
3MV Substation	NA	Powerline or utility line - Structural Steel Box Type Frame Structure Dismantle and Dispose	1.00	EA	\$1,777.00	\$1,777.00
- Footers (6)	3'x1.5'x24 LF	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft. - Max. 10,000 ft. haul	24.00	LF	\$7.51	\$180.24
- Powerlines and Poles	2,200 LF	Utility Poles, Wood 35' - 45' high (each pole)	45.00	EA	\$282.00	\$12,690.00
2,000 Gallon Fuel Tank	2,000 Gallon	Excavate and load tank onto trailer, non-leaking - 3,000 gal. to 5,000 gal.	1.00	EA	\$583.50	\$583.50
- Remove Sludge from Tank Bottom	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$233.00	\$233.00
- Sludge Disposal	Assume 200 Gal	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	4.00	DRUM	\$587.78	\$2,351.12
- Clean Tank with CO2	30 Pounds	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	30.00	LB	\$1.89	\$56.70

- Haul Tank to Certified Dump	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Rock Dust Bin	24'x15' Diameter	Comprehensive storage tank removal, non-leaking - 3,000 to 5,000 gal. tank	1.00	EA	\$3,430.70	\$3,430.70
Shop Building	40'x80'x12'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	38,400.00	CF	\$0.21	\$7,910.40
- Floor	40'x80'x6"	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	3,200.00	SF	\$0.84	\$2,672.00
Mine Fan and Housing	8'x10'x30'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,400.00	CF	\$0.21	\$494.40
18" Culvert	230 LF	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	230.00	LF	\$5.39	\$1,238.78
24" Culvert	120 LF	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	120.00	LF	\$7.01	\$841.44
30" Culvert	100 LF	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	100.00	LF	\$9.04	\$904.00
36" Culvert	15 LF	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	15.00	LF	\$10.95	\$164.18
42" Culvert	160 LF	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	160.00	LF	\$16.00	\$2,559.52
48" Culvert	75 LF	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	75.00	LF	\$16.00	\$1,199.78
Fencing	330 LF	Fencing, chain link, including posts and fabric - to 6 ft. high	330.00	LF	\$2.68	\$884.40
Petroleum Contaminated Soil Removal	Assume 60 CY	Dispose of decontaminated soil - Average	60.00	CY	\$267.50	\$16,050.00
Removed Fiber Optic Line	2,370 LF	Utility Poles, Wood 20' to 0' high (each pole)	24.00	EA	\$235.50	\$5,652.00

Job Hours:	330.00	Subtotal	(unadjusted):	\$84,168.96	Total Cost	(adjusted for	location):	\$82,906.43
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REVEGETATION WORKTask description: **Juniper Woodland Seed Mix**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **29A**State: **Colorado**Abbreviation: **None**Date: **3/5/2021**County: **Garfield**Filename: **C004-29A**User: **CCW**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	250.00	pound	\$0.27	\$66.25
			Total Fertilizer Materials Cost/Acre	\$66.25

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$94.63
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$201.79

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.20	7.81	\$5.70
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Aster, Engleman's	0.25	1.19	\$48.50
Canby Bluegrass - Canbar	0.50	10.63	\$5.13
Sand Dropseed	0.10	11.94	\$0.98
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Russian Wildrye - Bozoisky	1.00	4.02	\$6.48
Black-eyed Susan	0.25	9.63	\$7.88
Galleta	1.00	3.65	\$22.35
Streambank Wheatgrass - Sodar	1.00	3.26	\$5.70

Mahogany, Mountain	2.00	2.71	\$73.61
Tall Wheatgrass - Jose	2.00	3.63	\$6.75
Western Wheatgrass - Arriba	1.50	3.79	\$9.75
Rabbitbrush, Rubber	0.25	3.72	\$16.07
Vetch, American	1.00	0.45	\$99.93
Sagebrush, Mountain or Big	0.04	2.11	\$0.79
Flax, Lewis Blue	0.50	3.32	\$8.25
Saltbush, Four Wing	1.00	1.38	\$12.50
Saltbush, Shadscale	1.00	1.49	\$10.00
Serviceberry	1.00	1.84	\$61.50
Sumac, Skunkbrush	1.50	0.70	\$31.50
Winter Fat	1.00	2.55	\$20.50
Penstemon, Palmer	0.25	5.53	\$13.63
Totals Seed Mix	19.84	94.25	\$492.34

Application

Description	Cost /Acre
Tractor spreader (MEANS 32 92 19.14 0100)	\$540.14
Total Seed Application Cost/Acre	\$540.14

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Power mulcher (MEANS 32 91 13.16 0350)	\$101.93
Total Mulch Application Cost/Acre	\$172.10

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: 2.5 Cost /Acre: \$2,111.65
 Estimated Failure Rate: 25% Cost /Acre*: \$1,032.48
 *Selected Replanting Work Items: SEEDING
 Initial Job Cost: \$5,279.13

Reseeding Job Cost:	\$645.30
Total Job Cost:	\$5,924
Job Hours:	5.00

REVEGETATION WORKTask description: Shadescale Shrubland Seed MixSite: McClane Canyon MinePermit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 30AState: ColoradoAbbreviation: NoneDate: 3/5/2021County: GarfieldFilename: C004-30AUser: CCWAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	250.00	pound	\$0.27	\$66.25
			Total Fertilizer Materials Cost/Acre	\$66.25

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$94.63
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$201.79

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.20	7.81	\$5.70
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Aster, Engleman's	0.13	0.62	\$25.22
Canby Bluegrass - Canbar	0.20	4.25	\$2.05
Sand Dropseed	0.10	11.94	\$0.98
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Russian Wildrye - Bozoisky	0.50	2.01	\$3.24
Black-eyed Susan	0.13	5.01	\$4.10
Galleta	1.00	3.65	\$22.35
Streambank Wheatgrass - Sodar	1.00	3.26	\$5.70

Tall Wheatgrass - Jose	1.00	1.81	\$3.38
Western Wheatgrass - Arriba	1.00	2.53	\$6.50
Rabbitbrush, Rubber	0.13	1.94	\$8.36
Sagebrush, Mountain or Big	0.03	1.58	\$0.59
Flax, Lewis Blue	0.25	1.66	\$4.13
Saltbush, Four Wing	1.50	2.07	\$18.75
Saltbush, Shadscale	1.50	2.24	\$15.00
Winter Fat	0.50	1.27	\$10.25
Penstemon, Palmer	0.13	2.87	\$7.09
Penstemon, Rocky Mountain	0.13	2.04	\$3.84
Totals Seed Mix	11.93	67.47	\$172.06

Application

Description	Cost /Acre
Tractor spreader (MEANS 32 92 19.14 0100)	\$540.14
Total Seed Application Cost/Acre	\$540.14

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Power mulcher (MEANS 32 91 13.16 0350)	\$101.93
Total Mulch Application Cost/Acre	\$172.10

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	1.5	Cost /Acre:	\$1,791.37
Estimated Failure Rate:	25%	Cost /Acre*:	\$712.20
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost:	\$2,687.06		
Reseeding Job Cost:	\$267.08		
Total Job Cost:	\$2,954		
Job Hours:	3.00		

REVEGETATION WORKTask description: **Greasewood Shrubland Seed Mix**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **31A**State: **Colorado**Abbreviation: **None**Date: **3/5/2021**County: **Garfield**Filename: **C004-31A**User: **CCW**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	250.00	pound	\$0.27	\$66.25
			Total Fertilizer Materials Cost/Acre	\$66.25

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$94.63
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$201.79

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.85
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Aster, Engelman's	0.13	0.62	\$25.22
Canby Bluegrass - Canbar	0.20	4.25	\$2.05
Sand Dropseed	0.05	5.97	\$0.49
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Russian Wildrye - Bozoisky	0.50	2.01	\$3.24
Black-eyed Susan	0.10	3.85	\$3.15
Galleta	1.00	3.65	\$22.35
Streambank Wheatgrass - Sodar	1.00	3.26	\$5.70

Tall Wheatgrass - Jose	1.50	2.72	\$5.06
Western Wheatgrass - Arriba	1.00	2.53	\$6.50
Rabbitbrush, Rubber	0.33	4.92	\$21.22
Vetch, American	1.50	0.68	\$149.89
Sagebrush, Mountain or Big	0.05	2.64	\$0.99
Flax, Lewis Blue	0.25	1.66	\$4.13
Saltbush, Four Wing	2.50	3.44	\$31.25
Saltbush, Shadscale	1.00	1.49	\$10.00
Winter Fat	1.50	3.82	\$30.75
Penstemon, Palmer	0.25	5.53	\$13.63
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Totals Seed Mix	15.71	69.77	\$370.69

Application

Application	
Description	Cost /Acre
Tractor spreader (MEANS 32 92 19.14 0100)	\$540.14
Total Seed Application Cost/Acre	\$540.14

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Power mulcher (MEANS 32 91 13.16 0350)	\$101.93
Total Mulch Application Cost/Acre	\$172.10

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:	<u>5</u>	Cost /Acre:	<u>\$1,990.00</u>
Estimated Failure Rate:	<u>25%</u>	Cost /Acre*:	<u>\$910.83</u>
*Selected Replanting Work Items:	<u>SEEDING</u>		
Initial Job Cost:	<u>\$9,950.00</u>		
Reseeding Job Cost:	<u>\$1,138.54</u>		
Total Job Cost:	<u>\$11,089</u>		

Job Hours: 10.00

REVEGETATION WORKTask description: **Reseed Coal Mine Waste Pile**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **32A**State: **Colorado**Abbreviation: **None**Date: **3/5/2021**County: **Garfield**Filename: **C004-32A**User: **CCW**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	250.00	pound	\$0.27	\$66.25
			Total Fertilizer Materials Cost/Acre	\$66.25

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$94.63
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$201.79

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.85
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Aster, Engleman's	0.13	0.62	\$25.22
Canby Bluegrass - Canbar	0.20	4.25	\$2.05
Sand Dropseed	0.05	5.97	\$0.49
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Russian Wildrye - Bozoisky	0.50	2.01	\$3.24
Black-eyed Susan	0.10	3.85	\$3.15
Galleta	1.00	3.65	\$22.35
Streambank Wheatgrass - Sodar	1.00	3.26	\$5.70

Tall Wheatgrass - Jose	1.50	2.72	\$5.06
Western Wheatgrass - Arriba	1.00	2.53	\$6.50
Rabbitbrush, Rubber	0.33	4.92	\$21.22
Vetch, American	1.50	0.68	\$149.89
Sagebrush, Mountain or Big	0.05	2.64	\$0.99
Flax, Lewis Blue	0.25	1.66	\$4.13
Saltbush, Four Wing	2.50	3.44	\$31.25
Saltbush, Shadscale	1.00	1.49	\$10.00
Winter Fat	1.50	3.82	\$30.75
Penstemon, Palmer	0.25	5.53	\$13.63
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Totals Seed Mix	15.71	69.77	\$370.69

Application

Description	Cost /Acre
Tractor spreader (MEANS 32 92 19.14 0100)	\$540.14
Total Seed Application Cost/Acre	\$540.14

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Power mulcher (MEANS 32 91 13.16 0350)	\$101.93
Total Mulch Application Cost/Acre	\$172.10

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres: 4.75 Cost /Acre: \$1,990.00
 Estimated Failure Rate: 25% Cost /Acre*: \$910.83
 *Selected Replanting Work Items: SEEDING

Initial Job Cost: **\$9,452.50**
 Reseeding Job Cost: **\$1,081.61**
 Total Job Cost: **\$10,534**

Job Hours: 9.50

REVEGETATION WORKTask description: **Reseed Coal Mine Waste Pile Pond**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **33A**State: **Colorado**Abbreviation: **None**Date: **3/5/2021**County: **Garfield**Filename: **C004-33A**User: **CCW**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	250.00	pound	\$0.27	\$66.25
			Total Fertilizer Materials Cost/Acre	\$66.25

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$94.63
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$201.79

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.85
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Aster, Engleman's	0.13	0.62	\$25.22
Canby Bluegrass - Canbar	0.20	4.25	\$2.05
Sand Dropseed	0.05	5.97	\$0.49
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Russian Wildrye - Bozoisky	0.50	2.01	\$3.24
Black-eyed Susan	0.10	3.85	\$3.15
Galleta	1.00	3.65	\$22.35
Streambank Wheatgrass - Sodar	1.00	3.26	\$5.70

Tall Wheatgrass - Jose	1.50	2.72	\$5.06
Western Wheatgrass - Arriba	1.00	2.53	\$6.50
Rabbitbrush, Rubber	0.33	4.92	\$21.22
Vetch, American	1.50	0.68	\$149.89
Sagebrush, Mountain or Big	0.05	2.64	\$0.99
Flax, Lewis Blue	0.25	1.66	\$4.13
Saltbush, Four Wing	2.50	3.44	\$31.25
Saltbush, Shadscale	1.00	1.49	\$10.00
Winter Fat	1.50	3.82	\$30.75
Penstemon, Palmer	0.25	5.53	\$13.63
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Totals Seed Mix	15.71	69.77	\$370.69

Application

Application	
Description	Cost /Acre
Tractor spreader (MEANS 32 92 19.14 0100)	\$540.14
Total Seed Application Cost/Acre	\$540.14

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Power mulcher (MEANS 32 91 13.16 0350)	\$101.93
Total Mulch Application Cost/Acre	\$172.10

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	1	Cost /Acre:	\$1,990.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$910.83
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost:	\$1,990.00		
Reseeding Job Cost:	\$227.71		
Total Job Cost:	\$2,218		

Job Hours: 2.00

REVEGETATION WORKTask description: Weed Spraying (Assume 1/3 of the Area 2 Times)Site: McClane Canyon MinePermit Action: RN9Permit/Job#: C1980004**PROJECT IDENTIFICATION**Task #: 35AState: ColoradoAbbreviation: NoneDate: 3/5/2021County: GarfieldFilename: C004-35AUser: CCWAgency 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
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	0.00	\$0.00

Application

Description	Cost /Acre
	\$

	Total Seed Application Cost/Acre	\$0.00
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MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Banvel @ 1.0 pt/ac	1.00	ACRE	\$8.66	\$8.66
Herbicide - Tordon 22K @ 1.0 pt/ac	1.00	ACRE	\$12.88	\$12.88
Total Mulch Materials Cost/Acre				\$21.54

Application

Application	
Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$62.72

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:	12	Cost /Acre:	\$84.26
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		
Initial Job Cost:	\$1,011.12		
Reseeding Job Cost:	\$0.00		
Total Job Cost:	\$1,011		
Job Hours:	24.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize/Demobilize Equipment for Initial Reclamation**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**

Task #: 36A State: Colorado Abbreviation: None
 Date: 3/5/2021 County: Garfield Filename: C004-36A
 User: CCW

Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**

Shift basis: 1 per day
 Cost Data Source: **CRG Data**

Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

NON ROADABLE EQUIPMENT:

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	\$156.88	\$141.54	1	\$298.42	\$141.54	\$250.00
ATLAS COPCO ROC D7-11,4.0 in.	0.00	\$71.15	\$67.39	1	\$138.54	\$67.39	\$250.00
Cat 324D L 9'-8" Stick	27.33	\$50.59	\$123.81	1	\$174.40	\$123.81	\$250.00
Cat 627G	41.80	\$109.10	\$123.81	1	\$232.91	\$123.81	\$250.00
CAT 12M	16.01	\$34.52	\$67.39	1	\$101.91	\$67.39	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00

Subtotals: **\$1,020.29** **\$591.33** **\$1,500.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$28.84	1	\$28.84	\$28.84
Fuel Tanker, 4x2, 170 HP	\$28.84	1	\$28.84	\$28.84
Lube Truck, 4x2, 190 HP	\$34.47	1	\$34.47	\$34.47
Flatbed Truck, 6x4, 45K GVW	\$50.03	1	\$50.03	\$50.03

Light Duty Pickup, 4x4, 1 T. Crew	\$21.48	1	\$21.48	\$21.48
Subtotals:			\$163.66	\$163.66

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: GRAND JUNCTION
 Total one-way travel distance: 40.00 miles
 Average Travel Speed: 45.00 mph

Total Non-Roadable Mob/Demob Cost * \$7,905.68
 * two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$290.95
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.89	0.89
Return Time (Hours):	0.89	0.89
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.78	1.78

JOB TIME AND COST

Total job time: 5.56 Hours

Total job cost: \$8,197

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize/Demobilize Equipment for Pond Removal**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **37A**State: **Colorado**Abbreviation: **None**Date: **3/5/2021**County: **Garfield**Filename: **C004-37A**User: **CCW**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

NON ROADABLE EQUIPMENT:

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	\$156.88	\$141.54	1	\$298.42	\$141.54	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00
Subtotals:					\$372.53	\$208.93	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$50.03	1	\$50.03	\$50.03
Subtotals:			\$50.03	\$50.03

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>40.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,406.24</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$88.94</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.89</u>	<u>0.89</u>
Return Time (Hours):	<u>0.89</u>	<u>0.89</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>2.28</u>	<u>1.78</u>

JOB TIME AND COST

Total job time:	<u>4.56</u>	Hours
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Total job cost:	<u>\$2,495</u>
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EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize/Demobilize Equipment for Site Maintenance**Site: **McClane Canyon Mine**Permit Action: **RN9**Permit/Job#: **C1980004****PROJECT IDENTIFICATION**Task #: **38A**State: **Colorado**Abbreviation: **None**Date: **3/5/2021**County: **Garfield**Filename: **C004-38A**User: **CCW**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

NON ROADABLE EQUIPMENT:

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 D3K LGP - 3P	9.20	\$27.78	\$67.39	10	\$951.70	\$673.90	\$250.00
Subtotals:					\$951.70	\$673.90	\$250.00

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>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>40.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$9,100.16</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>0.89</u>	<u>0.89</u>
Return Time (Hours):	<u>0.89</u>	<u>0.89</u>
Loading Time (Hours):	<u>1.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.50</u>	<u>NA</u>
Subtotals:	<u>4.78</u>	<u>1.78</u>

JOB TIME AND COST

Total job time:	<u>9.56</u>	Hours
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Total job cost:	<u>\$9,100</u>
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SITE MAINTENANCE

Task description: 10 year site maintenance

Site: McClane Canyon Mine

Permit Action: RN9

Permit/Job#: C1980004

PROJECT IDENTIFICATION

Task #: 39A

State: Colorado

Abbreviation: None

Date: 3/5/2021

County: Garfield

Filename: C004-39A

User: CCW

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Rill and Gullies and other site maintenance	40.00	Cat D3K LGP - 3P	400.00	EA	\$96.33	\$38,532.00

Job Hours: 0.00

Total Cost: \$38,532.00