

July 16, 2024

Bryan Jorgensen
Elam Construction
7057 West 2100 South
Salt Lake City, UT 84128



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

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Dillon Ranch Pit, Permit # M-1987-064, Reclamation Costs Update

Dear Operator:

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) for this site. Division calculations estimate the cost to reclaim the site to be \$39,999.00. This is an increase of \$8,880.93 over the \$31,118.07 currently held by the Division.

Within 15 days, please review the attached estimate and notify me if any calculation errors are noted.

If you require additional information, or have questions or concerns, please contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dustin Czapla".

Dustin Czapla
Environmental Protection Specialist
Division of Reclamation, Mining and Safety
Phone: (970) 433-8393



COST SUMMARY WORK

Task description: 2024-06-06 Update

Site: Dillon Ranch Pit

Permit Action: 2024-06-06

Permit/Job#: M1987064

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 6/6/2024

County: La Plata

Filename: M064-000

User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Remove structures and debris	DEMOLISH	1	5.00	\$3,695
02a	Grade Affected River Channel, remove haul road and dikes	DOZER	1	12.51	\$5,605
03a	Stabilize affected river bank	REVEGE	1	5.00	\$603
04a	Reduce Temporary Highwall to Final Slope	DOZER	1	4.53	\$2,031
06a	Haul Topsoil for Pond Banks	TRUCK1	1	6.40	\$1,841
07a	Spread Topsoil on Upper Slopes	DOZER	1	3.71	\$1,662
09a	Haul Topsoil for Road	TRUCK1	1	1.60	\$460
10a	Spread Topsoil n Haul Road	DOZER	1	0.93	\$416
11a	Rip compacted stockpile and haul areas	RIPPER	1	4.52	\$2,026
12a	Revegetation 7.6 acres	REVEGE	1	8.00	\$10,583
13a	Mobilize	MOBILIZE	1	4.70	\$2,710
<u>SUBTOTALS:</u>				56.9	\$31,632

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$639

Performance bond: 1.05

Total = \$332

Job superintendent: 28.45

Total = \$1,852

Profit: 10.00

Total = \$3,163

TOTAL O & P = \$5,986

CONTRACT AMOUNT (direct + O & P) = \$37,618

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 0.00

Total = \$0

Reclamation management and/or administration: 5.00

\$1,881

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$8,367

TOTAL BOND AMOUNT (direct + indirect) = \$39,999

DEMOLITION WORK

Task description: Remove structures and debris

Site: Dillon Ranch Pit

Permit Action: 2024-06-06

Permit/Job#: M1987064

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 6/6/2024

County: La Plata

Filename: M064-01a

User: DMC

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 91.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove culverts for the low water crossing	270'L CMP culvert	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	270.00	LF	\$12.39	\$3,345.22
Misc. debris	30'Lx10'Wx5'H	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	1,500.00	CF	\$0.46	\$688.80

Job Hours: 5.00

Subtotal
(unadjusted): \$4,034.02

Total Cost
(adjusted for location): \$3,695.16

BULLDOZER WORKTask description: Grade Affected River Channel, remove haul road and dikesSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-02aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.45</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$448.16Total Fleet Cost/Hour: \$448.16**MATERIAL QUANTITIES**Initial Volume: 5,556Swell factor: 1.000Loose volume: 5,556 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 6,560 feetMaterial weight: 3,250 lbs/LCYWeight description: Gravel - Pitrun**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.900</u>	<u>(CAT HB))</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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

Net correction: 0.3173

Adjusted unit production: 444.22 LCY/hr

Adjusted fleet production: **444.22** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.009/LCY

Total job time: **12.51** Hours

Total job cost: **\$5,605**

REVEGETATION WORKTask description: Stabilize affected river bankSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064PROJECT IDENTIFICATIONTask #: 03AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-03aUser: DMCAgency or organization name: DRMSFERTILIZING**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
			\$	\$
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
Cottonwood, Narrowleaf	86	Tubling, 10 cu. in. container {(MEANS)}	\$2.14	\$0.00	\$184.04
Willow, Sandbar	170	Tubling, 10 cu. in. container {(MEANS)}	\$2.14	\$0.00	\$363.80
Totals Nursery Stock Cost / Acre					\$547.84

JOB TIME AND COST

No. of Acres:	1	Cost /Acre:	\$547.84
Estimated Failure Rate:	10%	Cost /Acre*:	\$547.84
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$547.84
Reseeding Job Cost:	\$54.78
Total Job Cost:	\$603
Job Hours:	5.00

BULLDOZER WORKTask description: Reduce Temporary Highwall to Final SlopeSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-04aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.45</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$448.16Total Fleet Cost/Hour: \$448.16**MATERIAL QUANTITIES**Initial Volume: 1,333Swell factor: 1.330Loose volume: 1,773 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 10 %Average site altitude: 6,560 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.900</u>	<u>(CAT HB))</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 391.16 LCY/hr

Adjusted fleet production: **391.16** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.146/LCY

Total job time: **4.53** Hours

Total job cost: **\$2,031**

TRUCK/LOADER TEAM WORKTask description: Haul Topsoil for Pond BanksSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064PROJECT IDENTIFICATIONTask #: 06AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-06aUser: DMCAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

		Equipment Description
Truck Loader Team -Truck:		Generic 8-10 cy, 6x4
-Loader:		CAT 966H
Support Equipment -Load Area:		NA
-Dump Area:		NA
Road Maintenance -Motor Grader:		NA
-Water Truck:		NA

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$16.85	\$65.69	NA	NA	NA	NA
Operating cost/hour:	\$49.69	\$48.09	NA	NA	NA	NA
%Utilization-ripper:	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	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$66.54	\$154.49	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$287.57		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$287.57MATERIAL QUANTITIESInitial volume: 2,200

CCY

Swell factor: 1.000Loose volume: 2,200

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550

Pounds/LCY

Description: Earth - Dry packedRated Payload: 27,280

Pounds

Payload Capacity: 10.70

LCY

Truck 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: 5.25 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050
Adjusted Capacity:	5.250	LCY

Job Condition Corrections:

Site Altitude (ft.): 6580 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 1 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader 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:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Loader Cycle Time:		0.510	minutes
Net Load Time per Truck:		0.100	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.100	Minutes	Adjusted for site altitude:	0.100	Minutes
Truck Maneuver and Dump Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes

Truck Travel (Haul & Return) Time:
penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	30.00	0.00	5.00	5.00	2218	0.083

Haul Time: **0.083** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	30.00	0.00	5.00	5.00	2814	0.039

Return Time: **0.039** minutesTotal Truck Cycle Time: **1.522** minutes

Loading Tool unit
 Production 525.00 LCY/Hour
 Truck Unit Production
206.96 LCY/Hour
 Optimal No. of Trucks: 3 Truck(s)

Adjusted for job efficiency: 435.75 LCY/Hour
 Adjusted for job efficiency: 171.78 LCY/Hour
 Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 343.56 LCY/Hour
 Adjusted single truck/loader team production: 343.56 LCY/Hour
 Adjusted multiple truck/loader team production: **343.56** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **6.40** Hours
 Unit cost: \$0.837 /LCY Total job cost: **\$1,841**

BULLDOZER WORKTask description: Spread Topsoil on Upper SlopesSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064**PROJECT IDENTIFICATION**Task #: 07AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-07aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.45</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$448.16Total Fleet Cost/Hour: \$448.16**MATERIAL QUANTITIES**Initial Volume: 2,200Swell factor: 1.000Loose volume: 2,200 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 10 %Average site altitude: 6,560 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4237

Adjusted unit production: 593.18 LCY/hr

Adjusted fleet production: **593.18** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.756/LCY

Total job time: **3.71** Hours

Total job cost: **\$1,662**

TRUCK/LOADER TEAM WORKTask description: Haul Topsoil for RoadSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064PROJECT IDENTIFICATIONTask #: 09AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-09aUser: DMCAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

		Equipment Description
Truck Loader Team -Truck:		Generic 8-10 cy, 6x4
-Loader:		CAT 966H
Support Equipment -Load Area:		NA
-Dump Area:		NA
Road Maintenance -Motor Grader:		NA
-Water Truck:		NA

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$16.85	\$65.69	NA	NA	NA	NA
Operating cost/hour:	\$49.69	\$48.09	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	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$66.54	\$154.49	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$287.57		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$287.57MATERIAL QUANTITIESInitial volume: 550

CCY

Swell factor: 1.000Loose volume: 550

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550

Pounds/LCY

Description: Earth - Dry packedRated Payload: 27,280

Pounds

Payload Capacity: 10.70

LCY

Truck 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: 5.25 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050
Adjusted Capacity:	5.250	LCY

Job Condition Corrections:

Site Altitude (ft.): 6580 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 1 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader 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:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Loader Cycle Time:		0.510	minutes
Net Load Time per Truck:		0.100	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.100	Minutes	Adjusted for site altitude:	0.100	Minutes
Truck Maneuver and Dump Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes

Truck Travel (Haul & Return) Time:
penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	30.00	0.00	5.00	5.00	2218	0.083

Haul Time: **0.083** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	30.00	0.00	5.00	5.00	2814	0.039

Return Time: **0.039** minutesTotal Truck Cycle Time: **1.522** minutes

Loading Tool unit
 Production 525.00 LCY/Hour Adjusted for job efficiency: 435.75 LCY/Hour
 Truck Unit Production 206.96 LCY/Hour Adjusted for job efficiency: 171.78 LCY/Hour
 Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 2 Truck(s)
 Adjusted hourly truck team production: 343.56 LCY/Hour
 Adjusted single truck/loader team production: 343.56 LCY/Hour
 Adjusted multiple truck/loader team production: **343.56** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **1.60** Hours
 Unit cost: \$0.837 /LCY Total job cost: **\$460**

BULLDOZER WORKTask description: Spread Topsoil n Haul RoadSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064**PROJECT IDENTIFICATION**Task #: 10AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-10aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.45</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$448.16Total Fleet Cost/Hour: **\$448.16****MATERIAL QUANTITIES**Initial Volume: 550Swell factor: 1.000Loose volume: **550 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 10 %Average site altitude: 6,560 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4237

Adjusted unit production: 593.18 LCY/hr

Adjusted fleet production: **593.18** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.756/LCY

Total job time: **0.93** Hours

Total job cost: **\$416**

BULLDOZER RIPPING WORK

Task description: Rip compacted stockpile and haul areas

Site: Dillon Ranch Pit Permit Action: 2024-06-06 Permit/Job#: M1987064

PROJECT IDENTIFICATION

Task #: 11A State: Colorado Abbreviation: None
Date: 6/6/2024 County: La Plata Filename: M064-11a
User: DMC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper Ownership Cost/Hour:	\$14.11	NA
Ripper Operating Cost/Hour:	\$7.45	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$448.16	
Total Fleet Cost/Hour:	\$448.16	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 3.00 acres Rip Depth (ft): 1.50 Volume: 7,260 BCY or CCY

Source of estimated quantity: Reclamation Plan

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 1.50 feet/pass
Average Ripping Width: 7.08 feet/pass
Average Ripping Length: 300.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.800 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.800 Acres/hr
Site Altitude: 6,580 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.66 Acres/hr
Adjusted Hourly Fleet Production: **0.66** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.52** Hours

Unit cost: \$675.321 Per acre Total job cost: **\$2,026**

REVEGETATION WORKTask description: Revegetation 7.6 acresSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064PROJECT IDENTIFICATIONTask #: 12AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-12aUser: DMCAgency or organization name: DRMSFERTILIZING**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)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	2.04	6.60	\$18.11
Orchardgrass - Paiute	0.64	7.93	\$2.61
Slender Wheatgrass - San Luis	1.87	6.83	\$7.95
Meadow Foxtail - Garrison	0.48	6.39	\$3.50
Western Wheatgrass - Arriba	2.72	6.87	\$17.68
Needle and Thread	2.72	7.18	\$113.83
Totals Seed Mix	10.47	41.80	\$163.67

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$429.79	\$429.79
Total Mulch Materials Cost/Acre				\$429.79

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$74.46
Power mulcher (MEANS 32 91 13.16 0350)	\$147.67
Total Mulch Application Cost/Acre	\$222.13

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:	7.6	Cost /Acre:	\$1,160.41
Estimated Failure Rate:	20%	Cost /Acre*:	\$1,160.41
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		
Initial Job Cost:	\$8,819.12		
Reseeding Job Cost:	\$1,763.82		
Total Job Cost:	\$10,583		
Job Hours:	8.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: MobilizeSite: Dillon Ranch PitPermit Action: 2024-06-06Permit/Job#: M1987064PROJECT IDENTIFICATIONTask #: 13AState: ColoradoAbbreviation: NoneDate: 6/6/2024County: La PlataFilename: M064-13aUser: DMCAgency or organization name: DRMSEQUIPMENT TRANSPORT RIG COSTShift 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:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

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 D8T - 8SU	53.08	\$255.49	\$175.95	1	\$431.44	\$175.95	\$0.00
CAT 966H	25.80	\$65.69	\$82.29	1	\$147.98	\$82.29	\$0.00
Subtotals:					\$579.42	\$258.24	\$0.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 8-10 cy, 6x4	\$98.45	2	\$196.90	\$196.90
Light Duty Pickup, 4x4, 3/4 T.	\$15.83	1	\$15.83	\$15.83
Drill/Broadcast Seeder with Tractor	\$14.81	1	\$14.81	\$14.81
Power Mulcher (Bowie LD-90)	\$57.02	1	\$57.02	\$57.02
Subtotals:			\$284.56	\$284.56

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>DURANGO</u>	
Total one-way travel distance:	<u>7.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,610.86</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$99.60</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.18</u>	<u>0.18</u>
Return Time (Hours):	<u>0.18</u>	<u>0.18</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>2.35</u>	<u>0.35</u>

JOB TIME AND COST

Total job time:	<u>4.70</u>	Hours
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Total job cost:	<u>\$2,710</u>
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