

September 6, 2023

Thomas O'Rourke  
O'Rourke Excavating, Inc.  
140 Daniel Lane  
South Fork, CO 81154



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

1313 Sherman Street, Room 215  
Denver, CO 80203

***RE: O'Rourke South Fork Pit, Permit No. M-2014-005, Notice of Surety Increase (SI-1)***

Dear Mr. O'Rourke:

On September 6, 2023 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$17,202. Per rule 4.2.1 of the Rules and Regulations, the Financial Warranty is periodically updated to ensure that the Division holds a sufficient sum to cover the cost of reclamation. The increase in the Financial Warranty is due to the increases in the cost of fuel, equipment, and labor since the last update.

Staff calculations estimate the cost to reclaim the above referenced site to be \$17,202. This is an increase of \$6,795.08 over the \$10,406.92 currently held by the Division. This estimate is based on conditions observed during the April 12, 2023 inspection.

**The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, must be submitted within 60 days from the date of this letter.**

Please make arrangements with Sara M Stevenson-Benn at the Division of Reclamation, Mining and Safety Denver Office (phone no. 303.866.3567, ext. 8148 or by email at [sara.stevenson-benn@state.co.us](mailto:sara.stevenson-benn@state.co.us)) for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara Stevenson-Benn.

If you require additional information, or have questions or concerns, please contact me by phone (720) 688-0626 or by email at [todd.jesse@state.co.us](mailto:todd.jesse@state.co.us)

Sincerely,

**Todd Jesse**

Environmental Protection Specialist  
Department of Natural Resources  
Division of Reclamation, Mining and Safety  
101 South 3<sup>rd</sup>, Suite 301  
Grand Junction, CO 81501  
Phone: (720) 688-0626

Enc: Financial Warranty Cost Estimate



## COST SUMMARY WORK

Task description: Summary

Site: O'Rourke South Fork Pit

Permit Action: SI 2023

Permit/Job#: M2014005

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 6/13/2023

County: Rio Grande

Filename: M005-000

User: TJ1

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Dispose of debris	DEMOLISH	1	8.00	\$82
002	Reduce slope to 3:1	DOZER	1	6.00	\$1,661
003	Rip compaction	RIPPER	1	6.02	\$1,713
004	Replace topsoil on graded areas	DOZER	1	4.02	\$1,113
005	Revegetate disturbed area	REVEGE	1	16.00	\$7,096
006	Haul reclamation equipment to and from site	MOBILIZE	1	4.00	\$1,073
<b><u>SUBTOTALS:</u></b>				<b>44.04</b>	<b>\$12,738</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$257
Performance bond:	1.05	Total =	\$134
Job superintendent:	20.01	Total =	\$1,503
Profit:	10.00	Total =	\$1,274
		TOTAL O & P =	\$3,168
		CONTRACT AMOUNT (direct + O & P) =	\$15,906

#### 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		\$795

CONTINGENCY: 0.00                      Total = \$0

TOTAL INDIRECT COST = \$4,464

**TOTAL BOND AMOUNT (direct + indirect) = \$17,202**

## DEMOLITION WORK

Task description: Dispose of debris

Site: O'Rourke, South Fork pit

Permit Action: SI 2023

Permit/Job#: M2014005

### PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 6/13/2023

County: Rio Grande

Filename: M005-001

User: TJ1

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
Push inert debris into pit	30 cy	Push demolished materials/rubble/debris into pit - Max. 100 ft. push	30.00	CY	\$1.06	\$31.77
Excavate disposal pit for debris	30 cy	Excavate disposal pit with dozer (includes completed pit backfilling/grading)	30.00	CY	\$1.92	\$57.60

Job Hours: 8.00

Subtotal  
(unadjusted): \$89.37

Total Cost  
(adjusted for location): \$81.86

**BULLDOZER WORK**Task description: **Reduce slope to 3:1**Site: **O'Rourke, South Fork pit**Permit Action: **SI 2023**Permit/Job#: **M2014005****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **6/13/2023**County: **Rio Grande**Filename: **M005-002**User: **TJ1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own.	\$13.10	NA
Cost/Hour:		
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$276.88**Total Fleet Cost/Hour: **\$276.88****MATERIAL QUANTITIES**Initial Volume: **2,500**Swell factor: **1.330**Loose volume: **3,325 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **70 feet**Unadjusted hourly production: **1,093.7 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-20 %**Average site altitude: **8,200 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:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5068

Adjusted unit  
production: 554.29 LCY/hr  
Adjusted fleet  
production: **554.29** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.500/LCY

Total job time: **6.00** Hours  
Total job cost: **\$1,661**

## BULLDOZER RIPPING WORK

Task description: Rip compaction

Site: O'Rourke, South Fork pit

Permit Action: SI 2023

Permit/Job#: M2014005

### PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 6/13/2023

County: Rio Grande

Filename: M005-003

User: TJ1

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:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper Ownership Cost/Hour:	\$13.10	NA
Ripper Operating Cost/Hour:	\$7.30	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$284.18	
Total Fleet Cost/Hour:	<b>\$284.18</b>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 4.00 acres

Rip Depth (ft): 1.00

Volume: 6,453 BCY or CCY

Source of estimated quantity: 4 acres disturbed area

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.56</u>	feet/pass
Average Ripping Width:	<u>7.08</u>	feet/pass
Average Ripping Length:	<u>300.00</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>0.800</u>	acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.800 Acres/hr

Site Altitude: 8,200 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.66 Acres/hr

Adjusted Hourly Fleet Production: 0.66 Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 6.03 Hours

Unit cost: \$428.224 Per acre Total job cost: \$1,713



**BULLDOZER WORK**Task description: **Replace topsoil on graded areas**Site: **O'Rourke, South Fork pit**Permit Action: **SI 2023**Permit/Job#: **M2014005****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **6/13/2023**County: **Rio Grande**Filename: **M005-004**User: **TJ1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own.	\$13.10	NA
Cost/Hour:		
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$276.88**Total Fleet Cost/Hour: **\$276.88****MATERIAL QUANTITIES**Initial Volume: **1,613**Swell factor: **1.125**Loose volume: **1,815 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: **852.6 LCY/hr**Materials consistency description: **Partly consolidated stockpile 1.1**Average push gradient: **-10 %**Average site altitude: **8,200 feet**Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed****Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5296

Adjusted unit  
production: 451.54 LCY/hr  
Adjusted fleet  
production: **451.54** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.613/LCY

Total job time: **4.02** Hours  
Total job cost: **\$1,113**

**REVEGETATION WORK**Task description: Revegetate disturbed areaSite: O'Rourke, South Fork pitPermit Action: SI 2023Permit/Job#: M2014005**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 6/13/2023County: Rio GrandeFilename: M005-005User: TJ1Agency or organization name: DRMS**FERTILIZING****Materials**

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

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Weed control spraying (MEANS 31 31 16.13 3100)	\$290.40
<b>Total Tilling Cost/Acre</b>	<b>\$407.58</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	2.50	8.09	\$22.19
Crested Wheatgrass - Fairway	3.00	13.77	\$12.08
Russian Wildrye - Bozoisky	1.50	6.03	\$9.72
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
<b>Totals Seed Mix</b>	<b>11.00</b>	<b>37.99</b>	<b>\$69.98</b>

**Application**

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

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

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

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres:	8	Cost /Acre:	\$709.56
Estimated Failure Rate:	25%	Cost /Acre*:	\$709.56
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		
Initial Job Cost:	<b>\$5,676.48</b>		
Reseeding Job Cost:	<b>\$1,419.12</b>		
Total Job Cost:	<b>\$7,096</b>		
Job Hours:	<b>16.00</b>		

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Haul reclamation equipment to and from site**Site: **O'Rourke, South Fork pit**Permit Action: **SI 2023**Permit/Job#: **M2014005****PROJECT IDENTIFICATION**Task #: **006**State: **Colorado**Abbreviation: **None**Date: **6/13/2023**County: **Rio Grande**Filename: **M005-006**User: **TJ1**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,  
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT  
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

**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	47.71	\$124.85	\$101.82	1	\$226.67	\$101.82	\$0.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$0.00

Subtotals: **\$301.14** **\$170.04** **\$0.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
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Subtotals: **\$0.00** **\$0.00**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>MONTE VISTA</u>	
Total one-way travel distance:	<u>25.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,073.46</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>0.50</u>	<u>0.50</u>
Return Time (Hours):	<u>0.50</u>	<u>0.50</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.00</u>	<u>1.00</u>

**JOB TIME AND COST**

Total job time:	<u>4.00</u>	Hours
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Total job cost:	<u>\$1,073</u>
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