

**STATE OF  
COLORADO****Girardi - DNR, Chris** <chris.girardi@state.co.us>

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## Rodeo Dunes 112(c) Application- Reclamation Cost Estimate

1 message

**Girardi - DNR, Chris** <chris.girardi@state.co.us>

Fri, Jan 10, 2025 at 11:37 AM

To: Claire Starling &lt;cstarling@holsingerlaw.com&gt;, Tony Waldron &lt;HyWal94@gmail.com&gt;

Cc: Kent Holsinger &lt;kholsinger@holsingerlaw.com&gt;, "John Dietzler (jdietzler@dietzlerco.com)" &lt;jdietzler@dietzlerco.com&gt;, Jared Ebert - DNR &lt;jared.ebert@state.co.us&gt;

Hello,

Attached to this email is the Division's Cost Estimate to complete reclamation at the proposed 112(c) application.

Please be advised that the Application Decision Date is January 12, 2025. If you would like additional time to review the Division's Cost Estimate, please request an extension of the Application Decision Date.

Please let me know if you have any questions.

Thanks,

Chris Girardi

Environmental Protection Specialist Intern

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

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[chris.girardi@state.us.co](mailto:chris.girardi@state.us.co) | <https://drms.colorado.gov/>**RodeoDunesMine\_M2024049\_CostEstimate.pdf**

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## COST SUMMARY WORK

Task description: Reclamation

Site: Rodeo Dunes Mine

Permit Action: New App

Permit/Job#: M2024049

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 1/10/2025

County: Weld

Filename: M049-000

User: CMG

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demolition	DEMOLISH	1	80.00	\$111,124
002a	Remove Road Base	DOZER	1	2.85	\$979
002b	Grading and reject sand replacement	DOZER	1	26.23	\$8,857
003	Spread Topsoil	DOZER	1	59.59	\$20,119
004	Revegetation	REVEGE	1	50.00	\$97,620
005	Mobilization to Site	MOBILIZE	1	6.50	\$7,656
006	CoProp Pit, M-2023-022, 110c Permit Reclamation Bond	NA	1	129.47	\$39,400
<b><u>SUBTOTALS:</u></b>				<b>354.64</b>	<b>\$285,755</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$5,772

Performance bond: 1.05

Total = \$3,000

Job superintendent: 177.32

Total = \$14,056

Profit: 10.00

Total = \$28,576

TOTAL O & P = \$51,404

CONTRACT AMOUNT (direct + O & P) = \$337,159

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$14,329

Reclamation management and/or administration: 4.89

\$16,487

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$82,720

**TOTAL BOND AMOUNT (direct + indirect) = \$368,475**

DEMOLITION WORK

Task description: Demolition

Site: Rodeo Dunes Mine Permit Action: New App Permit/Job#: M2024049

**PROJECT IDENTIFICATION**

Task #: 001 State: Colorado Abbreviation: None  
Date: 1/10/2025 County: Weld Filename: M049-001  
User: CMG

Agency or organization name: DRMS

**UNIT COSTS** Location adjustment: 89.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Drum Dryer - 40 CY Reinforced	40 CY	Pavement, concrete, demolition only, 7 in. to 24 in. thick - Reinforced	40.00	CY	\$151.50	\$6,060.00
Drum Dryer - 40 CY Flatwork	40 CY	Pavement, concrete, demolition only, 7 in. to 24 in. thick - No reinforcing	40.00	CY	\$110.50	\$4,420.00
Screeners - 60CY Reinforced	60 CY	Pavement, concrete, demolition only, 7 in. to 24 in. thick - Reinforced	60.00	CY	\$151.50	\$9,090.00
Stockpile Base - 750 CY Flatwork	750 CY	Pavement, concrete, demolition only, 7 in. to 24 in. thick - No reinforcing	750.00	CY	\$110.50	\$82,875.00
Loadout System - 30 CY Reinforced	30 CY	Pavement, concrete, demolition only, 7 in. to 24 in. thick - Reinforced	30.00	CY	\$151.50	\$4,545.00
Loadout System - 16 CY Flatwork	16 CY	Pavement, concrete, demolition only, 7 in. to 24 in. thick - No reinforcing	16.00	CY	\$110.50	\$1,768.00
Disposal	936 CY	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	1,560.00	MI	\$10.14	\$15,820.58

Job Hours:	<u>80.00</u>	Subtotal (unadjusted):	<u>\$124,578.58</u>	Total Cost (adjusted for location):	<u>\$111,124.09</u>
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## BULLDOZER WORK

Task description: Remove Road Base

Site: Rodeo Dunes Mine

Permit Action: New App

Permit/Job#: M2024049

### PROJECT IDENTIFICATION

Task #: 002A

State: Colorado

Abbreviation: None

Date: 1/8/2025

County: Weld

Filename: M049-002a

User: CMG

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:	\$173.32	NA
Operating Cost/Hour:	\$109.71	100
Ripper own. Cost/Hour:	\$14.53	NA
Ripper op. Cost/Hour:	\$6.36	80
Operator Cost/Hour:	\$40.04	NA
Total unit Cost/Hour:	\$343.96	
Total Fleet Cost/Hour:	<b>\$343.96</b>	

### MATERIAL QUANTITIES

Initial Volume: 740

Swell factor: 1.165

Loose volume: 862 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: Compacted fill or embankment 0.9

Average push  
gradient: 0 %

Average site altitude: 4,760 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor

		<u>Source</u>
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: 303.01 LCY/hr

Adjusted fleet  
production: **303.01** LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$1.135/LCY

Total job time: **2.85** Hours

Total job cost: **\$979**

## BULLDOZER WORK

Task description: Grading and reject sand replacement

Site: Rodeo Dunes Mine Permit Action: New App Permit/Job#: M2024049

### PROJECT IDENTIFICATION

Task #: 002B State: Colorado Abbreviation: None  
Date: 1/8/2025 County: Weld Filename: M049-002b  
User: CMG

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: <u>\$173.32</u>	<u>NA</u>
Operating Cost/Hour: <u>\$109.71</u>	<u>100</u>
Ripper own. Cost/Hour: <u>\$14.53</u>	<u>NA</u>
Ripper op. Cost/Hour: <u>\$0.00</u>	<u>0</u>
Operator Cost/Hour: <u>\$40.04</u>	<u>NA</u>
Total unit Cost/Hour: <u>\$337.60</u>	
Total Fleet Cost/Hour: <u>\$337.60</u>	

### MATERIAL QUANTITIES

Initial Volume: 10,000  
Swell factor: 1.060  
Loose volume: 10,600 LCY

Source of estimated volume: Applicant  
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: 5 %  
Average site altitude: 4,760 feet

Material weight: 2,400 lbs/LCY

Weight description:      Sand - Dry, loose

<u>Job Condition</u>	<u>Correction Factor</u>	<u>Source</u>
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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction:                      0.4739

Adjusted unit  
production:                      404.05 LCY/hr

Adjusted fleet  
production:                      **404.05** LCY/hr

#### **JOB TIME AND COST**

Fleet size:                      1 Dozer(s)

Unit cost:                      \$0.836/LCY

Total job time:                      **26.23** Hours

Total job cost:                      **\$8,857**

## BULLDOZER WORK

Task description: Spread Topsoil

Site: Rodeo Dunes Mine Permit Action: New App Permit/Job#: M2024049

### PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None  
Date: 1/8/2025 County: Weld Filename: M049-003  
User: CMG

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:	<u>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.53</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$337.60</u>	
Total Fleet Cost/Hour:	<u>\$337.60</u>	

### MATERIAL QUANTITIES

Initial Volume: 32,000  
Swell factor: 1.000  
Loose volume: 32,000 LCY

Source of estimated volume: Provided by Applicant  
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: 0 %  
Average site altitude: 4,760 feet

Material weight: 2,400 lbs/LCY



Weight description:      Sand - Dry, loose

<u>Job Condition</u>	<u>Correction Factor</u>	<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.200	(SLOT)
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:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction:                      0.6298

Adjusted unit  
production:                      536.97 LCY/hr

Adjusted fleet  
production:                      **536.97** LCY/hr

#### **JOB TIME AND COST**

Fleet size:                      1 Dozer(s)

Unit cost:                      \$0.629/LCY

Total job time:                      **59.59** Hours

Total job cost:                      **\$20,119**

## REVEGETATION WORK

Task description: Revegetation

Site: Rodeo Dunes Mine Permit Action: New App Permit/Job#: M2024049

### PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None  
Date: 1/6/2025 County: Weld Filename: M049-004  
User: CMG

Agency or organization name: DRMS

### FERTILIZING

#### **Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Manure, material purchase only, no delivery, ton	20.00	ton	\$8.50	\$170.00
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$170.00</b>

#### **Application**

Description	Cost /Acre
Manure, tractor spreader (MEANS 32 91 13.23 4450)	\$77.10
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$77.10</b>

### TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
<b>Total Tilling Cost/Acre</b>	<b>\$117.61</b>

### SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indiangrass - Cheyenne	1.50	4.57	\$18.46
Indian Ricegrass - Paloma	1.00	3.24	\$20.53
Switchgrass - Pathfinder	0.50	4.47	\$6.73
Little Bluestem - Native	0.50	2.98	\$7.70
Sideoats Grama - Butte	1.50	4.92	\$36.23
Sand Bluestem - Garden Co.	2.00	5.19	\$48.45
Coneflower, Prairie	0.30	8.15	\$10.68
Thickspike Wheatgrass - Critana	0.30	1.06	\$2.44
Prairie Sandreed - Goshen	1.50	9.40	\$25.54
<b>Totals Seed Mix</b>	<b>9.10</b>	<b>43.99</b>	<b>\$176.77</b>

**Application**

<b>Description</b>	<b>Cost /Acre</b>
Drill Seeding (DRMS Survey Cost)	\$236.64
<b>Total Seed Application Cost/Acre</b>	<b>\$236.64</b>

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

<b>Description</b>	<b>Units / Acre</b>	<b>Unit</b>	<b>Cost / Unit</b>	<b>Cost /Acre</b>
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
<b>Total Mulch Materials Cost/Acre</b>				<b>\$985.56</b>

**Application**

<b>Description</b>	<b>Cost /Acre</b>
Crimping, with tractor {DMG survey data}	\$85.37
<b>Total Mulch Application Cost/Acre</b>	<b>\$85.37</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres:	50	Cost /Acre:	\$1,849.05
Estimated Failure Rate:	25%	Cost /Acre*:	\$413.41
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	<b>\$92,452.50</b>
Reseeding Job Cost:	<b>\$5,167.63</b>
Total Job Cost:	<b>\$97,620</b>
Job Hours:	<b>50.00</b>

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mobilization to Site

Site: Rodeo Dunes Mine Permit Action: New App Permit/Job#: M2024049

**PROJECT IDENTIFICATION**

Task #: 005 State: Colorado Abbreviation: None  
Date: 1/6/2025 County: Weld Filename: M049-006  
User: CMG

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:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

**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
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	2	\$200.92	\$118.88	\$500.00
Power Mulcher (Bowie LD-90)	6.00	\$27.21	\$59.44	1	\$86.65	\$59.44	\$250.00
Cat D8T - 8SU	53.08	\$187.85	\$125.64	1	\$313.49	\$125.64	\$250.00
CAT 953D	17.10	\$68.69	\$59.44	1	\$128.13	\$59.44	\$250.00

Subtotals: 

<b>\$729.19</b>	<b>\$363.40</b>	<b>\$1,250.00</b>
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**ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$24.60	2	\$49.20	\$49.20
Lube Truck, 4x2, 190 HP	\$41.41	1	\$41.41	\$41.41
Fuel Tanker, 4x2, 170 HP	\$34.10	1	\$34.10	\$34.10
Generic 12-18 cy, 6x4	\$114.77	5	\$573.85	\$573.85

Subtotals: 

<b>\$698.56</b>	<b>\$698.56</b>
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**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>GARDEN CITY</u>	
Total one-way travel distance:	<u>25.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph
 Total Non-Roadable Mob/Demob Cost *	 <u>\$6,782.50</u>	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	<u>\$873.20</u>	
** one round trip, no haul rig:		

**Transportation Cycle Time:**

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.63</u>	<u>0.63</u>
Return Time (Hours):	<u>0.63</u>	<u>0.63</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>3.25</u>	<u>1.25</u>

**JOB TIME AND COST**

Total job time:	<u>6.50</u>	Hours
Total job cost:	<u>\$7,656</u>	

### **CoProp Pit No.1, M-2023-022: Reclamation Liability**

**Task 006-** Incorporating the existing CoProp Pit No.1 Reclamation Liability into the Rodeo Dunes Reclamation Liability Cost

- Current Bond held for **\$39,400.00**