

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

Rodeo Dunes 112(c) Application- Reclamation Cost Estimate

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

Mon, Jan 13, 2025 at 12:27 PM

To: Claire Starling <cstarling@holsingerlaw.com>

Cc: Tony Waldron <HyWal94@gmail.com>, Kent Holsinger <kholsinger@holsingerlaw.com>, "John Dietzler (jdietzler@dietzlerco.com)" <jdietzler@dietzlerco.com>, Jared Ebert - DNR <jared.ebert@state.co.us>

Hello Claire,

Attached to this email is the Division's Revised Cost Estimate per our conversations from Friday afternoon. I was able to lower the costs for some of the flatwork concrete tasks and revised the administrative costs to NOT take into account reclamation liability for the 110c CoProp Pit No.1 permit as that bond amount already has administrative costs factored in.

Please let me know if you have any questions or agree regarding the cost estimate.

Thanks,
Chris

Chris Girardi**Environmental Protection Specialist Intern****COLORADO**
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P: (720) 793-3041

Physical: 1313 Sherman Street, Room 215, Denver, CO 80203

Mailing: DRMS Room 215, 1001 E 62nd Ave, Denver, CO 80216

chris.girardi@state.us.co | <https://drms.colorado.gov/>

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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: 12/10/2024

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	\$92,706
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
006	Mobilization to Site	MOBILIZE	1	6.50	\$7,656
<u>SUBTOTALS:</u>				225.17	\$227,937

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 112.59
Profit: 10.00

Total = \$4,604
Total = \$2,393
Total = \$8,925
Total = \$22,794
TOTAL O & P = \$38,716

CONTRACT AMOUNT (direct + O & P) = \$266,653

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500
Engineering work and/or contract/bid preparation: 4.25
Reclamation management and/or administration: 4.89

Total = \$500
Total = \$11,333
Total = \$13,039

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$63,588

112c TOTAL BOND AMOUNT (direct + indirect) = **\$291,525**

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

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

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

TOTAL BOND AMOUNT (direct + indirect +110c bond) = \$330,925

DEMOLITION WORKTask 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 or 233 SY Flatwork	233 SY	Pavement, concrete, demolition only, to 6 in. thick - Mesh reinforcing	233.00	SY	\$14.25	\$3,320.25
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 or 4444 SY Flatwork	4444 SY	Pavement, concrete, demolition only, to 6 in. thick - Mesh reinforcing	4,444.00	SY	\$14.25	\$63,327.00
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: **80.00** Subtotal (unadjusted): **\$103,930.83** Total Cost (adjusted for location): **\$92,706.30**

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:	<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>\$6.36</u>	<u>80</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$343.96</u>	
Total Fleet Cost/Hour:	<u>\$343.96</u>	

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

<u>Job Condition</u>	<u>Correction Factor</u>	<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:	\$173.32	NA
Operating Cost/Hour:	\$109.71	100
Ripper own. Cost/Hour:	\$14.53	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour:	\$337.60
Total Fleet Cost/Hour:	\$337.60

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
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Average push gradient:	0 %
Average site altitude:	4,760 feet

Material weight:	2,400 lbs/LCY
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Weight description:	Sand - Dry, loose
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<u>Job Condition 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
			Total Fertilizer Materials Cost/Acre	\$170.00

Application

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

TILLING

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

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
Totals Seed Mix	9.10	43.99	\$176.77

Application

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

MULCHING and MISCELLANEOUS**Materials**

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

Application

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

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:	50	Cost /Acre:	\$1,849.05
Estimated Failure Rate:	25%	Cost /Acre*:	\$413.41
*Selected Replanting Work Items:	SEEDING		

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

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization to Site**

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

PROJECT IDENTIFICATION

Task #: **006** 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:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
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:

\$729.19	\$363.40	\$1,250.00
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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:

\$698.56

\$698.56
