


MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Mooney 5804 Altura Pit	MINE/PROSPECTING ID#: M-2010-012	MINERAL: Sand and gravel	COUNTY: Las Animas
INSPECTION TYPE: Monitoring	INSPECTOR(S): Daniel Cunningham	INSP. DATE: May 14, 2020	INSP. TIME: 13:00
OPERATOR: All-Rite Paving & Redi-Mix, Inc.	OPERATOR REPRESENTATIVE: Phil Crumb	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$63,600.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 4, 2020	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>NA</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>NA</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>NA</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(RS) RECL PLAN/COMP-- <u>NA</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>NA</u>	(ST) STIPULATIONS----- <u>NA</u>

(AT) ACID OR TOXIC MATERIALS----- N (OD) OFF-SITE DAMAGE-----NA

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

This was a routine monitoring inspection conducted at the Mooney 5804 Altura Pit by DRMS representative DJ Cunningham. Phil Crumb was also present during the inspection. This site is an active, 114.95 acre, 112c permit held by All-Rite Paving and Redi-Mix. The site was not active during the inspection.

The site identification sign was posted at the mine site entrance and the permit boundary was marked, however several of the boundary marker had been knocked over and need to be reset. Topsoil has been stripped and is placed in a berm around the edge of the mesa. There was no evidence of erosion along the side of the mesa or anywhere else on the permit. All mined slopes have been graded to 3H:1V. The Operator stated that they are currently moving into phase 2 of the 3 phases the mine is planned for.

During the inspection the Operator asked about combining the M2010-012 permit with the M2007-007 permit which touches the eastern side of the permit. If the Operator wishes to continue it is the recommendation of the Division that the Operator submit an amendment to include the affected area of M2007-007. Once the amendment is approved the Operator can submit a Performance and Financial Warranty Release Request Form and the Division would approve it.

The Division currently holds a corporate surety in the amount of \$63,600.00. Based on the observations made during this inspection, the Division estimates the reclamation liability at the site to be \$73,098.00. Enclosed is a copy of the Division's reclamation cost estimate. The Division requests that the Operator review the enclosed cost estimate and forward any questions or concerns to DRMS staff by June 9, 2020. The Division may issue a surety increase after June 9, 2020. If so, the Operator will have sixty days from the date of the surety increase notice to submit the required surety increase in accordance with Rule 4.2.1(2).

PHOTOGRAPHS



Photo 1: Entrance Sign



Photo 2: Boundary Marker



Photo 3: Topsoil

Inspection Contact Address

Phil Crum

All-Rite Paving & Redi-Mix, Inc.

P.O. Box 841

Canon City, CO 81215

Enclosure: DRMS Bond Calculation

CC:

COST SUMMARY WORK

Task description: **Total Cost**

Site: **Mooney 5804 Altura Pit**

Permit Action: 2020 Bond Calculation

Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 000
Date: 5/26/2020
User: DC1

State: Colorado
County: Las Animas

Abbreviation: None
Filename: M012-000

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Spread 4 inches of topsoil on 32 acres	SCRAPER1	1	15.76	\$9,677
002	Final grading of topsoil	GRADER	1	20.54	\$3,896
003	Grade highwalls	DOZER	1	2.96	\$728
004	Revegetate 32 acres	REVEGE	1	63.00	\$35,285
005	Mobilization and demobilization	MOBILIZE	1	1.71	\$3,236
006	Road maintenance	MISCTRUK	1	35.00	\$1,684
<u>SUBTOTALS:</u>				138.97	\$54,506

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 69.48
Profit: 10.00

Total = \$1,101
Total = \$572
Total = \$4,821
Total = \$5,451

TOTAL O & P = \$11,945

CONTRACT AMOUNT (direct + O & P) = \$66,451

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: 5.00

Total = \$500
Total = \$2,824
\$3,323

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$18,592

TOTAL BOND AMOUNT (direct + indirect) = \$73,098

SCRAPER TEAM WORK

Task description: Spread 4 inches of topsoil on 35 acres

Site: Mooney 5804 Altura Pit

Permit Action: 2020 Bond Calculation

Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 5/26/2020

County: Las Animas

Filename: M012-001

User: DC1

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-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:	\$126.52	NA	NA	NA	NA	NA
Operating cost/hour:	\$149.69	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:	\$30.86	NA	NA	NA	NA	NA
Unit Subtotals:	\$307.07	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$614.14	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$614.14**

MATERIAL QUANTITIES

Initial volume: 13,889

CCY

Swell factor: 1.000

Loose volume: **13,889**

LCY

Source of estimated volume: Exhibit E

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight:	<u>1 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>User Provided</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>52,800.00 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 5800 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 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	540.00	1.00	3.00	4.00	2665	0.31

Haul Time: 0.31 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	540.00	1.00	3.00	4.00	2849	0.32

Return Time: 0.32 minutes

Total Scraper team cycle time: 2.13 minutes
Adjusted for job conditions: 881.44 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 881.44 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: 881.44 LCY/Hour

Unadjusted unit production/hour: 1,061.97 LCY/Hour
Optimal Number of Scrapers per push
dozer: _____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 15.76 Hours

Unit cost: \$0.697 /LCY Total job cost: \$9,677

MOTOR GRADER WORK

Task description: Final grading of topsoil

Site: Mooney 5804 Altura Pit

Permit Action: 2020 Bond Calculation

Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 002
Date: 5/26/2020
User: DC1

State: Colorado
County: Las Animas

Abbreviation: None
Filename: M012-002

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 16M
Ripper Attachment: Multi-Shank Ripper

Horsepower: 297
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$82.71	NA
Operating Cost/Hour:	\$70.09	100
Ripper Ownership Cost/Hour:	\$4.44	NA
Ripper Operating Cost/Hour:	\$3.92	100
Operator Cost/Hour:	\$28.52	NA
Total Unit Cost/Hour:	\$189.67	
Total Fleet Cost/Hour:	\$189.67	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 40.00 acres

Source of estimated acreage: Reclamation plan from application

HOURLY PRODUCTION

Average Grader Speed: 1.50 mph
Selected Application: Finish grading (0-2.5 mph) - 1.5
Selected Blade Angle: 30 degrees
Effective Blade Length: 13.90 feet
Width of blade overlap per pass: 2.00 feet
Net grading or ripping width per pass: 11.90 feet
Unadjusted Hourly Unit Production: 2.1636 acres/hour

Job Condition Correction Factors

Site Altitude: 5800 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.90</u>	(1sh/d, fav.)
Net Correction:	<u>0.9000</u>	multiplier

Adjusted Hourly Unit Production: 1.9473 acres/Hour
Adjusted Hourly Fleet Production: **1.9473** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 20.54 Hours

Unit cost: \$97.40 per acre Total job cost: **\$3,896**

BULLDOZER WORK

Task description: Grade highwalls

Site: Mooney 5804 Altura Pit

Permit Action: 2020 Bond Calculation

Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 5/26/2020

County: Las Animas

Filename: M012-003

User: DC1

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:	\$103.86	NA
Operating Cost/Hour:	\$82.26	100
Ripper own. Cost/Hour:	\$10.43	NA
Ripper op. Cost/Hour:	\$8.38	100
Operator Cost/Hour:	\$41.24	NA
Total unit Cost/Hour:	\$246.17	
Total Fleet Cost/Hour:	\$246.17	

MATERIAL QUANTITIES

Initial Volume: 1,569

Swell factor: 1.000

Loose volume: **1,569** LCY

Source of estimated volume: DRMS: estimate 50 yards3/ acre

Source of estimated swell
factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 75 feet

Unadjusted hourly
production: 1,017.1 LCY/hr

Materials consistency
description: Loose stockpile 1.2

Average push
gradient: 0 %

Average site altitude: 5,800 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:	1.200	(CAT HB)
Dozing method:	1.100	(50% SL)
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: 0.5213

Adjusted unit
production: 530.21 LCY/hr

Adjusted fleet
production: **530.21** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.464/LCY

Total job time: **2.96** Hours

Total job cost: **\$728**

REVEGETATION WORK

Task description: Revegetate 32 acres

Site: Mooney 5804 Altura Pit

Permit Action: 2020 Bond Calculation

Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 004

State: Colorado

Abbreviation: None

Date: 5/26/2020

County: Las Animas

Filename: M10-012

User: DC1

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	40.00	pound	\$0.34	\$13.40
Triple superphosphate, 0-46-0	40.00	pound	\$0.43	\$17.00
			Total Fertilizer Materials Cost/Acre	\$30.40

Application

Description	Cost /Acre
Truck whirlwind spreader (MEANS 32 01 90.13 0140)	\$14.81
Total Fertilizer Application Cost/Acre	\$14.81

TILLING

Description	Cost /Acre
Weed control spraying (MEANS 31 31 16.13 3100)	\$193.60
Total Tilling Cost/Acre	\$193.60

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	1.50	24.48	\$23.96
Sideoats Grama - Butte	4.50	14.77	\$40.50
Little Bluestem - Pastura	3.50	20.89	\$47.19
Oats - Russel	10.00	2.98	\$3.30
Western Wheatgrass - Arriba	8.00	20.20	\$52.00
Totals Seed Mix	27.50	83.33	\$166.95

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	\$295.00	\$295.00
Total Mulch Materials Cost/Acre				\$295.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Total Mulch Application Cost/Acre	\$70.17

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	32	Cost /Acre:	\$1,002.93
Estimated Failure Rate:	25%	Cost /Acre*:	\$398.95
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$32,093.76
Reseeding Job Cost:	\$3,191.60
Total Job Cost:	\$35,285
Job Hours:	63.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mobilization and demobilization

Site: Mooney 5804 Altura Pit

Permit Action: 2020 Bond Calculation

Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 005

State: Colorado

Abbreviation: None

Date: 5/26/2020

County: Las Animas

Filename: M10-012

User: DC1

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 16M	28.73	\$82.71	\$123.81	1	\$206.52	\$123.81	\$250.00
Cat 627G	41.80	\$112.52	\$123.81	2	\$472.66	\$247.62	\$500.00
Cat D8T - 8SU	47.71	\$103.86	\$123.81	1	\$227.67	\$123.81	\$250.00

Subtotals: **\$906.85** **\$495.24** **\$1,000.00**



COLORADO

Division of Reclamation,
Mining and Safety

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$27.02	1	\$27.02	\$27.02
Light Duty Pickup, 4x4, 3/4 T.	\$12.96	1	\$12.96	\$12.96

Subtotals: **\$39.98** **\$39.98**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: TRINIDAD
Total one-way travel distance: 15.00 miles
Average Travel Speed: 35.00 mph

Total Non-Roadable Mob/Demob Cost * \$3,201.79
 '* two round trips with haul rig:
Total Roadable Mob/Demob Cost ** \$34.27
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.43	0.43
Return Time (Hours):	0.43	0.43
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	0.86	0.86

JOB TIME AND COST

Total job time: 1.71 Hours
Total job cost: \$3,236

MISCELLANEOUS TRUCK WORK

Task description: Road maintenance

Site: Mooney 5804 Altura Pit Permit Action: 2020 Bond Calculation Permit/Job#: M2010012

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 5/26/2020 County: Las Animas Filename: M10-012
User: DC1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Make and Model: Water Tanker, 2,500 Gal. Horsepower: 150
Attachment 1: _____ Shift Basis: 1 per day
Attachment 2: _____ Weight: 5.25
Labor Unit 1: Tanker Driver - 1 rear axle (US Tons)
Labor Unit 2: _____

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$9.27	NA
Operating Cost/Hour:	\$17.75	100
Operator Cost/Hour:	\$21.09	NA
Total Unit Cost/Hour:	\$48.10	
Total Fleet Cost/Hour:	\$48.10	

JOB TIME AND COST

Fleet size: 1 Truck(s) Total job time: 35.00 Hours
Unit cost: \$48.10 /Hour Total job cost: \$1,684