



STATE OF
COLORADO

Drinkard - DNR, Connor <connor.drinkard@state.co.us>

Leone Gardner, M-1985-008, Inspection Report and Reclamation Cost Estimate

1 message

Drinkard - DNR, Connor <connor.drinkard@state.co.us>

Mon, Jun 13, 2022 at 12:42 PM

To: Jodi Schreiber <jodi@arycorp.com>

Hi Jodi,

Please see the attached inspection report and reclamation cost estimate and let me know if you have any questions. We are no longer sending hard copies unless they are requested.

Best regards,

--

Connor Drinkard

Environmental Protection Specialist Intern



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

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2 attachments



M1985008_2022AprilCostEstimate.pdf
378K




INSP-REPORTM_M1985008_CJD_2022April.pdf
3843K



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: Leone Gardner	MINE/PROSPECTING ID#: M-1985-008	MINERAL: Sand and gravel	COUNTY: Huerfano
INSPECTION TYPE: Monitoring	INSPECTOR(S): Connor Drinkard and Jared Ebert	INSP. DATE: April 13, 2022	INSP. TIME: 12:00
OPERATOR: Hard Rock Paving and Redi-Mix, Inc.	OPERATOR REPRESENTATIVE: Mr. John Paul Ary and Ms. Jodi Schreiber	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$162,970.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 13, 2022	

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

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

OBSERVATIONS

This was a monitoring inspection of the Leone Gardner site, Division of Reclamation, Mining and Safety (DRMS or Division) permit number M-1985-008, operated by Hard Rock Paving and Redi-Mix, Inc. I, Connor Drinkard and Jared Ebert with DRMS conducted the inspection. Mr. John Paul Ary and Ms. Jodi Schreiber with Hard Rock Paving and Redi-Mix, Inc. (Operator) accompanied us during the inspection.

Hydrologic Balance:

Some water was observed in the southeast pit but it is likely snowmelt. No other water was observed. Exposure of groundwater must not occur during or after mining operations.

Processing Waste/Tailing:

An asphalt pile was observed on site. The Operator is not approved to backfill structural fill at this site. Mr. Ary informed us that this material will not be used as backfill but is usable product they can sell or use for construction projects.

Gen. Compliance with Mine Plan:

The current affected area was plotted and shown to be approximately 26.49 acres which is within the maximum allowed 54.43 acres. According to the 02/21/2022 annual reclamation report the last activity at the site occurred on 11/15/21 with 30 acres reported affected. In accordance with Rule 1.13.5(1), if the Operator plans to, or does temporarily cease production of the mining operation for one hundred and eighty (180) days or more, the Operator must file a Notice of Temporary Cessation.

Pit depths are planned for approx. 20 foot depths and slopes at 3H:1V minimum. Mining proceeds from the northwest corner of the permit area and moves easterly and then southerly in 20-acre increments. Extracted material is moved to the processing area located on the initial 9.95-acre portion of the pit.

Signs and Markers:

The mine identification sign and permit boundary markers were observed.

Financial Warranty:

The current required financial warranty for the site is \$162,970.00, the Division currently holds a financial warranty in the amount of \$162,970.00 in the form of the Bond from Travelers Casualty and Surety Company of America. The Division has evaluated the reclamation liability for the site and calculated it to be \$208,202.00. This amount is \$45,232.00 more than the financial warranty currently held. The Division requests the operator review the enclosed reclamation cost estimate and provide the Division any questions or comments by July 8, 2022. The Division may issue a required surety increase notice after this date in accordance with Rule 4.2.1(2). If so, Hard Rock Paving and Redi-Mix, Inc. will have sixty days from the date of the notice to provide the additionally required surety.

Backfill & Grading:

Some of the slopes on the south side of the affected area appeared slightly steeper than 3H:1V.

Storm Water Management Plan:

Storm water diversion berms appeared adequate.

Erosion/Sedimentation:

Overall very little erosion present at the site.

Off-Site Damage:

No off-site damage was observed.

Revegetation:

A few tamarisk plants were observed in the southwest pit. **Please monitor for invasive species and address before they establish and become a greater problem.**

PHOTOGRAPHS



Figure 1. Permit sign at entrance.



Figure 2. Looking northeast from northwest corner of affected area.



Figure 3. Looking east from northwest corner of affected area.



Figure 4. Looking southeast from northwest corner of affected area.



Figure 5. Looking south from northwest corner of affected area.



Figure 6. Looking west from northwest corner of affected area.



Figure 7. White pipe permit boundary marker.



Figure 8. Looking northwest from southeast corner of affected area. Water in pit likely snowmelt.



Figure 9. Looking west from southwest corner of affected area. White pipe permit boundary marker.



Figure 10. Looking north from southwest corner of affected area.



Figure 11. Looking north from southwest corner of affected area.



Figure 12. Looking east from western side of affected area.



Figure 13. Looking southeast from western side of affected area.



Figure 14. Looking southeast at scale in the northwest corner of affected area.

Leone Gardner, M-1985-008
April 13, 2022 DRMS Inspection



Figure 15. Map of Leone Gardner. Affected Area approx. 26.49 acres.

Inspection Contact Address

Ms. Jodi Schreiber
Hard Rock Paving and Redi-Mix, Inc.
839 Mackenzie Ave
Canon City, CO 81212

Enclosure: **Cost Estimate**

CC: None

COST SUMMARY WORK

Task description: Reclaim Leone Gardner

Site: Leone Gardner

Permit Action: 2022 April Inspection

Permit/Job#: M1985008

PROJECT IDENTIFICATION

Task #: 022

State: Colorado

Abbreviation: None

Date: 6/2/2022

County: Huerfano

Filename: M008-022

User: CJD

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001A	Remove scale and scalehouse	DEMOLISH	1	8.00	\$1,442
001	Backfill 50 yd working face to 3h:1v slope	DOZER	1	12.62	\$4,174
002	replace 30 acres topsoil to 6" depth	SCRAPER1	1	27.77	\$25,213
003	Reveg 54.4 ac	REVEGE	1	16.00	\$120,819
004	Mob/Demob	MOBILIZE	1	10.40	\$14,362
<u>SUBTOTALS:</u>				66.79	\$166,010

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$3,353

Performance bond: 1.05

Total = \$1,743

Job superintendent: 33.45

Total = \$2,409

Profit: 10.00

Total = \$16,601

TOTAL O & P = \$24,106

CONTRACT AMOUNT (direct + O & P) = \$190,116

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$8,080

Reclamation management and/or administration: 5.00

\$9,506

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$42,192

TOTAL BOND AMOUNT (direct + indirect) = \$208,202

DEMOLITION WORKTask description: **Remove scale and scalehouse**Site: **Leone Gardner**Permit Action: 2022 April InspectionPermit/Job#: M1985008**PROJECT IDENTIFICATION**Task #:
#:Date: 6/7/2022User: CJDState: ColoradoCounty: HuerfanoAbbreviation: NoneFilename: M008-001AAgency or organization name: DRMS**UNIT COSTS****Location adjustment: 87.90 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove Scale	90 x 15 feet	Loading and 5 mile haul, salvage allowed - Steel frame structures	150.00	CY	\$10.85	\$1,627.50
Demolish Scale House	10 x 10 x12 feet	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 5 mile haul	44.00	CF	\$0.29	\$12.85

Job Hours: 8.00Subtotal
(unadjusted): \$1,640.35Total Cost
(adjusted for location): \$1,441.87

BULLDOZER WORKTask description: **Backfill 50 yd working face to 3h:1v slope**Site: **Leone Gardner**Permit Action: **2022 April Inspection**Permit/Job#: **M1985008****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **6/3/2022**County: **Huerfano**Filename: **M008-001**User: **CJD**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$126.01	NA
Operating Cost/Hour:	\$141.41	100
Ripper own. Cost/Hour:	\$19.26	NA
Ripper op. Cost/Hour:	\$2.87	25
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$330.85	
Total Fleet Cost/Hour:	\$330.85	

MATERIAL QUANTITIESInitial Volume: **2,222**Swell factor: **1.000**Loose volume: **2,222 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **300 feet**Unadjusted hourly
production: **437.8 LCY/hr**Materials consistency
description: **Loose stockpile 1.2**Average push
gradient: **5 %**Average site altitude: **6,980 feet**Material weight: **2,700 lbs/LCY**

Weight description: Sand and clay - Loose

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4023

Adjusted unit
production: 176.13 LCY/hrAdjusted fleet
production: **176.13** LCY/hr**JOB TIME AND COST**Fleet size: 1 Dozer(s)
Unit cost: \$1.878/LCYTotal job time: **12.62** Hours
Total job cost: **\$4,174**

SCRAPER TEAM WORKTask description: Replace 30 acres topsoil to 6" depthSite: Leone GardnerPermit Action: 2022 April InspectionPermit/Job#: M1985008**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 5/23/2022County: HuerfanoFilename: M008-002User: CJDAgency 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:	CAT 12M
-Water Truck:	Water Tanker, 5,000 Gal.

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	25	25
Ownership cost/hour:	\$188.81	NA	NA	NA	\$47.01	\$33.45
Operating cost/hour:	\$169.82	NA	NA	NA	\$9.42	\$10.49
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	NA	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$30.90	NA	NA	NA	\$28.56	\$0.00
Unit Subtotals:	\$389.53	NA	NA	NA	\$84.98	\$43.94
Number of Units:	2	0	0	0	1	1
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$128.92

Total work team cost/hour: **\$907.98****MATERIAL QUANTITIES**Initial volume: 24,248

CCY

Swell factor: 1.000Loose volume: **24,248**

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Top Soil</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>33.00 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6980 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 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	1.00	3.00	4.00	2665	0.37

Haul Time: 0.37 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-1.00	3.00	2.00	2905	0.28

Return Time: 0.28 minutesTotal Scraper team cycle time: 2.15 minutesAdjusted for job conditions: 873.24 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 873.24 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 873.24 LCY/HourUnadjusted unit production/hour: 1,052.09 LCY/HourOptimal Number of Scrapers per push
dozer: _____JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 27.77 HoursUnit cost: \$1.040 /LCY Total job cost: \$25,213

REVEGETATION WORKTask description: Reveg 54.4 acSite: Leone GardnerPermit Action: 2022 April InspectionPermit/Job#: M1985008**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 5/23/2022County: HuerfanoFilename: M008-003User: CJDAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	30.00	pound	\$0.37	\$11.10
			Total Fertilizer Materials Cost/Acre	\$11.10

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$38.77
Total Fertilizer Application Cost/Acre	\$38.77

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$96.50
Weed control spraying (MEANS 31 31 16.13 3100)	\$290.40
Total Tilling Cost/Acre	\$386.90

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Lovington	1.12	18.28	\$17.89
Little Bluestem - Cimarron	0.33	1.97	\$4.12
Sand Dropseed	0.05	5.97	\$0.49
Oats - Ajay	25.00	7.46	\$8.25
Needle and Thread	2.70	7.13	\$113.00
Western Wheatgrass - Rosanna	2.40	6.06	\$13.80
Totals Seed Mix	31.60	46.87	\$157.54

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}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$71.57
Total Mulch Application Cost/Acre	\$71.57

JOB TIME AND COST

No. of Acres:	54.4	Cost /Acre:	\$1,511.92
Estimated Failure Rate:	30%	Cost /Acre*:	\$1,462.05
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		

Initial Job Cost:	\$82,248.45
Reseeding Job Cost:	\$23,860.66
Total Job Cost:	\$106,109
Job Hours:	16.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Leone Gardner**Permit Action: 2022 April InspectionPermit/Job#: M1985008**PROJECT IDENTIFICATION**

Task #: 004 State: Colorado Abbreviation: None
 Date: 5/23/2022 County: Huerfano Filename: M008-004
 User: CJD

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:	\$21.28	\$37.94	\$47.67
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21
Operator Cost/Hour:	\$20.54	\$20.54	\$20.54
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$68.37	\$132.49	\$147.95

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
Drill/Broadcast Seeder with Tractor	25.00	\$7.98	\$68.37	1	\$76.35	\$68.37	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$14.98	\$68.37	1	\$83.35	\$68.37	\$250.00
Cat D9T - 9SU	66.13	\$145.27	\$147.95	1	\$293.22	\$147.95	\$250.00
CAT 12M	16.01	\$47.01	\$68.37	1	\$115.38	\$68.37	\$250.00
Cat 627G w/push- pull	43.48	\$188.81	\$132.49	2	\$642.60	\$264.98	\$500.00

Subtotals: **\$1,210.90** **\$618.04** **\$1,500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$12.93	1	\$12.93	\$12.93
Fuel Tanker, 4x2, 170 HP	\$29.70	1	\$29.70	\$29.70
Water Tanker, 5,000 Gal.	\$75.41	1	\$75.41	\$75.41
Lube Truck, 4x2, 190 HP	\$35.20	1	\$35.20	\$35.20

Subtotals: **\$153.24** **\$153.24**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: PUEBLO
 Total one-way travel distance: 70.00 miles
 Average Travel Speed: 50.00 mph

Total Non-Roadable Mob/Demob Cost *
 ** two round trips with haul rig: \$13,933.35
 Total Roadable Mob/Demob Cost **
 ** one round trip, no haul rig: \$429.07

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.40	1.40
Return Time (Hours):	1.40	1.40
Loading Time (Hours):	1.20	NA
Unloading Time (Hours):	1.20	NA
Subtotals:	5.20	2.80

JOB TIME AND COST

Total job time: 10.40 Hours

Total job cost: \$14,362