




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: Carrizo Stone South	MINE/PROSPECTING ID#: M-2006-024	MINERAL: Sandstone (silica, st quartzite)	COUNTY: Baca
INSPECTION TYPE: Monitoring	WEATHER: Cloudy	INSP. DATE: May 31, 2023	INSP. TIME: 14:00
OPERATOR: Carrizo Stone, LLC	OPERATOR REPRESENTATIVE: Fred Reyes	TYPE OF OPERATION: 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$15,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Brock Bowles Patrick Lennberg	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 9, 2023	

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

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

OBSERVATIONS

This was a routine monitoring inspection conducted Brock Bowles and Patrick Lennberg of the Division of Reclamation, Mining and Safety (Division). Fred Reyes (Operator) was present for the inspection. The weather during the inspection was overcast and warm with a light breeze. The ground was dry.

Mr. Russell Freeman recently purchased the land that Carrizo South is on. He is in the process of submitting an SO to change the operator for the mine. This inspection was conducted at Mr. Freeman's request to evaluate the cost estimate for the surety bond.

The Carrizo Stone South is a 110c mine permitted for 9.9 acres. It is located about 18 mile east of Kim. The primary commodity is construction sandstone and the post mining land use is pastureland.

The mine entrance sign was in place but will have to be updated after the SO is approved with the new operator information. The permit boundary markers were in place on all four sides of the permit area.

No mining was taking place and no machinery was on site. Many old pallets with product on them were staged in the area west of the pit.

The mining pit area consists of a high wall about 200 feet long and 15 feet high (photo 1). The sandstone is mined using an expansive grout mining technique. This technique involves drilling a series of holes in the sandstone and filling the holes with expansive grout. The grout expands over a short period of time creating a fault along the drill holes without the fractures caused by blasting. The stone is then cut to size for transport.

There are a couple of topsoil/overburden piles staged around the perimeter of the pit area (photo 2). The overburden piles had vegetation growing on the north side of the pile, but the south side was bare due to the angle facing the sun. There are also several stone waste piles that can be easily be used to back fill the highwall.

No signs of erosion or noxious weeds were noted.

A cost estimate was calculated as part of this inspection and is attached to this report.

PHOTOGRAPHS



Photo 1 – Highwall, pit area facing west



Photo 2 – Topsoil/overburden pile north of pit area.

Inspection Contact Address

Fred Reyes
Carrizo Stone, LLC
1425 County Road Q
Pritchett, CO 81064

Enclosure- 2023 RCE

CC:

COST SUMMARY WORK

Task description: _____

Site: Carrizo Stone South

Permit Action: 2023 Cost Estimate

Permit/Job#: M2006024

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 6/8/2023

County: Baca

Filename: M024-000

User: BFB

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill highwall with waste rock pile (est volume)	DOZER	1	13.05	\$3,768
002	Spread Topsoil/overburden (est volume)l	DOZER	1	2.75	\$782
003	Revegetation	REVEGE	1	0.00	\$6,783
004	Mobilization	MOBILIZE	1	7.49	\$2,055
<u>SUBTOTALS:</u>				23.29	\$13,388

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 0.00
Profit: 10.00

Total = \$270

Total = \$141

Total = \$0

Total = \$1,339

TOTAL O & P = \$1,750

CONTRACT AMOUNT (direct + O & P) = \$15,138

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

\$757

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$3,007

TOTAL BOND AMOUNT (direct + indirect) = \$16,395

BULLDOZER WORKTask description: Backfill highwall with waste rock pile (est volume)Site: Carrizo Stone SouthPermit Action: 2023 Cost EstimatePermit/Job#: M2006024**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 6/8/2023County: BacaFilename: M001User: BFBAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 1-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$124.85</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$97.63</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$16.38</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$8.60</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$288.76Total Fleet Cost/Hour: \$288.76**MATERIAL QUANTITIES**Initial Volume: 1,200Swell factor: 1.000Loose volume: 1,200 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly production: 377.8 LCY/hrMaterials consistency description: Rock, poorly ripped or blasted 0.6Average push gradient: 5 %Average site altitude: 4,940 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.600</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2434

Adjusted unit production: 91.96 LCY/hr

Adjusted fleet production: **91.96** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$3.140/LCY

Total job time: **13.05** Hours

Total job cost: **\$3,768**

BULLDOZER WORKTask description: Spread Topsoil/overburden (est. volume)Site: Carrizo Stone SouthPermit Action: 2023 Cost EstimatePermit/Job#: M2006024**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 6/8/2023County: BacaFilename: M002User: BFBAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 1-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own. Cost/Hour:	\$16.38	NA
Ripper op. Cost/Hour:	\$4.30	50
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$284.46Total Fleet Cost/Hour: \$284.46**MATERIAL QUANTITIES**Initial Volume: 653Swell factor: 1.000Loose volume: 653 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 491.9 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 5 %Average site altitude: 4,940 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<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:	0.900	(SSD-FC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4830

Adjusted unit production: 237.59 LCY/hr

Adjusted fleet production: **237.59** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.197/LCY

Total job time: **2.75** Hours

Total job cost: **\$782**

REVEGETATION WORKTask description: RevegetationSite: Carrizo Stone SouthPermit Action: 2023 Cost EstimatePermit/Job#: M2006024PROJECT IDENTIFICATIONTask #: 003State: ColoradoAbbreviation: NoneDate: 6/8/2023County: BacaFilename: M003User: BFBAgency or organization name: DRMSFERTILIZING**Materials**

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

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	2.40	39.17	\$32.94
Sand Dropseed	0.20	23.88	\$1.95
Sideoats Grama - Butte	3.20	10.51	\$28.80
Western Wheatgrass - Native	32.00	80.81	\$192.00
Winter Fat	0.20	0.51	\$4.10
Totals Seed Mix	38.00	154.87	\$259.79

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
Total Seed Application Cost/Acre	\$267.22

MULCHING and MISCELLANEOUS**Materials**

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

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

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:	9.9	Cost /Acre:	\$527.01
Estimated Failure Rate:	30%	Cost /Acre*:	\$527.01
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost:	\$5,217.40		
Reseeding Job Cost:	\$1,565.22		
Total Job Cost:	\$6,783		
Job Hours:	0.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **Carrizo Stone South**Permit Action: **2023 Cost Estimate**Permit/Job#: **M2006024****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **6/8/2023**County: **Baca**Filename: **M004**User: **BFB**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:	\$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	52.21	\$141.23	\$136.92	1	\$278.15	\$136.92	\$250.00
Subtotals:					\$278.15	\$136.92	\$250.00

ROADABLE EQUIPMENT:

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

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	TRINIDAD	
Total one-way travel distance:	103.00	miles
Average Travel Speed:	55.00	mph

Total Non-Roadable Mob/Demob Cost *	\$2,054.63
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$0.00
'** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.87	1.87
Return Time (Hours):	1.87	1.87
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	3.75	3.75

JOB TIME AND COST

Total job time:	7.49	Hours
-----------------	------	-------

Total job cost:	\$2,055
-----------------	---------