




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: Sokol Pit	MINE/PROSPECTING ID#: M-1980-193	MINERAL: Sand and gravel	COUNTY: El Paso
INSPECTION TYPE: Monitoring	INSPECTOR(S): Robert Zuber, P.E.	INSP. DATE: October 29, 2020	INSP. TIME: 08:00
OPERATOR: Rocky Mountain Materials and Asphalt, Inc.	OPERATOR REPRESENTATIVE: David Bieber	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$113,757.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: November 12, 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>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>N</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>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</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

Rob Zuber of DRMS inspected the Sokol Pit, approximately four miles southwest of Calhan, Colorado. David Bieber, representing Rocky Mountain Materials and Asphalt (a Martin Marietta company), also participated in the inspection.

The weather was clear and warm for late October. A small amount of snow was on the ground.

Other than Mr. Bieber, no staff were on site. The screen plant had been removed from the site; this was done in August 2020, per Mr. Bieber. He also indicated that the operator does not plan on any substantial mining at this site in the future.

Per annual reports from 2016 through 2018, the most recent mining activity (excavation, processing, or hauling) was in January 2016. The 2019 Annual Report indicates that mining activity occurred in July of 2019, and the 2020 report indicates that mining activity occurred in August of 2020.

Although some mining activity has occurred in recent years, it is the Division's position that significant mining activity will no longer occur at this site, and Rocky Mountain Materials and Asphalt should commence with reclamation of the site. This is based on the "Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials." In particular, Rule 3.1.3 indicates that reclamation should be completed within five years of the cessation of mining. The Division's position is also based on the reclamation plan for the Sokol Pit (Exhibit E from the 2005 Amendment Application), which states that, "The mining and reclamation plan have been designed to initiate reclamation of the land as soon as it is no longer needed ..."

Backfilling and Grading:

At the main area of the site, no reclamation has been performed. A large amount of highwall at the site requires backfill and grading. This highwall wraps around the middle of the site (where processing of material took place) on the north, east, and south sides. The area that requires backfilling and grading excludes the sediment pond (at the southwest corner of the site) and the concrete wash ponds (near the middle of the site).

The highwalls were measured at the north, east, and south directions with a laser rangefinder. The average height was found to be 28 feet.

The material that will be used to fill the pit is directly above the highwalls, and the average push distance will be approximately 100 feet (measured in the office with Google Earth).

Financial Warranty:

The Division has updated the Reclamation Cost Estimate for the Sokol Pit and is including it with this inspection report as an enclosure. The new estimate is \$82,853. The financial warranty was found to be adequate to complete reclamation at the site.

Hydrologic Balance:

Except for the highwall, no erosion was seen on the site, and no other hydrology problems were seen at the site.

The pond was holding a small amount of water and far from discharging. It appeared to be large enough to collect runoff from the entire site, even after very large events, and the banks appeared stable.

Reclamation Success:

A small amount of reclamation has been performed at the northwest portion of the site. No problems were identified.

Signs and Markers:

The mine entrance signs contained the necessary information, although one of them had been knocked down and should be fixed.

Permit boundary markers were checked using GPS, and no problems were identified.

Topsoil:

Two topsoil piles were seen on site. The one near the entrance (west side) was inspected closely and is well vegetated. The other pile (southeast part of site) was not closely inspected but viewed from afar. The operator should insure that it is well protected with a ring ditch or vegetation to protect this resource.

The approximate sizes of the piles:

- The west pile is 160 feet by 40 feet and 15 feet high.
- The southeast pile is 170 feet by 60 feet and 20 feet high.

PHOTOGRAPHS



Looking northwest at highwall and process area



Looking west/southwest at site



Pond on west side of site



Sign with Permit Number M-1980-193



Sign with name of operator and pit – requires maintenance

COST SUMMARY WORK

Task description: Cost Summary

Site: Sokol Pit

Permit Action: RDZ 2020

Permit/Job#: M1980193

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 11/5/2020

County: El Paso

Filename: M193-000

User: RDZ

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill and Grading	DOZER	1	23.30	\$6,327
002	Spread Topsoil (4") over 20 acres	DOZER	1	108.33	\$29,422
003	Revegetation of 20 acres	REVEGE	1	20.00	\$28,405
004	Mob and De-mob	MOBILIZE	1	1.66	\$1,533
<u>SUBTOTALS:</u>				153.29	\$65,687

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 66.64
Profit: 10.00

Total = \$1,327

Total = \$690

Total = \$4,635

Total = \$6,569

TOTAL O & P = \$13,220

CONTRACT AMOUNT (direct + O & P) = \$78,907

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 0.00

Total = \$0

Reclamation management and/or administration: 5.00

\$3,945

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$17,165

TOTAL BOND AMOUNT (direct + indirect) = \$82,852

BULLDOZER WORKTask description: **Backfill and Grading**Site: **Sokol Pit** Permit Action: **RDZ 2020** Permit/Job#: **M1980193****PROJECT IDENTIFICATION**

Task #: **001** State: **Colorado** Abbreviation: **None**
 Date: **11/5/2020** County: **El Paso** Filename: **M193-001**
 User: **RDZ**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D8T - 8SU**
 Horsepower: **310**
 Blade Type: **Semi-Universal**
 Attachment: **1-shank ripper**
 Shift Basis: **1 per day**
 Data Source: **(CRG)**

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$116.22	NA
Operating Cost/Hour:	\$89.77	100
Ripper own. Cost/Hour:	\$15.57	NA
Ripper op. Cost/Hour:	\$10.00	100
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: **\$271.59**
 Total Fleet Cost/Hour: **\$271.59**

MATERIAL QUANTITIES

Initial Volume: **12,440**
 Swell factor: **1.125**
 Loose volume: **13,995 LCY**

Source of estimated volume: **RDZ inspection and Excel calc**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **100 feet**
 Unadjusted hourly production: **852.6 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **-20 %**
 Average site altitude: **6,900 feet**

Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed**

<u>Job Condition Correction Factor</u>		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7046

Adjusted unit production: 600.74 LCY/hr

Adjusted fleet production: **600.74** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.452/LCY

Total job time: **23.30** Hours

Total job cost: **\$6,327**

BULLDOZER WORKTask description: Spread Topsoil (4") over 20 acresSite: Sokol Pit Permit Action: RDZ 2020 Permit/Job#: M1980193**PROJECT IDENTIFICATION**

Task #: 002 State: Colorado Abbreviation: None
 Date: 11/5/2020 County: El Paso Filename: M193-002
 User: RDZ

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D8T - 8SU
 Horsepower: 310
 Blade Type: Semi-Universal
 Attachment: 1-shank ripper
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$116.22</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$89.77</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$15.57</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$10.00</u>	<u>100</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$271.59
 Total Fleet Cost/Hour: \$271.59

MATERIAL QUANTITIES

Initial Volume: 11,100
 Swell factor: 1.125
 Loose volume: 12,488 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 350 feet
 Unadjusted hourly production: 233.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 0 %
 Average site altitude: 6,900 feet

Material weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.100</u>	<u>(50% SL)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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

Net correction: 0.4941

Adjusted unit production: 115.27 LCY/hr

Adjusted fleet production: **115.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$2.356/LCY

Total job time: **108.33** Hours

Total job cost: **\$29,422**

REVEGETATION WORKTask description: **Revegetation of 20 acres**Site: **Sokol Pit**Permit Action: **RDZ 2020**Permit/Job#: **M1980193****PROJECT IDENTIFICATION**Task #: **003**State: **Colorado**Abbreviation: **None**Date: **11/5/2020**County: **El Paso**Filename: **M193-003**User: **RDZ**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	10.00	pound	\$0.34	\$3.35
Superphosphate, 0-20-0 with 12% S	40.00	pound	\$0.24	\$9.60
			Total Fertilizer Materials Cost/Acre	\$12.95

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$107.16

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	2.70	44.07	\$43.13
Sideoats Grama - Butte	2.30	7.55	\$20.70
Western Wheatgrass - Arriba	1.70	4.29	\$11.05
Totals Seed Mix	6.70	55.91	\$74.88

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00

Total Seed Application Cost/Acre	\$232.00
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

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
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	20	Cost /Acre:	\$1,136.19
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,136.19
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MULCHING		

Initial Job Cost:	\$22,723.80
Reseeding Job Cost:	\$5,680.95
Total Job Cost:	\$28,405
Job Hours:	20.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob and De-mob**Site: **Sokol Pit**Permit Action: **RDZ 2020**Permit/Job#: **M1980193****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **11/5/2020**County: **El Paso**Filename: **M193-004**User: **RDZ**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 D8T - 8SU	52.21	\$131.79	\$141.54	1	\$273.33	\$141.54	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00
Subtotals:					\$347.44	\$208.93	\$500.00

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: CALHAN
 Total one-way travel distance: 5.00 miles
 Average Travel Speed: 30.00 mph

Total Non-Roadable Mob/Demob Cost * \$1,532.90
 ** 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):	0.17	0.17
Return Time (Hours):	0.17	0.17
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.83	0.33

JOB TIME AND COST

Total job time: 1.67 Hours

Total job cost: \$1,533