



COLORADO

Division of Reclamation,
Mining and Safety


Department of Natural Resources

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: Kunau Site	MINE/PROSPECTING ID#: M-2008-025	MINERAL: Gravel	COUNTY: El Paso
INSPECTION TYPE: Monitoring	WEATHER: Cloudy	INSP. DATE: May 4, 2022	INSP. TIME: 11:50
OPERATOR: Tim Kunau	OPERATOR REPRESENTATIVE: Red Kunau	TYPE OF OPERATION: 110c - Construction Limited Impact	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$11,218.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
INSPECTOR(S): Timothy Cazier, P.E.	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: September 30, 2022

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Availability Of Records

PROBLEM/POSSIBLE VIOLATION No. 1: Problem: Disturbed area is under reported on the annual report as 2.2 acres. 2018 satellite imagery indicates the disturbed area is 3.96 acres.

CORRECTIVE ACTIONS: Provide the correct disturbed area with the 2023 annual report, due 2/17/2023.

CORRECTIVE ACTION DUE DATE: 2/17/23

INSPECTION TOPIC: Financial Warranty

PROBLEM/POSSIBLE VIOLATION No. 2: Problem: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) of the Act.

CORRECTIVE ACTIONS: The operator shall submit adequate financial warranty, as determined by the Division. The Division will be sending a separate surety increase notice to the operator regarding the increase of the financial warranty. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.

CORRECTIVE ACTION DUE DATE: 11/29/22

OBSERVATIONS

This inspection was conducted as part of the regular monitoring program. The Permittee, Tim Kunau was represented by Red Kunau during for the inspection. This is a 110c gravel mine. It was not operating at the time of the inspection. The Kunau Site entrance is located approximately 4 5 miles north of Yoder on Yoder Rd.

Availability of Records: Annual reports are current, having been filed through January 2022, stating the last mining activity at the time was December 15, 2021. This report states the number of acres currently affected is only 2.2. A review of Google Earth imagery indicates the disturbed area is 3.96 acres (including the access road from the fence where the permit sign is posted). **The disturbed area discrepancy is cited as Problem 1 on p. 1 of this report.** Please provide the current disturbance with the February 2023 annual report. The previous inspection was on April 10, 2018. The approved post-mine land use is pastureland. There are no open infractions. Both the surface and minerals are privately owned.

Acid And Toxic Materials: No acid or toxic materials are involved in this operation.

Backfilling and Grading: Slopes are variable within the pit. The east (see **Photo 1**) and north (see **Photo 2**) highwalls are sloped at approximately 4H:1V. The South highwall is slightly steeper (see **Photo 3**).

Excess Spoil and Dev. Waste: Overburden is not distinguished from topsoil.

Financial Warranty: The \$11,218 financial warranty has not been updated since 2014. The attached updated reclamation cost effort is \$16,705 and consists of the same tasks in the 2014 DRMS cost estimate with current unit costs. **The insufficient bond is cited as a Problem 2 on page 1 of this report.** Please submit the additional \$5,487 bond by the corrective action due date.

Fish and Wildlife: No impact to wildlife was observed.

Hydrologic Balance: No standing water was observed in the pit and no exposed groundwater was observed.

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved mine plan. The maximum allowed disturbed area is 4.59 acres (one of the two non-contiguous designated affected areas in this permit). Google Earth was used to measure the disturbed area, which was approximately 3.96 acres, based on older 2018 imagery. Highwalls were estimated to be 15 feet in height and appeared stable.

Off-site Damage: The operation appeared to be confined to the permit boundary, based on Google Earth review and site observations.

Processing Waste: No processing waste was observed.

Roads: The two-track access road did not appear to be a source of sediment that could be tracked offsite (see **Photo 4**).

Right of Entry: The property is owned by the Permittee.

Reclamation Success: Mr. Kunau indicated no reclamation has been initiated. It should be noted that the DRMs will require the area covered by the mulch pile south of the pit be re-seeded after the mulch pile is removed and prior to reclamation release.

Revegetation: No noxious weeds were observed.

Sediment Control: No erosion problems were observed and no BMPs were needed at the time of the inspection.

Support Facilities On-site: No equipment observed on site.

Signs and Markers: The permit sign was properly posted (see **Photo 5**) and boundary markers were observed to delineate the four corners of permit boundary (see **Photo 6**).

Permit Stipulations: The Permittee has committed to requesting a surety increase prior to opening up the south pit (undisturbed at the time of the inspection).

Storm Water MGT Plan: No oil or fuel spills observed. Trenches (see **Photo 7**) are dug around the perimeter of the pit to prevent stormwater runoff. Stormwater drains to the pit and infiltrates.

Topsoil: A topsoil stockpile is in the north side of the pit and appeared stable (see **Photo 6**).

Structures: No structures were observed within 200 feet of the affected area.

Post Inspection Meeting: No onsite problems were identified during the inspection, but Mr. Kunau was informed the bond would be reviewed and likely need to be increased. Mr. Kunau was also told of the annual report disturbed area discrepancy.

Please contact Tim Cazier (303)328-5229 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. East highwall (looking south, note circled mulch stockpile).

PHOTOGRAPHS (cont.)



Photo 2. North highwall and south side of topsoil stockpile (looking west).



Photo 3. South highwall (looking west, note circled mulch stockpile).

PHOTOGRAPHS (cont.)



Photo 4. Two track access road (from gate, looking east).



Photo 5. Permit sign at gate ~750 feet east of Yoder Road.

PHOTOGRAPHS (cont.)



Photo 6. Typical boundary marker (NW corner, looking east; note stormwater trench and topsoil stockpile).



Photo 7. Typical stormwater trench and boundary marker (NE corner, looking south).

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- PB	(FN) FINANCIAL WARRANTY----- PB	(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>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>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</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

Inspection Contact Address

Tim Kunau
23945 Lucky Lane
Calhan, CO 80808





Enclosures: Post Inspection Map
Bond Estimate

ec: DRMS file,
Tim Kunau

M-2008-025 Kunau Site Post 2022 Inspection Map

Satellite imagery from 6/1/2018

Legend

-  M-08-25 20-ft Access Rd
-  M-08-25 Disturbed Area (2018)
-  North Pit GPS boundary
-  Property Boundary



Google Earth



300 ft

COST SUMMARY WORK

Task description: Cost Summary

Site: Kunau Site

Permit Action: 2022 Update

Permit/Job#: M2008025

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 6/21/2022

County: El Paso

Filename: M025-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Replacing Topsoil	DOZER	1	9.05	\$3,406
002	Revegetating Disturbed Area	REVEGE	1	0.00	\$7,014
003	Equipment Mobilization/Demobilization	MOBILIZE	1	3.64	\$2,699
<u>SUBTOTALS:</u>				12.69	\$13,119

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$265

Performance bond: 1.05

Total = \$138

Job superintendent: 6.35

Total = \$457

Profit: 10.00

Total = \$1,312

TOTAL O & P = \$2,172

CONTRACT AMOUNT (direct + O & P) = \$15,291

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$650

Reclamation management and/or administration: 5.00

\$765

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$3,586

TOTAL BOND AMOUNT (direct + indirect) = \$16,705

BULLDOZER WORKTask description: **Replacing Topsoil**Site: **Kunau Site**Permit Action: 2022 UpdatePermit/Job#: M2008025**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 6/21/2022County: El PasoFilename: YesUser: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D10T - 10SUHorsepower: 574Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$169.60	NA
Operating Cost/Hour:	\$166.94	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: \$376.58Total Fleet Cost/Hour: **\$376.58****MATERIAL QUANTITIES**Initial Volume: 7,407Swell factor: 1.000Loose volume: **7,407 LCY**Source of estimated volume: Exhibit C - Mining Plan (push dist. from Exh D.)Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly production: 754.3 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -25 %Average site altitude: 6,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0856

Adjusted unit
production: 818.87 LCY/hr

Adjusted fleet
production: **818.87** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.460/LCY

Total job time: **9.05** Hours

Total job cost: **\$3,406**

REVEGETATION WORKTask description: Revegetating Disturbed AreaSite: Kunau SitePermit Action: 2022 UpdatePermit/Job#: M2008025**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 6/21/2022County: El PasoFilename: YesUser: TC1Agency or organization name: DRMS**FERTILIZING****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 - Hachita	1.10	17.95	\$17.57
Little Bluestem - Native	2.00	11.94	\$27.13
Sideoats Grama - Butte	4.40	14.44	\$39.60
Sand Bluestem - Garden Co.	6.00	15.56	\$147.15
Western Wheatgrass - Native	6.00	15.15	\$36.00
Totals Seed Mix	19.50	75.05	\$267.46

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
Power mulcher (MEANS 32 91 13.16 0350)	\$106.29
Total Mulch Application Cost/Acre	\$106.29

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:	<u>4.6</u>	Cost /Acre:	<u>\$1,219.79</u>
Estimated Failure Rate:	<u>25%</u>	Cost /Acre*:	<u>\$1,219.79</u>
*Selected Replanting Work Items:	<u>SEEDING,MULCHING</u>		
Initial Job Cost:	<u>\$5,611.03</u>		
Reseeding Job Cost:	<u>\$1,402.76</u>		
Total Job Cost:	<u>\$7,014</u>		
Job Hours:	<u>0.00</u>		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Equipment Mobilization/DemobilizationSite: Kunau SitePermit Action: 2022 UpdatePermit/Job#: M2008025**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 6/21/2022County: El PasoFilename: YesUser: TC1Agency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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
Cat D10T - 10SU	84.53	\$169.60	\$147.95	1	\$317.55	\$147.95	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$7.98	\$68.37	1	\$76.35	\$68.37	\$250.00

Subtotals: **\$393.90** **\$216.32** **\$750.00****ROADABLE EQUIPMENT:**

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

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>33.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,699.39</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$0.00</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.66</u>	<u>0.66</u>
Return Time (Hours):	<u>0.66</u>	<u>0.66</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>1.82</u>	<u>1.32</u>

JOB TIME AND COST

Total job time:	<u>3.64</u>	Hours
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Total job cost:	<u>\$2,699</u>
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