




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: Bijou Clay Mine	MINE/PROSPECTING ID#: M-1997-007	MINERAL: Clay (general)	COUNTY: Elbert
INSPECTION TYPE: Surety Release Inspection	WEATHER: Clear	INSP. DATE: August 3, 2023	INSP. TIME: 10:05
OPERATOR: The Denver Brick Company	OPERATOR REPRESENTATIVE: Richard Murphy	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Surety Release Requested	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$196,124.37	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Joel Renfro Amy Eschberger	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: September 18, 2023	

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: Erosion/Sedimentation

PROBLEM #1: Erosion gullies and rills were observed on-site. Gullies were found north west of the phase 4 pit and also east of the phase 3 pit. Rill erosion was observed throughout the site on bare slopes, which may form into gullies if left untouched. This is a problem at this time for failure to protect the affected land from erosion pursuant to C.R.S. 34-32.5-116(4)(j) and Rule 3.1.6(3).

CORRECTIVE ACTIONS: The operator shall provide photo documentation to the Division verifying erosion gullies have been repaired, rills are being controlled, and that the site has been reconstructed and stabilized to prevent further erosion damage by the corrective action date.

CORRECTIVE ACTION DUE DATE: October 18, 2023

INSPECTION TOPIC: Revegetation/ Noxious Weeds

PROBLEM #2: There are state-listed noxious weeds present on site. This is a problem for failure to employ weed control methods for state listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Rule 3.1.10(6).

CORRECTIVE ACTIONS: The operator shall submit evidence (invoice for service, receipt of chemical purchase, and/or images of sprayed plants) to the Division of implementation of the approved weed control plan by the corrective action due date.

CORRECTIVE ACTION DUE DATE: October 18, 2023

OBSERVATIONS

The Bijou Clay Mine was inspected by Joel Renfro and Amy Eschberger with the Division of Reclamation, Mining and Safety (Division/DRMS) as a surety release inspection. The operator's final release request (SL-1) was filed with the Division on June 12, 2023. No comments or objections were submitted within the comment period that closed on June 27, 2023. This site was previously inspected by the Division on June 17, 2021. Richard Murphy with The Denver Brick Company was present during the inspection. The Bijou Clay Mine used to mine for clay but is now in final reclamation. The site is located approximately 11.5 miles northeast of Kiowa, CO. This site is accessed from the west via Co Rd 73. The approved post-mining land use is rangeland. **Photos 1-24** taken during the inspection are included with this report.

This is a 112c operation permitted for 33.75 total acres. This site was initially mined in three phases moving from south to north. AM-1 added an additional fourth phase to the south to mine 12 acres. According to the operator, mining ended in November 2018 and the site has been in final reclamation since then. As of the previous inspection, slopes throughout the site have been graded to 3H:1V and the site has been seeded. The Division recommended in the previous inspection report to reseed the top of graded slopes and continue to monitor weeds.

During the current inspection, erosion in the form of rills and gullies were observed throughout the site. Rills were found mostly along graded slopes. A large gully was observed in the southwest (see **photos 23-24**) at the northwestern corner of the phase 4 mining area. A larger gully was found in the northeast (see **photos 21-22**) at the eastern edge of the phase 3 mining area, where stormwater from the affected land enters a natural ephemeral drainage that runs off site. The operator has constructed a shallow detention basin on the floor of the phase 3 area to help manage stormwater. This detention basin does not appear to be effectively managing stormwater, at least not after the strong storm events that recently occurred in the area. Considering the large gully that has formed at the eastern edge of the detention basin in which stormwater entered into the natural drainage east of the permit, there is a high risk in this area of off-site damage. Pursuant to C.R.S. 34-32.5-116(4)(j) and Rule 3.1.6(3), all surface areas of the affected land, including spoil piles, shall be stabilized and protected so as to effectively control erosion. Additionally, Rule 3.1.5(3) requires all grading be done in a manner to control erosion and siltation of the affected lands, to protect areas outside the affected land from slides and other damage. Accordingly, erosion is cited as a problem in this report (see **Problem #1**). The operator shall provide photo documentation to the Division verifying the described erosion gullies have been repaired, rills are being controlled, and that the site has been reconstructed and stabilized to prevent erosion damage. Refer to **photos 6-10, 21-24** for images of some of the observed erosion features.

If any stormwater management structures are proposed to remain for reclamation (e.g., detention basins, channels, riprap features), the operator will need to submit a Technical Revision to revise the reclamation plan and map to incorporate these structures. During the inspection, the operator mentioned the detention basin might be used by the landowner as a livestock pond. While leaving a livestock pond would be consistent with the approved rangeland post-mining land use for the site, the approved reclamation plan and map do not include leaving ponds. Therefore, if the operator wishes to leave any livestock ponds at the site, the reclamation plan and map must be updated accordingly through a Technical Revision submittal. The current approved reclamation plan map is enclosed for reference.

Vegetation within the site consisted of grasses found in the approved seed mix. Dense stands of established grasses were observed in some areas, particularly in the earlier reclaimed phase 2 and phase 3 areas. However, scattered bare patches were observed throughout the site, particularly on top of graded slopes. These bare patches appear to be contributing to the erosion issues observed at the site. Refer to **photos 3-13** for images of revegetation. The Division would like to remind the operator of Rule 3.1.10(1), which states in those areas where revegetation is part of the Reclamation Plan, land shall be revegetated in such a way as to establish a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer, and is at least equal in extent of cover to the natural vegetation of the surrounding area. The Division recommends the operator reseed any bare areas as soon as practicable, and closely monitor the growth of desired vegetation to ensure the affected lands are revegetated in accordance with Rule 3.1.10(1).

Many species of noxious weeds were present at the time of inspection, including Musk Thistle, Chamomile, Downey Brome (Cheatgrass), Diffuse Knapweed, and Field Bindweed. This is cited as a problem in this report (see **Problem #2**). The operator will need to submit evidence that noxious weeds are being treated in accordance with the approved weed management plan. Evidence includes, but is not limited to, an invoice for service, receipt of chemical purchase, and/or images of sprayed plants. Refer to **photos 14-19** for images of some noxious weeds observed at the site.

The Bijou Clay Mine will not be approved for full release at this time due to the problems cited with erosion and noxious weeds, in addition to the unsuccessful revegetation. The operator may withdraw their release request (SL-1) if they wish; otherwise, the Division will deny SL-1 on September 29, 2023. Please note, even if SL-1 is withdrawn, the problem citations in this report remain active and the operator will need to resolve them by the corrective action due date.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Joel Renfro at the Colorado Division of Reclamation, Mining, and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at (303) 866-3567 ext. 8147, or email at joel.renfro@state.co.us.

PHOTOGRAPHS



Photo 1. Bijou Clay Mine sign, looking east.



Photo 2. Mine entrance and access road, looking east.



Photo 3. Seeded patch of land near the mine entrance, looking east.



Photo 4. Revegetation growth north of phase 4 pit, looking north.



Photo 5. Revegetation growth along eastern permit boundary in between phase 4 and phase 1 mining areas, looking north.



Photo 6. Bare patch of eroded topsoil forming rills in phase 1 mining area, looking east.



Photo 7. Bare patch of land in phase 1 mining area, looking west.



Photo 8. Sparse revegetation in phase 2 mining area, looking north.



Photo 9. Revegetation in phase 3 mining area, looking north.



Photo 10. Eroded slope forming rills between phase 3 and phase 2 mining areas, looking southwest.



Photo 11. Revegetation in phase 3 pit, looking west.



Photo 12. Revegetation northwest of phase 2 mining area, looking north.



Photo 13. Revegetation west of phase 2 mining area, looking west.



Photo 14. Chamomile located in southwest portion of site.



Photo 15. Diffuse Knapweed located in southwest portion of site.



Photo 16. Field Bindweed located in southwest portion of site.



Photo 17. Downey Brome (Cheatgrass) patch located in southwest portion of site.



Photo 18. Musk Thistle located south of detention basin in northeast portion of site.



Photo 19. Musk Thistle located north of detention basin in northwest portion of site.



Photo 20. Detention basin located at northeast edge of site, looking east.



Photo 21. Gully leading from detention basin to natural drainage at eastern permit boundary, looking east.



Photo 22. Close up of gully northeast of site, looking east.



Photo 23. Gully leading into drainage southwest of site into phase 4 pit, looking north.



Photo 24. Gully leading into drainage southwest of site into phase 4 pit, looking south.

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each.

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>PB</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>N</u>	(SC) EROSION/SEDIMENTATION--- <u>PB</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

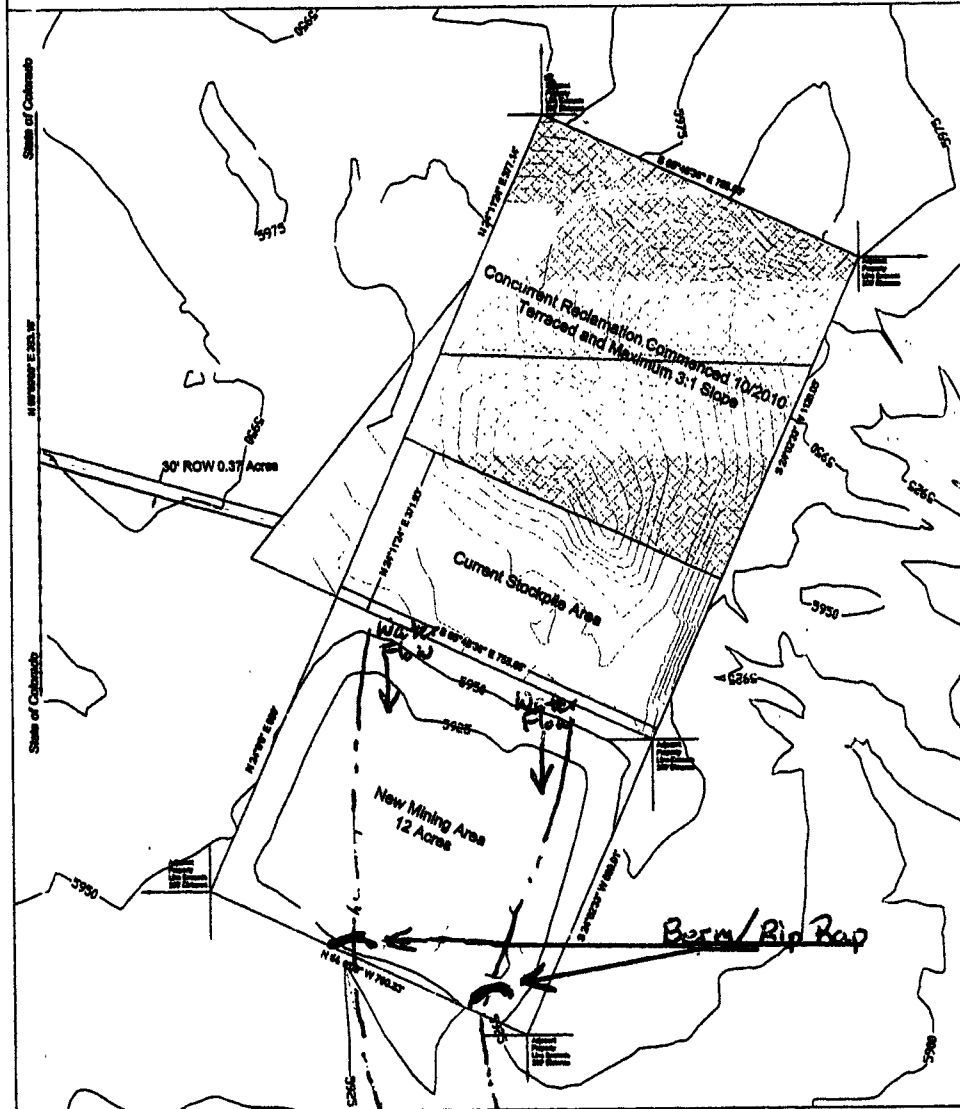
Inspection Contact Address

Richard Murphy
The Denver Brick Company
210 Acme St
Denton, TX 76205

Enclosure: Approved reclamation plan map

CC: Amy Eschberger, DRMS

Reclamation Plan Map



LEGEND

- RECLAMATION AREA
- FENCE
- PERMIT AREA BOUNDARY
- ACCESS ROAD
- INTERMITTENT STREAM LOCATION

EXHIBIT F

Reclamation Plan Map

ACME BRICK DENVER PLANT

BUOU CLAY PIT

Scale 1" = 100'

North Arrow

Rev 3
12-17-12

NOT TO EXCEED 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100