



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: Reclamation Pit No 1	MINE/PROSPECTING ID#: M-1977-153 & M-1979-195	MINERAL: Sand and gravel	COUNTY: Adams
INSPECTION TYPE: Monitoring	INSPECTOR(S): Nikie Gagnon	INSP. DATE: June 15, 2022	INSP. TIME: 09:00
OPERATOR: Denver Water Department	OPERATOR REPRESENTATIVE: Brad Piede	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$0.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: July 1, 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>N</u>	(FN) FINANCIAL WARRANTY----- <u>N</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>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</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>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 monitoring inspection of the Reclamation Pit No. 1 (M-1977-153) and the Road Runners's Rest II Pit (M-1979-195). These are two separate permits that are operated as one by the City and County of Denver, Board of Water Commissioners (Denver Water). The Road Runner Rest Pit is a 168.41-acre 112c permit. The Reclamation Pit No. 1 is a 159.85-acre 112c permit. The permit area for these two sites encompass one large reservoir, Hazeltine Reservoir (Reservoir). The post-mining land use of the site is developed water resources. Nikie Gagnon and Jason Musick of the Colorado Division of Reclamation, Mining and Safety (Division) conducted the inspection. Brad Piede, representing Denver Water, accompanied the Division during the inspection. The weather was warm and clear.

General Compliance with Mine Plan

During the inspection, active mining was observed in the bottom of the Road Runner Rest Pit in the northeastern section of the Reservoir. One excavator and one grader were on site stripping material from the bottom of the reservoir and loading the material into trucks. Several trucks were observed entering and exiting the site. Mr. Piede indicated mining will occur through 2024. Afterwards, Denver Water plans to build a pump house in the northeastern corner of the permit area. Construction of the pump house is anticipated to begin after mining is complete in 2024. Additionally, Denver Water plans to install a spillway along the northern boundary of the reservoir. Older stockpiles of sand/gravel were noted in the bottom of the southwest corner of the Reservoir. According to Mr. Piede, these will be removed during reclamation to increase capacity of the reservoir.

Air Resource Protection

Fugitive dust was observed in the area of active mining during the inspection. The Division recommends applying water to reduce the dust during mining operations.

Roads

There is a gravel access road around the Reservoir that will remain on site when reclamation is complete.

Hydrologic Balance

The Reservoir is lined with a soil bentonite slurry wall on the north, west and east sides and ties into the Howe-Haller Reservoir B (M-1978-052) on the south side. The South Platte flooded in 2013 and damaged the southwestern corner of the Reservoir/Reclamation Pit No. 1. A leak test was conducted and the slurry wall was approved by the State Engineer in 2017. Mr. Piede stated that a groundwater mounding drain was installed on the west side of the Reclamation Pit. During the inspection, the Reservoir was holding water in two basins, one in the northeast corner of the Road Runners Rest II Pit and one in the southeast corner of the Reclamation Pit No. 1.

Revegetation and Reclamation Success

The reservoir sides are sloped at 3H:1V or flatter along the majority of the reservoir. All slopes were structurally stable with no evidence of instability noted at the time of the inspection. Dense grass is established throughout the site. During the inspection, no large patches of weeds were observed, although some thistle was noted along the northeastern side of the Reservoir. The southwestern corner of Reclamation Pit No. 1 was regraded and reseeded after the repair to the slurry wall in 2017. While not as densely vegetated as the rest of the site, the grasses have reestablished on the slopes of the repair and weeds are well

controlled.

Reclamation Plan Revision

Denver Water will need to submit a Technical Revision and update the approved Reclamation Plan and Map to include the following:

- All structures that will remain on site after mining is complete.
 - groundwater mounding drain and valves
 - water conveyance structures such as inlet and outlets, and ramps to the bottom of the pit
 - outlet to the South Platte River in the northeast Reclamation Pit No. 1 parcel north of 120th Parkway.
- Access roads that will be left in place after reclamation
- Future pump house.
- Future spillway along the northern edge of the Reservoir.

Photographs taken during the inspection are attached.

Please contact Nikie Gagnon (303) 866-3567 ext. 8126 or email at nikie.gagnon@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Looking west at active mining in northeast section of Road Runners Rest II Pit.



Looking northwest at slurry wall repair in Reclamation Pit No. 1.



Looking northeast across the Reservoir.



Stockpiles in southwest corner of Reclamation Pit. Slurry wall repair slope in the foreground.



Looking west at basin in northeast corner of Reservoir. Future pumphouse will be constructed in this area.



Access road east of Reclamation Pit No. 1. Discharge point to First Creek.



Basin in the Southeast corner of Reclamation Pit No. 1.



Thistle plants on slopes around pit basin in northeast corner of the Reservoir.



Fugitive dust in area of active mining.





Looking south. Future location of spillway along the northern edge of the Reservoir in foreground.

Inspection Contact Address

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