



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: Pikeview Quarry	MINE/PROSPECTING ID#: M-1977-211	MINERAL: Limestone (general), granite gneiss and do	COUNTY: El Paso
INSPECTION TYPE: Monitoring	WEATHER: Clear	INSP. DATE: May 21, 2024	INSP. TIME: 10:00
OPERATOR: Riverbend Industries Inc.	OPERATOR REPRESENTATIVE: Jerry Schnabel	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE:	BOND AMOUNT: \$13,389,784.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Hunter Ridley	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: May 24, 2024	

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>N</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>Y</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>Y</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>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 inspection was conducted by Hunter Ridley with the Division of Reclamation, Mining and Safety (Division) as part of the continuing planned monthly inspections to observe the backfill placement for the final reclamation of the Pikeview Quarry. Jerry Schnabel (representing the Permittee, Riverbend Industries Inc.) and Stantec representatives Tim Culberson, Paul Kos, and Michaela Swain were present for the inspection. USFS representatives Cullen LaPointe, Julie Spawn, and Madison Banks were also present for the inspection.

Surety Reduction (SR3) was approved by the Division on March 14, 2024. No appeal to the Division's decision was received within the required 30-day time frame. Therefore, the Division's decision is final. The new required bond amount at Pikeview Quarry is \$6,805,607.00.

An application for Technical Revision No. 24 (TR24) was called complete for filing by the Division on May 13, 2024. The Division is in review of TR24. The decision date is currently set for June 12, 2024. TR24 includes a redesign of the site's surface drainage channels to account for current site conditions and granite bedrock to be left in place on the upper slope.

Records: Compaction testing records were reviewed back to March 28, the last date not available during the previous inspection. All test results reviewed in this period (March 28th to May 1st) demonstrated at least 90 percent compaction in compliance with the approved specification. One retest was required on April 5th. No tests were completed on several of the days in April due to inclement weather or due to equipment blocking the prisms. Mr. Schnabel presented the Leica prism system data and trends for late April and May. Small amounts of slope creek are visible in the 7300 and 7400 prism series, but overall, the initial downward movement seen from settlement in previous months is largely flattening out as material settles into place.

March and April's geotechnical report showed relatively high compaction percentage numbers of upwards of 114 percent. The Division discussed this with site engineer Paul Kos. Mr. Kos explained that the mixing of material from the different borrow areas on site is likely producing this expected variation in actual field density measurements. However, measured densities throughout reclamation have still been similar to the geotechnical design value of 120 pcf and monthly averages have ranged between 121.4 pcf and 126.9 pcf, which fall within a +/-5% variability. Mr. Kos also stated that the final as-built analyses will use actual densities to demonstrate constructed geotechnical stability, rather than just the initially tested density.

The Annual Report, Map and Fee for 2024 has not yet been submitted to the Division. The due date is May 27, 2024. As per permit Commitment No. 1, created in November of 2023, this year's annual report shall contain a map of the Myrtle spurge locations on site and include a log of spraying and or weed removal actions. The map should also document areas where Myrtle spurge has previously been treated or removed.

Backfilling and Grading: Mr. Schnabel indicated that material for the final slopes of the buttress were taken from the lower and south borrow areas at the site. The shop area is no longer being used for fill material but is being backfilled slightly to meet final grade (Photo 1). Subgrade contouring and topsoiling has been completed or is near completion on the first four lifts. All placed backfill continues to be tested for compaction in accordance with the approved specifications.

The site's April geotechnical report noted that two tension cracks had formed on the upper slope fill. The report described these features as ~100ft x 2in cracks which were noted at the site's visual inspections on April 3rd and April 25th. The report cited the cause of these cracks as expected settlement from the buttress below (Photos 5-8). The Division observed this area during the inspection and found that the two original cracks had progressed

slightly in length and depth and that a third, smaller crack was also forming (Photo 7). However, these cracks overall remained superficial in depth and length. All cracks are located above the historic landslide area. No mounding or bulging of material was noted in the area immediately below the cracks or further down on the next bench (Photo 9). Compaction tests were done above and below the crack area and showed compaction results above the 90% requirement. Mr. Kos explained that remediation of these cracks will consist of minimal regrading of the slope before final topsoiling. Two additional prisms are also planned to be installed above and below the area of the cracks to monitor any additional movement. Stantec will continue to monitor these prisms closely over the next months as final topsoiling takes place. Should the movement of these prisms remain minimal in over time, the Division has no major concern for slope stability.

Roads: Minimal equipment remains onsite as earthwork comes to near completion at the site (Photo 4). The uppermost road located just below the South Peak has been blasted to final configuration and so is no longer in place. Mr. Schnabel expressed the Forest Service's request for no formal roads to remain on their portion of the property in final reclamation. All other roads on site are maintained. A water truck should be used in times of high wind and dry conditions to reduce dust.

Explosives: Drilling and blasting at the site have been completed, with a total of three blasts taking place. Efforts were focused in the 'Dragon's Back' and South Peak areas (Photo 3). Rubblized material in this area is being hauled for use in the drainage channels as rip rap and for use as compacted material at the floor of the buttress.

Fish and Wildlife: No negative impact on wildlife was observed. Two fox cubs were seen using a rocky area at the fifth bench as a den. This area is planned to be partially backfilled to a 2H:1V slope while leaving some rocky topography to accommodate Bighorn sheep and other wildlife who frequent this area (Photo 10).

Revegetation & Topsoil: The first bench of the buttress has been fully topsoiled and seeded. The second, third and fourth benches are near completion. Several thousand shrubs / trees have already been planted across the north borrow area and first buttress slope (Photo 11). Topsoil is also being place in the north borrow area (Photo 3). Mr. Kos stated that enough topsoil was on site presently to complete the 6 in reclamation requirement. However, the site continues to take in more topsoil as it is available to aid in revegetation efforts. Site personnel continues to work closely with the USFS to refine tree and shrub species and placement for final revegetation, especially as sourcing some species has proved to be a challenge. Any new tree or shrub species that are ultimately added to the site can be updated through the process of Technical Revision 24.

Placement of a 30% coconut fiber and 70% straw mat is the final stage of revegetation on the buttress slopes. Matting is rolled down from the top of the slope and stapled in place to ensure stability as vegetation takes root. Seed and mulch mix are laid beneath this and ultimately secured in place and protected from erosion by the mat. The mat will biodegrade in approximately 2 years' time. This matting has also been laid down in the north borrow area and is already seeing the growth of grass species on Forest Service property. Revegetation in the City's property on this northern portion continues to be monitored but may need additional seeding and revegetation efforts to encourage grass growth between the flourishing shrubs (Photo 12).

The near vertical highwalls in the South Peak, Forest Service owned area is receiving topsoil on the ~30 ft benches and will be revegetated with grass, shrubs, and trees (Photo 2).

Weeds currently being treated at the site include a List A noxious weed species, Myrtle spurge along with common knapweed, thistle, and mullein (Photo 13).

Hydrologic Balance: Water is being actively pumped where a large culvert was recently removed. This area will eventually be drainage channel in final reclamation and will divert upper drainage flow to the main North Ditch. Water is flowing from the large culvert located at the eastern end of the site, indicating that French drains are functioning properly onsite, and water is flowing through the site efficiently. This is a key feature of the reclaimed slope and imperative for efforts to mitigate any potential slides in the future.

Preliminary cuts for the main north ditch are partially in place at the site (Photo 3). In final reclamation, each drainage terrace will have prisms permanently installed. TR 24 will address minor changes and re-designs needed for the upper drainage channels at the site. This re-design will also help incorporate the three natural seeps from the slope and direct these to the east, out of and around the reclaimed slope. Rip rap which will be used to construct and stabilize these channels is already onsite. Additional material was recently sourced from the blasting of the 'Dragon's back' and South Peak areas. Much of this rip rap material is currently stored near the south borrow area.

Post Inspection Meeting: No problems or possible violations were observed during the inspection. Items of importance discussed during the site meeting are summarized below:

- Monitoring of the 7300 and 7400 prism series
- New species to be added to the seed/tree/shrub mix
- Review of TR24
- Future reduction of monthly inspection and report requirements to begin after the July inspection
- Remediation and monitoring of tension cracks

Photographs taken during the inspection and a site map outlining the current disturbance boundary have been included below. Responses to this inspection report should be directed to: Hunter Ridley at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 720-868-7757 or via email at hunter.ridley@state.co.us.

PHOTOGRAPHS



Photo 1: View east of the shop borrow area, currently receiving minimal backfill.



Photo 2: View north of final south peak highwalls, material has been placed on the bench in preparation for final topsoiling.



Photo 3: View northeast of the recently topsoiled, seeded, and matted northern area, the recently blasted 'Dragon's back' area is also visible along with preliminary cuts for the main north ditch.



Photo 4: Excavators and dozers are working on the upper slope fill.



Photo 5: View south of the two cracks noted on the upper fill slope.



Photo 6: View north of the first crack noted on the upper fill slope; this was the deepest crack noted on site.



Photo 7: View facing north showing a small, third crack feature on the upper fill slope, located just above the Kiewit Cliffs feature.



Photo 8: View south of the first crack on the upper fill slope.



Photo 9: View west from beneath the tension crack area, no mounding or bulging of material in this area was observed.



Photo 10: This slope, located to the west, will be partially filled in as a 2H:1V slope; some of the rocky material will remain partially exposed to allow for Bighorn sheep and other wildlife habitat.



Photo 11: View southwest of tree and shrub planting in the north borrow area, topsoiling and matting efforts on the first four benches is also visible.



Photo 12: View north of a hillside on the northern end of the site; this area was seeded in previous years, but grass is struggling to thrive between the shrubbery.



Photo 13: View of a hillside in the southwestern portion of the permit, Riverbend is currently treating Myrtle spurge, knapweed, thistle, and mullein in this area.

Inspection Contact Address

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