




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: St. Barbara Sand and Gravel Mine	MINE/PROSPECTING ID#: M-2004-013	MINERAL: Sand and gravel	COUNTY: Pueblo
INSPECTION TYPE: Monitoring	INSPECTOR(S): Patrick Lennberg	INSP. DATE: October 7, 2020	INSP. TIME: 11:30
OPERATOR: Pete Lien & Sons, Inc.	OPERATOR REPRESENTATIVE: Scott Norman	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$411,193.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: October 22, 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>N</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>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>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</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

The St. Barbara Sand and Gravel Mine was inspected by Patrick Lennberg with the Division of Reclamation, Mining and Safety (Division/DRMS). The inspection was completed as part of the Division's routine monitoring inspection program. The site was previously inspected by the Division on June 27, 2016 as part of the Division's routine monitoring. Scott Norman, representing the Operator, accompanied me during the inspection. The weather was clear and warm.

The St. Barbara Sand and Gravel Mine is a 112c Operation and is permitted for 364 acres of land. The affected land area is 304 acres and the maximum allowed disturbed acreage is 80 acres. Affected lands will be reclaimed to developed water resources. The site is located 3 miles northwest of Avondale, Colorado. A mine sign was observed as required by Rule 3.1.12.

The site was not actively mining at the time of the inspection. However, a contractor was hauling material from one of the large product stockpiles to the pit area. Recently, irrigation activities to the north of the mine had stopped and the groundwater level in the pit rose exposing more groundwater than was allowed. The backfilling was being done to shrink the exposed groundwater to approximately 5.5 acres. The approved SWSP for the site allows differing areas of exposed groundwater under different scenarios. The scenario that is applicable to the site currently is Scenario B and Table 1B which allows for 9.76 acres of exposed water. The remaining exposed groundwater at the site is approximately 4.2 acres in the 4 process ponds. The depth of the water at the pit is approximately 30 feet and the process ponds are about 22 feet deep.

To the east of the pit pond area was an area that had been stripped in advance of mining. The overburden from this area was used to backfill previously mined areas. During mining the pit area is pumped down using pumps to expose the sand and gravel to be mined. Mining is completed using loaders and excavators that transport material to be processed near the mine entrance.

The mine has berms of overburden and topsoil that have been placed along the permit perimeter to reduce the visual and noise effects associated with mining. The berms were stable and did not exhibit any signs of excess erosion. There appeared to be sufficient amount of topsoil to reclaim the site. All haul roads throughout the site were stable. Near the mine entrance there were several large stockpiles of product material that will be distributed. Initially it was planned to mine the site every other year but recent market demand may require the Operator to mine more frequently. Noxious weeds were not seen during the inspection.

A review of the annual report in conjunction with the inspection it appears that mining related disturbance is approximately 80 acres, the annual report stated 90 acres had been affected but upon further investigation this value is inaccurate. The Division recommends that the Operator submit a Technical Revision to increase the disturbed area from 80 acres to at least 100 acres. In doing so the Operator can allow for expanding mining activities while remaining below the maximum allowed disturbed limit.

The financial warranty was recalculated as part of this inspection. A copy of the Division's estimate will be sent to the operator for review under a separate cover letter.

Photographs taken during the inspection are attached.

Please contact Patrick Lennberg (303)866-3567 ext. 8114 or email at patrick.lennberg@state.co.us if you have any questions regarding this report.

Inspection Contact Address

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ec: Clint Beck, P.E., Pete Lien & Sons, Inc., CBeck@petelien.com

PHOTOGRAPHS



Photo 1: Mine sign at entrance to mine site



Photo 2: Product stockpiles near mine entrance



Photo 3: Product stockpile being used to backfill



Photo 4: Area stripped ahead of mining



Photo 5: Open water in background marks the limits of current mining, area in the foreground has been stripped of overburden in preparation of mining



Photo 6: Area has been backfilled to prevent groundwater exposure



Photo 7: Exposed water to the center left of picture is being backfilled, the remaining open water is permitted for exposure



Photo 8: Typical process settling pond



Photo 9: Westernmost process pond



Photo 10: Backfilling activities at open water area



Photo 11: Aerial overview of permit from Bing Maps, date unknown



Photo 12: Aerial overview of active mining area from Bing Maps, date unknown

