




**COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY**  
**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.

<b>MINE NAME:</b> Gloria Z Mine	<b>MINE/PROSPECTING ID#:</b> M-1984-094	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Park
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Michael A. Cunningham	<b>INSP. DATE:</b> August 30, 2012	<b>INSP. TIME:</b> 09:30
<b>OPERATOR:</b> Sanborn Sand and Gravel/dba Golden Cross Aggregate	<b>OPERATOR REPRESENTATIVE:</b> Mike Pfister	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	

<b>REASON FOR INSPECTION:</b> Citizen Complaint	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$33,114.00
<b>DATE OF COMPLAINT:</b> August 23, 2012	<b>POST INSP. CONTACTS:</b> State Engineer (Div. of Water Resources)	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> September 13, 2012

**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:** Hydrologic Balance

**PROBLEM/POSSIBLE VIOLATION:** Possible Violation: The Division has no evidence that the Operator has a valid well permit, substitute water supply plan, or approved water augmentation plan for the exposed groundwater at the site. This is a problem related to 34-32.5-116(4)(h) of the Colorado Revised Statutes and 3.1.6(1)(a) of the Construction Materials Rules and Regulations governing injury to existing water rights.

**CORRECTIVE ACTIONS:** This possible violation will require a hearing before the Mined Land Reclamation Board. The schedule and other details for the MLRB hearing will be provided under a separate document to be sent via certified mail to the Operator.

**CORRECTIVE ACTION DUE DATE:** 11/14/12

**INSPECTION TOPIC:** Gen. Compliance With Mine Plan

**PROBLEM/POSSIBLE VIOLATION:** Problem: The current mine plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c)(VI). The Operator must provide sufficient information to describe or identify how the operator intends to conduct the operation.

**CORRECTIVE ACTIONS:** The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved mine plan to reflect existing and proposed activities by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 10/05/12

## **OBSERVATIONS**

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Michael Pfister of Sandborn Sand and Gravel was also present for the inspection. The Gloria Z Mine is located approximately one mile northwest of Fairplay, CO on the west side of the Middle Fork South Platte River. The site is permitted for 30.5 acres and the post-mining land use is rangeland and developed water resource.

The purpose of this inspection was to follow up on corrective actions issued by the Division during the previous inspection conducted on July 27, 2012. In addition, the Division received a citizen complaint against the operation on August 23, 2012. The complainant, Todd Sullivan, stated his domestic well, which is located south of the mine site at 1555 Platte Dr. Fairplay, CO, was contaminated. Mr. Sullivan indicated during a phone conversation with the Division that the water from the domestic well was discolored. Mr. Sullivan believed the Gloria Z Mine was impacting the quality of the water in his domestic well.

The Division visited Mr. Sullivan's property prior to inspecting the mine site. The residential property is located approximately 1,200 feet southeast of the Gloria Z Mine. According to the well records obtained from the Colorado Division of Water Resources, the well was constructed in September of 2008. The well is 200 feet deep and has a perforated casing from the bottom of the well up to the 160 ft. level. The pump rate is 10 gpm and the static water level at the time the pump was installed was 120 ft. below the ground surface. The pump is set at 180 ft. below the ground surface and has not been moved since the well was installed. Mr. Mark Balderson, the current tenant of Mr. Sullivan's residence, was also present for the inspection. Mr. Balderson stated the degradation of the water quality was first noticed approximately three weeks prior to the time of the inspection. In addition, Mr. Balderson indicated the clarity of the water had improved over the past several days. The Division surveyed the location of the well using a Trimble Juno 3B GPS unit. The well had a cap on top which appeared to be secure. The Division observed the water from the bathtub faucet. After flowing for several seconds, the water had an observable brown/red tint. It was not apparent if the discoloration was due to mineral staining or from suspended solids.

Following the previous inspection, the Operator was instructed to backfill the area of exposed groundwater located along the southern perimeter of the mine site to two feet above the static groundwater level or submit documentation demonstrating a legal right to expose groundwater. On August 23, 2012, the Operator submitted photographic documentation demonstrating the exposure of groundwater had been eliminated through backfilling. Upon arriving at the site the Division found that the Operator had re-exposed groundwater in the same location as was previously documented; the area of exposed groundwater was substantially larger than it was during the previous inspection. The area of exposed groundwater had increased from approximately 75 square feet to 6,500 square feet. In addition, the Operator had constructed a diversion ditch from the wash pond in the northern portion of the mine site to the area of exposed groundwater. The Operator explained that water from the wash pond was being diverted to the pit with exposed groundwater and the pit was being utilized as a settling pond. Mr. Pfister contended that the water in the pit was not groundwater, but was surface water which had been diverted from the wash pond. The Division disagrees with Mr. Pfister and, based on observations made during the inspection, has concluded the water in the pit is groundwater. No active mining operations were taking place during the inspection and no water was being diverted into the pit. The Operator did not submit a Technical Revision addressing the construction a diversion ditch or the use of the pit as a settling pond. These types of minor revisions require the submittal of a Technical Revision and the changes may not be made until the Division approval is granted.

The unapproved changes to the Mining Plan have been cited as a problem and will require corrective action by the Operator; please see the first page of this report for additional information.

In addition to re-exposing groundwater at the south end of the site, the Operator had exposed a second area of groundwater immediately west of the existing wash pond. The second area of exposed groundwater was approximately 300 square feet in size. According to Mr. Pfister, it was necessary to expose groundwater in this area because he could no longer make use of his water right, which allowed him to divert water from the Sacramento Creek to his wash plant. The Operator had set up a pump to move water from the pit up to the trommel located on the south side of the wash pond. The second area of exposed groundwater had vertical highwalls on three sides which were approximately 20 ft. in height. According to Mr. Pfister, the water was being leased and the evaporative depletions were covered under an existing augmentation plan. Mr. Pfister has not provided the Division with documentation demonstrating that he is in compliance with Colorado water laws and regulations governing injury to existing water rights. In addition, the Operator did not receive Division approval through a technical revision to expose a second area of groundwater. The approved Mining Plan for the Gloria Z clearly states that groundwater will not be exposed during mining operations.

The Division's groundwater policy outlines the following four approaches for Operators to gain compliance:

- 1) File a financial warranty that will ensure backfilling of the pit to cover the exposed groundwater to a depth of two feet above the static groundwater level.
- 2) Obtain a court approved augmentation plan prior to exposing groundwater.
- 3) File a financial warranty to cover the cost of installing a clay liner or a slurry wall that meets the Division of Water Resources requirements for preventing groundwater exposure.
- 4) Obtain approval from the Division of Water Resources that acknowledges compliance with the SEO's requirements pursuant to § 37-90-137(11).

Based on the findings of this inspection, the Division has reason to believe the Operator is in violation of C.R.S. 34-32.5-116(4)(h) for failure to minimize disturbances to the hydrologic balance of the affected land and of the surrounding area and to the quality and quantity of water in surface and groundwater systems both during and after the mining operations and during reclamation and/or in violation of Construction Materials Rule 3.1.6(1)(a) for failure to comply with applicable Colorado water laws and regulations governing injury to existing water rights. The possible violation will be scheduled for the November 14, 2012 Mined Land Reclamation Board Hearing. Notice of such hearing will be sent under separate cover.

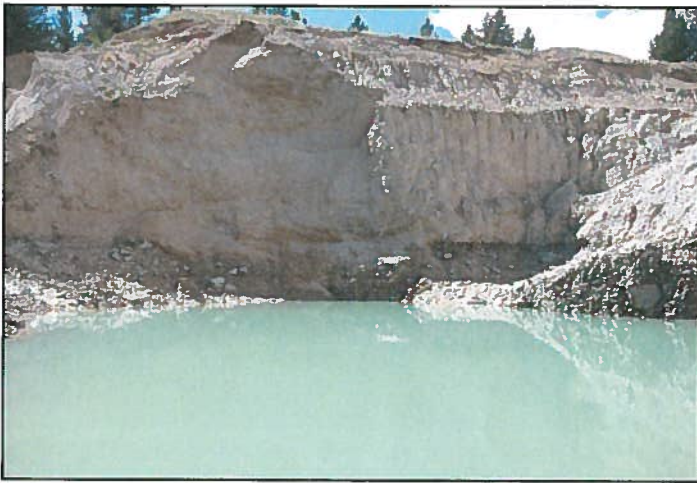
If the Operator gains compliance through one of the above options, the Division may withdraw this matter from the scheduled Mined Land Reclamation Board Hearing.

The Division was unable to determine whether activities at the mine site were impacting the water quality in Mr. Sullivan's well. The Operator's re-exposure of groundwater at the southern portion of the site combined with the routing of wash pond water to this point warrants additional investigation. The Division will conduct a round of water sampling from the Gloria Z Mine and from Mr. Sullivan's well. The water sampling will occur during a future inspection.

This concluded the inspection.



## PHOTOGRAPHS



1. Area of re-exposed groundwater, facing south.



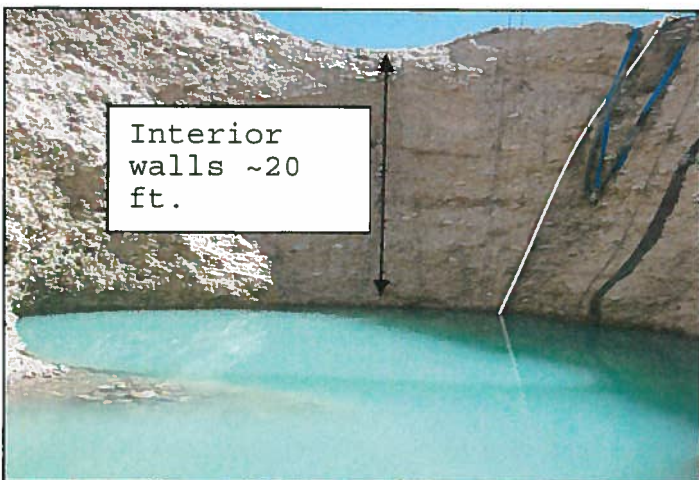
2. Overview of area of re-exposed groundwater, facing northeast.



3. Diversion ditch.



4. Diversion ditch.



5. Second area of exposed groundwater, west of wash pond.



Second area of exposed groundwater.

### GENERAL INSPECTION TOPICS

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

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>PV</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</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>	(SB) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	(ST) STIPULATIONS----- <u>NA</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

#### Inspection Contact Address

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Breckenridge, CO 80424

CC: Tom Kaldenbach, DRMS  
Jonathan Hernandez, DWR (via email)