




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: Loloff Mine	MINE/PROSPECTING ID#: M-1985-112	MINERAL: Sand and gravel	COUNTY: Weld
INSPECTION TYPE: Monitoring	INSPECTOR(S): Peter S. Hays	INSP. DATE: January 31, 2018	INSP. TIME: 10:00
OPERATOR: Loloff Construction, Inc.	OPERATOR REPRESENTATIVE: Kelly Hodges	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Citizen Complaint	BOND CALCULATION TYPE: None	BOND AMOUNT: \$1,104,455.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: February 8, 2018	

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>N</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>N</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>N</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>N</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>N</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

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

OBSERVATIONS

The Loloff Mine was inspected by Peter Hays and Eric Scott with the Division of Reclamation, Mining and Safety (Division/DRMS) in response to a citizen complaint (CT-11) received on January 23, 2018 from Mr. Jack Tyrrell. The complaint letter was forwarded to the Operators on January 25, 2018 and copy of the letter is attached. The complaint letter identified the Loloff Mine and the East 8th Street mine site operated by Superior Oilfield Services as a cause of the groundwater impacts to the residential groundwater well on this property. The Tyrrell property, 417 East 8th Street, Greeley, CO 80631, is located south of the Loloff Mine and north of the East 8th Street site.

The Division met with Mr. Tyrrell, the resident of the Tyrrell property, Mr. Kelly Hodges with Loloff Construction and Mr. Rick Miller, Mr. Jack Miller and Mr. Jim McFarland with Superior Oilfield Services at Mr. Tyrrell's property to discuss the complaint letter.

The complaint letter states his well has been lost since February 28, 2016. The resident of the property stated water is only available for 2 to 10 minutes at a time. The well was investigated by Quality Pump and Well (Quality) in 2016, however a report of the investigation is not available. The Tyrrell well is registered with the Office of the State Engineer under permit # 134824-A. The well was constructed in 1983 to a total depth of thirty five (35) feet below grade. Shale bedrock was encountered at twenty nine and a half (29.5) feet below grade. The well is approved for domestic use at a rate of 15 GPM.

The upper well casing, wellhead and underground vault containing a pressure tank were observed during the meeting. The groundwater and pump elevations could not be determined during the inspection, due to the lack of an access port in the well.

It was agreed at the meeting Mr. Tyrrell would hire Quality to investigate the well. The report generated by Quality would be sent to the Division for review. The findings of the Quality report will determine the mitigation measures required by Loloff and Superior to restore the historic water quantity to the residence by either refurbishing the existing well, drilling a replacement well or providing City of Greeley water. The addition of a cistern to the existing or replacement well was discussed as an option to maintain adequate water for the residence.

Mr. Hodges stated he has contracted with John's Pump Service to install a replacement well if the Quality report indicates a replacement well is necessary. The installation of a replacement well is in accordance with the approved Groundwater Impact Mitigation Plan for the Loloff Mine, which states should the levels in the existing wells change by 2-4 feet then Loloff Construction, Inc. will mitigate by recharging at locations along the pit to increase the levels of the groundwater so that the impact from dewatering is minimized. If the recharging method is not effective the mitigation measures would be:

1. Work with the well owner that is affected to re-set their existing pumps to a lower level in order to mitigate any flow impacts to the existing well.
2. If the method in Number 1 is not effective then drilling a new well or deepening the existing well or providing water service from the City of Greeley or North Weld Water.

Loloff is currently mitigating impacts to other wells surrounding the mine site by recharging groundwater from the mine site into the irrigation ditch along the western boundary. The recharging effect does not appear to have increased the groundwater elevations in Mr. Tyrrell's well.

The Loloff Mine is approved for the installation of a slurry wall to create a reservoir. The slurry wall design and specifications for the site were approved by the Division on July 18, 2016. The Operator installed the slurry wall around the perimeter of the site in August 2017. The Division has measured a six foot increase in water elevations since the slurry wall installation in groundwater wells located northwest of the Tyrrell well.

The west pit of the East 8th Street site has not been dewatered for the past 2 years. The pit has been filled with free river water twice in the last year, however the pit does not retain the water. The water level recedes to a level approximately three feet above the pit floor. Monitoring well data provided by Superior during the inspection supported the reduced groundwater levels surrounding the west pit.

The Division believes sufficient evidence exists to support the Tyrrell complaint that the previous dewatering activity at the Loloff Mine and the lack of water in the west pit of the East 8th Street site have affected the groundwater well located at 417 East 8th Street, Greeley, CO 80631. This is a problem related to Rule 3.1.6 of the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and CRS 34-32.5-116(4)(h) of the Colorado Land Reclamation Act for the Extraction of Construction Materials.

The Division will contact the Operators of the Loloff Mine and East 8th Street site to discuss the Quality report once received from Mr. Tyrrell.

Inspection Contact Address

Mr. Kelly Hodges
Loloff Construction, Inc.
801 8th Street, Suite 130
Greeley, CO 80631

Enclosure – Complaint letter

Ec: Wally Erickson, DRMS
Eric Scott, DRMS
Jack Tyrrell, Landowner
Rick Miller, Superior Oilfield Services