


**COLORADO**Division of Reclamation,
Mining and Safety

Department of Natural Resources

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: December 6, 2016	INSP. TIME: 11:15
OPERATOR: Loloff Construction, Inc.	OPERATOR REPRESENTATIVE: Kelly Hodge	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: December 6, 2016

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: Problem: The dewatering activity at the Loloff Mine has caused disturbances to the prevailing hydrologic balance and is affecting the groundwater well located at 417 East 8th Street, Greeley, CO 80631 owned by Mr. Tyrrell. 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.

CORRECTIVE ACTIONS: Loloff Construction, Inc. must implement the approved mitigation plan for the site and work with the affected well owner to investigate and rehabilitate the well within 10 days of the mailing date of this inspection report. Failure to comply may result in the problem escalating to a possible violation and an enforcement hearing being scheduled in front of the Mined Land Reclamation Board.

CORRECTIVE ACTION DUE DATE: 12/16/17

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-08) received on December 1, 2016 from Mr. Jack Tyrrell. The complaint letter was forwarded to the Operator by email on December 5, 2016 and copy of

attached. The complaint letter identified the Loloff Mine as a cause of the groundwater impacts. The Tyrrell property, 417 East 8th Street, Greeley, CO 80631, is located south of the Loloff Mine.

The Division met with Mr. Tyrrell on his property prior to inspecting the Loloff Mine site. The complaint letter states very little water has been in the well for the last three (3) weeks. 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 surge tank were observed during the inspection. The groundwater and pump elevations could not be determined during the inspection, due to the lack of an access port in the well. Mr. Tyrrell stated the well had been performing better though the summer, but lost water again three (3) weeks ago.

The approved Groundwater Impact Mitigation Plan for the site 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.

The Operator 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 Division arranged an inspection with Mr. Kelly Hodge with Loloff Construction, Inc. to discuss the citizen complaint at the Loloff Mine site, however Mr. Hodge was not available in person due to an inspection of the site by MSHA. The Division was able to speak with Mr. Hodge by phone during and after the inspection.

The mine site was actively mining and dewatering during the inspection. The depth from the top of slope to the top of the dewatering trench in the southwest corner of the site was determined to be 30 feet based on a previous GPS survey and Google Earth Pro data. Dewatering pumps with 8" diameter discharge pipes were observed in the southwest corner of the mine site. The water is discharged into a ditch which runs southeast from the site, crosses under Balsam Ave and East 8th St. and into the Ogilvy Ditch. The discharge activity is permitted under NPDES permit # COG500375.

Based on the GPS data and calculations from Google Earth Pro, the Division estimates the Tyrrell well is located 900 feet (275 meters) south of the southern Loloff Mine boundary. The pit radius of Loloff Mine was estimated at 270 feet (82 meters). Using the USGS Analytical and Numerical Simulation of Steady-State Hydrologic Effects of Mining Aggregate in Hypothetical Sand-and-Gravel and Fractured Crystalline-Rock Aquifers, Report 02-4267, the Division calculated a drawdown of 7.5 feet (2.3 meters) for the Tyrrell well due to the dewatering of the Loloff Mine.

The Division believes sufficient evidence exists to support the Tyrrell complaint that the current dewatering activity at the Loloff Mine is affecting 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.

As cited as a problem, Loloff Construction, Inc. must implement the approved mitigation plan for the site and work with Mr. Tyrrell to investigate and rehabilitate the well on this property within 10 days of the mailing date of this inspection report. Failure to comply with the corrective action may result in the problem escalating to possible violation and an enforcement hearing being scheduled in front of the Mined Land Reclamation Board.

The E 8th Street Operation mine site, M-2000-082, operated by Superior Oilfield Services was also inspected and a problem was cited for groundwater impacts to the Tyrrell well associated with this complaint. The cumulative effect of dewatering at both sites has caused disturbances to the prevailing hydrologic balance. The Division recommends the Operator coordinate with Superior Oilfield Services Co., LTD, to provide mitigation measures.

Photographs taken during the inspection and the inspection map from the March inspection are attached.

PHOTOGRAPHS



Tyrrell well



Tyrrell well vault and surge tank



View of dewatered Loloff Mine from SW corner looking NE



Loloff Mine dewatering discharge point

GENERAL INSPECTION TOPICS

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

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>PB</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>	(CI) COMPLETE INSP---- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	(ST) STIPULATIONS----- <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

Inspection Contact Address

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

Enclosure

Ec: Wally Erickson, DRMS
Eric Scott, DRMS
Jack Tyrrell, well owner

PST
PETER HAYS
ENVIRONMENTAL PROTECTION SPECIALIST II
DIVISION OF RECLAMATION, MINING AND SAFETY
1313 SHERMAN STREET, ROOM 215
DENVER, CO 80203

Date: November 28, 2016

MR. HAYS:

I am writing again to inform you that we have very little water at our well at 417 E. 8th st., Greeley, Co 80631.. i had talked to Jack Miller with Superior Oilfield Services Co., LTD., he informed me if I was having a problem with the well to contact him.. I called and left word to call me, but so far he has not returned my call. That was three weeks ago.

I think I am going to have to annex into the city of Greeley to hook up to city water..I feel that Superior Oilfield Services Co., LTD and LOLOFF CONSTRUCTION, INC., LOLOFF MINE should have to pay to hook up 417 E 8th Street to city water. Neither one cares if we have well water or not.

I would appreciate it if you would look into this matter again.

Sincerely,

Jack E. Tyrrell

✓ Jack E. Tyrrell
417 E. 8th Street
Greeley, CO 80634

Phone: 970-371-7107

RECEIVED

✓ DEC 01 2016

DIVISION OF RECLAMATION
MINING AND SAFETY

From: **Chrissy Lutz** Chrissy.Lutz@Greeleygov.com 
Subject: **417 E 8TH ST**
Date: **November 14, 2016 at 11:58 AM**
To: **jacktyrrell16@yahoo.com**



Hi Jack,

As follow up to our conversation of what it would take to connect to City of Greeley water and sanitary sewer..

The first item, is that the property would need to be annexed to the city. Please contact our Community Development/Planning staff, 970-350-9780, for information on how the annexation process works.

A construction drawing needs to be created and submitted for approval to our development review engineers, showing how the water and sanitary sewer service will be constructed, from the applicable mains into the property. Then the proper permits (plumbing permit for the service line and a right-of-way permit for the contractor to dig up the sanitary sewer main to connect the service to the main) will need to be completed, and the applicable fees will need to be paid. A development review engineer will better guide you through this process. The contact number for Development Review is 970-350-9784.

The current water and sanitary sewer fees would be as follows based off of stereotypical sizes. The property owner determines what size to select for the use of the site.

¾" Water plant investment fee \$10,800

¾" Water meter \$287

L&M to have Water Distribution to drill the ¾" tap \$170

Raw water minimum - .75 acre fee, \$24,750 (.75 AF x \$33,000/AF current cash-in-lieu); Base annual allotment 244,000 gallons

4" Sewer plant investment fee \$5,450

L&M to have Wastewater Collection to drill the 4" tap \$225 – 350 (The sewer main in front of your lot may require the connection directly into a manhole. If this is the case then your contractor would drill the 4" tap into the manhole.)

If you need additional information or have other questions, please let me know.

Chrissy Lutz
Water and Sewer Services Coordinator
City of Greeley
Chrissy.lutz@greeleygov.com
970-350-9810

City of Greeley offices will be closed November 24th and 25th for the Thanksgiving Holiday.

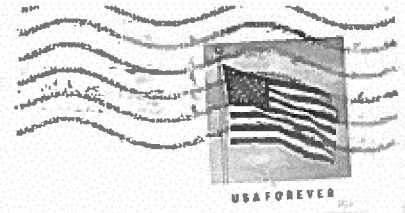


Resolution 66,

JACK E. TYRRELL
417 E. 8th Street
GREELEY, CO 80631

DENVER CO 802

28 NOV 2016 PM 5 L



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DENVER CO 80203-2243






80203-224365



Tyrrell Well Complaint Map

March 11, 2016 Inspection

Legend

-  Hill Petroleum Monitoring well
-  Loloff Mine
-  Superior MW-2
-  Superior Oilfield - E 8th Street Operation
-  Tyrrell Well

