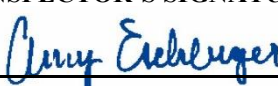




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

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: Wagner/Kauffman Pit #3	MINE/PROSPECTING ID#: M-1999-069	MINERAL: Sand and gravel	COUNTY: Larimer
INSPECTION TYPE: Surety-Related Inspection	INSPECTOR(S): Amy Eschberger	INSP. DATE: May 22, 2018	INSP. TIME: 10:00
OPERATOR: Jake Kauffman & Son, Inc.	OPERATOR REPRESENTATIVE: Dan Giroux, Frank Kauffman, Troy Kauffman	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Surety Related	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$570,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: May 24, 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>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>NA</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	

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

OBSERVATIONS

This inspection of the Wagner/Kauffman Pit #3 (Permit No. M-1999-069) was conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) in response to an Acreage Reduction request (Revision No. AR-8) submitted by the operator on April 18, 2018. AR-8 proposes releasing 98.3 acres from the permit area, comprised of the East Reservoir (see enclosed Google Earth image of site showing proposed release area). The Division was accompanied by Dan Giroux of Terramax, Inc., Frank Kauffman, and Troy Kauffman during the inspection. The site is located approximately 2 miles east of Loveland, CO in Larimer County. The site can be accessed from the west off Co Rd 9E, and passing through the operator's commercial yard and the Kauffman Pit (Permit No. M-1978-327). The affected land is owned by the operator.

This is a 112c operation permitted for 185 acres to mine sand and gravel just north of the Big Thompson River. The operation dewatered areas prior to excavation. The maximum mining depth was approximately 20 feet. The site was mined in three phases, generally from east to west. The phase I mining area has been released. Mined material was processed on site. A roadway embankment was constructed along the City of Loveland right-of-way (embankment) that runs generally north-south across the property, separating the East Reservoir (east of the embankment) from the other two mined pits. The land west of the embankment is bisected by the Boyd Lake Outlet Ditch (outlet ditch), which runs northwest-southeast across the property in this area. The two mined pits located west of the embankment are referred to in this report as the West Reservoir (west of the outlet ditch) and the triangular area (east of the outlet ditch).

The approved reclamation plan for the site, as last revised in Technical Revision No. 5 (TR-5), calls for leaving one clay-lined reservoir (East Reservoir), and backfilling the West Reservoir and triangular area to a minimum of two feet above the static groundwater level, then grading them flat for outdoor storage use by the operator's nearby commercial yard. The operator demonstrated with TR-5 that the proposed outdoor storage areas are county zoned for industrial/commercial use. The West Reservoir was initially planned to remain as a clay-lined reservoir, but this post-mining land use for the pit could not be supported, thus its changed use to outdoor storage. Regardless, the pit is still referred to in permitting documents as the West Reservoir. No permanent augmentation for exposed groundwater is to be required after final reclamation of the site. All disturbed slopes will be graded to 3H:1V or flatter. Areas not left for outdoor storage use will be covered with a minimum 6 inches of topsoil, and seeded with a native grass seed mixture. Roads that surround the reservoirs will remain after reclamation. Additionally, the road and embankment following the City of Loveland right-of-way will remain.

The Division observed the triangular area located between the outlet ditch and the embankment (**Photos 1-4**). This area was observed to be holding approximately 5.8 acres of groundwater during the Division's 4/14/2017 inspection of the site. The water was estimated to be no more than approximately two feet in depth. The Division was not clear during the last inspection whether the operation had the appropriate water rights in place for the amount of groundwater exposed on site. In further communications with the operator and the Division of Water Resources (DWR), it was determined the operation did not have the appropriate water rights for the exposed groundwater. Therefore, the operator backfilled the pit to a minimum of two feet above the static groundwater level, and submitted drone imagery to the Division on January 16, 2018 demonstrating this project had been completed. According to the operator, the portion of the pit that was holding groundwater was backfilled with 6-8 feet of dirt, which would be approximately 4-6 feet above the observed groundwater level. The Division observed no evidence of exposed groundwater in the triangular area during the current inspection. However, there were some puddles present due to a recent storm event. The Division observed topsoil stored along the northern edge of the triangular area, which was hauled in from the East Reservoir stockpile. The operator intends to spread the topsoil across the northern portion of the pit. A small stockpile of concrete rubble was stored at the northwestern corner of the triangular area. The operator intends to move this material to the

recycling plant in the Kauffman Pit permit area, so it can be crushed into rip rap. The operator inquired about submitting an additional Acreage Reduction request to release the triangular area from the permit area. The Division believes this area will meet the requirements of its approved post-mining land use as an outdoor storage area once the topsoil stockpiles have been spread out. The undisturbed strip of land located north of the triangular area (**Photo 5**) is releasable at this time. Additionally, the City of Loveland embankment could be released, as it has been constructed as approved, and is well vegetated with native grasses.

The Division observed the West Reservoir pit located west of the outfall ditch (**Photos 6-13**). This pit was dry during the inspection, besides some puddles left by a recent storm event. The pit is approximately 15 feet deep, and covers approximately 33 acres. Topsoil from the East Reservoir was also hauled to this pit for storage. Several stockpiles were stored along the eastern and northern edges of the pit and on the pit floor. The Division observed a truck dumping material on the pit floor during the inspection. The western pit slope that was seeded last spring now shows good grass growth. However, the operator intends to completely backfill this pit prior to using it as outdoor storage. The Division observed the top of the berm that separates the West Reservoir pit from an unlined pond located in the Kauffman Pit permit area. The operator had to repair this portion of the berm after it was breached in the September 2013 flooding. The berm appeared to be stable. The operator continues to pump water from a small dewatering trench present along the southern edge of the West Reservoir and discharge the water to the Kauffman Pit pond. According to the SWSP for the site, this activity has been authorized by the DWR, with any associated depletions accounted for in the plan.

The Division observed the East Reservoir proposed for release in AR-8 (**Photos 14-19**). The reservoir was dry besides some puddles left from a recent storm event. The large topsoil stockpile that was present on the reservoir floor during the 4/14/2017 inspection had been almost completely removed. Only a few feet of the stockpile remains, with the top surface graded flat. As previously mentioned, the topsoil was moved to the two pits located west of the embankment. This was done after the Division informed the operator last year the reservoir could not be released with a large topsoil stockpile stored in the area. The slopes of the reservoir were graded to 3H:1V and seeded many years ago. The reservoir slopes appeared to be stable with decent vegetative growth on slopes that have not yet received rip rap placement. The approved reclamation plan does not require rip rap placement along the slopes of the East Reservoir. This project is being funded by the City of Loveland. The timing for this project is controlled by city budgeting, thus, only the western and southern slopes have had rip rap placement at this time. The clay liner constructed around the East Reservoir was approved by DWR as having met the design standard in a letter dated January 17, 2017. The DWR submitted comments on May 8, 2018 in response to AR-8, which further confirm the pit has been classified as a lined reservoir.

The Division believes the East Reservoir has been reclaimed in accordance with its approved post-mining land use as a lined reservoir. Therefore, the Division will approve AR-8 to release the reservoir from the permit area (98.3 acres), leaving the City of Loveland right-of-way embankment, and the two mined pits located west of the embankment. This release will reduce the permit area from 185 acres to 86.7 acres. The AR-8 approval letter will be mailed to the operator separately from this report.

No problems were observed during the inspection. However, the Division recommends the operator implement the approved weed control plan at the site, especially for any state-listed noxious weed species. The operator should also keep in mind that Rule 3.1.3 requires all reclamation to be carried to completion with all reasonable diligence, and each phase of reclamation be completed within five (5) years from the date the operator informs the Division that such phase has commenced. According to annual reports submitted by the operator, the site has been in final reclamation since 2011. The Division understands the September 2013 flooding damaged areas that had to be repaired and reclaimed again. However, the Division strongly encourages the operator to complete final reclamation of the remaining pits with all reasonable diligence in accordance with Rule 3.1.3.

PHOTOGRAPHS



Photo 1. View looking south across western half of backfilled triangular area located between embankment and outfall ditch.



Photo 2. View looking south across eastern half of backfilled triangular area located between embankment and outfall ditch.



Photo 3. View looking south from outside of triangular area, showing topsoil stockpiled along northern edge of pit.



Photo 4. View looking southwest from northern edge of triangular area, showing small stockpile of concrete rubble stored at northwestern corner of pit.



Photo 5. View looking north across strip of land located north of triangular area that was undisturbed by the operation and is therefore, eligible for release.



Photo 6. View looking north, showing topsoil stockpiles stored along eastern slope of West Reservoir.



Photo 7. View looking south across floor of West Reservoir, from its northern edge.



Photo 8. View looking west across floor of West Reservoir, showing portion of western slope (in background; indicated with arrow) that shows good grass growth.



Photo 9. View of truck dumping dirt in the West Reservoir pit during the inspection. TR-4, approved in 2017, allows the operator to backfill pits west of the embankment with inert materials.



Photo 10. View looking southwest across floor of West Reservoir. Tree-lined berm in background separates this pit from an unlined pond in the Kauffman Pit permit area.



Photo 11. View looking south at southern edge of West Reservoir pit, with location of dewatering trench indicated by blue line. Tree-lined berm in background separates this pit from an unlined pond in the Kauffman Pit permit area. Water from the dewatering trench is pumped to the Kauffman Pit pond.



Photo 12. View from top of berm separating West Reservoir from unlined pond in Kauffman Pit permit area, showing hose discharging water to pond from dewatering trench in West Reservoir.



Photo 13. View looking north across West Reservoir pit from top of berm separating pit from pond in Kauffman Pit permit area. Note material stockpiles present on pit floor.



Photo 14. View looking southeast across eastern slope of East Reservoir, showing slope at 3H:1V gradient and stable with vegetative cover. This slope will be covered with rip rap, per City of Loveland.



Photo 15. View looking northwest across northern slope of East Reservoir, showing slope at 3H:1V gradient and stable with vegetative cover. This slope will be covered with rip rap, per City of Loveland.



Photo 16. View looking west across southern slope of East Reservoir, showing slope at 3H:1V gradient and covered with rip rap composed of crushed concrete.



Photo 17. View looking northeast across eastern slope of East Reservoir, showing slope at 3H:1V gradient and stable with vegetative cover. This slope will be covered with rip rap, per City of Loveland, as was done with southern slope (shown in foreground).



Photo 18. View looking north from southern edge of East Reservoir, showing area where large topsoil stockpile was present during last inspection (indicated with circle). Note stockpile has been almost completely removed from the pit floor.



Photo 19. View looking northwest across southwest corner and south slope of East Reservoir, showing slope at 3H:1V gradient and covered with rip rap composed of crushed concrete. Stockpiles visible at left are part of Kauffman pit permit area.

Inspection Contact Address

Frank Kauffman
Jake Kauffman & Son, Inc.
502 S. County Road 9E
Loveland, CO 80537

Enclosure: Google Earth image of site showing area proposed for release

CC: Dan Giroux, Terramax, Inc. at: dangiroux@terramax.com

M-1999-069; Kauffman/Wagner Pit #3; Jake Kauffman & Son, Inc.

Red Outline = 185 acres = Approved Permit Area

Purple Outline = 98.3 acres = Area proposed for release in AR-8 (East Reservoir)

With approval of AR-8, the permit area will be reduced to 86.7 acres.

(Image data from 10/14/2017)

