

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: | | MINE/PROSPECTING ID#: | MINERAL: | COUNTY: |
|-------------------------------|-------------------------------|-------------------------------------|---------------------|-------------------|
| Wagner/Kauffman Pit #3 | | M-1999-069 | Sand and gravel | Larimer |
| INSPECTION TYPE: | | INSPECTOR(S): | INSP. DATE: | INSP. TIME: |
| Monitoring | | Amy Eschberger | April 14, 2017 | 10:00 |
| OPERATOR: | | OPERATOR REPRESENTATIVE: | TYPE OF OPERATION: | |
| Jake Kauffman & Son, Inc. | | Mary Kauffman, Troy Kauffman, Shane | 112c - Construction | Regular Operation |
| | | Kauffman, Dan Giroux | | |
| | | | · | |
| REASON FOR INSPECTION: | | BOND CALCULATION TYPE: | BOND AMOUNT: | |
| Normal I&E Program | | Partial Bond | \$570,000.00 | |
| DATE OF COMPLAINT: | | POST INSP. CONTACTS: | JOINT INSP. AGE | NCY: |
| NA | | None | None | |
| WEATHER: | INSPECTOR'S SIGNATURE: | | SIGNATURE DATE: | |
| Clear | A \$. | | June 30, 2017 | |
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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 Y | (RD) ROADS <u>Y</u> |
|--|--|------------------------------------|
| (HB) HYDROLOGIC BALANCE <u>N</u> | (BG) BACKFILL & GRADING <u>Y</u> | (EX) EXPLOSIVES <u>NA</u> |
| (PW) PROCESSING WASTE/TAILING <u>Y</u> | (SF) PROCESSING FACILITIES NA | (TS) TOPSOIL <u>Y</u> |
| (MP) GENL MINE PLAN COMPLIANCE- <u>Y</u> | (FW) FISH & WILDLIFE <u>N</u> | (RV) REVEGETATION Y |
| (SM) SIGNS AND MARKERS <u>Y</u> | (SP) STORM WATER MGT PLAN Y | (CI) COMPLETE INSP \underline{Y} |
| (ES) OVERBURDEN/DEV. WASTE <u>Y</u> | (SC) EROSION/SEDIMENTATION \underline{Y} | (RS) RECL PLAN/COMP Y |
| (AT) ACID OR TOXIC MATERIALS <u>NA</u> | (OD) OFF-SITE DAMAGE <u>Y</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

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) at the request of the operator's consultant, Dan Giroux of Terramax, Inc. The Division had an on-site meeting with Mr. Giroux and the operator to discuss the reclamation status of the operator's two permitted sites in the area (M-1999-069 and M-1978-327). The Division was accompanied by Mr. Giroux, Mary Kauffman, Troy Kauffman, and Shane Kauffman during the inspection. The site is located approximately two miles east of Loveland, Colorado in Larimer County. The site can be accessed from the west off of 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 Jake Kauffman & Son, Inc.

This is a 112c operation permitted for 185 acres to mine sand and gravel adjacent to and north of the Big Thompson River (see enclosed Google Earth image of site showing permit area). The operation dewatered mining areas prior to excavation. The maximum mining depth was approximately 20 feet. Mined material was processed on site. The site was mined generally from east to west in three mining phases. Phase I which was located at the far eastern edge of the site was released through a series of acreage reductions, the last of which was approved in 2012. Phases II and III are separated by the Boyd Lake Outlet Ditch, which runs northwestsoutheast across the property in this area. Amendment No. 1, approved in 2006, added 56.8 acres to the southern portion of Phase II, which was originally part of the adjacent M-1978-327 permit area. After approval of Technical Revision No. 2 in 2010, the northwestern portion of Phase II was isolated from the rest of the phase by a roadway embankment constructed along the City of Loveland right-of-way, which runs generally north-south across the property. On August 5, 2010, the Division received a letter from the City of Loveland acknowledging responsibility for construction of the roadway embankment required for the future Boyd Lake Avenue Extension. Accordingly, the Division did not revise the reclamation bond to include costs for construction of the road bed.

The approved reclamation plan for the site (see enclosed reclamation plan map, revised with TR-3 approval in 2011) includes leaving two clay-lined reservoirs called the East reservoir (Phase II) and the West reservoir (Phase III), and backfilling an isolated portion of the East reservoir (northwestern portion of Phase II cut off by City of Loveland roadway embankment). No permanent augmentation for exposed groundwater is to be required after final reclamation. All pit slopes will be graded to 3H:1V or flatter, with approximately one foot of overburden replaced and a minimum 6 inches of topsoil replaced. All disturbed land, including pit slopes, will be revegetated with the seed mixture approved in Amendment No. 1, composed of Western wheatgrass, Russian wildrye, Smooth brome, Slender wheatgrass, Blue grama, Indian ricegrass, and Sideoats grama. Approximately one acre of haul road will be reclaimed. Roads that surround the reservoirs will remain at no more than 15-20 feet in width. A roadway embankment will be constructed along the City of Loveland right-of-way using material excavated on site, and the area retopsoiled and revegetated. After the site has been released, the City of Loveland will commence with final construction of the road.

The site was not active during the inspection. According to annual reports submitted by the operator, the site has been in reclamation since 2011. Much of the reclamation work had been completed at the site before major flooding of the Big Thompson River occurred in September of 2013. In August of 2013, the operator had initiated the 90-day pump test for the East reservoir liner as required by the State Engineer's Office (SEO). However, the reservoirs on site were filled with water during the September 2013 flooding. The water captured by the East reservoir was allowed to evaporate. The West reservoir was pumped dry. In 2014, the operator repaired the flood damage to reclaimed areas, including repairing the breach in the southern dike of the West reservoir, reshaping reservoir banks, and reseeding some areas that were washed out by the flooding.

On April 14, 2017, the operator provided the Division with a copy of the SEO's approval letter for the compacted clay liner installed on the East reservoir (see enclosed Compacted Clay Liner Approval Letter from SEO). The SEO determined the reservoir was lined to the design standard and is now classified as a lined reservoir. The operator must not impound any water in the East reservoir without first obtaining the appropriate water rights. During the inspection, the East reservoir was observed to be dry (**Photos 1 and 2**). The reservoir is approximately 15 feet deep. The banks of the reservoir were graded to 3H:1V or flatter and showed varying degrees of vegetative cover composed of grasses, forbs, and weeds. The operator has placed riprap along the western and southwestern banks of the reservoir (**Photo 3**). Riprap placement along the western bank was still in progress at the time of the inspection (**Photo 4**). The riprap is being generated at the recycled materials operation located to the south, in the Kauffman Pit permit area. A large topsoil stockpile is stored on the floor of the East reservoir can be accessed via ramps located on the northwestern, western, and southern edges.

The Division observed the pit located between the City of Loveland right-of-way and the Boyd Lake Outlet Ditch (**Photo 7**). This area was originally part of the East reservoir, but was separated once the roadway embankment was constructed along the right-of-way. According to TR-3, this isolated portion of the reservoir is to be backfilled to two feet above static groundwater level, retopsoiled, and revegetated. The banks of the reservoir were graded to 3H:1V or flatter and well vegetated with native grasses and forbs, with minor weeds. The eastern bank consists of the City of Loveland roadway embankment. The pit is approximately 10 feet deep. During the inspection, the Division observed water present in this pit, with an estimated surface area of 5.8 acres. Mr. Giroux estimated the water to be no more than two feet in depth. The Division is not clear on whether the operator has the appropriate water rights in place for the amount of groundwater exposed in this pit. The operator does maintain a Substitute Water Supply Plan (SWSP) with the Division of Water Resources for the site. However, the SWSP appears to only cover depletions associated with a dewatering trench along the West reservoir. The most current SWSP the Division has on file for this permit was received on December 30, 2015, and was valid until December 31, 2016. A copy of the current SWSP for this site should be provided to the Division as soon as possible. The operator has begun backfilling the northwestern portion of the pit (Photos 8 and 9). Based on a surface area of 5.8 acres and a minimum depth of four feet (two feet above current water depth of 2 feet), the Division estimates it will require a minimum of 37,430 cubic yards of material to backfill the pit to two feet above groundwater level. The operator should be advised that any importation of inert material for backfilling requires submittal of a Technical Revision if this activity was not approved in the original or amended permit.

During the inspection, the West reservoir was observed to be dry (**Photos 10 and 11**). The reservoir is approximately 10-15 feet deep. The reservoir banks were graded to 3H:1V or flatter, except for a small portion of the southern bank. The western bank of this reservoir was recently graded to 4H:1V or flatter, spread with topsoil, and seeded (**Photo 12**). The current approved reclamation plan includes installing a compacted clay liner on the West reservoir. However, during the inspection, the Division discussed with the operator the possibility of submitting a Technical Revision to change the reclamation plan for the West reservoir to backfilling it a minimum of two feet above static groundwater level. Because no water was observed in the West reservoir, it appears that it has already been backfilled above groundwater level. <u>Therefore, the operator should submit the Technical Revision as soon as possible to change the reclamation plan for the West reservoir.</u> If the reclamation plan for the West reservoir is changed to backfilling, the reclamation work remaining in this area might only include retopsoiling and revegetating the pit floor and portions of the banks. The breach that had occurred along the southern bank during the September 2013 flooding was repaired in 2014 and appeared to be stable during the inspection.

The Division observed the City of Loveland right-of-way where the roadway embankment was constructed in 2010 and 2011 (**Photos 13 and 14**). The embankment runs mainly north-south across the permit area,

separating the West reservoir and adjacent triangular shaped pit from the East reservoir. The embankment was stable with a good cover of native grasses growing across the area. It appeared the southern half of the embankment had been seeded first as it had a much better establishment of grasses than the northern half. In communication with Mr. Giroux after the inspection, the Division realized the operator may not be aware that the City of Loveland right-of-way is still part of the permit area. However, according to the permit file, the portion of the right-of-way that runs through the permit area remains part of the permitted acreage. The Division's approval of Technical Revision No. 2 allowed for the construction of the roadway embankment along the right-of-way using material generated from the site. The embankment has been constructed in accordance with the revised reclamation plan, but has not been released from the permit area to consist of approximately 11.5 acres.

The Division is currently reviewing an Acreage Reduction request (Revision No. AR-7) and a Surety Reduction request (Revision No. SR-1) for this permit submitted by the operator on May 23, 2017. The operator proposes releasing the East reservoir from the permit area, a total of 98.3 acres (see enclosed Google Earth image of site showing area proposed for release). On June 1, 2017, the Division mailed notice of these reduction requests to the landowner, Larimer County, the local Soil Conservation District, and the Division of Water Resources (DWR). During the public comment period for these requests which closed on June 16, 2017, the Division received a comment from DWR (see enclosed comment received on June 14, 2017).

In review of Revision No. AR-7, the Division found a discrepancy of 18.5 acres between the permit acreage that was given in the permit system for this site (203.5 acres), and the acreage actually associated with the permit area as shown on the approved maps and as drawn into Google Earth Pro (185 acres). In review of the permit record, the Division discovered an acreage error had been introduced with Acreage Reduction No. 6 (Revision No. AR-6). In the Revision No. AR-6 submittal, the operator clearly expressed intent to release all remaining Phase 1 acreage from the permit area. This should have included all land located east of the property fenceline that runs north-south just east of the East reservoir and on property owned by Flying W Ranch Loveland LLC. In response to Revision No. AR-6, the Division received a letter from Flying W Ranch Loveland LLC dated October 15, 2012, expressing satisfaction with the reclamation work completed on the property. The Division's approval of Revision No. AR-6 should have released 26.5 acres (remainder of Phase 1 affected lands), leaving a permit area of 185 acres. The revised permit boundary was shown correctly in the map submitted with Revision No. AR-6. However, the acreage change was not correctly reported. The Division issued an Administrative Revision No. AD-1) of this permit on June 27, 2017 which corrected the permit acreage in the permit system from 203.5 acres to 185 acres.

The Division sent the operator an adequacy review letter for AR-7 on June 27, 2017, asking for clarification on whether or not the large topsoil stockpile present on the floor of the East reservoir will be used for reclamation of the site. If this is the case, the Division will be unable to approve the release of the East reservoir. In order for the East reservoir to be released, the operator would need to either use up the topsoil for reclamation of the site or submit a Technical Revision to relocate the topsoil to another portion of the affected land not proposed for release.

The Division currently holds a financial warranty for this site in the amount of \$570,000.00. The Division is currently reviewing the required financial warranty for the site to determine whether the amount held could be reduced to account for the reclamation work completed. Any correspondence regarding the matter will be associated with Revision No. SR-1.

PHOTOGRAPHS



Photo 1. View looking northeast across East reservoir from southern permit boundary. Note reservoir is dry.



Photo 2. View looking northeast from floor of East reservoir. Note reservoir is dry.



Photo 3. View looking southwest from floor of East reservoir, showing riprap placed along southwestern bank of reservoir.



Photo 4. View looking northwest from floor of East reservoir, showing riprap placement along western bank in progress.



Photo 5. View looking north from southern bank of East reservoir, showing large topsoil stockpile stored on floor of reservoir.



Photo 6. View looking east from western bank of East reservoir, showing large topsoil stockpile stored on floor of reservoir (circled).



Photo 7. View looking east across northwestern portion of East reservoir separated by roadway embankment constructed along City of Loveland right-of-way. Note water present in pit during inspection.



Photo 8. View looking northeast across backfilled northwestern portion of pit shown in Photo 7.



Photo 9. View looking southeast across backfilled northwestern portion of pit shown in Photo 7.



Photo 10. View looking north from floor of West reservoir. Note reservoir is dry.



Photo 11. View looking east from floor of West reservoir. Note reservoir is dry.



Photo 12. View looking north across western bank of West reservoir recently graded to flatter than 3H:1V, retopsoiled and seeded.



Photo 13. View looking south across roadway embankment constructed along City of Loveland rightof-way. Note roadway is stable with good grass cover. City of Loveland will complete final construction of road after permit is released.



Photo 14. View looking north across roadway embankment constructed along City of Loveland rightof-way. Note roadway is stable with good grass cover. Haul road in foreground is reservoir access road.

PERMIT #: M-1999-069 INSPECTOR'S INITIALS: AME INSPECTION DATE: April 14, 2017

Inspection Contact Address

Mary Kauffman Jake Kauffman & Son, Inc. 808 SCR 9E Loveland, CO 80537

- Enclosures: Google Earth image of site showing permit area Reclamation Plan Map, revised with TR-3 approval in 2011 Compacted Clay Liner Approval Letter from SEO, dated January 17, 2017 Google Earth image of site showing area proposed for release Comment on AR-7 from DWR, received June 14, 2017
- CC: Dan Giroux, Terramax, Inc. (via email at: <u>dangiroux@terramax.us</u>) Wally Erickson, DRMS

M1999-069; Wagner/Kauffman Pit #3; Jake Kauffman & Son, Inc.

Red Outline = 185 acres = Approved permit area Blue Outline = 5.8 acres = Approximate surface area of exposed groundwater on site (Image data from 9/7/2016)







1313 Sherman Street, Room 821 Denver, CO 80203 January 17, 2017

TODD WILLIAMS, P.E. WILLIAMS AND WEIS CONSULTING, LLC 5255 RONALD REAGAN BLVD. JOHNSTOWN, CO 80534 TRANSMISSION VIA EMAIL: <u>tlwwater@msn.com</u>

RE: COMPACTED CLAY LINER APPROVAL (AMENDMENT) KAUFFMAN RESERVOR (EAST RESERVOIR) (WDID 0403385) WAGNER-KAUFFMAN NO. 3 PIT, DRMS NO. M-1999-069 (WDID 0403008) NE1/4 SECTION 20 AND NW1/4 SECTION 21, T5N, R68W WATER DIVISION 1, WATER DISTRICT 4

Dear Mr. Williams:

The purpose of this letter is to amend the liner approval for the Kauffman Reservoir (East Reservoir) that was originally issued on January 4, 2017. The East Reservoir is primarily located in the E1/2 of the NE1/4 of Section 20 and the W1/2 of the NW1/4 of Section 21, all in Township 5 North, Range 68 West of the 6th P.M., and is part of the Wagner-Kauffman No. 3 gravel pit (DRMS M-1999-069). As indicated in the January 4, 2017 letter the liner of the reservoir was approved, as meeting the <u>performance</u> standard.

According to the information provided via email on January 5, 2017 the perimeter and area of the bottom of the reservoir used to determine the maximum allowable seepage in the liner report prepared by Daniel Giroux of Tarramax, Inc. dated December 8, 2016, was based on the design of the reservoir rather than the actual perimeter and area of the bottom of the reservoir as constructed in the field. The new test data provided using the actual perimeter and area of the bottom of the reservoir from September 2016 site survey, indicates that <u>the reservoir has in fact been lined to the design standard</u> referenced in the August 1999 State Engineer Guidelines for Lining Criteria for Gravel Pits (1999 SEO Guidelines). Meeting the <u>design</u> standard requires that during reservoir operations all water inflows and outflows for the liner perimeter enclosed area be accounted for on a <u>monthly</u> basis.

With this liner approval (amendment), the Kauffman Reservoir (East Reservoir) of the Wagner-Kauffman No. 3 Pit is now classified as a lined reservoir in accordance with the 1999 SEO Guidelines. Water shall not be impounded in the reservoir except pursuant to lawful diversions allowed by statute or decree. At all other times, all inflow of water into the reservoir from any source, including precipitation and ground water inflows shall be removed to prevent illegal storage of water. Prior to <u>ANY</u> use of this site, the owner or operator will need to coordinate with Jean Lever, District 4 Water Commissioner, to review operations, measurement structures, stage-storage curves, and accounting.

Please contact me at the number below if you have any questions.

Sincerely. mani Cit

Ioana Comaniciu, P.E. Water Resource Engineer

ec: Jean Lever, District 4 Water Commissioner (<u>Jean.Lever@state.co.us</u>) Louis Flink, Diversion Records Coordinator (<u>Louis.Flink@state.co.us</u>) WDID File (0403385 & 0403008) Daniel Giroux, Tarramax, Inc. and Jake Kauffman & Son, Inc.



M1999-069; Kauffman/Wagner Pit #3; Kauffman & Son, Inc.

Red Outline = 185 acres = Approved Permit Area Blue Outline = 5.8 acres = Estimated Surface Area of Exposed Groundwater Purple Outline = 98.3 acres = Area Proposed for Release in AR-7 (Image data from 9/7/2016)

Google ear

Kauffman-Pit

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7



1313 Sherman Street, Room 821 Denver, CO 80203

Response to Reclamation Permit Partial Acreage Release Request Consideration

- DATE: June 14, 2017TO: Amy Eschberger, Environmental Protection Specialist (<u>amy.eschberger@state.co.us</u>)
- CC: Division 1 Office, District 4 Water Commissioner
- FROM: Sarah Brucker, P.E.
- RE: Wagner/Kauffman No. 3 Pit, File No. M-1999-069 AR07/SR01 Applicant/Operator: Jake Kauffman & Son, Inc., 970-667-1557 Sections 17, 20 & 21, Twp 5 North, Rng 68 West, 6th P.M., Larimer County

COMMENTS: The applicant has requested a partial acreage release for 98.30 acres of the Wagner/Kauffman No. 3 Pit. Approximately 72.5 acres will remain within the permit boundary.

Mining activities at the Wagner/Kauffman No. 3 Pit are complete but reclamation is ongoing. A compacted clay liner was constructed around the portion of the site known as the East Reservoir. The liner was approved by this office as having met the design standard in a letter dated January 17, 2017, and the lined portion of the site is now classified as a lined reservoir.

Lagged depletions associated with past and projected use at the site are replaced under a substitute water supply plan, currently valid through December 31, 2017. Additional substitute water supply plans are required until there are no ongoing depletions and all lagged depletions are replaced (currently projected to extend through January 2019).

Based on the above, this office has no objection to the requested partial acreage release. The applicant may contact the State Engineer's Office with any questions.

