




**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> Strode Pit	<b>MINE/PROSPECTING ID#:</b> M-2019-002	<b>MINERAL:</b> Sand	<b>COUNTY:</b> Kit Carson
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Elliott Russell	<b>INSP. DATE:</b> September 4, 2020	<b>INSP. TIME:</b> 10:45
<b>OPERATOR:</b> Castle Rock Construction Company of Colorado, LLC	<b>OPERATOR REPRESENTATIVE:</b> Matt Fonte	<b>TYPE OF OPERATION:</b> 111 - Government Contract Related	

<b>REASON FOR INSPECTION:</b> Citizen Complaint	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$74,825.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> September 23, 2020

**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.**

**GENERAL INSPECTION TOPICS**

The following list identifies the environmental and permit parameters inspected

(AR) RECORDS----- <b>PV</b>	(FN) FINANCIAL WARRANTY----- <b>N</b>	(RD) ROADS----- <b>N</b>
(HB) HYDROLOGIC BALANCE----- <b>PV</b>	(BG) BACKFILL & GRADING----- <b>N</b>	(EX) EXPLOSIVES----- <b>NA</b>
(PW) PROCESSING WASTE/TAILING---- <b>Y</b>	(SF) PROCESSING FACILITIES----- <b>Y</b>	(TS) TOPSOIL----- <b>N</b>
(MP) GENL MINE PLAN COMPLIANCE- <b>N</b>	(FW) FISH & WILDLIFE----- <b>Y</b>	(RV) REVEGETATION---- <b>N</b>
(SM) SIGNS AND MARKERS----- <b>Y</b>	(SP) STORM WATER MGT PLAN---- <b>N</b>	(RS) RECL PLAN/COMP-- <b>N</b>
(ES) OVERBURDEN/DEV. WASTE----- <b>N</b>	(SC) EROSION/SEDIMENTATION---- <b>N</b>	(ST) STIPULATIONS----- <b>N</b>
(AT) ACID OR TOXIC MATERIALS----- <b>N</b>	(OD) OFF-SITE DAMAGE----- <b>PV</b>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / **PV = Possible violation cited**

### **PROBLEMS/POSSIBLE VIOLATIONS**

**INSPECTION TOPICS:** Hydrologic Balance, Off-site Damage, and Availability Of Records

**POSSIBLE VIOLATIONS:** Wash water and fines from the process pond overtopped the eastern embankment and were released into an unnamed drainage which reports to the South Fork of the Republican River. Additionally, the mining operation has affected lands outside of the permit boundary. This is a possible violation of C.R.S. 34-32.5-116(4)(h) for failure to minimize disturbances to the prevailing 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 operation and during reclamation and C.R.S. 34-32.5-116(4)(i) for failure to protect areas outside of the affected land from slides or damages occurring during the mining operation and reclamation. This is also a possible violation of C.R.S. 34-32.5-121 for failure to notify the Division of a 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.

**CORRECTIVE ACTIONS:** These possible violations will require a hearing before the Mined Land Reclamation Board scheduled for the November 18-19, 2020 Board meeting. The schedule and other details for the MLRB hearing has been provided under a separate document, sent via certified mail.

**CORRECTIVE ACTION DUE DATE:** November 18, 2020

### **OBSERVATIONS**

This inspection was conducted by Elliott Russell of the Division of Reclamation, Mining and Safety (Division) in response to a citizen complaint. Castle Rock Construction Company of Colorado, LLC (Operator) was represented by Matt Fonte during the inspection. On Thursday September 3, 2020 the Division received an anonymous citizen complaint which alleged the operation had affected land off-site and that mud slurry was flowing over a holding dam and down into a valley. The Division assigned this as Citizen Complaint CT-01.

The Strobe Pit is a Construction Materials 111 Operation and is permitted at 29.93 acres of land for the extraction of sand to support a nearby Interstate 70 reconstruction project. The mine site is located in Kit Carson County, approximately 3.8 miles south-southeast of Flagler, Colorado. Affected lands will be reclaimed to support a post-mining land use of rangeland. The Strobe Pit is located between an unnamed drainage to the east and County Road 6 to the west. The permit was approved on January 23, 2019 and originally proposed to haul raw material off-site to a batch plant. Technical Revision TR-01 was approved on March 4, 2019 which added a screening and wash plant to process material on-site. TR-01 also incorporated the use of a Jadair Water Clarifier unit for the dirty process water which reduced the need to large settling ponds. The Jadair Water Clarifier utilizes a polymer flocculent to assist in gravity separation of suspended solids. The unit discharges cleaned water to be reused in the wash plant and a solid-like mud which the Operator proposed to use as backfill in the mined-out areas of the permit.

The Division met Matt Fonte at the mine site entrance on the east side of CR 6, approximately ½ mile south of CR R. The site consists of three ridges/fingers which were mined from north to south. The Operator was currently mining the southernmost deposit area. Topsoil had been stripped and stockpiled in berms around the site. The site consists of a central processing area which includes a dry screen, several conveyor belts, a wash plant, a logwasher, the Jadair Water Clarifier, a lined fresh water pond, a cleaned water pond, and a large retaining area where mud from the clarifier is held prior to hauling to the mined-out areas. Mr. Fonte stated the operation was in the final week or two of mining activity as the Interstate 70 reconstruction project was almost complete; he estimated an additional 4,000-6,000 tons of sand was needed to finish the concrete paving.

Mr. Fonte led the Division to the northern portion of the permit to the embankment of the sediment retaining area. This retaining area mainly consisted of mud/sediment with two small portions of standing water on the north and south side from the slurry decanting. The Division approximates the height of the embankment to be 30 feet at the highest point. Mr. Fonte stated that on Wednesday night (September 2<sup>nd</sup>) the capacity of the retaining area was reached and overtopped the embankment, causing wash water and fines to be discharged into the adjacent unnamed drainage. This drainage reports to the South Fork of the Republican River, which was dry at the time of the inspection, approximately 1/3 of a mile north.

The overtopping caused a head cut erosional feature in the outside face of the embankment, approximately 10 feet by 10 feet and 5 feet deep. It appears the Operator placed material in the head cut to prevent further discharge. The Operator stated that the following morning (Thursday, September 3<sup>rd</sup>) a second overtopping occurred, approximately 100 feet north of the first event. This created an additional head cut in the outside face of the embankment, approximately 10 feet by 15 feet and 4 feet deep. To stop the overtopping and potential failure of the embankment, the Operator rerouted the pump used to pump decanted water to the cleaned water pond, and discharged water north of the northern permit boundary directly into the unnamed drainage. The Division has identified this as the Pump Discharge Point on the attached Inspection Report Map. The pump and associated hoses had been moved by the time the Division inspected the site. To prevent further overtopping, the Operator also created a new forebay well within the mud retaining area where future mud and process water could be contained without reaching the embankment. Upon review of the permit file after the inspection, and confirmation from the Colorado Department of Health and Environment, the site has a storm water discharge permit, however this permit does not allow the discharge of process waters.

The Division walked the unnamed drainage from the southeast permit boundary corner to CR R. The Division observed significant fines from the drainage adjacent the first overtopping downstream approximately 1,100 feet. The Division has identified this area as the Off-site Discharge Disturbance on the attached Inspection Report Map. This area was determined from collected GPS data and site observations and is estimated to be 0.34 acres in size. When discussing the fines and sediment within this area, the Operator stated they wanted to repair and reclaim the damage to the drainage by excavating and hauling the fines back to the mining area, likely using a skid steer. The Division also observed evidence of light brown colored staining on vegetation just before the culvert under CR R. This observation indicates the discharge traveled at least 2,600 feet down the unnamed drainage toward the South Fork of the Republican River, which is 330 feet north of CR R. Based on the evidence observed, the majority of fines dropped out within the first 1,100 feet of the unnamed drainage and discolored water likely reached the South Fork of the Republican River. This has been cited as a possible violation requiring a hearing before the Mined Land Reclamation Board.

After inspecting the discharge area, the Division inspected the permit boundary markers. While inspecting the southeast permit boundary, the Division observed topsoil and overburden and been piled across the southern and eastern delineated permit boundaries. The Division used a Trimble Juno 3B to acquire GPS data of the permit boundary markers and the entire disturbance footprint. Upon review of the permit file after the inspection, and based on the collected GPS data, the Division determined the permit boundary markers are likely not in the correct locations, however, the Operator has still affected approximately 1.51 acres of land outside of the approved northern, western, and southern permit boundaries. The Division has identified this area as the Off-site Mining Disturbance on the attached Inspection Report Map. The majority of the off-site disturbance falls between the permit boundary and CR 6 where there is a permitted 50-foot offset from the road. This has been cited as a possible violation requiring a hearing before the Mined Land Reclamation Board.

Immediately following the inspection, the Operator formally committed to ceasing mining and processing operations until the sediment storage embankment had been repaired, the embankment reinforced and increased in height by at least 1 foot, and moving forward, the Operator committed to utilizing the newly excavated forebay for the remaining processing needed to complete the sand requirements of the Interstate 70 reconstruction project. The Operator committed to providing the Division with photographic evidence of the repairs. On Tuesday, September 8, 2020, the Operator provided the Division with the repair work photos. The Division accepted the repair work and allowed the Operator to finish mining and processing at the site with the understanding that all waste from the processing plant needed to be contained in the forebay and under no circumstance was the Operator permitted to discharge any further sediment laden waters outside of the permit area.

This concludes the Division's Inspection Report; a subset of photographs taken during the time of the inspection are included below. If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8132**, or by email at [elliott.russell@state.co.us](mailto:elliott.russell@state.co.us).



**PHOTOGRAPHS**



**Photo 1.** Permit identification sign; looking east.



**Photo 2.** Mine site overview, CR 6 located west of the mine site; looking north.





**Photo 3.** Mine site overview, CR R in foreground; looking south.



**Photo 4.** Embankment of sediment storage area; looking northwest.





**Photo 5.** First overtopping head cut, second is circled in the background; looking northwest.



**Photo 6.** Second overtopping head cut, first is circled in the background; looking southeast.





**Photo 7.** Second overtopping head cut; looking east toward the unnamed drainage.



**Photo 8.** Pump discharge point; looking east.





**Photo 9.** Pump Discharge Point, hose impression circled; looking south.



**Photo 10.** Newly excavated forebay within sediment storage area, Jadair Water Clarifier circled; looking southeast.





**Photo 11.** Aerial over discharge area, overtopping circled in dashed red, Pump Discharge Point circled in solid yellow; looking south.





**Photo 12.** Aerial overview of sediment storage area overtopping circled in dashed red, Pump Discharge Point circled in solid yellow; looking southwest.





**Photo 13.** Unnamed drainage upstream from overtopping; looking northeast.



**Photo 14.** Unnamed drainage at the first overtopping; looking north.





**Photo 15.** Unnamed drainage downstream from overtopping; looking northeast.

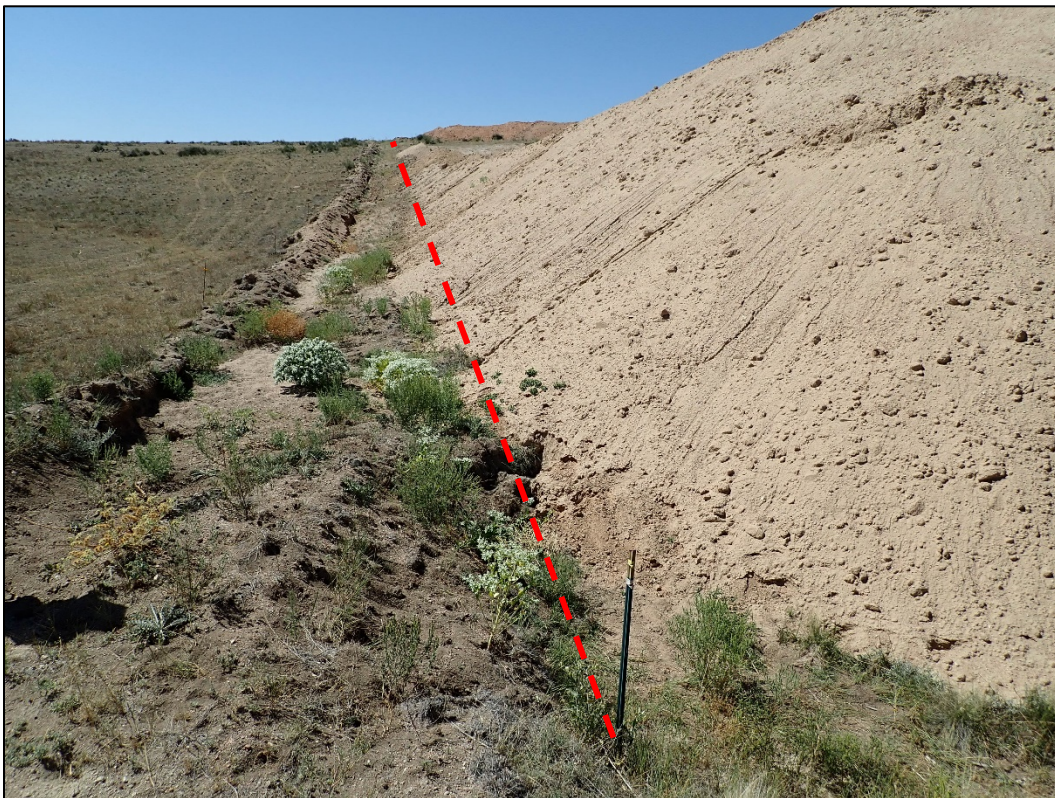


**Photo 16.** Unnamed drainage downstream from overtopping and Pump Discharge Point; looking south back toward the mine site.





**Photo 17.** ROW fence along the south side of CR 6, not stained vegetation from flowing water; looking west.



**Photo 18.** Southeast permit boundary corner, approximate southern permit boundary depicted; looking southwest.





**Photo 19.** Mine site disturbance and debris along CR 6 within the permitted 50-foot offset from road; looking southeast.

**Inspection Contact Address**

Ralph Bell  
Castle Rock Construction Company of Colorado, LLC  
6374 S Racine Circle  
Centennial, CO 80111

Attachment: 9-4-2020 Inspection Report Map - Strode Pit M-2019-002








EC: Matt Fonte; Castle Rock Construction Company of Colorado, LLC  
Jason Musick; DRMS  
Russ Means; DRMS  
Al Stafford; CDPHE



# 9-4-2020 Inspection Report Map

Strode Pit M-2019-002  
Created by ERR on 9-21-2020  
Aerial Image Date: 6-9-2014

## Legend

-  Approximate Approved Permit Boundary
-  Delineated Boundary Marker
-  Disturbance Boundary
-  Off-site Discharge Disturbance (0.34 Acres)
-  Off-site Mining Disturbance (1.51 Acres)
-  Overtopping Location
-  Pump Discharge Point

