




**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> Brighton Mine	<b>MINE/PROSPECTING ID#:</b> M-1977-436	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Adams
<b>INSPECTION TYPE:</b> Surety Release Inspection	<b>INSPECTOR(S):</b> Jared L. Ebert	<b>INSP. DATE:</b> August 17, 2018	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Aggregate Industries - WCR, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Connie Davis	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	
<b>REASON FOR INSPECTION:</b> Surety Release Requested	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$150,000.00	
<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> August 21, 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>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>NA</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 was an inspection of the Brighton Mine, Division of Reclamation Mining and Safety (DRMS or Division) permit number M-1977-436, operated by Aggregate Industries - WCR, Inc. (AI). On July 18, 2018, DRMS received an acreage reduction request application (AR01) for 233 acres of the site. In accordance with Rule 4.17, DRMS staff is required to conduct an inspection of the site prior to the approval of the acreage release. This inspection was done to evaluate the reclamation success of the area requested for release. Mrs. Connie Davis with AI accompanied me during the inspection.

The Brighton Mine is currently a 112c permitted site with a permit area of 287.40 acres. The post mine land use approved for the site is Developed Water Resources. The area is historically split into three distinct parcels or "ponds"; the North, Central and South Ponds. The North Pond is an unlined pit excavation that is approved to be partially backfilled to establish wetlands. The Central and South Ponds are lined water storage reservoirs. The 233 acre bond release area comprises the Central and South Ponds.

### **Backfilling and Grading:**

The final pit slopes of the Central and South Ponds have been graded to what appears to be a 3H:1V ratio above the water line. Both ponds were at least partially filled with water, the visible portion of the pit slopes below the water line appeared relatively gentle. The north and west pit slopes of the central reservoir has some minor shoreline cutting, meaning at the water line a small nearly vertical 1 to 2 foot cut has developed. This cutting results due to the managed and fluctuating water levels of the reservoir and possibly resulting from wave action. The below water line slope at the cut areas appeared relatively gentle. A lateral berm spillway has been constructed at the south west corner of the Central Pond. Portions of the south pit slope and all of the eastern pit slope of the Central Pond have been armored with rip-rap and appear stable.

The pit slopes around the South Pond have been graded to a 3H:1V angle and portions of the southern and all of the eastern pit slopes have been armored with rip-rap. The remaining pit slopes of the southern pond have grassy vegetation established. The south pond pit slopes are stable.

### **Financial Warranty:**

The Division currently holds a \$150,000 bond for the operation. This bond should be adequate to complete reclamation of the remaining North Pond area.

### **Hydrologic Balance:**

On August 2, 2018, DRMS received a comment letter from the Colorado Division of Water Resources (DWR) regarding the AR01 application indicating they have no objection to the request for partial acreage release for the Brighton Mine.

### **Roads:**

An access road has been created and is in place around both the Central and South Ponds.

### **Reclamation Success:**

The post mine land use for the Central and South Pond is Developed Water Resources. AI has successfully created these two lined water storage reservoirs and the City of Thornton is actively utilizing them. These ponds have been backfilled and graded in accordance with the approved plan and appear stable. Vegetation

has established throughout the site in portions of the affected land outside of the water storage area and access roads. A large stockpile of material is stored in the southeast corner of the permit area outside of the South Pond reservoir. This pile has been partially excavated into on the eastern side, otherwise the pile is vegetated and stable. The Division could not locate any documentation this stockpile was to remain on the site after reclamation. Prior to the approval of this acreage reduction, AI will need to submit documentation the landowner has no objection to leaving this pile in place and that they acknowledge this stockpile of material cannot leave the site unless a reclamation permit is obtained from DRMS. The Division is required to issue a decision to approve or deny the AR01 application by October 16, 2018. AI will need to submit this documentation to the Division prior to the October 16, 2018 decision date. The Division will issue a decision to approve this acreage release if this documentation is obtained prior to this date. If additional time is needed to obtain this documentation, AI will need to request an extension of the decision date.

Revegetation:

Adequate vegetation has established throughout the affected land outside of the water storage area and access road areas. Noxious weeds appear to have been managed at the site and significant noxious weed problems were not observed.

**PHOTOGRAPHS**



Figure 1. From the northwest corner of the Central Pond Looking east.



Figure 2. From the northwest corner of the Central Pond looking southwest.





Figure 3. Western pit slope of the Central Pond from the south end looking north.



Figure 4. From the southwest corner of the Central Pond looking east.



Figure 5. From the northwest corner of the South Pond looking south.



Figure 6. Stockpile of material at the southwest corner of the bond release area.





Figure 7. From the southeast corner of the South Pond looking north.



Figure 8. From the southeast corner of the Central Pond looking west.



**Figure 9. From the southeast corner of the Central Pond looking north.**

**Inspection Contact Address**

Connie Davis  
Aggregate Industries - WCR, Inc.  
1687 Cole Blvd., Ste. 300  
Golden, CO 80401

Enclosure: None