




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: Walstrum Mine	MINE/PROSPECTING ID#: M-1983-033	MINERAL: Granite, granite gneiss	COUNTY: Clear Creek
INSPECTION TYPE: Monitoring	INSPECTOR(S): Timothy Cazier	INSP. DATE: November 21, 2019	INSP. TIME: 09:30
OPERATOR: Albert Frei & Sons Inc.	OPERATOR REPRESENTATIVE: Al Frei, Jr.	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$742,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Foggy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: January 10, 2020	

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>Y</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</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>Y</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 was conducted by Tim Cazier (DRMS) as part of the regular monitoring program. The Permittee, Albert Frei & Sons (AFS) was represented by Messrs. Al Frei, Jr. and Steve O'Brian (Environment, Inc.) during the inspection. The Walstrum Mine is accessed from US Hwy 6 near the intersection with I-70 about five miles east of Idaho Springs. This is a 112c granite/aggregate mine. It was operating at the time of the inspection. A low cloud ceiling was present during the inspection. The lower portions of the mine were visible, but the visibility in the upper areas was very low.

Availability of Records: Annual fees are paid through June 2019. The 2019 annual report indicates 158.1 acres are currently disturbed. The previous inspection was on September 20, 2013. The approved post-mine land use is rangeland, with the exception of the pit floor which was approved for commercial/industrial under AM-08. There are no open infractions. Both the surface and minerals are privately owned.

Backfilling and Grading: Sufficient backfill material appeared to be available.

Excess Spoil and Dev. Waste: Mr. Frei indicated they do not distinguish between overburden and topsoil when stripping this material in advance of mining. The stripped material is stockpiled (see **Photo 1**) and reserved for reclamation.

Explosives: Mr. Frei stated the mine has a blasting plan. The blasting plan was filed with the DRMS with the approval of TR-07. Blasting is contracted out to Buckley Powder, who keeps blasting records and has been monitoring blasts since approximately 2001.

Financial Warranty: The \$742,000 bond held by the DRMS was last updated in 2002 with the approval of amendment 8 (AM-08). Over half of the bond (\$453,888.) was required to address drilling and blasting required to widen the then existing narrow benches to 40 feet. A significant portion of the upper benches have been widened to 40 feet for reclamation. In addition, the site is practicing concurrent reclamation (including backfill and grading, topsoiling and seeding) on these final widened benches. As a result, this bond amount is considered adequate for the observed disturbance. Mr. Frei also indicated they would be submitting an amendment in the third quarter of 2020, at which time a new bond will be evaluation. It should be noted the pit floor post-mine land use is approved as commercial/industrial, thereby not requiring revegetation.

Fish and Wildlife: No impact to wildlife was observed. A bighorn sheep was observed on the west side at the beginning of the inspection (see **Photo 2**).

Hydrologic Balance: No standing water was observed in the pit and no exposed groundwater was observed.

Gen. Compliance with Mine Plan: The maximum affected area at one time is 50 acres (established with the approval of TR-05 and confirmed with AM-08). However, the estimated 158± acre disturbance is appears to be within the AM-08 approved affected area boundary. One possible exception is a small area near the crest of the east highwall (see the **attached Post 2019 Inspection map**). Based on DRMS map work using Google Earth and overlaying an image of the approved affected area boundary, there may be as much as 0.6 acres outside the boundary. Due to the low visibility at the time of this inspection, the out of bounds condition could not be verified in the field. During a subsequent telephone conversation with Mr. Frei on 1/7/2020, he indicated a survey crew could verify whether or not this area is within the affected area boundary. [The DRMS recommends](#)

AFS undertake this action and provide results to the DRMS prior to the next DRMS inspection. Highwalls were estimated to be 40 feet in height and appeared stable (see **Photo 3**).

Off-site Damage: With the possible exception of a portion for the crest of the east highwall (see discussion above under Gen. Compliance with Mine Plan), the operation appeared to be confined to the affected area boundary.

Processing Waste: No processing waste was observed. Mr. Frei indicated AFS is working on converting crusher fines to a marketable product.

Roads: Haul and access roads are a potential source of sediment that could be tracked offsite, given the proximity to Hwy 6. However, no tracked sediment was observed on the highway. No road side ditches requiring maintenance were observed.

Reclamation Success: Several of the upper east highwall benches have been widened, backfilled (see **Photo 3**), topsoiled and seeded (see **Photo 4**). The two noncontiguous areas of the permit are not being mined and are commercial/industrial. [The DRMS recommends AFS request release of the two areas from the permit.](#)

Revegetation: The top four to five benches in the southeast corner of the mine have reached final configuration and the Permittee has initiated concurrent reclamation with upper most of these benches having three growing seasons (see **Photos 5 & 6**) that appear to have well established vegetation (see **Photo 7**). Plugs of grass and shrubs (see **Photos 8 & 9**) are planted prior to broadcast seeding and hydromulching the backfilled benches. Benches below that have up to two growing seasons and Mr. Frei stated seeding was scheduled for the day of the inspection for the first bench visited, but the inclement weather postponed the effort. The vegetation growth observed was remarkable in that these slopes dry out easily as they are west facing slopes and buffeted by the common high winds following the Clear Creek canyon.

Sediment Control: No erosion problems were observed and no BMPs were needed at the time of the inspection.

Support Facilities On-site: Several screen plants, enclosed crushers, loaders, and haul trucks were observed (see **Photo 10**).

Signs and Markers: The permit sign was properly posted (see **Photo 11**) and boundary markers were observed to delineate the permit boundary (see **Photos 12, 13 and 14**).

Permit Stipulations: There are no open permit stipulations.

Storm Water MGT Plan: No oil or fuel spills observed. Mr. Frei indicated stormwater drains to the pit and infiltrates.

Structures: Mr. Frei stated AFS had recently worked with Xcel Energy and Centurylink to relocate utility lines that had been aligned through the expanding pit. No other structures were observed and no other structure damage compensation agreements were determined to be required.

Please contact Tim Cazier (303)866-3567 ext. 8169 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Stockpile of stripped overburden/topsoil for reclamation.



Photo 2. Bighorn sheep observed above mine entrance.

PHOTOGRAPHS (cont.)



Photo 3. Typical highwall undergoing reclamation (east side, looking south).

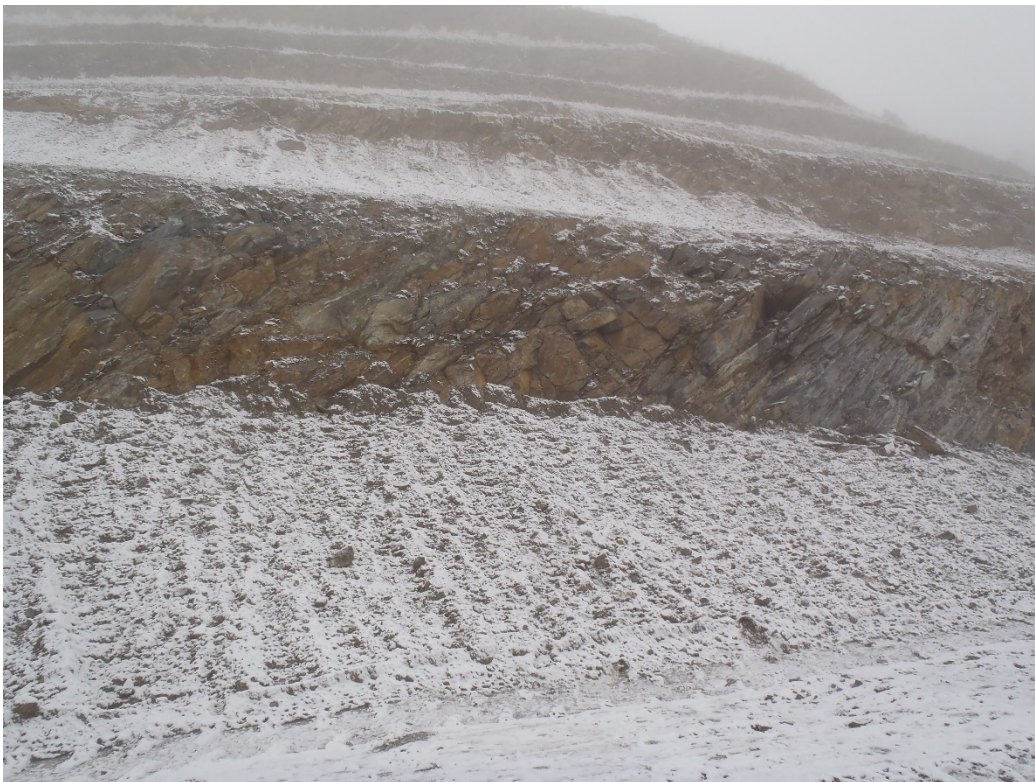


Photo 4. Typical bench backfill, topsoiled and seeded (east highwall).

PHOTOGRAPHS (cont.)



Photo 5. Revegetated bench with three growing seasons (near crest of east highwall).



Photo 6. Revegetated bench with three growing seasons (looking at crest of east highwall).

PHOTOGRAPHS (cont.)



Photo 7. Close-up of established vegetation (field book for scale).



Photo 8. Grass plug – enhanced reclamation (field book for scale).

PHOTOGRAPHS (cont.)



Photo 9. Shrub plug – enhanced reclamation (field book for scale).



Photo 10. Support Facilities – screen plants, enclosed crushers, loaders, & haul trucks (looking SE).

PHOTOGRAPHS (cont.)



Photo 11. Permit sign (at entrance).



Photo 12. Boundary marker on cliff above mine entrance.

PHOTOGRAPHS (cont.)



Photo 13. Typical boundary marker above east highwall.



Photo 14. Boundary marker between permitted area and Gilpin County permitted area.

Inspection Contact Address

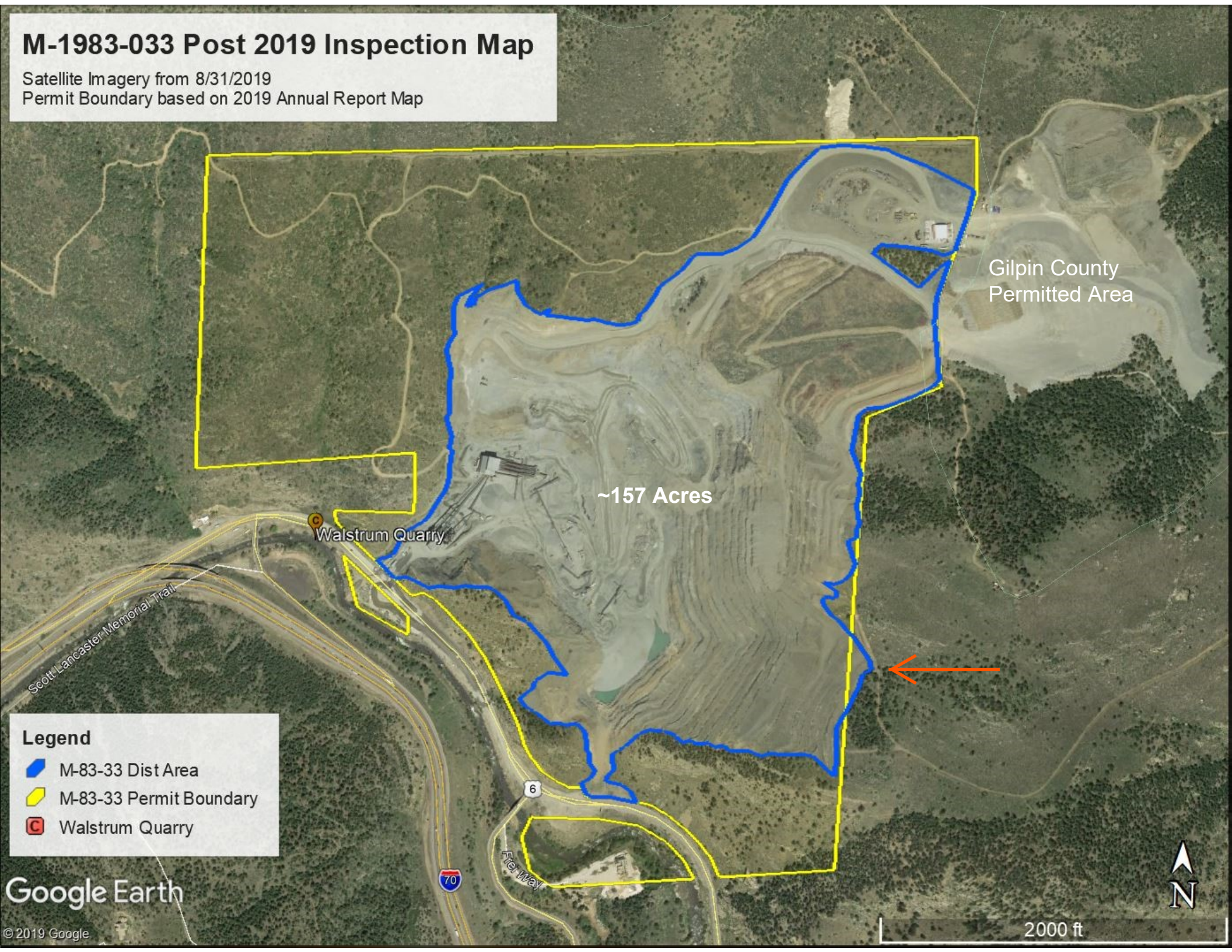
Al Frei, Jr.
Albert Frei & Sons Inc.
11521 Brighton Rd
Henderson, CO 80640

Enclosure

ec: Peter Hays, DRMS
Michael Cunningham, DRMS
DRMS file
Steve O'Brian, Environment, Inc.

M-1983-033 Post 2019 Inspection Map

Satellite Imagery from 8/31/2019
Permit Boundary based on 2019 Annual Report Map



Gilpin County
Permitted Area

~157 Acres

Walstrum Quarry

Scott Lancaster Memorial Trail

6

70

Ferryway

Legend

- M-83-33 Dist Area
- M-83-33 Permit Boundary
- Walstrum Quarry

Google Earth

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2000 ft

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