



Climax Mine
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Sent by Email

June 21, 2023

Mr. Dustin Czapla, Environmental Protection Specialist
Colorado Division of Reclamation, Mining and Safety
1313 Sherman St., Rm. 215
Denver, CO 80203

Re: Follow Up on Mayflower Return Pipeline Leak – Climax Mine Permit No. M-1977-493

Dear Mr. Czapla:

Climax is following up on the May 6, 2023, written notice of failure of an Environmental Protection Facility (EPF) (a leak on the Mayflower Return Pipeline).

After further investigation, it was determined that the small leak of approximately 1 gallon per minute (gpm) was not coming from the Mayflower Return Pipeline, and therefore, there was not a failure of an EPF. Climax's initial investigation after the May 6, 2023, report included exposing and pressurizing the Mayflower Return Pipeline to check for any potential leakage; no leaks were observed in the line.

Climax conducted additional investigations subsequent to the May 6, 2023, report, to determine the source of the water. It was determined the water source is a historic French drain which had water daylighting through backfill around the Mayflower Return Pipeline. The French drain was a historic non-contact water (i.e., natural seep) conveyance under the pavement of the old highway (Highway 91) that historically ran through this area, approximately 5 feet deep. Climax was able to locate the historic French drain system along the existing road ditch and connect additional perforated pipe to re-route the French drain and discharge this natural seepage near the existing culvert that runs under the existing road (see Photos in Attachment 1).

Follow-up samples of the re-routed seep water were taken to confirm the water's natural characteristics. Results are indicative of natural seepage observed in many areas of the Climax property during Spring runoff conditions.

Sample Date	pH (Standard Units)	Fe, TR (mg/L)*	Mn, TR (mg/L)*
5/6/23	9.4 - 9.6	0.46	0.8
5/10/23	7.0	0.10	0.4
5/11/23	6.1	0.16	0.2
5/17/23	7.31		
5/18/23	6.68		
5/23/23	6.67		
5/24/23	6.77		
5/30/23	6.79		
5/31/23	6.88		

*Metals analysis conducted onsite by Climax water operators using Hach Fe and Mn packet test kits

The pH and metals results of the initial sample taken on May 6, 2023 by Climax water operators were not repeatable in follow-up sampling. These initial results were likely influenced by the five feet of old highway miscellaneous road bedding material that were uncovered during excavation that this water percolated through to make it to the surface. Once the historic pipeline was rerouted to the existing stormwater ditch on May 10, 2023, water quality normalized to resemble natural seepage and stormwater observed during this runoff season in the area.

Visual evidence of the historic French drainpipe conveying water and the halting of any water surfacing upon repair further verify that the Mayflower Return Pipeline was not leaking. Additionally, the PDWTP was shut down from April 30, 2023, through May 26, 2023, and would not have been conveying process water in any form during that period.

Climax misattributed the leak to the Mayflower Return Line in our original May 6, 2023, submittal. The investigations described above confirm this was incorrect and this was not a failure of an EPF.

Please feel free to contact me at 719-486-7633 edetmer@fmi.com or Alex Ungers at (719) 486-7717 aungers@fmi.com if you need any further information regarding this matter. Thank you for your continued assistance with Climax Mine.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric Detmer', with a stylized flourish at the end.

Eric Detmer
Chief Environmental Engineer

Cc: Alex Ungers, Climax

Attachment

Attachment 1
Photos of Investigation



[Photo 1 – Old iron French drainpipe, discovered by following the water that was surfacing by excavating approximately 5 feet down]



[Photo 2 – New corrugated pipe attached to old French drainpipe]



[Photo 3 – New corrugated pipe stretch installed to convey water into existing ditch alongside road]



[Photo 4 – Gravel was used to bed pipe and surround the new French drainpipe, then excavation was backfilled]