



600 Shields Ave.
Butte, Montana 59701

January 20, 2023

Montana Department of Environmental Quality
Hard Rock Mining Bureau
Attn: Garrett Smith
P.O. Box 200901
Helena, MT 59620

Re: 2022 Annual Inspection Report for Yankee Doodle Tailings Impoundment and Corrective Action Plan for Recommendations

Dear Mr. Smith:

The Engineer of Record (EOR) annual inspection of the Montana Resources, LLC (MR) Yankee Doodle Tailings Impoundment (YDTI) was conducted on September 28, 2022, by Mr. Daniel Fontaine, P.E., the Engineer of Record (EOR). Mr. Fontaine was accompanied during the site inspection by Mr. Mike Harvie (Manager of Engineering and Geology) and Mr. Travis Birkenbuel (Mine Engineer) of MR.

The EOR annual inspection is required under Section 82-4-381 of the Montana Code Annotated (MCA), which also requires the mine operator to prepare a Corrective Action Plan (CAP) summarizing the recommendations of the EOR and an implementation schedule for the corrective actions. KP prepared the 'Yankee Doodle Tailings Impoundment – 2022 Annual Inspection Report (AIR) (KP, 2023), following the inspection.

This letter documents MR's CAP in response to the four recommendations presented by the EOR:

1. Maintain reductions in freshwater use from the Silver Lake Water System to the extent reasonably practicable and continue the Pilot Project to incrementally reduce the water inventory in the YDTI supernatant pond towards the target of approximately 15,000 acre-ft (continuation of 2021 recommendation).
2. Modify the tailings distribution system by extending Line 2 to allow discharge at location Discharge 3-2 (NS-1) and add a discharge location between the current locations of Discharge 3-1 (EW-1) and Discharge 3-2 (NS-1) when the EL. 6,450 ft raise of the embankment is completed. Use of 12-inch discharge lines along the extension of Line 2 to location Discharge 3-2 (NS-1) would satisfy the recommendation (modification of 2021 recommendation).
3. Regrade the upstream slope of the embankment during relocation of the tailings delivery pipelines (Lines 2 and 3) to the tailings pipeline corridor for EL. 6,450 ft lift. Regrade the embankment upstream slope to cover and incorporate the tailings pipeline bench along the EL. 6,400 ft lift. Implement the alluvium facing layer between the crest of the pipeline corridor along the EL. 6,450 ft lift and the upstream alluvial facing of the EL. 6,400 ft lift along the regraded upstream slope prior to cutting off access with placement of the tailings pipelines. The intent is to create a continuous layer of alluvium between the EL. 6,450 pipeline corridor and the alluvium facing previously placed as part of the EL. 6,400 ft lift construction. This recommendation

applies to the portion of the East-West Embankment in the Central Pedestal Area to the east of approximately Section 23+00NW (Discharge location EW-1) and the entire North South Embankment.

4. Develop and implement a new system to collect flows along the Seep 10 bench and convey these flows to the HsB Pond (continuation of 2021 recommendation).

MR has developed the following CAP that is expected to effectively address the recommendations contained in the AIR.

1. **Maintain reductions in freshwater use from the Silver Lake Water System to the extent reasonably practicable and continue the Pilot Project to incrementally reduce the water inventory in the YDTI supernatant pond towards the target of approximately 15,000 acre-ft (continuation of 2021 recommendation).**

MR continued to operate with reduced freshwater use in 2022 (in comparison to pre-2017 years), with an average SLWS flowrate for MR mine operations of approximately 1.2 MGPD (January through December inclusive). This is comparable with the average flowrate since mid-2017. MR anticipates comparable average use of freshwater in 2023.

Since commissioning the Pilot Project in September 2019, the net YDTI water deficit is approximately 2,730 million gallons (8,390 ac-ft), through 2022. MR is optimistic that the YDTI supernatant pond target inventory of approximately 15,000 acre-ft can be achieved over the next two years through a combination of the discharging water from the YDTI using the Pilot Project and continuing to operate with reduced SLWS freshwater use. The Pilot Project is not entirely within MR's control and due to these external factors and Polishing Plant interruptions, it is possible that the timeline could be impacted.

2. **Modify the tailings distribution system by extending Line 2 to allow discharge at location Discharge 3-2 (NS 1) and add a discharge location between the current locations of Discharge 3-1 (EW-1) and Discharge 3-2 (NS-1) when the EL. 6,450 ft raise of the embankment is completed. Use of 12-inch discharge lines along the extension of Line 2 to location Discharge 3-2 (NS-1) would satisfy the recommendation (modification of 2021 recommendation).**

In December 2022 MR issued a 2021 CAP deferral letter (MR, 2022) to request the recommended extension of Line 2 to occur once the EL. 6,450 ft lift construction is completed. Construction of the EL. 6,450 ft lift is still in progress and MR will extend Line 2 shortly after completion of the lift (including implementation of Recommendation 3 below). MR anticipates EL. 6,450 ft lift construction will be completed in 2023 or early in 2024 (see Recommendation 3 CAP below).

MR installed 18 new discharge locations around the YDTI consisting of single or twinned 12-inch pipelines from Q2 through Q3 2022. The addition of the 12-inch discharge pipelines has provided additional coverage around the YDTI; however, the existing Line 2 was not fitted with additional 12-inch discharge locations in 2022. As part of the extension of Tailings Delivery Line 2, MR will consider the addition of 12-inch discharge locations on

Line 2 to provide additional tailings deposition coverage in the area between Discharge 3-1 (EW-1) and Discharge 3-2 (NS-1).

- 3. Regrade the upstream slope of the embankment during relocation of the tailings delivery pipelines (Lines 2 and 3) to the tailings pipeline corridor for EL. 6,450 ft lift. Regrade the embankment upstream slope to cover and incorporate the tailings pipeline bench along the EL. 6,400 ft lift. Implement the alluvium facing layer between the crest of the pipeline corridor along the EL. 6,450 ft lift and the upstream alluvial facing of the EL. 6,400 ft lift along the regraded upstream slope prior to cutting off access with placement of the tailings pipelines. The intent is to create a continuous layer of alluvium between the EL. 6,450 pipeline corridor and the alluvium facing previously placed as part of the EL. 6,400 ft lift construction. This recommendation applies to the portion of the East-West Embankment in the Central Pedestal Area to the east of approximately Section 23+00NW (Discharge location EW-1) and the entire North South Embankment.**

MR and KP discussed the methodology for placement of alluvium materials (Zone F) along the upstream slope of the embankment during the EOR annual inspection. The EL. 6,450 ft Issued for Construction (IFC) drawings indicate that the upstream slope of the Zone U and Zone F placement are to be field fit to maintain separation between the future tailings mass and the embankment rockfill zone, with a minimum nominal thickness of 3 ft alluvium.

The process of regrading the upstream slope and placing the alluvium by dozer (instead of dumping) is expected to enhance performance of this layer, particularly along the interface between the EL. 6,400 ft crest and base of the EL. 6,450 ft lift where segregated coarse rockfill is typically present due to the method of construction. Following construction of the EL. 6,450 ft embankment and tailings discharge corridor, MR will systematically relocate the tailings delivery pipelines from EL. 6,400 to EL. 6,450 ft allowing for additional U (rockfill) or F (alluvium) materials to be placed along the upstream face of the embankment. Figure 1 below outlines the proposed placement of materials, maintaining a minimum nominal thickness of 3 ft of alluvium along the entire upstream face.

MR will initiate sloping and placement of Zone F in Q1 of 2023, across the Central Pedestal Area east of Discharge 3-1. This will result in Discharge 3-1 temporarily being the furthest east discharge location. Upon completion of facing material along the Central Pedestal Area, MR in consultation with the EOR will determine if sloping and Zone F placement can be continued without snow cover on the tailings beach to control fugitive dust emissions, or if Line 3 is reconnected and the discharge line continues to be operated along the North-South Embankment on the EL. 6,400 pipe bench until site conditions are suitable to continue construction.

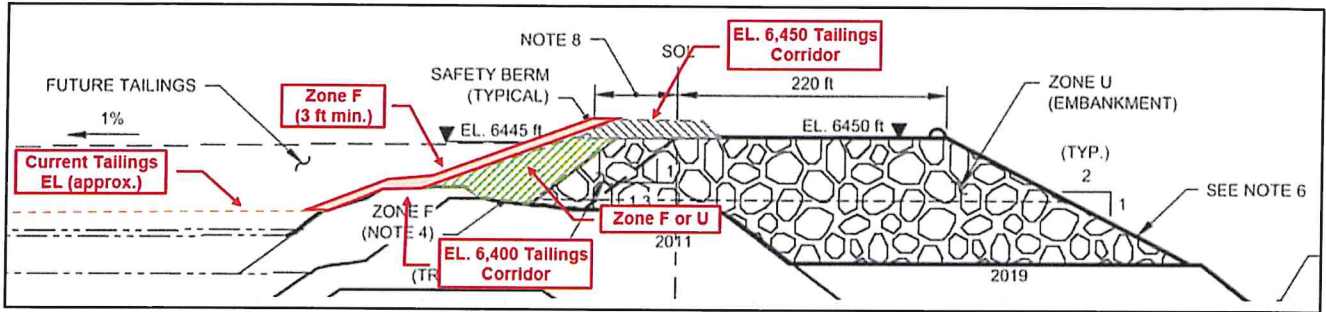


Figure 1 Proposed Alluvium Facing

4. Develop and implement a new system to collect flows along the Seep 10 bench and convey these flows to the HsB Pond (continuation of 2021 recommendation).

MR has prepared the area along the Seep 10 bench (EL. 5,900 ft) in advance of construction of the new Seep 10 drainage system proposed as part of the HsB Rock Disposal Site Stage 1 Drainage System (KP, 2021), as outlined in the 2021 CAP Deferral letter (MR, 2022). The Seep 10 drainage design concepts include the relocation of the Seep 10 pond and weir to the west, and a drainage pipeline to HsB Pond along the 7 percent Ramp.

MR will initiate construction of the Seep 10 drainage works shortly after the Issued-for-Construction (IFC) design drawings and associated technical specifications are developed by KP. The duration of construction will be dependent on the detailed design and the availability of materials (supply chain) specified in the design.

If there are any questions or concerns regarding the CAP and schedule please contact me at (406) 496-3211.

Sincerely,



Mark Thompson

Vice President of Environmental Affairs
Montana Resources, LLC



600 Shields Ave.
Butte, Montana 59701

Attachments:

A. Engineer of Record – Verification

References:

Knight Piésold Ltd. (KP) 2021, Horseshoe Bend Rock Disposal Site – Stage 1 Drainage System Report, KP Ref. No. VA101-126/25-3 Rev. 0, December 6, 2021.

Knight Piésold Ltd. (KP) 2023, Yankee Doodle Tailings Impoundment 2022 Annual Inspection Report, KP Ref. No. VA101-126/27-2 Rev. 0, January 20, 2023.

Montana Resources, LLP. (MR) 2022. 2021 Yankee Doodle Tailings Impoundment Corrective Action Pan – Corrective Action Deferral Notification, December 16, 2022

ATTACHMENT A:

Engineer of Record (EOR) Verification

I have reviewed and verify that the corrective actions proposed by MR should reasonably be expected to effectively address the recommendations contained in the 2022 Annual Inspection Report.

Reviewed:

Daniel Fontaine, P.E.
Specialist Engineer | Associate
Knight Piésold Ltd.
YDTI Engineer of Record