600 Shields Ave.
Butte, Montana 59701

January 11, 2022

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

Re: 2021 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, LLP (MR) Yankee Doodle Tailings Impoundment (YDTI) was conducted on September 13, 2021, 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) 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 – 2021 Annual Inspection Report' (AIR), following the inspection.

This letter documents MR's CAP in response to the eight 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 2020 recommendation).

2. Modify the tailings distribution system by extending Line 2 to allow discharge at location NS-1 and NS-2 when the EL. 6,450 ft raise of the embankment is completed adjacent to these discharge locations (deferral from 2020 recommendations).

3. Modify the tailings distribution system to include two additional discharge locations as follows:
    - one located between the current locations of EW-1 and NS-1, and
    - one located between the current locations of NS-1 and NS-2.

4. Implement alluvium facing at the interface between the rockfill surcharge and tailings beach between discharge between Section 23+00 NW and Section 13+00 N along the upstream face of the EL. 6,400 ft surcharge lift.

5. Infill low areas along the downstream side of the North-South Embankment and regrade the embankment crest from approximately Section 43+00 N towards the north.

6. Complete maintenance work in the upper Horseshoe Bend (HsB) area to improve drainage and limit ponding in this area.

7. Develop and implement a new system to collect flows along the Seep 10 bench and convey these flows to the HsB Pond. Re-grade the Seep 10 bench surface to enhance drainage collection and limit ponding of water to the extent practicable.

8. Investigate options for automating collection of the HsB Weir flow monitoring data using the Sensemetrics remote monitoring system platform.

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 2020 recommendation).**

MR continued to operate with reduced freshwater use in 2021 (in comparison to pre-2017 years), with an average SLWS flowrate 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 2022.

Since commissioning the Pilot Project in September 2019, the net YDTI water deficit is approximately 2,190 M gallons (6,720 ac-ft), through 2021. MR is optimistic that the YDTI supernatant pond target inventory of approximately 15,000 acre-ft can be achieved over the next 2 to 4 years through a combination of the discharging water from the YDTI using the pilot project and continuing to operate the concentrator with reduced SLWS freshwater use. The Pilot Project is not entirely within MR's control however due to a variety of factors and Polishing Plant interruptions are possible that could impact the timeline.

2. **Modify the tailings distribution system by extending Line 2 to allow discharge at location NS-1 and NS-2 when the EL. 6,450 ft raise of the embankment is completed adjacent to these discharge locations (deferral from 2020 recommendations).**

As noted in the 2019 and 2020 CAP, MR recognizes the ability to discharge from either of two lines or at two locations concurrently along the North-South Embankment would improve flexibility for operations and enhance beach development adjacent to the embankment. MR committed in the 2019 CAP to making adjustments to the system in 2020 provided it was reasonably practicable within the mine schedule. MR issued a Deferral Notification in December 2020 (MR, 2020), identifying that realignment would not be practicable due to construction occurring in this area through to mid-2022. MR now anticipates the construction of the EL. 6,450 ft embankment will be complete in this area in Q3 of 2022, and Line 2 can then be realigned in Q4 of 2022.

3. **Modify the tailings distribution system to include two additional discharge locations as follows:**
    - **one located between the current locations of EW-1 and NS-1, and**
    - **one located between the current locations of NS-1 and NS-2.**

MR agrees the addition of two new discharge locations, for a total of 12 locations, will continue to improve operational flexibility and beach development within the tailings facility. As detailed in the Recommendation 2 Corrective Action, MR are currently constructing the EL. 6,450 ft raise of the YDTI embankments and will relocate the tailings delivery pipelines following completion of this raise.

MR propose to install the two new recommended tailings discharge points (one point between the existing EW-1 and NS-1, and one point between NS-1 and NS-2) when relocating the tailings pipelines. MR also intend to review the spacing of the spigots along Line 2 and Line 3 to have the discharges more equally spaced. The current schedule for relocation of the tailings delivery pipeline to EL.6,450 ft is Q3 and Q4 of 2022.

4. **Implement alluvium facing at the interface between the rockfill surcharge and tailings beach between Section 23+00 NW and Section 13+00 N along the upstream face of the EL. 6,400 ft surcharge lift.**

MR has placed additional alluvium (Zone F) on the upstream face of the rockfill surcharge between Section 23+00 NW and Section 13+00 N since the EOR inspection in September 2021. MR will place additional alluvium in this area adjacent to the tailings discharge corridor after relocation of the Tailings Delivery Line 2. This recommendation will be completed in Q3 of 2022. MR will continue to monitor for tailings water ponding adjacent to the embankment upstream slope as per the TOMS Manual (MR/KP. 2020) and take additional operational and/or maintenance measures as appropriate to limit water ingress into the embankment.

Note, MR placed alluvium on the upstream slope face of the embankment when initially constructing the EL. 6,400 ft raise of the rockfill surcharge; however, alluvium was not placed on the upstream slope face of the tailings discharge corridor at the time of construction. MR will place alluvium as required to maintain a separation zone between the tailings and the Zone U during construction of the EL. 6,450 ft embankment and associated tailings discharge corridor.

5. **Infill low areas along the downstream side of the North-South Embankment and regrade the embankment crest from approximately Section 43+00 N towards the north.**

MR agrees that promoting drainage from the embankment crest surface and eliminating areas of ponded water is important. MR will regrade and place additional of U material along the EL. 6,400 ft crest of the North-South Embankment as required to promote drainage and runoff of surface water from the embankment crest and slopes. Construction activities are currently ongoing in the Central Pedestal Area and MR utilizes portions of the North-South Embankment as haul road access to this area. MR will address this embankment surface grading recommendation in Q1 of 2022.

6. **Complete maintenance work in the upper HsB area to improve drainage and limit ponding in this area.**

MR agrees that improving drainage and limiting ponding in the HsB area adjacent to the toe of the YDTI embankments is beneficial. MR completed a variety of maintenance activities in the HsB area during Q4 of 2021

to improve drainage and reduce ponding as recommended by the EOR during the annual inspection site visit. The works completed to date include breaching the upper HsB area berm to limit ponding in the upper HsB Area. MR have also breached the berm of the Holding Pond to discharge into Surge Pond. MR will continue to monitor ponding and flow rates in the HsB area and complete drainage maintenance as required.

7. **Develop and implement a new system to collect flows along the Seep 10 bench and convey these flows to the HsB Pond. Re-grade the Seep 10 bench surface to enhance drainage collection and limit ponding of water to the extent practicable.**

MR will regrade the existing surface drainage ditches located on the Seep 10 (EL. 5,900 ft) bench to reduce ponding of water on the bench surface. Minor works to lower culvert elevations to promote drainage to the existing Seep 10 pond and weir will be conducted if required. The Seep 10 flows will continue to be gravity conveyed to the HsB area via the existing weir and pipeline system. MR propose to conduct this work in Q2 of 2022. MR considers these works an interim stage prior to construction of a new Seep 10 surface drainage system in 2023.

The preliminary design of a new Seep 10 bench drainage system was presented in the HsB Rock Disposal Site Stage 1 Drainage System Report prepared by KP in December 2021 (KP, 2021). The design concept included the relocation of the Seep 10 pond and weir to the west, and a drainage pipeline to HsB Pond along the 7 percent Ramp. The Issued for Construction designs will be prepared during 2022, and construction of the new system will commence once the design process is complete.

8. **Investigate options for automating collection of the HsB Weir flow monitoring data using the Sensemetrics remote monitoring system platform.**

The HsB Weir was established by the Montana Bureau of Mines and Geology (MBMG) to monitor the flows through the HsB pond in 1996. MR will review options for automating collection and distribution of the weir flow monitoring data using the existing remote monitoring system operating on-site. MR will coordinate with MBMG to obtain their approval for automation of the weir data collection. Provided MBMG are in agreement with the proposed upgrade connection, MR intend to commission automation of HsB weir data collection by Q3 of 2022.

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, LLP

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.

Montana Resources and Knight Piésold Ltd. (MR/KP, 2020). Yankee Doodle Tailings Impoundment – Tailings Operations, Maintenance and Surveillance (TOMS) Manual, Rev 4, May 13, 2020.

Montana Resources, LLP. (MR) 2020, 2019 Yankee Doodle tailings Impoundment Corrective Action Pan – Corrective Action 2 Deferral Notification Letter, December 18, 2020

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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 2021 Annual Inspection Report.

Reviewed: _____

Daniel Fontaine, P.E.
Engineer of Record,
Knight Piésold Ltd.