Knight Piésold CONSULTING

Management System Certified By: bsi ISO 9001 Quality Management Systems CERTIFIED FS 64925 ISO 14001 Environmental Management CERTIFIED EMS 550121 ISO 45001 Occupational Health and Safety Management CERTIFIED OHS 550122

February 6, 2024

Mr. Mark Thompson
Vice President - Environmental Affairs
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Dear Mark,

RE: Q4 2023 – YDTI Quarterly Tailings and Water Management Summary

1.0 INTRODUCTION

This letter presents a summary of select water management data related to the Montana Resources, LLC (MR) Yankee Doodle Tailings Impoundment (YDTI) from the fourth quarter (Q4) of 2023, including October 1 to December 31, 2023. The purpose of this letter is to review the monitoring records associated with the YDTI water management systems and identify if any operational changes are recommended. The Q4 letter includes a summary of data related to the following:

- YDTI supernatant pond elevation
- Tailings beach elevations at the discharge points
- Silver Lake Water System (SLWS) flowrates
- Horseshoe Bend (HsB) Weir flowrates
- Seep 10 flowrates
- West Embankment Drain (WED) Extraction Pond flowrates

A photo log showing the current condition of the various water management systems is attached to this quarterly report. The photos were collected as part of the construction field review conducted by Knight Piésold Ltd. (KP) and MR on November 28 and 29, 2023.

2.0 YDTI SUPERNATANT POND

2.1 POND WATER ELEVATION

MR currently collects manual measurements of the YDTI supernatant pond elevation monthly. The final pond water elevation recorded during the Q4 monitoring period was 6,358.8 ft on December 26, 2023, which equates to a pond elevation decrease of approximately 0.4 ft during Q4 2023. The water levels measured during Q4 were generally consistent with previous Q4 seasonal trends. Monthly pond water elevations from 2018 through Q4 2023 are presented on Figure 2.1.

The supernatant pond elevation rate of rise (or decrease) is currently affected by MR discharging YDTI water off-site via the Polishing Plant operations to reduce the YDTI pond volume to approximately 15,000 acre-ft. A more detailed description of the Polishing Plant is presented in the TOMS Manual (MR/KP, 2023).

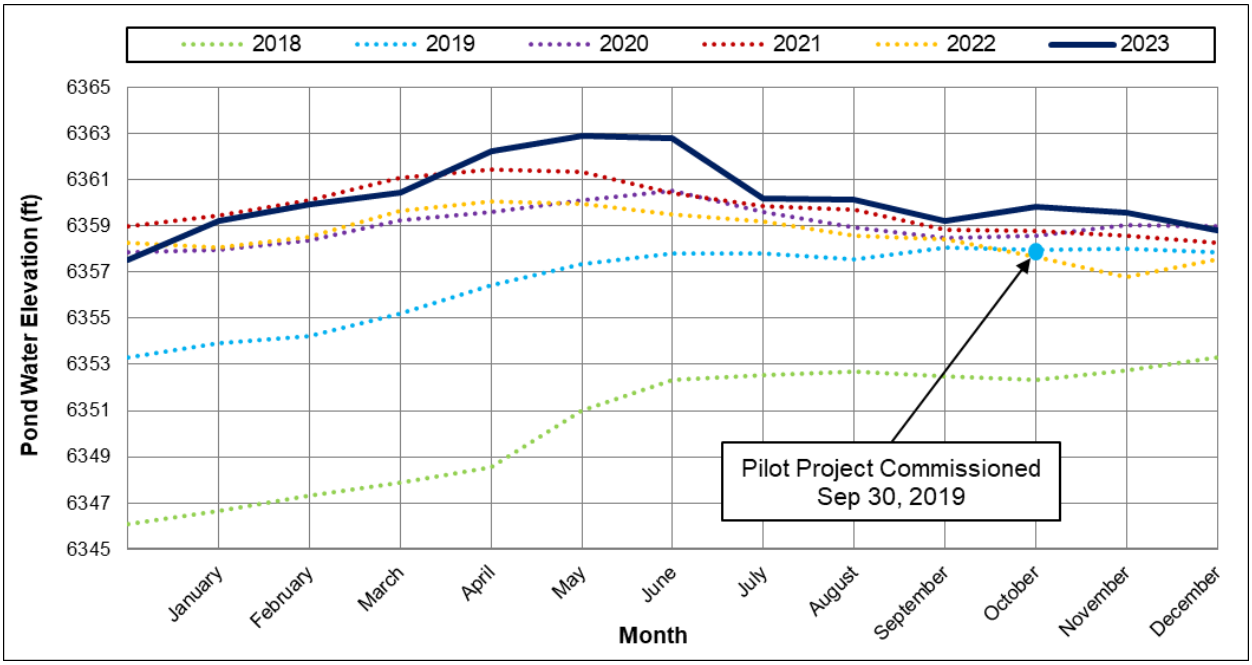


Figure 2.1 Monthly YDTI Pond Water Elevation

2.2 POLISHING PLANT DISCHARGE

The quarterly flow records for the Berkeley Pit Pumping System, Polishing Plant discharge, and associated YDTI deficit since commissioning the Pilot Project in 2019 are shown on Figure 2.2. The YDTI supernatant pond had a net volume surplus of approximately 17 million gallons (52 acre-ft) of water in Q4 2023. Approximately 353 million gallons (1,082 acre-ft) of treated Berkeley Pit Water was discharged into the YDTI and 336 million gallons (1,030 acre-ft) of YDTI water was discharged off-site.

The net YDTI water deficit since the Pilot Project commissioning in 2019 through 2023 is approximately 2,965 million gallons (9,100 acre-ft). The total YDTI supernatant pond net water deficit since 2019 is approximately 5,600 million gallons (17,300 ac-ft), through July 2023. The water inventory reductions at the YDTI during this period are attributed to several factors, with the operation of the Polishing Plant considered to be the most significant factor.

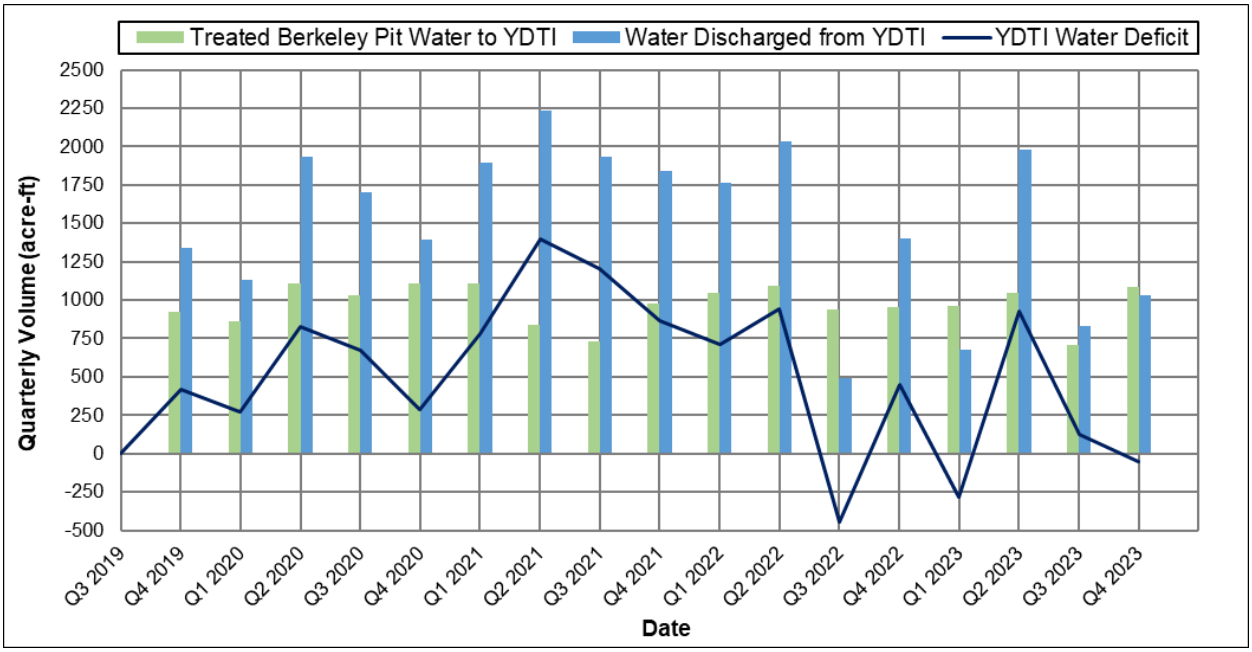


Figure 2.2 Berkeley Pit Pumping System and Polishing Plant Flows - Quarterly Summary

3.0 YDTI TAILINGS BEACH

3.1 TAILINGS DISCHARGE LOCATIONS AND BEACH ELEVATIONS

Tailings discharge records indicate that tailings were distributed from all three YDTI embankments during Q4 2023, with three of the ten 24-inch discharge locations and two of the three 12-inch discharge lines being used. The tailings discharge locations are shown on Figure 3.1.

The tailings beach elevation monitoring process was changed in Q4 from weekly manual survey at only the active discharge locations to quarterly drone survey of the entire beach-embankment interface. The process was changed to have more consistent beach elevation data collection.

Ten beach elevation monitoring points (A to J) were established to analyse the drone survey data. The spacing of the points was selected to enable evaluation of the uniformity of the beach surface adjacent to the embankments. The points are equally spaced around the embankments approximately every 1,800 ft and 100 ft upstream from the embankment toe to reduce the risk of interference with any future rockfill placement or push out. The beach elevation analysis at new monitoring points will be more reliable. The previous beach monitoring analyzed the beach elevations at the active tailings discharge locations, however, the locations were periodically relocated as the embankment construction progressed or discharge needs changed. The new tailings beach monitoring points are shown on Figure 3.1.

The manually surveyed tailings beach elevations collected from January 2022 through July 2023 and the drone surveyed elevations collected from August through December 2023 are presented on Figure 3.2. The data presented on the figure for Q3 2023 presents both the old ‘discharge location’ and new ‘beach monitoring points’ (A to J). Only the new ‘beach monitoring points’ are presented for Q4 2023.

The elevations of the monitoring points were all positively trending throughout Q4 2023, signifying development of the beach. The discharge location with the lowest beach elevation throughout Q4 2023 was J, which is located at the northern end of the North-South Embankment.

The elevation difference between J and the supernatant pond surface was approximately 13 ft at the end of Q4 2023. The location of the lowest discharge point identifies the general area of the facility where the pond may initially contact the embankment in the event the pond elevation rises due to an increase in pond volume (e.g. flooding). However, the elevation at J is positively trending and expected to continue that trend throughout 2024.

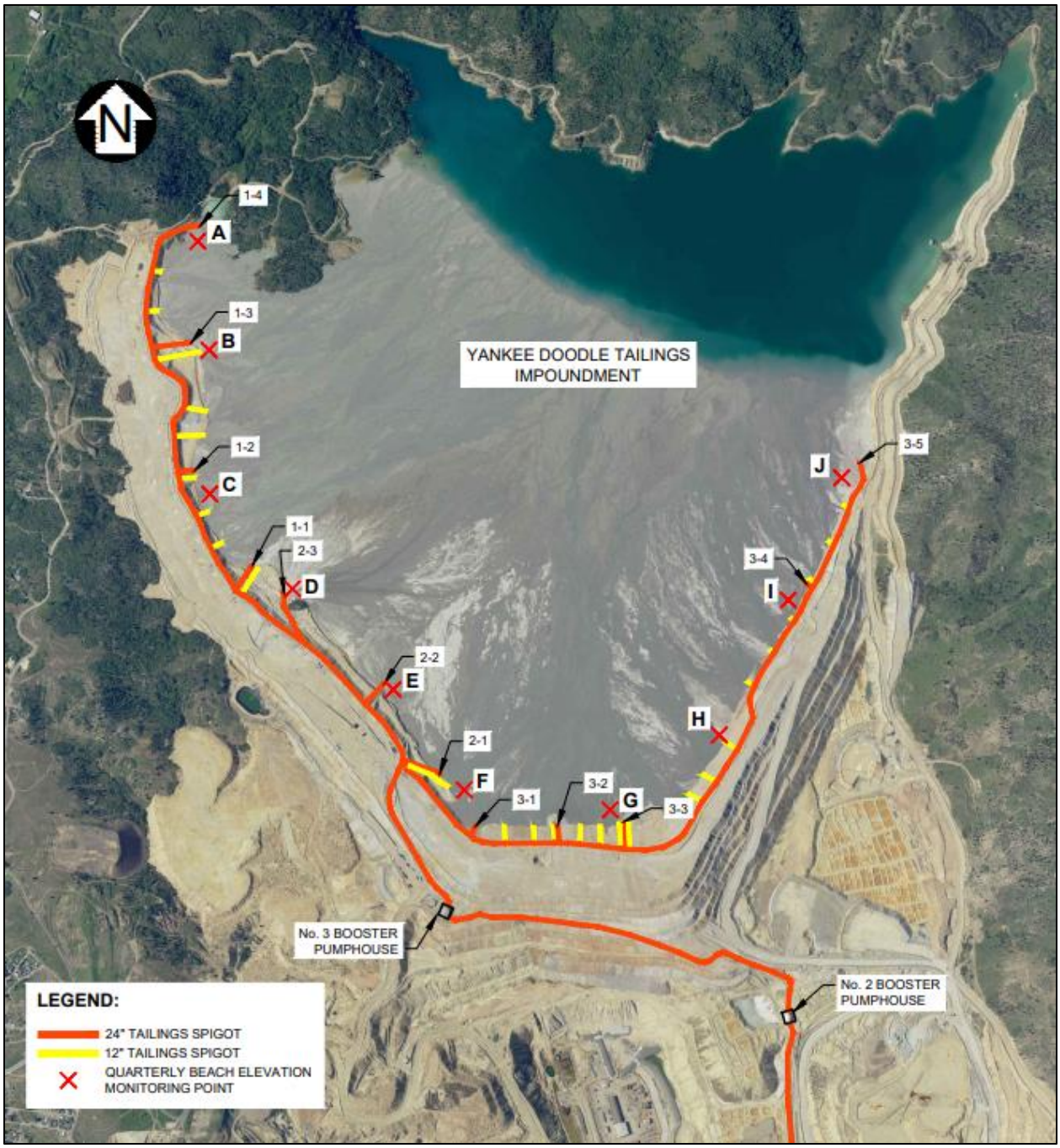


Figure 3.1 YDTI Tailings Discharge Locations

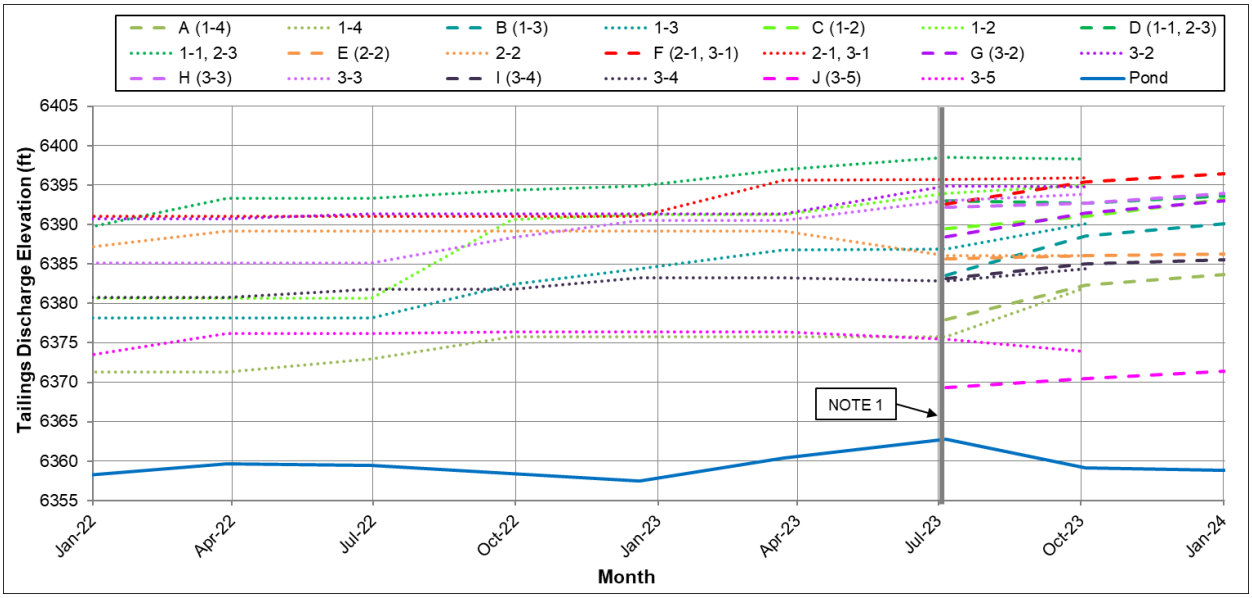


Figure 3.2 Tailings Discharge Elevations

Note(s):

1. A drone flyover was used to survey the tailings beach elevations beginning in August 2023. The location of the tailings discharge points were estimated from drone photos and may differ slightly from previous manual survey locations.
2. The location of discharge 1-4 was not recorded in Q2 2023. The elevation increase shown during Q3 2023 therefore may have occurred over a longer time period than presented.

3.2 TAILINGS BEACH LENGTH

Images captured by the Sentinel-2 satellite are reviewed twice per month to remotely observe the shape of the tailings beach and position of the supernatant pond relative to the embankments. The shortest beach length was observed at the northern end of the North-South Embankment at the end of Q4 and estimated to be approximately 1,500 ft. This beach length is comparable to previously estimated beach lengths in this area of the impoundment.

Overviews of the facility observed from the Sentinel-2 satellite images near the end of October, November, and December 2023 are presented in the attached figures. The elevations indicated on the December 2023 figure were obtained from the drone survey on January 2, 2024.

4.0 SILVER LAKE WATER SUPPLY SYSTEM FLOWRATE

Water from the Silver Lake Water System (SLWS) is used to meet the operational freshwater and make-up water requirements. SLWS flows in Q4 2023 averaged approximately 700 gpm (1.0 Mgpd), which is the target SLWS flowrate. Average monthly SLWS flowrates from 2019 through Q4 2023 are shown on Figure 4.1.

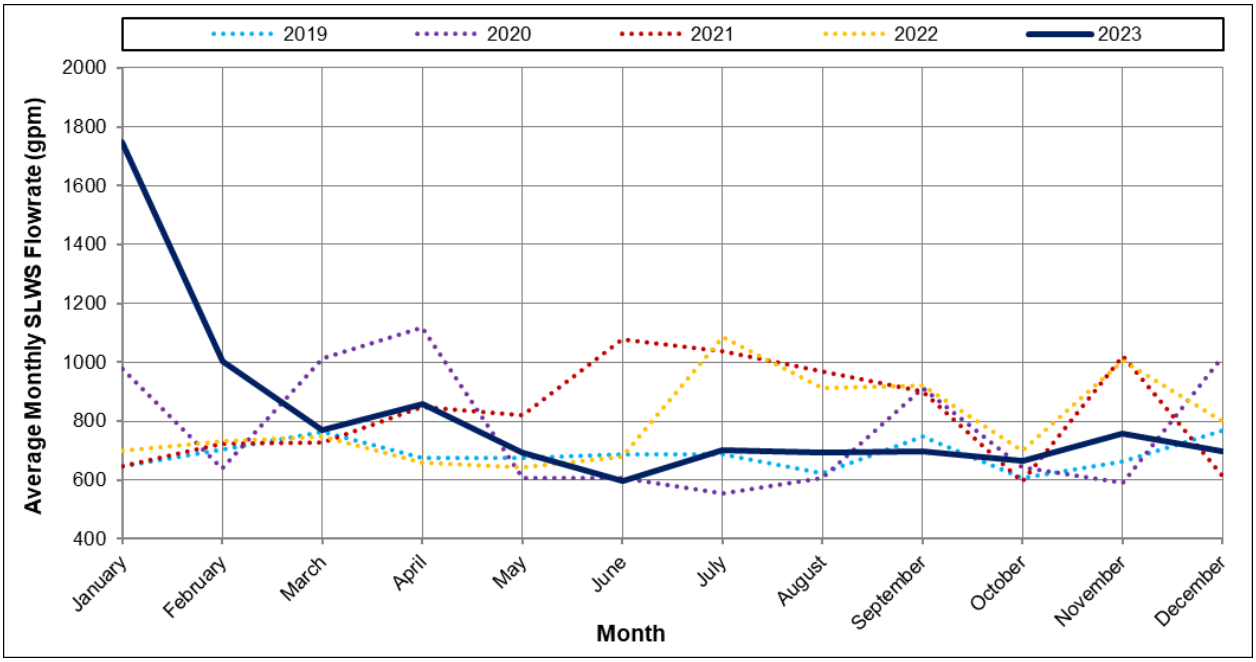


Figure 4.1 Average Monthly SLWS Flowrate

5.0 HSB WEIR FLOWRATE

The HsB Weir records the flow of surface water discharging from the HsB area via the HsB Pond. The flows include YDTI seepage and meteoric inputs from the contributing catchment areas. Seepage from the YDTI flows south through the HsB area and joins with localized surface runoff in the HsB Pond before passing over the HsB Weir. The flow depth over the weir is measured continuously using two independent ultrasonic lookdown sensors located upstream of the weir. One sensor is maintained by the Montana Bureau of Mines and Geology (MBMG) and the second sensor is maintained by MR. MR installed their sensor to enable remote continuous monitoring of the HsB flow data. Photos of the flow through the HsB Weir on November 28, 2023 are presented on Figure 5.1 below and Appendix A – Photo 1.

The MR sensor has been problematic in Q3 and Q4 2023. MR have been actively troubleshooting the sensor through additional analysis of the raw data, adjusting the data collection frequency, and periodically collecting manual data to recalibrate the sensor. A new sensor has been ordered to replace the installed unit. The Q4 analysis therefore relies solely on the data from the MBMG sensor.

The average monthly HsB Weir flowrates measured by the MBMG sensor are presented on Figure 5.1. The average flowrate from the MBMG data throughout Q4 2023 was approximately 2,830 gpm. The average flowrates throughout 2023 have been consistent, indicating that HsB Weir flowrates may be approaching a steady state since recirculation of leach solutions ceased in late 2021.

Photo 5.1 HsB Weir and Sensors (November 28, 2023)

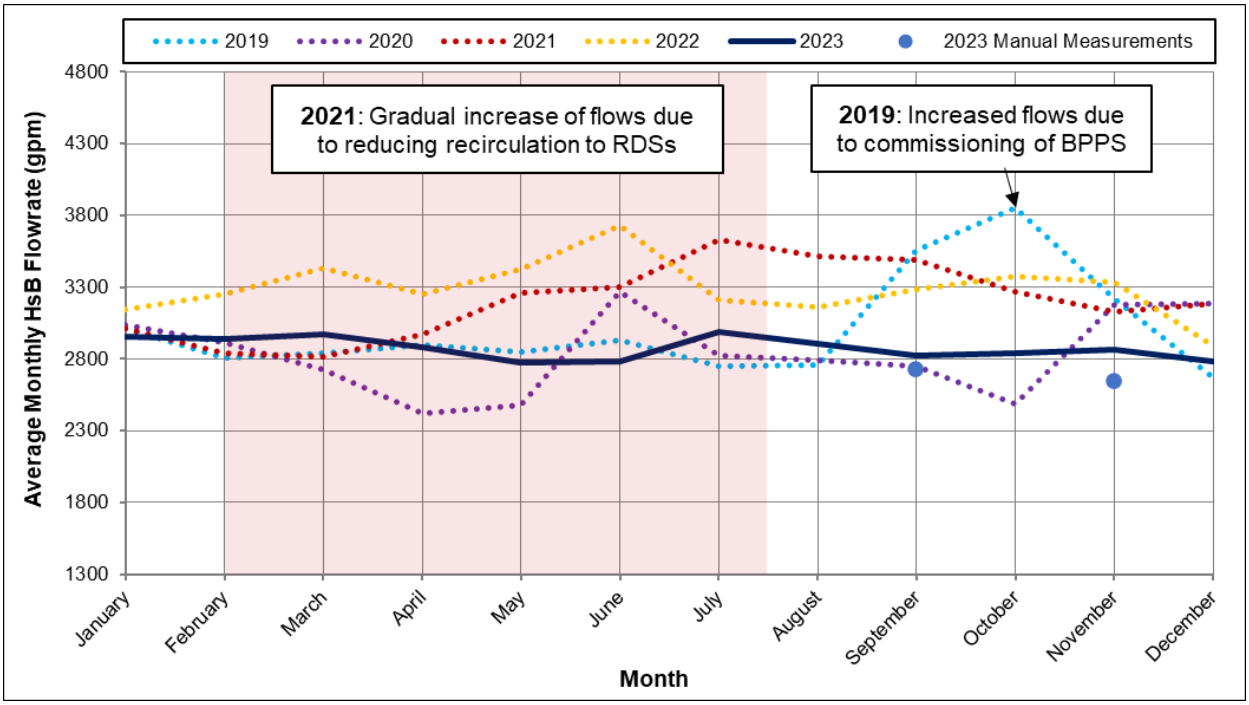


Figure 5.1 Average Monthly HsB Weir Flowrate

6.0 SEEP 10 FLOWRATE

The Number 10 Seeps (Seep 10) daylight on the EL. 5,900 ft bench above the HsB seepage collection area. Historically the seeps were collected in a small pond on top of the EL. 5,900 ft bench and routed to the upper HsB seepage collection area via a pipe. A new Seep 10 collection and conveyance system was constructed as part of the Stage 1 HsB Drainage System works, which are currently in progress. The new Seep10 system includes a lined collection ditch, a lined pond with discharge weir and a conveyance pipeline that discharges directly into HsB Pond. The new Seep 10 system was commissioned in September 2023.

The Seep 10 flows are measured using the same ultrasonic lookdown level sensor as previously installed. The sensor automatically measures the stilling pond level immediately upstream of the weir. Images of the new Seep 10 pond on November 28, 2023 are presented in Appendix A – Photos 2 and 3.

The average monthly Seep 10 flowrates from 2019 through Q4 2023 are presented on Figure 6.1. Flow records from only November 1 to December 31, 2023 were available, as data collection was suspended from September 8, 2023 to October 31, 2023 for the construction and commissioning of the new Seep 10 system. The flowrates during the monitored period were on average approximately 60 gpm. Flowrate trends throughout 2023 were consistent with seasonal trends observed in previous years.

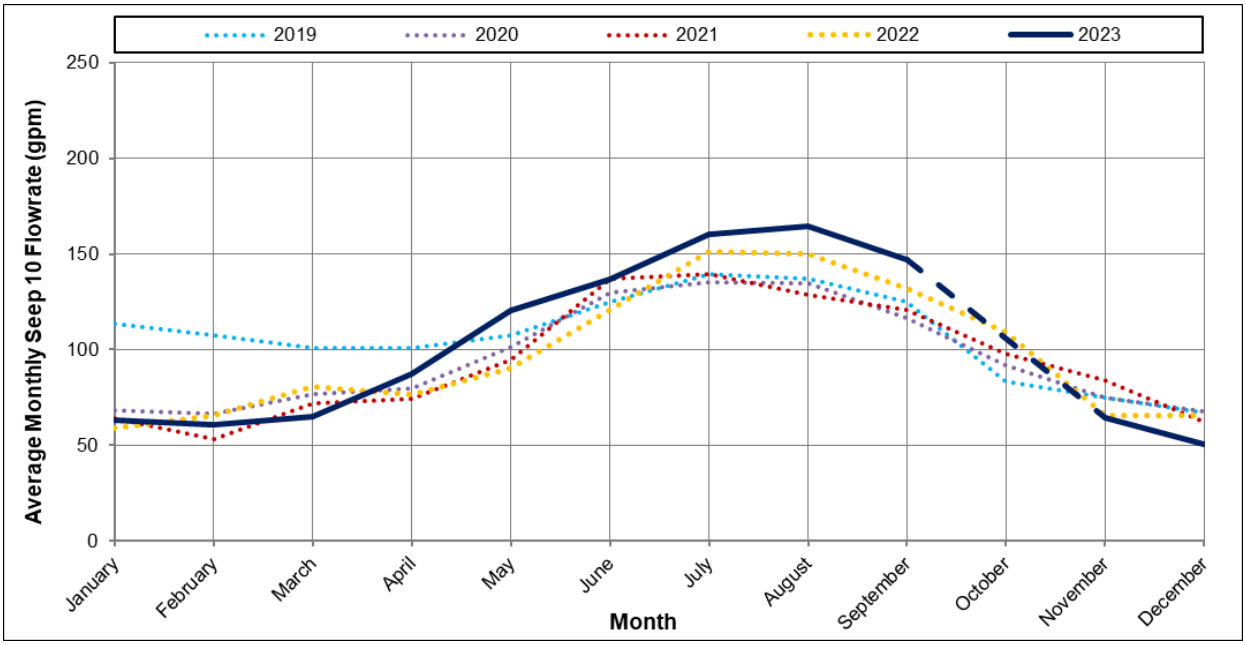


Figure 6.1 Average Monthly Seep 10 Weir Flowrate

Note(s):

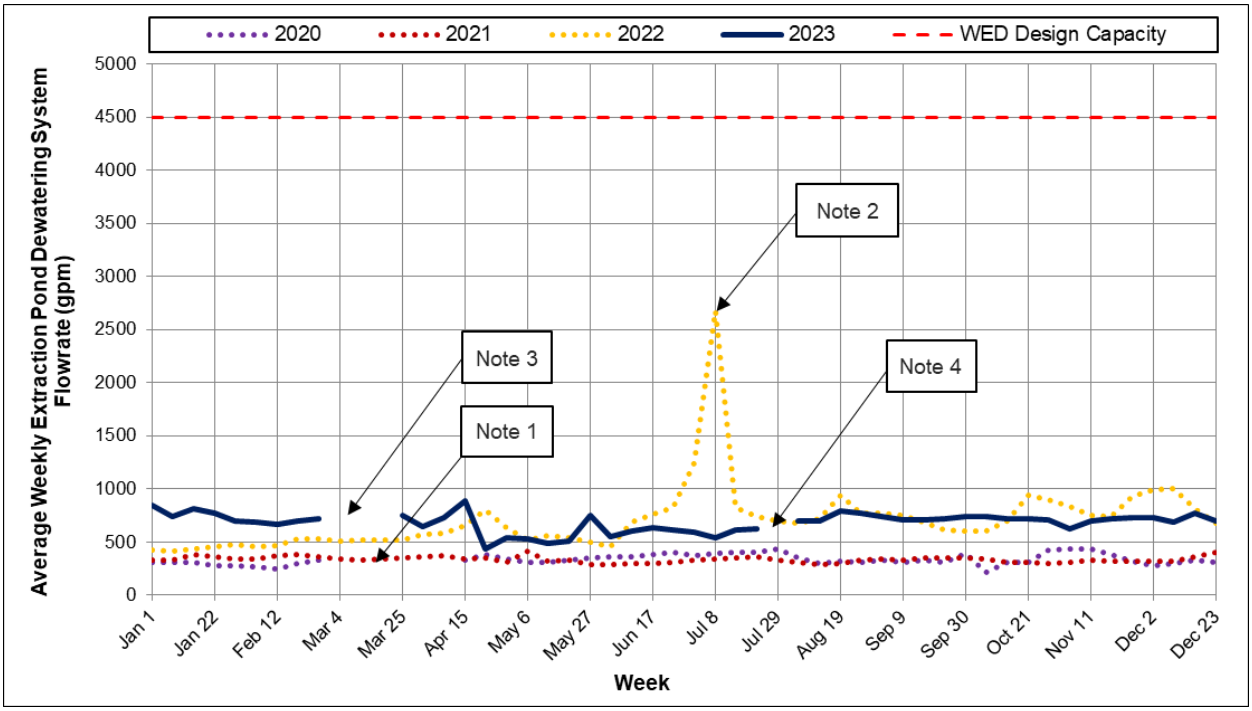
1. An approximation between September through November 2023 is shown below for continuity purposes.

7.0 WED EXTRACTION POND DEWATERING SYSTEM

Water collected in the WED flows by gravity into the Extraction Pond and is pumped to the YDTI via the Extraction Pond Dewatering System. The flows are measured using an inline totalizing flowmeter. An image of the WED Extraction Pond and Dewatering System taken on November 28, 2023 is presented in Appendix A – Photo 4. The average weekly flowrates for the Extraction Pond Dewatering System since it began operating in November 2019, are presented on Figure 7.1.

The average daily flowrate during Q4 2023 was 710 gpm, which is comparable to the increased flowrates recorded since mid-2022. The 2022 flow increase was attributed to an increase in tailings slurry water infiltrating into the WED resulting from tailings accumulating within the facility at an elevation above the WED.

MR and KP anticipate the WED pumping rates will continue to vary in the short-term depending on tailings discharge practices and may slowly decrease over time as the tailings beach thickness increases above the EL. 6,400 ft pipeline corridor bench. MR have been closely monitoring the daily pump data records and conducting regular visual inspections of the tailings beach adjacent to the West Embankment. No adverse conditions have been observed to date. MR will continue to regularly monitor the tailings discharges in this area and associated changes in pumping rates required to maintain dewatering of the Extraction Pond.



Note(s):

1. Erroneous data caused by pump cycling from March to April 2020 were removed.
2. The average weekly Extraction Pond Dewatering System flowrate peaked July 9 to 15, 2022. This high flowrate is attributed to a single event on July 9 associated with power outages and subsequent increase in pumping rate to reduce the WED pond elevation.
3. Erroneous data suspected to be due to a flowmeter error from March 4 to 18, 2023 were removed.
4. Erroneous data suspected to be due to maintenance downtime from July 28 to 30, 2023 were removed.

Figure 7.1 Average Weekly Extraction Pond Dewatering System Flowrate

8.0 CONCLUSIONS

The following observations were derived from the analysis of the Q4 2023 YDTI water data records:

- The YDTI supernatant pond elevation decreased by approximately 0.4 ft in Q4 2023.
- Operation of the Polishing Plant resulted in a net volume surplus of approximately 17 million gallons (52 acre-ft) in Q4 2023.
- SLWS flows in Q4 averaged approximately 700 gpm (1.0 Mgpd), which is the target SLWS flowrate.
- HsB Weir flowrates averaged approximately 2,830 gpm in Q4 according to the MBMG sensor data, which is similar to the average flowrate since recirculation of leach solutions ceased. A new sensor has been ordered to replace the faulty MR sensor located at the HsB Weir.
- Seep 10 flowrates averaged approximately 60 gpm in Q4 2023. Flowrates throughout 2023 were consistent with seasonal trends observed from previous years.
- WED Extraction Pond Dewatering System flowrates averaged 710 gpm and are comparable to the average daily pump rates measured since Q2 2022.

We trust that this letter meets your needs at this time. Please do not hesitate to contact the undersigned with any questions.

Yours truly,
Knight Piésold Ltd.

Prepared: _____
Jocelyn Chung, EIT
Project Engineer

Reviewed: _____
Roanna Dalton, P.Eng.
Specialist Engineer | Associate

Reviewed: _____
Daniel Fontaine, P.E.
Specialist Engineer | Associate
YDTI Engineer of Record

Approval that this document adheres to the Knight Piésold Quality System: DDF

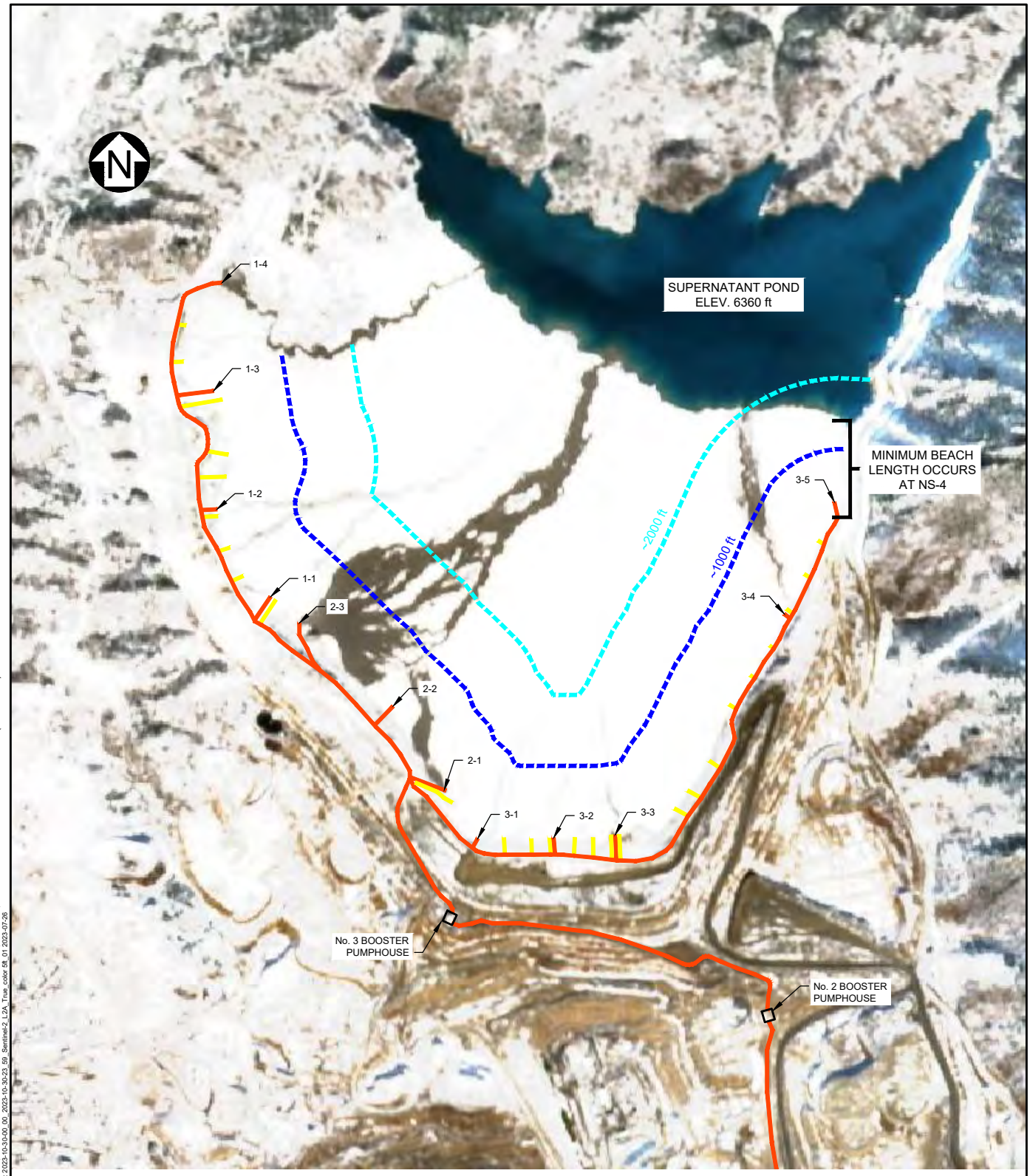
Attachments:

Figure A.1 Rev 0 Tailings Beach Assessment – October 30, 2023
Figure A.2 Rev 0 Tailings Beach Assessment – November 29, 2023
Figure A.3 Rev 0 Tailings Beach Assessment – December 31, 2023
Photo Log

References:

Montana Resources and Knight Piésold Ltd. (MR/KP, 2023). Yankee Doodle Tailings Impoundment – Tailings Operations, Maintenance and Surveillance (TOMS) Manual, Rev 6, dated December 2023.

/jjc



LEGEND:

24" TAILINGS SPIGOT
12" TAILINGS SPIGOT

NOTES:

1. SUPERNATANT POND ELEVATION WAS SURVEYED ON NOVEMBER 8, 2023. ALL ELEVATIONS ARE RELATIVE TO THE ANACONDA DATUM.
2. THE MINIMUM BEACH LENGTH AT THE NORTHERN EXTREMITY OF THE N-S EMBANKMENT IS MEASURED FROM THE TAILINGS BEACH AND UPSTREAM EMBANKMENT INTERFACE, AT THE INTERSECTION OF THE N-S EMBANKMENT AND NATURAL TOPOGRAPHY OF RAMPART MOUNTAIN, TO THE TAILINGS BEACH AND POND SURFACE INTERFACE.
3. SENTINEL-2 VISIBLE SATELLITE IMAGE TAKEN ON OCTOBER 30, 2023.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06FEB'24	ISSUED WITH LETTER	JJC	RMM	RSD

MONTANA RESOURCES, LLC.

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT
SENTINEL-2 SATELLITE IMAGERY
TAILINGS BEACH ASSESSMENT - OCT. 30, 2023

Knight Piésold CONSULTING

P/A NO. VA101-126/29 | REF NO. VA24-00001

FIGURE A.1 | REV 0

LEGEND:

- 24" TAILINGS SPIGOT
- 12" TAILINGS SPIGOT

NOTES:

1. SUPERNATANT POND ELEVATION WAS SURVEYED ON NOVEMBER 29, 2023. ALL ELEVATIONS ARE RELATIVE TO THE ANACONDA DATUM.
2. THE MINIMUM BEACH LENGTH AT THE NORTHERN EXTREMITY OF THE N-S EMBANKMENT IS MEASURED FROM THE TAILINGS BEACH AND UPSTREAM EMBANKMENT INTERFACE, AT THE INTERSECTION OF THE N-S EMBANKMENT AND NATURAL TOPOGRAPHY OF RAMPART MOUNTAIN, TO THE TAILINGS BEACH AND POND SURFACE INTERFACE.
3. SENTINEL-2 VISIBLE SATELLITE IMAGE TAKEN ON NOVEMBER 29, 2023.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06FEB'24	ISSUED WITH LETTER	JJC	RMM	RSD

MONTANA RESOURCES, LLC.

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT
SENTINEL-2 SATELLITE IMAGERY
TAILINGS BEACH ASSESSMENT - NOV. 29, 2023

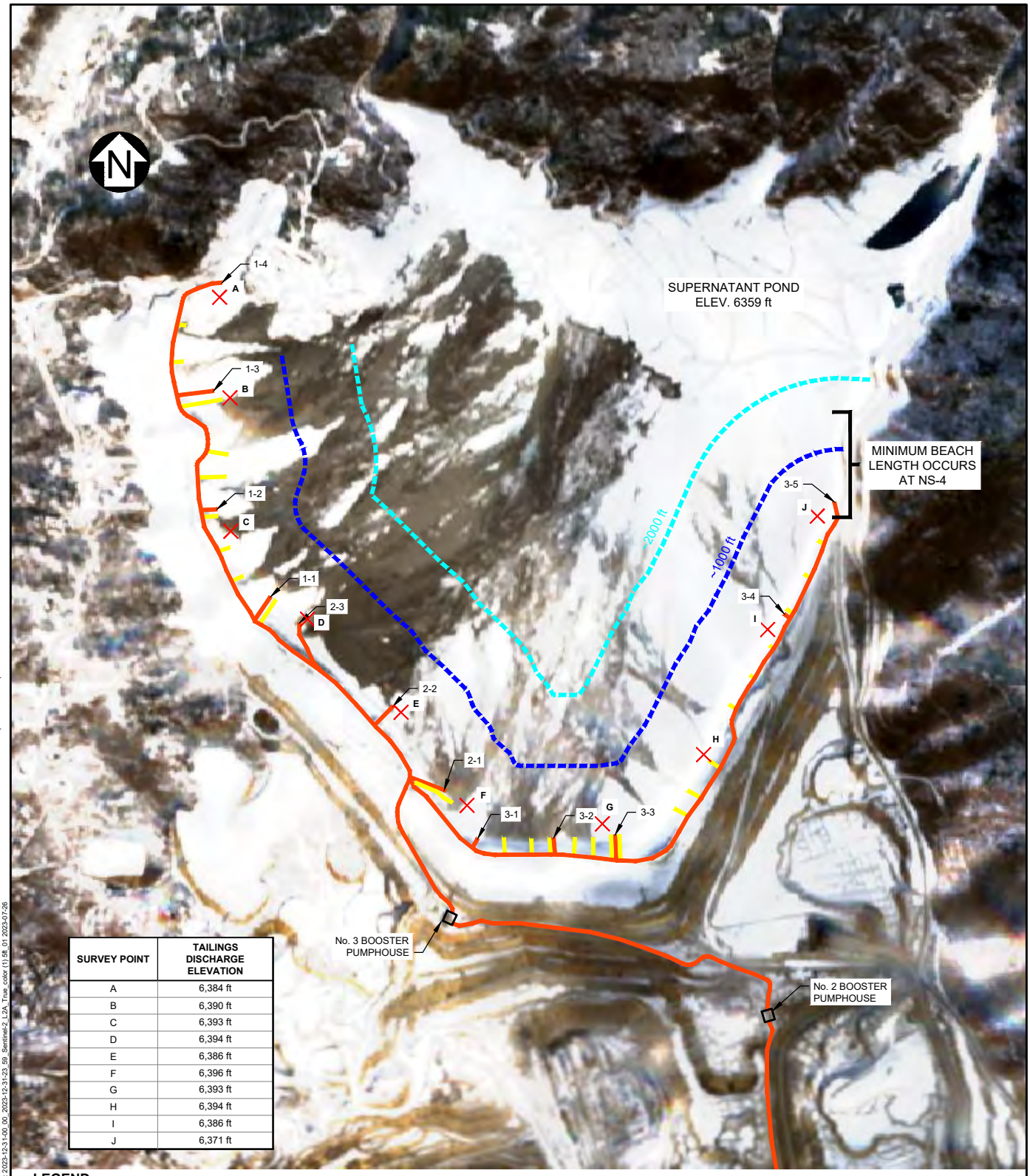
Knight Piésold CONSULTING

P/A NO. VA101-126/29

REF NO. VA24-00001

FIGURE A.2

REV 0



SURVEY POINT	TAILINGS DISCHARGE ELEVATION
A	6,384 ft
B	6,390 ft
C	6,393 ft
D	6,394 ft
E	6,386 ft
F	6,396 ft
G	6,393 ft
H	6,394 ft
I	6,386 ft
J	6,371 ft

LEGEND:

24" TAILINGS SPIGOT
12" TAILINGS SPIGOT
QUARTERLY BEACH ELEVATION MONITORING POINT

NOTES:

1. TAILINGS DISCHARGE AND SUPERNATANT POND ELEVATIONS WERE SURVEYED BY DRONE FLYOVER ON JANUARY 2, 2024. ALL ELEVATIONS ARE RELATIVE TO THE ANACONDA DATUM
2. THE MINIMUM BEACH LENGTH AT THE NORTHERN EXTREMITY OF THE N-S EMBANKMENT IS MEASURED FROM THE TAILINGS BEACH AND UPSTREAM EMBANKMENT INTERFACE, AT THE INTERSECTION OF THE N-S EMBANKMENT AND NATURAL TOPOGRAPHY OF RAMPART MOUNTAIN, TO THE TAILINGS BEACH AND POND SURFACE INTERFACE.
3. SENTINEL-2 VISIBLE SATELLITE IMAGE TAKEN ON DECEMBER 31, 2023.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06FEB'24	ISSUED WITH LETTER	JJC	RMM	RSD

MONTANA RESOURCES, LLC.

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT
SENTINEL-2 SATELLITE IMAGERY
TAILINGS BEACH ASSESSMENT - DEC. 31, 2023

Knight Piésold CONSULTING

P/A NO. VA101-126/29 | REF NO. VA24-00001

FIGURE A.3 | REV 0

Q4 2023 – YDTI QUARTERLY WATER DATA SUMMARY
PHOTO LOG

PHOTO 1 – November 28, 2023 –HsB Weir

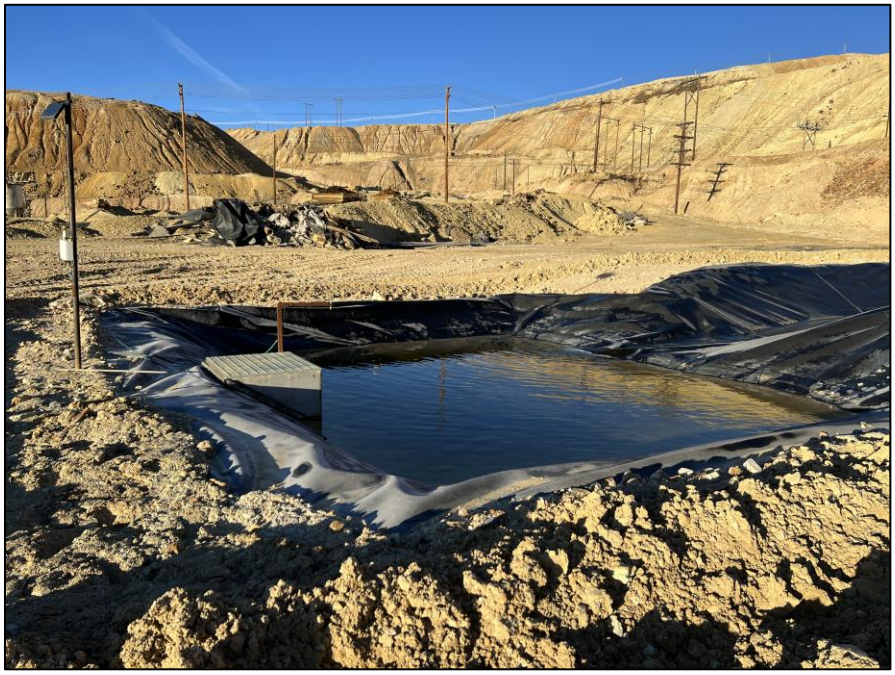


PHOTO 2 – November 28, 2023 – Seep 10 Stilling Pond

Q4 2023 – YDTI QUARTERLY WATER DATA SUMMARY
PHOTO LOG

PHOTO 3 – November 28, 2023 – Seep 10 Weir.

PHOTO 4 – November 28, 2023 – WED Extraction Pond and Dewatering System.