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April 29, 2019

Mr. Dave Siebert
Bureau Director
Wisconsin Department of Natural Resources
101 S. Webster Street – GEF2
P.O. Box 7921
Madison, WI 53707-7921

Ms. Zoe McManama
Hydrogeologist
Wisconsin Department of Natural Resources
518 W. Somo Avenue
Tomahawk, WI 54487-1118

Dear Mr. Siebert and Ms. McManama:

RE: Reclaimed Flambeau Mine: Summary of Items Discussed Related to the Request to Modify the Updated Monitoring Plan and Annual Report Format (Flambeau, 2018)

This letter has been prepared by Foth Infrastructure & Environment, LLC (Foth) on behalf of Flambeau Mining Company (Flambeau) in response to items discussed during a conference call conducted on April 3, 2019. A call was requested by the Wisconsin Department of Natural Resources (WDNR) in a January 17, 2019 email from Zoe McManama addressing elements of the monitoring reduction request. The following topics were reviewed in the call with additional clarification or information provided. The call was attended by Zoe McManama, Cheryl Heilman, and Andrew Simek with the WDNR; Leland Roberts with Flambeau; Steve Donohue, Allison Haus and Sharon Kozicki with Foth; and Timm Speerschneider with DeWitt Ross & Stevens.

1. As a point of clarification, Flambeau (2018) proposed reducing groundwater monitoring frequency and parameters for wells located within the backfilled pit, intervention boundary wells, and other wells outside the backfilled pit, including groundwater elevation.
2. As a point of clarification, Attachment 1, Flambeau Mine Groundwater Monitoring Reduction Evaluation – In Pit Wells; the well IDs and number of

wells proposed during permitting for the wells within the footprint of the pit prior to excavation were not used. Rather than two well nests consisting of two wells each called MW-1013G/P and MW-1014G/P, as called out in the permit, two well nests consisting of three wells each were installed and assigned as MW-1013A/B/C and MW-1014A/B/C.

3. In Attachment 1, Table 2 the value for manganese reported for well MW-1005P should not be highlighted as it did not exceed the 1989 predicted value.
4. A typically accepted tolerance for predictive geochemical models is to be within an order of magnitude. By this metric, the data presented in the request meets model predictions for sulfate and pH.
5. The “first flush” refers to the initial resaturation in the pit after backfilling was complete. Upon first flush, soluble salts at the surface of backfill waste rock material were dissolved into solution, causing elevated concentrations of certain parameters. Since the time first flush reactions were complete (approximately 20 years ago), the system has been saturated and anoxic. Further oxidation cannot occur in the system, therefore, there is no continuing source of acidity. The backfilled pit groundwater system is in a stable condition in that there is no anticipated mechanism that could increase concentrations above what has already been seen in the monitoring data over the last 20 years. Sampling porewater annually will provide adequate monitoring of geochemical behavior in the backfilled pit. Stable concentrations observed over the past 20 years are anticipated to continue for decades. Over a longer time range (on the order of 100 years), as fresh water continues to move very slowly into the system, concentrations of sulfate and other ions will decrease and pH will remain neutral. The variation in pH and dissolved oxygen are not expected to be outside the range that has been observed in the past 20 years. Porewater sampling conducted more frequently than annually would not provide any additional useful data in determining site stability.
6. Attachment 1, p. 15, the text should have included total dissolved solids and total hardness. These two parameters were included in Table 4 but inadvertently omitted from the present and future summaries of annual monitoring parameters.
7. Attachment 1, p. 17, barium and cadmium were described as stable or decreasing. During the call it was discussed that the 2017 Annual Report graphs indicate a combination of increasing, stable, or decreasing concentrations. As discussed during the call, it is more accurate to describe these parameters in the pit as being stable.

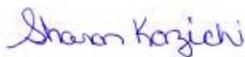
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8. The flux calculation worksheet in Attachment 1, sub-attachment 2 included a typo. Page 2 of 5, 4th paragraph, 3rd sentence should be revised to: “The top of the Precambrian bedrock is approximately at elevation 980 ft amsl and is considered to be the aquifer bottom (Engineering Technologies Associates, 1998).”
9. Attachment 3 Reclaimed Flambeau Mine Infrared Vegetation Photography, Subsidence, Wetland Evaluation Reduction, and Annual Reporting Requirements, Section 4 should include the annual site inspection and reporting of the findings of the inspection in the annual report. The annual site inspection and reporting will be included in the annual long-term care activities.
10. Attachment 4 Redlined Updated Monitoring Plan, Section 1: the first paragraph should read “Long-term care for the site commenced at the completion of site closure. Site closure was accomplished in May 2007 upon receipt of the Certificate of Completion.”

Thank you for the opportunity to clarify this request. Please let us know if you have further questions.

Sincerely,

Foth Infrastructure & Environment, LLC



Sharon Kozicki, PG, PMP
Senior Project Manager



Stephen V. Donohue, PH
Vice President - Mining

cc: Larry Lynch, Wisconsin Department of Natural Resources
Cheryl Heilman, Wisconsin Department of Natural Resources
Hank Handzel, DeWitt Ross & Stevens
Timm Speerschneider, DeWitt Ross & Stevens
Dave Cline, Flambeau Mining Company
Leland Roberts, Rio Tinto
Allison Haus, Foth Infrastructure & Environment, LLC

Reference:

Flambeau Mining Company, 2018. Letter to Mr. Dave Siebert, Wisconsin Department of Natural Resources. Reclaimed Flambeau Mine Request to Modify the *Updated Monitoring Plan*. November 13, 2019.