



November 28, 2014

Al Hoffman,
Chief Inspector of Mines
Ministry of Energy and Mines

Re: 2014 Dam Safety Inspection report for Closed Pinchi Lake Mine

Under cover of this letter, please find the 2014 Dam Safety Inspection (DSI) report for the dormant tailings facility at the closed Pinchi Lake Mine and the results of the third-party review. The DSI reports were prepared by the Engineer of Record, Klohn Crippen Berger Ltd. and the DSI was subsequently provided third-party review by Mr. Andy Small, P.Eng. of AMEC Foster Wheeler.

Pinchi Lake Mine is committed to ensuring the safe operation of its dormant tailings facility and accompanying dam structure. Our closed tailings facility is inspected biannually by qualified technical staff. DSIs are conducted on an annual basis and detailed Dam Safety Reviews are conducted by a third-party engineer every ten years. The most recent DSR was completed in 2013 following closure of the tailings facility in 2012.

As outlined in the DSI report and confirmed by the third-party engineer review, no immediate safety or stability concerns were noted for the Pinchi Lake Mine's tailings storage facility and accompanying dam. Further, these documents confirm that our monitoring and surveillance practices meet industry standards. The independent review has also confirmed the current assigned Consequence Classifications for the dam.

The Pinchi Mine tailings dam has a failure consequence classification of significant. The Operation, Maintenance and Surveillance Manual and Emergency Preparedness Plan for the closed Pinchi Lake Mine tailings storage facility was updated April 2014.

No Priority 1 (immediate safety or stability concerns) or Priority 2 (non-urgent, but pertaining to long term dam safety items) were identified by the Engineer of Record. Priority 3 recommendations were identified as non-urgent and not expected to result in a dam safety issue. Recommendations marked as Priority 4 were identified by the Engineer of Record as opportunities to further meet industry best practices, but timeline for completion is more than one year.

Several recommendations pertaining to maintenance and/or opportunities to further develop leading industry practices were identified in the DSI report. We have carefully reviewed and are taking steps to address each recommendation as required, according to the priorities established by our Engineer of Record, as detailed in Table 2 below.

There were no recommendations resulting from the independent review of the DSI.

At Pinchi Lake Mine, we are focused on meeting the highest standards of safety for communities, and the environment. Annual Dam Safety Inspection reports are one component of the comprehensive systems and procedures we have in place for the safe operation and monitoring of our tailing facilities. These systems follow

industry best practices, including guidance provided by the Canadian Dam Association and the Mining Association of Canada.

Please do not hesitate to contact me if you have any further questions regarding the operation, maintenance and monitoring of our tailings facilities.

Sincerely,



Michelle Unger
Senior Environmental Scientist & Pinchi Lake Mine Manager

cc: Diane Howe, Ministry of Energy and Mines
George Warnock, Ministry of Energy and Mines
Heather Narynski, Ministry of Energy and Mines
Chris Anderson, Teck
Jeff Hanman, Teck

Recommendations and Action Items

Table 1: General Description of Priority Rankings

Priority	Description
1	A high probability or actual dam safety issue considered immediately dangerous to life, health or the environment, or a significant regulatory concern.
2	If not corrected, could likely result in dam safety issues leading to injury, environmental impact or significant regulatory action; or, a repetitive deficiency that demonstrates a systematic breakdown of procedures.
3	Single occurrences of deficiencies or non-conformances that alone would not be expected to result in dam safety issues.
4	Best Management Practice as a suggestion for continuous improvement towards industry best practices that could further reduce potential risks. This typically includes ongoing construction items within the appropriate construction cycle.

Table 2: Recommendations and Planned Action for Pinchi Mine Tailings Facility

Structure	Recommendation	Priority	Planned Action	Timeline for Action
Pinchi Mine Tailings Facility Dam	During the biannual inspections, visually examine the crest of the Tailings Dam at the southeast corner of the Tailings Storage Facility (TSF) for formation of depression in the dam crest. Revise the Inspection Checklist for the Tailings Dam in the Operation Maintenance and Surveillance (OMS) Manual to specifically include inspection of the dam crest in this area.	4	Ongoing biannual inspections. Revise Inspection Checklist	End of 2015
	Inspect the till cover on the tailings for development of flow channels and signs of erosion. Add an Inspection Checklist to the OMS Manual for the inspection of the till cover.	4	Ongoing monitoring Add to inspection checklist	End of 2015
	Remove vegetation from the downstream slopes of the west leg and south leg of the Tailings Dam	4	Plan to remove vegetation in 2016	End of 2016
	Inspect the slump on the right bank of the Closure Spillway biannually. Cut the bank to a flatter, more stable slope if the slump enlarges and affects the stability of the spillway channel side slope.	3	Inspect the slump on the right bank biannually.	Ongoing
	Remove vegetation in the Closure Spillway channel with the roots before the vegetation gets too large.	3	Remove vegetation	End of 2015
	Continue biannual inspection of the West Ditch, and re-seed or provide riprap erosion in	n/a	Continue biannual inspections	Ongoing

Structure	Recommendation	Priority	Planned Action	Timeline for Action
	the channel, if deemed necessary.			
Borrow Area A downslope of tailings dam	Install metal rods on either side of the cracks on the slope of Borrow Area A at selected locations such that movements of the slope at the cracks can be measured and the trend of the movements (stable, reducing, accelerating) can be established.	4	Install metal rods during Spring 2015 inspection	Spring 2015
	Continue biannual inspection of the slope of Borrow Area A for further development of seeps, cracks and movement, and implement remedial measures if and when deemed necessary. Revise the Inspection Check List for the Tailings Dam in the OMS Manual to specifically include inspection of the borrow area slope.	4	Ongoing biannual inspections. Revise Inspection Checklist	End of 2015
Ed Creek Diversion Channel adjacent to tailings dam	The riprap along the Ed Creek Diversion Channel is undersized and is deteriorating due to weathering. Measures to re-establish the required erosion protection along the channel should be undertaken. This may include the replacement of the riprap or other suitable alternative(s). As this work may take some time to undertake, in the interim the channel should be inspected biannually and the riprap along selected sections of the channel should be replaced when deemed necessary.	3	Completed in 2014	End of 2019