

Minjng Magazine



Tyres

The end of the tyre shortage, why prices have dropped and how to get more for your money through the downturn

Process control

Choose the right level of automation for your processing facility, retrofit with confidence and avoid data overload

Pit to port

How to streamline ore transport and increase throughput across the value chain

Shovels & loaders

Optimise maintenance, select the right lubricants and learn about the latest in machine interfaces

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Finger pointing

Nearly two weeks on from the colossal tailings spillage at Imperial Metals' Mount Polley copper-gold mine in British Columbia, the full scale of the damage is starting to become clear. On the morning of August 4, the 16km² tailings pond dam at the mine was breached and released 10 million cubic metres of water and 4.5 million cubic metres of fine sand into Polley Lake, Hazletine Creek and Quesnel Lake.

At the time of press, the flow had been decreased but not completely stopped, and Imperial had begun building a horseshoe-shaped temporary dyke inside the breach to stop flow out of the pond. However, this was expected to take three weeks to complete.

A breach on this scale is extremely rare and officials with the British Columbia Ministry of Energy and Mines said that they do not recall anything of this magnitude in at least the past 40 years. British Columbia imposes some of the strictest environmental regulations in the world on mining companies, but it seems that Imperial may have become a little laissez faire with its housekeeping.

Following reports of a previous breach at the mine, Ministry of Energy and Mines officials investigated an incident on May 24. This was determined to be a "period where the height of the effluent within the tailings pond was above regulation" and not a breach at all. The tailings were returned to within regulated levels by June 30, but if the height was great enough to be affected by a minor surge, surely closer monitoring should have been in place?

Even more unusually, just days after the tailings spillage, engineering firm Knight Piésold went on record to talk about the disaster. The firm issued a fairly damning statement on August 8, saying that as the former engineer of record at the facility it felt it needed to clarify its position.

To cut a long story short, in February 2011, Knight Piésold informed Imperial Metals that it would not continue with the project, and it handed over design, construction and monitoring responsibilities to AMEC. The original engineering done by the firm accommodated a lower water volume than the tailings storage facility held at the time of the breach, and Knight Piésold felt that considerable design changes had been made since its involvement.

On completing its work at Mount Polley, the firm wrote to the mining company and British Columbia's Chief Inspector of Mines to flag that "the embankments and the overall tailings impoundment are getting large and it is extremely important that they be monitored, constructed and operated properly to prevent problems in the future". The letter is available on the Knight Piésold website for those interested.

When we contacted AMEC to ask about its involvement, the company gave the following statement: "The performance and stability of a dam is dependent on many factors including design, construction, operation and maintenance as well as the potential for unforeseen conditions.

"While AMEC serves as the engineer of record on the most recent raising of the dam, implementation of the design has not been completed and some construction activity was still taking place. Investigations at or near the breach are currently prohibited due to safety concerns and we are awaiting the results of field surveys to determine the status of dam construction at the time of the breach."

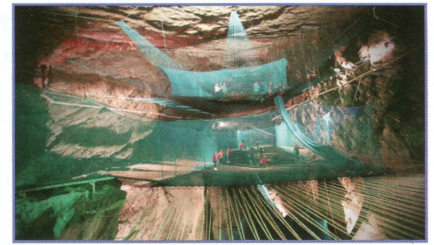
The incident will most certainly entail a fine for Imperial and the environmental impacts will be felt for many years. However, Knight Piésold's reaction reminds us that there is more at stake here than meets the eye. As an old proverb says, "a good reputation is better than much wealth; high esteem is better than silver and gold".

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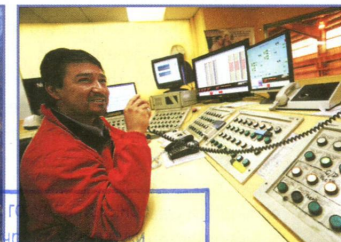
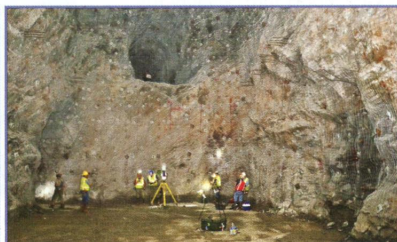
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- Solvent extraction & electrowinning
- Physical separation
- Engines & drives
- Surface miners

COVER

Kal Tire's objectives remain simple: with the constant change in commodity prices, miners must strive to maximise the full potential of the equipment they operate, including the tyres that ultimately carry the load. Kal Tire helps customers maximise the value of their tyre investment and increase their productivity by providing a fully outsourced solution including tyre supply, forecasting, management, fitting, tooling and innovative tyre monitoring system solutions, along with 24-hour service and training. www.kaltire.com



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