

# Lake Vermont Mine Reduces Downtime With McLanahan Custom Feeder-Breaker Access



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Ryan Palmer  
Thiess Mining

**Lake Vermont is an open cut thermal coal mine in Queensland, Australia that produces 11.2 million tonnes per year of pulverized coal injection and hard coking coal. The operation is managed by Thiess Mining. They won the contract for Lake Vermont in 2007 and commenced mining the following year.**

Lake Vermont boasts two 800 tonne an hour prep plants that include two McLanahan custom Feeder-Breakers. Uptime is important, and Lake Vermont was looking to improve their efficiency and profitability by reducing the downtime needed for maintenance.

## **Challenge**

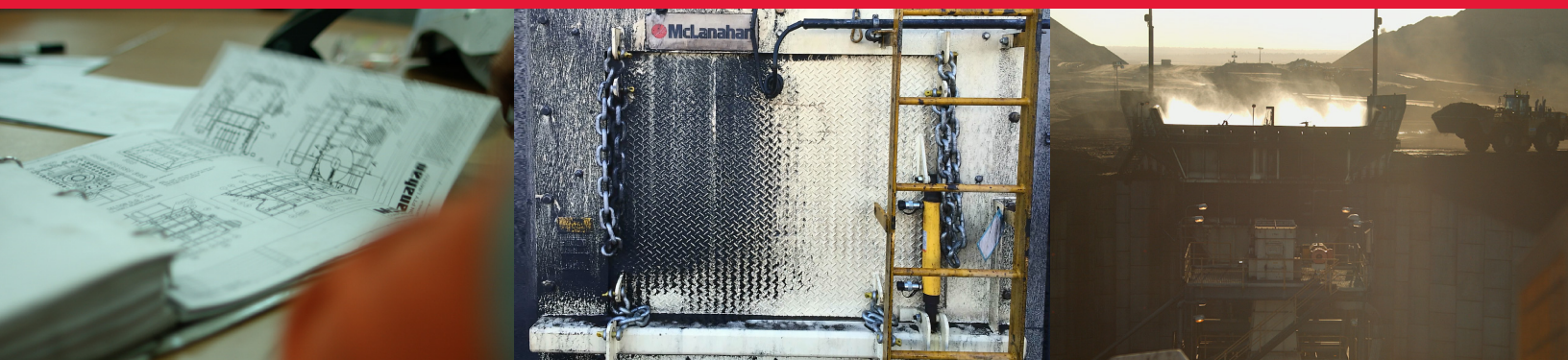
To perform simple maintenance tasks on the Feeder-Breaker, such as pick replacements, Lake Vermont had to go through a lengthy process just to gain access to the machines. They had to empty their 450 tonne hopper, open the rear door and bring in personnel and equipment. In addition to the labor and time involved, accessing and working in the rear of the Feeder-Breaker posed a significant risk.

“If it takes three hours to get into this machine on a 12-hour down day, we just wasted a quarter of our time,” explained Ryan Palmer, Thiess Maintenance Planner at Lake Vermont. “If we can get in quicker, we can have more time in the machine repairing it.”

## **Solution**

Lake Vermont looked to McLanahan Corporation for a solution. McLanahan, who has been working with Lake Vermont since they first supplied the mine with a crushing package in 2008, was challenged to come up with an access point that eliminated or reduced the time needed to perform simple maintenance tasks.

“In conjunction with McLanahan, we came up with the idea, we put it back to the team, they got back to their design department, and they came back and gave us a concept, usually in 3-D, and then it’s usually backward and forward,” Thiess Coal Handling and Processing Plant Manager Ian Matheson said about working with McLanahan to come up with a solution that fit Lake Vermont’s needs.



The McLanahan engineering team developed a design that replaced the front of the Feeder-Breaker with a door that could act as a hydraulically operated work platform, opening the entire face and giving Lake Vermont great access into the machine.

"They don't have to go into the hopper, they don't have to empty the hopper, there's no machinery included and there's no requirement to come into the back and put the equipment and the people there in a higher risk environment," said Chris Knowles, Director of Sales and Marketing for McLanahan's Asia/Pacific region.

Knowles explained how McLanahan draws on their many years of experience across a global network in many environments and industries to provide solutions for clients like Lake Vermont.

"Using this broad experience, it helps us deliver a solution to the client that will help meet their outcome," Knowles said. "The benefit of that to us is every time we provide a solution to a client, McLanahan has another solution for another client and improves our overall engineering capability."

## Results

Palmer said now that they are able to get into the machine quicker, they can replace more picks and look after the machine better, ultimately leading to less downtime.

"We've eliminated hundreds of hours," Palmer said. "We've got weeks back per year."

Lake Vermont is looking to ramp up production, meaning the uptime is much-needed.

"Every bit of coal in the plant goes through the McLanahan gear, so those machines are critical to our productivity and our availability," Palmer said. "Every innovation we can get at McLanahan to make those machines more available, more productive, means more productivity for the whole plant."

Palmer was impressed with the service and support McLanahan has repeatedly offered Lake Vermont.

"I've worked with a lot of OEMs, and I can tell you, McLanahan is one of the best to work with for sales and service, especially with the projects we do," said Palmer. "They're very quick. It's not often you can get a multi-national company to change their design for you just for your site, and McLanahan seemed to be able to do it very quickly for us."

Matheson, too, was happy with Lake Vermont's experience with McLanahan.

"They've always listened to everything that we've had to say and then gone about looking out for their customer and at least trying to get to the bottom of it," said Matheson. "And that's why we've had so many successes. We've done a lot of design changes on both those, mainly on the Feeder-Breakers, and that's why we are where we are today."

**SCAN TO SEE VIDEO**

