

Vale Inco greenfield site accelerates improvement after fast start-up!

Vale Inco
Case Study

Client	Location	Solution
Vale Inco Newfoundland & Labrador Limited	Voisey's Bay Mine, Labrador, Canada	ABB Full Service®

Vale Inco is a leading producer of nickel, copper, cobalt and precious metals, based in Toronto, Ontario, Canada. Vale Inco is a wholly-owned subsidiary of Vale, the world's second-largest mining company by market capitalization. With over 12,000 employees worldwide, Vale Inco is committed to the pursuit of sustainable growth by operating with respect for the natural environment and being an ethically and socially responsible company.

“It was recognized that at our greenfield site, we had the opportunity to do a better job from the start. If you get something right, or close to right, from the beginning, you’re going to run a more efficient operation.”

**Joe Holmes, Concentrator Manager
Vale Inco Newfoundland & Labrador
Voisey's Bay Mine & Concentrator Site**



Business Challenge

Voisey's Bay nickel mine sits in remote Labrador, Canada, more than 250 km from the nearest road, which made developing this greenfield site more complex. This coupled with the comprehensive environmental assessment process required by the Canadian government and the overlapping land claims with two aboriginal groups made the entire project quite a challenge.

This was the first major, new resource development for Vale Inco (then Inco) in almost 50 years, and the company wanted to hit the ground running by building a mine and concentrator as quickly as possible to get the ore out and to market.

Solution

Vale Inco recognized the mining industry did not traditionally lead in maintenance practices and wanted to investigate an alternative to the more conventional approach. Plus, at a greenfield site, Vale Inco saw the opportunity

to avoid a change management process by doing a better job from the start.

Creative Partnering

ABB combined its Full Service® maintenance methodology with the construction and operations support of Iskueteu, an aboriginal company, to form Iskueteu-ABB (I-ABB). The support of the local aboriginal groups combined with ABB's proven track record of performance-based maintenance management resulted in a five-year agreement with Vale Inco Newfoundland & Labrador.

As with all Full Service agreements, ABB commits to results, including productivity improvement and maintenance cost reduction. At Vale Inco, Overall Equipment Effectiveness (OEE) is used as one of the Key Performance Indicators (KPI) for the ABB Full Service® agreement.

“The nicest thing about OEE is that it has an exact equal contribution for operations and maintenance,” said Holmes. “It measures the ability to work together towards a

ABB
Full
Service



common focus. OEE is an absolute measurement of joint performance.”

Results

Fast Start-up

Before start-up ABB initially provided reliability consulting for the maintenance planning phases. This led to training for commissioning, start-up and ongoing operations and assuming responsibility for maintaining all process equipment, site facilities and the port with the Full Service agreement.

As a result, Vale Inco and ABB celebrated a fast ramp-up and achieved 90% of rated capacity for the mine concentrator in just three months.

Breaking Records

ABB helped Vale Inco attain all-time production levels in 2006; achieve 1000 days with no lost time due to injury in 2007; and reach the highest production in 2008.

“Our main focus is not to minimize maintenance cost,” Holmes said. “Spending a few extra maintenance dollars is cost effective for us if it allows us to make as much nickel as we can.”

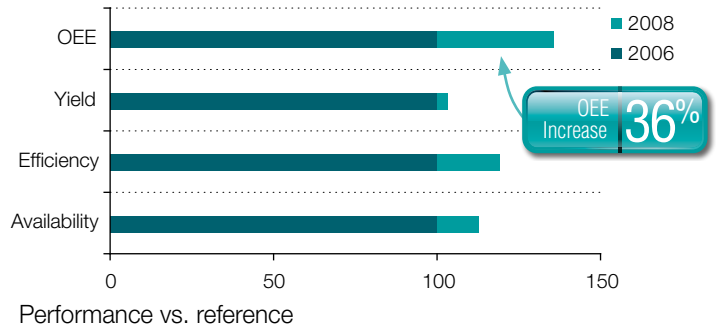


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