

# ABB helping Vale Inco create the mine of the future

**A** global leader in power and automation technology, ABB is honoured to be Vale Inco's electrification, hoisting and automation partner for the Totten Mine Project.

Vale Inco's reopening of Totten mine is a \$400 million project and the first new Vale Inco mine in Sudbury in 35 years. Work began on the reopening of the mine in 2007, with production scheduled to commence in 2010. The revived Totten mine has a projected life span of 20 years and will create 150 employment opportunities.

ABB Canada's scope of supply for Totten mine includes a full suite of power and automation solutions, starting at the surface 69 kV substation with high voltage breakers, relay protection and control; medium voltage switchgear; a microSCADA system; a remote control connection to the Vale Inco Power Department; two mine hoists — one medium voltage and one low voltage; and all motors, drives, motor control centres and instrumentation throughout the mine surface plants and underground. Underground airflow and quality will be controlled with a state-of-the-art ventilation on-demand system. Also supplied are underground mobile substations and underground field bus connected devices and controllers. The entire scope of supply is seamlessly integrated together with ABB's Industrial IT - 800xA automation system.

The ventilation on-demand system under the scope of ABB will utilize advanced real-time asset tracking technology and intelligent airflow systems for optimal performance. The system is designed to dilute and remove hazardous substances, control the thermal environment, and provide oxygen for humans and mobile equipment engine combustion. The ventilation on-demand system will optimize energy management of the entire mine through automation.

ABB's project execution and engineering was done by ABB's North American Mining Centre of Excellence in Montreal, Canada, and included an overall project manager and one site manager in place to lead the total and site efforts, respectively. ABB's mining group in Montreal is responsible for all mining solutions in Canada, the United States and Mexico. The equipment ABB supplied to Totten mine was manufactured in various factories around the globe, with some significant contributions from local Sudbury- and Canadian-based suppliers.

Most of the major equipment has been delivered to site and is operational or in various stages of commissioning.

"ABB has enabled innovation in our core business on the Totten Mine Project," said John Sagman, Vale Inco senior project manager. "ABB has brought the latest technology and expertise forward as their contribution to our unified project team."



Vale Inco Totten mine headframe under construction - June 2008

The project has never suffered a lost time accident or a disabling injury. It is on schedule with completion slated for the second quarter of 2011 and is within the approved budget. ■