

The Leduc exploration camp in northwest British Columbia. Photo courtesy Castle Resources Inc.



Castle Resources plans to re-open Granduc Copper Mine

by Ellsworth Dickson

Every mining project presents its own particular challenges; however, the construction of the original Granduc Copper Mine in northwest British Columbia involved a rather unique situation. Since the copper deposit was in a remote, mountainous location near the Leduc Glacier with difficult access, it was necessary to build a 17-km long tunnel to reach the tidewater Port of Stewart.

First discovered in 1931, it took until 1971 to finally get the copper deposit into production by senior miner Newmont Mining. Production continued until 1984 when the mine was closed due to low copper prices. During that time, 420 million pounds of copper was produced.

In 2010, Toronto-based **Castle Resources Inc.** [CRI-TSXV] acquired a 100% interest in the Granduc property from Bell Copper for a very favorable price of \$4 million and, since that time, has been advancing the project with the objective of resuming production. After the acquisition, Castle began exploration drilling and, by the end of 2010, had not only extended the known strike length of copper mineralization, but had also confirmed that substantial copper mineralization existed below the old workings.

A new NI 43-101 compliant resource estimate was released in February 2012 based on Castle's 38,000 metres drilled in 2010/11 and historical drill records from the Newmont era. Indicated resources stand at 10.4 million tonnes grading 1.25% copper with significant gold and silver credits, plus inferred resources of 36.6 million tonnes grading 1.26% copper, also with precious metal credits. As there remains considerable potential to discover additional copper mineralization in the North Zone, South Zone, Main Zone and JK Zone, diamond drilling continues.

The 30,000-metre 2012 surface drilling program's initial focus is to drill test and expand upon the resource areas in the South Zone not drilled during 2011. Approximately 6,500 metres is planned to be drilled in 12 holes with two drills set up on the South Leduc Glacier. In June, additional drills were mobilized to the property to start a large and systematic exploration program on the North Zone.

Meanwhile, Castle has received a 30-year statutory right-of-

way to utilize the tunnel from the BC Ministry of Forests, Lands and Natural Resources. In 2011, Castle contracted Procon Mining and Tunneling to rehabilitate the tunnel in a \$5 million program. The tunnel is designed for rail transportation of ore, people and supplies between the underground mine and the mill; however, Procon's rehabilitation work was completed using trackless equipment. Castle is currently considering putting tracks back in the tunnel as rail transportation is efficient and economical.

Castle will eventually rehabilitate specific levels and exploration drifts in the Granduc Mine in order to establish underground drill stations as the project has advanced into the pre-feasibility stage. In addition, the company is preparing a Preliminary Economic Assessment (PEA) for the Granduc Copper Project and will aim to publish the PEA in Q4 2012. The PEA will evaluate mining methods, tailings impoundment and a suitable milling process. It is expected the mining method would use the sub level caving process, a technique used when the mine was in production. A new mill will need to be built with a planned rate of production of 8,500 tonnes per day. This would equate to 80-100 million copper equivalent (copper + gold + silver) pounds per year. Metallurgical studies have been conducted on Granduc mineralization with favorable results for ease of metal recovery.

In other developments, Castle will be submitting a Project Description to the BC Environmental Assessment Office in 2012 in addition to advancing environmental baseline studies, First Nations consultation and community engagement programs.

For years 2014 and 2015, Castle will continue with underground rehabilitation, work out a power contract with BC Hydro, complete detailed engineering and begin construction. With Castle having raised \$40 million to date, sufficient funds are on hand to keep the project on track with first concentrate production expected in 2016. The company is in the process of securing a 16,000-tonne concentrate storage facility in Stewart.

The high-grade Granduc Copper Project represents a real opportunity for Castle Resources in that Newmont built the 17-km tunnel and a 54 km haulage road, a tremendous cost savings, plus there is excellent potential to define a great deal more base and precious metal resources. The company has 147 million shares outstanding. ■