



# Finding **needles** in a **haystack**

Mineral exploration is a high risk business with more failures than successes, but one Canadian company is hoping to hit the jackpot by using a different model, as Bill Botham learns

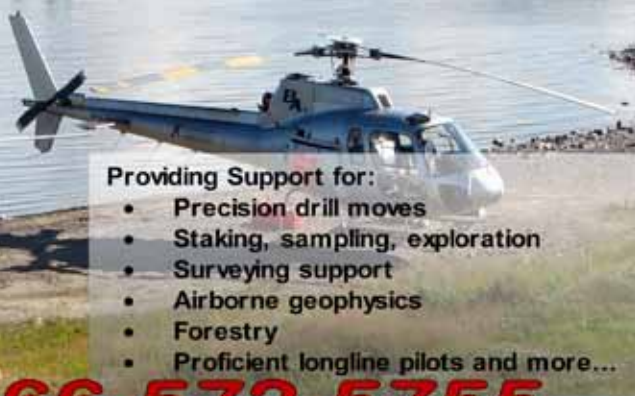
Everyone is familiar with the dramatic rise in the price of gold. Over the past decade it has tripled in price. What may be less well known is that platinum at one point actually outstripped the price

rise of gold. In 2007–08 it skyrocketed to \$2,000 per ounce—almost twice the gain of gold. Since then it has dropped back equally dramatically but its price is still running ahead of gold.

The market for minerals is fickle but projected

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Expedition Helicopters, Inc., founded in 1999, has been honored to work alongside Ian Bliss, president and CEO of Northern Shield Resources throughout the years. Mr. Bliss' eagerness and optimistic approach in exploring the North will ensure continued success in the future. Expedition Helicopters, Inc. would like to congratulate Northern Shield Resources for being featured in *Achieving Business Excellence* magazine.



figures from various financial institutions show very strong demand for platinum, with demand outstripping supply in the short term. Against this background, in 2006 Northern Shield—one of Canada's junior mineral exploration companies—decided to focus its attention on platinum group elements (PGEs), arguing that there was a need for a North American source because of political uncertainty in Zimbabwe and South Africa, the major producers of PGEs. This uncertainty is felt to be helping to keep platinum prices robust and causing a degree of concern amongst the

principal platinum suppliers.

Northern Shield was formed by president and CEO Ian Bliss in 1999 after learning his skills as an independent consulting geologist, exploring remote areas of Greenland and Norway. No stranger to working in rugged terrain, he has learned the value of a model driven approach to efficiently exploring large tracts of land where weather and latitude result in short exploration seasons.

Northern Shield is concentrating its exploration outside of existing mining camps. Approximately two-thirds of Ontario is underlain by "shield" rocks, a geologic terrain favorable for a variety of mineral deposits including diamond, gold, platinum and base metals. However, to reap the potential these areas have, Northern Shield feels it must take a fresh approach. As well as conducting much of its exploration in under-explored areas, it uses a scientific, model-driven approach to define targets and target areas.

An understanding and interpretation of geological and exploration modeling requires geologists to go back to the basics—what should the deposit look like, where should it form and

what controls its formation or emplacement? Nevertheless, there is always an enormous amount of trial and error.

Highland Lake, in northwestern Ontario, is Northern Shield's flagship property. It totals almost 300 square kilometers and covers one of the largest untested PGE targets in North America. In early 2004, Northern Shield announced the discovery of a previously unknown layered intrusion there, in an area of scant outcrop. Nearly all of the world's PGE deposits are contained in layered intrusions, including the Bushveld Igneous Complex in South Africa and the Great Dyke in Zimbabwe, the world's two largest of their kind. The discovery was made through the re-interpretation of magnetic data and confirmed by the identification of magmatic layering in outcrop and a subsequent drill hole.

Last month a further step was made towards the necessary proof as an airborne survey matched Northern Shield's interpretation as to where the ultramafic sequence of rocks ("Critical Zone") that would host any PGE-bearing reef would project to.

The survey also revealed a kimberlite target in the southern portion of the property backing up the numerous kimberlite indicator minerals that have been recovered from till samples collected at Highbank Lake. Kimberlites are the host rocks for diamonds.

In geological exploration, there is many a slip between cup and lip. Nevertheless, the discovery in 2004 led to an Option Agreement with Impala Platinum Holding, the world's second largest producer of platinum. Impala has the rights to incrementally earn a 60 percent interest in the PGE and PGE by-products of the property in return for \$5 million in exploration expenditures on the property within five years.

As well as agreements along the lines of Impala, Northern Shield intends acquiring and exploring grass roots properties showing potential of hosting highly marketable ore deposits under its own initiative, which will provide it with sole or majority ownership and a greater potential for a significant return on investment. To date it has seven other properties where it has 100 percent interest over mining rights for nickel, copper, PGEs and even gold. – *Editorial research by Greg Petzold* ■