



# mining stocks to watch

TGS → Turnagain

## Canadian Metals Exploration Ltd.

### Nickel-Cobalt-Platinum Project Returning Good Results 889145

Diamond drilling results continue to be favourable from the Turnagain nickel-cobalt-platinum group metals (PGM) project of **Canadian Metals Exploration Ltd.** [CEL-TSXV], located 67 km east of Dease Lake in northern British Columbia and accessible by dirt road. The community of Dease Lake is about 450 km north of Smithers, BC. Since 1996, the company has spent some \$2 million on exploration that included geophysical surveys and drilling programs. Back in the 1960s and 1970s Falconbridge carried out some exploratory work.

Drilling in 1996 returned assays of 0.28% nickel and 0.014% cobalt over 142 metres. This provided a strong indication that a large, bulk tonnage nickel sulphide mineral deposit could be present and led to further exploration. Other earlier drill results also encountered widespread nickel sulphide mineralization in thick intersections that work out to CDN \$70.09/tonne over 30 metres (Hole 02-03) and CDN \$43.26 over 52 metres and CDN \$50.25 over 20 metres (Hole 02-07) – Feb/2003 metal prices. Both of these holes stopped in mineralization. It is important to keep in mind that these figures have no actual economic significance since a feasibility study must be completed before any real values can be assigned. However, they do provide a positive indication as to the mineral potential of the project when compared with other British Columbia bulk tonnage mines.

One of the objectives of the 2003 drilling program, which comprises 25 to 30 holes, will be to extend the area of known mineralization both west and east from the area of earlier drilling and to further define the grade of the core area. Last season's geophysical surveys, both magnetic and induced polarization, has assisted in locating the best drilling targets. Drilling has extended Hole 02-06 from the 2002 drilling program from 232.9 to 485.2 metres and intersected extensive sulphide mineralization, including nine significant new intersections lying below the previous known mineralized zones. The best zone of 32 metres averaged 0.569% nickel, 0.022% cobalt with platinum, palladium and gold values. The gross in-situ metal value for this interval is CDN \$74.02 per tonne. The drilling program has now covered an area 2.5 by one km in size.

As exploration has progressed, the bulk tonnage, open pit potential of the Turnagain property may have to be revised upward from the originally proposed 250 million tonne model as company geologists are of the view that the property could host significant additional mineralization.

The exploration programs to date are working toward the understanding of the large Turnagain mineral deposit which is hosted in altered, layered ultramafic rocks. Nickel-PGM deposits often occur in ultramafic rocks that are igneous in origin and mostly made of dark, ferromagnesian minerals. Igneous rocks were solidified from molten magma.

In addition to the ongoing exploratory work, Canadian Metals is continuing with the metallurgical studies and testing programs that began in 1997. Work to date has indicated


that the Turnagain mineralization demonstrates favourable economics for metal recoveries. Conventional froth flotation techniques can be utilized to produce a mineral concentrate amenable to on-site metal extraction by leaching using new hydrometallurgical technology. Refining the concentrate into metal cathodes on site would greatly reduce transportation costs. The metallurgical studies are being developed using an average anticipated grade of 0.3% nickel and 0.015% cobalt.

Pre-feasibility metallurgical studies by independent consultants Process Research Associates of Vancouver and Lakefield Research of Ontario have demonstrated that an 83% nickel recovery is expected with 77% for cobalt. The gold, platinum and palladium content can be recovered from leached residues.

Environmental and engineering studies are also planned.

Dr. Stewart Jackson, P.Eng., president, says that the company envisages a mining operation that would support an initial ore production rate

of 68,000 tonnes per day for at least 10 years. One of the most attractive aspects to the Turnagain project is that the contained metal values are double or triple the values at current base metal producers in British Columbia. This would go a long way in making a northern mining operation more economically viable.

To facilitate field operations, work is being conducted from a 20-man camp by a rehabilitated airstrip adjacent to the main drilling area. It is expected the current exploration program will continue into November of this year. 



John Schussler, driller, prospector and vendor of the Turnagain nickel property, inspects a rock outcrop. Photo courtesy Canadian Metals Exploration Ltd.

