

VIETNAM

By a Special Contributor

Although Vietnam is keen to join the World Trade Organisation (WTO) most observers feel that it will be quite some time before the Communist-ruled country joins the WTO. The country's mineral policy, which lays down ground rules for overseas companies in developing its mineral resources, has many ambiguities. Foreign mining companies doing business in Vietnam have experienced several problems in negotiating mining agreements because of many grey areas on land use and development rights. Some time ago, the government issued an order which required any company wanting to mine natural resources to lodge a bond to cover the expected cost of protecting the environment; in the case of mines which operate for less than three years, a one-time payment will have to be made, while mines scheduled to operate for longer periods, may make payments in instalments. The mineral policy grants discretionary powers to the authorities to ban the export of certain minerals which are listed from time to time.

Tiberon Minerals Ltd of Calgary, Canada, has high hopes for its Nui Phao tungsten polymetallic project located 90 km from Hanoi in northern Vietnam. Economic mineralisation is hosted by lower Palaeozoic metasediments and a granitic stock of Cretaceous age. A detailed drilling programme comprising 95 holes has delineated highly significant mineralisation in skarns and greisen covering 40% of the main 2,000 m x 400 m 'Main Gossan' anomaly, with a large part near surface. Grades vary greatly but intersections include 46 m at 0.98% WO₃, 70 m at 0.57% and 26 m at 0.99%, all in different holes. Gold values run as high as 4.86 g/t Au but generally range nearer 0.4 g/t. Copper values are in the range 0.2%-0.6% and the fluorite content is as high as 50% in some individual samples.

Other anomalous metals include Zn, Ce and Be. Pre-feasibility resource and bench-scale studies are under way, and Tiberon believes there is a very large resource amenable to open-pit mining.

Geological exploration in Vietnam in recent years has identified over 5,000 mineral deposits including major occurrences of oil, gas, coal, bauxite, rare earths, apatite and significant reserves of iron ore, copper, lead, zinc, titanium, chromite, gold, tin and antimony. India has a 45% stake in an oil and natural gas exploration project in South Vietnam. India's investment in the energy sector will eventually total US\$300 million. It is expected that the Nam Con Son gas project will deliver nearly 3 billion m³ of natural gas every year to power stations in southern Vietnam. Apart from gas, Vietnam has an estimated reserve of 5-6 billion barrels of oil. Crude oil output has increased from 7.6 Mt/y in 1998 to 12.6 Mt/y in 1999. Export of crude has increased from 7.6 Mt in 1995 to 12 Mt in 1998.

The chief mineral that is extracted is anthracite coal, rich deposits of which occur in northern Vietnam, the total reserves being estimated at 20,000 Mt, of which 3,600 Mt are proved. Vinacoal, the government-owned umbrella organisation which controls all the mines and distributors, has been given extensive areas to explore and tap anthracite coal in the Quang Ninh region, which has reserves of the order of 4,000 to 4,500 Mt. Vietnam was planning to raise washed coal output to 10 Mt/y by 2000. Expansion and development work was undertaken in the Khe Tam, Nui Beo, Mao Khe, Cao Son, Yen Tu, Khe Cham and South Ha Tu mines, all located in the northeast. Considerable investment was proposed for coal processing facilities. The ports of Cua Ong and Hon Gai were developed and expanded.

Vietnam has eight goldfields in the north in the vicinity of Hanoi and two in the south. The National Gold, Silver & Precious Metals Corp., based in Hanoi, handles over 1 t/y of gold. In the Bac Thai province in the north, a joint venture between the Russian Geology Federation and Thai Nguyen Colour Metal Co. produces around 0.5 kg/d of gold. Tiberon Minerals Ltd of Canada, which has been prospecting for gold in Nui Phao, has made a significant discovery of alluvial and eluvial gold. It has also found heap leachable gold in large areas. Rubies occur in the northern town of Luc Yen and near Quy Chau in central

Vietnam. Gemtec Vietnam runs a factory in Hanoi to cut, polish and market rubies. Vietnam Gold & Precious Stones Corp. commenced mining of sapphire at two new operations at Khe Ngang and Truc Lau in Nghe An province.

Vietnam has substantial deposits of ilmenite. The Catkhanh mine, which was jointly explored by Malaysian Mining Corp. and the state-owned Binh Dinh Mineral Co., has promising deposits. The country has some seven major tin-producing areas with estimated reserves of 85,000 t of metal.