

## CUBA

*By a Special Contributor*

Cuba has one of the world's largest nickel reserves and accounts for some 9% of world production. Last year, it forecast that output would reach some 75,000 t. There are three mine complexes which exploit lateritic nickel and the government is reported to be considering the development of three new mines, with accompanying plants, in order to expand this important sector of the country's economy.

According to Orestes Santana, mining director of Cuba's Basic Industries Ministry, there are growing expectations for further nickel discoveries and extensions to some of the known deposits, either by the State, or by joint-venture companies and other partnership combinations. Under Cuban investment rules, a private company can take a 100% share in a venture, depending on what it contributes and what the Cuban State contributes.

In an interview last year with BNamericas.com, Mr Santana said: "We are working with Russia and other countries. Some things are further advanced, others less so; we are always disposed to receive foreign capital." Until the end of the Cold War and the collapse of the Soviet Union in 1991, Cuba had been heavily reliant on Russia to provide funding for its nickel industry, and the Russians were to have funded a major new project, Las Camariocas. All work on the project halted in 1989.

In December 2000, there were indications that the project could be revived, with the Russian nickel producer Norilsk Mining Co. expressing a willingness to complete the project and to treat the product at its smelters on the Kola Peninsula in Russia. Norilsk's mining director, Dzhonson Khagazheyev, who had been accompanying Russia's President Putin on a visit to Cuba, said that his company had the necessary funds and believed that the project,

which requires a further US\$300 million investment, could be completed within four years. However, early in 2001, Cuba declined the offer and said that the nickel-cobalt resources at Las Camariocas would be treated at one of Cuba's three existing plants. Two of the plants, at Punta Gorda and Nicaro, treat nickel laterite by ammonia leaching (the Caron process), and their combined output is close to 40,000 t/y.

The main foreign participant in the Cuban nickel industry at the present time is Sherritt International Corp. of Canada through its 50% indirect interest in 'Metals Enterprise', a vertically integrated nickel-cobalt business which operates open-pit mines and a pressure acid leach hydrometallurgical processing plant at Moa Bay. These operations provide the feedstock for Sherritt's nickel and cobalt refining facilities at Fort Saskatchewan in Alberta. Last year, production of nickel and cobalt from Moa Bay rose by 10% to a record 32,360 t (plus contained cobalt). Mining of a new higher grade orebody, Moa Oriental, began in October 2000. In that year, output totalled 29,520 t of nickel, plus 2,855 t of cobalt in mixed sulphide.

Cuba is a modest producer of chrome and last year the sole producer, state-owned Cromo Moa, was aiming for record output. Previously, the highest output achieved was 56,700 t.

In mid-2001, the Mina Grande copper mine was closed and with it, Cuba ceased primary production of copper. The mine, near Santiago de Cuba and operated by Cobre-Santiago, was shut because of low copper prices. The mine, said to be the oldest copper mine in the Americas, started producing in 1538.

Copper is still on the agenda, however, and in August last year, International Barytex Resources Ltd received the results of a due

diligence study from Hatch Associates concerning the Mantua copper project. The study suggests that open-pit mineable reserves are sufficient for a 6.1-7.5 Mt/y operation at a grade of 2.8-3.0% Cu. Operating cash costs could be of the order of US\$0.45-0.50/lb and capital costs are projected at US\$40-45 million. Northern Orion Explorations Ltd is the former project developer and Barytex is acquiring the latter's 50% interest and intends to complete a bankable feasibility study. The Cuban company, Geominera SA, holds the remaining 50% interest in Mantua. Previously, Northern Orion estimated that Mantua could support copper cathode production of 39 Mlb/y at an operating cost of US\$0.46/lb over a mine life of 11 years.

Cuba is looking for capital to develop gold deposits discovered recently, and Orestes Santana, has said that "a number of important gold deposits have been located; now exploration has to continue to evaluate the deposits. We are receiving offers and joint-

venture companies will be developed in accordance with the best of these." Mr Santana said Cuba's mining sector has developed well thanks to such ventures. He believes they offer attractive opportunities for foreign capital, and says that the Communist-ruled country is open to these investments.

Cuban businessmen visited southeast Venezuela's Ciudad Guayana last year and met representatives from Venezuela's heavy industry state holding company CVG to discuss possible technical and commercial co-operation in the iron, steel, aluminium and mine construction sectors, among others. CVG is reported to be interested in investing in Cuba.

These moves are in line with an agreement signed last August by Cuban President Fidel Castro and his Venezuelan counterpart Hugo Chavez on technical and institutional co-operation, during the Cuban leader's visit to the Guayana region.