

NEW CALEDONIA

By a special contributor

New Caledonia is located in the southwest Pacific Ocean, and comprises three regions. Grande Terre Island is divided into Northern and Southern Provinces, and the remaining region holds the Loyalty Islands of Ouvea, Lifou and Mare. The country is a French Territory, although a referendum that was held in 1998 may lead to increased autonomy. A further referendum on full autonomy from France is scheduled by 2018.

New Caledonia is less than 20,000 km² in area and has a population of some 213,000, mainly Melanesian (42%) and European (37%). The territory possesses around 25% of the world's known nickel resources and is the world's fourth-largest producer of mined nickel and the largest producer of ferronickel. Nickel dominates the economy and the prevailing high nickel prices on the world markets will have a substantial positive impact on the economy.

The nickel is produced from laterites that have higher nickel grades than those in Australia where lateritic nickel mining has presented numerous problems over the past few years. The main producer in New Caledonia is Société Le Nickel (SLN), a 60%-owned subsidiary of the French group Eramet. The remaining interests in SLN are held by STCPI (30%), a company representing the interests of the indigenous Kanaks, and Nisshin Steel of Japan (10%). SLN contributed 31% of Eramet's turnover in 2003 and its profits jumped to €160 million. This year, first half operating profits doubled compared with the 2003 first half, to €151 million.

SLN mines substantial deposits of oxidised ore (garnierite) at four open-pit mines, and a fifth mine is operated by a subcontractor. The ore is sent for processing to SLN's Doniambo ferronickel smelter at Nouméa, the world's largest ferronickel plant, which processes about 3 Mt/y of nickel ore from the Thio, Kouaoua, Tiébaghi and Népoui-Kopeto pits, and from the Etoile du Nord pit operated by Soc Georges Montagnat. The Doniambo smelter produces 80% of its 62,000 t/y capacity as ferro-nickel and the remaining 20% as nickel matte (75% Ni), which is sent for refining at Eramet's Sandouville refinery near Le Havre in France. In June 2004, a new furnace at Doniambo began production as part of a US\$180 million programme to increase capacity to 75,000 t/y by 2007. The facility produced a record 60,500 t of nickel (in ferronickel and matte) in 2003 and the production rate is expected to reach 70,000 t/y by the end of 2004. The construction of a new beneficiation plant scheduled for start-up in 2006, will improve nickel recovery and should add a further 3,000 t/y to production.

New Caledonia's second major nickel producer is Soc. Minière du Sud Pacifique (SMSP), majority-owned by the Northern Province. It operates five limonitic nickel mines and the ore is delivered to the Yabulu smelter in Australia,

operated by BHP Billiton. SMSP was the recipient of the Koniambo nickel deposit in an asset swap instigated by the New Caledonian Government in 1997, and is now in a joint venture with Falconbridge Ltd concerning the development of Koniambo. The JV plans to construct a 60,000 t/y nickel-in-ferronickel mining and smelter complex smelter in the north of Grande Terre, which would rely on Koniambo ore as its main source of feed. Early in 2002, the JV secured a 15-year 100% tax holiday, plus a further, five-year 50% tax holiday for the project from the New Caledonian authorities. A prefeasibility study was completed in 2002, and is under review. A programme of delineation drilling to outline more resources was completed during the first half of 2003.

A bankable feasibility study was begun during 2003 (originally scheduled for completion during 2003), and a development decision is expected late in 2004. Koniambo is estimated to contain measured and indicated resources of 121 Mt at an average grade of 2.15% Ni, using a 1.5% Ni cut-off grade, and additional, inferred, resources of 190 Mt at 2.1% Ni, using the same cut-off. Falconbridge, which holds an option to earn a 49% interest in the project, regards Koniambo as its "most significant growth opportunity". The smelter will employ a new pyrometallurgical process and total project costs have been estimated at about US\$2 billion.

Inco Ltd of Canada holds 85% of the Goro lateritic nickel project in Southern Province, in joint venture with France's Bureau de Recherches Géologiques et Minières (15%). Inco regards Goro as the world's best undeveloped laterite orebody, with 57 Mt of proven and probable reserves with "excellent average grades", and a total resource of 370 Mt averaging 1.6% Ni and 0.17% Co.

A US\$50 million pilot programme was launched in 1999 to test Inco's proprietary pressure acid leach processing technology. In April 2001, Inco announced that the trials had been successful and that a full-scale nickel-cobalt plant would be constructed at a cost of US\$1.4 billion. However, Inco began a comprehensive review of the project in 2003, which indicated that costs could rise by 30-45%. Since then it has been examining options that would reduce costs to nearer US\$1.8 billion and in December 2003 it announced that a JV between Foster Wheeler and SNC Lavalin would work with Inco to work on the key deliverables arising from the review. It is now unlikely that project start-up will begin before 2007. Inco has raised US\$200 million in a bond issue as part of the necessary financing but external financing is also being sought, and Sumitomo Metal Mining Co has been announced as an investment partner. The authorities have granted Goro a 15-year, 100% tax holiday, followed by a five-year, 50% tax holiday.

In October 2001, Perth-based Argosy Minerals Inc finalised an agreement with Norilsk Mining Co of Russia and Soc Mines de la Tontouta (SMT) concerning a tripartite venture for the US\$800 million development of the Nakety-Bogota lateritic nickel project. However, Norilsk withdrew from the agreement in August 2002, and Argosy's interest also ceased at the same time.

Future minerals legislation in New Caledonia is under review, as part of the process of devolvement of power from the French authorities to the New Caledonian Government. The Congress of New Caledonia is expected to have to prepare and adopt new mineral legislation, which will be effected by the adoption of other parliamentary or regulatory laws to be issued within the same transitional period. Mining investors and operators should expect significant changes in the overall framework for mining, in addition to new laws directly concerning the mining industry that have already been passed by the New Caledonia Congress.