

BURKINA FASO

*By Blaise Zida and a Special Contributor
Bureau des Mines et de la Géologie du Burkina (BUMIGEB)*

A cabinet reshuffle took place on December 12, 2000, and was one of the outstanding events of the policy of the fourth republic of Burkina Faso. As part of the reshuffle, the former Ministry of Energy and Mines (MEM) became the Ministry of Mines and Quarries. In addition to its usual tasks, it is charged with promoting quarries throughout the national territory. Accordingly, the government has placed emphasis on quarries by determining a specific policy and strategy.

The new team faced many difficulties associated with mining activities caused by the fall of international mineral market prices, particularly that of gold, which is the main mineral resource of Burkina Faso.

In spite of these difficulties, which have serious consequences for the economic development of the country, many links with the mining industry have been progressed, including:

- The determination and adoption of a system to administer mining titles by revising the current tariff system,
- Seeking a new partnership to reopen the Poura gold mine, with the European Union's support,
- The discovery of promising deposits confirming the mineral potential of Burkina Faso, including the Kalsaka (district of Yatenga), Youga (district of Boulgou), Belahouro (province of Soum), Bombore (district of Ganzourgou), Intiedougou (district of Bougouriba), and Taparko (district of Namentenga) gold deposits, and the Perkoa zinc deposit (district of Sanguié),
- Improving knowledge of Burkina Faso geology and mining through a geological survey as part of the Sysmin project.

Since the suspension of mining activities at the Poura and Essakane gold mines, only artisanal exploitation remains. The government is focusing on the improvement of artisanal mining via small-scale mines, through a government project called PRECAGEME (project of re-enforcement of national capacities of mining sectors and administration of environmental sector). The principal partner is GEOMAN CONSULT/TEAMS of Ghana. The main aims of the project are: to improve artisanal mining (orpaillage) through the use of proper mining equipment; to provide appropriate training for small mine holders; to support the search for financing for small scale operations; and to create conditions that attract Burkinabé companies into small-scale mining activities.

For foreign exploration companies, Burkina Faso's main mineral attraction is its Birimian-hosted gold potential. Companies which have been exploring over the past year include: Ashanti Goldfields, Randgold Resources, High River Gold, Cluff Mining, Resolute Resources, Semafo, Delta Gold, Orezone Resources and Channel Resources. The more advanced exploration projects include: Taparko, Bombore, Youga and Kalsaka.

Taparko, 210 km northeast of Ouagadougou in the Bouroum-Yalogo greenstone belt, is being explored by a joint venture involving the Canadian juniors High River Gold Mines Ltd (61.5%) and Incanore Gold Mines Ltd (18.5%). The government has a 20% interest. In mid-1999 the resource was estimated at 17.4 Mt at 2.07 g/t Au to a depth of 100 m. The Canadian partners have been in dispute over right of first refusal on the project following an agreement in August 2000, for Toronto-listed Queenstake Resources Ltd to acquire Incanore.

The Bombore First Target project is located some 85 km east of Ouagadougou. It is owned 55% by Channel Resources (the operator) and 45% by Solomon Resources Ltd. Based on RC and blast-hole drilling a resource of 35 Mt at 1.1 g/t Au has been estimated, including an oxide resource of 22 Mt at 1.5 g/t Au. In January this year, Placer Dome Exploration announced that it was terminating an agreement with Solomon Resources to acquire the latter's interest in Bombore, and also in the Soubeiga and Naobe gold exploration properties.

Cluff Mining is earning a 78% interest in the 468 km² Kalsaka concession 150 km northwest of Ouagadougou by producing a bankable feasibility study on any prospect in the area. Exploration has established an indicated and inferred resource of 9.5 Mt of oxide material averaging 1.6 g/t Au. A detailed prefeasibility study envisaged heap-leaching 1.2 Mt/y of ore which would be economic at a gold price of US\$285/oz, but the company is now intent on further exploration in the concession to increase the resource base.

In the southeast of the country near the border with Ghana, the Youga gold project is being evaluated by a 50/50 joint venture between Ashanti Goldfields of Ghana and Echo Bay Mines of Canada. They presented a feasibility study to the government at the end of 1999 which gave an estimated resource of 17.5 Mt at 2.14 g/t Au, and a mineable reserve of 7.14 Mt at 2.9 g/t Au. Mineralisation is contained in silicified arkosic metasediments within the Navrongo greenstone belt.

In June this year, Montreal-based Semafo Inc. reported the discovery of another gold-mineralised zone, Maoula, at its 75%-owned Mana property within the 550 km² Mana/Fobiri concession. This followed earlier finds at Wona and Nyafe. Reverse-circulation drilling at Maoula (about 3 km from Nyafe where a resource of 1 Mt at 8.5 g/t Au has been estimated) has included a shallow

intersection of 9 m averaging 12.69 g/t Au. Two structures are evident, each with a strike length of about 300 m.

In northeast Burkina Faso, UK-based Coronation International Mining Corp. holds a 100% interest in the Essakane property. Ranger Minerals Ltd is carrying out an RC drilling programme and must spend a minimum of US\$1.0 million to enter into an earn-in agreement whereby it can secure a 50% interest by spending US\$7 million. In the event of a mine development, the Government of Burkina Faso will take a 10% interest. Better RC results include 2-3.5 g/t Au over intersections varying between 15 m and 30m.

At the Intiédougou gold property, located on the eastern flank of the 400 km-long Hounde greenstone belt, Ottawa-based Orezone Resources Inc. is investigating gold mineralisation at the contact between volcanics and a highly altered granite. RC drilling has returned intersections of up to 19 g/t over 10 m at shallow depth. Delta Gold Ltd of Australia is earning a 50% interest in Intiédougou and the associated Tomena permit area by spending US\$2.5 million over four years. Orezone is the operator.

Orezone, for its part, is separately earning a 75% interest in the 500 km² Kerboule concession near the Mali border and just south of the Resolute/BHP Belahouro property. The area has a long history of artisanal mining and Orezone considers that, taken together, Kerboule and Belahouro represent one of the largest oxide resources in the country.

Delta Gold is also in joint venture with Randgold Resources concerning the latter's Sanmatenga property in the extreme northeast of the country. Delta Gold can earn a 50% interest by spending US\$4.25 million over five years. Delta Gold's other interests include a joint venture with Canadian junior Shield Resources covering the Bougouriba, Serakoro and Kaikan concessions.

Production at Burkina's principal gold-mining operation, Poura, was suspended in mid-1999. The mine was first worked in historical times, production resumed in the 1940s and underground mining recommenced in the 1960s. It then lay idle for 20 years before being reopened in 1984 by Soc. de Recherches d'Exploitation Minières du Burkina Faso. It closed in 1996, having produced 15.5 t of gold and 2 t of silver from 1.8 Mt of ore over the 12-year period. The most recent venture was led by Sahelian Goldfields and was based on an initial reserve of 450,000 t at 12.2 g/t Au. Operations were halted because of the low gold price.

The country's best-known base metals deposit, Perkoa, a volcanogenic massive

sulphide containing zinc, silver plus baryte, was discovered in the early 1980s. South Africa-based Metorex Ltd acquired a 90% interest in the project in October 1999 and has been examining the feasibility of a 350,000 t/y operation over 14 years which would produce 8,000-10,000 t/mth of zinc concentrates (55% Zn). The company is negotiating for a mining convention and state aid for infrastructural development, and received verbal agreement from the Ministry of Energy and Mines in October last year. Project financing is now being considered. Perkoa contains a drill-indicated resource of 6 Mt at 18% Zn. The deposit, hosted by siliceous tuffs, comprises two stratiform orebodies, with a strike length of 350 m and a depth of 500 m. The more important lower orebody has widths of up to 20 m.