

GUYANE

By Peter W. Harben & J. M. Harris

Peter W. Harben Inc., New Mexico 88011 USA (www.peterharben.com)

French Guiana (Guyane Française), or Guyane, is a curious mixture of space age and stone age, with a population ranging from technicians for the European Space Agency's Ariane unmanned rocket and Hmong farmers from Laos to indigenous people in the interior, accessible by river travel with a few authorised landing strips. As a *Département* of France since 1946, this small, hot and steamy country on the northeast coast of South America bordered by Brazil and Surinam has an economy tied closely to that of France through mining laws, imports and subsidies; the latter afford a relatively high standard of living for its population of fewer than 200,000. Until 1951 it was the site of notorious penal settlements including *Papillon's* Devil's Island. Today, fishing and forestry are the most important economic activities other than the French space centre at Kourou; sugar cane is the major cash crop along with some rice.

A dozen companies and more than 100 small-scale miners produce gold in Guyane. In fact, gold has been mined at a number of placer sites in the interior since 1853, with most exported to France. The value of production has amounted to about 4% of the total GDP of almost US\$900 million. Exploration continues with Guyanor Ressources SA, a French exploration company 73% owned by Golden Star Resources Ltd and operating exclusively in Guyane. It possesses the Yaou and Dorlin exploration permits some 200 km southwest of the capital Cayenne (of hot pepper fame), and intensive deep augering, trenching and core drilling have been used to evaluate three principal zones of gold mineralisation – Yaou Central, Chaina and IJK.

At Dorlin, exploration has identified an 11 km-long zone of soil geochemistry anomalies including one major, N-S trending gold mineralised system, Montagne Nivre. Based on a gold price of US\$300/oz, the total mineralised material (measured and indicated mineral resources) at Yaou and Dorlin has been estimated at 13.8 Mt averaging 2.1 g/t Au. The company's Paul Isnard project, some 200 km west of Cayenne in the western part of the country, includes disseminated zones or stringer mineralisation and semi-massive mineralisation of pyrite with lesser pyrrhotite, chalcopyrite, sphalerite, and arsenopyrite. The total mineralised material at a US\$325/oz gold price has been estimated at 6.0 Mt averaging 2.8 g/t Au.

Hope Bay Gold Corp.'s wholly owned subsidiary in Guyane, CBJ-France, has signed an agreement with Asarco Inc. to purchase its subsidiary in French Guiana, Asarco Guyane Francaise (AGF). The latter holds the Camp Caiman gold project, as well as the Matarani exploration permit, with another pending exploration permit, all of which are located in the eastern part of the country. Camp Caiman is an advanced development project with identified gold resources of over 2 Moz. AGF has spent some US\$15.8 million on the project resulting in the identification of two orebodies, Scout and C-88; these gold

resources consist of both saprolite (oxide) and hard rock (sulphide) material. The Bureau de Recherches Géologiques et Minières (BRGM) completed the June 2001 geostatistical resource estimation, and a full programme of metallurgical work on both types of ore has been completed by AGF. Hope Bay intends to focus on the development of the oxide resources at Camp Caiman, with a preliminary US\$3 million programme of in-fill and extension drilling planned, followed by updated resource estimation; CBJ-France will then carry out a feasibility study on development of the oxide resources only, plus exploration on its own nearby properties with a view to providing additional oxide ore to the Camp Caiman development. Prior to its completion of a business combination with Miramar Mining Corp. (which does not include Hope Bay's French Guiana assets) Hope Bay will form a new company, Ariane Gold Corp., to hold its French Guiana assets.

Deposits of bauxite (reserves of 42 Mt) and kaolin (40 Mt) identified in Guyane have not been exploited, although some kaolin mining has been reported in the Mana area. There are also reserves of silica, niobium and tantalite. Although Guyane depends on imports for its other mineral requirements, especially cement and fuels shipped through the port at Cayenne, sand and stone are mined and consumed by the local construction industry. Sand is dredged from the major rivers, mainly the Mahury and Maroni in the west and stone has been quarried at Cayenne and to the southeast of Kourou. A tile and brick-making plant, based on fields of red clay, operates in the Cayenne neighbourhood. The Ministry of Industry's Direction Regionale de l'Industries, de la Recherche et de L'Environnement (DRIRE) is responsible for the minerals exploration permitting process, assessing applications, and awarding titles, so a referral from DRIRE to the BRGM of France is necessary for access to public records of geological mapping and mineral inventory studies.