

## COSTA RICA

*By Michael Seaward and Tim Coates*

Can it be that the new millennium brings with it a ray of hope for the beleaguered mining industry in Costa Rica? In spite of the apparent lack of progress and indeed some negative events, there were real indications that the government was taking the sector seriously and had finally recognised it as a legitimate participant in the local economy.

The Minister for the Environment and Energy, under whose portfolio the mining sector is managed through the Directorate of Mines, has been establishing a clear set of regulations for the entire sector of metallics, non-metallics and, for the first time, material taken from river beds which, in Costa Rica, are considered Public Domain. These regulations, with input from the Minister's Mining Commission, were due to be published in the first quarter of 2001 and will finally establish government policy toward mining, hopefully removing the ambiguity and ambivalence that has dogged the activity for several years now.

Considerable credit for this progress should go to the local Chamber of Mines (ACCIMA), which has been strengthened immeasurably by the inclusion of the non-metallic sector, and the members of the Minister's Commission. The effects will not be apparent in the metallic sector until metal prices improve but should eventually renew interest in Costa Rica.

The low gold and silver prices prevalent throughout the year had a chilling effect on all projects. The owner of the most advanced senior project – Bellavista – spent almost the entire year permitting the project through the Environmental Technical Secretariat (SETENA) and the persistence finally paid off. In early 2001, Wheaton River received the final environmental approvals required to proceed with construction of the Bellavista

gold mine located near Miramar in Costa Rica.

As the company previously announced, further development of the mine is on hold pending a more favourable gold price. Wheaton River would prefer to hedge a significant portion of Bellavista gold production at a price of no less than US\$350/oz before beginning construction. Depending on forward sales prices for gold, a spot price of approximately US\$295/oz is needed to build this hedge book.

Construction costs at Bellavista are estimated to be US\$28 million, not including preproduction and financing costs, and working capital. Based on the feasibility study completed in April 1999, the Bellavista mine is projected to produce an average of 60,000 oz/y of gold over a 7.3 year mine life with total cash operating costs, including royalties, of US\$179/oz. The feasibility study recommends that Bellavista be developed by open-pit mining and grind agglomeration heap-leach processing at the rate of 5,750 t/d of ore.

At a public hearing held in the nearby community of Miramar on November 28, 2000, there was overwhelming support for the mine development. A recent poll found that opposition to the development at Bellavista constituted "not more than 5% of the (local) population". This is a significant turnaround from recent years, and, the result of extensive information meetings between the company and local residents.

Permitting success was also reported from the family-owned mining company Inversiones Valle Columbia whose La Luz concession, 2 km north of Juntas de Abangares, received approval for a 25 t/d processing plant. Approval of the exploitation concession awaits the Minister's signature. A

measured resource of 50,000 t grading 12.2 g/t Au on the Pita Vein would provide the initial feed. Four other subvertical veins are known on the property.

In July 2000, Vanessa Ventures acquired 100% ownership of Industrias Infinitos, the Costa Rican company which controls the Cerro Crucitas and Conchudita projects and additional prospects in the surrounding areas. At Cerro Crucitas, where gold resources are quoted as 29.7 Mt grading 1.51 g/t measured and indicated, and 10.1 Mt grading 1.56 g/t inferred, Vanessa is pursuing an Exploitation Permit. Vanessa envisages the preferential processing of soft saprolitic ore from the upper levels of the deposit which offers higher grade, lower capital investment and lowest production costs. At Conchudita, where gold resources are quoted as 3.2 Mt grading 4.56 g/t inferred, additional exploration and development work is planned to evaluate higher-grade resources which would be amenable to underground mining.

The latest announcement from Vanessa is that, according to an independent estimate, Cerro Crucitas contains a 724,000oz measured and indicated near-surface gold resource. The resource contains 10.38 Mt of ore grading 2.17 g/t Au. An additional 180,000 oz of gold was classified as inferred. Projected recoveries through cyanide test leaching are expected to be around 92% with low mining costs due to the ore's physical characteristics and shallow nature. The near-surface resource has an average thickness of 21 m. Vanessa is completing a scoping study to determine the most profitable mining plan at current gold prices, and says that there is considerable potential to expand Crucitas' resource.

Several other Vanessa prospects - San Antonio, Palmito and Caño Crucitas - are drilling targets.

At Beta Vargas the environmental reclamation programme which began in June 2000 is progressing in accordance with the

closure plan presented to SETENA and should be completed by October 2001. From the original 45.85 ha contemplated (including 15.5 ha which were not altered) there are 18 ha left to be reclaimed. The successful mitigation programme at Beta Vargas is expected to have a positive effect on the mining community in Costa Rica. It will demonstrate to the Costa Rican authorities that open-pit gold mining can be conducted in an environmentally friendly way, and show that the closure process works. It will show the other side of the story when compared with other previous, open-pit operations (such as Macacona).

On a less positive note the Mata Palo mill of Ariel Resources was finally put on a care and maintenance basis in October after valiant efforts to remain in production in spite of the low gold prices. The Tres Hermanos, El Recio and San Martín mines were all closed down. Production data for the 9 months prior to closing were unavailable. Production in 1999 totalled 9,069 oz of gold and 15,471 oz of silver.

Tierra Colorada's Santa Rosa property is located 19 km southeast of Juntas de Abangares. In the Envidia vein which strikes northwest and dips 65° northeast, 206 m of drift on three levels, have outlined a measured resource of 4,150 t grading 12.0 g/t. Additional drifting of 81 m on the 838 m level, did not expand resources. An additional access of 124 m driven on the 810 m level to develop another, lower access, was stopped approximately 20 m before the projected intersection with the vein. An Exploitation Permit has been applied for and is currently under review.

At its Lilas property, located 50 km northeast of Liberia, Tierra Colorada has entered into an agreement with Serena Resources to complete environmental and geotechnical studies and eventually bring the project to production. Outlined measured resources of 3 Mt grading 0.53 g/t Au in a silica cap and 700,000 t grading 5.42 g/t Au in a steeply

dipping zone with quartz-veinlets have been established. A feasibility study prepared and submitted to the government as part of normal Exploitation Permit process, is currently under review.

At the Chassoul mine 4 km east of Miramar, the property owner José Chassoul has found a local joint-venture partner to finance a project to recover gold from approximately 10,000 t of old mill tailings grading 8 g/t Au

and further explore the six known vein-systems on the property.

Sporadic development work has been done by Cia. Mimosa at its La Union mine property 7 km north of Miramar over the past two years. The mine is currently being explored by a small group of Canadian investors who are attempting to outline oxidised ores on surface which would be amenable to heap-leach treatment.