

in the III Region. The deposits of Pantanillo, Escondido, Santa Cecilia, Soledad, La Pepa, Lobo and Marte are located nearby, and to the North lie La Coipa and El Hueso.

Bema Gold Corporation is a small, growing company that has been transformed from a consulting firm into a mining company with a production of 800 kilos of gold per year. It currently exploits the Champaigne mine in Idaho, U.S.A., which started production in 1990 with 580 kilos. In Chile it participated and won the bid called by Compañía Minera Refugio to take part in the deposit of the same name.

Preliminary explorations have defined reserves of more than 100,000 kilos of fine gold in Refugio. If the inferred reserves are added, a total amount of 171 tons of gold is obtained.

Explorations have concentrated on the Verde area where 78 holes covering a 1,000 meter by 500 meter area were drilled and iron oxidized and sulfured minerals were found. This mineralization covers an area that is 1,200 meters long, 250 meters wide, and 75 to 120 meters deep. Indicated and inferred reserves are 5.5 million ounces (171 tons of fine gold), distributed in 37 million tons of oxides grading 1.06 g of gold per ton and a combination of oxides and sulfides of 58 million tons with 0.1 grams of gold per ton, as indicated, plus 31 million tons grading 0.96 g/t in oxides and 37 million tons grading 1.02 g/t inferred.

A feasibility study was requested of the North American company Mineral Resources Development Inc. This study recommended an open pit operation with heap leaching and production capacity of 3,000 to 6,000 kilos of gold per year. Estimated investment is US\$ 50 million and financing is currently being sought.

The construction of an open pit operation was initiated in 1992 with heap leaching and a production capacity of 3,500 kilos of gold per year. The mine would provide work for approximately 250 people and could reach the metal doré stage.

II.3.13.5.- Andacollo - Dayton Developments Corp.

Andacollo is one of the oldest copper and gold mines in Chile.

Exploitation dates from the time of the Spanish conquerors, and it may even have been exploited in the pre-Columbian period by the Incas. During 400 years of exploitation it has produced more than 3 million ounces of gold, mainly from placers and veins.

The mine is located in the IV Region near the town of Andacollo, 600 kilometers from Santiago. Many international companies have analyzed the possibility of forming a joint venture with Enami for its exploitation. The most recent one is Dayton Developments Corp., which acquired 100% of Chevron Minera Corp.'s share in the project.

This auriferous deposit should not be confused with the copper deposit awarded by bid to Placer Dome, which is also called Andacollo and covers a different area of the same sector.

Enami has developed many analyses for the use of bacterial leaching which have indicated low investment with a long period of recovery.

Additional analyses have been carried out to decrease the investment's recovery period and make the project more attractive.

In 1990 Dayton spent US\$ 8.1 million on the Andacollo project.

Total investment is estimated at US\$ 50 million.

In February, 1991 Bechtel completed a feasibility study for Dayton with favorable results that indicates an operating cost of US\$ 182 per ounce during the mine's useful life span and a payment period of two years at a price of US\$ 350 per ounce of gold. Because of a higher grade on the surface, operating costs will be lower during the first years which assures a shorter period for capital recovery and makes the project more attractive. Depending on financing, operations might start in 1992 with a probable production of 110,000 ounces per year (3,420 kilos).

Ore reserves estimated by Fluor Daniel in 1990 amount to 42.9 million tons with an approximate grade of 0.035 ounces per ton.

Bechtel's project envisages exploitation of 22.8 million tons in the first stage with a grade of around 0.036 ounces per ton.

821,700 ounces of gold would be obtained in this stage and total content of the reserves would amount to 1.5 million tons. Bechtel designed a heap leaching operation with the capacity to treat 12,000 tpd and 73% recovery.