

two parties is that they already participate in the market with the products that will be obtained from the project. Corfo would contribute with one fourth of the investment.

It has also been mentioned that this project is more advantageous than the Hombre Muerto project in Argentina and the Uyuni Salt Mine in Bolivia, as salt contents of the Salt Mine are higher and its infrastructure and communications are better. Also, studies are more advanced. However, time is running out for this investment.

If it does not take place, the market would be handed over to the Argentinian or Bolivian project.

III.4.1.3. Boron

Chile has large boron reserves in the I Region's salt mines, mainly in Surire. The product is in the form of ulexite or boronatrocalcite. Ulexite is used in the chemical industry specially in the making of glass. Most national production is from Química e Industrial del Bórax (QUIBORAX) which exploits the Surire salt mine. The rest is produced by Minera del Boro.

Products derived from boron are utilized mainly as principals in the production of paints, detergents, fiber glass, as melting agents for ceramics, micronurishment of fertilizers, and others.

Production of ulexite in 1991 decreased to 97,135 tons compared to 131,753 tons the previous year. Historical production, which was very small (32.122 tons in 1988) rise to 130.512 in 1989.

Exports of natural borates were 7,700 tons in 1990 worth US\$ 0.8 million. In 1989 these amounts were 8,986 tons and US\$ 1 million.

Exports of boric acid rose from 5,588 tons in 1988 to 11,785 tons in 1989 and to 23,449 tons in 1990, which showed a significant expansive trend. Returns on exports of this product increased, in turn, from US\$ 2.7 million to US\$ 6.1 million and US\$ 12.6 million in the respective periods.

III.4.1.4 Minera del Boro - Privately Owned.

In 1984 Minera del Boro started producing high purity boric acid (up to 99.5%) and ulexite concentrate of different qualities (up to 48%), which are exported to Brazil, Colombia, U.S.A. and Switzerland. Claims are located in the salt mines of Pintados, Caraiquina and Quillagua. The plant is located in Alto Hospicio, Iquique. Investments carried out since 1987 have strengthened production. The company resumed the sale of borates. Chile was the main producer of borates in the world until 1930 with 50,000 tpy. At that time, the production was challenged by the competition of the extraction of cheaper boron from Argentina, Turkey and U.S.A. and by the difficulties on the access to the mines in the high Andes. This situation was reversed when the company incorporated new technology at the work sites and gave more importance to the production of boric acid.

III.4.1.5 Quiborax - Privately Owned.

Química e Industrial del Bórax Ltda. is the main Chilean producer of the borax mining and an important company in the south american region also. Company is vinculated with entrepreneur Leonardo Foster. In 1991 processed 85,000 tons of ulexite. The company has a plant to produce boric acid with a capacity of 35,000 tpy. It is located in Lluta, 70 km. from Arica. The extraction of ulexite is selective and labor intensive, requiring the work of 250 people.

The mine is in Surire Salt Mine, 230 km. from Arica, and its estimated reserves are 2 billion tons with an average grade of 30%.

III.5. Other Non-metallic Minerals.

III.5.1 Apatite or Phosphate Rock.

Chile is a small producer of phosphate rock. In 1991 the production of apatite was 13,338 tons compared to 13,986 tons in 1990. Total value of production is about US\$ 400,000. This mineral has an average grade of 25.4% of P2O5. Some of the main producers are Empresa Minera Las Escobas and Compañía Minera El Sauce in La Serena (500 north of Santiago). Exports are not important.