## THE MINERAL INDUSTRY OF

# GUATEMALA

By David B. Doan

After Bolivia and Mexico, Guatemala has been the third largest producer of antimony in Latin America. Among the metals, Guatemala also produces gold, iron and steel, and lead. It produces some industrial minerals and a variety of construction materials, as well as a low-gravity crude oil. *(See table 1.)* Other minerals known to occur, but not currently worked commercially, included nickel and sulfur.

The gross domestic product was projected at $33 billion[1] in 1994, with a growth rate estimated at about 4% in the midst of an inflation rate of about 12%. As with the overall economy, the mineral industry was dominated by the private sector. Policy for the mineral sector, including required environmental impact assessments, was set by the Ministry of Energy and Mines, which also formulated policy for the petroleum and energy industries. The Ministry of Economy was in charge of approving U.S. projects submitted under the Agreement on U.S. Capital Investment Guarantees between Guatemala and the United States. The band of external tariffs was narrowed and established at 5% to 20% as Guatemala formed a free trade area with El Salvador and Honduras. Guatemala welcomed foreign investors and began streamlining the registration process as an attraction. Mining was governed by Decree Law 69-85 of July 1985, modified by Decree Law 125-85. Small-scale mining was covered by Decree Law 55-90 of December 1990. Both laws were reformed by Congressional Decree Law 41-93 of November 1993. Petroleum activity was covered by the Hydrocarbon Law, Decree Law 109-83, and associated regulations, especially Government Edicts 1034-83 and 203-84. No law specifically covers foreign investment in Guatemala, so most of the restrictions and requirements typically found in such laws do not exist. However, restrictions on foreign investment in specific sectors do apply. The Government provides incentives for hydrocarbon investments by permitting a 100% deductible on all exploration and exploitation expenses. Petroleum investors were eligible for tax-free imports of certain goods for 5 years, suspension of duty without bond on items to be reexported, and were allowed to maintain foreign currency deposits outside the country. Mining operations were similarly allowed duty-free imports.

Mineral output in 1995 was estimated to parallel that of the year before. Antimony ore and concentrate were produced by Minas de Guatemala S.A. from several mines at Ixtahuacán, near the Department of Huehuetenango in the western region of the country. In addition to the recovery of 94% of the antimony values, flotation also enabled the recovery of a concentrate assaying about 124 grams per ton (g/t) of gold. Output was exported mainly to Metaleurop Weser Blei GmbH in France. The company was considering the use of biotechnology for maximum recovery of gold values. The Government invited bids for the El Pato gold prospect, found by a United Nations exploration project, estimated to contain about 2 million tons (Mt) of ore grading 7 g/t of gold.

The cement, ceramics, construction, and glass industries were the country's leading users of industrial minerals. Cement, clays, feldspar, gypsum, lime, and sand and gravel were produced for the local market. Capacity of Cementos Progresso S.A.'s San Miguel plant was expanded by 20% in 1994 in preparation for an expected increase of 8% in 1995 production.

About 80% of Guatemala's oil came from the Xan Field in Peten Province. Basic Resources International Ltd. reported that the fifth Xan well, recently completed, produced 2,000 barrels per day from a depth of 2,321 meters. The company started a small refinery in the Peten area to produce asphalt, naphtha, kerosene, diesel fuel, and distillate fuel oil.

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[1]Where necessary, values have been converted from Guatemalan quetzals (Q) to U.S. dollars, at the rate of Q5.9=US$1.00.

### Major Sources of Information

Ministerio de Energia y Minas
Diagonal 17, entre 20 y 30 Calles, Zona 11
Guatemala City, Guatemala
Telephone: (502) (2) 76-0679 or 76-3091
Direccion General de Minería
Diagonal 17, 29-78, Zona 11
Apartado Postal 1421
Guatemala City, Guatemala
Direccion General de Hidrocarburos
Diagonal 17, 29-78, Zona 11
Guatemala City, Guatemala
Telephone: (502) (2) 76-2044
Facsimile: (502) (2) 76-3175

**Major Publications**

Instituto Latinoamericano Del Fierro y el Acero (ILAFA), Santiago, Chile: Anuario Estadístico de la Siderurgia y Minería del Hierro de América Latina, annual.

Ministerio de Energia y Minas, Guatemala: Informe Estadistico de Energía y Minas, annual.

Ministerio de Energia y Minas, Guatemala: Memoria de Labores, annual.

TABLE 1

GUATEMALA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

| Commodity | | 1991 | 1992 | 1993 e/ | 1994 e/ | 1995 e/ |
|---|---|---|---|---|---|---|
| METALS | | | | | | |
| Antimony: | | | | | | |
| Mine output, Sb content | | 609 | 582 | 600 | 600 | 610 |
| Trioxide | | 41 | 23 | 30 | 30 | 30 |
| Gold | kilograms | 31 | 32 | 30 | 30 | 30 |
| Iron and steel: | | | | | | |
| Iron ore, gross weight | | 5,103 | 1,445 | 3,300 | 3,000 | 3,200 |
| Steel, crude | | 23,034 | 24,500 e/ | 18,000 r/ 3 | 18,000 r/ 3 | 18,000 |
| Steel, semimanufactures | | 79,293 | 105,000 e/ | 90,000 | 90,000 | 91,000 |
| Lead metal, including secondary | | 28 | 49 | 50 | 50 | 50 |
| INDUSTRIAL MINERALS | | | | | | |
| Barite | | -- | 1,723 | 1,500 | 1,000 | 1,200 |
| Cement | thousand tons | 1,442 | 1,400 e/ | 1,119 r/ 3 | 1,480 | 1,560 |
| Clays: | | | | | | |
| Bentonite | | 12,000 | 12,600 | 12,300 | 12,000 | 12,100 |
| Kaolin | | 3,281 | 2,863 | 3,000 | 3,000 | 3,100 |
| Unspecified | | 1,639 | 1,597 | 1,600 | 1,600 | 1,700 |
| Feldspar | | 6,961 | 8,048 | 7,500 | 7,500 | 7,600 |
| Gypsum | | 51,519 | 67,612 | 60,000 | 61,000 | 62,000 |
| Lime e/ | | 72,000 | 70,000 | 70,000 | 70,000 | 72,000 |
| Pumice and related materials: | | | | | | |
| Pumice | cubic meters | 6,132 | 6,591 | 6,300 | 6,000 | 6,200 |
| Volcanic ash | do. | 2,476 | 2,400 e/ | 2,400 | 2,400 | 2,400 |
| Volcanic sand e/ | | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| Volcanic scoria | cubic meters | 9,500 | 9,975 | 9,500 | 9,600 | 9,500 |
| Volcanic tufa | | 2,476 | 2,600 | 1,900 | 2,000 | 1,900 |
| Salt e/ | | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| Stone, sand and gravel: | | | | | | |
| Dolomite | | 8,318 | 9,314 | 10,000 | 10,000 | 11,000 |
| Limestone | thousand tons | 1,442 | 1,756 | 1,500 | 1,000 | 1,200 |
| Marble: | | | | | | |
| Block e/ | | 9,000 | 9,000 | 7,000 | 7,100 | 7,300 |
| Chips and fragments | | 1,851 | 1,751 | 1,800 | 1,750 | 1,800 |
| Sand and gravel | thousand tons | 1,009 | 758 | 950 | 900 | 1,000 |
| Schist e/ | | 250,000 | 250,000 | 250,000 | 251,000 | 255,000 |
| Silica sand | | 17,300 | 33,714 | 27,000 | 27,000 | 29,000 |
| Stone, crushed e/ | thousand tons | 1,000 | 1,000 | 1,000 | 1,100 | 1,200 |
| Talc | | 861 | 1,320 | 800 | 800 | 950 |
| MINERAL FUELS AND RELATED MATERIALS | | | | | | |
| Gas, natural, gross e/ | thousand cubic meters | 10,000 | 13,000 r/ | 12,000 r/ | 12,000 r/ | 12,500 |
| Petroleum: | | | | | | |
| Crude | thousand 42-gallon barrels | 1,352 | 2,051 | 1,700 | 1,650 | 1,750 |
| Refinery products | do. | 4,639 | 5,696 | 5,000 | 5,100 | 5,300 |

e/ Estimated. r/ Revised.

1/ Estimated data are rounded to three significant digits.

2/ Table includes data availaŀle through May 1, 1996.

3/ Reported figure.

TABLE 2
GUATEMALA: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Thousand metric tons unless otherwise specified)

| Commodity | | Major operating company and major equity owners | Location of main facilities | Annual capacity |
|---|---|---|---|---|
| Antimony | | Minas de Guatemala S.A. (private, 100%) | Los Lirios and Anabella Mines, Ixtahuacan, Huehuetenango Department | 1.9 |
| Cement | | Cementos Progreso S.A. (Lambert Freres et Cie. 69.8%; other 30.2% | San Miguel Plant, Sanarate, El Progreso Department, and La Pedrera Plant, Guatemala City | 1,800 |
| Nickel | | Exploraciones y Explotaciones Mineras Izabal, S.A. [(Exmibal) (Inco, 70%; and Government, 30%) 1/] | Mine and processing plant near El Estor, Izabal Department 2/ | 9 |
| Iron and steel (semimanufactures) | | Hornos, S.A. | Guatemala City | 80 |
| Petroleum: | | | | |
| Crude | thousand 42-gallon barrels | Basic Resources International S.A. [(Basic) (private, 100%)] | Rubelsanto, West Chinaja Fields, Alta Verapaz Department, and Caribe, Tierra Blanca and Xan Fiels, Peten Department | 2,000 |
| Products | do. | Texas Petroleum Co. (Texaco Inc., 100%) | Refinery at Escuintla, Escuintla Department | 6,200 |
| Do. | do. | Basic (private, 100%) | Refinery near Santa Elena, El Naranjo, Peten Department | 720 |

1/ Ownership equity change in 1991.
2/ Mine and processing plant closed Sept. 1990.