

THE MINERAL INDUSTRY OF CAMEROON

By Philip M. Mobbs

Crude oil production continued to be important to the economy of Cameroon, accounting for more than 40% of the country's foreign exchange earnings. Agriculture contributed about 45% of the 1997 gross domestic product (GDP) of \$9.1 billion,¹ the last year for which data are available. Minerals, primarily oil, accounted for 7% of Cameroon's GDP. For the 1996/1997 fiscal year, mineral-based commodities totaled about 48% of exports from Cameroon, with oil exports valued at \$763 million, aluminum exports worth \$95 million, and cement exports valued at \$16 million.

The legal system of Cameroon was modeled after French civil law. The mineral policy of Cameroon was based on the Mining Code, law 64-LF-3 of April 6, 1964, and Decree 64-DF-163 of May 26, 1964. Other pertinent legislation included the Mining Taxation Code, law 64-LF-13 of November 18, 1968, and the decrees regulating oil companies, law 82-20 of November 26, 1982, and law 95/13 of 1995.

The primary mining organization in Cameroon was the Government's Ministère de Mines, d'Eau et de l'Énergie (Ministry). The Government actively promoted investment in the mining sector, and foreign companies were usually involved in joint ventures with Cameroonian partners. Société Nationale des Hydrocarbures (SNH) was the state-owned company involved in hydrocarbon production and the Société Nationale de Raffinage (Sonara) was the state-owned company that managed the crude oil refinery. SNH held a 20% equity share, and other Government agencies owned an additional 46% of Sonara.

The aluminum smelter at Edéa was managed by Compagnie Camérounaise de l'Aluminium (Alucam), a joint venture of Pechiney of France (58%) and the Government (42%). Alucam processed alumina imported from Guinea. Diminished river flow resulting from a drought at the beginning of the year reduced electrical power availability, which constrained production at the Edéa smelter. Cameroon had installed generating capacity of 729 megawatts (MW), which was provided by three hydroelectric stations at Edéa, Lagdo, and Song-Loulou.

Small-scale artisanal operations had been recovering gold since the 1930's in the east and the north of Cameroon. In the northwest, near the Nigerian frontier, was the Mayo-Darlé tin resource. Cassiterite has been recovered from the area since 1933. Cimenteries du Cameroun operated a 350,000-metric-ton-per-year (t/yr)-capacity plant at Garoua and a 1-million-metric-ton-per-year clinker-grinding operation near the port of Douala. Clay and limestone were mined near Figuil for the

cement industry that also consumed all pozzolan mined at Djoungo. Marble was quarried at Bidzar and Biou and was finished at a 100-square-meter-per-day installation at Figuil. Silica sand was recovered along the coast for the glass industry.

Crude petroleum remained the most economically significant mineral commodity produced in Cameroon. The most prolific crude-oil-producing regions were the offshore Rio del Rey Basin and the adjacent Lokélé concession about 35 kilometers (km) offshore. The main petroleum operators in Cameroon were Elf Serepca, a subsidiary of Société Nationale Elf Aquitaine of France; Pecten Cameroon Co., a subsidiary of Shell Oil Co. of the United States; and Perenco plc of the United Kingdom.

In December 1997, the joint venture of CMS NOMECA Cameroon Ltd., a subsidiary of CMS Energy Corp. of the United States; GLOBEX Cameroon, LLC, a subsidiary of Global Exploration, Inc. of the United States; and SNH acquired production-sharing contracts on Blocks 1 and 6 in the Douala Basin (Alexander's Gas & Oil Connections, December 15, 1997, CMS Energy to explore in Cameroon, Company news—Africa, accessed May 20, 1999, at URL <http://www.gasandoil.com/goc/company/cna80967.html>). Ocelot Energy Inc. of Canada agreed to study the feasibility of developing the offshore Sanaga South offshore gasfields (Africa Energy & Mining, 1998b). Produced gas from the Sanaga South fields was projected to power a proposed 75- to 150-MW thermal electricity-generating station (Africa Energy & Mining, 1998c). National oil production had begun to rebound slightly in 1997 as Pecten drilled new wells and continued workover operations in the Rio del Rey basin. The International Finance Corp. had arranged the credit line for the new operations (Africa Energy & Mining, 1998a). Other companies exploring or producing in Cameroon included Mobil Corp. of the United States, the PetroFina S.A. of Belgium-Phillips Petroleum Corp. of the United States partnership, and Total S.A. of France (Oilwatch, undated, Camerún, accessed June 7, 1999, at URL <http://www.oilwatch.org/ec/espanol/tropicos/camerun.html>).

The International Court of Justice began hearings on the dispute between Cameroon and Nigeria concerning the Bakasi peninsula area.

Funding for the proposed 225,000-barrel-per-day pipeline from Chad's Doba basin to a terminal at Kribi, Cameroon, was being negotiated.

Cameroon had 49,210 km of road and a 1,003-km railroad that ran from Douala to Ngaoundéré.

Cameroon hosted a variety of mineral occurrences. The Government estimated that bauxite reserves of the Fongo Tongo, the Minim-Martap, and the Ngaoundal deposits totaled

¹Where necessary, values have been converted from Communauté Financière Africaine Francs (CFAf) to U.S. dollars at the average rate of CFAf535=US\$1.00.

1.1 billion metric tons grading 41.3% Al_2O_3 . There were several iron deposits, including the 300-million-metric-ton (Mt) Les Mamelles deposit near Kribi containing 30% to 35% magnetite and the Mbalam deposit in southeast Cameroon near the border with Congo containing an estimated 220 Mt at 60% iron (or 587 Mt at 30 to 40% iron). There were several nickel and cobalt occurrences, including the deposit east of Lomié estimated to contain 88 Mt at 0.22% to 0.24% Co and 95 Mt at 0.95% to 1% Ni (Ministère de Mines, d'Eau, et de l'Energie, written commun., undated; Ministère de Mines, d'Eau et de l'Energie, 1998, Ministère de Mines, d'Eau, et de l'Energie—Ressources Minière, accessed May 21, 1999, at URL <http://www.camnet.cm/invistir/minmee/resmine.htm>; Ministère du Développement Industriel et Commercial, 1998, Produits du Cameroun, accessed May 21, 1999, at URL <http://www.camnet.cm/invistir/mindic/produits.htm>).

The Société d'Exploitation du Rutile d'Akonolinga (S.E.R.A.K.) was formed in 1994 by the Bureau de Recherches Géologiques et Minières of France, Consolidated Rutile Ltd. of Australia, and the Government. Titanium minerals had been mined in Cameroon between 1935 and 1958, and S.E.R.A.K. was evaluating the country's remaining titanium resources. Rutile reserves between Akonolinga and Nanga-Eboko were estimated to be 3 Mt grading 92% to 95% TiO_2 . According to Energy Information Agency estimates, crude oil reserves in Cameroon were about 400 million barrels, and natural gas reserves were estimated to be 110 billion cubic meters (Energy Information Agency, January 1999, Cameroon, Country Analysis Briefs, accessed May 21, 1999, at URL <http://www.eia.doe.gov/cabs/cameroon.html>). The Government also reported chromium, copper, dimension stone, gemstones, lead, phosphate, salt, and uranium occurrences

(Ministry of Mines, Water, and Energy Resources, 1995; Ministry of Mines and Water and Energy, written commun., 1998; Ministère de Mines, d'Eau, et de l'Energie, written commun., undated; Ministère de Mines, d'Eau, et de l'Energie, 1998, Ministère de Mines, d'Eau, et de l'Energie—Ressources Minière, accessed May 21, 1999, at URL <http://www.camnet.cm/invistir/minmee/resmine.htm>; Ministère du Développement Industriel et Commercial, 1998, Produits du Cameroun, accessed May 21, 1999, at URL <http://www.camnet.cm/invistir/mindic/produits.htm>)

The development of a diversified mineral industry in Cameroon was hampered by insufficient electrical power, the deterioration of the international minerals market during 1998, and the related diminished availability of project financing.

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Ministry of Mines, Water, and Energy Resources, 1995, Mineral and Energy Potential of Cameroon: Yaoundé, Cameroon, 2 p.

Major Source of Information

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TABLE 1
CAMEROON: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity 2/	1994	1995	1996	1997	1998 e/
Aluminum metal, primary	88,836	79,300	82,000 e/	90,000 r/	88,000
Cement, hydraulic e/	500,000 r/	300,000 r/	305,000 r/	350,000 r/	400,000
Gold, mine output, Au content kilograms	800	800	1,000 e/	1,000 e/	1,000
Petroleum:					
Crude thousand 42-gallon barrels	47,140	39,400	33,945	43,000 r/ e/	45,000
Refinery products e/ do.	8,000	9,000	9,200	9,200	10,000
Pozzolana e/	101,870 3/	90,000 r/	80,000 r/	100,000	105,000
Sand, silica e/	12,000	12,000	12,000	12,000	12,500
Stone: e/					
Limestone	57,000	57,000	50,000	50,000	50,000
Marble thousand cubic meters	550 r/	550 r/	560 r/	560 r/	580
Tin, ore and concentrate: e/					
Gross weight kilograms	3,000	2,000	1,000	1,000	1,000
Sn content do.	2,300	1,500	750	750	750

e/ Estimated. r/ Revised.

1/ Includes data available through June 4, 1999.

2/ In addition to the commodities listed, modest quantities of unlisted varieties of crude construction materials (clays, gravel, sand, and stone) presumably are produced, but output is not reported, and available information is inadequate to make estimates of output levels.

3/ Reported figure.