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2006 Minerals Yearbook

LIBYA

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The Mineral Industry of Libya

By Philip M. Mobbs

The hydrocarbon sector, primarily the production of crude oil, dominated Libya's economy. The Government was attempting to diversify the state-controlled economy, but natural gas and petroleum operations continued to account for more than 95% of export revenues, about 93% of Government revenue, and about 28% of the real gross domestic product. The hydrocarbon sector, especially petroleum exploration and downstream oil processing operations, continued to recover from the adverse impact of international sanctions, most of which were rescinded in 2003 and 2004 (Elhage and others, 2007, p. 3, 13, 26).

Libya's oil reserves accounted for about 3% of worldwide reserves and ranked the country eighth. Libya was Africa's third ranked oil producer and produced about 2% of the world's crude oil, which ranked the country 15th internationally. Most of the produced oil was exported to Europe (BP p.l.c., 2007, p. 6, 8).

Petroleum law No. 25 of 1955, the Petroleum Regulations amendments, and the provisions of Exploration and Production-Sharing Agreement IV governed the hydrocarbon sector. In early 2006, many of the functions of the Ministry of Energy were transferred to the Ministry of Industry and Minerals. The combined organization was renamed the Ministry of Industry, Electricity, and Mines. The responsibility for the regulation of natural gas and oil projects in the hydrocarbon sector was transferred temporarily to the National Oil Corporation (NOC). In September, the Government formed the Council for Oil and Gas Affairs to manage the hydrocarbon industry.

Production

In addition to hydrocarbons, other Libyan mineral and mineral-based commodity production included ammonia, cement, clay, direct-reduced and hot-briquetted iron, gypsum, lime, methanol, salt, sand, steel, stone, sulfur, and urea. In the future, cement and natural gas production was expected to increase because of the ongoing installation of new cement kilns and the necessary infrastructure to capture oilfield-associated natural gas. Production from newly discovered oilfields was expected to offset the natural decline in production from older reservoirs.

Structure of the Mineral Industry

The implementation of the Government's proposed transformation to an open-market economy from a centrally planned system had proved unpopular. Therefore, the Government proceeded with divestment of its interest in formerly state-controlled companies cautiously. Libya's major mineral operations, such as iron and steel, natural gas, and petroleum, remained state-owned, although Ispat Industries Ltd. of India managed the Libyan Iron and Steel Co. under a partnership agreement and international oil companies operated in Libya under production-sharing agreements.

Most natural gas production in Libya was associated with crude oil production. To meet the increased domestic and international demand, the state-owned NOC actively promoted exploration for natural gas while maintaining its traditional focus on crude oil.

Commodity Review

Metals

Iron and Steel.—In 2006, work continued on the addition of three electric arc furnaces (EAFs) and a ladle furnace to the Libyan Iron and Steel Co. plant at Misurata. The installation of the EAFs in Steel Melt Shop no. 1 was expected to increase the facility's capacity to 1.1 million metric tons per year (Mt/yr) from 630,000 metric tons per year (t/yr) (Libyan Iron and Steel Co., 2006; Techint Group, The, 2006, p. 20).

The Federal and regional governments promoted the development of the Wadi ash Shati iron ore deposit, which was located about 530 kilometers from the coast. Past resource evaluations estimated that the deposit contained from 3 to 5 billion metric tons of ore that ranges in grade from 30% to 55% iron content (Goudarzi, 1970, p. 54-69; Turk, Doughri, and Banerjee, 1978, p. 1019).

Industrial Minerals

Cement.—Arab Cement Co. changed its name to Ahlia Cement Co. (AhCC) after the partial privatization of the company in 2005. AhCC planned to add a 1.8-Mt/yr-capacity cement line at the Lebda plant, to renovate the existing 1-Mt/yr-capacity line and add an 800,000-t/yr-capacity cement line at the Souk el Khamis plant, and to build a second 1-Mt/yr-capacity cement production line at its Zliten plant (PEG S.A., 2007, p. 4).

In 2005, Arab Union Contracting Co. (AUCC) began commercial production at its 1.4-Mt/yr-capacity cement clinker plant near Zliten. In 2006, AUCC proposed to add a 1.8-Mt/yr-capacity cement line to the new plant. Libyan Cement Co. (LCC) proposed to add a total of 2.4 Mt/yr of capacity to its plants at El Fataih and El Hawari. LCC also evaluated the construction of a 200,000-t/yr-capacity white cement plant at El Fataih (Middle East Economic Digest, 2006; United World Ltd., 2006).

Outlook

The hydrocarbon sector was expected to remain the focus of most of the foreign direct investment received by Libya, and the sector's revival was expected to continue with the assistance of international oil companies. The Government proposed a significant increase in national oil production, subject to production quotas imposed by the Organization of the Petroleum Exporting Countries.

Production of industrial minerals, such as clays, gypsum, lime, and salt, are expected to continue to dominate Libya's solid minerals sector. Cement, nitrogenous fertilizer, iron, and steel are expected to continue to dominate the processed mineral commodity sector.

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TABLE 1

LIBYA: PRODUCTION OF MINERAL COMMODITIES[1]

(Thousand metric tons unless otherwise specified)

Commodity[2]		2002	2003	2004[e]	2005[e]	2006[e]
Cement, hydraulic[e]		3,300	3,500	3,600	3,621 r	3,600
Gas, natural:						
Gross	million cubic meters	13,100	14,000	14,900	15,000	17,000
Dry	do.	11,100	10,300	10,700	11,700	14,800
Gypsum[e]		150	150	175	175	175
Iron and steel, metal:						
Direct-reduced iron[3]		1,170	1,340	1,580 [4]	1,650 [4]	1,630 [4]
Crude steel		886	1,007	1,026 [4]	1,260 [4]	1,158 [4]
Lime[e]		250	250	250	250	250
Methanol		680	727	670	610	620
Nitrogen:						
N content of ammonia		533	577	577	580	520
N content of urea		400	425	425	425	400
Petroleum:						
Crude[e]	thousand 42-gallon barrels	502,000	543,000	587,000	630,000 r	660,000
Refinery products:						
Liquefied petroleum gas	do.	1,400	2,300	2,200	2,300	2,300
Gasoline	do.	6,100	7,300	5,600	6,000	6,000
Naphtha	do.	19,300	21,200	11,200	20,000	20,000
Kerosene and jet fuel	do.	11,800	12,400	20,300	12,500	12,500
Distillate fuel oil	do.	25,000	28,100	28,700	28,500	28,500
Residual fuel oil	do.	39,200	41,600	42,800	42,500	42,500
Total	do.	102,800	112,900	110,800	112,000	112,000
Salt[e]		40	40	40	40	40
Sulfur, byproduct of petroleum and natural gas[e]		15	15	15	16	16

[e]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [r]Revised.

[1]Table includes data available through August 13, 2007.

[2]In addition to the commodities listed, a variety of clay, dolomite, limestone, sand, and crushed construction stone was produced, and natron (soda ash) may have been produced, but available information is inadequate to make estimates of output. Natural gas liquids also were produced but were blended with crude petroleum and reported as part of that total.

[3]Includes hot-briquetted iron.

[4]Reported figure.

TABLE 2
LIBYA: STRUCTURE OF THE MINERAL INDUSTRY IN 2006

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies	Location of main facilities	Annual capacity
Cement		Libyan Cement Co.	Benghazi	1,500
Do.		Arab Union Contracting Co.	Zliten	1,400
Do.		Ahlia Cement Co.	Homs 2, Lebda	1,000
Do.		do.	Souk el Khamis, Tripoli	1,000
Do.		do.	Zliten	1,000
Do.		Libyan Cement Co.	El Fataih, Derna	1,000
Do.		do.	El Hawari	400
Do.		Ahlia Cement Co.	Homs 1, El Margueb	300
Iron and steel:				
Iron:				
Hot-briquetted iron		Libyan Iron and Steel Co. (Government)	Misurata	650
Sponge iron		do.	do.	1,100
Steel:				
Crude		do.	do.	1,250
Rolled:				
Bar and rod		do.	do.	800
Cold-rolled strip		do.	do.	140
Hot-rolled strip		do.	do.	580
Methanol		Sirte Oil Co. for Production and Processing of Oil and Gas (National Oil Co. of Libya)	Marsa el Brega	365
Natural gas, liquefied		do.	do.	700 [1]
Nitrogen:				
Ammonia		do.	do.	803
Urea		do.	do.	1,041
Petroleum:				
Crude	thousand 42-gallon barrels per day	National Oil Co. of Libya in joint ventures with or under production-sharing agreements with international oil companies; and subsidiary companies of National Oil Co. of Libya, which included Arabian Gulf Oil Co.and Sirte Oil Co. for Production and Processing of Oil and Gas	Cyrenaica, Ghadames, Murzuq, and Sirte basins and offshore	1,609
Refined	do.	Ras Lanuf Oil and Gas Processing Co. (National Oil Co. of Libya)	Ras Lanuf	220
Do.	do.	Az Zawiya Oil Refining Co. (National Oil Co. of Libya)	Az Zawiya	120
Do.	do.	Arabian Gulf Oil Co. (National Oil Co. of Libya)	Tobruk	20
Do.	do.	do.	Sarir	10
Do.	do.	National Oil Co. of Libya	Marsa el Brega	8

[1]Renovation planned.