



2005 Minerals Yearbook

LIBYA

THE MINERAL INDUSTRY OF LIBYA

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The hydrocarbon sector dominated Libya's economy. The predominately state-controlled economy lacked substantial diversification; natural gas and petroleum operations accounted for about 93% of Government revenue in 2005 compared with about 87% in 2004 and 68% in 2001, although much of the increase could be attributed to the increase in world oil prices and not increased production. Libyan crude oil exports prices averaged \$53.70 per barrel in 2005, \$36.90 in 2004, and \$23.20 in 2001. Hydrocarbons accounted for more than 95% of export revenues. The gross domestic product (GDP) based on purchasing power parity was estimated to be \$67 billion in 2005, and the GDP per capita based on purchasing power parity was \$11,624 (International Monetary Fund, 2006, p. 27, 29, 30; 2006§¹).

Libya was Africa's third leading oil producer and the 17th ranked producer internationally. Most of the produced oil was exported. Libya's oil reserves ranked the country 10th worldwide, but international sanctions, most of which were rescinded between September 2003 and September 2004, had adversely impacted oilfield exploitation and downstream operations. Other Libyan mineral and mineral-based commodity production included ammonia, cement, clay, direct-reduced and hot-briquetted iron, dolomite, gypsum, limestone, lime, methanol, salt, sand, steel, stone, sulfur, and urea (BP p.l.c., 2006, p. 6, 8).

Commodity Review

Metals

Iron and Steel.—Libyan Iron and Steel Co. proposed to expand the direct-reduced iron capacity of its plant at Misurata to 1.6 million metric tons per year (Mt/yr) from 1.1 Mt/yr, and the raw steel capacity, to 3 Mt/yr from about 1.3 Mt/yr (Libyan Iron and Steel Co., 2006§).

Industrial Minerals

Cement.—The February 2005 initial public offering of shares in the formerly Government-owned Arab Cement Co. (ACC) resulted in the sale of 60% of the company. ACC proposed to build a second 1-Mt/yr-capacity cement production line at its Zliten plant. Arab Union Contracting Co. (AUCC) commissioned a 1.2-Mt/yr-capacity cement clinker plant near Zliten in December 2004; commercial production began in September 2005. AUCC began a feasibility study for the construction of a second clinker production line at its production facility (Middle East Economic Digest, 2005b).

¹References that include a section mark (§) are found in the Internet References Cited section.

Mineral Fuels

Natural Gas.—Most natural gas production in Libya was associated with crude oil production. In August 2005, Eni S.p.A. of Italy and National Oil Corp. (NOC) began initial production from the Bahr Essalam Field, which is located in offshore Block NC-41. Natural gas production from the Bahr Essalam and the Wafa Fields was treated at the Mellitah plant; much of the output was shipped through the Greenstream pipeline to Gela, Sicily.

The Royal Dutch/Shell Group and NOC agreed to refurbish the 700,000-metric-ton-per-year-capacity liquefied natural gas (LNG) facility at Marsa al-Brega, which was operated by Sirte Oil Co. for Production and Processing of Oil and Gas (a subsidiary of NOC). Rehabilitation of the LNG plant was to be followed by a capacity expansion to 3.2 Mt/yr (Middle East Economic Digest, 2005a).

Petroleum.—Negotiations for the return of the Oasis Group (comprised of Amerada Hess Corp, ConocoPhillips, and Marathon Oil Corp.) continued until late December, when Oasis and NOC agreed to a 25-year extension of the Group's exploration and production agreements on the Waha concessions in the Sirte Basin. State-owned Waha Oil Co. had operated the Sirte Basin fields since the Group had been obligated to leave Libya as a result of sanctions imposed by the United States under Executive Order 12543 of January 7, 1986. The original concession agreements had expired during the hiatus. The new agreement called for the Oasis Group to pay \$1.3 billion for their resumption of management of the oilfields and for the concession extension and \$530 million to partially refund investments in the operation made by Waha Oil (Amerada Hess Corp., 2005; Jones, 2005§).

In July, Occidental Petroleum Corp. (Oxy) and NOC agreed that Oxy could resume production operations on the three concession areas that U.S. sanctions had forced Oxy to leave in 1986. The original concession agreements will expire in 2009 and 2010. State-owned Zueitina Oil Co. had managed the concessions since 1986.

In early 2005, exploration permits were awarded for nine onshore and six offshore blocks that were offered in the initial round of bids for licenses under the Exploration and Production Sharing Agreement-IV (EPSA-4). In October, the second round of bids under EPSA-4 resulted in the awarding of exploration permits on 24 onshore and 16 offshore blocks. Additional licensing rounds for exploration permits were scheduled to be held in 2006 and 2007.

Outlook

International demand for oil and the termination of economic sanctions by the United States in 2004 and the United Nations in 2003 were expected to significantly assist in the revival of the Libyan hydrocarbon sector, especially the refining and

secondary recovery segments. The Government proposed to increase national oil production to about 750 million barrels per year by 2007 and to more than 1 billion barrels per year by 2010, subject to production quotas imposed by the Organization of the Petroleum Exporting Countries. The petroleum sector was the focus of most of the foreign direct investment received by Libya (Petroleum Economist, 2006; Alexander's Gas & Oil Connections, 2006§).

The Government's proposed transformation from a centrally planned to an open-market economy included economic reforms; increased job creation; privatization (or liquidation) of 360 state-owned companies; the promotion of the agriculture, construction, manufacturing, mining, tourism, and transportation sectors; reduction of subsidies; and reorganization of the banking system. The transformation of the national economy, however, proved unpopular. Sixty-six small companies were privatized. As the subsidiary reduction program was initiated in May, gasoline prices rose by 30%, diesel fuel prices rose by 6%, and electricity prices soared. The pace of the economic diversification program was expected to slow dramatically in 2006.

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TABLE 1
LIBYA: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity ²	2001	2002	2003	2004 ^e	2005 ^e
Cement, hydraulic ^e	3,000	3,300	3,500 ^r	3,600 ^r	3,600
Gas, natural:					
Gross million cubic meters	13,700 ^r	13,100 ^r	14,000 ^r	14,900 ^r	15,000
Dry do.	11,500 ^r	11,100 ^r	10,300 ^r	10,700 ^r	11,700
Gypsum ^e	150	150	150	175	175
Iron and steel, metal:					
Direct-reduced iron ³	1,090	1,170	1,340	1,580 ⁴	1,650 ⁴
Crude steel	846	886	1,007	1,026 ⁴	1,260 ⁴
Lime ^e	250	250	250	250	250
Methanol	570	680	727	670 ^r	610
Nitrogen:					
N content of ammonia	495	533	577	577	580
N content of urea	365	400	425	425	425
Petroleum:					
Crude ^e thousand 42-gallon barrels	520,000	502,000	543,000	587,000	620,000
Refinery products:					
Liquefied petroleum gas do.	1,900	1,400	2,300	2,200 ^r	2,300
Gasoline do.	6,500	6,100	7,300	5,600 ^r	6,000
Naphtha do.	19,900	19,300	21,200	11,200 ^r	20,000
Kerosene and jet fuel do.	12,000	11,800	12,400	20,300 ^r	12,500
Distillate fuel oil do.	27,900	25,000	28,100	28,700 ^r	28,500
Residual fuel oil do.	40,300	39,200	41,600	42,800 ^r	42,500
Total do.	108,500	102,800	112,900	110,800 ^r	112,000
Salt ^e	40	40	40	40	40
Sulfur, byproduct of petroleum and natural gas ^e	15	15	15	15	16

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised.

¹Table includes data available through October 2006.

²In 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.

³Includes hot-briquetted iron.

⁴Reported figure.