



2006 Minerals Yearbook

KUWAIT

THE MINERAL INDUSTRY OF KUWAIT

By Philip M. Mobbs

Kuwait's economy revolved around the production and refining of hydrocarbons. The hydrocarbon sector accounted for about 94% of Government revenue. In 2006, total exports (free on board) were valued at \$55 billion,¹ of which oil exports accounted for about \$52.8 billion and manufactured fertilizer exports (ammonia, ammonium sulfate, sulfuric acid, and urea) accounted for \$217 million. In 2005, the value of total exports was \$45 billion, of which oil exports accounted for \$42 billion and manufactured fertilizer exports accounted for \$192 million. The continued increase in the international market price of crude oil accounted for a significant proportion of the increase in the value of Kuwaiti exports in 2006 compared with that of 2005. Total imports (cost, insurance, and freight paid to point of destination) in 2006 were estimated to be about \$15.9 billion compared with a revised \$15.8 billion in 2005 (Central Bank of Kuwait, 2007).

Production

Production of most mineral and mineral-based commodities in Kuwait was estimated to have increased in 2006. The most notable increase was in concrete-reinforcing steel bars (rebar), which was used in the booming regional construction industry. In November, refined petroleum products and sulfur were estimated to have decreased slightly because of the explosion and fire at the Shuaiba Refinery, which was owned by Kuwait National Petroleum Co. K.S.C. (KNPC).

Structure of the Mineral Industry

The Supreme Petroleum Council and the Ministry of Oil were the Government organizations that were responsible for the petroleum sector in Kuwait. Subsidiaries of state-owned Kuwait Petroleum Corp. dominated the country's crude oil, fertilizer, natural gas, and refined petroleum operations. The state-owned Kuwait Investment Authority held interests in Kuwaiti cement and steel pipe companies.

Commodity Review

Metals

Iron and Steel.—The 150,000-metric-ton-per-year (t/yr)-capacity Kuwait Reinforced Steel Manufacturing Co. began rebar production in August 2005. In September 2006, the company started an expansion program that would increase the plant's capacity to 400,000 t/yr (Ali Al-Sarraf International Group Co., undated).

¹Where necessary, values have been converted from Kuwaiti dinars (KD) to U.S. dollars (US\$) at the rate of KD0.291=US\$1.00 for 2006 and KD0.292=US\$1.00 for 2005.

Mineral Fuels

Natural Gas.—Most of Kuwaiti gas production was associated with crude oil production. In 2006, the announced discovery of nonassociated natural gas reserves of nearly 100 billion cubic meters at Sabriyah and Um-Niqa significantly expanded Kuwait's recoverable gas resources. Additional associated gas was reported from the Arifjan area. Kuwait Oil Co. K.S.C. awarded a 5-year operations contract for the development of the Sabriyah Field to Safwan Petroleum Technologies Co. of Kuwait. Safwan expected initial production to begin in late 2007 and anticipated that production from the field would reach 6 billion cubic meters per year by 2011, which would account for an addition of about 40% to Kuwait's daily natural gas production. The discovery of nonassociated natural gas decreased the urgency for the Ministry of Energy to quickly complete negotiations to import natural gas from other gas-producing countries (Kuwait Oil Co. K.S.C., 2006, p. 20; Middle East Economic Digest, 2006b).

Petroleum.—In 2006, progress on the proposed construction of a fourth crude oil refinery for KNPC was set back. Construction bids exceeded \$15 billion for a 615,000-barrel-per-day-capacity refinery at Al-Zour; KNPC had estimated that the new refinery would cost about \$6.3 billion. Much of the increased price was attributed to rising regional costs for construction inputs, such as cement, engineering services, labor, and steel. Additionally, Saudi Arabian Chevron Inc. (formerly Saudi Arabian Texaco Inc.), which produced hydrocarbons for Saudi Arabia from the Wafra Field in the Partitioned Neutral Zone between Kuwait and Saudi Arabia, objected to the location, citing a 1954 agreement that the proposed site of the refinery would be reserved for the use of the partitioned zone operator until 2009 when its concession expired. In 2006, Saudi Arabian Chevron had begun injecting steam into the Wafra Field's reservoir as a secondary recovery pilot project, had drilled an additional 50 wells in the field, and had requested an extension of the concession's term (James, 2005; Middle East Economic Digest, 2006a; 2007).

References Cited

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TABLE 1
KUWAIT: ESTIMATED PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Metric tons unless otherwise specified)

Commodity ³	2002	2003	2004	2005	2006
Cement	1,584,000 ⁴	1,863,400	2,635,000 ⁴	2,145,000 ⁴	2,200,000
Iron and steel:					
Crude	--	100,000	200,000	450,000	500,000
Rolled-steel bar	70,000	150,000	369,000	480,000	680,000
Lime, hydrated and quicklime	40,000	40,000	40,000	49,800 ⁴	50,000
Natural gas: ⁵					
Gross million cubic meters	9,900	11,000	11,860	13,300	13,900
Dry do.	8,100	9,100	9,800	11,000	11,500
Nitrogen:					
N content of ammonia	414,400 ⁴	444,400 ⁴	413,400 ⁴	466,570 ⁴	470,000
N content of urea	320,000	330,000	341,020 ⁴	365,350 ⁴	370,000
Petroleum:					
Crude ⁵ thousand 42-gallon barrels	680,000	817,000	837,655 ⁴	939,276	980,000
Natural gas liquids and liquefied petroleum gases ^c do.	45,000	40,000	39,920 ⁴	37,887	38,000
Refinery products: ⁶					
Gasoline, motor do.	11,000	12,000	16,878 ⁴	23,830 ⁴	22,000
Kerosene do.	45,000	45,000	53,133 ⁴	59,054 ⁴	58,000
Distillate fuel oil do.	84,000	85,000	90,000	95,000	93,000
Residual fuel oil do.	54,000	55,000	60,000	65,000	64,000
Other do.	83,000	86,000	86,000	70,000	68,000
Total do.	277,000	283,000	300,000	313,000	305,000
Salt	42,500 ⁴	44,700 ⁴	45,000	50,000	50,000
Sulfur:					
Elemental, petroleum byproduct	634,000	714,000	682,000	700,000	650,000
Sulfuric acid	150,000	150,000	150,000	150,000	150,000

^cRevised. -- Zero.

¹Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown.

²Table includes data available through August 6, 2007.

³In addition to commodities listed, secondary aluminum, chlorine, clays, petroleum coke, glass, steel reinforcing bar, and sand and gravel were produced, but available information is inadequate to make reliable estimates of output.

⁴Reported figure.

⁵Includes Kuwait's share of production from the Partitioned Neutral Zone.

⁶Excludes liquefied petroleum gases.

TABLE 2
KUWAIT: STRUCTURE OF THE MINERAL INDUSTRY IN 2006

(Metric tons unless otherwise specified)

Commodity		Major operating companies (and major equity owners)	Location of main facilities	Annual capacity
Aluminum, secondary		Arabian Light Metals Co. K.S.C. (Kuwait Industries Co. Holding K.S.C.)	Ahmadi	NA
Cement:				
Clinker		Kuwait Cement Co. K.S.C. (Kuwait Investment Authority, 32%, and National Industries Group, 22.4%)	Kilns at Shuaiba	1,800,000
Grey portland		do.	Mills at Shuaiba	2,200,000
Do.		Hilal Cement Co. K.S.C.C.	Sulaibiya Industrial Area	(1)
Do.		Portland Cement Co. K.S.C.C.	Shuwaikh	(1)
White		Kuwait Cement Co. K.S.C. (Kuwait Investment Authority, 32%, and National Industries Group, 22.4%)	Kiln and mill at Shuaiba	115,000
Iron and steel, steel:				
Crude		Al Oula Steel Manufacturing Co.	Shuaiba	500,000
Rolled				
Bar and rod		United Steel Industrial Co. K.S.C.C. (Joint venture of local investors and Ahwaz Steel Commercial and Technical Services GmbH of Germany)	Rolling mill at Shuaiba	500,000 ²
Do.		Kuwait Reinforced Steel Manufacturing Co. (Ali Al-Sarraf International Group Co.)	do.	150,000 ³
Pipes		Kuwait Pipes Industries and Oil Services Co K.S.C.	Pipe mill at Sulaibiya Industrial Area	120,000
Do.		do.	Pipe mill at Shuwaikh	65,000
Do.		Khalid Ali Al-Kharafi & Brothers Co. W.L.L.	Pipe mill at Shuaiba	NA
Natural gas	million cubic meters	Various ⁴	Various fields	14,000
Natural gas liquids		Kuwait Oil Co. K.S.C. (Kuwait Petroleum Corp., 100%)	do.	45,000 ⁵
Nitrogen:				
Ammonia		Petrochemical Industries Co. K.S.C. (Kuwait Petroleum Corp., 100%)	Plant B, Shuaiba	657,000
Urea		do.	Plants A and B, Shuaiba	639,000
Petroleum:				
Coke, calcined		do.	Shuaiba	350,000 ⁶
Crude	42-gallon barrels per day	Kuwait Oil Co. K.S.C. (Kuwait Petroleum Corp., 100%)	South and East Fields (Burgan, Khasman, and Madina Fields)	1,350,000
Do.	do.	Al-Khafji Joint Operations (Kuwait Gulf Oil Co., 50%, and Aramco Gulf Operations Co. of Saudi Arabia, 50%)	Khafji Field, offshore Partitioned Neutral Zone	600,000
Do.	do.	Kuwait Oil Co. K.S.C. (Kuwait Petroleum Corp., 100%)	North Fields (Abdali, Bahra, Ratga, Matraba, Raudhatain, and Sabiya Fields)	559,000
Do.	do.	do.	West Fields (Abdaliya, Kra' Al-Mero, Managish, and Umm Gudair Fields)	427,000
Do.	do.	do.	South Fuwairis and South Umm Gudair Fields, Partitioned Neutral Zone	80,000
Do.	do.	Kuwait Oil Co. K.S.C. (Kuwait Petroleum Corp., 100%) and Saudi Arabian Texaco Inc. (Chevron Corp., 100%)	Wafra Field, onshore Partitioned Neutral Zone	80,000
Do.	do.	Kuwait Gulf Oil Co. (Kuwait Petroleum Corp., 100%)	Hout Field, offshore Partitioned Neutral Zone	NA
Refined products	do.	Kuwait National Petroleum Co. K.S.C. (Kuwait Petroleum Corp., 100%)	Mina Al-Ahmadi Refinery	415,000
Do.	do.	do.	Mina Abdulla Refinery	240,000
Do.	do.	do.	Shuaiba Refinery	195,000

See footnotes at end of the table.

TABLE 2--Continued
 KUWAIT: STRUCTURE OF THE MINERAL INDUSTRY IN 2006

(Metric tons unless otherwise specified)

Commodity	Major operating companies (and major equity owners)	Location of main facilities	Annual capacity
Salt	Salt and Chlorine Factory (Al Ahlia Industrial Projects Co., 43.16%)	Shuaiba	NA
Sulfur	Kuwait National Petroleum Co. K.S.C. (Kuwait Petroleum Corp., 100%)	Mina Abdulla, Mina Al-Ahmadi, and Shuaiba Refineries	NA
Do.	Petrochemical Industries Co. K.S.C. (Kuwait Petroleum Corp., 100%)	Plants A and B, Shuaiba	1,320,000

NA Not available.

¹Marketed imported bulk cement.

²Nominal design capacity. Actual production exceeded design capacity in 2006.

³Expansion of plant production capacity to 400,000 metric tons per year was underway. Completion expected in 2007.

⁴Some natural gas is produced and recovered from most crude oil production operations in Kuwait and the Partitioned Neutral Zone.

⁵Includes refinery-produced liquefied petroleum gases.

⁶Under construction.