The Mineral Industry of the Trucial Coast and Muscat and Oman

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TRUCIAL COAST

THE TRUCIAL COAST is the most recent addition to the petroleum-producing areas of the Middle East. Commencing production in 1962, the output of petroleum in 1963 exceeded that of Bahrain, and in 1964 the rate of production is expected to be the sixth highest in the Middle East. Other mineral activities in the Trucial States have been mostly limited to petroleum exploration; small tonnages of red ochre have been produced from an island off Sharajah, but no other mineral sources aside from construction raw materials are known. In most of this area, petroleum operations are the only means of industrial employment and provide all government revenues. Additional income is obtained by the State of Dubai from customs duties and a reportedly thriving traffic in gold.

MUSCAT AND OMAN

The Sultanate of Muscat and Oman (including Dhofar) covers an area of about 85,000 square miles along the southeast Arabian coast. The area has no mineral production or important industry. Small quantities of cement, salt, and petroleum products are imported but their aggregate value is estimated to be less than 5 percent of all imports. Government revenue, roughly estimated at US$1.5 million annually, is mainly derived from customs duties and petroleum concession rentals.

Since 1955, petroleum exploration has revealed oil deposits in three inland areas, two in Oman and one in Dhofar. None of these discoveries has proved to be of commercial value, mainly because the productive potential has not been sufficient to warrant construction of transportation facilities. Rumors persist, however, that commercial deposits were found in Oman in 1963.

PRODUCTION AND TRADE

Crude oil is the only mineral commodity produced in the entire area for which output data are available. All commercial production came from Abu Dhabi, largest of the seven Trucial States and the only one

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in which commercial petroleum deposits have been found. Cumulative production from 1962 to the end of 1963 was 23.5 million barrels. Using posted prices at Das Island this production was valued at an estimated US$42 million. Production in 1963 accounted for about 75 percent of this value.

In December, the output of petroleum from Abu Dhabi was more than doubled as production began from the onshore Murban field. By the end of 1963, petroleum operations had provided an estimated US$11 million in revenues to the Abu Dhabi Government and were providing employment for 3,000 persons.

Exports of petroleum from Abu Dhabi, assumed to be equal to the volume of production, were valued at an estimated US$31 million in 1963 and US$11 million in 1962. Of the estimated value of all exports, petroleum comprised 68 percent in 1962 and 86 percent in 1963. Except for petroleum, Trucial coast exports consist mostly of reexports from the port of Dubai.

Imports in 1962 were valued at approximately US$20 million, of which petroleum products made up an estimated 4 percent. Although detailed figures are not available, gold bullion may account for more than 25 percent of the value of all imports.

TABLE 1.—Production of petroleum and imports of petroleum products

(Thousand 42-gallon barrels)

	1961	1962	1963
Production, Abu Dhabi: Crude petroleum	447	[1] 5,551	17,591
Imports:			
Gasoline	(2)	[3] 84	(2)
Kerosine	(2)	[3] 32	(2)
Distillate fuel oil	(2)	[3] 76	(2)
Lubricants	(2)	[3] 4	(2)

[1] Total production of 5,998,029 barrels is reported for the Umm Shaif field to Dec. 31, 1962, by AAPG. V. 47, No. 7, July 1963. Probably includes output from earlier production tests.
[2] Data not available.
[3] Estimate.

COMMODITY REVIEW

MINERAL FUELS

Petroleum.—*Abu Dhabi.*—The Trucial coast Umm Shaif field, 105 kilometers offshore and 80 kilometers southeast of the Qatar offshore development at Idd al-Sharqi, was being operated by Abu Dhabi Marine Areas, Ltd., owned two-thirds by British Petroleum Co. and one-third by Cie. Française des Pétroles. A medium-weight oil (34° API) was produced from Cretaceous and Jurassic limestones at depths of 5,500 to 8,800 feet. By the end of 1963, the field was producing 60,000 barrels of petroleum daily from 17 wells. An additional six wells were scheduled to increase the total productive capacity to 90,000 barrels daily by mid-1964. Umm Shaif production is remotely controlled from the export terminal at Das Island, 32 kilometers west.

Oil was found 80 kilometers southeast of Umm Shaif in the Zakum No. 1 exploration well drilled in 1963 by Abu Dhabi Marine Areas, Ltd.

The Murban field, 16 kilometers inland and 144 kilometers southeast of Umm Shaif, began production in December from 24 wells at an estimated aggregate rate of 80,000 barrels per day. Production was scheduled to increase to 120,000 barrels per day in early 1964 as a result of additional well completions. Extensive gathering, processing, and loading facilities completed in 1963 included four gas-oil separators having a total capacity of 200,000 barrels per day; three stripping columns for the removing of hydrogen sulfide by a hot carbonate process; a 112-kilometer, 24-inch pipeline from field to storage facilities at Jebel Dhanna; and two sea berths connected to Jebel Dhanna by 4.5-kilometer, 36-inch sea lines for gravity loading. Exports began December 15. The Murban field produces a relatively light crude (40° to 42° API), with a high H_2S content and a gas to oil ratio of 1,200 cubic feet per barrel, from Lower Cretaceous limestone at depths between 8,000 and 9,300 feet. No oil has been found in Jurassic strata equivalent to the Arab Zone reservoirs of Saudi Arabia and Qatar. Exploration and development work in the area is continuing.

A new field has been discovered at Bu Hasa, 25 miles southwest of Murban. Two wells were completed in 1963, and each was reported to have a production potential of 15,000 barrels per day. There is a possibility that the Bu Hasa field extends southward across the undemarcated boundary with Saudi Arabia.

Reserves were estimated at 7,000 million barrels at yearend,[2] compared with 6,000 million barrels at the end of 1962 and 1,500 million barrels at the end of 1961.[3]

Dubai.—About 125 miles east of the Murban oilfield, Dubai is the center of population and general trade on the Trucial coast. A minor boom in the local economy resulted from oil discoveries in Abu Dhabi and exploration activities in Dubai. Petroleum exploration was continued during 1963, and by early 1964 exploration drilling was expected to be underway at two locations, one offshore and one onshore. The wells were to be drilled by the Dubai Petroleum Co., a subsidiary of Continental Oil Co., which acquired the onshore concession and a half interest in the offshore concession in 1963. The onshore concession was formerly held by an associate of the Iraq Petroleum Co. but was relinquished in December 1962 after the drilling of an unsuccessful 12,000-foot well. Dubai Marine Areas, Ltd., owned by British Petroleum & Cie. Française des Pétroles, holds the other half interest offshore.

Other Trucial Coast States.—Petroleum concessions in the States of Sharjah, Ajman, and Umm al-Qaiwain were acquired in 1962 by John W. Mecom of Houston, Tex. In partnership with the Pure Oil Co., geophysical surveys of onshore and offshore areas of Sharjah were completed in mid-1963 and one well had been drilled to a depth of 5,358 feet at Abu Musa, 35 miles offshore, by the end of the year.

Petroleum concessions in Ras al-Khaimah were expected to be acquired in early 1964 by the Union Oil Co. of California. The concessions were formerly held by an Iraq Petroleum Co. subsidiary but were given up in 1960.

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[2] Petroleum Management. June 1964, p. 72.
[3] World Oil. Aug. 15, 1963.

The Perkins Oil Co. of Wichita, Kans., was negotiating for concessions in the State of Fujairah during 1963.

Oman.—Petroleum Development (Oman), Ltd., formerly an IPC subsidiary but in 1963 owned 87 percent by Royal Dutch Shell and 13 percent by the Gulbenkian interests (Partex), found oil in the Yibal and Natih areas, 325 and 200 kilometers, respectively, southwest of the port of Muscat and about 360 kilometers southeast of Abu Dhabi's Murban field. Four wells were drilled at Natih in 1963, and testing was still in progress at the end of the year. The oil is found in Cretaceous strata below several thousand feet of Tertiary salt. No further details were available.

Dhofar.—The Dhofar concession, covering about 32,000 square miles in the southern part of the Sultanate, was acquired by John W. Mecom from Cities Service Petroleum Corp. and Richfield Oil Co. in 1962. These companies had drilled about a dozen wells and had discovered oil in 1955 at Marmul, 175 kilometers northeast of Salalah and about 80 kilometers from the coast. By 1958 four wells had reportedly been developed with a combined productive capacity of 2,500 barrels per day. Oil of several gravities (16° to 37° API) is found in Cretaceous strata at depths from 2,700 to 4,400 feet.

In partnership with the Pure Oil Co., Mecom had drilled five additional wells by early 1964. One well, Marmul No. 4, drilled to 3,500 feet, tested 150 barrels of oil per day; another, drilled 3,000 feet, reportedly flowed 500 barrels per day of 19° API crude and was located only 14 miles from the coast. Although the remaining wells were dry of oil, two of them found important supplies of fresh water.