THE MINERAL INDUSTRY OF

BRUNEI

By John C. Wu

Brunei, which a small country on the northwest coast of Borneo Island in southeast Asia, had substantial reserves of oil and gas. The country's proven reserves of crude petroleum and natural gas were estimated to be 1,350 million barrels and 390,772 million cubic meters, respectively, in 2001 (Oil & Gas Journal, 2001a). Brunei also had resources of carbonate rocks, coal, kaolin, sand and gravel, and silica sand (Quazi, 1996, p. 1-7). In 2001, Brunei ranked seventh in production of crude petroleum in the Asia and Pacific region and fourth in production of liquefied natural gas (LNG) in the world (Oil & Gas Journal, 2001; U.S. Department of State, November 2001§[1]).

The oil and gas industry contributed more than 50% of the country's gross domestic product (GDP). The industry also generated about 75% of Government revenues and earned about 80% of the country's exports. In 2001, Brunei's economy, which continued to rely heavily on the performance of the oil and gas industry, was estimated to have grown much less than that (3.5%) of 2000 because of lower oil prices (U.S. Energy Information Administration, 2001§).

In September 2001, the Government revealed the country's eighth 5-year National Development Plan (NDP) in which the country's real GDP is expected to grow at between 4% and 5% per year between 2001 and 2005. The country's GDP and per capita GDP, which were estimated by the Government, were \$4.7 billion and \$13,882, respectively, in 2000. Under the new 5-year plan, the country's economic dependence on oil and gas would be reduced through economic diversification. The plan would focus mainly on strengthening the public and private sector economies. To strengthen the private sector economy, priority was given to the International Offshore Financial Center and the industries of tourism, transportation, information and communication technology, Halal food products, petroleum refining, and petrochemicals (BruneiDirect.Com, 2001a§). The total budget of the development plan was about \$4.3 billion, of which about 15%, or \$644 million, would be used to boost the private sector economy and to strengthen the country's industry and commerce, which, in turn, would create jobs and contribute more to the growth of the country's GDP (BruneiDirect.Com, 2001f§).

In line with the underlying policy of economic diversification in the new 5-year NDP plan, a report had been completed and submitted by the Perth-based Dover Consultants Ltd. of Australia to the Petroleum Unit of the Prime Minister's Department in June 2001. The Petroleum Unit was to present the report to the Brunei Oil and Gas Authority (BOGA) for approval. BOGA would then advise and make recommendation to the Sultan of Brunei for implementation. In June 2000, the Government commissioned Dover Consultants to conduct a two-part study—part I was a market and economic analysis for the potential core activities that will focus on petrochemical production, refining, and three energy-based industries which will directly use electricity and natural gas, and part II was an examination of infrastructure requirements, joint ventures that could participate in the development, location, optimum plant size, possible financing options, socioeconomic benefits, and strategic alliance (Asian Chemical News, 2001).

To develop the priority industries that will strengthen the private sector economy, the Government enacted the Investment Incentives Order 2001 and Pioneer Status and Income Tax Relief in July 2001. The new law and regulations provided guidelines in granting pioneer status to industries and tax relief for foreign and local investment, as well as extending the tax relief period. The investment incentives included a 5-year pioneer tax holiday for companies, which would invest between \$294,000 and \$1.5 million in approved ventures; 8-year tax relief for investing more than \$1.5 million; and 11-year tax break if the venture is located in a high-tech industrial park. The enactment also specified pioneer service companies as any engineering or technical services company and services companies as any educational, medical, and agricultural technology company. Other companies eligible for pioneer status are those companies that manufacture goods for export (BruneiDirect.Com, 2001d§).

In early November, the Prime Minister's Office announced that a 100% state-owned national oil company Brunei National Petroleum Co. Sdn. Bhd. (BNPC) with a paid-up capital of \$294 million had been established to consolidate and mobilize Brunei's petroleum industry. BNPC was also to play a more active role in petroleum exploration and development, and to accelerate development of a domestic industrial base (BruneiDirect.Com, 2001c§, g§, 2002§).

The oil and gas industry consisted of the following operating companies: Brunei Shell Companies, TotalFinaElf SA of France, and Fletcher Challenge Energy of New Zealand. Brunei Shell conducted oil and gas exploration, produced and refined crude petroleum, produced and processed natural gas, marketed crude petroleum, refined petroleum products, and processed natural gas products. TotalFinaElf and Fletcher Challenge conducted oil and gas exploration and produced natural gas and natural gas liquid (condensate).

The industrial minerals industry consisted of more than 20 small, privately owned companies that engaged in the production and marketing of construction aggregates and sand and gravel and a cement company, which operated a clinker grinding plant for cement production and marketing. In 2001, a new company was formed and was in the process of installing

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

processing facilities to produce silica plate using, for the first time, domestic resources of silica sand.

In 2001, crude petroleum output averaged 173,000 barrels per day (bbl/d), and natural gas output averaged 30 million cubic meters per day plus 22,000 bbl/d of natural gas liquid. All crude petroleum was produced by Brunei Shell Petroleum Co. Sdn Bhd. (BSP). About 90% of natural gas was produced by BSP, and 10%, by a joint venture of TotalFinaElf and Fletcher Challenge (U.S. Energy Information Administration, 2001§). BSP produced crude petroleum, natural gas, and natural gas liquid from 772 producing wells in 8 offshore fields (Southwest Ampa, Champion, Champion West, Enggang, Fairley, Fairley-Baram, Iron Duke, and Magpie); and 2 onshore fields (Rasau and Seria-Tali). TotalFinaElf and Fletcher Challenge jointly produced natural gas and natural gas liquids from seven producing wells in an offshore field—Maharaja Lela (Oil & Gas Journal, 2001b). Production of LNG by Brunei Liquefied Natural Gas Sdn. Bhd. at the Lamut LNG plant was about 6.7 million metric tons (about 10 billion cubic meters) in 2001. Under a 20-year contract renewed in 1993, Brunei exported about 6 million metric tons per year (Mt/yr) of LNG to Japan and about 700,000 Mt/yr to the Republic of Korea.

In November 2001, BSP announced that it would proceed with the development of a new offshore oil and gasfield—the Egret Field, which is located northeast of its Fairley Field. The development cost was estimated to be $79.4 million. Detailed engineering work was to be conducted by Technip Engineering Brunei Sdn. Bhd. of Brunei and supported by Technip Far East's Headquarters in Kuala Lumpur, Malaysia. The development of the Egret Field will be phased. Initial development specified the first gas production by August 2003 to meet the natural gas requirements for domestic consumption and export in 2003 and beyond (BruneiDirect.Com, 2001b§).

In 2001, production of cement by using imported clinker and gypsum was about 250,000 metric tons, or 50% of the 500,000-metric-ton-per-year capacity. The cement-manufacturing facilities in Muara Industrial Estate are located in Jalan Peruahaan, Serasa, which is located about 2 kilometers from Muara Town. The German multinational cement company Heidelberger Zement AG (HZ) acquired 50% equity interest of Butra Djajanti Cement Sdn. Bhd., which was a local company, in April 2000 and changed its name to Butra Heidelberger Zement Sdn. Bhd., which is a joint venture of Butra and HZ (BruneiDirect.Com, 2000§; Butra Heidelberger Zement Sdn. Bhd., 2002§).

Construction of a silica-processing plant was started by Summons Holdings Sdn. Bhd. in 2001. According to the project coordinator of the company, the processing machinery and equipment would be imported from Sweden, and high-quality silica sands in Tutong District would be used to manufacture such high-tech products as silica plate (BruneiDirect.Com, 2001e§).

References Cited

Asian Chemical News, 2001, ACN new projects—Brunei petrochem study done: Asia Chemical News, v. 7, no. 315, June 18, p. 33.

Oil & Gas Journal, 2001a, Worldwide look at reserves and production: Oil & Gas Journal, v. 99, no. 52, p. 126-127.

Oil & Gas Journal, 2001b, Worldwide production—Brunei: Oil & Gas Journal, v. 99, no. 52, p. 128-157.

Quazi, A.H., 1996, Development of non-metallic mineral resources in Brunei: Ministry of Development (Brunei), Public Works Department, 71 p.

Internet References Cited

BruneiDirect.Com, 2000 (April 23), Brunei Cement to go worldwide, Local News, accessed January 22, 2002, at URL http://www.brudirect.com/dailyinfo/news/y2k/apr/230400.htm.

BruneiDirect.Com, 2001a (September 5), Brunei expects to grow at 4-5 percent, Local News, accessed February 6, 2002, at URL http://www.brudirect.com/dailyinfo/archive/sept01/ 050901/nite04.htm.

BruneiDirect.Com, 2001b (November 24), Brunei Shell to proceed with Egret Field Development, Local News, accessed February 6, 2002, at URLhttp://www.brudirect.com/ dailyinfo/news/archive/nov01/241101/nite02.htm.

BruneiDirect.Com, 2001c (November 8), Brunei Shell welcome the new national oil company, Local News, accessed February 4, 2002, at URLhttp://www.brudirect.com/dailyinfo/news/ archive/nov01/081101/nite08.htm.

BruneiDirect.Com, 2001d (July 18), Government boost incentives and tax break for pioneer industries, News Headlines, accessed February 13, 2002, at URL http://www.brudirect.com/ dailyinfo/news/archive/july01/180701/nite01.htm.

BruneiDirect.Com, 2001e (June 20), Machines coming to make silica sand products, Local News, accessed February 13, 2002, at URL http://www.brudirect.com/dailyinfo/news/ y2k/june01/200601.htm.

BruneiDirect.Com, 2001f (September 28), New plan to spur economic growth and boost employment in Brunei launched, News Headlines, accessed February 6, 2002, at URL http://www.brudirect.com/dailyinfo/news/archive/sept01/280901/nite01.htm.

BruneiDirect.Com, 2001g (November 7), State owned oil company announced, Local News, accessed February 6, 2002, at URL http://www.brudirect.com/dailyinfo/news/ archive/nov01/071101/nite03.htm.

BrineiDirect.Com, 2002 (January 29), $1 billion capital for Petroleumbrunei, News Headlines, accessed January 29, 2002, at URL http://www.brudirect.com/dailyinfo/news/archive/ jan02/290102/nite01.htm.

Butra Heidelberger Zement Sdn. Bhd., 2002, Company profile, accessed February 20, 2002, at URL http://www.bruneicement.com/compproidx.htm.

U.S. Department of State, 2001 (October), Brunei Darussalam, Background Notes, accessed November 5, 2001, at URL http://www.state.gov/r/pa/bgn/2700.htm.

U.S. Energy Information Administration, 2001 (December), Brunei, Country Analysis Brief, accessed January 10, 2002 at URL http://www.eia.doe.gov/emeu/cabs/brunei2.html.

Major Sources of Information

Prime Minister's Department
Petroleum Unit
Jalan Mentri Besar, Bandar Seri Begawan BB3910
BRUNEI
Telephone: 673-2-380333
Fax: 673-2-383004
E-mail: brupet@brunet.bn

TABLE 1
BRUNEI: PRODUCTION OF MINERAL COMMODITIES 1/

Commodity 2/		1997	1998	1999	2000	2001 e/
Cement	thousand metric tons	250 e/	216	208	232	250
Gas, natural:						
Gross	million cubic meters	11,135	10,704	11,206	10,751	11,000
Marketed	do.	10,195	9,863	11,627	10,751	11,000
Petroleum:						
Crude 3/	thousand 42-gallon barrels	59,500	57,446	66,741	70,482	71,000
Refinery products:	do.					
Gasoline	do.	1,460 e/	1,572	1,630	1,578	1,600
Distillate fuel oil	do.	970 e/	1,093	1,146	1,063	1,100
Residual fuel oil	do.	440 e/	481	531	475	500
Other 4/	do.	700 e/	776	659	677	700
Total	do.	3,570 e/	3,922	3,966	3,793	3,900

e/ Estimated.
1/ Table includes data available through March 8, 2002.
2/ In addition to the commodities listed, crude construction materials, such as sand and gravel and other varieties of stone, presumably are produced, but available information is inadequate to make reliable estimates of output levels.
3/ Includes condensate.
4/ Includes jet fuel, kerosene, refinery fuel, and refinery losses.

Sources: Prime Minister's Department, Petroleum Unit and U.S. Geological Survey Minerals Questionnaire, 1999 and 2000.