

2. CANADIAN PETROLEUM AND ASSOCIATED INDUSTRY CAPABILITY AND CAPACITY

A. DOMESTIC MARKET AND PROSPECTS

The importance of petroleum in Canada's economy is illustrated by the fact that four petroleum companies are ranked among the nation's thirteen largest corporations. During the current decade, 24% of industrial income (excluding financial industries) in Canada has been accrued by the petroleum industry. Oil and gas industry revenue was \$ 64 billion in 1984 and exports of petroleum and petroleum products provided \$ 11.4 billion worth of foreign exchange while imports cost \$ 4.9 billion. Cash expenditures of the Canadian petroleum industry are shown in Table 1 attached.

Because of climate, geographical and geological conditions, Canada has developed world-leading expertise in providing petroleum-related goods and services for offshore, severe cold, synthetic oil, heavy oil (bitumen), sour gas, permafrost and conventional conditions. Much of this expertise has direct relevance for China where conditions are similar to those in Canada.

A.1 The Petroleum Exploration and Production Industry

The term "petroleum company" generally denotes a company that explores for, and/or produces conventional oil, non-conventional oil (oilsand, heavy oil), and/or natural gas. Canada has hundreds of exploration and production companies, while in the downstream stages of refining and marketing, the number of active companies is more limited.

(i) Oil

There are over 1,000 Canadian exploration companies which, in 1984, spent \$ 4.8 billion exploring for petroleum in Canada. About two-thirds of this exploration was conducted by Canadian-controlled companies, a proportion which has been increasing through the 1980's as a result of government incentives. Pan Canadian, Norcen, Petro Can, Gulf, Canterra, Bow Valley, Home, Husky and Dome are among the large Canadian-owned explorers and most of these have had some exposure to China.

Some 80% of Canadian oil production comes from Alberta and 13% from Saskatchewan. The vast majority of oil production is conventional crude oil, though non-conventional oil from oilsands, and heavy-oil deposits in Alberta and Saskatchewan, are providing an increasing amount of production. As estimated, recoverable reserves of these non-conventional deposits are perhaps a thousand times greater than Canada's remaining reserves of conventional crude oil, this will obviously be a future area of high production activity. Canada ranks 17th in the world in crude oil reserves and 9th in conventional crude oil production.

The exploration, production, service, consulting and transportation activities associated with the frontier areas in Canada are world-scale and involve the latest technologies. These are relevant to China because of climate, logistical, geographical, and geological similarities.