

low-cost a producer as is Venezuela or the Middle East. The mid-continent producers have an export market in mid-continent United States which in 1971 almost equalled in volume Canada's imports in the East. Thus, Canada produces oil almost equivalent to the total domestic needs but achieves in domestic markets the lowest-cost supply compatible with balance-of-payments aims. Alberta oilfields are producing much below capacity and the region's economic reserves of oil will last perhaps 20 years at current depletion rates. Canada's North is the focus of much optimism for large-scale oil finds, and exploration continues there.

Natural gas is an important domestic product and a valuable and growing export. Broadly speaking, gas is found where oil is found — mainly in the western provinces and Canada's Arctic. Natural gas production and sales are often reported in volume terms (thousands of standard cubic feet) but to compare, for example, oil and gas output, it is preferable to report equivalent thermal value, or values in dollars which do tend to reflect thermal values. In dollar terms, the gas and gas by-products production of Canada in 1971 was \$536 million, compared with oil output of \$1,357 million; this represents a gas value of about 40% of oil value. In 1970 gas value was \$475 million or 41% of an oil value of \$1,156 million. This trend may continue; for both products, current scale and future growth depend significantly upon access to the United States market. In the case of gas, United States import policy seems focused on prices paid rather than on quantities imported, reflecting the scarcity of gas reserves and supplies within that country.

Canada has large reserves of gas. Western reserves are adequate for about 25 years at Canadian 1971 gross-production rate, and the economics of Arctic transport are at present more favourable for gas than for oil so that the known Arctic gas reservoirs can be viewed with confidence as economically valid reserves. Production in Canada is increasing rapidly with growth of domestic and export markets. Domestic sales volume was 9% above 1970, and comprised 46% of the 1971 net domestic supply; exports, all to the United States, were 17% above 1970.

Gas volumes data give, among other information, gross new production volume, net withdrawals volume, net domestic supply, and total demand. The first is new gas obtained from wells which in 1971 totalled 2,825,000 million standard cubic feet (MMcf); the second was 2,500,000 MMcf after waste, flaring and reinjection deductions; the third was 2,195,000 MMcf after process shrinkage and storage-reservoir inventory adjustments and, with imports in 1971 being insignificant, this net domestic supply is effectively equivalent to total domestic supply and total domestic demand. Domestic sales plus exports fall short of total or net domestic supply by an amount that constitutes change in gas in process, change in pipeline inventory, etc. In 1971, the sum of domestic sales and exports was 1,912,000 MMcf, 13% above the 1970 total. This marketable-production volume of 1,912,000 MMcf is much lower than the gross production total of 2,824,000 MMcf. Pipeline systems linking western and eastern provinces now have ample capacity following major additions in recent years.

Nickel was in second place among Canadian minerals produced in 1971. The year was a difficult one for world nickel producers as an over-supply situation developed. Nickel inventories reached abnormally high levels but prices remained steady throughout the year at 137½ cents per lb. After appreciable mine expansion during 1970, producers announced cutbacks in production for 1971-72 in order to balance supply with demand. Canada maintained its position as the leader in nickel production, accounting for about 41% of total world production, with a value of \$800 million.

Copper was third by value of output among the minerals in 1971. Production of recoverable copper from Canadian mines rose to a new record level of 721,000 tons, an increase of 7% from 673,000 tons in 1970. The international over-supply of copper continued but was not serious because production problems in Zambia and Chile kept output below expected levels. Copper is produced in every province and territory except Prince Edward Island; Ontario dominates output, Quebec and British Columbia together nearly equal Ontario and others are much less significant.

Iron ore production and consumption were both down in 1971 due to decreased demand in Europe, the United States and the domestic market. Production was valued at \$555 million. Of the 33.6 million long tons exported, the United States took 20.1 million (23.8 million in 1970), Britain 4.7 million, western Europe 5.7 million and Japan 3.1 million. Shipments to Japan increased by 41% in 1971, from 2.2 million in 1970. Canada's iron ore industry seems to