

up from \$678,000,000 in 1963. Estimates for 1965 capital investment and repair expenditures for the mineral industry at \$725,000,000 indicate that the strong growth experienced in recent years will continue.

However, expenditures on mining, quarrying and oil and gas wells, and value of mineral output do not wholly reflect the importance of the mineral industry to the nation's total economy. Such figures do not include expenditures in the many areas allied directly with the mineral industry such as primary facilities for metal recovery, nor do they include the large expenditures made for railroads, roads, docks, power developments and other projects that are directly attributable to mining developments. Neither do they indicate all the indirect employment in the allied, ancillary and service industries that is directly and indirectly related to mining developments. Such employment has been estimated to range from six to 10 persons for each person directly employed in mining, the estimate varying with the type of mining development. Mining is also responsible for opening up vast new areas to further mineral discoveries and settlement, providing diversified employment through tourism, forest operations, fishing and all other attendant service requirements. Mining has been responsible for all railway building in Canada since World War II and for many of the hydro-electric power developments.

Each of the three sectors of the industry—metallics, industrial minerals and mineral fuels—recorded a new high in 1964, the metallics sector registering the strongest advance both in absolute and percentage terms. Metallic minerals output was valued at \$1,704,600,000, up from \$1,509,500,000 the previous year. Shipments of industrial minerals, which include non-metallics and structural materials, were worth \$687,300,000 compared with \$632,500,000 in 1963. Mineral fuels production increased in value to \$1,005,200,000 from \$908,400,000. This was the first year that mineral fuels production was valued over \$1,000,000,000. In 1950, the output of the whole mineral industry for the first time reached a total value of \$1,000,000,000 and in that year mineral fuels were valued at only \$200,000,000. In 1964, Canada ranked first in world mine production of zinc for the first time, and this was the first year that iron ore was Canada's leading metallic mineral, displacing nickel.

The ten leading minerals in terms of value of output again accounted for about 80 p.c. of total output, essentially the same as for several years previously. Production values were appreciably higher for iron ore, zinc, copper, lead, natural gas and crude petroleum; small advances were made in nickel, asbestos, titanium dioxide and structural materials. Value of uranium ( $U_3O_8$ ) shipments and gold production declined. The leading mineral commodities in value of output were crude petroleum, \$674,000,000; iron ore, \$403,000,000; nickel, \$382,000,000; copper, \$328,000,000; zinc, \$193,000,000; natural gas, \$184,000,000; asbestos, \$148,000,000; gold, \$144,000,000, and cement, \$133,000,000. Canada leads the non-communist world in the production of nickel, zinc, asbestos, platinum metals and columbium; is second in gold, uranium cobalt, cadmium and titanium; is third in sulphur, gypsum, magnesium and lead; and ranks high among world producers of copper, iron ore, silver and molybdenum.

Ontario remained Canada's leading mineral-producing province, output at \$911,000,000 being 26.8 p.c. of Canada's total. It was followed in order by Alberta with 22.0 p.c., Quebec with 19.8 p.c., Saskatchewan with 8.2 p.c., British Columbia with 7.9 p.c. and Newfoundland with 5.7 p.c. Mineral production gains were recorded for all ten provinces and the two territories with Quebec registering the strongest advance to \$672,000,000 from \$541,000,000. Ontario's percentage of Canada's total mineral production has been declining steadily for the past few years. Newfoundland, along with Quebec, registered a strong absolute and percentage gain over 1963, and Alberta, British Columbia, Saskatchewan and Manitoba all registered minor percentage losses although the value of output in each of them increased.

Exploration activity continued to be widespread and diversified in 1964 and several important discoveries were reported. Development of properties for early production was under way in all mineral-producing provinces and in the territories and it is noteworthy that