Subsection 1.-Metals

The metallic minerals of greatest dollar value to Canada during 1966 were, in order: copper, iron ore, nickel, zinc, gold, lead, uranium and silver. These eight metals, which accounted for 94 p.c. of the total value of metal production in 1966, and several other metals of importance are dealt with separately below.

Copper.—Mine production of copper in 1966 was 506,100 tons valued at \$453,524,000, a decrease of 1,800 tons but an increase of \$72,572,000 over 1965. Domestic consumption of refined copper increased and this, combined with a slight decrease in production, resulted in a decrease in refined copper exports. Lower mine output in Ontario, because of strikes at mines in the Sudbury area, was offset by increased production in Newfoundland, Manitoba, Saskatchewan, British Columbia and the Northwest Territories. New mines were brought into production in Newfoundland, New Brunswick, Quebec, Ontario and Saskatchewan. One mine was closed in British Columbia.

Six smelters for the reduction of copper and nickel-copper ores and concentrates are operated in Canada. In the Sudbury district of Ontario, International Nickel operates smelters at Copper Cliff and Coniston, and Falconbridge Nickel produces nickel-copper matte at its Falconbridge smelter. Hudson Bay Mining and Smelting Co., Limited at Flin Flon, Man., smelts concentrates from its mines in Manitoba and Saskatchewan and copper concentrates from the mine of Sherritt Gordon at Lynn Lake, Man. Ores and concentrates from most of the copper mines in Ontario, Quebec and Newfoundland are smelted at the Noranda smelter of Noranda Mines Limited and the Murdochville smelter of Gaspé Copper Mines Limited, both in Quebec. Electrolytic copper refineries are operated by International Nickel at Copper Cliff and by Canadian Copper Refiners Limited, a subsidiary of Noranda Mines, at Montreal East, Que. Production of refined copper in 1966 was 433,900 tons, 200 tons less than in 1965.

Newfoundland's copper production from six mines in 1966 was 19,400 tons valued at \$17,415,000, an increase of 4,600 tons and \$6,268,000 over 1965. Consolidated Rambler Mines Limited started production from its East mine and First Maritime Mining Corporation Limited continued development of its Gullbridge mine at Gull Pond. New Brunswick's three producers were joined by a fourth in 1966 when Brunswick Mining and Smelting Corporation Limited brought its No. 6 open-pit mine into production. Output in New Brunswick decreased in 1966 to 7,100 tons valued at \$6,366,000 from 10,100 tons and \$7,581,000 in 1965.

Production in Quebec was slightly lower in 1966 than in 1965 despite output from two new mines, totalling 172,000 tons valued at \$154,455,000 compared with 174,000 tons worth \$130,801,000. Production in 1967 should be higher with increased output from Murdochville and production from new mines at Chibougamau, Joutel and Matagami.

Strikes at the Sudbury area mines and a lack of skilled miners reduced Ontario's 1966 output to 203,000 tons valued at \$181,376,000 from the 216,300 tons worth \$161,665,000 in 1965. International Nickel produced nickel-copper ore from 10 mines in the Sudbury district and had four mines under development in the area. Falconbridge operated six mines and had two mines under development. Texas Gulf Sulphur Company started production from its open-pit mine near Timmins when throughput started in November at the first of three units in its 9,000-ton-a-day mill. Full production was expected in the first quarter of 1967. Canadian Jamieson Mines Limited started production at its copper-zinc mine near Timmins. Other copper-producing mines in Ontario include: Kam-Kotia and McIntyre-Porcupine at Timmins; Copperfields at Timagami; Rio Algom's Pater at Spragge; Willroy, Willecho and Noranda's Geco at Manitouwadge; North Coldstream at Kashabowie and Metal Mines at Werner Lake. Production in 1967 is expected from Munro Copper Mines Limited near Matheson, from Tribag Mining Co., Limited near Batchawana and from Kidd Copper Mines Limited near Sudbury.