

operated in Canada. In the Sudbury district of Ontario, The International Nickel Company of Canada, Limited (Inco) operated smelters at Copper Cliff and Coniston, and Falconbridge Nickel Mines Limited produced nickel-copper matte at its Falconbridge smelter. Hudson Bay Mining and Smelting Co., Limited at Flin Flon, Man., treated ores and concentrates from its own and other mines in Manitoba and Saskatchewan. Ores and concentrates from most of the copper mines in Ontario, Quebec and Newfoundland were processed at the Noranda smelter of Noranda Mines Limited and the Murdochville smelter of Gaspé Copper Mines, Limited, both in Quebec. Major expansion programs were under way at both the Noranda and Murdochville smelters. Electrolytic copper refineries were operated by Inco at Copper Cliff and by Canadian Copper Refiners Limited, a subsidiary of Noranda Mines, at Montreal East, Que.

Ten new mines producing copper were brought into operation and ten mines were closed during 1971 in Canada; net production capacity was increased by about 40,000 tons of contained copper during the year.

Copper production in Newfoundland in 1971 totalled 13,980 tons valued at \$14,762,654 from four producing mines, one of which closed late in 1971. In New Brunswick copper output increased to 10,266 tons valued at \$10,841,025 from 8,022 tons valued at \$9,313,833 in 1970. In Quebec, production reached 184,823 tons valued at \$195,173,430, compared to 172,640 tons and \$200,443,882 in 1970. About 30 mines were operating during 1971, the main centres of production being at or near Rouyn - Noranda, Val d'Or, Matagami, Chibougamau, Murdochville and Stratford Centre. The Delbridge, Manitou-Barvue and Quemont mines were closed in 1971, while production commenced at the Millenbach mine of Falconbridge Copper Limited.

Copper was produced at a number of mines in Ontario in 1971, the main operations being the nickel-copper mines of the Sudbury district, copper-zinc and copper mines near Timmins, and copper-zinc mines near Manitowadge. Mine production amounted to 302,370 tons valued at \$317,527,865, an increase of 7,277 tons and a decrease of \$23,311,917 over 1970. One new small mine was opened during the year and two were closed; two mines were being developed for production by the end of 1972. Inco restricted its production of nickel by 22% but the effect on copper production was much less.

Most of Manitoba's 1971 production of 55,264 tons of copper valued at \$58,356,093 came from the mines of Hudson Bay Mining and Smelting Co., Limited at Flin Flon and Snow Lake and, to a lesser extent, from the Lynn Lake mines of Sherritt Gordon Mines Limited. Hudson Bay operated seven mines but operations were shut down by a five-month strike during the first half of the year. Sherritt Gordon production came from its Fox Lake copper-zinc mine and its Lynn Lake nickel-copper mine. Copper concentrates from the Inco mines at Thompson were shipped to Copper Cliff in Ontario for smelting and refining. Copper production in Saskatchewan was from the mine of Anglo-Rouyn Mines Limited near La Ronge and from Hudson Bay's Flexar mine and that portion of the Flin Flon orebody on the Saskatchewan side of the provincial boundary. Production in 1971 was 11,146 tons, 8,327 tons less than in 1970; the value was \$11,769,842, \$10,839,338 less than in 1970.

Production of copper in British Columbia in 1971 amounted to 140,310 tons valued at \$148,130,684, an increase of 34,488 tons and \$25,301,838 over 1970. Two new mines started production in 1971: Utah Mines Ltd., at Coal Harbour on Vancouver Island and Placid Oil Company at Cranbrook. In addition, Giant Mascot Mines Limited brought its new concentrator on stream replacing the one destroyed by fire the previous year. One mine was closed for economic reasons.

Production of copper in the Yukon Territory, all by Whitehorse Copper Mines Ltd., Whitehorse, declined by 5,314 tons in 1971 to 2,566 tons valued at \$2,709,696; production was suspended pending a change in mining methods. In the Northwest Territories copper is obtained as a by-product in the processing of high-grade silver ores.

Iron ore. Iron ore shipments amounted to 43,312,273 tons (42,278,733 dry long tons valued at \$555,135,728) in 1971, down 4,484,112 tons from 1970 when shipments reached an all-time high. [The wet long or gross ton (2,240 lb.) is used here for all shipments of iron ore unless otherwise noted.] Exports were down by 5,083,484 tons to 33,562,557 tons while domestic shipments rose sharply by 599,372 tons to 9,749,716 tons. Production exceeded shipments by 2,346,794 tons and stocks at mines and ports, estimated at 8,400,000 tons at the end of 1970, increased accordingly.