

to bring its Crean Hill mine into production and began construction of a concentrator at Levaek but later curtailed both projects as the market weakened. In 1957, Falconbridge Nickel Mines carried out extensive pre-production development at its Onaping, Fecunis and Boundary mines in the Onaping area near Sudbury. The company put a new 2,000-ton mill into operation at Fecunis and early the following year blew in a new smelter. The Kenora area of Ontario also became the scene of considerable underground development work, but most of these operations were suspended before the end of the year.

Other areas of exploratory interest in 1957-58 included the Ungava area across northern Quebec, particularly the property of Raglan Nickel Mines Ltd.; the Coppermine River area of the Northwest Territories, where International Nickel and Sherritt Gordon undertook extensive diamond-drilling; and the Noranda district, where spasmodic drilling was carried out. New Manitoba Mining and Smelting Company Limited made considerable progress in the development of its property southwest of Cat Lake but was subsequently forced to discontinue the work.

Copper.—In 1957 and 1958 Canadian copper mining was hurt by declining prices. The world surplus that developed in 1956 continued to grow in 1957 and toward the end of the year producers were taking steps to curtail output. In fact, low prices forced a number of low-grade producers to suspend operations and by the end of 1958 the value of copper production had declined an estimated \$29,000,000 from that of the previous year. The market was further weakened by a 1.7-cent-a-pound duty imposed by the United States on its copper imports.

Canadian copper production in 1957 (359,109 tons) exceeded the record 1956 level by 4,249 tons. In value, however, it dropped 29 p.c. to \$206,897,988 and in 1958 fell to approximately \$178,000,000. In 1957, International Nickel was the chief Canadian producer, Hudson Bay Mining and Smelting Co. Limited, was second and Noranda Mines Limited, third. The 323,590 tons of refined copper produced that year came from the two copper refineries, one operated by International Nickel at Copper Cliff, Ont., and the other by Canadian Copper Refiners Limited at Montreal East, Que., a subsidiary of Noranda Mines Limited.

Six smelters for the reduction of copper and copper-nickel were operated in Canada. Plants at Copper Cliff and Coniston in Ontario were used by International Nickel. The smelter of Noranda Mines Limited processed ores from the company's Horne mine and concentrates from most of Eastern Canada. Gaspé Copper Mines Limited, with a smelter at Murdochville, Que., treated ore concentrates from Tilt Cove, Nfld., as well as its own. Other plants were operated by Hudson Bay Mining and Smelting Co. Limited and Falconbridge Nickel Mines Limited.

Ontario produced 171,703 tons of copper in 1957, nearly all from the Sudbury area. International Nickel continued large-scale operations at its five producing Sudbury mines. Company deliveries of refined copper in 1957 amounted to 140,405 tons, or about 40 p.c. of Canadian mine production. In the same area Falconbridge Nickel Mines Limited, with six producing mines, produced 12,614 tons of copper and Nickel Rim 570 tons of concentrate. Two new copper-zinc producers came into operation during the year, both in the Manitouwadge area; Willroy Mines Limited commenced shipments from its 1,000-ton-a-day concentrator in July and Geco Mines Limited began producing at the rate of 1,800 ore tons a day in September.

Quebec's copper production fell from 122,300 tons in 1956 to 112,409 tons the following year, owing chiefly to reduced output at Gaspé Copper Mines and to the closing down of several smaller mines. The main producers were Noranda Mines whose Horne mine produced 25,968 tons of copper and Gaspé Copper at Murdochville producing 17,693 tons. Other Noranda-area producers in 1957 were Waite Amulet Mines Limited (9,939 tons), Lyndhurst Mining Company Limited (1,671 tons), Quemont Mining Corporation Limited (11,334 tons) and Normetal Mining Corporation Limited (8,168 tons). Producers in the Val d'Or area were East Sullivan Mines Limited (7,897 tons), Golden Manitou Mines Limited (2,788 tons), and Rainville Mines Limited (2,234 tons) which closed down in