

Background

After a long period during which Canada produced little or no iron ore, there is now in prospect an abundant supply for domestic use and a substantial surplus for export. Two iron mines in Ontario are each shipping about 1,000,000 tons annually, with prospects of greater output in the future. In the Labrador peninsula a new iron-ore field, one of the largest in the world, has been discovered and is expected to be in production within a few years. Meantime there has been added to Canadian supplies the long-established Wabana iron mines in Newfoundland.

In 1948 the Canadian iron mines together with those of Newfoundland produced 3,000,000 long tons of ore, and the furnaces used 4,000,000 tons. Most of the ore used in the furnaces was imported in order to provide the most advantageous mixture of ores, the larger part of the Canadian ore being exported. When the Labrador ore becomes available, it should be possible to provide more completely from Canadian mines the mixture of ores required by the furnaces.

Review of Producing Canadian Iron-Ore Mines

Steep Rock Mine.—The Steep Rock Mine, 150 miles west of Port Arthur, Ont., was discovered ten years ago by drilling beneath the waters of Steep Rock Lake. To exploit the ore the Seine River was diverted into a new channel, the lake was pumped out and a large amount of silt overlying the ore was removed. Two deposits of hematite, "A" and "B", have been definitely proven and others are suspected on the evidence of drilling. "B" deposit has been mined by open pit since 1945, and yields about 1,000,000 tons of high-grade ore a year, much in demand in the United States because it is so easily smelted. The deposit is vertical and the ore is likely to be mined to a great depth, first from the open pit and then from an underground mine.

"A" deposit is about double the size of "B". Preparations are now being made to remove the large amount of silt in the lake bottom on top of the ore. The open pit on "A" deposit is expected to yield 2,000,000 tons of high-grade ore a year, commencing in 1951.

Helen Mine.—The Helen Mine, northeast of Lake Superior and 110 miles north of Sault Ste. Marie, is owned by the Algoma Steel Corporation. The ore is siderite, the carbonate of iron, which is treated by burning with coke in a sintering machine to give a porous, high-grade material much in favour with blast-furnace operators. For the latest ten years the ore has been obtained from open cuts, but an underground mine has now been developed from which an increased supply will be drawn. The annual output of sinter to the end of 1948 has been about 500,000 tons. The sinter plant is being increased to a capacity of 1,000,000 tons a year, and the mine in proportion.

There are additional deposits of siderite in this area, some owned by the Algoma Steel Corporation and others leased to a United States firm, which are capable of augmenting the output of sinter well beyond the 1,000,000 tons a year now in prospect.

Wabana Mine.—The steel plant at Sydney, N.S., was established 45 years ago to make use of the abundant, cheaply mined ore of the Wabana mine on Bell Island in Conception Bay, not far from St. John's, Newfoundland. The ore is hematite, in beds that outcrop on the Island and extend far out under the bay. The seam is so wide that electrically operated shovels can be used to load the broken ore into mine cars from which it goes directly into steamships.