

Ore, similar in character to that at the Helen, occurs at a number of other points in the Michipicoten district; but the only other place where it has been found in workable quantity is at the Josephine mine. Here, some 850,000 tons of ore, a large part of which is said to be of Bessemer grade, averaging 59 per cent in iron, are said by the owners to have been proved up by diamond drilling. The deposit, however, has not yet been developed to the producing stage, though preparations for doing so were under way until interrupted by the outbreak of the European war.

Limonite, or brown ore, is also found in the Timiskaming district, on the Mattagami and Opasatika rivers, where it has been formed, apparently, by the oxidation of iron carbonate occurring in the Devonian limestones of the region. The ore is very variable in its composition, and on the whole, low grade. Little is known of the extent of the deposits, which are some distance from transportation.

*Hematite.*—In the vicinity of Loon lake, about 25 miles east of Port Arthur, red hematite is found in the Animikie rocks of the district. The deposits occur in certain beds in the formation, and appear to have considerable areal extent, but interlayered siliceous material renders them too low grade to be merchantable as mined. From the property of the Dominion Bessemer Ore Company there was shipped, in 1909, a small quantity of hand-sorted ore in two grades, No. 1 running 52 per cent iron, and No. 2, 40 per cent. Since 1909, all operations have ceased.

Red, and specular hematites of good grades are found in small quantities in the vicinity of Sault Ste. Marie; notably in the townships of Deroche, Aberdeen, and Aberdeen Additional. Between 1874 and 1878, small quantities of specular ore were shipped from the Stobie mine in Aberdeen township. From the Williams and Breitung mines in Deroche township, a few small shipments of specular ore of good grade were made to the Sault Ste. Marie smelter in 1905. All the deposits appear, however, to be of very limited extent, and no ore bodies large enough to be of commercial importance have so far been exposed.

Other localities in northwestern Ontario where hematite has been found are: Hunter's island, Steeprock lake, Bending lake, Lac Seul, Sutton Mill lakes, the Mattawin iron range, Gunflint lake, Dog lake, Black Sturgeon lake, Round lake, east of Lake Nipigon, Batchewana river and Groundhog river. The hematite in all these occurrences is found intimately associated with silica, and usually, magnetite in the banded iron formation; in none is the iron sufficiently concentrated to constitute commercial ore.

On a number of them, such as those at Hunter's island, Steeprock lake, Bending lake, Gunflint lake, and on a part of the Mattawin iron range near Shabaqua, a certain amount of diamond drilling has been done in unsuccessful attempts to locate ore bodies.