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MINING AND METALLURGY.

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THE MINING AND SMELTING OPERATIONS OF THE
INTERNATIONAL NICKEL COMPANY OF
CANADA, LIMITED.

WRITTEN BY THE STAFF.

GEOLOGY OF THE CREIGHTON MINE.

THIS introduction gives a sketch of the geology of the Creighton mine, which, at the present time, supplies all the ore for the International Nickel Company of Canada. A few facts regarding the history of the mine are included.

The mine is in the Sudbury district, Ontario, six miles west of Copper Cliff where the smelter and general offices of the Mining and Smelting Division are situated. Mining was begun in 1901 and production increased so rapidly that within a few years the Creighton mine was known as the greatest nickel deposit ever worked—and it still retains that distinction.

The earliest records date back to 1856, when a surveyor noticed a strong deflection of the needle where his line passed close by the Creighton deposit. The locality was examined during the same season by Alexander Murray, a colleague of Sir William Logan, who in 1843 had founded the Geological Survey of Canada. Murray reported an "immense mass of magnetic trap" which he found to contain "magnetic iron ore and magnetic iron pyrites generally disseminated through the rock, the former in small grains; titaniferous iron was found in association with the magnetic ore, and a small quantity of nickel and copper with the pyrites."

Murray's description evidently refers to the norite with disseminated sulphides and he probably did not see the gossan covering the orebody at the foot of the ridge. Twenty-seven years passed without further discoveries, but immediately after construction of the Canadian Pacific Railway in 1883, many finds were made throughout the district and within a few years practically every deposit exposed at the surface had been staked. The Creighton deposit was re-discovered in the fall of 1886, and in 1887 a patent was issued to the Canadian Copper Company, which had been incorporated in January of the previous year. When the Algoma Eastern Railway was