## The Moose Mountain Iron Range

Another Valuable Deposit of Ore in Northern Ontario the Development of Which will Tend Greatly to Increase the Iron and Steel Industry in Canada.

The largest deposit of iron ore in Canada, according to Professor Miller, of the Ontario Department of Mines, is that in the township of Hutton, 30 miles north of Sudbury, and known as the Moose Mountain iron range. It extends northwest from Lake Wahnapitae, in the District of Nipissing, to Lake Onaping, in the District of Algoma, a distance of 40

Mining operations have been carried on at Moose Mountain for about a year, and a considerable quantity of ore is ready for shipment. It is expected that a train-load a day will be sent out this season.

The surface of the ore body is 140 feet above the railway track, at what is known as No. 1 deposit. The ore is extracted by

The Ore Pile, Moose Mountain Mines, Showing the Ore Ready for the Smelter.

miles. Its existence has been known for some years, prospectors for gold on the Vermilion River having made portages across the ridge at a point known as the Iron Dam, where the wearing away of the moss by the feet of the portagers exposed the rock, but steps were not taken for its development till the Canadian Northern Railway undertook the construction of a branch line, which was completed in 1907, when active mining operations were commenced. This line, 35 miles in length, connects with the Canadian Pacific Railway near Sudbury, and will form part of the main line of the Canadian Northern between Toronto and Winnipeg. A branch of six miles will connect with the Keys, an excellent harbor with 24 feet of water beside the dock, on the Georgian Bay. The distance from Moose Mountain to the Keys is only 80 miles, a shorter distance than the Minnesota ores have to be hauled to reach Lake Superior.

The Moose Mountain iron deposits occur in rocks of Keewatin age, which is the oldest series known in that part of North America. The ore is a magnetite, and analysis shows it to be of very superior character. An essay given by Professor Coleman in the report of the Ontario Bureau of Mines for 1904 is as

The ore contains					more						metalic						iron	than	
Titanium													None.						
Sulphur.																			056
Phospho	rus.											٠			×				011
Iron													*					62.6	
mone.																			

the Lake Superior ores.

overhand stoping from an open face 60 feet to 70 feet high. It is trammed to a chute, discharging 30 feet below the bottom of the present stope into a No. 8 Austin gyratory crusher, which reduces it to a maximum size of five or six inches diameter. It then passes through a revolving screen with quarter inch perforations. The rejections

go to the foot of an elevator pit, the balance to a No. 5 Austin gyratory crusher, discharging into the buckets of a 52 foot centre belt elevator, which elevates it into loading bins, whence it is discharged through hoppers into the cars. The crushing plant is driven by a 16 inch by 42 inch Jenekes Corliss engine. Steam is supplied from two 150 h.p. return, tubular boilers.

Extensive preparations are being made at the Keys for the shipment of the ore. A trestle a mile long has been built, on which the ore-trains will run up. The ore will be dumped into pockets and transferred to a rubber belt-conveyor running through a tunnel cut in the rock, then elevated on another belt to a trestle 60 feet above the water, where it will be held ready to be shot into vessels. The capacity of the dock plant is \$8,000 tons per day of ten hours. It has been constructed under the superintendence of Mr. R. M. Pratt, who built the elevator and coal docks at Port Arthur on Lake Superior.

The ore will, in the meantime, be shipped to Cleveland and other United States ports. but it is in contemplation to establish a smelter at the east end of Toronto, Mr. D. D. Mann, on behalf of Moose Mountain. Limited, applied some months ago to the city council for 350 acres of the marsh at Ashbridge's Bay, which will be filled in and used as a site. The financial stringency of last fall prevented the project from being carried out at once, but when the money market becomes easier it will be proceeded with. It is intended to erect a smelter with a capacity for treating 1,400 tons of ore daily, and ultimately to establish a steel plant, rolling mills, steel plate works, steel car works and kindred industries, which, it is expected, will give employment to a force of 15,000 men and make Toronto the Pittsburg of Canada.

Moose Mountain was visited last year by the American Institute of Mining Engineers, on the occasion of their annual meeting at Toronto. Many of the members expressed themselves in no measured terms as to their appreciation of the valuable character of the deposit.—Canadian Life and Resources.



The Power and Crushing Plant, Open Pit and Ore Stock Pile, Moose Mountain Mines.