MOOSE MOUNTAIN IRON-BEARING DISTRICT, ONT.

INTRODUCTORY.

The Moose Mountain district, in Hutton township, Ont., has, during the last few years, attracted considerable attention, chiefly on account of its large deposits of low grade magnetite, and, with the purpose of ascertaining the extent and character of these deposits, the writer, in the spring of 1912, was instructed to examine the district, and to make a detailed magnetometric survey of the various ore deposits.

The following report is based on field-work carried out from the end of May to the end of September, 1912. During this time, an area of approximately three square miles was mapped in detail; and the boundaries of eleven ore groups were delimited by means of a magnetometric survey. In this work the writer was ably assisted by Messrs. W. M. Morrison, A. H. A. Robinson, and W. H. Davies.

Eight maps accompany this report; six showing the distribution of the vertical magnetic intensity; while two indicate the geology of the area. The observations of the magnetic intensities were taken with a Thalén Tiberg magnetometer, the distances between points of observation varying from 25 to 100 feet, depending on the local complication of the magnetic field. As the magnetic readings were taken with different instruments, the constants of which varied from 0·9H to 1·2H,[1] it was necessary, in order to plot these readings on the same map, to reduce them to values corresponding to those of an instrument with a constant 1. H. This reduction was made according to the following formula:—

$$\tan. V = k_n \tan. V_n$$

V = the angle which corresponds to the angle V_n for an instrument with a constant 1·O H.

[1] H = the horizontal component of the earth's magnetic field.