

# THE GEOLOGY OF STEEPROCK LAKE, ONT.

BY

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In the year 1891, Mr. H. L. Smyth published an interesting paper<sup>1</sup> on the geology of Steeprock lake, in which he classified the rocks there exposed into three principal groups:—

(1) The Basement Complex, consisting of granites and gneisses which typically are medium grained, hornblende and granitoid with faint foliation. Locally they present considerable variations in composition and very great variations in structure.

(2) The Steeprock series, showing a thickness of 5,000 feet.

(3) The Atikokan series, a succession of later granitoid porphyries and massive hornblende rocks.

The Steeprock series rests unconformably upon the basement complex, and is subdivided into nine formations, according to the following scheme, arranged in ascending sequence:—

- I. Conglomerate.
- II. Lower limestone.
- III. Ferruginous formation.
- IV. Interbedded crystalline traps.
- V. Upper calcareous green schist.
- VI. Upper conglomerate.
- VII. Greenstones and greenstone schists.
- VIII. Agglomerate.
- IX. Dark grey clay slate.

The sequence of these formations and their structural relations formed the chief subject matter of Mr. Smyth's paper, and the discussion of his third division, the Atikokan series, was deferred. The paper was not only interesting, but it was important from a general point of view as an announcement and description of a

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<sup>1</sup> Structural Geology of Steeprock lake, Ontario, Am. Jour. Sc. XLII, 1891.