blende porphyrites, diorites and green schists, which, although closely related to, and often ressembling the norite, are altogether barren of deposits of the valuable sulphide material. This resemblance is particularly striking when, as is frequently the case, both have undergone more or less pronounced metamorphism. It is, therefore, not surprising that in the first instance they were confounded and mapped together. Moreover, the presence of the norite as a distinct geological unit was not suspected until long after this first work was completed, the associated greenstones being considered as portions of the norite which had been metamorphosed by the intrusion of the younger granite masses. Even the Bureau of Mines' map of 1902, which should have furnished the latest information in regard to this area, made no attempt whatever either to correct the more glaring inaccuracies in the geological boundaries, or to trace out the important line of separation between the nickel bearing eruptive proper and the closely related, though barren greenstones.

In undertaking this new work it was felt that by confining operations as closely as possible to the area characterized by the presence of the sulphide bearing norite and other kindred eruptives a more accurate knowledge would be obtained of the mineralogical composition, structure and age relations of the various rock masses, while at the same time the boundaries between the several formations could be drawn with a much greater degree of precision.

Two map sheets have been prepared to accompany this report, called respectively the 'Victoria Mines' and 'Sudbury' maps, each on a scale of one mile to an inch. The former covers an area of 220 and the latter 210 square miles, making a total of 430 square miles. The principal new work on the Victoria mines map has been the outlining of the two smaller bands of norite south of the Canadian Pacific railway. One of these, crossing the southeast corner of Drury, extends completely across the southern part of the township of Denison. This band, which comes to an end east of the Vermilion river, contains the Worthington, Mitchener and Totten mines. The first mentioned of these mines is famous as having produced the richest nickel ore in the district. On the other band, which forms the prominent ridge to the south of McCharles and Simon lakes on the Whitefish Indian reserve, no deposit of any economic importance has been found. The boundaries of the intrusive mass of younger granite which extends across the northern and central parts of Graham township, and thence into Snider and Waters townships, have also been outlined with considerable care. It is to be regretted that time did not permit the separation of the norite and the older greenstones and schists, but the geological work done in 1901 was