

of Dungannon, Hastings county.⁽¹⁾ The mineral sodalite which so often occurs in this rock had been found in the district years before by prospectors. Dr. Adams and his associates outlined the occurrence of nepheline syenite in what were called three separate areas in the township of Dungannon and the adjoining township of Faraday, and an outcrop of the rock was also known in Glamorgan, to the west.⁽²⁾ It was not, however, till October, 1896, that corundum was first found in the district by Mr. Ferrier, and it was not till June or July, 1897, that this mineral was known to be associated in the district with nepheline syenite, which had previously attracted considerable attention on account of its comparatively rare occurrence in most parts of the world and on account of the size of the nepheline individuals and the high percentage of the mineral carried by the rock.

In 1890 Dr. A. P. Coleman published a very interesting paper on the character of some glacial boulders which he had found in the vicinity of Cobourg.⁽³⁾ Among these boulders were some which Dr. Coleman determined to be nepheline syenite. It was, therefore, known at that time that this rock occurred in place somewhere in the region to the north where it has since been found to be so widely distributed.

Although corundum is a mineral of considerable interest scientifically as well as economically, no discovery of it was reported in Canada after Sterry Hunt's discovery of it in the crystalline limestone of North Burgess in the later forties till Ferrier's find was made in the autumn of 1896.

After once having seen the corundum in the nepheline syenite of the township of Raglan, where this association was first found, it seemed to me likely that the mineral would be found to occur in the already known outcrops of the rock in Dungannon and the other two townships to which reference has been made. During 1897 time did not permit of a careful examination of these outcrops, but on the index map of the district published in my report⁽⁴⁾ for that year, I outlined these outcrops and stated that the mineral likely occurred in place in these townships. Work during the past season, 1898, has shown that my predictions were correct, as we found corundum in place at several points in Dungannon and in other townships to the west. Moreover we have found that the previously mentioned areas of nepheline syenite in Dungannon and Faraday are parts of what is practically one continuous band of these rocks, but which is in places very narrow, and, therefore, difficult to follow. We have also traced this band fifteen or twenty miles farther west, and have connected these outcrops with the belt worked out in 1897. The relations of these outcrops and the different parts of the belt which have now been connected are shown on the map which Mr. Blue has exhibited.

Since the work with which I was charged was intended to be primarily of an economic nature, and, therefore, more closely connected with prospecting than with geology proper, I have not paid any more attention to the general geology of the district than what was required to enable us to prospect intelligently for the mineral for which we were in search. Moreover, the working out of the general geology of the district is provided for by the Geological Survey of the Dominion, and it seems to me that the work of the Province should be in the nature of applying information supplied from this source and making use of it in the working out of problems which have a direct economic bearing. We already have a fair general knowledge of the geology of the Province in the districts penetrated by and surrounded by our railroads, but the discovery at this late day of an occurrence of a mineral of economic value over such a large area in one of what may be called the older mining and prospected districts shows the possibilities there are of finding other economic products in our well-known mineral districts.

(1) *Amr. Jr. Science*, 1894, and *Annual Report Geological Surv., Can.*, vol. vi. (N.S.)

(2) *Summary Report Geological Sur., Can.*, 1896, vol. 50 A.

(3) *Trans. Roy. Soc., Can.*, 1890.

(4) Part iii., 7th Report Bureau of Mines, Ontario.