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Microscopic Examinations of rocks. the microscope by far the most abundant constituent is a deep green, strongly trichroic hornblende. Its derivation from the pyroxene is likewise undoubted, as one side of the thin section shows cores and areas of the unaltered mineral still surviving. Plagioclase is present and much of it is unstriated. Scapolite is only sparingly represented if at all. Biotite is much more abundant, in larger individuals than in No. 9 and so also is sphene. Nearly all of the opaque mineral present is pyrite, but some is ilmenite. Epidote is also present.

Nos. 11, 12, 13 and 14. -Glendower Mine.-Lot 6, Concession III., Township of Bedford, Frontenac County.

The least altered representative hand specimen from the Glendower mine shows a rather coarse-grained, massive, dark coloured basic rock; a pale yellow mineral is very conspicuous, which on examination proves to be scapolite. Under the microscope the rock, (No. 13) is seen to be what may be called a 'plagioclase-scapolite-gabbro ;' a few individuals of the original plagioclase, occurring, for the most part in untwinned grains, still remain, but by far the larger proportion has been altered into what, in thin section, is colourless scapolite but which in the hand specimen is the yellowish mineral mentioned above in the macroscopic description. As mentioned by Adams and Lawson*, the polarization colours are usually very brilliant but sometimes pass through orange and yellow to the dull bluish-gray tints usually characteristic of the felspar so that it is impossible in every instance to distinguish between these two minerals. Occasionally, as noticed by Adams and Lawson, in their examination of the scapolite-diorite from near Arnprior, Ont., traces of polysynthetic lamellæ were observed in which the extinction though much less distinct, than in plagioclase resembled it otherwise very closely. The appearance is very suggestive of the derivation of the scapolite from plagioclase, and if this be the case the twinning structure of the latter is retained after the mineral has apparently been entirely changed to scapolite. Probably, however, in these cases the change may not be complete, and although the mineral has the characteristics of scapolite there may be sufficient plagioclase remaining in twinning position to cause the alternate oblique extinction observed. The index of refraction of the scapolite of the Glendower mine is, however, considerably higher than that of the accompanying plagioclase. The pyroxene has a somewhat faint though decided pleochroism, a yellowish, b greenish, c

*On Some Canadian Rocks Containing Scapolite. Can. Rec. of Science, vol. 111, page 19. Oct. 1888.

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