Microscopic Examinations of rocks.

more or less separated individuals, and are barely sufficient to characterize the rock. The ba'c schist is a very typical and fresh scapolite gabbro. The green pyroxene has a faint though quite distinct pleochroism, yellowish and greenish. It shows only incipient alteration to to deep-green hornblende. Sphene is present in irregular individuals. In spite of the evidence of intrusion of the syenite through the scapolite gabbro, and this comparatively sharp line of contact, it is possible that both may represent differentiated portions of the same magma. One strong evidence of this fact is the presence in both of the same green pleochroic pyroxene.

*No. 16d.—Ritchie Mine.—Lot 16, Concession VII., Township of Sherbrooke, Lanark County.*

The hand specimen shows a flesh-red well foliated, evidently highly felspathic, granitic rock. The foliation is marked by the occurrence of very narrow disconnected though closely parallel bands of a dark-green colour.

The thin section shows the rock to be an augite-syenite-gneiss. It is composed of orthoclase, microperthite, oligoclase and albite, with much smaller quantities of augite, biotite, hornblende, sphene, apatite and iron ore, part of which at least is ilmenite. Some of the individuals of augite are quite fresh but others are partially or completely altered to a dark-green compact strongly pleochroic hornblende.

*Nos. 17 and 18.—Robertsville Mine.—Lot 3, Concession IX., Township of Palmerston, Frontenac County.*

Specimens from which sections 17 and 18 were made vary from gray (17) to dark greenish-gray (18) according to the abundance of the ferromagnesian constituents. Small veins or dykes of a deep flesh-red mineral (cryptoperthite) are associated with a pale greenish-yellow mineral (epidote). Under the microscope in the section examined (No. 17) the rock seems to be a decomposed diorite composed essentially of plagioclase and hornblende. The plagioclase is sometimes rather fresh, but generally it is more or less turbid due to dust like inclusions in addition to various products of decomposition. The hornblende has a tendency towards the actinolitic habit and a considerable proportion is altered to chlorite. Apatite and sphene are both present in considerable quantity. Pyrite is rather abundant and several individuals of magnetite were noticed. One side of the slide shows a portion of