

by the molten diabase, probably mark an underground extension of this Lakefield area to the south.

Only a portion of the St. Jérôme area, situated as it is immediately at the edge of the Laurentian axis, is exposed to view. The southern part of it is covered up and concealed by the flat-lying Palaeozoic beds which come in a short distance to the south of the town. What proportion of the whole mass is represented by the portion exposed to view it is impossible to say.

It differs considerably from the other areas, in that the anorthosite composing it is not so typical in character, as well as in the fact that there intervenes between it and the gneiss a broad zone of rocks of intermediate character. The anorthosite, or gabbro as it should in this case more properly be called, is seen in its typical development on either side of the Canadian Pacific railway track a few hundred yards south of the station at St. Jérôme. The large exposures here are situated about the middle of the area, toward its southern limit as exposed. At this point the rock is fine-grained, weathers brownish-gray and usually has a foliated structure. In some places the structure is more or less distinctly banded, owing to the alternations of portions rather rich in bisilicates with others consisting almost entirely of plagioclase. Individuals of dark-coloured plagioclase, usually small in size but sometimes as much as six inches in length, are abundant in places. They are frequently seen to be curved or twisted and are usually without good crystalline outlines.

Under the microscope, this rock is seen to be composed essentially of plagioclase and pyroxene, the former largely preponderating, with hornblende, biotite, garnet, iron-ore, and pyrite, as accessory constituents, and a few grains of quartz, calcite, chlorite, and apatite. The pyroxene is light-green in colour and is for the most part augite, which is often decomposed to calcite and chlorite—some of it however is trichroic in red, yellow and green tints and is probably hypersthene. The hornblende, which is green in colour, and the biotite are present in but very small amount. The garnet, which is pink in colour, and perfectly isotropic, is often well crystallized and usually has some approximation to good crystalline form. It is generally associated with iron-ore but often occurs in little strings through the rock. The iron-ore is titaniferous, as shown by the leucoxene which frequently appears as its decomposition-product. The quartz, which is present in very small amount associated with the bisilicates, may also be secondary. The little strings, an inch or even less in thickness, consisting of orthoclase and quartz, which run through the rock sometimes parallel

Microscopical character.