

On the south side of Rainy river opposite Sec. 20, Tp. 5 S., R. XXVIII of the Canadian township survey, a dyke was observed having a width of from 150 to 200 feet and cutting hornblende schists with a north-northwest strike. No specimen was here obtained at the immediate contact, and in one a little removed from the contact the porphyritic structure was only represented by blebs of polysomatic augite imbedded in an ophitic base which approached in texture that of the specimens taken at four or six feet from the contact in other dykes. The ophitic structure prevailed in two other specimens, one taken at six feet from the contact and one from the middle. Quartz was observed in both of these but not in the first. The percentage of silica and specific gravity of the first and third specimens is as follows :

|                  | Near<br>Contact. | Middle. |
|------------------|------------------|---------|
| SiO <sub>2</sub> | 49.82            | 50.10   |
| Sp. g.           | 3.221            | 3.068   |

Series of specimens from several other dykes were also examined, but the limit of space will not permit of further detailed descriptions. Generally, however, it may be said that the porphyrite structure almost invariably characterizes the dyke rock at the contact and that this rapidly grades into an ophitic structure which in turn appears to grade very gradually into the granular structure. The latter, it must be said, is developed to the entire exclusion of the ophitic structure only in a few of the cases observed. The increasing proportion of quartz toward the middle of the dykes is a very constant character. In one dyke, namely that on the south side of Rainy river opposite the town of Fort Frances, well defined crystals of enstatite were observed in the rock at the contact as a porphyritic constituent while none of this mineral was observed in other parts of the dyke.