

The rhyolites have suffered especially little. Shear zones are rarely seen in them. On Fault lake they are sheared at the base of the Kiask series, where the Kiask conglomerate has slid over them during folding; and also along the fault zones to the north and south of Fault lake. Shearing converts the rhyolite into a sericitic schist.

The andesites and basalts are converted by shearing into chlorite schists, which in their most schistose forms are dark green, highly fissile rocks with glossy, micaceous cleavage surfaces. Schists of this type may be seen on Mistinikon lake along the faulted zone north of Bell island, near the gold deposits in Powell township, and in other places.

Time of Folding. The time at which the folding of the volcanics took place will be discussed more fully in the description of the Kiask series. The subject may be dismissed here, therefore, with the statement that the folding occurred after the deposition of the Kiask series, so far as the evidence at hand indicates.

External.

Relations to Older and Younger Formations. The basement volcanics are the oldest rocks of the region, as their name implies. They are overlain by the Kiask series of sediments with unconformity, as is shown by the occurrence of debris of all the volcanics in the Kiask rocks. The unconformity, which will be discussed more fully under the Kiask series, appears to be one of erosion mainly. No evidence has been obtained up to the present to indicate that the volcanics were folded before the Kiask series was laid down. They have been intruded by the great batholiths of granite, and large portions of them have been dissolved and digested during the process.

KIASK SERIES.

DISTRIBUTION.

The name Kiask series has been given by the writer to a series of sediments first found by McMillan¹ in Midlothian township, and called by him Timiskaming series. As, however, there is little lithological or other resemblance between these rocks and the Timiskaming series as described by Miller and Knight around Cobalt, Kirkland lake, etc., the writer considers it best to apply a local name until the stratigraphic relations shall have been fully worked out.

The largest area of Kiask sediments is found in the northern half of Midlothian and the southern half of Montrose townships. This area will be termed the Midlothian area; it includes about 16 square miles and extends from Niven's line on the west to the boundary of the Cobalt series in the eastern part of the township. On the east side of the belt of Cobalt series the Kiask series again outcrops, occupying the southwestern corner of Bannockburn township and passing over into Doon and Montrose. In this area, hereafter termed the Bannockburn area, there are about 10 square miles. Some small, isolated patches of local conglomerate are found in the neighbourhood of Rahn lake, evident outliers of the Bannockburn

¹"Geology of the area along the Timiskaming and Northern Ontario Railway trial line between Gowganda and Porcupine". Toronto, 1912.