position occupied now by the lake must have been originally the mouth of the torrential stream which carried down the sediments. As the heavy beds of conglomerate are on the south side of the Midlothian area, the stream would appear to have flowed from the south and the supposed range of mountains from which it brought the sediments would also, therefore, lie to the south.

Under this theory the Kiask series is a series of localized origin, since the materials which composed it must have come from the basin probably of a single large stream. If it is of the same age as any of the other ancient series of sediments found in northern Ontario, such as the Timiskaming of Kirkland Lake—a relation still unproved—the two need not have the same or a similar composition, but the composition will vary with the variations of the rocks in the different river basins.

MINERALIZATION.

As the Kiask series is probably older than the granite intrusives of the region, there appears to be no reason that it should not be mineralized in places. However, the writer has not observed any notable mineralization at any point, in fact the rocks are so massive and unaltered that at sight they create an unfavourable impression on the prospector's mind. The only tendency observed toward mineralization was on Elizabeth lake, where there are a number of veinlets of quartz. At some other places an impression of mineralization is given by the rusted appearance of the rocks, but upon examination this is seen to be due to the weathering of secondary iron carbonate.

AGE.

The Kiask series lies on the eroded surface of the rhyolites, the youngest rocks of the volcanic series, and is, therefore, younger than the rhyolites. As shown on page 32 this series is probably intruded by, and, therefore, older than, the granites. In the discussion of the age of the granites (page 33) it is shown that the Kiask series was folded, probably elevated to form a mountain range, and eroded to base level before the Cobalt series was deposited on it. The Kiask series is, therefore, very much older than the Cobalt series.

GRANITES.

Distribution.

Granite forms a considerable proportion of the rocks in the eastern part of Matachewan area, but only a small proportion in the western. A small mass is found near the centre of Hineks township, underlying a portion of the Cobalt band there. Dykes, probably offshoots from this mass, are found here and there to the southeast. Another mass of granite is found in the western part of Cleaver township, a third in the eastern part of McNeil near Whitefish lake, and a fourth crosses the Powell-Bannockburn boundary. In the eastern part of the area the condition is different. A