General direction.

From the foregoing list it will be observed that the general direction of the glacial striæ is to the south-westward, as it is elsewhere throughout the great Laurentian region between James' Bay, Lake Winnipeg and Lake Superior. In descending from the Laurentian plateau along the Attawapishkat River the course of the striation becomes more and more southerly, but on the horizontal limestones further down the stream it runs in various directions between west and south at the same localities.

Drift deposits.

The drift (principally boulder-clay) which overspreads the palæozoic basin westward of James' Bay appears to be a continuous sheet varying probably between thirty and ninety feet as far as can be judged by the sections along the rivers. Over the generally level surface of the Laurentian rocks further west, the thickness is more variable, but it seldom appears to exceed 100 feet, and it becomes thinner and more irregular as we rise higher and get further inland, and in these regions the fundamental rocks protrude themselves more frequently through it. It is of a looser and less clayey nature on the higher grounds than elsewhere, and consists largely of washed gravel and shingle.

Remarkable features.

Along the Attawapishkat, Albany and Kenogami Rivers, as well as on the west coast of James' Bay, the most remarkable feature in the composition of the drift is the abundance of pebbles and boulders of dark grey granular siliceous felsite or greywacké. It constitutes the greater number of the boulders and pebbles of the extensive reefs which have been referred to, between Akimiski Island and the west shore, and is abundant among the boulders of the coast between Rupert's House and Moose Factory. Well-rounded fragments of this rock are also found along the Moose and Missinaibi Rivers, and as far west as Lonely Lake, and southward to Lake Superior. It is characterized by round spots, from the size of a pea to that of a cricket ball or larger, of a lighter colour than the rest of the rock, which weather out into pits of the same form. Microscopic sections show that it is composed principally of small angular grains of felspar with others, somewhat rounded, of quartz, the interspaces being filled in with a dark green amorphous mineral. This rock occurs *in situ* on Long Island, off Cape Jones, on the east main coast, where it strikes south-westward or with the greater length of the island. The same rock, no doubt, continues under the sea for some distance in the direction of its strike. The abundance also of rounded pieces of hard, banded, siliceous hæmatite in the drift of both the Attawapishkat and Albany Rivers is another striking feature which was alluded to in reference to the latter in 1871. (Geól. Survey Report for 1871, page 112.)

Hæmatite in drift.

Composition of the drift.

After careful observations as to the nature of the drift along the rivers mentioned, the following appears to be about the relative abun-