APPENDIX No. 1

## EVIDENCE OF WILLIAM McINNES, M.A., GEOLOGIST, OF THE GEOLOG-ICAL SURVEY, GIVEN BEFORE THE SELECT COMMITTEE, FEBRU-ARY 20, 1907.

Mr. McInnes stated that he has been employed in the Geological Survey since 1883. The regions in the west with which he is familiar, first the district between the Saskatchewan and Split lake on the Nelson, a country which he was over last summer, and secondly, the region lying between the west coast of Hudson bay and the northern part of Ontario, Lake Nipegon and the Lake of the Woods.

The whole region from Split lake to a line of about 40 miles north of the Saskatchewan is a clay covered country.

The witness passed through this country, went by the Burntwood river and came back by part of the Grassy river, and made a number of excursions inland between these two rivers. After leaving Split lake, ascending the river, this clay-covered country shows absolutely no boulders and no gravel. Even the shores of the lakes, until you reach a height of about 800 feet, show no gravel bars at all.

There is absolutely nothing to interfere with the cultivation of the soil there. It is a country that has been burnt over. Witness assumed that the Burntwood river got its name that way. It has been subject to repeated burns. At the present time it is covered by a very open forest. Grasses grow fairly luxuriantly. There are two species of this, blue joint grass and a wild rye, that are the prevailing grasses. He understood, though he is not very familiar with those grasses himself, from Professor Macoun, that these are very excellent meadow grasses and make excellent fodder.

Mr. McInnes left Norway House in the second week of June and made the circuit and came out at the Pas on September 6, so it was June, July and August he was there. He saw grass growing from eighteen inches to two feet high.

The witness computed the area of this country at about 10,000 square miles. He does not-mean to say that all of that ten thousand square miles is good land, but the basin characterized by this deposit of clay has an area of about ten thousand square miles. It is bounded on the north by the Churchill river. The witness was at about the centre of the basin. The Indians told him it extended north to the basin of the Churchill river. Beyond that, northwards, instead of clay you get sand and gravel.

Starting at the Pas and proceeding towards Churchill the witness first passed through about 140 miles of country underlayed by the flat limestone of northern Manitoba. He walked for miles over hills of almost bare limestone with hardly any soil. Beyond that—that is above the contour he had spoken of where this clay was deposited, there is about 170 miles to Split lake, possibly in a straight line about as the railway is projected, that is characterized by these clay deposits.

## AS TO THE FLAT COUNTRY.

As to the flat country in Keewatin, beyond this clay area, it is a country of a different character. The witness proceeded from the Albany across country by the portage route to a large lake on the Agnooski river 100 miles, and then another 100 miles across to the Winisk lake and down the Winisk river to the sea, and he crossed through the country between Agnooski and the Winisk by three different routes, perhaps 40 or 50 miles east and west between each route, and the country is very much the same character. It is a country that is very much denuded; that is to say, the original archaic rocks have been worn down to almost a plane. The elevations are very moderate. The only elevations to be seen are of glacial origin. They are old boulders and gravel. The