blocks of limestone. All these boulders must have been carried from the parent rocks by a current flowing from the east. Two varieties of granite which occur among them, were recognised as forming abundant rocks at Fort Enterprise, which lies about 170 miles south-east from M'Tavish Bay. The soil in the vicinity of Fort Franklin is sandy or gravelly, and covers to the depth of one or two feet a bed of clay of unknown thickness. This clay continues firmly frozen during the greater portion of the year, and the thaw seldom penetrates more than a couple of feet into the surface of the earth.

Bear Lake River is about seventy miles long, from its origin in the lake till it falls into the Mackenzie, and its breadth is never less than 150 yards, except at the *rapid*. Sections made by the river generally present sand or clay, —the former probably proceeding from the disintegration of a friable gray sandstone, which occasionally shows itself in the more solid form. The walls of the rapid are about three miles long, and 120 feet high. They are composed of horizontal beds, the lower of which consist of an earthy-looking stone, intermediate between slate-clay and sandstone, having interiorly a dull yellowish-gray colour. These beds are separated by thin slaty layers, of a substance similar in appearance, but harder, which contain impressions of ferns, and from the debris at the bottom of the cliff Dr Richardson gathered impressions of the bark of a tree (lepidodendron) and some ammonites in a brown iron-shot sandstone. These are regarded by Mr Sowerby as of a new species. They contain sulphate of barytes, and are supposed to be referable to some of the oolites near the Oxford clay.

We may here notice the remarkable lignite formation of Mackenzie River. The formation which constitutes its banks consists of wood-coal in various states, alternating with beds of pipe-clay, potter's clay (occasionally bituminous), slate-clay, gravel, sand, and friable sandstones, and occasionally with porcelain-earth. These strata are usually horizontal, and as many as four beds of lignite are exposed in some places, of which the upper are above the highest river floods of present times. The lignite itself is pretty compact when recently detached; but it soon splits into rhomboidal pieces, separable into more or less delicate slaty portions. When burnt, it produces little smoke or flame, and leaves a brownish-red residuum,