

into an impure slaty limestone, dipping south angle 11° , crops out; and on the course of the river downwards at about a mile and a half below the steady, strong bands of bluish grey limestone strike across the river. This is succeeded at intervals by bluish grey slate, but at the lower falls, about two miles from the junction with the main Exploits River, the slates are interstratified with beds of diorite and here assume a hard flint nature approaching feldsites. These again are underlaid by fine conglomerates and sandstones in massive beds. Several large boulders of a very coarse conglomerate, not seen in place, are strewn along the bed of the river. They appeared to be very similar to a coarse conglomerate seen on the shores of the Bay of Exploits. These slates and associated limestones, sandstones, etc., are clearly of one geological horizon, and correspond so closely in lithological character with those of the Exploits valley proper, that there is little doubt of their being identical. The absence of organic remains anywhere amongst the rocks seen this season renders it difficult to establish their exact age, but there are good grounds for assuming the above supposition to be correct.

The few fossils found at the mouth of the Exploits on a former occasion, and the graptolites discovered in the black shales of Little Red Indian Fall on the Main River, (*Graptolithus Namonus*), were referred by Mr. Billings, late Palaeontologist of the Canadian Geological Survey, to indicate an horizon equivalent to the Utica Slate and Hudson River divisions of the Trenton series, at the top of the Lower Silurian formation, now known as the Cambro-Silurian. Further investigation of this region is likely to result in the discovery of other and better defined fossils, which will place the horizon beyond doubt, and probably, also lead to the discovery of other and higher measures, corresponding to the middle Silurian rocks of New World Island, and other parts of the great Bay of Notre Dame. The important bearing which the defining of these geological problems has upon the subject of the soils alone, may be gathered from the fact, that, nearly all the best agricultural tracts of the Upper St. Lawrence, and Lower Canadian provinces, are underlaid by the selfsame series of formations, the disintegration of which, has yielded the rich soils for which they are proverbial.