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## Shubenacadie.

Having thus described the Lower Carboniferous rocks, as they appear in some of the best sections near the Gulf of St. Lawrence, it may be interesting to compare their arrangement and lithological character with those of the Gypsiferous formations of the central part of the province, formerly supposed to be newer than the coalformation, but referred by Mr. Lyell, principally on the ground of its fossils, to the lower part of the Carboniferous system. rocks seen on the estuary of the Shubenacadie furnish a good specimen of these deposits for the purpose of comparison. The sections on this estuary show several extensive masses of stratified deposits, differing considerably in their mineral character, and separated by faults in such a manner that their true relations do Most of these masses consist of Red sandstones and not appear. marls, with beds of gypsum and limestone. These, when compared with the corresponding rocks in the Pictou and Antigonish sections, appear to differ only in their apparently greater mass, and especially in the thickness of the deposits of red sandstone and marl. The upper bed of gypsum on Right's River is succeeded by a level tract affording no section; and from the two sections, representing the outline of the surface near the gypsum of Ogden's lake and the East River, it will be seen that the present outline of the surface is caused by a great removal of the softer beds.

## SECTION VI.

Near Ogden's Lake, Antigonish (showing deaudation).



- c. Gypsum and limestone.b. Grey and soft red sandstones.
- u. Syenite and greenstone.

One of the most remarkable rocks on the banks of the Shubenacadie is a great bed of compact and laminated non-fossiliferous limestone, near the mouth of the estuary. This bed has its upper surface broken up into a kind of breecia, and supports a great thickness of soft red sandstone and conglomerate, with beds of gypsum. It is also traversed by fissures filled with hamatite and ores of manganese. It rests upon a great thickness of hard, brownish grits and shales, which appear in different places on the road from Shubenacadie to Truro. The horizontal red sandstone of Truro rests on the edges of these grits, which, near Truro, become either vertical or dip rapidly to the north-east, and perhaps also underlie some of the gypsiferous rocks of the Onslow hills. From a consideration of all these circumstances, it appears probable that these hard grits are the equivalents of the lower grits and conglomerates of Antigonish; and that the bed of limestone which

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