

The underlying rocks are sediments, mostly little disturbed, ranging in age from Cambrian to Devonian. The Cambrian rocks consist of sandstones derived by the weathering of the old Precambrian surface. The Ordovician, Silurian and Devonian rocks consist largely of limestones and shales deposited during inundations by the sea. Since the Devonian, the history of the region has been one of erosion. The region was overridden by the ice sheets of the Pleistocene. In general the rocks dip gently away from the Canadian Shield. In places they are broken by faults and in some places they are gently folded.

The Lowlands contain no coal nor metallic mineral deposits of importance. The chief mineral resources are natural gas, petroleum, salt and gypsum; limestone, dolomite, shale and other rocks are quarried for various uses.

The Canadian Shield.—The Canadian Shield includes a vast area comprising all the mainland of Canada to the east of the Interior Plains excepting the relatively small St. Lawrence, Appalachian and Acadian Regions. The northern shore line of Canada's mainland is markedly affected by the great and deep indentation of Hudson Bay which, receiving rivers running in from west, south and east, has an enormous drainage basin mainly in Manitoba, Ontario and Quebec. Practically all of this great basin, excepting the Nelson River drainage, is included in the Canadian Shield, the surface characteristic of which is hard rock either exposed or overlain with shallow soil generally confining agriculture to the valleys or small basins. With only small areas in northeastern Quebec rising above 2,000 feet in elevation, there are no great eminences, but the surface is generally accidented by many hills and hollows with countless numbers of lakes and streams. On its south and west sides, Hudson Bay is bordered by a strip of low land under 500 feet in elevation and varying in width from one to two hundred miles; in the southerly part of these flat, low lands the rock is overlain with a considerable depth of soil sometimes referred to as the clay belt of northern Ontario.

The rocks of the Shield are mainly of Precambrian age. They form a continental mass which in Precambrian time extended out in all directions beyond the present limits of the Shield. Many times during the succeeding Palæozoic and Mesozoic Eras the Shield was at least partly flooded by seas which advanced over it and later retreated. The sediments that accumulated in these seas were largely swept away by later erosion. During the Pleistocene or Glacial Period, the Shield was heavily glaciated by huge glaciers of continental extent. One of these sheets had its gathering ground west of Hudson Bay and another in the heart of Labrador. From these centres the ice moved out in all directions. In its advance it scoured off the residual soil, smoothed down the topography, polished and striated the rock surface and, by scattering debris irregularly over the surface, completely disorganized the drainage. The result was the formation of the numerous lakes which are everywhere so characteristic a feature of the region. On the retreat of the glaciers, large temporary lakes were left in front of ice and, in these, clay and other fine stratified deposits accumulated forming what are known as clay belts. The mineral resources of the Canadian Shield are of great variety and immense value. In 1939, the latest pre-war year, it produced 85 p.c. of the gold of Canada, 39 p.c. of the silver, 87 p.c. of the copper and all of the nickel, radium, platinum and cobalt. There are no deposits of coal or oil in the Precambrian rocks.

Interior Plains.—This Region of Canada is part of a great plains region in the interior of the North American continent stretching from the Gulf of Mexico to the Arctic Ocean. It comprises the area bordering on the mountain system to