

District
examined.

In the area north of the Ottawa river an examination was made of the district traversed by the North, Rouge, Nation, Lièvre and Gatineau rivers, and farther west, of the Black and Coulange rivers, extending to a distance north from the Ottawa of from fifty to one hundred miles. In connection with this, a large amount of exploratory work was done nearly twenty-five years ago by Mr. L. R. Ord, at that time attached to the staff of the Geological Survey, the results of which have never yet been published, but which will be found incorporated in the present report.

Former
reports on the
area.

Several previous reports have appeared on portions of the country, notably by Sir William Logan and Mr. H. G. Vennor. That of Sir William Logan will be found in the Report of Progress for the years 1853-54-55-56. A preliminary report on the area south of the Ottawa was published by Mr. A. Murray in 1852-53. Most of the results of this work will be found summarized in the Geology of Canada, 1863.

Reports by
Mr. Vennor.

Mr. Vennor's reports on the area will be found in the annual volume for 1873-74, which had a direct reference to the occurrence of plumbago and apatite in this district, and in that for 1876-77, which also embraced certain points relating to the structural relations of the several divisions of the crystalline rocks.

Much of the exploration of the area north of the Ottawa had, of necessity, to be conducted by means of canoes, owing to the unsettled character of large portions of the district. Nearer the Ottawa, the country is fairly well opened up by roads and settlements are numerous.

General
character of
the rocks.

The rocks north of the Ottawa are for the most part confined to the crystallines of the Grenville series and to the Fundamental Gneiss, now regarded as representing the older Laurentian. There are also large areas of granite and other intrusive rocks which are newer than the former divisions, since they distinctly cut all the members of the series.

Formations
along the
Ottawa river.

Along the Ottawa river itself, and in the area southward towards the St. Lawrence, the Palaeozoic formations have a wide development. They range from the base of the Potsdam sandstone to the top of the Ordovician or Cambro-Silurian system, with occasional outliers of the Medina to the south-east of Ottawa city. These formations are well exposed in the townships of Rigaud, Hawkesbury, L'Orignal, Caledonia, Alfred, Plantagenet, Clarence and Cumberland. Several outcrops of the Grenville series occur in this direction, notably in the township of Alfred, opposite the village of Montebello. At Rockland mills, near the river, there are also indications that the crystalline rocks are not far removed, since the lowest portion of the Potsdam is made up of large