

that characterized the work of the early geologists. In all this work keen interest was taken in the economic mineral possibilities of the country, and one of the earliest questions to be answered was the possibility of the occurrence in southern Ontario and Quebec of the coal-bearing system of rocks.

After Confederation, the work of the Survey was extended into the provinces of Nova Scotia and New Brunswick, and after the transfer of the Northwest Territories to the Dominion and the admission of the provinces of Manitoba, British Columbia and Prince Edward Island to the Confederation, the field of activities was greatly extended. Before the Survey lay a vast region about whose geographical features, natural resources and geology little or nothing was known. Its exploration alone must have appeared a stupendous task. Detailed and reconnaissance surveys of the older and more readily accessible parts of the country were made, and explorations into the remote and unknown parts were undertaken and continued for many years. Exploratory surveys extended into the prairies of the Northwest, down the main water courses to Hudson bay, down the Peace, Athabaska and Mackenzie rivers and into Yukon territory, along the streams and trails of British Columbia, and across the great peninsula now forming the northern and larger part of the province of Quebec.

With the rapid growth of the mineral industry during the last twenty-five years, the work of the Survey has become more intensively economic, though one should not attempt to draw fine distinctions between work that is purely scientific and work that is economic. This is particularly true with regard to the broad science of geology. What is apparently pure science one day may be of the greatest economic value the next. Close study is now made of known economic mineral deposits, with a view to ascertaining their mode of occurrence and arriving at conclusions that will be a guide in the search for new deposits. Areas underlain by geological formations that prove favourable to the occurrence of economic mineral deposits are mapped in detail and prospecting is thus directed along most satisfactory lines.

The value of such intensive geological work is recognized by the mining public, and the largest mining companies maintain a geologist or a staff of geologists for the solution of their individual problems. In this work, the government geologist can frequently be of assistance, and, given access to the various properties of a mining camp and to much private information, is frequently enabled to draw conclusions based on data not available to the geologist in private employ.

For the accurate expression of the geological features the need for contoured topographical maps as a base became imperative, and a topographical division with a corps of trained topographical engineers has in recent years become a part of the Geological Survey staff.

Advantage was taken very early in the history of the Survey of the opportunities afforded the field officers to collect representative specimens of rocks, minerals and fossils, and in this way a foundation for a museum was laid. Collections illustrating the fauna and flora and the aboriginal culture of the country were later made and biological and anthropological divisions were added. A chemical laboratory for museum work was installed early in the history of the Survey; laboratories for petrographical work, a map-making division, a photographic division and a library are also maintained. The work of the Geological Survey, in short, in assisting the further development of the mining and quarrying industries and in advising on the application of minerals and mineral products to new industries, is generally recognized as being among the more important of governmental activities.