

surveys. The types of reports issued by the Geological Survey comprise the following: memoirs with fairly complete descriptive accounts of the geology of particular areas and accompanied, as a rule, by geological maps; bulletins dealing with problems rather than areas; papers issued as soon as possible after the close of the field season, treating separately of each area and summarizing the information acquired; and, the Economic Geology Series reports, dealing in a comprehensive way with mineral deposits of a particular type. Coloured geological maps are issued on various scales from one inch to a few hundred feet to one inch to eight or more miles, the common standard scales being one inch to one mile and one inch to four miles. Preliminary blue-line prints, on which the geology is shown in pattern, are issued shortly after the field season ends of those areas where the search for metals or minerals is active.

Since its establishment in 1842, the Survey has mapped over 30 p.c. of the total area of Canada. In 1952, 78 parties were assigned to field work compared with 88 in 1951. The work undertaken in 1952 included the continued study of metalliferous and potentially metalliferous areas of Canada; the investigation of the Quebec-Labrador iron belt; the geological air reconnaissance of 100,000 sq. miles of territory lying west of Hudson Bay between latitudes 60° and 64°; the mapping of areas favourable to the accumulation of oil and gas in Western Canada and in Ontario; and the examination of occurrences of radioactive minerals, particularly in northern Saskatchewan.

The Regional Geology Division carries out geological surveys of the bedrock formations and associated ores and economic materials of Canada by means of annual programs of systematic investigations and geological mapping, mainly of areas that have been mapped topographically.

The Palæontology Division carries out palæontological and stratigraphical investigations and studies that are of great importance in geological mapping, interpretation of structures, and exploration for natural fuels and minerals.

The Mineralogy Division prepares and distributes mineral and rock collections for use of prospectors and educational institutions, organizes and maintains a systematic collection of minerals for reference and exchange, and identifies mineral specimens sent in by the public.

The Radioactivity Resources Division is concerned with the field and laboratory investigation of Canadian resources of radioactive raw materials, and maintains free testing and advisory services for uranium prospectors. As agent of the Atomic Energy Control Board, the Division receives the results of analyses for uranium and thorium and reports on the development of radioactive mineral deposits, which information is incorporated in a confidential inventory.

The Pleistocene and Engineering Geology Division is engaged in the study of the unconsolidated materials which mantle the bedrock throughout the greater part of Canada. The geological study of these materials is a prerequisite for many types of engineering and agricultural projects.

The Fuels Resources Division is engaged in the technical study and interpretation of rock cuttings from wells drilled for oil and natural gas with the view to directing exploration for these minerals to localities offering the greatest promise of production. The Division also investigates the geology of coal deposits as a basis for estimating Canada's coal reserves, and conducts research into the microscopic character of individual seams, thus providing information of aid in predicting the type of coal which may be expected in advance of actual workings.