Section 2.—Economic Geology of Canada, 1930.*

The purpose of this paper is to call attention to the most important reports and articles treating of the economic geology of Canada and published during 1930. The particular articles here referred to, although recently published, do not necessarily contain the best and most complete information on the subjects treated; for further information it is advisable to consult the Dominion and Provincial Departments of Mines. The reference numbers appearing through the text indicate the publishers as listed at the end of this paper.

Beryl.—Beryl in Manitoba was described by J. S. DeLury.[4] Pegmatites are found in bodies of schist between granite areas as well as in the margins of the granites themselves. In some pegmatites beryl is found closely associated with feldspar and quartz. Discussing DeLury's paper, Theo Kipp stated that beryllium in order to be used commercially must cost less than $5 per pound.

Coal.—B. R. MacKay made a report upon the stratigraphy and structure of the bituminous coal fields in the vicinity of Jasper Park, Alberta.[5] These deposits occur in the Luscar formation of the lower Cretaceous series which outcrops along the front of the Rocky mountains. The area examined extends from the Brazeau river northwesterly to Smoky River coal reserve. The deposits embrace the highest grade steam coal mined in Alberta.

W. S. Dyer described the geology, prospective mining methods and prospective fields of utility of the lignite deposit at Onakawana, Moose River basin, Ontario.[4,5] Upper Devonian dark brown and greenish-grey shales, lower Cretaceous or upper Jurassic dark grey to light grey plastic clay, lignite and Pleistocene clays and sands are found in the area. The lignite occurs as a single nearly flat-lying seam overlain by boulder clay and underlain by dark grey plastic clay.

Copper.—F. A. Kerr studied the Taku River[1] and Iskut River[1] areas, Cassiar District, British Columbia, situated at the eastern contact of the Coast Range batholith. Highly altered sediments, quartzites, slates, schists, gneiss, limestone and volcanics of Palæozoic (possibly Precambrian), Permian and Mesozoic ages occupy the areas. Replacement deposits consisting of tetrahedrite, chalcopyrite, sphalerite, galena, and other sulphides, carrying some gold and silver values, are found along shear zones in volcanics and limestone.

The mineral possibilities of northern Vancouver island[5] and the geology and mineral deposits of Quatsino-Nimpkish area, Vancouver island, British Columbia[1,5] were described by H. C. Gunning. Lavas and volcanic fragmentals, interbedded with limestone, argillite, and quartzite, are cut by numerous stocks, dykes and irregular bodies of granitic rocks, believed to be associated with the main Coast batholith. Later sandstone, shale and conglomerate occur. Contact metamorphic magnetite and copper associated with magnetite, gold-quartz veins, quartz-calcite veins with sulphides, lead-zinc replacement deposits in limestone, and bornite or native copper deposits in basic lavas were observed. According to Gunning the district offers splendid possibilities.

In the Heron Bay area, Thunder Bay District, Ontario,[4] J. E. Thompson found Precambrian volcanic schists intruded by numerous dykes of granite, feldspar porphyry and diabase. Pyrrhotite and chalcopyrite carrying nickel are found in shear zones in andesite, galena, pyrite and chalcopyrite in quartz veins in schistified greenstone, and a titaniferous magnetite as a segregation in augite-syenite.

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