

time been adduced with regard to the origin of the nickel-copper deposits and reaffirm their opinion that the sulphides in the main differentiated from the norite-micropegmatite sill by the action of gravity on an immiscible silicate-sulphide melt.

R. J. Watson examined the platinum bearing nickel-copper deposit of Lower Shebandowan lake,<sup>3</sup> Thunder Bay District, Ontario. Basic and acidic volcanics and sediments are intruded by two stages of granite. Intrusions of post-Timiskaming peridotite occur in the area. Some of the highly sheared peridotite is replaced by sulphides, calcite and dolomite. In this mineralized zone are found platinum-bearing nickel deposits.

**Coal.**—In the Report of the Scientific and Industrial Research Council of Alberta, R. I. Rutherford outlined the geology of the area between Athabaska and Lesser Slave lakes and the Peace hills, Alberta. LaBiche and Belly River beds of Upper Cretaceous age underlie the Athabaska-Lesser Slave Lake area. Upper Cretaceous and Lower Tertiary formations are found in the Peace hills. Notes upon coal, water supply, sand and gravel were made.

Brulé Mines coal area,<sup>1</sup> Alberta, was examined by B. R. MacKay, Bituminous and semi-bituminous coal seams totalling 26½ feet occur in intensely folded and faulted Lower Cretaceous measures. Commercial coal has only been found in the upper horizon.

Gordon L. Kidd submitted a few remarks upon the geology of the East Couléé coal area, Drumheller field,<sup>5</sup> Alberta.

A report upon the geology and economic deposits of Moose River basin<sup>3</sup> was made by W. S. Dyer. A succession from Precambrian, through Lower, Middle and Upper Devonian, Lower Cretaceous and Pleistocene is represented. Gypsum, lignite, peat, clay and shale are found in the area. Occurrences of sand, gravel and limestone are indicated and the possibilities of finding oil and gas are summarized.

The progress that has been made in delimiting the extent of and further tests that have been made upon lignite coals on the Abitibi river<sup>4</sup> were briefly outlined by A. R. R. Jones.

**Fireclay, Kaolin and Silica.**—W. G. Worcester described Saskatchewan clays<sup>5</sup> as regards classification of clays, geological age, and chemical and pyro-physical properties. Present developments of the White Mud clays are outlined.

R. J. Montgomery and R. J. Watson made a report upon the fireclay, kaolin and silica sand deposits of the Mattagami and Missinabi rivers,<sup>3</sup> Ontario. Sections and logs of test pits and holes and the results of extensive tests made upon the material of the deposits are given.

**Graphite.**—The graphite deposits of Louisa,<sup>7</sup> Wentworth Township, Argen-teuil Co., Quebec, were described by George W. Bain. The main deposits are located near the contact of the limestone and greywacke and are on the flanks or crests of minor crumples on the major anticlines which bring the crystalline limestone to the surface. The graphite is flaky, massive or radiating but never columnar.

**Gypsum and Salt.**—Salt and gypsum occurrences in Alberta<sup>5</sup> are outlined by J. A. Allan. These deposits are believed to be Silurian or Devonian in age.