

LEGEND

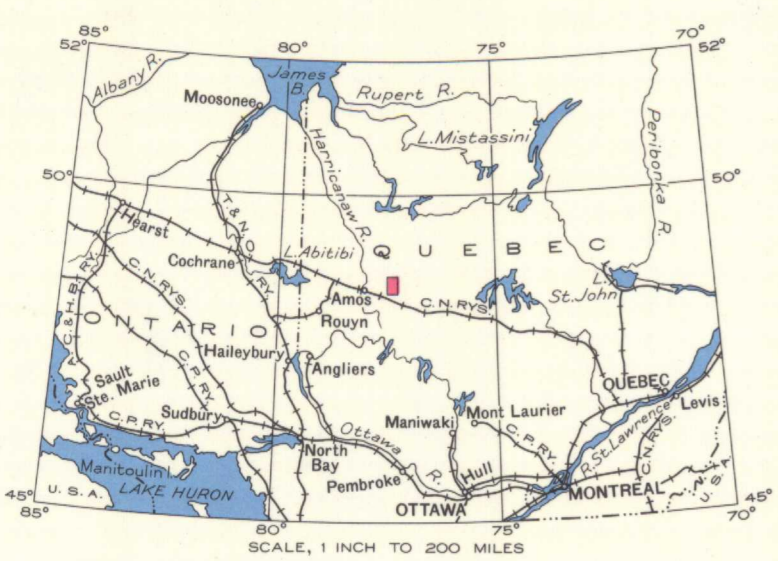
NOTE: Uncoloured areas are drift covered and in them bedrock outcrops are not known. Coloured areas are in part drift covered, the locations of known areas of outcrop are indicated by crosses 'x'; small outcrop 'x'.

- PROTEROZOIC (?) (LATE PRECAMBRIAN)**
- 6 Olivine gabbro
- POST-TIMISKAMING**
- 5 Granite, granite-gneiss; 5a, porphyritic granite
 - 4 Diorite, quartz diorite; 4a, sediments present
- ARCHEAN (EARLY PRECAMBRIAN)**
- KEEWATIN (?)**
- 3 Greywacke, conglomerate, argillite; 3a, dioritic bodies present
- KEEWATIN**
- 2 Tuff, breccia
 - 1 Andesite, basalt; 1a, chlorite schist, narrow bands of breccia and tuff
- Sand and gravel with some glacial drift

- Geological boundary (defined, approximate, assumed)
- Bedding (inclined, dip unknown)
- Prospect
- Road not well travelled
- Portage
- Post Office
- Township boundary
- Range number
- Lot number
- Stream (position approximate)
- Rapid and fall
- Marsh

Geology by L. J. Weeks, 1937.

Base-map compiled by the Topographical Survey, 1939, from aerial photographs taken by the Royal Canadian Air Force, and from information supplied by the Quebec Department of Lands and Forests. Cartography by the Drafting and Reproducing Division, 1939.



DESCRIPTIVE NOTES

The area is a plain of muskeg or clay, interrupted by scattered rock exposures, and by ridges of sand and gravel that rise about 50 feet above the plain.

The oldest known rocks in the area are volcanic rocks of supposed Kewatin age. Although usually considerably altered very rarely are their original volcanic textures and structures destroyed. In the intermediate and basic members of the group, (1), the ferro-magnesian minerals are largely, and often completely, altered to chlorite and iron oxides. Feldspars, while retaining their crystal form, and to a certain extent their twinning, are often so clouded with sericite and kaolin that their precise determination is impossible. On weathered surfaces, these rocks appear dark grey to greenish grey and usually show a slight trace of iron stain. On fresh surfaces the colour may vary from black for the more basaltic varieties to a greenish grey for the andesites. Grain varies from dense to 1 or 2 mm. in size. Basalts and andesites are characterized to a great extent by the presence of pillow structures. These occur usually on the upper surface of a flow. A study of the relationships of adjacent pillows will usually give an indication of the attitude of the beds, and many of the attitude determinations in the area were made by such means. The rocks outcropping along the line between ranges 5 and 6, Lamorandière township, are probably derived from intermediate and basic extrusives, with some tuff and breccia, but are more highly altered than are such rocks in other parts of this and adjacent map-areas. The rocks are mostly chlorite schist. Traces of what may have been pillows are observable, but if so, the pillows were unusually small, scarcely reaching a length of 1½ feet. Some narrow bands of breccia and fine tuff occur, the latter being for the most part water-sorted. In places replacement of the rocks by carbonates was observed, but this occurs on a very minor scale compared with carbonate replacements in Duvernay township. No exposures have been observed in this map-area of the more acid types of extrusive rocks. It is probable, however, that they exist, and that scarcity of rock outcrops has prevented their discovery.

Tuff and breccia (2) are usually highly altered. The finer tuffs are usually sericite schist, often with some carbonatization. Their original character can often only be determined if beds of fragmental material are included within them. The coarser breccias are recognized from the presence of angular clasts of varying size in a finer, often schistose matrix. These rocks weather to a very light grey or even dirty white. Where carbonatization has occurred, some limonite stain is present. Occasionally evidences of water sorting are found in the finer tuffs.

A group of sediments (3), cut on the east by granite, and bounded on the west by volcanic rocks, runs north and south in the eastern part of the area. Relationships of these rocks with the volcanic assemblage is not definitely known, owing mostly to scarcity of exposures, but there appears to be some divergence in the strikes of the two groups. The predominant rock type is greywacke. It is usually quite fine grained, the constituent grains not being distinguishable, dark grey and massive on a weathered surface. On fresh surface a faint colour banding is usually visible, and the colour is light grey with a siliceous sheen. Narrow bands of grey sandstone and argillite occur in the greywacke. These show wave-like banding, and occasionally cross-bedding. Bands of conglomerate with pebbles up to ½ inch long were noted, interbedded with greywacke.

In the southeastern part of the map-area, the sediments are intimately intruded by dioritic rocks (4), now considerably altered. The rock is massive and weathers to a dark brown or brownish black. The grain varies from dense to about 5 mm. in size, and dark minerals always predominate in amounts varying from about 80% to nearly 90%. Thin sections show the dark minerals to be entirely altered to chlorite and iron oxides, and the feldspars to sericite and kaolin. Areas occur in which the dioritic rocks and sediments exist in about equal amounts and in these areas the sediments and the intrusives show changes in composition in the vicinity of their contacts which in places makes it extremely difficult to determine to which group a given rock belongs. Recrystallized and dioritized sediments usually show traces of their original banding but otherwise may be indistinguishable from normal diorite. Often the contact between such sediments and normal diorite is gradational.

Granite (5), part of a body of considerable extent east of the map-area, intrudes the sediments and possibly the dioritic rocks in the east side of the map-area. The rock is essentially orthoclase and quartz with minor amounts of hornblende, biotite and plagioclase. The colour varies from dull pink to light grey. Although mostly massive, some phases show a distinct gneissic banding. The grain is usually less than 5 mm. in size.

The youngest consolidated rock in the area is olivine gabbro (6), forming a southeast trending dyke 300 feet wide about ½ mile north of the northeast corner of the map-area. It has not been found in place within the limits of the area, but is believed to traverse the region since a dyke of similar composition and striking in its general direction has been traced on the Duvernay map-area, east half. This rock weathers to a reddish buff. On a fresh surface it can usually be distinguished from other rocks in the area by its clean cut crystals of augite and plagioclase, and its general fresh appearance. The grain varies from dense, near the dyke margins, to about 3 mm., and occasionally more, at the dyke centers.

MINERAL DEPOSITS

Mineral claims were staked in Montguy township in 1936. Electrical and magnetometric surveys were carried out on two properties in 1937.

The showing on lots 5 and 6, on range line 5 and 6, Montguy township, is a mineralized shear zone in greywacke and parallels the strike of the banded greywacke. The deposit is reported to carry silver, gold and zinc. A showing on the Montguy-Carpentier township line in range 6, is very much like this, and although they are not in alignment, yet they may be continuations of the same shear zone with an intervening fault or crumple.

MAP 553A
ROCHEBAUCOURT
ABITIBI COUNTY
QUEBEC
Scale, 63,360 or 1 inch to 1 Mile
Approximate magnetic declination, 15°30' West.

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