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ADVANCE REPORT OF A GEOLOGICAL EXPLORATION IN THE REGION OF THE SOURCES OF THE MEGISCANE RIVER

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ADVANCE REPORT

of a

GEOLOGICAL EXPLORATION

IN THE REGION OF THE SOURCES OF THE MEGISCANE RIVER

by

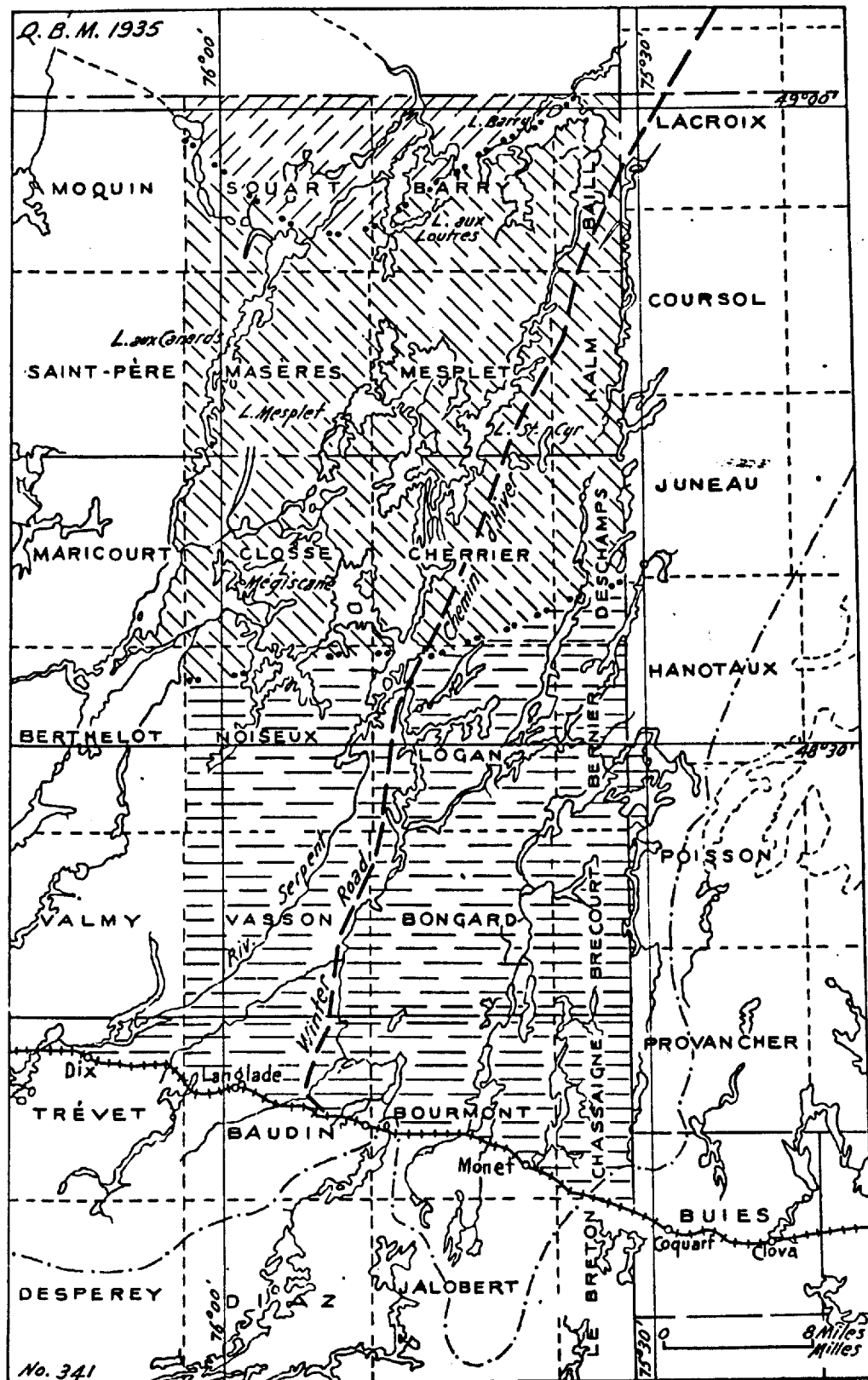
Carl Faessler

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Mégiscane River Headwaters Area

Région des sources de la rivière Mégiscane

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OF THE MEGISCANE RIVER

by

Carl Faessler

The explored region is comprised between longitudes $75^{\circ}-30'$ and 76° and the north parallels of latitude of $48^{\circ} 15'$ and 49° . It is bounded on the south by the Quebec-Cochrane Canadian National Railway line between the stations of Coquar and Dix; included in the map are the stations of Monet, at 309 miles from Quebec, Bourmont, Rouleau Siding and Langlade. On the east the map of the region is bounded by the "Third Meridian", which is surveyed and marked on the ground; it passes at about a mile to the west of the meridian $75^{\circ} 30'$. The western limit is constituted by the projected lines bordering, on the west, the townships of Baudin, Vasson, Noiseux, Closse, Masères and Souart. Towards the north the map is limited by the north line of the townships of Souart, Barry and Bailly which is established and well indicated on the ground.

The total area of the explored region is about 1300 square miles.

The region is at the height of land between the Hudson Bay and St. Lawrence basins. Monet Station is at an altitude of 1454 feet above sea level. Several tributaries of the Ottawa and Gatineau rivers take their rise immediately to the south of the railway line; immediately to the east of the region is the "Gouin Dam", situated at the head of the St. Maurice river. The two large lakes, Barry and aux Loutres, which are close together in the north part of the map, discharge respectively in opposite directions, the first towards the north in the Waswanipi river, and the second towards the south, across the studied region, in the Megiscane river; illustrating in that striking manner their situation at the height of land. These two lakes are at an altitude of about 1000 feet above sea level.

The topography of the region has the characteristics of the height of land between Hudson Bay and the St. Lawrence; the retreating glacier has here left enormous quantities of rolled material, disposed in eskers running in the direction of the outflow of the glacier. Between two parallel rows of eskers the water is often retained by terminal moraines, which have given rise to the chief characteristic of the region: hills running N.E. and S.W., in parallel series and between these hills a very great number of lakes, with their length in the same direction. The rivers follow,

in general, depressions between two rows of eskers. The whole hydrographic system of the region is of this nature, almost entirely determined by these superficial glacial deposits. It is rarely that one of these hills is composed of rock; however, outcrops are numerous on the shores of the lakes and along the rivers.

Geologically the region may be divided in three distinct parts:-

The north part consists of Keewatin rocks,

The south part of rocks of the Grenville series,

The part between the two consists of granites.

The contact between the Keewatin and the granite is well defined; it is a typical intrusive contact, with lit-par-lit injections; the contact zone is only a few feet wide. The preponderating rock is a compact enough basalt. There are also acid lavas of the composition of dacite and trachyte; rhyolite is rare. At the Lake aux Loutres claims have been staked by J. Brawley, cert. No. 8415; M. Brawley, cert. No. 8416; M.P. Wright, cert. No. 391, and Ed. Dean, cert. No. 8509. This latter did not take claims in his own name, but only in the name of J. Brawley. These claims were staked in May and June 1935, and practically no work had been done on them at the time of our visit.

The granitic area consists essentially of micaceous gneiss.

The contact between the gneiss and the rocks of the Grenville series is very poorly defined; the passage from Grenville paragneiss to granitic gneiss is a continuous transition. The line of demarcation which we have put on the map was traced by joining the points where the garnets had completely disappeared. Between the two formations, therefore, there is a wide zone of contact, the typical rock of which is a banded gneiss rich in hornblende and plagioclase, the garnet is present or absent; often the plagioclase predominates in a way to give rise to true anorthosites.

As we approach the railway line the garnet increases, and in the typical Grenville region the predominating rock is a banded paragneiss, very rich in garnet, which contains in places the mineral cyanite, characteristic of metamorphic rocks of sedimentary origin.

As regards mineralization the zone of contact between gneiss and paragneiss is perhaps the most interesting; in that zone the dykes of pegmatite are numerous and often several dozen feet wide, and it is pure vitreous quartz which predominates. In places these dykes contain magnetite; I was unable to detect the presence of radioactive substances.

The economic interest of the zone of Keewatin rocks does not appear very great judging from the absence of younger intrusions.

We found a slight pyritisation in the green rocks at the Lake aux Loutres and noted the presence of tourmaline in an outcrop in the vicinity.

In an outcrop of a rather porphyritic rock from the end of the Lake aux Loutres, at about three miles south of the contact with the Keewatin, we note the presence of a little molybdenite.

For agriculture the region presents no interest; it is entirely outside of the clay-belt of Lake Ojibway. The soil is composed solely of glacial deposits, a mixture of sand and rounded pebbles and boulders, often of considerable size.

Certain areas along the Aigle and St. Cyr rivers were burned some twenty years ago and have now a new growth of birch and poplar; but the greater part of the region is covered with conifers; spruce, however, is very rare.

Moose abound; trout are probably entirely absent. Large pike are found in all the lakes, as well as pickerel and white fish.

Accessibility of the region

Owing to the great number of lakes and navigable rivers the region is easily reached from the railway line. As to the accessibility and water routes the region may be divided into two parts: the part south of the Megiscane river on the one hand, and that to the north between the railway line and that river. All the tributaries of the Megiscane are of rapid water, running towards the north with long and numerous rapids. But, once the Megiscane is reached, one may continue northward on the calm waters of the St. Cyr and Macho rivers up to the northern boundaries of the present map. To reach the slow waters of the Megiscane river there are, in the area of the map, four routes available, as enumerated below:-

1. - Monet river, starting from Monet station - this river is small, the rapids are many but most of them may be run.

2. - Susie river, starting from Lake Lacoursière, four miles west of Monet - this river is a little larger than the Monet, and it traverses several lakes; there are also several rapids and chutes and it is preferable to the Monet river.

3. - Kekek river, starting at a mile west of the Rouleau Siding station - this river is larger than the Susie river, the rapids are numerous and dangerous and if one wishes to avoid them there are many portages to be made. There is no lake on this river, but it reaches the calm waters of the Megiscane river at the point where they are nearest to the railway line. That distance, in direct line, is about 13 miles.

4. - Serpent river, starting at a mile west of the station at Dix where one enters Racine lake to cross from there to the

Longpré, Serpent and Corbeau lakes. Once past this lake there are hardly any more rapids in this river up to Kenusio lake, on the Megiscane river, a distance of about 17 miles. The route of the Serpent river is the easiest to reach the dead waters of the Megiscane river, but it has one great drawback, the Serpent river is excessively long and fatiguing on account of its innumerable meanders.

The lakes and rivers of the region are treacherous; on account of the abundance of glacial moraines one may strike rock right in the middle of a lake or river. A motor with short driving shaft is much preferable to a long one for this reason.

