

and south of that part of the district shown on the map, and forms the shore of Lake Temiscaming. It is determined by Prof. Miller to be unconformably above the Lower Huronian.

#### The Diabase.

These large intrusive masses vary from diorite to gabbro and diabase in composition. The rock is usually a diabase, and is so called in the legend on the map. Its age is indeterminate; it can only be said that it is earlier than the Niagara limestone, and later than the Middle Huronian. From analogy with the Lake Superior country, Prof. Miller states that it is probably Keweenawian.

The Niagara limestone occurs to the north and east of the district, overlying all other rocks. This formation is apparently later than the ore bodies, and so is of no interest in relation to them.

veins composed of single sheets of solid silver are also extensively found. These very rich ores are found only in spots, but as a whole the ore shows up very well. Carloads of 18 and 20 tons have, in numbers of cases, realized about \$50,000.

The product of the first quarter year, ending March 31st, 1905, during which shipments were made, was 354.05 tons of ore valued at \$293,552; an average of \$829 a ton. The average percentage of the metals in the ore was as follows:

Silver .....	4.802%
Cobalt .....	8.264%
Nickel .....	4.739%
Arsenic .....	34.606%

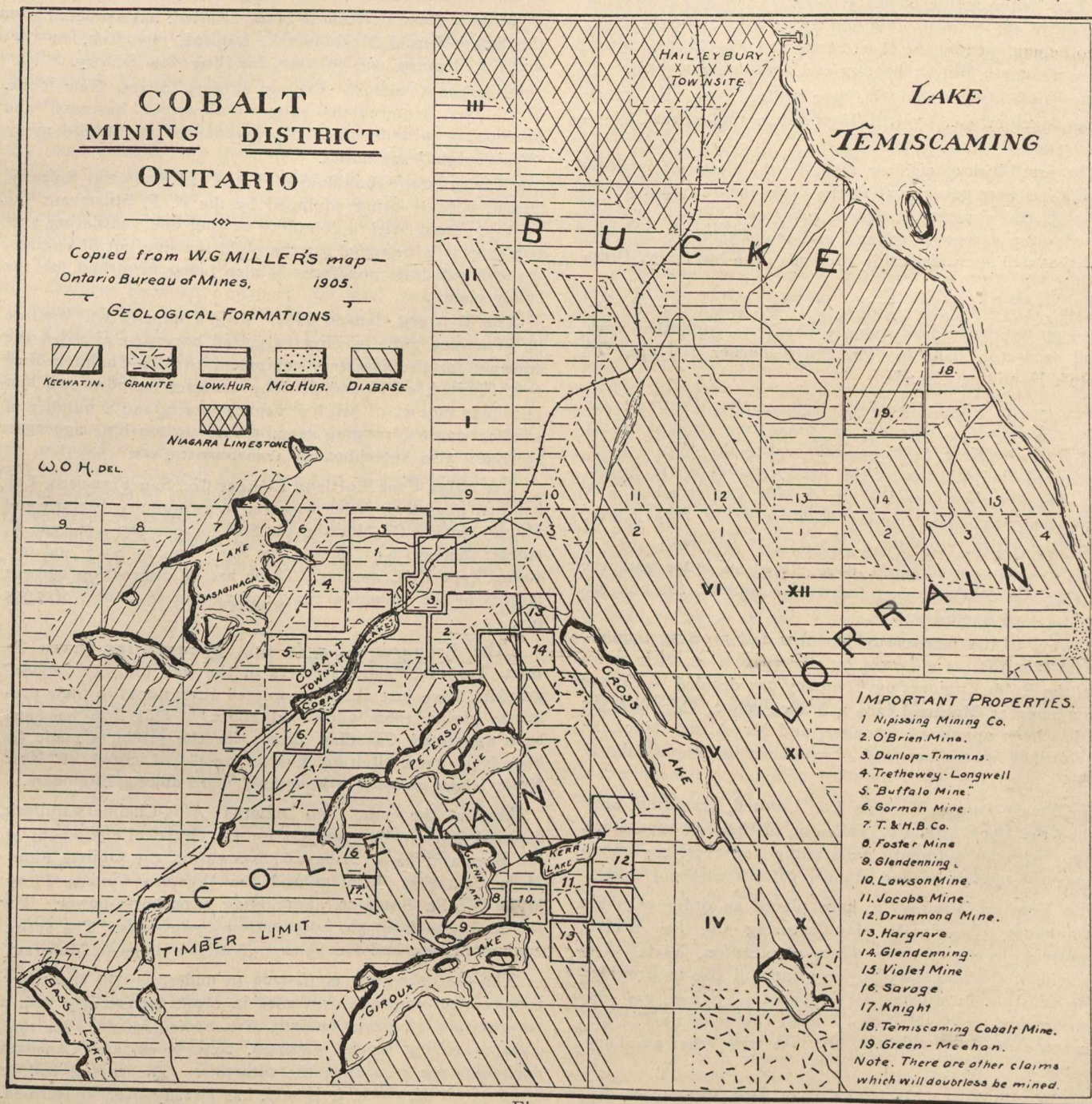


Fig. 2.

Glacial drift is present over all the area, and constitutes a formidable obstacle in prospecting.

The ore bodies or veins almost without exception lie in fissures.

Up to the present time the mining of the ore has been conducted by primitive methods, since all the workings are shallow, and with two or three exceptions, are worked with hand drills. The removal of waste rock is facilitated by the presence of joints not over 3 or 4 feet from the vein, which furnish admirable backing to brake to in blasting. Power plants are being erected by most of the larger producers.

The richness of the ores is phenomenal. It is quite common to find ten-inch veins largely composed of native silver, parts of which can be broken up with some difficulty into pieces small enough to bag; and in some parts half-inch

During the second quarter, from March 31st, to June 30th, 1905, the shipments were 537 tons, valued at \$394,552, an average of \$734 a ton. The average percentage of the metal in the ore for this quarter was:

Silver .....	4.158%
Cobalt .....	6.890%
Nickel .....	3.091%
Arsenic .....	30.912%

Cobalt is used chiefly as a coloring matter, especially in the manufacture of blue glass. It sells for about \$3 per pound.

At the invitation of the club, a number of delegates to the Mining Conference then being held in Toronto, were present to hear Prof. Miller's lecture, and many were the expressions of appreciation.