

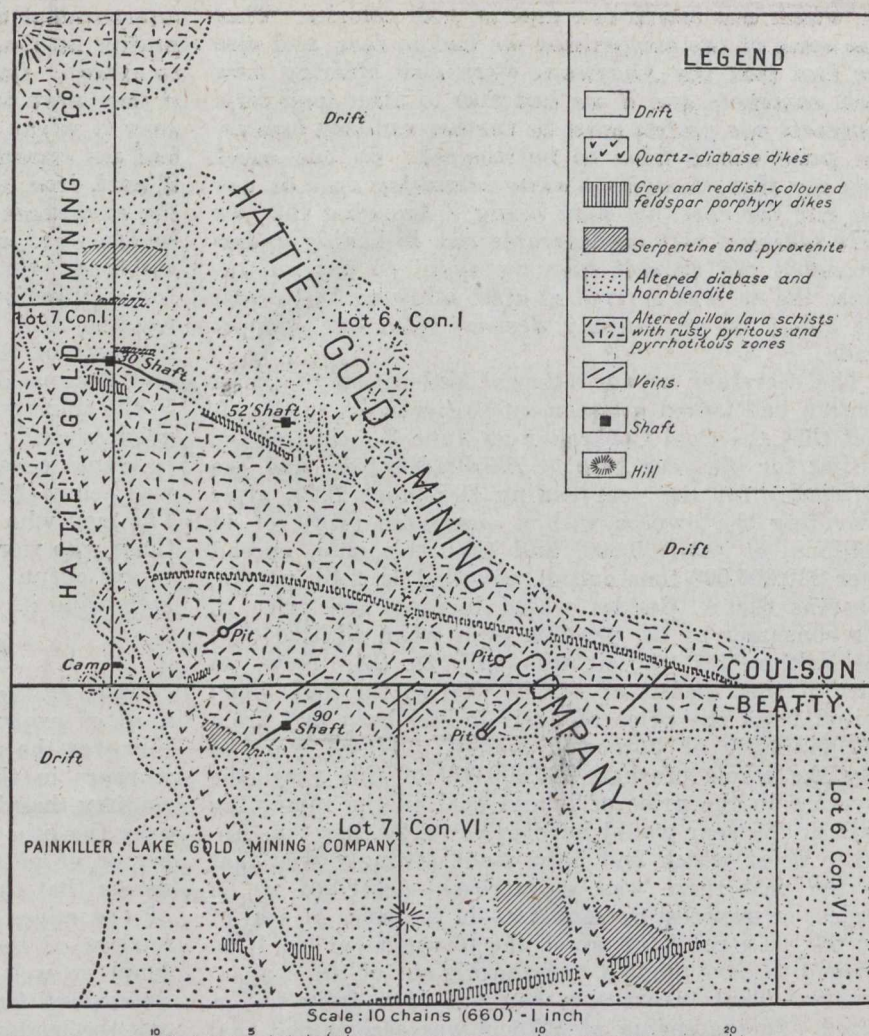
GEOLOGY OF PAINKILLER LAKE AREA

A part of the Painkiller Lake area has been mapped in detail by the geologists of the Ontario Bureau of Mines. The accompanying sketch map from a report just published shows the properties of the Hattie and Painkiller Lake gold mining companies and will be of use as a key map for adjoining properties.

The veins occur in altered volcanic rocks. The numerous narrow gold-telluride-quartz veins in the area are practically all parallel, striking north-east. "The veins, which are usually about one inch in width, are not always closely spaced, and the intervening area contains few or no cross fissures.

The minerals are gold, tellurides, pyrite, chalcopyrite, pyrrhotite, galena, zinc-blende, quartz, chlorite, sericite and calcite. Large east and west veins of mispickel, pyrite and quartz carrying low values in gold represent another type of vein."

The Painkiller lake area is in Coulsin and Beatty townships, Temiskaming, Ontario. The lake is about ten miles northeast of Matheson, a town of the Ontario Government railway.



Geological sketch map showing properties of the Hattie and Painkiller Lake gold mining companies, townships of Coulsin and Beatty.—Bureau of Mines.

DR. COOKE'S REPORT ON DAVIDSON PROPERTY MATACHEWAN AREA.

(A Correction.)

In our July 16th number we published a resume of an article by H. C. Cooke on the Matatchewan Gold Area. Unfortunately some paragraphs were omitted and the description of the Matatchewan Gold Mines property came under a heading intended for the description of the Davidson property. The sketch maps which accompanied the article and the introductory paragraphs made it obvious that the property being described was the Otisse; but some newspapers reproduced the article without the maps and introductory paragraphs and consequently the incorrect heading was then more misleading. Dr. Cooke said of the Davidson deposit in part:

"On the Davidson claim the ore body is a portion of the porphyry itself. The porphyry is cut by a multitude of veinlets of auriferous quartz mostly less than one quarter inch in thickness, and spaced at intervals of approximately a foot. The porphyry has thus the character of a stockwork, although the veins in the main are not reticulating, but possess a sub-parallel arrangement evidently the result of jointing according to a definite system. Such jointing and enrichment has taken place mainly in the coarser-grained, more slowly crystallized phases, located, in

general, toward the centre of the intrusive. Where the grain is finer, jointing and enrichment has not occurred. The hypothesis advanced by Spurr, that the last portions of a magma to crystallize are rich in water, and hence must contract considerably on cooling with formation of joint cracks, may be the explanation of this phenomenon.

"Channel samples taken along the bottoms of trenches in the enriched areas by the engineers examining the property are said to have yielded values varying from \$5 to \$25 per ton.

"The gold appears to be chiefly present as the native metal, although it is difficult to tell whether this was its original form, as development has not gone below the oxidized zone. However the lack of limonite around many of the grains of gold would indicate that it is not residual from the oxidation of pyrite. Whether the pyrite also is auriferous has not yet been established. The gold is found principally in the narrow veins of quartz that intersect the porphyry, but grains of gold have been occasionally found within the porphyry itself, although never more than a few inches from a veinlet."