

concomitant his report. Since the year 1899 and 1900, when the field work for this report and map was performed, conditions pertaining to placer mining have not materially altered, the geology of the gravels there is fairly well understood, but development has been more rapid in the case of the other mineral deposits of the district. Accordingly the writer was instructed by the Director of the Geological Survey to make an examination of the more important mineral deposits other than those of placer gold, in Atlin district, and, in addition, to make a topographical and geological survey of a belt including Taku arm from the 60th parallel south past the head of this water, thus including the greater number of the more recently located quartz properties; the following report is the result of this work which was performed during the summer of 1910.

The writer desires to express his sincere thanks for the hearty support received by his party and himself from all those interested in mining in the district with whom they came in contact. Particularly is the writer indebted to Mr. J. A. Fraser, Gold Commissioner; Mr. J. Cartmel, Mining Recorder; and Captain James Alexander, Mr. B. G. Nicol, and Mr. J. Dunham, owners of the Engineer Mines, for assistance rendered and for courtesy extended during the summer.

In the performance of the work a small gasoline launch and two canoes were used for transportation on Taku arm and Atlin lake, and as these waters are subject to frequent and very sudden storms of considerable violence, the gasoline launch not only facilitated the work in that the party was able to travel faster with it than with canoes, but work was made possible on a considerable number of days when, owing to stormy weather, it would have been impossible with canoes. A suitable launch also obviated much of the danger attached to this work as such a boat is comparatively safe in any of the sudden storms that occur, some of which, in four or five minutes, become very dangerous for ordinary canoes. One of the canoes used was fitted with air-compartments along the sides and was found to be much better adapted to the work than ordinary canoes which are not safe and should not be employed in work of this description on these lakes.