

silicified and altered zone varies from a few inches to 6 feet. The mineralization is irregular and consists mostly of iron with some arsenical pyrites. Small quantities of galena and chalcopyrite are also present in places. The pyrite carries significant gold and small silver values. A coarse-grained variety yielded \$8 in gold and \$1.38 in silver per ton, and better returns have been obtained from selected samples.

The upper lead has a width of over 10 feet and carries considerable galena. It has not been traced out.

The workings in 1910 consisted of a short cross-cut tunnel into the footwall of the upper lead. In 1911 a cross-cut tunnel intended to intercept the two upper leads was driven in for a distance of 100 feet. The upper lead was not reached on account of a flow of water. The centre lead, where cut, is reported by the owners to have a width of 4 feet and to carry values of \$15 per ton in gold and silver.

Roosevelt.

The Roosevelt is situated on the north fork of Bitter creek near the bottom of the valley, about a mile above its junction with the main stream. The Bitter Creek argillites, which form the country rock in the vicinity, are cut and disturbed by numerous dykes referable to three periods. The oldest set is much altered, and consists of greenstones, probably of the same age as the intrusive area at the head of Glacier creek. These are cut by large greyish dioritic dykes, and also by the later set of brownish weathering dioritic dykes.

The main lead occurs below one of the greenstone dykes and has been followed by a drift for a distance of 70 feet. It consists of 5 feet of broken and silicified country rock, carrying some pyrite and chalcopyrite. The mineralization diminishes towards the end of the drift. A small lens of good chalcopyrite ore has also been uncovered above the dyke. A good trail to the claim was built in 1910 and a bunk house erected, but little mining work was done.

Bitter Creek Mining Company.

This Company owns a group of thirteen claims situated along a small stream which enters Bitter creek from the north, immediately below the North fork. Some work has been done on the Cupron and Swede-American No. 14. The latter is situated above the timber line, at an elevation of about 4,000 feet above the sea. A lead about 12 feet wide occurs on it. This when examined in 1910 had been drifted for a distance of 45 feet. It consisted of crushed and broken argillites, often