## GEOLOGICAL SURVEY

6 GEORGE V, A. 1916

Sample No.	Gold			Silver		
	Ozs. per	ton	Value per ton	Ozs. per ton	Value per ton	gold and silver
1 2 3	0.25 0.11 1.51		\$5.00 2.20 30.20	0 · 7.5 1 · 99 15 · 74	\$0.37 0.99 7.87	\$5.37 3.19 38.07

On Mt. Stevens as well as on Wheaton mountain, a number of claims are still held, but practically no development work has been performed since 1909, except the relatively small amount required by law to hold the properties, and several claims have been crown granted. On the Buffalo Hump group1 on Mt. Stevens, several tons of rich quartz were at one time discovered, which contained galena, native gold, and sylvanite. This quartz was at first thought by the owners to be in place, but subsequent development work showed it to be transported. Since this quartz occurred in such quantity near the summit of the mountain, and showed no evidence of having been moved any considerable distance, it would seem most probable that it would be found in place somewhere on Mt. Stevens. Other smaller pieces of rich quartz have also been discovered at other points on the mountain. An adit was driven 90 feet into the hill underneath the rich quartz, and some 30 feet of crosscuts or drifts were driven from the adit, in the hope of finding the vein from which the gold-telluride quartz was derived; but, apparently, no more of the rich ore was encountered. It has been claimed though, that a galena-bearing vein was crosscut by the adit; on each occasion when this property was visited by the writer, however, the adit was filled with ice and could not be examined. In addition to this work and a 20-foot shaft on the McDonald fraction on Wheaton mountain, the only development work that has been performed on Mt. Stevens and Wheaton mountain consists of a number of open-cuts, trenches, and shallow pits. All the veins that have been discovered seem to carry very low average values. Possibly the most promising vein on Wheaton mountain is that exposed on the McDonald fraction.<sup>2</sup> This vein was fairly well exposed in an open-cut and several average samples were taken from it. Approximate average samples were also taken from the dump at the 20-foot shaft on this claim. These samples all assayed less than \$1 per ton in combined gold and silver.

The thickest, most persistent, and apparently the best mineralized vein exposed on the Buffalo Hump group, occurs on the Sunrise claim. This vein occurs in a fissure in the Coast Range granitic rocks, strikes south 45 degrees east, and dips at angles of 20 degrees to 35 degrees to the northeast. It is composed dominantly of quartz which contains occasional disseminated particles of galena and pyrite. Several average samples from this deposit where it is exposed at the surface, were assayed, and found to contain less than \$1 per ton in combined gold and silver. High assay values have to the deposit where it is exposed at the veins of this locality, but the value are very erratically distributed. The rich float, also, has been derived, in all probability, from high grade pockets in veins sinilar to those already found; in fact, it is more than probable that it came from some of the veins already known to occur on Mt. Stevens.

On the Tally-Ho group<sup>3</sup> on Tally-Ho mountain, an important vein occurs on which considerable underground development work has been done though practically only representation work has been performed since it was last examined.

<sup>1</sup> 1bid, p. 107. <sup>1</sup> 1bid, p. 108. 1bid, pp. 108-110

44