

VEINS

There is a number of veins on the property (which are indicated by lines on Map No. 2) which have a general trend of S. W. and N. E. dip towards the North from 46° to the perpendicular. The Queen, Yellowstone and Alexandra veins are the principal ones opened out so far. These veins will be fully described under the heading of "Mining and Work Done." There does not appear to have ever been any particular effort made to find veins not clearly exposed on the surface, which is mostly covered by wash, etc., and the chances of other veins being found by systematic explorations on the surface and by underground cross-cut I consider very good.

The veins are true fissure in the schist. The schist has been replaced by Quartz, the Quartz forming the veins. Scattered irregularly in small and variable quantities throughout the Quartz are the following metallic minerals: Iron sulphides, galena, and tungstite. Gold in its free state is found in the Quartz and the minerals.

The foot and hanging walls or sides are of quartzite, which contains some mineral, but generally the minerals fade away in the direction of the schist or country rock. The veins appear to be more fully mineralized and richer in precious metal when the wall rocks of quartzite are strong and thick. Everything would indicate that the enrichments occurred from an ascending solution.

HISTORY

The "Queen" and "Yellowstone" were first discovered about fourteen years ago. For three years mining was done intermittently on the "Yellowstone" by lease-holders, who did little development. Thereafter, good surface ore being opened on the "Queen", mining has ever since been confined to it and more systematic mining has been done. The mines so far have produced to 30th Sept., 1913, according to Government returns, \$1,030,914 in Gold after deduction of freight and treatment charges; about 53% of this amount was saved by amalgamation at the mine mill; the balance from concentrates, which were shipped to Trail Smelter where \$5.40 per ton was deducted for freight and treatment.

MINING AND OTHER WORK, AND RESULTS OBTAINED

The Queen mines are the most important mining property in the Sheep Creek District, and are situated on Wolf Creek, three hundred yards above the forks of Wolf and Sheep Creeks (see Map No. 1). The mines are what is known as a free gold proposition, have extensive development, which consists of three adit tunnels driven on the vein (No. 1, No. 2 and No. 3). No. 3 is the lowest tunnel, its portal is 50 feet above the creek and has been extended in for a distance of 900 feet. All these tunnels are connected by raises or stopes. All the ore from the mine is taken out by No. 3. Three chutes or chimneys of ore were mined from this level, having a length of from 100 to 200 feet. From No. 3 level a double compartment winze or shaft has been sunk to a depth of 500 feet. From this shaft No. 4, No. 5 and No. 6 levels (No. 6 level being 400 feet below No. 3 level), have been run, each for a distance of fully 700 feet, while No. 7 level is at present being opened out from the shaft bottom. The mine has been developed entirely on the vein laterally for a distance of fully 1000 feet, and the bottom of the winze or shaft is 800 feet vertically below the surface. Sketch Map No. 3 illustrates these underground workings. It will thereon be noticed that levels No. 5 and No. 6 have