

Part E.

002585 82F/SE -33

Special Report by H. Sargent.

Montana

This claim is owned jointly by F. Aiken of Bayonne P.O., and the estate of P. Casey, care of Mrs. P. Casey, E.2711 Everett Avenue, Spokane, who also own the Summit Bell Group to the north. The claim is shown on the sketch map of the area, at the head of Blue Bird Creek, a tributary of Blazed (North Fork of Summit) Creek. The ground covered lies at the head of the basin drained by Blue Bird Creek and slopes steeply to the north-east. The property is about  $1\frac{1}{4}$  miles southerly by trail from the cabin on the Summit Bell Group. It is also accessible from the Bayonne Mine, by a rough trail about  $1\frac{1}{4}$  miles long.

The property was visited at the end of June at which time the head of the basin, lying just north of a sharp ridge, was still largely snow-covered. The rock exposed on the ridge to the south is granodiorite, but in the basin white quartzite outcrops, striking north 20 degrees west, and dipping 30 degrees westerly. The quartzite appears to extend to steep bluffs on the eastern side of the basin. Some mica is developed in the quartzite near the contact. Aiken reports that the quartzite is about 50 feet thick.

The workings on the Montana claim consist of surface-cuts or trenches and a small shaft. A vein 15 inches wide is exposed in a small cut, 200 feet to the east of which a snow-filled trench could be discerned. Forty feet east of the trench at approximately 6,500 feet elevation, there is a surface-cut from which the snow had been removed. The cut goes about 20 feet southerly and from the end a winze has been sunk on a vein striking south 75 degrees east and dipping 55 degrees southerly. The water level in the shaft was 10 feet below the collar.

Lying below 6 inches of sheared granodiorite there is quartz 15 inches wide, which for 8 inches from the hanging wall side is fairly well mineralized with pyrite, galena, and sphalerite, and shows some copper stain. The remainder of the section contains little mineralization. A sample across 15 inches assayed: Gold, trace; silver, 0.2, oz. per ton; lead, 1.8 per cent; zinc, 1.4 per cent. In the 1917 Report of the Minister of Mines, A. G. Langley mentions sampling across 8 inches at the shaft, which assayed, Gold, 0.16 oz. per ton; silver, 0.5 oz. per ton. He also mentioned a sample of selected ore from the dump which assayed: Gold, 0.10 oz. per ton; silver, 4.4 oz. per ton; lead, 24.5 per cent. A specimen of selected sulphide ore from the shaft dump was studied microscopically in the laboratory of the Department of Mines by J. M. Cummings, who reported as follows:-

"Metallic minerals identified in order of abundance: galena, sphalerite, pyrite, chalcopyrite, tetrahedrite.

Galena: occurs as large irregular masses.

Sphalerite: occurs as large irregular masses, surrounded and invaded by galena.

Pyrite: not common. A few small grains occur in galena.

Chalcopyrite: occurs as minute blebs in sphalerite, and small irregular inclusions in galena, commonly along galena-sphalerite contacts.

Tetrahedrite: occurs as tiny rounded and elongated grains in galena. Not common and all minus 200 mesh in size."

For 8 feet north of the vein the granodiorite is cut by joints parallel with the vein. Some of these points are filled with quartz. To the east of the shaft the ground was snow-covered. Aiken supplied the information that the vein had been traced for several hundred feet and that it had continued in the quartzite. The 1917 Report by Langley states, "Numerous open-cuts expose the vein for a distance of about 500 feet".