PE-085-08

PRELIMINARY REPORT OF MAMMOTH GROUP, UPPER WILLOW CREEK,
WILLOW CREEK DISTRICT, ALASKA
August 9, 1938

Location and Accessibility:

The Mammoth group of four claims and one mill site is located on the left limit of upper Willow Creek on the divide between Willow and Fishhook creeks. The mill site is located in the valley of upper Willow Creek along the Wasilla road and the workings are above at elevations of 3600 to 4300 feet, with the lowest workings only 400 feet above the road. This makes the property easily accessible to road transportation.

Owners:

The present owners of this group are R. Bragaw, W. Cuddy, F. and F. I. Reed, and J. and C. Cook of Anchorage, Alaska.

History:

The discovery on this group was made by Wm. Martin in 1912 and became known as the West Extension of the Martin or Free Gold property. Active development began in the winter of 1912-1913 when a 200-foot tunnel was driven with 73 feet of crosscut and a 12-foot raise. Additional work followed consisting of an additional 30 feet of crosscut, 40 feet of raise, and 50 feet of drift, up until the year 1915. Following this the property was dropped and later restaked by Milo Kelly. Kelly started a lower tunnel to crosscut the vein in the upper tunnel. This lower tunnel was advanced 50 feet. On the dump of this tunnel pieces of altered vein material were noted, but apparently no quartz was encountered. Mr. Kelly dropped the property and it remained open until restaked by Paul Reed and associates in 1936. Since then only assessment has been done and an unsuccessful effort to reopen the two tunnels was made.

Geology and Showings:

The showings are contained in and in the immediate vicinity of two large intersecting fault zones. These fault zones vary from 30 to 40 feet in width and strike northwest and north and intersect above the main upper tunnel workings. The main vein zone strikes N. 80° E. and dips 70° N. This latter zone can be traced from the faults east onto the Martin property, a distance of 1500 feet. The vein zone consists of altered quartz diorite. The formation of the entire group consists of this formation with the mica schist contact not far distant to the south. For general geology of this area refer to U. S. G. S. bulletin 607, "The Willow Creek District, Alaska" by S. R. Capps.

The two tunnels are caved and only the few surface exposures were noted. At the upper tunnel, elevation 3730 feet, a new cut in 40 feet exposes the hanging wall of the vein. Bands of quartz show in the altered vein zone and small quartz veins cut into the zone from the footwall. These strike N. 40° E. and apparently end in this zone. The main vein zone is 30 feet wide and consists mostly of quartz.

A description of the underground workings is contained in the bulletin mentioned above at pp. 71-72 as follows:

> "The vein at the tunnel entrance shows a large body of quartz 25 to 30 feet wide, striking approximately east and dipping 68° N. About 30 feet from the tunnel entrance a fault has cut off the vein abruptly, and the remaining 170 feet of tunnel on this level was driven on a slip zone full of clayey gouge, but the vein was not again encountered. The country rock is a somewhat gneissic quartz diorite which has been broken by slips in several directions. The walls of the slip zone on which the tunnel was driven are well defined, and although they show some rolls, the direction of the zone is fairly constant. The walls are smooth and in many places show slickensides, and the rock has been much altered. In the breast there is about 3 feet of clayey gouge and sheared, altered diorite, with good walls of solid rock on either side. A 35-foot crosscut to the north leaves the main tunnel 100 feet from the portal, and one or two other short crosscuts have been made, in none of which was the vein encountered. About 70 feet from the portal a 15-foot raise on a slip zone entered a body of quartz, but a 28-foot crosscut from the raise cut through the quartz body, which proved to be an irregular portion of the vein surrounded on all sides by faults. The faulted-off portion of the main vein has not been found in the underground workings."

Above the tunnel near the top of the ridge, elevation 4300 feet, considerable quartz of the same character shows in a partly filled cut. This is above the large fault intersection. High assays were reported from pieces from this cut. This cut warrants further work to determine the amount of pay quartz.

The lower tunnel, elevation 3600 feet, is a crosscut tunnel located below and east of No. 1 tunnel. This was reported driven 50 feet in an attempt to cut the vein above. The altered zone was apparently cut, from the material on the dump.

Mineralization:

The quartz in the outcrop at No. 1 tunnel, and the upper outcrop, has been somewhat leached and the sulphides oxidized. Copper carbonates with iron oxides are common in small amounts. Fresh specimens show pyrite,

chalcopyrite and a bluish soft mineral with metallic luster believed to be either stibnite or molybdenite. The amount of the latter was not sufficient to determine. The gangue minerals were a milky white quartz with bluish streaks, fractured and recemented with calcite and other lime minerals, chlorite, sericite and numerous altered diorite minerals.

There has not been sufficient work to determine much regarding this property. Should the block of quartz, referred to in above report, be a faulted block from a vein of this size, the continuation of the vein justifies searching for. If, however, this is not a faulted block, but a filled opening caused by the fault intersection, the amount of ore would be definitely limited. The assays were reported low, but representing a low grade ore, and in such case a large amount is necessary.