

VESTAL GROUP (manganese)

Lake Creek area

"These claims were developed during the first World War. No ore has been shipped and no work has been done since 1918. Manganese oxides occur in tuff; the ore zone is  $1\frac{1}{2}$  - 2 feet thick and may cover several acres. Grade ranges from 10-25 percent manganese. Test pits and trenches constitute most of the work.

"Location: Vestal claims, SW $\frac{1}{4}$  sec. 7 (?) T. 35 S., R. 1 E.;  
Banner claims, sec. 7 (?) T. 35 S., R. 1 E.;  
Blackrock claims, sec. 8 (?) T. 35 S., R. 1 E.;  
Butte claims, sec. 9 (?) T. 35 S., R. 1 E.

"The locality is along the divide between the forks of Reese Creek.

"Authority: Pardee (21:15; 221-222) is quoted as follows:

"Several claims belonging to J. S. Vestal and others are in the basin of Reese Creek, about 6 miles north of Eagle Point and 20 miles northwest of the Tyrrell mine. A broad, flat spur at an altitude of 1,800 feet between two head-water branches of Reese Creek is underlain by purplish-gray to pink andesitic tuffs and flows that dip about 6° E. On the Governor claim small pits show soft vesicular pink tuff containing irregular streaks of manganese oxides, the largest of which are an inch wide. Some of the vesicles are lined with free crystals of manganese oxides; others contain zeolites. The ore is chiefly a mixture of pyrolusite and manganite, with some psilomelane and a soft pulverent oxide, that were apparently derived from the other two by alteration in place. The body exposed in the cuts is estimated to carry about 10 percent of manganese.

"Farther east, on the Blackrock claim, a cut exposes a layer of pink tuff 18 inches thick that rests on gray and green tuff and is covered by a few inches of soil. The pink tuff is crowded with vesicles about the size of an ordinary white bean, most of which are filled with compact, finely crystalline manganite. Vesicles in the upper 6 inches of the tuff contain soft oxides that appear to have been derived from the manganite by alteration in place. Plumose streaks of manganese oxides descend from the vesicles in the upper part of the tuff to those in the lower. A layer of the tuff 1 foot thick probably contains 25 percent or more of manganese. No manganese is visible in the underlying tuff, the green color of which is caused by chlorite.

"A bed of similar manganese amygdaloid is exposed in a pit on the Butte claim, east of the Blackrock. Probably the manganiferous layer underlies a total area of several acres and contains a moderately large amount of material carrying 10 percent or more of manganese.

"On the Banner claim, along Reese Creek south of the deposits described, a rather hard red tuff is exposed beneath a dense platy basaltic lava. Locally this tuff shows a few streaks and nodules of manganese oxides similar to those in the red tuffs at the other places described."

Reference: Libbey & Others, 42:12 (quoted)