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REPORT TO MR. GEORGE KOSMOS ON
THE BLUEBIRD COPPER-SILVER PROSPECT NEAR IMNAHA, OREGON

In company with Mr. Raymond Carrey on April 14, 1951, I made a reconnaissance examination of the copper and silver occurrence near the Imnaha River eight miles below Imnaha, Oregon. Imnaha is 31 miles by good road northeast of Joseph, Oregon, the terminus of a branch line of the Union Pacific Railroad.

The outcrops bearing mineralization are reached by road from Imnaha post office seven miles to Simmons Ranch; hence by good trail one mile downstream on the east side of the river.

Development consists of a few small open cuts and one short tunnel, now caved.

The rocks are well exposed in the 4,000-foot canyon of Imnaha River. All except those cropping in the lower 500 feet of the canyon at this point are typical essentially horizontal flows of Columbia basalt and andesite. From Simmons Ranch downstream for about three and one-half miles erosion has exposed an area of basalt and andesite which consists of near vertical dikes and irregular masses.

It is in this material that the mineralization is found.

Two zones of mineralization were examined. One was in a vertical, north-south striking andesite dike. The average width is seven feet and 80 feet in length cropping eight feet above the general ground level on a 45-degree hillside. An open cut had been made on either end of the dike. In the cuts and in zones in the dike the principal minerals are azurite (copper carbonate) and malachite (copper carbonate) with lesser amounts of an undetermined metallic mineral. These minerals were observed in amygdules, along fractures and otherwise disseminated in the rock. However, the mineralization is localized in spots in the dike and not evenly distributed. No mineralization was found north or south of the 80-foot section and it appears to have been cut off by later intrusions of lava masses. A sample cut across a seven-foot width above the top of the south open cut assayed 1.2 percent copper and no silver.

About 1,000 feet southeast, another zone of mineralization, but of lesser extent, was observed in a similar rock. A tunnel has been driven to intersect this cropping, but from examination of the dump the objective was not reached.

Approximately 500 feet west, copper stains in a small outcrop were seen, but again with continuity.

It was reported by Mr. Carrey that similar occurrences may be found for a distance of three-four miles down the river.

In summation, I believe the minerals accompanied one or more of the oldest andesite intrusives, but have been cut off and possibly assimilated by later dikes or masses to leave widely disconnected zones. Although these zones show high-grade spots, in general they are too low grade to be of economic value.

Respectfully submitted,

J. W. Melrose