

footwall that strikes N. 70° W. and dips 60° N. The intrusive rock also carries a few veinlike deposits along fractures that strike approximately N. 35° E. and dip 80° NW. The chief ore minerals are chrysocolla, malachite, copper pitch, and a small amount of azurite.

DIVIDE DISTRICT

Gold, silver

Source of Information

Mineral resources of the United States for 1918: U. S. Geol. Survey, Part 1, p. 233, 1919.

The Divide district is at the head of Dry Creek, 8 miles northwest of Tuscarora. The only recorded production is a small amount of gold and silver in 1918. The district was not visited, but it is probably in the Tertiary volcanic rocks that cover most of the area.

DOLLY VARDEN (MIZPAH, GRANITE) DISTRICT

Copper, lead, silver

Sources of information

Hill, J. M., 1916, Notes on some mining districts in eastern Nevada: U. S. Geol. Survey Bull. 648, p. 76-88.

Lincoln, F. C., 1923, Mining districts and mineral resources of Nevada: Nevada Newsletter Pub. Co., Reno, p. 42-43.

Location

The Dolly Varden district covers an isolated group of mountains about 16 miles northeast of Currie. The mountains are about 16 miles long and 6 miles wide at their widest part near the south end. All the properties are easily reached by good roads from Currie via Goshute Valley on the west or via Antelope Valley on the east.

History and production

The first discoveries of silver-lead minerals were made in 1869 in the southern part of the district. In 1872 copper ores from the Victoria mine were treated locally, but the activity lasted only about 2 years, and since the closing of the Victoria mine, development in the district has been slight. In 1905 gold-bearing veins were discovered in the northern part of the district, leading to a short-lived period of activity and a small unrecorded production.

Small shipments of ore were made from the district during 1915-1918 and 1925-1929. From 1941 to 1947 the Victoria mine was operated and a minor amount of copper ore apparently was

produced. In 1950 the district had a total recorded production of 3,907 tons of ore having a metal content of 38 ounces of gold, 15,358 ounces of silver, 385,076 pounds of copper, and 227,215 pounds of lead, valued in all at \$74,361.

Geology and ore deposits (data from Hill, 1916)

The northern part of the district is underlain by quartz monzonite, the southern part by limestone and shale. Tertiary lavas form part of the low hills in the east and south, overlying both the intrusive and sedimentary rocks.

The limestone that covers most of the southern portion of the district is medium thick bedded and is light blue where unmetamorphosed. In the vicinity of the ore deposits the limestone is white and crystalline and contains lime silicate. "Coal Measures" fossils have been reported from the limestones (Emmons, 1877, p. 478). Limy shale, argillite, and cherty shale overlie the limestone.

The quartz monzonite is a coarse-grained, somewhat porphyritic rock composed of oligoclase-andesine, microperthite, ferromagnesian minerals, and quartz, named in the order of their abundance. The marginal facies of the stock is of finer grain and generally carries a larger proportion of dark minerals than the main mass of intrusive rock.

The quartz monzonite intruded the limestone but caused relatively little metamorphism. Green garnet, biotite, epidote, and tremolite are the chief contact-metamorphic minerals.

The deposits of the Dolly Varden district are contact-metamorphic and replacement deposits in the limestone and shale at the south end of the mountains, and quartz veins in the quartz monzonite in the northern part of the district.

The deposits in the sedimentary rocks are of two well-defined types: oxidized copper and lead. The oxidized copper ores are usually associated with the lime silicate minerals, and are nearer the intrusive contact than the lead deposits. The latter, found only in the extreme southeast part of the district, are closely associated with north-trending fractures cutting the limestone.

The ore minerals of the copper deposits are almost completely oxidized, though kernels of the original chalcopyrite and pyrite remain at many places. Chrysocolla, copper pitch, and malachite are most abundant, though chalcocite can usually be seen in the richer specimens of ore.

The original ore apparently contains only a small proportion of copper-bearing minerals. At several localities, where developments

have gone below water level, slightly cupriferous pyrite is the most prevalent original sulfide.

The argentiferous lead-bearing replacement deposits are closely associated with north-trending fractures in the limestone. The principal minerals, all silver bearing, are cerussite, anglesite, and residual kernels of galena.

The deposits in the quartz monzonite are small quartz veins containing chalcopyrite and minor amounts of pyrite and bismuthinite. Some free gold is said to occur in the veins in the northern portion of the district. The solutions that deposited the veins also altered the adjacent quartz monzonite in narrow bands. A few such bands of sericitized and calcitized rock are more than a foot wide, but most of them measure only a few inches.

Mines

The mines in the district are now largely abandoned, as they were when examined in 1912 by Hill. Water was encountered at a depth of 60 feet in most of the shafts, and the low grade of the primary copper ore apparently discouraged development in the southern part of the district. The quartz veins in the northern part are narrow and low in value. The Victoria claim, located on the east side of the mountains near the contact between quartz monzonite and limestone, apparently received most attention.

EDGEMONT (CENTENNIAL) DISTRICT

Gold, lead, silver

Sources of information

Emmons, W. H., 1910, A reconnaissance of some mining camps in Elko, Lander, and Eureka Counties, Nevada: U. S. Geol. Survey Bull. 408, p. 75-80.

Lincoln, F. C., 1923, Mining districts and mineral resources of Nevada: Nevada Newsletter Pub. Co., Reno, p. 43.

White, D. E., MacMillan, D., and Wagner, W., 1939, Blue Ribbon mine, Bull Run Mountains, Elko County, Nevada: Unpublished report in files of U. S. Geol. Survey.

Location

The Edgemont district is in secs. 19 and 30, T. 44 N., R. 52 E., on the west slope of the central part of the Centennial Range. It adjoins the Aura district on the west and the Lime Mountain district on the north.