

ELLSWORTH DISTRICT

LOCATION

The Ellsworth mining district is located in the northern Paradise Range about 10 miles northeast of the town of Gabbs. The district includes Germany and Marble Falls canyons on the west side of the Paradise Range and extends to the east to include the area of Ellsworth and Flagstaff canyons in the central and eastern parts of the range. The mines and prospects of the district are within the eastern part of Township 13 North, Range 37 East, and the western part of Township 13 North, Range 38 East, Nye County.

HISTORY

Ore was discovered in the Ellsworth district in 1863 and the area was organized as the Mammoth district in 1864. There was only minor activity in the district until 1870 when a 10-stamp mill was constructed (Thompson and West, 1881). The mill operated intermittently up to about 1881 when operations ceased (Kral, 1951). Tailings from the early operations were reworked in the district during the early 1920's and from 1933-45. Tungsten was mined from small deposits during the early 1900's and again in the 1950's. The tungsten mineral, huebnerite, was first described in the United States from occurrences at Ellsworth (Kleinhampl and Ziony, 1984). The date of this discovery is not clear, but the earliest reference to it found was dated 1891.

At the time of our examination (March 1986), there was evidence of mining activity in several parts of the district. A new headframe was in place at the Big Springs Mine north of Ellsworth and underground work has been done within the past year. Road building had been done northwest of the Return Mine and in Marble Canyon. Cominco American had staked claims adjacent to the Return Mine in 1982, and a block of claims in the Lime Dyke area had been staked in February 1986 by Placer U.S. Inc.

GEOLOGIC SETTING

Limestone and siliceous clastic rocks of the Permian Pablo Formation underlie most of the western part of the Ellsworth district. The southeastern part of the district is underlain by Tertiary volcanic rocks, mainly rhyolitic ash-fall tuffs of the Toiyabe Quartz Latite. Ellsworth Canyon, which divides the district in a northeast-southwest direction, forms the division between the two rock types; Permian rocks lie generally northwest of Ellsworth Canyon and Tertiary volcanic rocks crop out to the south of the canyon. A body of Cretaceous granodiorite is shown by Kleinhampl and Ziony (1984) near the mouth of Ellsworth Canyon. The Permian rocks are strongly deformed into a series of tight folds aligned along a northwest trend (Kleinhampl and Ziony, 1984).

ORE DEPOSITS

Mineral properties Ellsworth fall into four general groups within the district. Properties around the Esta Buena and Eagle Mines, near the townsite of Ellsworth on the east side of the district, may be the oldest workings in the area. These properties include the Esta Buena, Flagstaff, Grandview or Eagle, and the Easter Sunday Mines. Workings at these mines occur near the contact of Permian rocks and a Cretaceous intrusive.

Mineralization occurs in quartz veins which cut greenstones, carbonate rocks, and the intrusive itself. At the Esta Buena Mine, silver mineralization was found in a quartz vein in a thrust fault between limestone and granodiorite. Skarn mineralization is present at the Grand View and Easter Sunday properties and wolframite was seen in samples from the Grand View Mine.

The Big Spring, about one mile north of Ellsworth, is similar to those near the town. Oxidized quartz vein material from this deposit contains copper oxide minerals and possibly tetrahedrite. Garnet and epidote are also present.

At the Lime Dyke Mine in Marble Falls Canyon, and at the German and Japan Claims in Germany Canyon, workings expose quartz veins which cut meta-andesite and carbonate rocks. Galena is present along with pyrite at the Lime Dyke Mine, no metallic minerals were seen at the German and Japan property.

The Return Mine and nearby Vindicator Mine and Clinton Baird property are all located in Ellsworth Canyon about two miles southwest of the old town. Workings at these mines were developed along vein-like altered shear zones in Tertiary volcanic rocks. The shear zones strike to the northwest and display very little visible mineralization except quartz and iron-oxide staining. At the Return Mine, pyrite and tetrahedrite were found in samples collected from the mine dumps. Wall rocks near the shear zones are argillized and weakly silicified.

SELECTED REFERENCES

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