

3690 0005

## POVERTY PEAK DISTRICT

### LOCATION

The Poverty Peak district is located in the north and northwest portions of the Hot Springs Range. The "town" of Paradise Valley lies approximately 10 miles to the northwest. All of the district is on the Hot Springs Peak 15 minute topographic map.

### HISTORY

According to Bailey and Phoenix the district was discovered in 1936. It is predominantly a quicksilver district but some manganese has also been produced. According to Rytuba nine mercury mines and prospects are recognized in the district plus two manganese "mines". The district is credited with a production of about 1,900 flasks of mercury, most of which came from one mine, the Cahill. It is not known how much manganese has been produced, records indicate only a few "cars" being shipped.

### GEOLOGIC SETTING

All the mines are located along a northeast-trending ridge of rocks which is composed of Pennsylvanian-Permian Havallah(?) and Pumpnickel(?) Formations. The sediments are steeply inclined with a dominant northwestward dip and are locally silicified and cut by numerous quartz and calcite veins. The deposits occur in interbedded limestone, dolomite, and quartzite. The ore is usually high-grade and consists of stockworks of cinnabar, quartz, and (or) calcite veins. In the richest ore, cinnabar forms massive replacement bodies in the carbonates. The manganese is localized in chert beds and occurs as undetermined oxide minerals both in masses and as disseminations through chert layers.

### ORE DEPOSITS

The Cahill Mine is by far the largest producer in the district. Recorded production amounts to 1,738 flasks of mercury. The mine consists of 9 claims and fractions thereof and lies at the southern edge of the district. Initial development was done by J. Cahill. A 10-ton Gould rotary furnace was installed in 1939, from which was produced 490 flasks in 1940. From 1941 until 1971 the mine was leased to a number of individuals and companies, some of which produced a few hundred flasks and some virtually nothing. In recent years a small amount of cinnabar has been mined for its crystalline quality. This material is used for medicinal purposes in the Orient.



The mine includes several thousand feet of underground openings developed on six levels and several large open cuts. The six adits on the property are open. A fairly continuous ore body was stoped upward 100 feet from below the main haulage level. Because the 40-foot width stope was relatively flat, its pitch length was nearly 200 feet.

Cinnabar was localized beneath a narrow gouge zone lying along a fault which for the most part is parallel to beds of limy quartzite and recrystallized sandy dolomite. Displacement along the fault appears small. The plan of the fault is arcuate, and ore bodies were localized where it rolls in strike towards the footwall forming an "inverted trough". The ore in part occurred as a stockwork of nearly pure cinnabar veinlets, with some quartz, filling openings along, and close beneath, the fault; but the richest ore occurred as pods resulting from replacement of highly fractured silicified dolomite and extended several feet into the footwall. Locally, minor quantities of stibnite accompany the ore.

The visit to the mine during the current study showed the remains of five wood cabins, none of which have been used for some-time; and remains of the furnace room. The furnace was still there. It is approximately 3 feet in diameter and about 25 feet long. None of the supporting equipment was present. The power lines are up and appear in good condition. There has been no mining activity here for at least two years. Sample 2450 was collected from a high-grade pile and picture #8 was taken looking at the furnace room and old camp.

The Hapgood Mine is located on the west slope of Hot Springs Peak approximately 1/2 mile east-northeast of the Cahill Mine. Recorded production is 127 flasks of mercury.

The property was first worked in 1936 by T. C. Hapgood. From 1941 through the early 1970's the property was leased and worked by a number of individuals and one small company. Since the early 1970's there has been no work, or production, from this property.

The principal working is a haulage level which, with its two branches, totals about 500 feet. A mineralized fault, cut about 120 feet from the portal, has been followed below the haulage level to a depth of 34 feet and above this level to the surface, a distance of 75 feet. An adit 30 feet below the haulage level intersects the ore zone. A shelf on the south end of the property is caved and severed trenches are present on the north end of the property.

The rocks consist of 0.5- to 2-foot beds of sandy limestone with thin interbeds of shale. They strike N45°E and dip about 45°NW. Cinnabar occurs along several closely spaced parallel bedding plane shears as veinlets, and locally forms isolated bunches in the limestone away from the shears. Associated minerals include calcite, quartz, gypsum, and clay. Sample 2451 collected here.

The Conchita Mine (originally Turillas) adjoins the Cahill Mine on its south edge and consists of seven claims and fractions. It was initially developed in 1940 by F. Turillas, with development consisting of four shallow trenches located on a mineralized zone about 100 feet long and 20 feet wide. Two adits intersected the ore zone at a depth of 75 feet.



In 1954 Sonoma Mines, Inc. acquired the property and discovered a small amount of ore in an open cut. Development consisted of two large open cuts, each following a gently dipping fault zone in steeply dipping silicified limestone, quartzite and phyllite. The sediments are cut by a stockwork of calcite and quartz veins.

Cinnabar occurs on fractures, as isolated crystals, and as disseminations in the brecciated fault zone. Some good ore has also been found filling cross fractures. Reported production amounts to 21 flasks of mercury. Sample 2452 was collected here.

The Wholly quicksilver mine lies about 0.6 miles north of the Cahill. This claim group adjoins the Conchita claims to the south and the Hapgood claims to the east. The property was discovered in 1938 and in 1941 a 4-pipe retort was installed and 14 flasks of mercury recovered. This is the only production credited to the property. Development consists of an adit driven from the retort site, which extends southward 160 feet, and irregular workings containing a small stope which extends upward to an overlying open cut. The "north" workings consist of an adit, still open, and branching drifts totaling about 430 feet.

The cinnabar occurs as veinlets and crystals along bedding faults that strike northerly and dip to the west in the surface workings. Sample 2453 collected here. See prospect sheet data. Abundant copper oxides on dumps of shafts. No mention is made of this in any previous write-ups.

The Prentiss property lies on the west slope of Hot Springs Peak a little less than 0.9 miles north of the Cahill Mine. It was discovered in 1940 by C. R. Prentiss. It is developed by several trenches and two shafts which are presently caved.

Cinnabar forms crystalline veinlets with calcite and some quartz, and occurs as isolated crystals in limestone and calcareous quartzite. The best ore was found along bedding shears striking N10°W and dipping steeply eastward. Opalite fragments occur in the mine dump but no cinnabar was observed associated with them. No production is credited to the property.

The Snowdrift property was originally developed on the northeast slope of Hot Springs Peak with the driving of a 73-foot adit. This during 1940. N. H. Getchell leased the property sometime in 1940 and built a road up to it. More recent work, date not known, includes trenching along the access road which exposed additional ore. Cinnabar occurs in calcite and quartz veins which cut sandy limestone and shale which strikes northeasterly and dips 45°NW. Two adits, one 30 feet long, the other 120 feet long are developed on the west side of Hot Springs Peak, just below the summit. The property is credited with no production.

There are numerous other prospect pits and trenches scattered throughout this district, all of which were not visited. It is thought, however, that any property that had any significant production was visited.

## SELECTED REFERENCES

- Bailey, E.H., Rytuba, J.J., and Jones, R.B. Unpublished data on Nevada's quicksilver districts: Incomplete set of data at offices of Nevada Bureau of Mines and Geology.
- Bailey, E.H. and Phoenix, D.A. (1944) Quicksilver deposits in Nevada: NBMG Bull. 41, p. 101-106.
- Willden, R. (1964) Geology and mineral deposits of Humboldt County, Nevada: NBMG Bull. 59, 154 p.