

I.C. 6995

Cahill Group

In 1936 J. H. Cahill, of Reno, Nev., discovered cinnabar on the west slope of the Hot Springs Range about 15 miles southeast of the town of Paradise Valley. A group of six unpatented claims is owned by Cahill and associates. The claims are in the prospect stage of development and no production has been made.

Development consists of three adits totaling 300 feet of workings. When the writer visited the property in June 1937, the owners were driving an adit to intersect the deposit at depth. This work was being done by hand methods.

Cinnabar occurs in seams and as disseminations in a fracture zone in limestone.

POTOSI DISTRICT

The Potosi, also known as Kelly Creek, district is in eastern Humboldt County at the north and east slopes of the Osgood Range. The district was first prospected in the eighties for copper and silver, but no important discoveries were made at that time. A number of tungsten deposits of the contact metamorphic type were discovered in this area during the World War period, and although some of them have been prospected, there is no record of any production. In 1933 gold was discovered in this district by Edward Knight and Emmett Chase of Winnemucca, Nev. In 1934, after a small amount of preliminary prospecting, the property was purchased by Noble H. Gatchell, of Midas, Nev. The Gatchell Mine, Inc., was organized, and exploration work continued on a broad scale, so that in 1937 it was one of the outstanding mining developments in Humboldt County.

Gatchell Mine, Inc.

The Gatchell Mine, Inc., is a Nevada corporation with a capitalization of 1,500,000 shares with no par value. George Wingfield, Reno, Nev., is president, and Noble H. Gatchell, Midas, Nev., is vice-president. The property comprises a large acreage of patented railroad land and unpatented mining locations at the north end of the Osgood Range, about 27 miles by road northwest of Golconda and 16 miles north of Red House, a station on the Western Pacific Railroad, the nearest shipping point.

Development consists of several adits and subsidiary workings totaling about 4,000 feet. Equipment consists of an Ingersoll-Rand 2-drill compressor, blacksmith shop, and camp accommodations for 50 men. In June 1937 ground was being broken for the erection of a 400-ton mill, and an electric power line was under construction to the mine. The power line was being built by the Sierra Pacific Power Co. from a point near Mill City to Winnemucca and thence to Golconda and north to the mine.

Due to the complex character of the ore, the complete details of the mill flow sheet had not been worked out at the time of the writer's visit.

Gold with a small amount of silver occurs in a mineralized zone in a black silicified limestone. The ore zone has a strike of north 20° west and a dip of 40° easterly. The hanging wall of the deposit consists of a fault zone about 60 feet wide. The footwall is a white limestone in contact with granite. Near the surface the ore is oxidized, while at depth arsenical sulphides are present in the form of realgar and orpiment. Since the deposit dips with the slope of the mountain, it will be possible to mine a large portion of it by the open-cut method. A large tonnage of ore ranging from \$5 to \$12 per ton has been blocked out.

Tungsten Deposits

A number of tungsten deposits of the contact metamorphic type occur on the east slope of the Osgood Range. The deposits were discovered at the time of the World War and were prospected to some extent at that time. In recent years there has been little activity on the tungsten claims in this area. There is no record of any production of tungsten concentrates.

Joseph Fayant of Golconda, Nev., and Bert Kirby of Winnemucca, Nev., own six unpatented claims 25 miles north of Golconda near the Finson ranch. M. J. Tierney of Sunburst, Mont., owns 60 acres of patented land 20 miles north of Golconda. Frank Saunders of Winnemucca owns three unpatented tungsten claims. A number of other tungsten claims in this area are owned by various individuals.

The description of the deposits is given by Hess and Larsen^{17/}. The tungsten occurs as scheelite in a gangue composed chiefly of garnite, epidote, quartz, and calcite in sedimentary formations intruded by quartz diorite.

RED BUTTE DISTRICT

The Red Butte district is on the west slope of the Jackson Mountains, 25 miles by road northwest of Jungo, Nev. The last 12 miles of the road are virtually impassable by automobile with a low clearance.

This area was first prospected for gold in 1907 by August Ramel of Red Butte. Subsequently, exploration work was confined to copper deposits. Most of the copper claims in the district are owned by Ramel. According to W. W. Wells of Winnemucca, the total production has been three carloads of copper-lead ore, one carload of lead-zinc-silver ore, and about 20 tons of antimony ore, nearly all of which was shipped during the War period.

A brief description of the geology of the district is given by Ransome^{18/}

^{17/} Hess, Frank L., and Larsen, Esper S., Contact Metamorphic Tungsten Deposits of the United States: Geological Survey Bull. 725-D, 1921, pp. 300-304.

^{18/} Ransome, Frederick L., Notes on Some Mining Districts in Humboldt County, Nev.: Geological Survey Bull. 414, pp. 28-30.