

The Bruner district is relatively small and is situated at the north end of the Paradise Range bordering the Churchill County line. It adjoins the Mammoth district on the south. The earliest reported work in the area was at the Paymaster in 1906. The Penelas mine has been the only important producer, with a total recorded production of \$898,629 having been recovered from 69,001 tons during the years 1936-1940.

*Geology.* Tertiary rhyolite and andesite lavas cover the area. The 1,000-foot, 73° inclined Penelas shaft on the east flank of the range is reported not to have cut through the lava covering. Meta-volcanics exposed a few miles south in the Mammoth district probably underlie the Tertiaries. Free gold associated with silver and occurring in quartz veins in the younger volcanics is the principal ore mineral.

*Properties.* The Penelas mine, so named after the locator who made the discovery before World War I, is situated in the southeast part of the district, on the east flank of the Paradise Range, and about 14 miles northwest of Ione. The Penelas Mining Company, of which L. D. Gordon of Reno is president-manager, operated the mine from 1931 to 1942. A 50-ton cyanide mill was built in 1935, and the installation had the distinction of being one of the most efficient small operations in the State. To facilitate



communication from its remote location, prearranged short wave radio contact was made with Fallon, 80 miles distant by road. When the ore was exhausted in 1940, the operation was shut down and all surface plant subsequently sold. Only the shaft, stopes caved to the surface, and the tailing pile remain as evidence of past activity.

The Penelas ore occurred in two veins, both in andesite and rhyolite, having an average width of about 5 feet. Mining was done on nine levels spaced 100 feet apart with about 4,000 feet of laterals. The 6th, 7th and 8th levels are said to have been the most productive, the main ore shoot having been about 150 feet long. As stated by L. D. Gordon, no values were found below the 900-foot level.

The Ole Peterson mine, operated by Peterson in 1936 as the Golden Eagle, is the southern and more important retained part of several adjoining properties purchased in 1915 by the Kansas City-Nevada Consolidated Mines Company. It is situated along the crest of the north end of the Paradise Range about 15 miles northwest of Ione. The Penelas adjoins this property on the southeast. The present owner is Mrs. Esther Peterson of Superior, Wisconsin. The mine was last leased to John Chisholm and George Erwin who made periodic shipments of gold ore in 1938.

At the Paymaster claim on the north end of the group the ore occurs in a poorly defined zone along a rhyolite-andesite contact. An excellent one and one-half compartment 375-foot shaft, with levels each 125 feet and about 2,000 feet of laterals, was sunk prior to 1920. Except for the collar set, the timbers show no signs of decay and the ladders are in good condition. It is reported that the principal values were found above the 125-foot level and that careful selective mining was necessary. A 50-ton cyanide mill, built in 1919 and destroyed by fire a few years later, was apparently unjustified as no recorded production is shown for the company. Broken Hills, 12 miles west, was probably the principal source of ore for the mill. Little or no work has been done on the Paymaster since about 1923.

The July Lode, at the south end, is the only part of the property having an appreciable production. It is from here that Ole Peterson and leasers are said to have produced about \$70,000 in the years 1936 to 1944. The ore occurrence here is different from the Paymaster in that quartz is more abundant and the ratio of gold to silver is much greater. The values are found in a brecciated rhyolite recemented with quartz and occurring in a chimney-like ore shoot approximately 14 feet by 8 feet in cross-section which



has been stoped to the surface. The mine is opened by two connected adits totaling about 400 feet in addition to several minor workings. Improvements consist of a 50-ton ore bin and several buildings in good condition.

The Derelict mine, a gold property consisting of two claims, is west of and adjoins the Ole Peterson. It was originally part of the Penelas estate, however, in recent years has been relocated by Mory Stromer of Broken Hills. Although the mine has no recorded production, it is reported that shipments were made in 1939. The workings include a steeply inclined 300-foot shaft. Gold ore is said to occur here in a recemented brecciated rhyolite.

#### **BULLFROG (Beatty, Pioneer, Rhyolite)**

The Bullfrog mining district includes the vicinity of Beatty west of the Las Vegas highway and the region near the old towns of Rhyolite and Pioneer. It adjoins the Fluorine district on the west. Topographically the Bullfrog district covers all of the Bullfrog Hills and also includes properties in the adjoining part of the Grapevine Mountains. Beatty is on the Tonopah-Las Vegas highway, 93 miles from Tonopah and 114 miles from Las Vegas.

As stated by Mrs. Byrd F. W. Sawyer, of Fallon, in her "Gold and Silver Rushes of Nevada 1900-1910,"<sup>18</sup> the Bullfrog district was discovered on August 8, 1904 by Shorty Harris and Ed Cross. The discovery was made at what is now usually referred to as the Original Bullfrog mine about 4 miles west of the town of Rhyolite. The name is said to have been suggested by the green color of the gold ore associated with copper in a bold quartz outcrop. Such choice of name on an August day in this arid section is subtle to say the least.

Ransome, Emmons, and Garrey in U. S. Geological Survey Bulletin 407 on this district mention that long before the discoveries of Tonopah and Goldfield, settlers had established ranches at the springs of Oasis Valley just north of the present site of Beatty. The roving prospectors of that day occasionally prospected the hills in this area but the rich discoveries to the north gave impetus to the prospecting which resulted in the Bullfrog discovery. In a very short time the area between the Bullfrog group and the Amargosa River was covered with claims.

The first railroad to come into the area was the Las Vegas and Tonopah which reached Beatty on October 22, 1906. Two months later it was extended to Rhyolite which by this time was the principal town in the district. Competition for the Bullfrog district

<sup>18</sup>University of Calif. doctorate thesis, 1931.

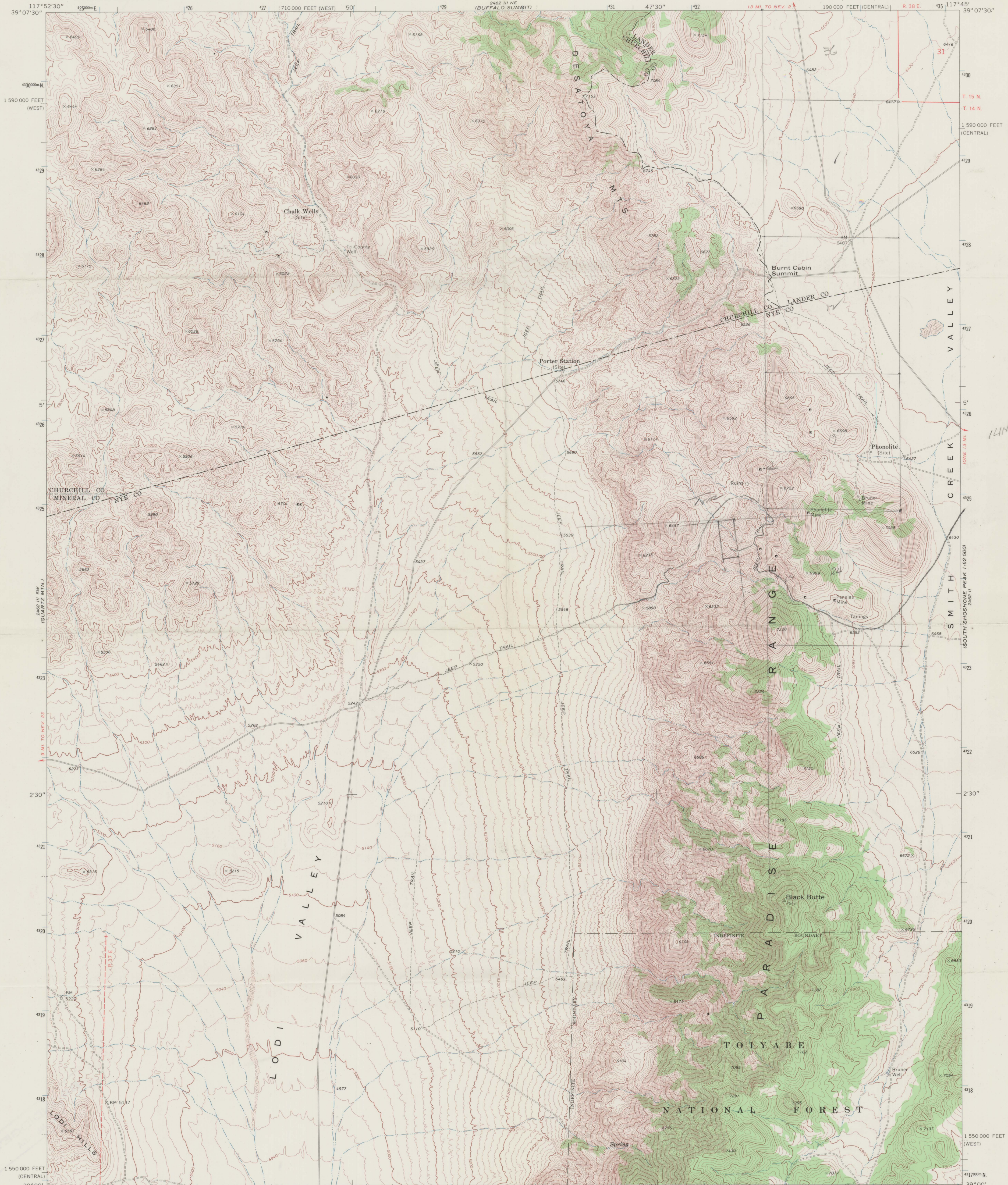


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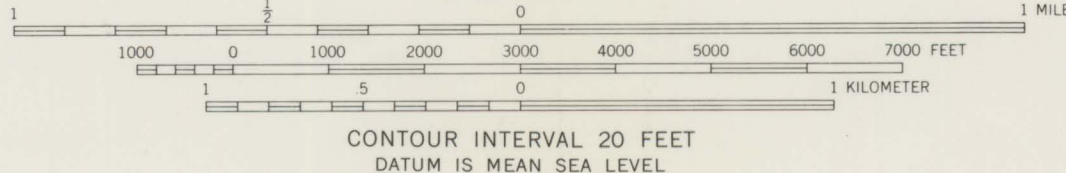
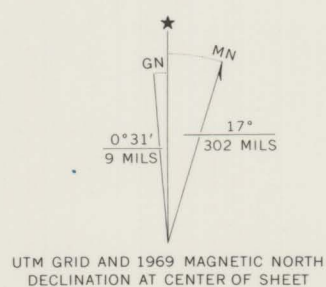
2462 III SE (SOUTH SHOSHONE PEAK)  
1:62,500

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

BURNT CABIN SUMMIT QUADRANGLE  
NEVADA  
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1967. Field checked 1969  
Polyconic projection. 1927 North American datum  
10,000-foot grid based on Nevada coordinate system,  
central and west zones  
1000-meter Universal Transverse Mercator grid ticks,  
zone 11, shown in blue  
Where omitted, land lines have not been established  
or are not shown because of insufficient data



ROAD CLASSIFICATION  
Primary highway, hard surface  
Secondary highway, hard surface  
Light-duty road, hard or improved surface  
Unimproved road  
Interstate Route  
U. S. Route  
State Route

BURNT CABIN SUMMIT, NEV.  
N3900—W11745/7.5

1969

AMS 2462 III SE—SERIES V896

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