Camp Gregory Area

LOCATION

The Camp Gregory mining area is located along the northeast slopes of the Dead Camel Mountains about 11 miles southwest of Fallon, Churchill County. Mining activity has been confined to two small areas: one southeast of Red Mountain, north of the road that leads west into Churchill Valley; the second in the low hills south of this road. The Dead Camel Mountains are not included within any established mining district.

HISTORY

Nothing is known of the mining history of this area. There are two deep, vertical shafts at the site of the Camp Gregory Mine and large mine dumps can be seen at the shaft collars. The remains of a camp are present in the wash northwest of the mine; rusting cans and other debris present at the site hint that activity here, probably gold prospecting, may have occurred sometime in the 1920-1935 era. There is, however, no recorded mineral production. In the past few years, the area has again been prospected for gold and silver. Noranda Exploration, Inc., staked claims covering Camp Gregory in 1982. Currently the area is held by Grayhill Exploration, Arvada, Colorado.

To the southeast of Camp Gregory, a group of claims cover outcrops of diatomite which show through gravel cover at the edge of the range. Claims here date from the 1950's but little evidence of activity, save minor trenching, was seen. One large diameter bore hole, marked by a shaft symbol on the topographic map, was found within the claim block. This hole was probably drilled to test the extent of the diatomite deposit.

GEOLOGIC SETTING

Most of the Dead Camel Mountains are underlain by young basalt flows. Rhyolite and andesite flows which locally crop out from beneath basalt and alluvial cover may be correlative with the Tertiary Kate Peak and Alta Formations exposed to the west. Tuffaceous sedimentary rocks, including some diatomite lenses, of the Truckee Formation crop out along the southern edge of the mountains.

In the Camp Gregory area along the northeastern flank of the Dead Camel Mountains, a sequence of unwelded lithic tuff is overlain unconformably by an andesitic to basaltic composite unit containing flows, flow-breccias, lahars, phreato-magmatic surge and air-fall debris, fallback breccia, and minor siliceous sinter. These rocks were cut by faulting then overlain by a later sequence of rocks which included tuffaceous siltstones, bedded fallback breccias, siliceous sinters and undifferentiated, mixed sinter and fallback breccia. The fallback breccia deposits and sinters are evidence of hot-springs activity probably associated with steep, northeast-trending faults which cut the volcanic rocks. Two rhyolite flow domes were emplaced in the southern part of this area, probably late in the sequence of hot-springs activity. Alteration associated with the hot-springs activity includes silicification of fallback breccia and tuffaceous sediments,
argillization of tuffaceous sediments, rhyolite tuff, andesite, and basalt, and propylization of andesite and basalt.

ORE DEPOSITS

Two types of ore deposits have been prospected within this portion of the Dead Camel Mountains. A large area of hydrothermal alteration associated with an extensive fossil hot springs system located along the northeastern margin of the mountains has been prospected for precious metals. The earliest prospecting was done along steeply-dipping, silicified breccias and fault zones such as that exposed at the Camp Gregory Mine. In the early 1980's, these same areas were prospected for large-tonnage gold-silver deposits similar to those found at Paradise Peak in Nye County, Nevada and at the McLaughlin Mine in northern California.

The only other known mineral deposits within the eastern Dead Camel Mountains are found about 3 miles southeast of the area of hydrothermal alteration surrounding Camp Gregory. Here Tertiary lake sediments have been prospected for diatomite. The diatomite deposits have been known for many years and are currently being held by mining claims. There has been no activity here, however, for many years.

PROPERTIES WITHIN OR ADJACENT TO PROPOSED WITHDRAWAL AREA

Camp Gregory Mine: Several shafts are identified on the Sheekler Reservoir 7 1/2' topographic map as the Camp Gregory Mine. The deepest of these shafts explores a steeply-dipping, northeast- striking, silicified shear zone that cuts altered volcanic rocks. Other than silicification and iron-oxide staining, very little evidence of metallic mineralization was seen in this area. The structural trend and associated alteration does, however, extend to the northeast toward an alluvial covered area well within the proposed withdrawal area.

Red Camel Project: The Red Camel project, within the Red Camel claims, covers most of the northeastern Dead Camel Mountains and includes the old Camp Gregory mines. This area was staked by Noranda Exploration in 1982 as a hot-springs type precious metal prospect. Noranda did extensive geologic mapping and geochemical sampling in the area during 1982 and 1983. Noranda's geologic mapping and sampling is summarized in figure 31. According to Noranda, extensive siliceous sinters, silicified volcaniclastic sediments, multiply-opened vent breccia dikes and fallback breccias exposed at Red Camel are grossly comparable with features described at such deposits as McLaughlin in California. At Red Camel, sampling, mapping, and drilling concentrated on delineating areas that might overlie a precious metal vein stockwork and/or breccia pipe. Following their exploration program, Noranda concluded that: the fallback breccia deposits originated from narrow breccia dikes; alteration is shallow and is confined to narrow breccia structures at depth, and the area is anomalous in arsenic but not strongly anomalous in precious metals. Noranda's final conclusion was that the area had low exploration potential for a precious metal deposit.
Generalized geologic map of the Red Camel claim area, Dead Camel Mountains, Churchill Co., Nevada.

Figure 31
As shown in figure 31, the structural trend and alteration defined by the Noranda work extends to the northeast and under the alluvial cover that flanks the Dead Camel Mountains.

White Horse Diatomite Prospect: The White Horse claims are about 3 miles southwest of Camp Gregory. This area is underlain by Tertiary lake sediments that locally contain lenses of diatomite. Vanderburg (1940) noted that "although the property has been known for many years, it has been little prospected, and there has been no production...in one place the diatomaceous earth is exposed on the side of a hill and a thickness of at least 30 feet is indicated. The material is pure white, homogeneous, and apparently of good quality". The diatomite-bearing sediments extend around the flanks of the low hills north and south of the claim area.

GEOCHEMICAL RELATIONSHIPS

Our geochemical samples collected in this area (figs. 32, 33) did not contain any anomalous values. Sampling by Noranda did reveal locally anomalous arsenic values and some anomalous silver (see fig. 31).

SELECTED REFERENCES


