

SAN FRANCISCO DISTRICT

The San Francisco mining district occupies Heusser Mountain, a football shaped extension of the Egan Range west of McGill. Prospects in the district are located on the mountain's east and southwest flanks north of Hercules Gap.

The district was organized in 1869. Early prospecting of silver-lead occurrences was apparently unsuccessful as there is no record of production. Renewed activity within the last five years includes some shallow trenching and limited exploratory drilling.

Heusser Mountain is predominantly composed of Precambrian and lower Paleozoic quartzites, siltstones, and shales. On the mountain's east flank, metamorphosed Precambrian rocks are intruded by a body of porphyritic quartz monzonite dated 33.6 m.y. (Armstrong, 1970). North and south of the intrusive the sediments are cut by high and low-angle faults.

Most of the prospects in the district explore replacement deposits and quartz veins developed in sediments surrounding the main intrusive mass. Many of the occurrences are in sheared or brecciated zones which strike northerly or westerly. Although local faulting is evident, some of the deformation may be related to the forceful intrusion of the igneous body.

During our investigation of the mountain's east flank we observed copper-lead mineralization on fracture surfaces in shear zones and as replacement or vein fillings in quartzitic host rocks. At several localities, gossan and pyrite occur in randomly oriented quartz veinlets cutting Prospect Mountain quartzites. Alteration effects here are not especially notable due to the siliceous

See also 83-2 for geochemical results.

J. Tingley + J. Bentz (1982) Mineral Res. of Egan Resource Area: NBMG OFR ~~82-9~~ 83-1

composition of the host rock. A few of the prospects explore porphyry dikes. These dikes contain fragments of gossan and abundant oxidized pyrite.

The best developed property in the district is the Mammoth claim. It is located one-half mile northwest of Hercules Gap and is probably the site of the first claim staking in the district. Significant amounts of copper and lead minerals fill vertical, limonitic-stained fissures in limestones beneath a major north-striking thrust fault. The fault is marked by a layer of iron-stained calcite gouge. The limestones beneath the thrust are bleached, recrystallized and, in some places, altered to tactite. The property had been drilled within the last five years, but was inactive at the time of our examination.

A sample collected from the mineralized fissures at the Mammoth claim showed high silver (5,000 ppm) and anomalous tin values in addition to significant copper, lead, and zinc.

#### Selected References

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