

from NBMG OFR 83-9

See also 83-10 for
geochemical results.

(46)
Item 2

BURNER HILLS DISTRICT

0850 0001

The Burner Hills and the mining district of the same name are located in western Elko County about 16 miles north of Midas and 10 miles west of the Good Hope district. The hills form an elongate, north-south trending prominence above the generally featureless Owyhee desert which extends to the north into Idaho.

Rocks exposed in the Burner Hills consist of chert, shale, argillite, and quartzite of the Ordovician Valmy Formation which form a structural high or window surrounded by Tertiary andesite flows and sediments. The andesite is shown on the Elko County open-file map to be in either flow or fault contact with the older Western facies siliceous rocks. There is a possibility, however, that some andesite porphyry seen in the area of the mines is intrusive.

The earliest activity in this district dates to the 1880's when about \$30,000 in lead-silver ore was mined from the Mint mine and shipped to smelters. Little work appears to have been done in the district since that time. Smith (1976) reports exploration activity in the area in 1961-64, and evidence of fresh claimstaking was seen when the property was visited first in 1979 and again in 1982. The area south of the Mine mine showed evidence of fairly recent (probably post-1969) trenching and drilling.

At the Mint mine on the north end of the district, mining was done along a N25°E fissure vein which cuts propylitically altered andesite. The vein zone is brecciated, with sulfides filling around fragments of altered andesite.

There appears to have been multiple brecciation and vein filling with sulfide mineralization followed by a barren quartz stage. High-grade ore from a dump near the main portal contained galena, sphalerite, pyrite, and chalcopyrite in a quartz-cemented vein breccia. Both pyrite and arsenopyrite are reported to be present in andesites in the walls of the vein structure.

To the south of the Mint mine area, in the southern part of the Burner Hills, small workings explore narrow quartz-filled fissures which cut both siliceous sediments and andesite. The fissures follow north-east trending structures and the wall rocks display local silicification. Fluorite was seen in float near sample site 139.

At the Willow claims, located about four miles to the south of the center of the Burner Hills district, recent claim activity is centered around an area of older trenching on silicified jasperoid outcrops. The silicified rocks appear to mark the trend of a fault zone, and massive manganese and hematite occur in pods along the structure.

Selected References:

- Emmons, W. H. (1910) Some mining camps in Elko, Lander and Eureka Counties, Nevada: USGS Bull. 408, p. 66.
- Garside, L.J. (1981) Uranium resources evaluation McDermitt quadrangle, Nevada: US DOE, PGJ-045(81), 45p.
- (See this reference for analytical results of samples MEV 375, 389, 390, 391.)

Selected References (continued)

Granger, A. E. (1957) Geology and mineral resources of Elko County, Nevada:

NBMG Bull. 54, p. 30

Hope, R. A. and Coats, R. C. (1976) Preliminary geologic map of Elko County,

Nevada: USGS open-file rpt 76-779, sheet #1.

Smith, R. M. (1976) Mineral resources of Elko County, Nevada: USGS open-file

rpt 1976-56, p. 28.