from NBMG OFR 83-9
See also 83-10 for geochemical results.

Near 79
Item 19

1480 0005

DIVIDE DISTRICT

The Divide district is located along the ridgecrest area of the Tuscarora Mountains about seven miles northwest of Tuscarora. The major mine in the district is the Divide mine. The mine lies at an elevation of 7,400' on the north flank of an 8,400' peak named Dry Creek Mountain. Some very shallow prospects exist about three miles south of the mine in section 21, T40N, R50E (see write-up for sample location 1590). Two mine symbols are shown on the USGS McDermitt two degree sheet. The symbols are located just west of Mt. Blitzen in sections 19 and 29, T40W, R51E. These mines were not visited during our reconnaissance of the area, but are mentioned here for others who intend to examine the area in the future.

Silver and some gold was produced from the district in 1918 and 1929, but the value of the total production is less than $5,000 (Smith, 1976).

The Divide district shares its western boundary with the Rock Creek district and its eastern margin with Tuscarora. All three districts share similarities in both geology and type of ore deposits. Like Tuscarora and Rock Creek, the Divide area is overlain by andesite to rhyolite flows and pyroclastics, including ashflow tuffs. Most of the volcanics belong to the older (Eocene) sequence of extrusives (Hope and Coats, 1976). Faulted exposures of western facies rocks are present near the Divide mine and three miles to the south when they are intruded by a partially concealed, granodiorite pluton, named the Mt. Neva pluton. The body is Tertiary in age (Coats and McKee, 1972) and also intrudes volcanics of Eocene age.

The Divide mine workings consist of older shafts and adits which were recently redeveloped by bulldozed cuts and trenches. The deposit is hosted

by rhyolitic ash-flow tuffs and minor flows. In some places, the rhyolite displays coarser and more homogeneous textures possibly indicating some of the rocks are hypabyssal in origin. However, in most exposures, the volcanics are light grey in color, flow laminated and contain quartz and sanadine phenocrysts in addition to flattened pumice and accidental sedimentary fragments. Few mafic crystals were observed.

The mineral deposits are a series of fissure veins, stockworks and breccia zones developed along a silicified north-striking fault in the volcanics. Outcrops of silicified rhyolite tuff at the Ruby claims, just south of the main Divide mine workings, display a flow foliation (defined by flattened pumice) oriented approximately north-south with a dip of 25° E. The rocks are cut by abundant vitreous grey to milky white fissure veins. Most of the veins strike north or west and are about 1" or less in width. The veins are banded, have sharp contacts with the volcanic host and show open spaced centers and cockscomb structure of the quartz. The quartz veins observed in outcrop contain pyrite and a few dark lenses of finely crystalline sulfides not readily identifiable with the handlens. Barite crystals occur in gossan cementing a breccia found on the shaft dump (sample 1591B). The breccia contains iron-stained fragments of rhyolite and quartz vein.

At the main workings of the Divide Mine, the rocks are more highly altered and brecciated. Quartz is present as stockworks and in sheeted vein systems which cut the silicified volcanics. A wide, chaotic (bouldery) breccia zone is exposed in the wall of the main trench. The zone is north or northeast-striking. Siliceous breccias scattered along the floors of the trenches contain both volcanic and sedimentary fragments. Some of the breccias show

multiple stage brecciation and veining. Often, open centered, drusy quartz veins are the last stage of veining observed. Also, late-stage aplitic dikes and barite veins intrude the breccia zone. Pyrite, iron-oxides and unidentified fine sulfides are present in the massive and vuggy quartz veins and in the fragments and matrix of siliceous breccias. Minor cinnabar and copper was also observed.

South of the main workings there are several shallow trench-like prospects developed in the area occupied by the Mt. Neva pluton. Several igneous (volcanic and intrusive?) rock types are found in the trenches, mostly andesitic in composition. No significant mineralization was observed. The prospects are most likely developed along surface shows of pyrite or iron-oxides.

Current interest in the district is evidenced by recent shallow exploration of the mineralized areas and claim staking within and surrounding the mined areas.

Selected References:

Coats, R. R. and McKee, E. H. (1972) Ages of plutons and types of mineralization, northwestern Elko County, Nevada: USGS PP 800-C, p. C165-C168.

Granger, A. E. (1957) Geology and mineral resources of Elko County, Nevada: NBMG Bul 54, p. 50 and 133.

Hope, R. A. and Coats, R. R. (1976) Preliminary geologic map of Elko County, Nevada: USGS open-file 76-779, sheet #1.

Smith, R. M. (1976) Mineral resources of Elko County, Nevada: USGS open file-rpt 1976-56, p. 54.