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

W. of 70
Elko Co. - general
ITEM 49

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BEAVER DISTRICT

The Beaver district is located on the east side of the Tuscarora Mountains about 15 miles due south of Tuscarora. The district encompasses a large area but only contains a few mines.

Most of the (past and present) activity centers on the exploration and mining of bedded barite deposits. The Lakes and Beacon barite mines are located near Lake Mountain along the boundary between T37N and T38N in R51E. The smaller Coyote mine is southwest of these deposits in section 7, T36N, R51E. All three mines are active or recently active and productive. The Lakes mine is the most significant deposit, having produced almost one-half million tons of barite between 1959 and 1981 (unpub. data, USBM). The mine has expanded and a new deposit was recently discovered by drilling southwest of the old pit (Papke, in press). Exploration for similar barite deposits continues actively along the eastern rangefront in several areas near the existing mines. At least one (and probably more) property was being drilled during our examination of the district in 1983.

Turquoise was produced from the Stampede mine sometime before 1968 (Smith, 1976). This mine is located north of the barite mines between Road Canyon and Dip Creek (sec. 9?, T38N, R52E). Less than $500,000 was actually produced and, at present, the mine is abandoned.

The rangecrest area of this part of the Tuscarora Mountains is underlain predominately by Ordovician, western facies siliceous sediments. The sediments are overlain or faulted against Tertiary volcanic rocks especially in the northern part of the district near the Stampede, Lakes and Beacon mines. The

volcanics consist of rhyolitic to dacitic ash-flow tuffs, latite - basalt flows and minor conglomerates. In the southern part of the district there are a few isolated, faulted exposures of Pennyslvanian and Permian limestones and clastic rocks. Northwest and northeast-striking high-angle faults cut both Paleozoic and Tertiary rocks. Extensive basin and range normal faults trace the rangefront on the east. There are no intrusives mapped near the minesites (Hope and Coats, 1976).

The three barite mines of the Beaver district were visited by Papke in the summer of 1980. The information contained in this report regarding the barite deposits are derived from his descriptions of the properties. The mines are open pits or stripped areas developed in cherts (some black), mudstones and argillites of the Ordovician Vinini Formation. The barite occurs in units which are generally conformable with the bedding of the host rocks. The units vary considerably in thickness from one mine to another. At the Lakes mine, the barite horizon is about 30' thick. Some of the rocks exposed in the pits are sheared or iron-stained. White barite veins occur locally.

The Stampede mine is developed by several benches and trenches oriented in a northeast-southwest direction. The trenches explore a section of siliceous sediments consisting of cherts and siltstones interbedded with platy shales and mudstones. The rocks are probably part of the Ordocician Vinini Formation. The bedding in the pit generally strikes N20E and dips 25° NW. In a few places the rocks are fractured along northeast-striking high-angle faults. Light blue and dark blue siliceous turquoise occurs in light-colored siltstones and shales. The turquoise forms small pods, lenses and veinlets which were deposited along pre-existing fractures, like bedding planes or shear

zones. Some jarosite crystals are also present on fracture surfaces in the siltstones. Some bleaching, iron-staining and minor silicification of the wallrocks is evident.

Selected references:

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

Horton, R. C. (1963) An inventory of barite occurrences in Nevada: NBMG Report 4 (out of print).

Morrissey, F. R. (1968) Turquoise deposits of Nevada: NBMG Report 17, p. 5.

Papke, K. G. (in press) Barite deposits in Nevada: NBMG Bul, in preparation.

Smith, R. M. (1976) Mineral resources of Elko County, Nevada: USGS open-file rpt 1976-56, p. 25.