NBMG OFR 83-11
See also 83-12 for geochemical results.

Esmeralda County

Item 13

1160 0002

COALDALE AND COLUMBUS MARSH DISTRICTS

The Coaldale mining district is located to the south and southwest of Coaldale Junction (the junction of U.S. Highways 6 and 95). It includes mines and prospects to the north and northwest of Emigrant Peak at the northern end of the Silver Peak Mountains. The Columbus Marsh district encompasses the Columbus Marsh playa northwest of Coaldale Junction.

The workings in these districts are relatively minor, consisting of about a dozen shallow vertical and inclined shafts for coal and numerous bulldozer cuts and trenches.

Borate minerals were discovered on Columbus Marsh in 1871, and several small mills were built on or near the playa in the following few years. Salt was supplied to nearby mills from the playa as early as 1864 (Papke, 1976, p. 22). By 1882 the borax production from this area had ceased. Coal was discovered at the northern end of the Silver Peak Mountains in 1893. Attempts to mine and market the coal locally were made at various times in the 1890's and early 1900's, but because of the poor quality, none were very successful (Albers and Stewart, 1972, p. 62). Uranium mineralization was discovered in the Coaldale district in the early and mid-1950's; exploration activity for uranium also is reported for the late 1960's and late 1970's. No commercial uranium deposits were located.

The borate mineral ulexite occurs as cottonball-like thin layers 2-15 cm below the surface of Columbus Marsh locally in irregular areas around the margin of the playa (Papke, 1976, p. 22). The halite mined in the 1860's was probably from playa surface encrustations.

Four coal beds have been recognized in the Miocene or Pliocene Esmeralda Formation exposed about 6-7 km southeast of Coaldale Junction. They range in thickness from approximately 1 to 7 m and are distributed over a stratigraphic interval of about 90 m (Hance, 1913; Albers and Stewart, 1972, p. 61). The coal

is quite variable in quality and shaly partings are common. The ash content of even the best grade coal is high, and folding and faulting in the Tertiary sedimentary rocks would further complicate economic extraction (Garside and others, 1980). Toenges and others (1946) include a map which shows the coal beds and workings.

A number of uranium prospects are known in the Coaldale district; most of these consist of slightly anomalous radioactivity or sparse uranium minerals in Tertiary sedimentary or volcanic rocks (Garside, 1972, p. 47-48). Two radioactive occurrences are associated with springs. Only minor prospecting has been done at most of these prospects, and there has been no uranium production from the district.

The most promising uranium prospect in the district has been called the Coaldale prospect. At this property, yellow, six-valent uranium minerals occur in dark gray chalcedonic veinlets, as fracture coatings, and as partial fillings in cavities once occupied by feldspars. The wallrock is rhyolitic welded tuff. Many of the veinlets are silica-cemented hydrothermal breccia zones. A number of similar veins cut rhyolitic welded tuff on the Hombre claims, located about 3 km west of the Coaldale uranium propsect. These were explored for uranium by shallow drilling in 1981? by Sierra Del Rio Nuclear. In addition to chalcedony, the veins and silicified zones contain barite, pyrite, and iron- and manganese-oxide minerals. Anomalous molybdenum is also rumored to occur in the veins.

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