ABAJO DISTRICT

The Abajo district is a part of the Monticello U mining area in central San Juan County. The district lies about 11 mi west-northwest of Monticello and is a small V-U producer; the initial mineral discoveries were made in the 1940s and 1950s. Total district metal production at modern metal prices is estimated at $216,000. The largest producer is the Indian Creek and Harts Draw underground V-U mines (Doelling, 1969, 1974).

The Abajo district is geologically situated north of the Abajo Mountains in the Paradox Basin of the Colorado Plateau. The district is on the north flank of the Abajo Mountain Oligocene (about 27 Ma) calc-alkaline laccolithic complex. The principal host in the district is the Upper Jurassic Salt Wash Member of the Morrison Formation. The orebodies generally occur in Salt Wash channel sandstones that cut into underlying claystones. The best orebodies are typically in the larger channels measuring about 25 ft thick and 300 ft wide (Witkind, 1964).

There are two common types of sandstone U orebodies (USGS Model 30c): (1) stratabound, tabular, ribbon-shaped deposits 30 ft wide by 3 ft thick by 600 ft long and (2) smaller, oval-shaped deposits 10 ft wide by 3 ft thick by 25 ft long. The stratabound, tabular, ribbon-shaped deposits account for most of the production. The ribbon-shaped deposits often contain accumulations of carbon trash and claystone pebbles, but similar zones are found without mineralization. These deposits often have sharp grade boundaries between ore and waste. The V-U ores average about 1.0% V_2O_5 and 0.06% U_3O_8 (Witkind, 1964; Doelling, 1969, 1974).

The Abajo district also has small Middle Jurassic Entrada Sandstone hosted Cu orebodies (Tuffy mine) of uncertain origin (Witkind, 1964).

Doelling, H.H., 1969, Mineral resources, San Juan County, Utah and adjacent areas, Part II—Uranium and other metals in sedimentary host rocks: Utah Geological and Mineral Survey Special Study 24, 64 p.

Doelling, H.H., 1974, Uranium-vanadium occurrences of Utah: Utah Geological and Mineral Survey Open-File Report 18, unpaginated.

Witkind, I.J., 1964, Geology of the Abajo Mountains area, San Juan County, Utah: U.S. Geological Survey Professional Paper 453, 110 p.