



Site Description

Mountain City

(updated 2010)

Geologic setting: “In 1932 near Mountain City, a zone of supergene-enriched sulphides was discovered 228 feet beneath barren gossans by Frank Hunt (York, 1944, p. 71). The deposit was rich in copper and was the main ore body of the Rio Tinto mine. It is located along the contact between the Black Rock Quartzite and the Rio Tinto Formation, formations tentatively correlated with the argillaceous rocks (Pza) in the Rowland quadrangle.”

“Other probable exposures of Golconda thrusting in northern Elko County include allochthonous Permian Edna Mountain Formation in the Divide Peak area, and the Pennsylvanian-Permian(?) Reservation Hill Formation thrust over the Mississippian Mountain City Formation in the Mountain City Quadrangle (Coats, 1985).” [http://westerncordillera.com/sonoma_orogeny_golconda_thrust.htm]

Geothermal features:

Rizzi Ranch: Rizzi Ranch Hot Springs are located in SW¼ Sec. 20, T45N, R54E, Elko County. Springs are shown on the Mountain City 7.5-minute topographic map. The springs are reported to be 41°C and discharge 76 L/min (unnamed hot spring SSE of Patsville of Mariner and others, 1974; Waring, 1965). Rizzi Ranch reservoir temperature was estimated to be 37°C/71°C, using the silica and Na-K-Ca geothermometers, respectively (Mariner and others, 1983, p. 105).

Leasing information:



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Bibliography:

Bushnell, K., 1967, *Geology of the Rowland Quadrangle, Elko County, Nevada*, Nevada Bureau of Mines and Geology Bulletin 67, University of Nevada, Reno, p. 1-36. [<http://www.nbmg.unr.edu/dox/b67text.pdf>]

York, B., 1944, *The geology of Nevada ore deposits*, Washington, D.C. Nevada Univ. Bull., v. 38, no. 4, Geol. and Min. Ser., no. 40