



Site Description

Humboldt Range

(updated 2010)

Geologic setting: The southern Humboldt Range, near Packard Flat, consists of Mesozoic-era formations (Grass Valley, Dun Glen), and Tertiary basaltic flows. The Mesozoic units were folded and faulted in a sequence of northwest-trending synclines and anticlines, underlain by the Relief Fault, a low-angle thrust. The Relief mine southeast of Packard Flat hosts gold within a silicified limestone breccia (Bonham et al., 1985).

At Packard Flat, quartz veins crosscut sequences of Triassic-Jurassic shale, sandstone, and limestone. The veins are enriched in antimony, a remineralization of intruded volcanic plugs (Johnson, 1977). The Triassic-Jurassic sequence is capped by Tertiary sediments and volcanics, and Quaternary basalt (Bonham et al., 1985).

The central Humboldt Range, near Spring Valley, hosts high-grade silver ore (Indian mining district). The silver host rock is variable: at the Moonlight Mine, oriferous quartz stringers mineralized within rhyolitic shear-zone fractures; at the Bluebird Mine, meter-scale quartz veins are hosted within Limerick Greenstone (Bonham et al., 1985).

The northern Humboldt Range, including Florida Canyon, is incorporated into discussion of the Rye Patch Reservoir geothermal region.

Geothermal features:

Packard Flat: [Black Knob Spring, Antelope Spring]

Spring Valley:

Leasing information:



Site Description

Bonham, H.F., Jr., Garside, L.J., Jones, R.B., Papke, K.G., Quade, J., and Tingley, J.V., 1985, A mineral inventory of the Paradise-Denio and Sonoma-Gerlach Resource Areas, Winnemucca District, Nevada, Nevada Bureau of Mines and Geology Open File Report 85-3, 473 p.

Johnson, M.G., 1977, Geology and Mineral Deposits of Pershing County, Nevada, Nevada Bureau of Mines and Geology Bulletin 89.