



Site Description

Bruneau River

(updated 2010)

Geologic setting: The Bruneau River flows northward into the Snake River Plain along Paleozoic bedrock channels. Three hot springs issue from the Bruneau River basin 2.5 km east of Hot Springs Butte, in the Mahogany Range (Waring, 1965). Paleozoic limestone outcrops along a 4-5 km band between Rowland Hot Springs (east) and Trail Gulch fault (west). Granitic intrusions are exposed at Trail Gulch, where hydrothermal mineral veins and contact metamorphism suggest granitic rock at a relatively shallow depth (Bushnell, 1967).

Geothermal features:

Rowland Hot Springs: Spring temperatures range from 59 to 83°C, with geothermometers of $109 \pm 27^\circ\text{C}$ (Ca-Na-K-Mg) and $124 \pm 18^\circ\text{C}$ (Quartz).

Leasing information:

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.nbmgs.unr.edu/dox/b67text.pdf>]

Waring, G.A., 1965, *Thermal springs in the United States and other countries of the world*, U.S. Geological Survey, Prof. Paper 492.