



Site Description

Kumiva Valley

(updated 2010)

Geologic setting: Southeastern Kumiva Valley is underlain by Triassic-Jurassic metasediments between the Seven Troughs Range (SE) and Stonehouse Canyon (S). These rocks were intruded and altered by Cretaceous granodiorite. North of Stonehouse Canyon, metasediments and andesites are overlain by rhyolite flows. Most mineralization occurs along northeast-trending shear zones, with evidence of brecciated chalcedony and quartz. Fine-grained sulfides and free gold are present within the shear veins (Johnson, 1977; Vanderburg, 1936).

Geothermal features: Phillips Petroleum Co. drilled multiple temperature gradient wells in southern Kumiva Valley. Many have anomalous gradients, and one has a reported temperature of 30°C at 91 m (SMU; Sass and others, 1997; Richards and Blackwell, 2002; GeothermEx, 2004).

Juniper Spring: Juniper Spring (24.0°C) is located southeast of Kumiva Valley in the Sahwave Mountains. UNR samplers siphoned water from a cattle trough inlet pipe, which otherwise produced water at a drip/second rate. The sampling pipe had high iron oxide content, which resulted in thick FeOX precipitates on the water filter. Geothermometer values are low and divergent, at 43.2°C (Na-K-Ca-Mg) and 13.8°C (chalcedony). Location coordinates in NAD83 are 40.25081 N, 119.07995 W.

South Juniper Spring is dry. Apart from several dead bunches of tall, thin grass, there was no indication of a spring.

Lower Stonehouse Spring: Lower Stonehouse Spring is located in Stonehouse Canyon south of Kumiva Valley (SE¼ SE¼ Section 8, T27N, R25E). It has a reported temperature of 28°C (Garside, 1994), though the granitic surface was dry in August 2007. UNR staff sampled water piped to a stock trough, which was clear, unscented, and moderately cool (17.8°C). Geothermometer values are low, at 44.6°C (Na-K-Ca-Mg) and 33.2°C (chalcedony). Location coordinates are 40.21707 N, 119.19624 W (NAD83).

Tunnel Spring: Tunnel Spring (17.4°C) is located in southern Kumiva Valley. The spring area consists of dried mud with ex-situ granite pieces. Spring water was piped into a stock trough with thick algae growth. Location coordinates are 40.22964 N, 119.14537 W (NAD83). Geothermometer values are moderate, at 76.5°C (Na-K-Ca-Mg) and 95.4°C (chalcedony).



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Leasing information:

Bibliography:

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

Vanderburg, W.O., 1936, Reconnaissane of mining districts in Pershing County, Nevada, U.S. Bureau of Minerals Information Circular I.C.-6902.