

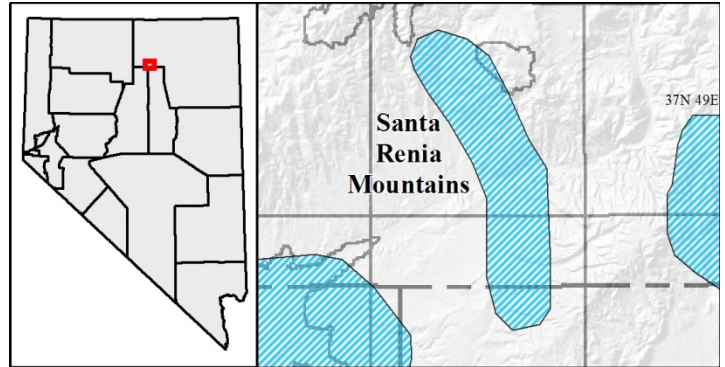
# Site Description

## Santa Renia Mountains

(updated 2014)

### Geologic setting:

The Santa Renia Mountains are located approximately 45 kilometers northwest of Elko, Nevada and north of the Sheep Creek Range and west of the Tuscarora Mountains. The Santa Renia Mountains are also located within the Carlin trend, which extends 60 kilometers towards the northeast. The geology of the Santa Renia Mountains is stratigraphically and structurally complex due to large geologic events that have occurred throughout geologic time. The Carlin trend is known for gold mineralization with the most concentrated areas of mineralization lying beneath the Roberts Mountain Thrust, which are composed of Paleozoic rock, Tertiary volcanic rocks and Tertiary unconsolidated sedimentary deposits (Theodore and et al., 2006).



### Geothermal features:

**Hot Creek:** A non-thermal spring is located at the headwaters of Hot Creek (Willow Creek Reservoir 7.5' Quadrangle; Sec. 11, T38N, R48E). Garside and Schilling (1979) noted that the temperature was uncertain. The spring was visited by NBMG sampling crews in September 2002, and found to be cold (16°C) (Great Basin Groundwater Geochemical Database).

### Leasing information:

N/A

### Bibliography:

[Garside, L.J., and Schilling, J.H., 1979, Thermal waters of Nevada: Nevada Bureau of Mines and Geology Bulletin 91, 163 p.](#)

Great Basin Groundwater Geochemical Database, Nevada Bureau of Mines and Geology: <http://www.nbmgs.unr.edu/Geothermal/GeochemDatabase.html>.

[Theodore, T. G., Moring, B.C., Chadwick, T., Dobak, P., Cluer, J. K., and Fleck, R. J., 2006, Geology of the Santa Renia Fields Quadrangle, Elko and Eureka Counties, Nevada., Nevada Bureau of Mines and Geology Map 155.](#)