

# MIDWAY AREA, WASATCH COUNTY

Robert Blackett  
Utah Geological Survey  
Cedar City, UT

John W. Lund  
Geo-Heat Center



*The travertine mound - the SCUBA dive "hot pot."*

## GEOLOGY

Midway is a small farming and resort town located about 5 miles (8 km) west of Heber City in Wasatch County. Thermal springs in and around the community issue from several widespread, coalescing travertine mounds covering an area of several square miles (kilometers) (Baker, 1968). Temperatures in these springs range from 100°F to 115°F (38°C to 46°C). Kohler (1979) suggested that thermal water at Midway originates from deep circulation of meteoric water from recharge zones located to the north near Park City. Thermal water is contained within fractured, Paleozoic quartzite in a broad antiformal structure. Leakage to the surface is expressed as scattered thermal springs and widespread travertine deposits. Chemical geothermometry indicates that the maximum reservoir temperature is about 167°F (75°C). A Utah State University chemical analysis in 1995 showed that the water is mainly calcium (336 mg/L), sulfur (213 mg/L), sodium (123 mg/L), magnesium (70 mg/L), potassium (27 mg/L), and silica (11 mg/L), with traces of strontium, barium and manganese (Blackett and Wakefield, 2004).

## UTILIZATION

Thermal water here has been used in pools and spas for several decades. Some new residences in this rapidly growing area reportedly use the geothermal water for space heating. A DOE-funded study (Kohler, 1979) showed that the geothermal system extends for several square miles

(kilometers) around Midway. Midway's population was 1,554 during the 1990 Census, an increase of 30 percent over the 1980 Census. U.S. Highways 189 and 40 connect Midway with the larger, nearby communities of Provo, Heber, and Park City. The Heber Valley is an agricultural area producing alfalfa, corn, and cattle. At the Mountain Spa Resort, thermal water is used for heating a swimming pool and for therapeutic baths. The Homestead, a hotel and resort complex, uses thermal water in a therapeutic bath, and also offers guests SCUBA diving within a 95°F (35°C) thermal pool inside "the old hot pot," a large travertine mound.



*Inside "The Crater."*

## HOMESTEAD CRATER

The large travertine mound is 55 feet high and 400 feet in diameter (17 m by 122 m) with a large hole in the top, which was the original access - much like a volcano. It was originally used for irrigation in 1890, and for hot tubs made of railroad ties by drilling an 8-inch (20-cm) drain tunnel through the 110-foot (33.5-m) thick walls. This drainage stopped the formation of the cone - which was originally called "Schneitter's Hot Pot" after the original Swiss family who settle there in 1864. Farming didn't pay off, so the owners built a two-story hotel in 1886. The ownership changed hands over the years, and in 1995 a large tunnel was constructed, so the 65-foot (20-m) deep pool at 95°F (35°C) could be used as a SCUBA dive certification site. Water draining from the pool through the 8-inch (20-cm) diameter pipe drains into a fish pond adjacent to the Homestead Resort, where Koi fish are raised. The resort also uses the water to heat their outside Jacuzzi.

## MOUNTAIN SPA RESORT

This geothermal spring area started as a homestead in the Midway area, became a business in 1875 and a resort in 1890; thus, making it one of the oldest resorts in the state. The resort consists of a hot tub (94 to 104°F - 34 to 40°C), an outdoor pool (88 to 98°F - 31 to 37°C), and indoor pool (90 to 103°F - 32 to 39°C). Geothermal water is used directly in the pools, where the water is changed twice-a-week. The hot tub water is changed after each use. The water is also used to irrigate the lawns and to raise tomatoes. The resource, originating from 25 hot springs and two wells, flows at 110°F (43°C) at 933 gpm (59 L/s). The indoor pool is built over a "hot pot" with four vents feeding the pool. The resort also have guest rooms and cabins for rent, along with RV hookups. It is open from mid-April to mid-October. The facility is for sale and may be developed into a high-class health spa.



*Detail of the travertine mound at Homestead Crater.*

## REFERENCES

- Baker, Ch. H., Jr., 1968. "Thermal Springs Near Midway, Utah," in Geological Survey Research: *U.S. Geological Survey Professional Paper 600-D*, U.S. Government Printing Office, Washington, DC.
- Blackett, R. E. and S. Wakefield, compilers, "Geothermal Resources of Utah - 2004." *Utah Geological Survey Open-File Report 431*, CD-ROM.
- Kohler, J. F., 1979. "Geology, Characteristics and Resource Potential of the Low-Temperature Geothermal System Near Midway, Wasatch County, Utah." *Utah Geological and Mineral Survey Report of Investigation 142*, Salt Lake City, UT.