

Quaternary Fault and Fold Database of the United States

As of January 12, 2017, the USGS maintains a limited number of metadata fields that characterize the Quaternary faults and folds of the United States. For the most up-to-date information, please refer to the [interactive fault map](#).

unnamed fault zone near Sheep Spring (Class A) No. 1625

Last Review Date: 1999-03-16

citation for this record: Sawyer, T.L., and Adams, K., compilers, 1999, Fault number 1625, unnamed fault zone near Sheep Spring, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, <https://earthquakes.usgs.gov/hazards/qfaults>, accessed 12/14/2020 02:29 PM.

Synopsis	These short range-front normal faults bound the east and west fronts of a prominent north-northeast trending mountain block (horst) near Sheep Spring, between Lava Beds Creek and Granite Spring Wash near the southern edge of the Black Rock Desert. The faults juxtapose Quaternary alluvium against bedrock and Quaternary-Tertiary basalt is faulted against bedrock on the southwest side of the mountain. The faults are expressed as abrupt range-front bedrock escarpments. Reconnaissance photogeologic mapping and regional geologic mapping are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
Name comments	Refers to faults mapped along the eastern and western sides of a small unnamed mountain block at and near Sheep Spring,

	between Lava Beds Creek and Granite Spring Wash.
County(s) and State(s)	PERSHING COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Fault locations are primarily based on 1:250,000-scale map of Dohrenwend and others (1991 #285), which was produced by analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to scale of the photographs. Additional faults were located from 1:250,000-scale map of Johnson (1977 #2569). Fault locations checked against 1:250,000-scale photogeologic map of Slemmons (1974, unpublished Lovelock 1? X 2? sheet).</p>
Geologic setting	<p>These short range-front normal faults bound the east and west fronts of a prominent north-northeast trending mountain block (horst) near Sheep Spring, between Lava Beds Creek and Granite Spring Wash near the southern edge of the Black Rock Desert (Slemmons, 1974 unpublished Lovelock 1? X 2? sheet; Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).</p>
Length (km)	9 km.
Average strike	N22°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Not studied in detail; sense of movement inferred from topography.</p>
Dip Direction	W; E
Paleoseismology studies	
Geomorphic expression	<p>The faults, which juxtapose Quaternary alluvium and Quaternary-Tertiary basalt against bedrock, are expressed as abrupt range-front escarpments (Dohrenwend and others, 1991 #285; Slemmons, 1974, unpublished Lovelock 1? X 2? sheet).</p>
Age of faulted	Quaternary alluvium, Quaternary-Tertiary basalt, and Tertiary

surficial deposits	sedimentary rock are displaced by the faults (Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is suggested based on reconnaissance photogeologic mapping of Dohrenwend and others (1991 #285) and bedrock mapping of Johnson (1977 #2569).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1999 Thomas L. Sawyer, Piedmont Geosciences, Inc. Kenneth Adams, Piedmont Geosciences, Inc.
References	#285 Dohrenwend, J.C., McKittrick, M.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lovelock 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2178, 1 sheet, scale 1:250,000. #2569 Johnson, M.G., 1977, Geology and mineral deposits of Pershing County, Nevada: Nevada Bureau of Mines and Geology Bulletin 89, 115 p., scale 1:250,000.

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