

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 near Mollys Nipples (Class A) No. 1409

Last Review Date: 1998-06-29

citation for this record: Sawyer, T.L., compiler, 1998, Fault number 1409, unnamed fault near Mollys Nipples, 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 02:05 PM.

Synopsis	These two short normal faults bound the east and west sides of Mollys Nipples, a north-northeast-striking horst block. Reconnaissance photogeologic mapping these faults is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to faults mapped by Schell (1981 #2844) and Dohrenwend and others (1991 #287). Faults bound both sides of Mollys Nipples, about 17 km east of Lund.
County(s) and State(s)	WHITE PINE COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE

Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Location based on 1:250,000-scale maps of Schell (1981 #2844) and of Dohrenwend and others (1991 #287). Original mapping by Schell (1981 #2843; 1981 #2844) based on photogeologic analysis of primarily 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred by inspection to 1:62,500-scale topographic maps and photographically reduced and directly transferred to 1:250,000-scale topographic maps, and field verification. Mapping by Dohrenwend and others (1991 #287) based on photogeologic 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.</p>
Geologic setting	These two short normal faults bound the east and west sides of Mollys Nipples, a north-northeast-striking horst block.
Length (km)	4 km.
Average strike	N°W
Sense of movement	<p>Normal</p> <p><i>Comments:</i> (Schell, 1981 #2844), and inferred from topography.</p>
Dip Direction	E; W
Paleoseismology studies	
Geomorphic expression	The fault is marked abrupt well-defined fault scarps juxtaposing Quaternary alluvium against bedrock and by lineaments and scarps in Tertiary deposits (Dohrenwend and others, 1991 #287).
Age of faulted surficial deposits	Quaternary and Tertiary (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).
Historic earthquake	
Most recent prehistoric	undifferentiated Quaternary (<1.6 Ma)

deformation	<i>Comments:</i> Although timing of the most recent event is not well constrained, Dohrenwend and others (1991 #287) and Schell (1981 #2843; 1981 #2844) suggest a Quaternary time based on reconnaissance photogeologic studies.
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)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#287 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lund 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2180, 1 sheet, scale 1:250,000. #2843 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume I: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 77 p. #2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.

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