

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 Packer Station (Class A) No. 1408

Last Review Date: 1998-06-29

citation for this record: Sawyer, T.L., compiler, 1998, Fault number 1408, unnamed fault near Packer Station, 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	This short down-to-the-west normal fault bounds west flank of Mount Grafton and margin of northern Cave Valley. Although much or all of this fault places bedrock against alluvium, Quaternary movement is suspected. Reconnaissance photogeologic mapping of tectonic geomorphic features is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to short fault mapped by Schell (1981 #2844) and subsequently by Dohrenwend and others (1991 #287). The fault extends along west flank of Mt. Grafton, about 7 km northeast of Packer Station.
County(s) and	WHITE PINE COUNTY, NEVADA

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	This short down-to-the-west normal fault bounds west flank of Mount Grafton and margin of northern Cave Valley.
Length (km)	4 km.
Average strike	N9°W
Sense of movement	<p>Normal</p> <p><i>Comments:</i> (Schell, 1981 #2844).</p>
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault is marked 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 (Dohrenwend and others, 1991 #287).
Historic	

earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of the most recent event is not well constrained, reconnaissance studies by Schell (1981 #2844) and by Dohrenwend and others (1991 #287) suggest a Quaternary time based on photogeologic interpretation.
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	#2479 Dohrenwend, J.C., and Moring, B., C., 1993, Reconnaissance photogeologic map of late Tertiary and Quaternary faults in Nevada: Geological Society of America Abstracts with Programs, v. 25, no. 5, p. 31. #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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