

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 west of Wells Peak (Class A) No. 1581

Last Review Date: 1998-10-06

citation for this record: Sawyer, T.L., and Oswald, J.A., compilers, 1998, Fault number 1581, unnamed fault west of Wells Peak, 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 02:36 PM.

Synopsis	This distributed group of short normal faults bounds west front of Wells Peak and the east side of a low bedrock spur ridge extending north from Wood Hills near Wadel Spring, south of Moor Summit. Quaternary alluvium is juxtaposed against bedrock along these faults. The group includes piedmont faults in the southeast part of Town Creek Flat, near Harriet Field, that forms scarps on early Pleistocene alluvium Reconnaissance photogeologic mapping of fault related features is the source of data. Trench investigations and studies of scarp morphology have not been conducted along the fault.
Name comments	Refers to faults mapped by Slemmons (1964, unpublished Wells 1? X 2? sheet) and Dohrenwend and others (1991 #290) that bound the west front of Wells Peak, cross Town Creek Flat near

	Harriet Field, and includes a fault near Wadel Spring south of Moor Summit on Interstate 80.
County(s) and State(s)	ELKO 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 Location based on 1:250,000-scale maps of Dohrenwend and others (1991 #290) and Slemmons (1964, unpublished Wells 1? X 2? sheet). Mapping by Dohrenwend and others (1991 #290) 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. Quaternary fault map of Slemmons (1964, unpublished Wells 1? X 2? sheet) is from analysis of 1:60,000-scale AMS photography transferred to mylar overlay on a 1:250,000-scale topographic map using proportional dividers.</p>
Geologic setting	This distributed group of short normal faults bounds west front of Wells Peak and the east side of a low bedrock spur ridge extending north from Wood Hills near Wadel Spring, south of Moor Summit (Dohrenwend and others, 1991 #290).
Length (km)	11 km.
Average strike	N17°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> (Slemmons, 1964, unpublished Wells 1? X 2? sheet; Dohrenwend and others, 1991 #290)</p>
Dip Direction	W; E; SE
Paleoseismology studies	
Geomorphic expression	Quaternary alluvium is juxtaposed against bedrock along faults bounding Wells Peak and a spur ridge of Wood Hills. Piedmont faults are expressed by scarps on early Pleistocene alluvium in the southeast part of Town Creek Flat, near Harriet Field (Slemmons, 1964, unpublished Wells 1? X 2? sheet; Dohrenwend and others,

	1991 #290).
Age of faulted surficial deposits	Early Pleistocene; Quaternary. The faults displace alluvium interpreted from photogeologic mapping to be early Pleistocene and undifferentiated Quaternary in age (Dohrenwend and others, 1991 #290).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Dohrenwend and others (1991 #290) indicate these faults are no younger than middle Quaternary.
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. John A. Oswald, Piedmont Geosciences, Inc.
References	#290 Dohrenwend, J.C., McKittrick, M.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Wells 1° by 2° quadrangle, Nevada, Utah, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2184, 1 sheet, scale 1:250,000.

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