

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 faults east of Teels Marsh (Class A) No. 1317

Last Review Date: 1998-07-19

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1998, Fault number 1317, unnamed faults east of Teels Marsh, 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 02:15 PM.

Synopsis	These short generally subparallel faults strike northeast and extend from the southwest piedmont slope of an unnamed mountain block northeast into the block, but are most concentrated along the south and east sides. Many of the faults within the mountain block only displace Tertiary bedrock units, but Quaternary movement is suspected because they are adjacent to and have the same general orientation as faults within the mountain block and on its southwest piedmont slope which displace Quaternary deposits. Reconnaissance photogeologic mapping and bedrock mapping of the faults are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name	Refers to generally faults in a roughly circular unnamed mountain

comments	block east of Teels Marsh and north of Little Summit on Nevada State Highway 360, mapped by Dohrenwend (1982 #2481; 1982 #2870) and Stewart (1984 #2911).
County(s) and State(s)	MINERAL COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. <i>Comments:</i> Location based on 1:62,500-scale (Dohrenwend, 1982 #2900) and 1:250,000-scale maps (Dohrenwend, 1982 #2481); small-scale mapping by 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.
Geologic setting	These short generally subparallel faults strike northeast and extend from the southwest piedmont slope of a small, roughly circular mountain block northeast into the block, but are most concentrated along the south and east sides (Dohrenwend, 1982 #2481; 1982 #2900).
Length (km)	14 km.
Average strike	N37E
Sense of movement	Left lateral <i>Comments:</i> Not studied in detail; sinistral sense is inferred from general knowledge of sense of movement on other east northeast-striking faults in the region and normal sense of movement is inferred from topography.
Dip Direction	NW; SE
Paleoseismology studies	
Geomorphic expression	On the southwest piedmont slope, faults cut Quaternary alluvium and Tertiary bedrock and continue to the northeast into the mountain block where they are expressed as aligned drainages (Dohrenwend, 1982 #2900). Some of the faults within the mountain block traverse small patches of Quaternary alluvium

	and eolian deposits which are also faulted.
Age of faulted surficial deposits	Holocene through Tertiary. Dohrenwend (1982 #2900) mapped faults displacing Holocene piedmont slope deposits and juxtaposing Holocene deposits against Tertiary bedrock. Several faults displace Tertiary bedrock (Dohrenwend, 1982 #2900; Stewart, 1984 #2911).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> The timing of most recent event is not well constrained, and some of the mapping may indicate young faulting (Dohrenwend, 1982 #2900). However, the Quaternary age assignment here is based on Dohrenwend and others (1996 #2846).
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 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2481 Dohrenwend, J.C., 1982, Map showing late Cenozoic faults in the Walker Lake 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-D, 1 sheet, scale 1:250,000. #2870 Dohrenwend, J.C., 1982, Surficial geologic map of the Walker Lake 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-C, 1 sheet, scale 1:250,000. #2900 Dohrenwend, J.C., 1982, Preliminary surficial geologic map of the Excelsior Mountains area, west-central Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1372, scale 1:62,500. #2911 Stewart, J.H., 1984, Geologic map of the Teels Marsh

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