

# 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 near East Walker River (Class A) No. 1297

Last Review Date: 1998-07-19

*citation for this record:* Adams, K., compiler, 1998, Fault number 1297, unnamed faults near East Walker River, 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 02:14 PM.

<b>Synopsis</b>	This distributed zone of short predominately intermontane faults is in the area dissected by the East Walker River at the north end of the Bodie Hills, the south side of Bald Mountain and the eastern side of the Sweetwater Mountains. Fault strikes vary considerably from east-west, to northwest, to north, and to northeast and primarily displace bedrock and Quaternary/Tertiary gravel units. Faults in bedrock are expressed as aligned drainages, saddles, and minor topographic escarpments, and some of the faults in Quaternary pediment surfaces form prominent scarps. 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.
<b>Name</b>	Refers to a group of faults north and south of the East Walker

<b>comments</b>	River between Sweetwater Creek and Rough Creek, mapped by Dohrenwend (1982 #2481; 1982 #2870; 1982 #2871), Dohrenwend and Brem (1982 #2872), Stewart and others (1982 #2873), and Brem (1984 #2887).
<b>County(s) and State(s)</b>	MINERAL COUNTY, NEVADA MONO COUNTY, CALIFORNIA LYON COUNTY, NEVADA
<b>Physiographic province(s)</b>	CASCADE-SIERRA MOUNTAINS BASIN AND RANGE
<b>Reliability of location</b>	Good Compiled at 1:100,000 scale.  <i>Comments:</i> Locations primarily based on 1:62,500 maps of Dohrenwend (1982 #2871) and Dohrenwend and Brem (1982 #2872) and 1:250,000-scale maps of Dohrenwend (1982 #2481; 1982 #2870); 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.
<b>Geologic setting</b>	This distributed zone of short predominately intermontane faults is in the area dissected by the East Walker River at the north end of the Bodie Hills, the south side of Bald Mountain and the eastern side of the Sweetwater Mountains (Dohrenwend, 1982 #2872).
<b>Length (km)</b>	29 km.
<b>Average strike</b>	N16°E
<b>Sense of movement</b>	Normal  <i>Comments:</i> Normal sense of movement is primarily inferred from topography and sinistral sense is primarily inferred from knowledge of sense of slip on other northeast-striking faults in the region.
<b>Dip Direction</b>	N; S
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	Most of the faults in this group only displace bedrock and Quaternary/Tertiary gravel units. Faults in bedrock are expressed

	as aligned drainages, saddles, and minor topographic escarpments (Dohrenwend, 1982 #2871; 1982 #2481; Dohrenwend and Brem, 1982 #2872).
<b>Age of faulted surficial deposits</b>	Quaternary. Dohrenwend (1982 #2870; 1982 #2871; Dohrenwend and Brem, 1982 #2872) mapped faults juxtaposing Quaternary and Pleistocene alluvium against bedrock.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma)  <i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is suspected based on mapping by Dohrenwend (1982 #2481) and Dohrenwend and others (1996 #2846).
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	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.
<b>Date and Compiler(s)</b>	1998 Kenneth Adams, Piedmont Geosciences, Inc.
<b>References</b>	#2887 Brem, G.F., 1984, Geologic map of the Sweetwater Roadless area, Mono County, California and Lyon and Douglas Counties, Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1535-B, scale 1:62,500.  #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.  #2871 Dohrenwend, J.C., 1982, Reconnaissance surficial geologic map of the Aurora quadrangle, Nevada and California: U.S.

Geological Survey Miscellaneous Field Studies Map MF-1373, scale 1:62,500.

#2872 Dohrenwend, J.C., and Brem, G.F., 1982, Reconnaissance surficial geologic map of the Bridgeport quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1371, scale 1:62,500.

#2846 Dohrenwend, J.C., Schell, B.A., Menges, C.M., Moring, B.C., and McKittrick, M.A., 1996, Reconnaissance photogeologic map of young (Quaternary and late Tertiary) faults in Nevada, *in* Singer, D.A., ed., Analysis of Nevada's metal-bearing mineral resources: Nevada Bureau of Mines and Geology Open-File Report 96-2, 1 pl., scale 1:1,000,000.

#2873 Stewart, J.H., Carlson, J.E., and Johannesen, D.C., 1982, Geologic map of the Walker Lake 1° by 2° quadrangle, California and Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-A, scale 1:250,000.

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