

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](#).

Eastern Osgood Mountains fault zone (Class A) No. 1523

Last Review Date: 1999-01-27

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1523, Eastern Osgood Mountains fault zone, 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 02:50 PM.

Synopsis	These short faults are distributed across the proximal piedmont slope east of the Osgood Mountains and Dry Hills; these faults may be related to unnamed fault zone [1531] to the east and in a position more distal on piedmont slope. The faults are expressed as short east- and west- facing scarps Pleistocene alluvium. Reconnaissance photogeologic mapping of the faults is the source of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name comments	Refers to a group of faults mapped by Slemmons (1966, unpublished McDermitt 1:250,000-scale map) and Dohrenwend and Moring (1991 #284) east of the northern Osgood Mountains and east of the Dry Hills. dePolo (1998 #2845) calls these faults the Eastern Osgood Mountains fault zone.

	Fault ID: Refers to fault MD9A (Eastern Osgood Mountains fault zone) of dePolo (1998 #2845).
County(s) and State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Fault locations are based on 1:250,000-scale map of Dohrenwend and Moring (1991 #284) and Slemmons (1966, unpublished McDermitt 1:250,000-scale map). The map of Dohrenwend and Moring (1991 #284) was produced by 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. Slemmons (1966, unpublished McDermitt 1:250,000-scale map) mapped from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers.</p>
Geologic setting	These short discontinuous scarps are distributed across the proximal eastern piedmont slope of the Osgood Mountains and Dry Hills and define a predominately north-northeast-striking fault except at the north end where the fault strikes north northwest (Slemmons, 1966, unpublished McDermitt 1:250,000-scale map; Dohrenwend and Moring, 1991 #284).
Length (km)	37 km.
Average strike	N25°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> (Slemmons, 1966, unpublished McDermitt 1:250,000-scale map; Dohrenwend and Moring, 1991 #284)</p>
Dip Direction	SE; W
Paleoseismology studies	
Geomorphic	Faults are expressed as short east- and west- facing scarps on

expression	Pleistocene alluvium (Slemmons, 1966, unpublished McDermitt 1:250,000-scale map; Dohrenwend and Moring, 1991 #284). dePolo (1998 #2845) indicates that there are scarps on alluvium but no basal fault facets.
Age of faulted surficial deposits	Pleistocene. Slemmons (1966, unpublished McDermitt 1:250,000-scale map) and Dohrenwend and Moring (1991 #284) mapped faults that displace Quaternary alluvium possibly as young as late Pleistocene in age.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is suggested based on reconnaissance photogeologic mapping of Slemmons (1966, unpublished McDermitt 1:250,000-scale map); and Dohrenwend and Moring (1991 #284).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> dePolo (1998 #2845) assigned a reconnaissance vertical slip rate of 0.01 mm/yr for the fault based on the presence of scarps on alluvium and the absence of basal facets. The late Quaternary characteristics of this fault (overall geomorphic expression, continuity of scarps, age of faulted deposits, etc.) support a low slip rate. Accordingly, the less than 0.2 mm/yr slip-rate category has been assigned to this fault.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2845 dePolo, C.M., 1998, A reconnaissance technique for estimating the slip rate of normal-slip faults in the Great Basin, and application to faults in Nevada, U.S.A.: Reno, University of Nevada, unpublished Ph.D. dissertation, 199 p. #284 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the McDermitt 1° by 2° quadrangle, Nevada, Oregon, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2177, 1 sheet, scale

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