

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 in northeastern Paradise Valley (Class A) No. 1516

Last Review Date: 1999-01-28

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1516, unnamed faults in northeastern Paradise Valley, 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 two short piedmont faults in northern Paradise Valley near Buttermilk Creek appear to bound a small horst approximately 1 km long and a few hundred meters wide. The scarps are on Pleistocene alluvium (Dohrenwend and Moring, 1991 #284). 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 small group of faults in northern Paradise Valley near Buttermilk Creek mapped by Dohrenwend and Moring (1991 #284); dePolo (1998 #2845) referred to these faults as part of the Northern Paradise Valley fault zone. The name is not used herein because the fault he defines is longer than what is shown here.

	Fault ID: Refers to part of fault MD5 (Northern Paradise Valley fault zone) of dePolo (1998 #2845).
County(s) and State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. <i>Comments:</i> Fault locations are based on 1:250,000-scale map of Dohrenwend and Moring (1991 #284), which 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.
Geologic setting	These two short piedmont faults in northern Paradise Valley near Buttermilk Creek appear to bound a small horst approximately 1 km long and a few hundred meters wide (Dohrenwend and Moring, 1991 #284).
Length (km)	2 km.
Average strike	N45°W
Sense of movement	Normal <i>Comments:</i> (Dohrenwend and Moring, 1991 #284)
Dip Direction	NE; SW
Paleoseismology studies	
Geomorphic expression	The faults are expressed as short dissected scarps on Pleistocene alluvium (0.01-1.5 Ma) that bound a small horst approximately 1 km long and a few hundred meters wide (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. Dohrenwend and Moring (1991 #284) mapped fault that displace Pleistocene alluvium.
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 Dohrenwend and Moring (1991 #284).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> No detailed data exists to determine slip rates for this fault. 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 1:250,000.

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