

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 of Badger Valley (Class A) No. 1740

Last Review Date: 2002-01-10

citation for this record: Anderson, R.E., compiler, 2002, Fault number 1740, unnamed faults of Badger 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 02:24 PM.

Synopsis	Badger Valley, an upland valley between the Pahrangat Range and East Pahrangat Range, is bounded by discontinuous north-northwest-striking faults of probable Quaternary age based on reconnaissance photogeologic mapping. The eastern fault at the west base of the East Pahrangat Range may be a major range-bounding structure, but little is known of its Quaternary history. No detailed study has been made, and recurrence times and slip rates are unknown.
Name comments	Group of unnamed faults at the east and west margins of Badger Valley between the Pahrangat Range and East Pahrangat Range.
County(s) and State(s)	LINCOLN COUNTY, NEVADA
Physiographic	

Topographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Location based on an unpublished compilation of Quaternary faults in the Caliente 1?x2? sheet by J. C. Dohrenwend (published at 1:1,000,000 by Dohrenwend and others, 1996 #2846). The unpublished map was prepared by photogeologic analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle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. Traces are digitized from 1:100,000-scale topographic base map.</p>
Geologic setting	<p>Badger Valley is an intermontane highland feature located between the Pahranaagat Range and East Pahranaagat Range and is probably underlain by a small structural basin. These north-northwest-striking faults probably represent basin-margin structures, and the eastern one is probably the largest as judged from the much larger bedrock escarpment flanking the East Pahranaagat Range.</p>
Length (km)	12 km.
Average strike	N20°W
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Estimated based on location and orientation in an extensional tectonic province.</p>
Dip Direction	E; W
Paleoseismology studies	
Geomorphic expression	<p>On the basis of photogeologic reconnaissance recorded in an unpublished map of Quaternary faults in the Caliente 1? x 2? sheet by J. C. Dohrenwend (published at 1:1,000,000 by Dohrenwend and others, 1996 #2846), only one short (about 2-km-long) trace is mapped as a scarp (east-facing) developed on deposits or surfaces of late Quaternary age. The fault at the west base of the East Pahranaagat Range follows a precipitous west facing bedrock escarpment that may represent a major range front. Presumably Quaternary surfaces or deposits are in fault contact with bedrock along that trace, but no scarp characteristics</p>

	are reported.
Age of faulted surficial deposits	Quaternary
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of the most recent event is not well constrained, reconnaissance studies by Dohrenwend and others (1996 #2846) suggest a Quaternary time based on photogeologic interpretation.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> No scarp-height or stratigraphic-offset data allow for estimating the slip rate closer than the slowest category. A low slip rate is typical of other late Pleistocene faults in the Basin and Range.
Date and Compiler(s)	2002 R. Ernest Anderson, U.S. Geological Survey, Emeritus
References	#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, <i>in</i> 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.

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