

# 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 fault zone near The Lava Beds (Class A) No. 1623

Last Review Date: 1999-03-16

*citation for this record:* Sawyer, T.L., and Adams, K., compilers, 1999, Fault number 1623, unnamed fault zone near The Lava Beds, 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 02:29 PM.

<b>Synopsis</b>	This short right-stepping en echelon fault zone has discontinuous range-front faults that bound the western side of an unnamed ridge along the east side of Kumiva Valley. The range-front faults juxtapose Quaternary alluvium against bedrock and are expressed as the abrupt front of the ridge. The piedmont faults are expressed as short west-facing scarps on Quaternary. Reconnaissance photogeologic mapping and regional geologic mapping are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
<b>Name comments</b>	Refers to faults mapped near The Lava Beds. The faults bound the west side of an unnamed ridge along the eastern side of Kumiva Valley from east of Twin Buttes Well northward to east of The Lava Beds. The zone includes piedmont faults in the Kumiva

	Valley and at Sheep Head Spring.
<b>County(s) and State(s)</b>	PERSHING COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of location</b>	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Fault locations are primarily based on 1:250,000-scale map of Dohrenwend and others (1991 #285), 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. Fault locations were checked against 1:250,000-scale photogeologic map of Slemmons (1974, unpublished Lovelock 1? X 2? sheet) and 1:250,000-scale geologic map of Johnson (1977 #2569).</p>
<b>Geologic setting</b>	This short right-stepping en echelon group has discontinuous range-front faults bounding west side of an unnamed ridge along east side of Kumiva Valley, piedmont faults in the Kumiva Valley and at Sheep Head Spring (Slemmons, 1974 unpublished Lovelock 1? X 2? sheet; Johnson, 1977 #2569; Dohrenwend and others, 1991 #285). The unnamed ridge along the east side of Kumiva Valley is a west-tilted fault block (Stewart, 1978 #2866).
<b>Length (km)</b>	15 km.
<b>Average strike</b>	N1°E
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> As mapped by Dohrenwend and others (1991 #285) and inferred from topography.</p>
<b>Dip Direction</b>	W
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	Range-front faults juxtapose Quaternary alluvium against bedrock and are expressed as the abrupt front of the ridge. Piedmont faults are expressed as short west-facing scarps on Quaternary alluvium.
<b>Age of faulted</b>	Johnson (1977 #2569) reported Quaternary alluvium and dune

<b>surficial deposits</b>	sand and Tertiary sedimentary rocks faulted in this zone, which is consistent with mapping by Dohrenwend and others (1991 #285), which shows that deposits as young as late Pleistocene may be faulted.
<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 suggested based on geologic mapping Johnson (1977 #2569) and Dohrenwend and others (1991 #285).
<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>	1999 Thomas L. Sawyer, Piedmont Geosciences, Inc. Kenneth Adams, Piedmont Geosciences, Inc.
<b>References</b>	#285 Dohrenwend, J.C., McKittrick, M.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lovelock 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2178, 1 sheet, scale 1:250,000.  #2569 Johnson, M.G., 1977, Geology and mineral deposits of Pershing County, Nevada: Nevada Bureau of Mines and Geology Bulletin 89, 115 p., scale 1:250,000.  #2866 Stewart, J.H., 1978, Basin-range structure in western North America—A review, <i>in</i> Smith, R.B., and Eaton, G.P., eds., Cenozoic tectonics and regional geophysics of the western cordillera: Geological Society of America Memoir 152, p. 1-31, scale 1:2,500,000.

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