

# 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 Little Valley (Class A) No. 1670

Last Review Date: 1999-03-29

*citation for this record:* Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1670, unnamed fault zone near Little 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 02:26 PM.

<b>Synopsis</b>	This distributed group of short possibly related faults in western Truckee Range has intermontane faults near south end of range, range-front faults bounding west side of Black Mountain and of Juniper Peak northward to east of Black Warrior Peak, and intra basin faults in western Little Valley. 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	Refers to faults mapped by Slemmons (1968, unpublished Reno 1? X 2? sheet), Bell (1984 #105; 1984 #107), and Greene and others (1991 #3487) in western Truckee Range near Little Valley.
<b>County(s) and</b>	CHURCHILL COUNTY, NEVADA

<b>State(s)</b>	WASHOE 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 based on 1:250,000-scale map of Bell (1984 #105). Mapping is from photogeologic analysis of 1:40,000-scale low sun-angle aerial photography, supplemented with 1:12,000-scale aerial photography of selected areas, several low-altitude aerial reconnaissance flights, and field reconnaissance of major structural and stratigraphic relationships.</p>
<b>Geologic setting</b>	This distributed group of short possibly related faults in western Truckee Range has intermontane faults near south end of range, range-front faults bounding west side of Black Mountain and of Juniper Peak northward to east of Black Warrior Peak, and intra basin faults in western Little Valley (Slemmons, 1968, unpublished Reno 1? X 2? sheet; Bell, 1984 #105; 1984 #107).
<b>Length (km)</b>	26 km.
<b>Average strike</b>	N2°E
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> (Slemmons, 1968, unpublished Reno 1? X 2? sheet; Bell, 1984 #107)</p>
<b>Dip Direction</b>	E
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	The range-front faults are expressed by abrupt slope breaks on east side of Little Valley (Slemmons, 1968, unpublished Reno 1? X 2? sheet; Bell, 1984 #105). The intra basin faults are expressed by east-facing scarps on Quaternary alluvium or lacustrine deposits and the intermontane faults are expressed by topographic lineaments on Tertiary bedrock (Bell, 1984 #105; 1984 #107).
<b>Age of faulted surficial deposits</b>	Quaternary; Tertiary. Undifferentiated Quaternary alluvium and Tertiary volcanic rocks are displaced by faults (Greene and others, 1991 #3487). Bell (1984 #107) mapped faults traversing floor of

	Little Valley, which was inundated by latest Pleistocene Lake Lahontan, which implies that latest Quaternary deposits are faulted.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma)  <i>Comments:</i> The timing of most recent event is not well constrained, a Quaternary time is suggested based on mapping by Greene and others (1991 #3487) and Dohrenwend and others (1996 #2846). However, based on the location of some faults shown by Bell (1984 #105) latest Quaternary faulting may be inferred.
<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 and low height of topographic lineaments on Tertiary rocks.
<b>Date and Compiler(s)</b>	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
<b>References</b>	#105 Bell, J.W., 1984, Quaternary fault map of Nevada—Reno sheet: Nevada Bureau of Mines and Geology Map 79, 1 sheet, scale 1:250,000.  #107 Bell, J.W., 1984, Guidebook for selected Nevada earthquake areas (field trip 18), <i>in</i> Lintz, J., Jr., ed., Western geological excursions: Reno, Nevada, University of Nevada, Mackay School of Mines, 1984 Annual Meetings of the Geological Society of America, Guidebook, v. 4, p. 387-472.  #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.  #3487 Greene, R.C., Stewart, J.H., John, D.A., Hardyman, R.F.,

Silberling, N.J., and Sorensen, M.L., 1991, Geologic map of the Reno 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2154-A, scale 1:250,000.

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