

# 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 east of Pioche (Class A) No. 1736

Last Review Date: 2001-11-21

*citation for this record:* Anderson, R.E., compiler, 2001, Fault number 1736, unnamed faults east of Pioche, 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

On the basis of physiographic expression discerned from photogeologic reconnaissance, two northwest-striking short (< 7 km) faults facing one another on the piedmont slopes of southeastern Lake Valley may bound a short (about 5-km-long) graben beneath the part of Lake Valley located northeast of the northwest-trending Pioche Hills. Alternatively, the faults may be located in a northeast-tilted structural block. Nothing is known of the geomorphic expression of these faults other than their facing directions of southwest and northeast. The faults are located on piedmont slopes and their traces are probably in Quaternary/Tertiary alluvium and possibly also in late Tertiary basin fill deposits of the Panaca Formation. No detailed studies are known, no recurrence times reported, and no scarp-height or stratigraphic-offset data allow for estimating the slip rate closer than the slowest category of < 0.2 mm/yr.

<b>Name comments</b>	Refers to unnamed short (< 7 km) northwest-striking faults in southeastern Lake Valley east of Pioche. The east fault extends northwest between Dry Valley on the south and Long Canyon on the north. The western fault is located approximately between Gray Cone and the Pioche Mines Mill.
<b>County(s) and State(s)</b>	LINCOLN COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of location</b>	Good Compiled at 1:100,000 scale.  <i>Comments:</i> The fault traces are shown in an unpublished 1:250,000-scale map by J. C. Dohrenwend of Quaternary faults in the 1° x 2° Caliente sheet (published at 1:1,000,000 by Dohrenwend and others, 1996 #2846). The unpublished map was produced by photogeologic analysis of 1:58,000 nominal-scale, color infrared photography. The photogeologic mapping was transferred directly to 1/2° x 1° topographic quadrangle maps enlarged to the scale of the photographs and then reduced to and compiled on the 1:250,000 Caliente sheet.
<b>Geologic setting</b>	On the basis of physiographic expression discerned from photogeologic reconnaissance, the unpublished map of J. C. Dohrenwend (published at 1:1,000,000 by Dohrenwend and others, 1996 #2846) shows two main short faults facing one another on the piedmont slopes of southeastern Lake Valley. This configuration may suggest that the faults bound a short (about 5-km-long) graben beneath the part of Lake Valley located northeast of the northwest-trending Pioche Hills. Alternatively, Ekren and others (1977 #1036) show the Pioche Hills and adjacent Lake Valley as a northeast-tilted structural block and do not map the graben-bounding (?) faults.
<b>Length (km)</b>	11 km.
<b>Average strike</b>	N39°W
<b>Sense of movement</b>	Normal  <i>Comments:</i> Inferred on the basis of location within an extensional tectonic province.

<b>Dip Direction</b>	NE; SW
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	Nothing is known of the geomorphic expression of these faults other than their facing directions of southwest and northeast as indicated in 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).
<b>Age of faulted surficial deposits</b>	The faults are located on piedmont slopes and their traces are probably in Quaternary/Tertiary alluvium and possibly also in late Tertiary basin fill deposits of the Panaca Formation (Ekren and others, 1977 #1036).
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	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.
<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>	2001 R. Ernest Anderson, U.S. Geological Survey, Emeritus
<b>References</b>	#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.  #1036 Ekren, E.B., Orkild, P.P., Sargent, K.A., and Dixon, G.L., 1977, Geologic map of Tertiary rocks, Lincoln County, Nevada: U.S. Geological Survey Miscellaneous Investigations Map I-

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