

# 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](#).

## Cambridge Hills fault (Class A) No. 1728

Last Review Date: 1998-07-19

*citation for this record:* Adams, K., and Sawyer, T.L., compilers, 1998, Fault number 1728, Cambridge Hills fault, 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.

<b>Synopsis</b>	Poorly understood fault zone extending along the east side of the Cambridge Hills. Reconnaissance photogeologic mapping and bedrock mapping of the faults are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.
<b>Name comments</b>	Refers to a group of faults on east side of the Cambridge Hills, which were mapped by Moore (1961 #2879), Slemmons (1966, unpublished Walker Lake 1? X 2? sheet), Dohrenwend (1982 #2481; 1982 #2870), and Stewart and others (1982 #2873).
<b>County(s) and State(s)</b>	LYON COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of</b>	Good

<b>location</b>	<p>Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Locations primarily based on 1:250,000-scale maps of Dohrenwend (1982 #2481; 1982 #2870) and supplemented by bedrock mapping (1:200,000 scale) of Moore (1961 #2879). Mapping by Dohrenwend (1982 #2481; 1982 #2870) based on 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.</p>
<b>Geologic setting</b>	This predominately north-striking group of faults bounds the east side of the Cambridge Hills.
<b>Length (km)</b>	15 km.
<b>Average strike</b>	N13°W
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> Not studied in detail; normal sense of movement is inferred from topography.</p>
<b>Dip Direction</b>	E
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	The range front fault on the east side of the Cambridge Hills is expressed as an abrupt topographic escarpment that juxtaposes Holocene and upper Pleistocene alluvium against bedrock (Dohrenwend, 1982 #2870).
<b>Age of faulted surficial deposits</b>	Quaternary. Dohrenwend (1982 #2870) mapped faults juxtaposing Quaternary and Pleistocene alluvium against bedrock. In other places, faults involve Pleistocene erosional surfaces.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	<p>undifferentiated Quaternary (&lt;1.6 Ma)</p> <p><i>Comments:</i> Timing of most recent event is not well constrained. Quaternary time is based on mapping by Dohrenwend and others (1996 #2846).</p>
<b>Recurrence</b>	

<b>interval</b>	
<b>Slip-rate category</b>	<p>Less than 0.2 mm/yr</p> <p><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 size of the facets (tens to hundreds of meters, as measured from topographic maps) indicates they are the result of many seismic cycles, and thus the derived slip rate reflects a long-term average. 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.</p>
<b>Date and Compiler(s)</b>	<p>1998</p> <p>Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.</p>
<b>References</b>	<p>#2481 Dohrenwend, J.C., 1982, Map showing late Cenozoic faults in the Walker Lake 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-D, 1 sheet, scale 1:250,000.</p> <p>#2870 Dohrenwend, J.C., 1982, Surficial geologic map of the Walker Lake 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-C, 1 sheet, scale 1:250,000.</p> <p>#2879 Moore, J.G., 1961, Preliminary geologic map of Lyon, Douglas, Ormsby and part of Washoe Counties, Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-80, scale 1:200,000.</p> <p>#2873 Stewart, J.H., Carlson, J.E., and Johannesen, D.C., 1982, Geologic map of the Walker Lake 1° by 2° quadrangle, California and Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-A, scale 1:250,000.</p>

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