

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 in northwest Clover Valley (Class A) No. 1575

Last Review Date: 2000-06-27

citation for this record: Sawyer, T.L., Oswald, J.A., Rowley, P.C., and Anderson, R.E., compilers, 2000, Fault number 1575, unnamed fault zone in northwest Clover 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 02:36 PM.

Synopsis	Distributed group of discontinuous, range-front and piedmont normal faults that bound the eastern and western sides of northern Clover Valley and on piedmont slopes and floor of the valley. Quaternary alluvium is juxtaposed against bedrock along the bounding range-fronts, and scarps and (or) lineaments are mapped on Tertiary bedrock within the valley. Reconnaissance photogeologic mapping of fault-related features is the source of data. Trench investigations and studies of scarp morphology have not been conducted along the fault.
Name comments	Refers to faults mapped by Coats (1987 #2861) and Dohrenwend and others (1991 #290) and locally by Slemmons (1964, unpublished Wells 1?x2? sheet) that bound the eastern and

	western sides of northern Clover Valley.
County(s) and State(s)	ELKO COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Location based on 1:250,000-scale maps of Coats (1987 #2861) and Dohrenwend and others (1991 #286; 1991 #290). Maps by Dohrenwend and others (1991 #286; 1991 #290) are 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>
Geologic setting	<p>Distributed group of discontinuous, range-front and piedmont normal faults that bound the eastern and western sides of northern Clover Valley and on piedmont slopes and floor of the valley. Quaternary alluvium is juxtaposed against bedrock along the bounding range-fronts, and scarps on Tertiary bedrock within the valley (Dohrenwend and others, 1991 #290). To the south, the scarps face the bedrock highlands of the Wood Hills and, as such, are neither range-bounding or block-bounding faults (Dohrenwend and others, 1991 #286).</p>
Length (km)	13 km.
Average strike	N2°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Not studied in detail; sense of movement is inferred from topography.</p>
Dip Direction	E; W
Paleoseismology studies	
Geomorphic expression	<p>Quaternary alluvium is juxtaposed against bedrock along the bounding range-fronts, and scarps and (or) lineaments are mapped on Tertiary bedrock within the valley (Coats, 1987 #2861; Dohrenwend and others, 1991 #290). In the Elko 1?x2? sheet,</p>

	<p>east-facing scarps on surficial deposits or erosion surfaces are located about 3 km west of the west-facing front of the Wood Hills (Dohrenwend and others, 1991 #286). Barnhard (1985 #428) did not recognize scarps on alluvium, possibly suggesting the fault's weak geomorphic expression.</p>
Age of faulted surficial deposits	<p>Quaternary; Tertiary. The fault displaces alluvium interpreted from photogeologic mapping to be undifferentiated Quaternary in age and offsets Tertiary bedrock (Coats, 1987 #2861; Dohrenwend and others, 1991 #290). The part of the fault in the Elko 1°x2° sheet cuts sediment of early to middle and (or) late Pleistocene (Dohrenwend and others, 1991 #286).</p>
Historic earthquake	
Most recent prehistoric deformation	<p>undifferentiated Quaternary (<1.6 Ma)</p> <p><i>Comments:</i> Although timing of the most recent event is not well constrained, Dohrenwend and others (1991 #290; 1991 #286; 1996 #2846) suspected a Quaternary and (or) late Tertiary time based on reconnaissance photogeologic studies.</p>
Recurrence interval	
Slip-rate category	<p>Less than 0.2 mm/yr</p> <p><i>Comments:</i> Low slip-rate category is assigned on the basis of poor geomorphic preservation and relative inactivity of similar distributed faults in the Basin and Range province.</p>
Date and Compiler(s)	<p>2000</p> <p>Thomas L. Sawyer, Piedmont Geosciences, Inc. John A. Oswald, Piedmont Geosciences, Inc. Peter C. Rowley, U.S. Geological Survey, Retired R. Ernest Anderson, U.S. Geological Survey, Emeritus</p>
References	<p>#428 Barnhard, T.P., 1985, Map of fault scarps formed in unconsolidated sediments, Elko 1° x 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-1791, 1 sheet, scale 1:250,000.</p> <p>#2861 Coats, R.R., 1987, Geology of Elko County, Nevada: Nevada Bureau of Mines and Geology Bulletin 101, 112 p., scale 1:250,000.</p>

#290 Dohrenwend, J.C., McKittrick, M.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Wells 1° by 2° quadrangle, Nevada, Utah, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2184, 1 sheet, scale 1:250,000.

#286 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Elko 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2179, 1 sheet, scale 1:250,000.

#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, *in* 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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