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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 along southwestern flank of Independence Mountains (Class A) No. 1555

Last Review Date: 1999-01-08

citation for this record: **Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1555, unnamed fault zone along southwestern flank of Independence Mountains, 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 02:35 PM.**

Synopsis	This zone of short north-striking predominately intermontane faults is locally expressed as scarps or lineaments on Tertiary volcanic or sedimentary rock. Although the faults predominately displace Tertiary and older rocks, evidence for young movement is provided by two west-facing scarps on early to middle Pleistocene piedmont-slope deposits near Chicken Creek and between Coon Creek and Lone Mountain Creek. 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.
Name comments	Refers to faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet), Stewart and Carlson (1976 #3013),

	Coats (1987 #2861), and Dohrenwend and Moring (1991 #284) along the western edge of the Independence Mountains east of Maggie Creek from near Coon Creek southward to 41? N latitude.
County(s) and State(s)	ELKO COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations based on 1:250,000-scale maps of Dohrenwend and Moring (1991 #284) which were 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. The fault ends at the McDermitt sheet boundary (Dohrenwend and Moring, 1991 #284) and is not shown on the adjacent Winnemucca sheet (Dohrenwend and Moring, 1991 #282).
Geologic setting	This zone of short north-striking predominately intermontane faults bounds west side of the Independence Mountains and extends from Coon Creek south toto 41? N latitude (Dohrenwend and Moring, 1991 #284).
Length (km)	14 km.
Average strike	N14°E
Sense of movement	Normal *Comments:* (Dohrenwend and Moring, 1991 #284)
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	Although the faults mainly cut Tertiary and older rocks, evidence for young movement is provided by two west-facing scarps on early to middle Pleistocene piedmont-slope deposits near Chicken Creek and between Coon Creek and Lone Mountain Creek (Dohrenwend and Moring, 1991 #284).
Age of faulted	early to middle Pleistocene; Quaternary; Tertiary. Faults displace

surficial deposits	early to middle Quaternary and undifferentiated Quaternary piedmont-slope deposits (Dohrenwend and Moring, 1991 #284) and Tertiary volcanic and sedimentary rocks (Coats, 1987 #2861).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent event is not well constrained, a Quaternary time is suggested based on reconnaissance photogeologic mapping of Dohrenwend and Moring (1991 #284).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region and modest height of escarpments on Tertiary volcanic rocks.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2861 Coats, R.R., 1987, Geology of Elko County, Nevada: Nevada Bureau of Mines and Geology Bulletin 101, 112 p., scale 1:250,000. #282 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Winnemucca 1° by 2° quadrangle, Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-2175, 1 sheet, scale 1:250,000. #284 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the McDermitt 1° by 2° quadrangle, Nevada, Oregon, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2177, 1 sheet, scale 1:250,000. #3013 Stewart, J.H., and Carlson, J.E., 1976, Geologic map of north-central Nevada: Nevada Bureau of Mines and Geology, Map 50, scale 1:250,000.