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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 faults near Rock Spring Table (Class A) No. 1479

Last Review Date: 1998-07-19

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1479, unnamed faults near Rock Spring Table, 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 02:50 PM.**

Synopsis	This fault is one in a distributed zone of northwest-striking intra-plateau faults that extends from Alkali Flat, Wild Horse Pasture, and southern Rock Spring Table northwest along the west side of Devaney Mountain, across Virgin Creek and Hell Creek Canyons, and along northeast side of Blowout Mountain, to Mud Springs on the north flank of Fish Creek Mountain. This fault is arbitrarily divided from a possibly related fault zone [1486] to southeast based on a change in orientation from predominantly northwest-striking to northeast-striking faults, respectively. Although this fault displaces only Tertiary volcanic and sedimentary rocks, Quaternary movement is suspected based on its expression as prominent but generally dissected topographic escarpments, aligned ridge-crest saddles and hillside benches, and occurrence of closed depressions along the escarpments. Reconnaissance photogeologic of the fault zone and regional geologic mapping

	are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
Name comments	Refers to fault along southern Rock Spring Table mapped by Dohrenwend and Moring (1991 #281) that extends from Alkali Flat to Fivemile Flat.
County(s) and State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations are based on 1:250,000-scale map of Dohrenwend and Moring (1991 #281), which is from 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 and then reduced and transferred to 1:250,000-scale topographic maps.
Geologic setting	This fault is one in a distributed zone of northwest-striking intra-plateau faults that extends from Alkali Flat, Wild Horse Pasture, and southern Rock Spring Table northwest along the west side of Devaney Mountain, across Virgin Creek and Hell Creek canyons, and along northeast side of Blowout Mountain, to Mud Springs on the north flank of Fish Creek Mountain. This fault is arbitrarily divided from a possibly related unnamed fault zone [1486] based on a change in orientation from predominantly northwest-striking to northeast-striking faults, respectively.
Length (km)	16 km.
Average strike	N43°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement is inferred from topography.
Dip Direction	SW
Paleoseismology studies	

Geomorphic expression	Although most of these faults in this zone displace only Tertiary volcanic and sedimentary rocks, Quaternary movement is suspected on one fairly continuous fault based on its expression as prominent but generally dissected topographic escarpments, aligned ridge-crest saddles and hillside benches, and occurrence of closed depressions along the escarpments (Dohrenwend and Moring, 1991 #281).
Age of faulted surficial deposits	Tertiary. Based on reconnaissance photogeologic mapping, most of these faults displace Tertiary volcanic and sedimentary rocks (Dohrenwend and Moring, 1991 #281).
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 suspected of the one fault shown here based on reconnaissance photogeologic mapping by Dohrenwend and Moring (1991 #281).
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 height of topographic escarpments on resistant Tertiary volcanic rocks.
Date and Compiler(s)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#281 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Vya 1° by 2° quadrangle, Nevada, Oregon, and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2174, 1 sheet, scale 1:250,000.

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