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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.

White River fault (Class A) No. 1403

Last Review Date: 1998-06-29

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1403, White River 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 02:05 PM.**

Synopsis	This distributed group of down-to-the-west normal fault bounds the North Pahroc Range and a series of low hills between White River Valley and Dry Lake Valley and has piedmont faults in both valleys. Reconnaissance photogeologic mapping of these faults is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to the White River fault mapped and named by Schell (1981 #2844) and subsequently mapped by Dohrenwend and others (1991 #287). **Fault ID:** Refers to fault 92 of Schell (1981 #2844).
County(s) and State(s)	LINCOLN COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE

Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Location in the Lund sheet are based on 1:250,000-scale maps of Schell (1981 #2844) and of Dohrenwend and others (1991 #287). Locations in the Caliente sheet are based on unpublished 1:250,000-scale map of Quaternary faults by J.C. Dohrenwend (1996 #2846). Original mapping by Schell (1981 #2843; 1981 #2844) based on photogeologic analysis of primarily 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred by inspection to 1:62,500-scale topographic maps and photographically reduced and directly transferred to 1:250,000-scale topographic maps, and field verification. Mapping by Dohrenwend and others (1991 #287; 1996 #2846) 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.
Geologic setting	This distributed group of down-to-the-west normal fault bounds the North Pahroc Range and a series of low hills between White River Valley and Dry Lake Valley and has piedmont faults in both valleys.
Length (km)	21 km.
Average strike	N5°W
Sense of movement	Normal *Comments:* (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault is marked by fault scarps juxtaposing Quaternary alluvium against bedrock and by lineaments and scarps on Quaternary and Tertiary deposits (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).
Age of faulted surficial	Early to middle and (or) late Pleistocene (Dohrenwend and others, 1991 #287); early Quaternary to late Tertiary (Schell, 1981

deposits	#2844)
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of the most recent event is not well constrained, reconnaissance studies by Dohrenwend and others (1991 #287; 1996 #2846) suggest a Quaternary time based on photogeologic interpretation. Schell (1981 #2843; 1981 #2844) suggested a late Tertiary to early Quaternary time based on a reconnaissance photogeologic study.
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.
Date and Compiler(s)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#287 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lund 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2180, 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. #2843 Schell, B.A., 1981, Faults and lineaments in the MX Sitting Region, Nevada and Utah, Volume I: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 77 p. #2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base,

	California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.