

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 in Lake Valley (Class A) No. 1418

Last Review Date: 1998-06-29

citation for this record: Sawyer, T.L., compiler, 1998, Fault number 1418, unnamed fault in Lake 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 02:05 PM.

Synopsis	This highly distributed zone of north-northeast-striking lineaments and faults extend across the floor and piedmont slopes of Lake Valley, east of Dutch John Mountains. Although, only the two westernmost faults appear to have geomorphic expression, the other features are suspected to be faults with Quaternary movement. Reconnaissance photogeologic mapping of tectonic geomorphic features is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to faults mapped by Schell (1981 #2844) and also by Dohrenwend and others (1991 #287) and includes the Wilson Creek lineament zone of Schell (1981 #2844; 1981 #2858). The distributed zone of faults and lineaments extends across Lake Valley from east of Pony Spring northward to near south end of

	<p>the Fortification Range.</p> <p>Fault ID: Includes lineament zone 148 on Plate A6 in Schell (1981 #2844).</p>
County(s) and State(s)	LINCOLN 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 Schell (1981 #2844) and of Dohrenwend and others (1991 #287) and 1:125,000-scale map of Schell (1981 #2857). Mapping by Schell (1981 #2844; 1981 #2857) 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 supplemented by field verification. Mapping by Dohrenwend and others (1991 #287) 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	This highly distributed zone of north-northeast-striking lineaments and faults extend across the floor and piedmont slopes of Lake Valley, east of Dutch John Mountains.
Length (km)	15 km.
Average strike	N25°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Sense of movement inferred from topography.</p>
Dip Direction	Unknown
Paleoseismology studies	
Geomorphic expression	The fault zone is marked by two scarps on older lacustrine sediments on the west side of Lake Valley (Dohrenwend and

	others, 1991 #287), and by numerous lineaments on older lacustrine sediments and on late Pleistocene alluvial-fan deposits (Schell, 1981 #2844; 1981 #2858).
Age of faulted surficial deposits	Late Pleistocene alluvium (Schell, 1981 #2844); Quaternary deposits (Dohrenwend and others, 1991 #287); and Pliocene to Pleistocene lacustrine sediments (Schell, 1981 #2858).
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) <i>Comments:</i> Although timing of the most recent event is not well constrained, Schell (1981 #2843; 1981 #2844; 1981 #2858) suggested a late Pleistocene time based on the estimated age of the deposits having lineaments.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> 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. #2843 Schell, B.A., 1981, Faults and lineaments in the MX Siting 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.

#2857 Schell, B.A., 1981, MX Siting Investigation, geotechnical evaluation, verification study, Muleshoe Valley, NV, Volume I— Synthesis: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, November 6, 1981, scale 1:125,000.

#2858 Schell, B.A., 1981, MX Siting Investigation, Geotechnical Evaluation, Verification Study, Lake Valley, NV, Volume I— Synthesis: Technical report to U.S. Department of [Defense] Air Force, Norton Air Force Base, California, November 6, 1981, scale 1:125,000.

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