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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 west of Cocoon Mountains (Class A) No. 1681

Last Review Date: 1999-03-24

citation for this record: **Sawyer, J.E., compiler, 1999, Fault number 1681, unnamed faults west of Cocoon 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 02:26 PM.**

Synopsis	This short distributed zone consists of intra-plateau faults across west slope of Cocoon Mountains from Diamond Field Jack Wash north to southeastern part of Bass Flat and bounding west and north sides of Barnett Hills, and a range-front fault locally bordering southwest margin of Cocoon Mountains. Reconnaissance photogeologic mapping 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Name comments	Refers to faults mapped by Slemmons (1968, unpublished Reno 1? X 2? sheet), Bell (1984 #105), and Greene and others (1991 #3487) on west side of Cocoon Mountains and on west and north sides of Barnett Hills.

County(s) and State(s)	CHURCHILL 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 *Comments:* Fault locations are based on 1:250,000-scale maps of Bell (1984 #105) and Slemmons (1968, unpublished Reno 1? X 2? sheet). Mapping by Bell (1984 #105) is from photogeologic analysis of 1:40,000-scale low sun-angle aerial photography, supplemented with 1:12,000-scale aerial photography of selected areas, several low-altitude aerial reconnaissance flights, and field reconnaissance of major structural and stratigraphic relationships. Mapping by Slemmons (1968, unpublished Reno 1? X 2? sheet) is from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers.
Geologic setting	This short distributed zone consists of intra-plateau faults across west slope of Cocoon Mountains from Diamond Field Jack Wash north to southeastern part of Bass Flat and bounding west and north sides of Barnett Hills, and a range-front fault locally bordering southwest margin of Cocoon Mountains (Slemmons, 1968, unpublished Reno 1? X 2? sheet; Bell, 1984 #105).
Length (km)	12 km.
Average strike	N7°E
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement is from Greene and others (1991 #3487) and inferred from topography.
Dip Direction	W; NW
Paleoseismology studies	
Geomorphic expression	Faults west of Cocoon Mountains and northwest of Barnett Hills are expressed as topographic lineaments on Quaternary alluvium and Tertiary volcanic rocks. A lineament on southwestern margin of Cocoon Mountains coincides with contact between Quaternary alluvium and Tertiary bedrock. Faults in this zone are mapped as

	prominent topographic lineaments suggesting young movement (Bell, 1984 #105; Greene and others, 1991 #3487).
Age of faulted surficial deposits	Quaternary; Tertiary. Faults displace Quaternary alluvium and Tertiary volcanic rocks. A lineament on southwestern margin of Cocoon Mountains coincides with contact between Quaternary alluvium and Tertiary bedrock (Bell, 1984 #105; Greene and others, 1991 #3487), suggesting that these units are juxtaposed along a fault.
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 mapping by Bell (1984 #105).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* Not studied in detail. A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region and from low height of topographic lineaments on Tertiary volcanic rocks.
Date and Compiler(s)	1999 Janet E. Sawyer, Piedmont Geosciences, Inc.
References	#105 Bell, J.W., 1984, Quaternary fault map of Nevada—Reno sheet: Nevada Bureau of Mines and Geology Map 79, 1 sheet, scale 1:250,000. #3487 Greene, R.C., Stewart, J.H., John, D.A., Hardyman, R.F., Silberling, N.J., and Sorensen, M.L., 1991, Geologic map of the Reno 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2154-A, scale 1:250,000.

Questions or comments?

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