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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.

Buena Vista fault (Class A) No. 938

Last Review Date: 1995-12-11

Compiled in cooperation with the Arizona Geological Survey

citation for this record: **Pearthree, P.A., compiler, 1995, Fault number 938, Buena Vista 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 03:12 PM.**

Synopsis	Low, gentle, northeast-trending scarps formed on middle Pleistocene piedmont alluvium are about 3 km long. The scarps are located about 3 km south of the modern Gila River and trend parallel to it, suggesting they could be old terrace scarps. No river gravels were found at the base of the scarps, however, so they may be fault scarps. If they are fault scarps, they are late to middle Pleistocene in age, and they may have formed in a single faulting event.
Name comments	Initially mapped by Menges and Pearthree (1983 #2073); named and described by Machette and others (1986 #1033).
County(s) and	

County(s) and State(s)	GRAHAM COUNTY, ARIZONA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:250,000 scale. *Comments:* Located on 1:130,000-scale aerial photos, transferred to 1:250,000-scale topographic base map for digitization.
Geologic setting	Low scarps are about 2 km west of several low bedrock hills, toward the east side of the long, complex Safford basin. Scarps trend northeast, which is different from most late Cenozoic faults in the area.
Length (km)	4 km.
Average strike	N45°E
Sense of movement	Normal *Comments:* Inferred from regional relations.
Dip Direction	NW
Paleoseismology studies	
Geomorphic expression	Possible faulting is expressed as low, gentle, northwest-facing scarps on middle Pleistocene lower piedmont alluvial fans. Scarps are about 2 m high and have 5? and 9? maximum slope angles, suggesting a late Pleistocene scarp age.
Age of faulted surficial deposits	Middle Pleistocene
Historic earthquake	
Most recent prehistoric deformation	middle and late Quaternary (<750 ka) *Comments:* Timing estimate based on gentle scarps and no evidence of faulting of alluvium younger than middle Pleistocene in age.

Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* Low slip-rate category assigned based on 2 m of vertical displacement in the middle and late Quaternary.
Date and Compiler(s)	1995 Philip A. Pearthree, Arizona Geological Survey
References	#1033 Machette, M.N., Personius, S.F., Menges, C.M., and Pearthree, P.A., 1986, Map showing Quaternary and Pliocene faults in the Silver City 1° x 2° quadrangle and the Douglas 1° x 2° quadrangle, southeastern Arizona and southwestern New Mexico: U.S. Geological Survey Miscellaneous Field Studies Map MF-1465-C, 12 p. pamphlet, 1 sheet, scale 1:250,000. #2073 Menges, C.M., and Pearthree, P.A., 1983, Map of neotectonic (latest Pliocene-Quaternary) deformation in Arizona: Arizona Geological Survey Open-File Report 83-22, 48 p., scale 1:500,000.