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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.

Central fault (Class A) No. 2099

Last Review Date: 2016-01-12

Compiled in cooperation with the New Mexico Bureau of Geology & Mineral Resources

citation for this record: **Machette, M.N., and Jochems, A.P., compilers, 2016, Fault number 2099, Central 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 02:21 PM.**

Synopsis	Little is known about the age of this fault. It has three strands that displace basin-fill deposits of the Pliocene to early or middle (?) Quaternary Camp Rice Formation. Late Quaternary piedmont-slope deposits are not offset; however, no detailed study of the history of the fault has been conducted.
Name comments	The Central fault is shown by Seager and Hawley (1973 #996) and by Seager and others (1982 #626) as forming part of the southwestern margin of the Rincon Hills, northwest of Rincon, New Mexico. The fault name is derived from its central location between the East Rincon Hills fault [2083] and the Black Hills fault [2085].

County(s) and State(s)	DOÑA ANA COUNTY, NEW MEXICO
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:24,000 scale. *Comments:* Location taken from 1:24,000-scale mapping of Seager and Hawley (1973 #996) combined with accurate placement using photogrammetric methods.
Geologic setting	This generally southeast-trending fault system forms part of the southwest margin of the Rincon Hills. The fault put basin-fill deposits of the Pliocene to early or middle (?) Quaternary Camp Rice Formation against Tertiary rocks of the Rincon Hills uplift. At its southern end, the fault splays into two traces (compiler's interpretation), one of which is entirely with basin-fill deposits of Camp Rice Formation and cuts a southeast-trending unnamed syncline [2098].
Length (km)	3 km.
Average strike	N17°W
Sense of movement	Normal
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault system forms subdued and small (<5 m high) scarps on surfaces formed by sediment of the Camp Rice Formation and larger scarps where sediment of the Camp Rice Formation is downdropped against Tertiary bedrock. No studies of scarp morphology or detailed mapping to determine stratigraphic offset of Quaternary deposits have been conducted.
Age of faulted surficial deposits	Seager and Hawley (1973 #996) showed the fault as developed on basin-fill deposits of the Camp Rice Formation, which is Pliocene to early or middle (?) Pleistocene. The structure deforms the surface of these deposits and thus must postdate its stabilization. However, younger piedmont-slope and stream deposits are not deformed according to their mapping.

Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Timing based on deformation of Camp Rice Formation sediment. Late Quaternary piedmont-slope deposits do not appear to be faulted.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* The slip rate is less than 0.2 mm/yr based on relatively small height of scarps on surfaces that could be as old as early Quaternary; the fault does not deform late Quaternary deposits.
Date and Compiler(s)	2016 Michael N. Machette, U.S. Geological Survey, Retired Andrew P. Jochems, New Mexico Bureau of Geology & Mineral Resources
References	#996 Seager, W.R., and Hawley, J.W., 1973, Geology of Rincon quadrangle, Doña Ana County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Bulletin 101, 42 p., 2 pls., scale 1:24,000. #626 Seager, W.R., Clemons, R.E., Hawley, J.W., and Kelley, R.E., 1982, Geology of northwest part of Las Cruces 1° x 2° sheet, New Mexico: New Mexico Bureau of Mines and Mineral Resources Geologic Map 53, 3 sheets, scale 1:125,000.