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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 fault of Missouri Park (Class A) No. 2312

Last Review Date: 1997-09-30

Compiled in cooperation with the Colorado Geological Survey

citation for this record: **Widmann, B.L., compiler, 1997, Fault number 2312, unnamed fault of Missouri Park, 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 03:00 PM.**

Synopsis	This unnamed, northwest-trending fault is at the southern end of the upper Arkansas Valley, near Poncha Springs. Pinedale outwash deposits are offset by the fault, but Holocene deposits cover it.
Name comments	This unnamed northwest-trending fault extends through Missouri Park to Poncha Springs in the south end of the upper Arkansas Valley. **Fault ID:** Fault 158 in Kirkham and Rogers (1981 #792), fault

	146 in Witkind (1976 #2792), and fault number Q60 of Widman and others (1998 #3441).
County(s) and State(s)	CHAFFEE COUNTY, COLORADO
Physiographic province(s)	SOUTHERN ROCKY MOUNTAINS
Reliability of location	Good Compiled at 1:250,000 scale. *Comments:* The fault was mapped at a scale of 1:62,500 by Scott and others (1975 #2737) and 1:125,000 by Colman and others (1985 #1954). The trace used herein is from Colman and others (1985 #1954).
Geologic setting	This fault lies in an area of complex faulting at the southern end of the upper Arkansas Valley. It is a normal fault that is down to the southwest.
Length (km)	6 km.
Average strike	N50°W
Sense of movement	Normal *Comments:* Witkind (1976 #2792) and Kirkham and Rogers (1981 #792) reported normal movement on this fault.
Dip Direction	NE
Paleoseismology studies	
Geomorphic expression	No information is reported about the faults geomorphic expression.
Age of faulted surficial deposits	Pinedale outwash deposits (11-40 ka) are the materials offset by this fault according to Colman and others (1985 #2792). Bull Lake deposits are also offset by the fault, but Upper Holocene alluvium is not offset (Scott and others, 1975 #2737).
Historic earthquake	
Most recent prehistoric	late Quaternary (<130 ka)

deformation	*Comments:* Scott and others (1975 #2737) and Colman and others (1985 #1954) indicated offset of late Pleistocene Pinedale outwash deposits. Colman and others (1985 #1954) reported these faulted deposits as being 11 to 40 ka. More recent Holocene deposits are not offset, suggesting that the fault has not been active since the late Pleistocene. Kirkham and Rogers (1981 #792), Colman (1985 #1953) and Lettis and others (1996 #4453) also reported Quaternary movement for this fault.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* Widmann and others (1998 #3441) placed this fault in the <0.2 mm/yr slip-rate category.
Date and Compiler(s)	1997 Beth L. Widmann, Colorado Geological Survey
References	#1953 Colman, S.M., 1985, Map showing tectonic features of late Cenozoic origin in Colorado: U.S. Geological Survey Miscellaneous Geologic Investigations I-1566, 1 sheet, scale 1:1,000,000. #1954 Colman, S.M., McCalpin, J.P., Ostenaa, D.A., and Kirkham, R.M., 1985, Map showing upper Cenozoic rocks and deposits and Quaternary faults, Rio Grande Rift, south-central Colorado: U.S. Geological Survey Miscellaneous Geologic Investigations I-1594, 2 sheets. #792 Kirkham, R.M., and Rogers, W.P., 1981, Earthquake potential in Colorado: Colorado Geological Survey Bulletin 43, 171 p., 3 pls. #4453 Lettis, W., Noller, J., Wong, I., Ake, J., Vetter, U., and LaForge, R., 1996, Draft report, Seismotectonic evaluation of Colorado River storage project-Crystal, Morrow Point, Blue Mesa dams, Smith Fork project-Crawford dam, west-central Colorado: Technical report to U.S. Bureau of Reclamation, Denver, Colorado, 177 p. #2737 Scott, G.R., Van Alstine, R.E., and Sharp, W.N., 1975, Geologic map of the Poncha Springs quadrangle, Chaffee County, Colorado: U.S. Geological Survey Miscellaneous Field Studies

	Map MF-658. #3441 Widmann, B.L., Kirkham, R.M., and Rogers, W.P., 1998, Preliminary Quaternary fault and fold map and database of Colorado: Colorado Geological Survey Open-File Report 98-8, 331 p., 1 pl., scale 1:500,000. #2792 Witkind, I.J., 1976, Preliminary map showing known and suspected active faults in Colorado: U.S. Geological Survey Open-File Report 76-154.