

# 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 southwest of Montrose (Class B) No. 2273

Last Review Date: 1998-01-06

## Compiled in cooperation with the Colorado Geological Survey

*citation for this record:* Widmann, B.L., compiler, 1998, Fault number 2273, unnamed faults southwest of Montrose, 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 03:02 PM.

<b>Synopsis</b>	This group of faults lies on the south end of the Uncompahgre Uplift. Although there was no reported evidence of Quaternary offset along these faults they were mapped as Quaternary faults by Lettis and others (1996; plate 2). They attributed fault activity to salt tectonism, and thus are considered to be Class B structures. The most recent movement on the faults herein considered to have occurred during the Quaternary based on the work of Lettis and others (1996 #4453).
<b>Name</b>	This group of unnamed faults includes five generally north-south-

<b>comments</b>	trending faults at the south end of the Uncompahgre Uplift. The faults are west of Highway 550 between Montrose and Ridgway.  <b>Fault ID:</b> Fault number Q23 of Widman and others (1998 #3441).
<b>County(s) and State(s)</b>	OURAY COUNTY, COLORADO MONTROSE COUNTY, COLORADO
<b>Physiographic province(s)</b>	COLORADO PLATEAUS
<b>Reliability of location</b>	Good Compiled at 1:250,000 scale.  <i>Comments:</i> The faults were mapped by Steven and Hail (1989 #2747) at a scale of 1:100,000, and by Williams (1964 #2789), Tweto and others (1976 #2774), and Lettis and others (1996 #4453) at 1:250,000 scale. The fault traces used herein are from Lettis and others (1996 #4453).
<b>Geologic setting</b>	This group of faults is on the southeast end of the Uncompahgre Uplift, which is a northwest-trending, east-tilted fault block. Faults in this group are downthrown to the west and southwest, and are considered to be salt-related rather than tectonic features (Lettis and others, 1996 #4453).
<b>Length (km)</b>	19 km.
<b>Average strike</b>	N7°W
<b>Sense of movement</b>	Normal
<b>Dip Direction</b>	W
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	There is no geomorphic expression of Quaternary offset along these faults according to Lettis and others (1996 #4453).
<b>Age of faulted surficial deposits</b>	This group of faults offset the Cretaceous Dakota Sandstone and Mancos Shale (Williams (1964 #2789; Tweto and others, 1976 #2774; Steven and Hail, 1989 #2747). The faults are almost entirely within Cretaceous rocks with less than 5 percent extending through or beneath Quaternary deposits. Although there is no evidence of faulted Quaternary deposits along these faults,

	Lettis and others (1996 #4453) concluded they moved during the Quaternary.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although there is no direct evidence of faulted Quaternary deposits along these faults, they were considered to be Quaternary faults by Lettis and others (1996 #4453; plate 2). They concluded that fault activity is due to salt tectonism.
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr <i>Comments:</i> Widmann and others (1998 #3441) placed this structure within the <0.2 mm/yr slip-rate category.
<b>Date and Compiler(s)</b>	1998 Beth L. Widmann, Colorado Geological Survey
<b>References</b>	#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.  #2747 Steven, T.A., and Hail, W.J., Jr., 1989, Geologic map of the Montrose 30' x 60' quadrangle, southwestern Colorado: U.S. Geological Survey Miscellaneous Geologic Investigations I-1939.  #2774 Tweto, O., Steven, T.A., Hail, W.J., Jr., and Moench, R.H., 1976, Preliminary geologic map of the Montrose 1° x 2° quadrangle, southwestern Colorado: U.S. Geological Survey Miscellaneous Field Studies Map MF-761.  #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.  #2789 Williams, P.L., 1964, Geology, structure, and uranium deposits of the Moab quadrangle, Colorado and Utah: U.S.

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