

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 south of Love Mesa (Class A) No. 2271

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 2271, unnamed faults south of Love Mesa, 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.

Synopsis	These faults are on the southern part of the Uncompahgre Uplift, southwest of the town of Delta. Although there is no reported evidence of Quaternary offset along these faults, they were mapped as Quaternary faults by Lettis and others (1996 #4453; plate 2). They attributed fault activity to salt tectonism. 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).
Name	These two generally east-west-trending faults on the

comments	<p>Uncompahgre Uplift extend from northeast of Windy Point on the west to Criswell Creek on the east. The faults are southwest of the town of Delta.</p> <p>Fault ID: Fault number Q21 of Widman and others (1998 #3441).</p>
County(s) and State(s)	MONTROSE COUNTY, COLORADO
Physiographic province(s)	COLORADO PLATEAUS
Reliability of location	<p>Good Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> The faults were mapped at a scale of 1:250,000 by Williams (1964 #2789) and Lettis and others (1996). The fault trace used herein is from Lettis and others (1996 #4453).</p>
Geologic setting	These faults lie on the south end of the Uncompahgre Uplift, which is a northwest-trending, east-tilted fault block. Both faults are down to the north.
Length (km)	18 km.
Average strike	N80°W
Sense of movement	Normal
Dip Direction	N
Paleoseismology studies	
Geomorphic expression	No information is available about the Quaternary geomorphic expression of the fault.
Age of faulted surficial deposits	These faults offset Jurassic to Cretaceous bedrock (Williams, 1964 #2789), but Quaternary deposits are not mapped along the faults. Although there is no evidence of faulted Quaternary deposits along these faults, Lettis and others (1996 #4453) concluded they moved during the Quaternary.
Historic earthquake	
Most recent	undifferentiated Quaternary (<1.6 Ma)

<p>prehistoric deformation</p>	<p><i>Comments:</i> Although there is no direct evidence for offset of Quaternary deposits along these faults, they were mapped as Quaternary faults related to salt tectonism by Lettis and others (1996 #4453; plate 2). Faults associated with the Uncompahgre Uplift are often considered to have experienced Quaternary movement. Based on the timing of abandonment of Unaweep Canyon from the Uncompahgre plateau Cater (1966 #2671) indicated uplift began in the mid-Pliocene and continued into the Pleistocene resulting in as much as 640 m of differential uplift.</p>
<p>Recurrence interval</p>	
<p>Slip-rate category</p>	<p>Less than 0.2 mm/yr</p> <p><i>Comments:</i> Widmann and others (1998 #3441) placed this structure within the <0.2 mm/yr slip-rate category.</p>
<p>Date and Compiler(s)</p>	<p>1998 Beth L. Widmann, Colorado Geological Survey</p>
<p>References</p>	<p>#2671 Cater, F.W., Jr., 1966, Age of the Uncompahgre Uplift and Unaweep Canyon, west-central Colorado: U.S. Geological Survey Professional Paper 550-C, 86-92 p.</p> <p>#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.</p> <p>#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.</p> <p>#2789 Williams, P.L., 1964, Geology, structure, and uranium deposits of the Moab quadrangle, Colorado and Utah: U.S. Geological Survey Miscellaneous Geologic Investigations I-360.</p>

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