

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](#).

Fremont Wash faults (Class A) No. 2495

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: Black, B.D., and Hecker, S., compilers, 1999, Fault number 2495, Fremont Wash faults, 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 02:54 PM.

Synopsis	Poorly understood middle and late Quaternary faults in Fremont Wash.
Name comments	Fault ID: Refers to fault number 9-3 in Hecker (1993 #642).
County(s) and State(s)	IRON COUNTY, UTAH
Physiographic province(s)	COLORADO PLATEAUS
Reliability of	Good

location	<p>Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> Mapped or discussed by Anderson and Bucknam (1979 #518), Anderson (1980 #4566), and Anderson and others (1990 #4565). Fault traces from 1:250,000-scale mapping of Anderson and Bucknam (1979 #518).</p>
Geologic setting	<p>Four short, northeast-trending normal faults on the northwest and southeast sides of Fremont Wash at the northeast end of Parowan Valley. Parowan Valley is mainly in the Southern High Plateaus, which are comprised of distinct lava-capped plateaus defined by external bounding cliffs and internal alluvium-filled valleys following fault lines or narrow grabens.</p>
Length (km)	8 km.
Average strike	N57°E
Sense of movement	Normal
Dip Direction	<p>SE</p> <p><i>Comments:</i> Also includes possible NW dip directions.</p>
Paleoseismology studies	
Geomorphic expression	<p>Scarps are present on alluvial deposits mapped as late Pleistocene (10-130 ka). Radiocarbon samples from alluvium that is younger than the faulting yielded an age of 3,800 yr B.P.</p>
Age of faulted surficial deposits	Middle to late Quaternary.
Historic earthquake	
Most recent prehistoric deformation	<p>middle and late Quaternary (<750 ka)</p> <p><i>Comments:</i></p>
Recurrence interval	
Slip rate	

Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	<p>#4565 Anderson, J.J., Rowley, R.D., Machette, M.N., Decatur, S.H., and Mehnert, H.H., 1990, Geologic map of the Nevershine Hollow area, eastern Black Mountains, southern Tushar Mountains, and northern Markagunt Plateau, Beaver and Iron Counties, Utah: U.S. Geological Survey Miscellaneous Investigations Map I-1999, scale 1:50,000.</p> <p>#4566 Anderson, R.E., 1980, The status of seismotectonic studies of southwestern Utah, <i>in</i> Andriese, P.D., ed., Earthquake hazards along the Wasatch and Sierra-Nevada frontal fault zones: U.S. Geological Survey Open-File Report 80-801, p. 519-547.</p> <p>#518 Anderson, R.E., and Bucknam, R.C., 1979, Map of fault scarps in unconsolidated sediments, Richfield 1° x 2° quadrangle, Utah: U.S. Geological Survey Open-File Report 79-1236, 15 p. pamphlet, 1 sheet, scale 1:250,000.</p> <p>#642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000.</p>

[Questions or comments?](#)

[Facebook](#) [Twitter](#) [Google](#) [Email](#)

[Hazards](#)

[Design](#) [Ground Motions](#) [Seismic Hazard Maps & Site-Specific Data](#) [Faults](#) [Scenarios](#)

[Earthquakes](#) [Hazards](#) [Data](#) [Education](#) [Monitoring](#) [Research](#)

[Home](#) [About Us](#) [Contacts](#) [Legal](#)