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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.

Black Mountains faults (Class A) No. 2487

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 2487, Black Mountains 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 Quaternary(?) faults in and around the Black Mountains.
Name comments	**Fault ID:** Refers to fault number 9-12 of Hecker (1993 #642).
County(s) and State(s)	IRON COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of	Good

location	Compiled at 1:250,000 scale. *Comments:* Mapped or discussed by Rowley (1978 #4563), Anderson and Miller (1980 #4562), and Ertec Western, Inc. (Schell, 1981 #4598). Fault traces from 1:62,500-scale mapping of Rowley (1978 #4563) and 1:250,000-scale mapping of Schell (1981 #4598).
Geologic setting	Northeast- to southeast-trending faults in and around the Black Mountains at the northeast edge of the Escalante Desert. The Black Mountains are in an area of southwestern Utah underlain by extensive extrusive Tertiary volcanic rocks. In the mountains, volcanic rocks have been eroded to expose pre-existing Paleozoic and Mesozoic topography. In other places, such as Escalante Valley, faulting downdropped the volcanic rocks and they are buried by lake deposits.
Length (km)	26 km.
Average strike	N42°E
Sense of movement	Normal
Dip Direction	NE; SW
Paleoseismology studies	
Geomorphic expression	Hecker (1993 #642) shows two questionable Quaternary faults. The first fault is in Tertiary to Quaternary deposits and is on trend with scarps on Quaternary alluvium. The second fault is categorized as Pleistocene by Ertec Western, Inc. (Schell, 1981 #4598).
Age of faulted surficial deposits	Quaternary(?)
Historic earthquake	
Most recent prehistoric deformation	middle and late Quaternary (<750 ka) *Comments:*
Recurrence	

interval	
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	#4562 Anderson, L.W., and Miller, D.G., 1980, Quaternary faulting in Utah, *in* 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. 194-226. #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. #4563 Rowley, P.D., 1978, Geologic map of the Thermo 15-minute quadrangle, Beaver and Iron Counties, Utah: U.S. Geological Survey Geologic quadrangle Map GQ-1493, scale 1:62,000. #4598 Schell, B.A., 1981, MX siting investigation, faults and lineaments in the MX siting region, Nevada and Utah: Long Beach, California, report no. E-TR-54 for U.S. Air Force, volume I, 77p.; volume II, variously paginated, scale 1:250,000.