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 <u>interactive fault map</u>.

Escalante Desert faults (Class B) No. 2488

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 2488, Escalante Desert 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.

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	Synopsis	Poorly understood Holocene faults(?) at the north end of the Escalante Desert near Thermo and Desert east of the Wah Wah Mountains faults [2435]. The faults are characterized by several short northeast-trending lineaments that may be liquefaction- related features rather than deep-penetrating faults. Owing to questions about their origin, we categorize these faults(?) as Class B structures.
	Name comments	Fault ID: Refers to fault number 9-13 of Hecker (1993 #642).
Γ	County(s) and	

State(s)	BEAVER COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:250,000 scale.
	<i>Comments:</i> Mapped or discussed by Rowley (1978 #4563), Anderson and Bucknam (1979 #518), Ertec Western, Inc (Schell, 1981 #4598), and Fugro National, Inc. (1981 #4983). Fault traces from 1:62,000 scale mapping of Rowley (1978 #4563).
Geologic setting	Lineaments possibly mark several short northeast-trending faults at the northern edge of the Escalante Desert east of the Wah Wah Mountains faults [2435]. Unconsolidated deposits in the area are mainly lake sediments and alluvium. Hecker (1993 #642) indicates that the lineaments may be liquefaction-related features rather than faults.
Length (km)	7 km.
Average strike	N28°E
Sense of movement	Normal
Dip Direction	NW; SE
Paleoseismology studies	
Geomorphic expression	Possible zone of short northeast-trending faults mapped by Rowley (1978 #4563) as cutting alluvium that is topographically below the Bonneville shoreline, but also as covered by (reworked?) Bonneville deposits. Fugro National, Inc. (1981 #4983) mapped two of the faults, defined in part by mounds of hot spring deposits, as cutting a mixed unit comprised of Bonneville deposits and young alluvium. The faults appear as lineaments without relief on Ertec Western, Inc.'s (Schell, 1981 #4598) map and weren't included in mapping of fault scarps by Anderson and Bucknam (1979 #518). Owing to questions about their origin, we categorize these faults(?) as Class B structures.
surficial	Holocene(?). Rowley (1978 #4563) mapped the faults as cutting alluvium that is topographically below the Bonneville shoreline, but also as covered by (reworked?) Bonneville deposits. Fugro

	National, Inc. (1981 #4983) mapped two of the faults, defined in part by mounds of hot spring deposits, as cutting a mixed unit comprised of Bonneville deposits and young alluvium.
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 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	 #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. #4983 Fugro National Inc., 1981, MX siting investigation, preliminary geotechnical investigation, proposed operational base site, Milford, Utah, volume I—Synthesis: Technical report to U.S. Air Force, under Contract FN-TR-44, 77 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. #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.

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