

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](#).

Simpson Mountains faults (Class A) No. 2418

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 2418, Simpson 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 02:55 PM.

Synopsis	Poorly understood middle and late Quaternary faults west of the Simpson Mountains in west-central Utah.
Name comments	Fault ID: Refers to fault number 8-8 of Hecker (1993 #642).
County(s) and State(s)	JUAB COUNTY, UTAH TOOELE COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of	Good

location	Compiled at 1:250,000 scale. <i>Comments:</i> Fault traces from 1:250,000-scale mapping of Ertec Western, Inc. (Schell, 1981 #2844).
Geologic setting	Several short north- to northwest-trending normal faults west of the Simpson Mountains and east of Dugway Valley in the Basin and Range in western Utah. The Simpson Mountains lie between the Sheeprack Mountains and Thomas Range and expose Precambrian metamorphic, Paleozoic sedimentary, and Tertiary volcanic rocks.
Length (km)	11 km.
Average strike	N27°W
Sense of movement	Normal
Dip Direction	SW
Paleoseismology studies	
Geomorphic expression	Scarps on alluvium (Schell, 1981 #2844).
Age of faulted surficial deposits	Late Quaternary (Schell, 1981 #2844).
Historic earthquake	
Most recent prehistoric deformation	middle and late Quaternary (<750 ka) <i>Comments:</i>
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> Poor geomorphic expression indicates a low slip rate.
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey

References

#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.

#2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.

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