

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](#).

Pine Valley faults (Class A) No. 2481

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 2481, Pine Valley 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 west-central Pine Valley.
Name comments	Fault ID: Refers to fault number 9-22 of Hecker (1993 #642)
County(s) and State(s)	BEAVER COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of	Poor

location	<p>Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> Mapped by Fugro National, Inc. (1981 #4597) and Ertec Western, Inc. (Schell, 1981 #2844). Fault traces from 1:250,000-scale mapping of Schell (1981 #2844).</p>
Geologic setting	<p>Short north-trending possibly normal-slip faults in Pine Valley. Southern Pine Valley is in an area of southwestern Utah underlain by extensive extrusive Tertiary volcanic deposits. In the mountains, volcanic rocks have been eroded to expose pre-existing Paleozoic and Mesozoic topography. In other places, such as Escalante Valley to the south, igneous rocks have been lowered by faulting and buried by lake sediments and alluvium.</p>
Length (km)	4 km.
Average strike	N3°E
Sense of movement	Normal
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The faults are part of a small cluster of tectonic lineaments that lack scarps.
Age of faulted surficial deposits	Quaternary.
Historic earthquake	
Most recent prehistoric deformation	<p>middle and late Quaternary (<750 ka)</p> <p><i>Comments:</i> Based on alluvial-fan characteristics of Schell (1981 #2844).</p>
Recurrence interval	
Slip-rate category	<p>Less than 0.2 mm/yr</p> <p><i>Comments:</i> Lack of significant scarp development on alluvial</p>

	deposits indicates low slip rate.
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	<p>#4597 Fugro National Inc., 1981, MX siting investigation, geotechnical evaluation, verification study—Pine Valley, Utah, Volume I—Synthesis: Long Beach, California, consultant's report no. FN-TR-27-PI-I for U.S. Air Force, 48 p.</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> <p>#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.</p>

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