

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 (south end) faults (Class A) No. 2482

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 2482, Pine Valley (south end) 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 at the southern end of Pine Valley.
Name comments	Fault ID: Refers to fault number 9-21 of Hecker (1993 #642).
County(s) and State(s)	IRON COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	<p>Good Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> Mapped by Fugro National, Inc. (1981 #4597) and Ertec Western, Inc. (Schell, 1981 #4598). Fault traces from 1:250,000-scale mapping of Schell (1981 #4598).</p>
Geologic setting	<p>North-trending normal faults on the eastern side of the Indian Peak Range at the southern end of Pine Valley. Indian Peak (or Needle) Range is west of the Wah Wah Mountains near the Utah-Nevada border 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 to the east, faults downdropped the volcanic rocks and they are buried by lake deposits.</p>
Length (km)	11 km.
Average strike	N3°W
Sense of movement	Normal
Dip Direction	E
Paleoseismology studies	
Geomorphic expression	<p>Bedrock faults, possibly of Quaternary age, associated with a scarp on alluvium. Numerous other short bedrock scarps of similar age (not shown on Hecker, 1993 #642) are also along the western margin of the valley.</p>
Age of faulted surficial deposits	Quaternary (?)
Historic earthquake	
Most recent prehistoric deformation	<p>undifferentiated Quaternary (<1.6 Ma)</p> <p><i>Comments:</i> Based on alluvial-fan characteristics.</p>
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	<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>#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.</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](#)