

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](#).

unnamed faults on southeast side of Kern Mountains (Class A) No. 1256

Last Review Date: 2000-11-24

citation for this record: Redsteer, M.H., and Machette, M.N., compilers, 2000, Fault number 1256, unnamed faults on southeast side of Kern Mountains, 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 02:16 PM.

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| Synopsis | These unnamed faults are expressed by down-to-the-northeast, -east, and -south offset that places bedrock against Quaternary alluvium on the southeastern margin of the Kern Mountains. Scarps at its southern extent are on Quaternary sediment of the Sulphur Springs Wash. Reconnaissance photogeologic mapping is the source of data. Trench investigations and detailed studies of scarp morphology have not been completed. |
| Name comments | These unnamed faults are located on the southeastern margin of the Kern Mountains, and extends from Pete Meece Canyon southeast about 6 km. Also includes a 2-km-long scarp west of Upper Sulphur Spring, and a 4-km-long scarp on the west margin of Tin Springs Mountain. |

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| County(s) and State(s) | JUAB COUNTY, UTAH WHITE PINE COUNTY, NEVADA |
| Physiographic province(s) | BASIN AND RANGE |
| Reliability of location | Good Compiled at 1:100,000 scale. <i>Comments:</i> Location based on 1:250,000-scale map of Dohrenwend and others (1992 #2480). Mapping based on photogeologic analysis of primarily 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred by inspection to 1:62,500-scale topographic maps and photographically reduced and directly transferred to 1:250,000-scale topographic maps, and subsequent mapping by photogeologic analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to scale of the photographs. |
| Geologic setting | These unnamed faults are located on the southeastern margin of the Kern Mountains, which are comprised of uplifted Paleozoic carbonate strata that represent the limbs of an overturned anticline, and a granitic pluton that is the central core of the mountain range. The faults is mapped by Dohrenwend and others (1992 #2480) juxtapose bedrock against Quaternary alluvium, as well as offset Quaternary sediment of the Sulphur Springs Wash on the southeastern edge Kern Mountains. |
| Length (km) | 14 km. |
| Average strike | N8°W |
| Sense of movement | Normal |
| Dip Direction | NE; E; W; S |
| Paleoseismology studies | |
| Geomorphic expression | The faults are mapped by Dohrenwend and others (1992 #2480) place bedrock against Quaternary alluvium in the southeastern Kern Mountains and the western side of Tin Springs Mountain. The location of offset coincides with a marked change in relief and an abrupt change in elevation that defines the southward- |

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| | curving eastern margin of the Kern Mountains. Lineaments mapped by Dohrenwend and others (1992 #2480) are not included herein. |
| Age of faulted surficial deposits | Quaternary, Paleozoic |
| Historic earthquake | |
| Most recent prehistoric deformation | undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Dohrenwend and others (1992 #2480) considered the last fault movement to be of Quaternary age. |
| Recurrence interval | |
| Slip-rate category | Less than 0.2 mm/yr <i>Comments:</i> Low slip-rate category is assigned on the basis of poor geomorphic preservation, general lack of mapped fault scarps in alluvium, and relative inactivity of similar distributed faults in the Basin and Range province. |
| Date and Compiler(s) | 2000 Margaret Hisa Redsteer, U.S. Geological Survey Michael N. Machette, U.S. Geological Survey, Retired |
| References | #2480 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1992, Reconnaissance photogeologic map of young faults in the Ely 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2181, 1 sheet, scale 1:250,000. |

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