

# 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 west side of Hoppin Peaks (Class A) No. 1506

Last Review Date: 1999-03-01

*citation for this record:* Adams, K., compiler, 1999, Fault number 1506, unnamed faults on west side of Hoppin Peaks, 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 02:50 PM.

### Synopsis

This distributed group of predominately intermontane north-striking faults is on west side of Hoppin Peaks and extends from Cordero south to Indian Springs on Crowley Creek. These faults primarily involve Tertiary volcanics but also displace and juxtapose Quaternary alluvium against the Tertiary bedrock, providing evidence of young movement. Faults are primarily expressed as prominent topographic lineaments delineated by linear reaches of stream channels, abrupt scarps, and aligned saddles. Short west- and east-facing scarps also are located on the alluvium filling Jordan Meadow Flat. Reconnaissance photogeologic and bedrock mapping of the faults are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.

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| <b>Name comments</b>             | Refers to a group of faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet), Greene (1972 #3007) on west and southwest of the Hoppin Peaks. Dohrenwend and Moring (1991 #284) show three subparallel faults in Tertiary rocks that have a more northerly trend than those show here.  |
| <b>County(s) and State(s)</b>    | HUMBOLDT COUNTY, NEVADA  |
| <b>Physiographic province(s)</b> | BASIN AND RANGE  |
| <b>Reliability of location</b>   | Good<br>Compiled at 1:100,000 scale.<br><br><i>Comments:</i> Fault locations are based on the 1:250,000-scale photogeologic reconnaissance maps of Slemmons (1966, unpublished McDermitt 1? X 2? sheet), and 1:48,000-scale bedrock map of Greene (1972 #3007). Slemmons' (1966, unpublished McDermitt 1? X 2? sheet) map is from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers. |
| <b>Geologic setting</b>          | This group of predominately intermontane north striking faults is located on the west side of the Hoppin Peaks and extends from the community of Cordero south to Indian Springs on Crowley Creek. These faults primarily involve Tertiary volcanics but also displace and juxtapose Quaternary alluvium against the Tertiary bedrock (Greene, 1972 #3007).  |
| <b>Length (km)</b>               | 22 km.   |
| <b>Average strike</b>            | N23°E  |
| <b>Sense of movement</b>         | Normal<br><br><i>Comments:</i> (Greene, 1972 #3007)  |
| <b>Dip Direction</b>             | W; SE; NE  |
| <b>Paleoseismology studies</b>   |  |
| <b>Geomorphic expression</b>     | Short west and east facing scarps also are located on the alluvium filling Jordan Meadow Flat (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet).   |

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| <b>Age of faulted surficial deposits</b>   | Quaternary and Tertiary. Faults displace Tertiary bedrock, juxtapose Quaternary alluvium against bedrock, and displace Quaternary alluvium (Slemmons, 1966, unpublished McDermitt 1° X 2° sheet; Greene, 1972 #3007).  |
| <b>Historic earthquake</b>                 |  |
| <b>Most recent prehistoric deformation</b> | late Quaternary (<130 ka)<br><br><i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is indicated based on photogeologic mapping by Slemmons (1966, unpublished McDermitt 1° X 2° sheet).   |
| <b>Recurrence interval</b>                 |  |
| <b>Slip-rate category</b>                  | Less than 0.2 mm/yr<br><br><i>Comments:</i> A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.   |
| <b>Date and Compiler(s)</b>                | 1999<br>Kenneth Adams, Piedmont Geosciences, Inc.  |
| <b>References</b>                          | #284 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the McDermitt 1° by 2° quadrangle, Nevada, Oregon, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2177, 1 sheet, scale 1:250,000.<br><br>#3007 Greene, R.C., 1972, Preliminary geologic map of the Jordan Meadows quadrangle, Nevada-Oregon: U.S. Geological Survey Miscellaneous Field Studies Map MF-341, scale 1:48,000. |

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