



University of Nevada, Reno



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Quaternary Faults in Nevada – Online Interactive Map

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This report is an online version of Nevada Bureau of Mines and Geology (NBMG) Map 167, *Quaternary Faults in Nevada*, published in 2008. The map is also available through NBMG's online documents at <http://www.nbmg.unr.edu/dox/dox.htm> or directly at <http://www.nbmg.unr.edu/dox/m167.pdf>.

This online version allows users to locate faults on various base maps, including topographic maps and aerial photographs.

The Nevada Bureau of Mines and Geology (NBMG) is a research and public service unit of the University of Nevada, Reno and is the State geological survey. Established by the Nevada Legislature as a department within the public service division of the Nevada System of Higher Education, NBMG is part of the Mackay School of Earth Sciences and Engineering within the College of Science and one of the Statewide Programs at the University of Nevada, Reno. NBMG's mission, to provide the State's needs for geological and mineral-resource information and research, is defined in its enabling legislation. NBMG scientists conduct research and publish reports that focus on the economic development, public safety, and quality of life in urban and rural areas of Nevada.

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Because the map was created at a small scale (1:1,000,000), and some fault traces in areas of clustered faults have been eliminated for clarity, it should not be used for planning or engineering purposes. The map is primarily intended for general education purposes. For further explanation about features of the map, please see <http://www.nbmг.unr.edu/dox/m167.pdf>.

This online interactive map, which is also available as a geographic information system file, shows the faults as 1,000-meter-wide (0.6-mile) swaths. These swaths generally take into account uncertainties in the mapped locations of faults, generalizations made in connecting surface fault traces at various map scales, registration errors of base maps, and the fact that many faults have complex surface fracture patterns with parallel, minor faults that crop out hundreds of meters away from the main faults. The actual fault traces are within the swaths. Because many areas have not been mapped in great detail, additional Quaternary faults may occur outside these swaths as well.

The primer below gives some tips for locating these faults on various base maps, including aerial photographs and topographic maps.

Reference

dePolo, C.M., 2008, Quaternary faults in Nevada: Nevada Bureau of Mines and Geology Map 167, 1:1,000,000 scale.


Disclaimer


The information in this report should be considered preliminary and approximate. Although NBMG Map 167 was reviewed, this online version has not been reviewed separately. Not all segments of faults or fault zones have been labeled in the database of underlying information.


Primer on Webmap Use

These are some helpful tools (icons) you can use to navigate and query information on the map.

To zoom in to an area on the map, use the  Zoom icon. Use it to outline a rectangular area; you may have to wait a few seconds for the website to zoom in.

To move around once zoomed in to an area, use the  Pan icon.


If you want more information about a fault, use the  Identify icon, then click on the down arrow to see the details. Information includes the name of the fault, its age of last rupture (in years), the type of fault (N = normal dip slip; SS = strike slip), the slip rate of the fault (in millimeters per year), and the number in the USGS's Quaternary Fault and Fold Database.

You can measure distances with the  Measure icon.

Click buttons on the left, under Map Contents, to turn features on and off. A check mark indicates that the feature is on; no check mark means it is off. You can turn on and off three features:

1. Quaternary faults
2. USGS topographic maps
3. USGS aerial photographs.

Note: You have to turn the topographic maps off to see the aerial photographs.

If you want to start all over and zoom back to the full map, use the  Full Extent icon.

In the Map Contents box, click the button for "Legend" to see the color coding for the age of the most recent rupture:








- Red = historical, within the last 150 years.
- Orange = latest Pleistocene and Holocene, within the last 15,000 years.
- Yellow = late Quaternary, within the last 130,000 years.
- Green = middle Quaternary, within the last 750,000 years.
- Blue = Quaternary, within the last 1,800,000 years.

Faults that have been mapped at the surface are depicted with solid colors; faults that are inferred to occur, generally under young alluvial cover or under water, are shown as swaths with colored diagonal lines.

You can also look for a fault by using the button on the left of the map titled "Look for a fault". Use the dropdown arrow and select the fault you want to query and then click the "Find the fault" button to start the query. Once the results are found in the "Results" box on the left of the map, right click on your mouse on the "Legend" and select the Zoom to Selected Features. You will be taken to those features you have selected. If you want to remove your selected results, just right click on the "Look for a fault" in the Results box and select Remove. Now you are ready for another query.

Go to the [Quaternary Faults in Nevada – Online Interactive Map](#).

Tools in your website depend on the purpose and use of the application. Some or all of these may be available:

Name	Icon	Description
Zoom in		Click and drag a rectangle: Click and hold the left mouse button down on the map at one corner of the rectangle to zoom in to. Drag the mouse to the other corner of the rectangle, and release the mouse button. The map will zoom in to the area of the rectangle.
Zoom out		Click and drag a rectangle: the map will zoom out so that the current map area will fit into the rectangle drawn. The smaller the rectangle you draw, the more the map will zoom out.
Pan (recenter)		Click and drag the map: Click and hold the left mouse button on the map, and drag the map. The map will be recentered, with the location dragged at the location you dropped it.
Full extent		Full extent: Immediately zooms the map out to the area of all features and layers. The active tool does not change.
Identify		Click to identify: Click with the left mouse button on the map. A small icon is added to the map  and the Location is added to the section in the Console. See Results for how to use the identification information.
Measure		Measure distance or area: See Measuring for usage.