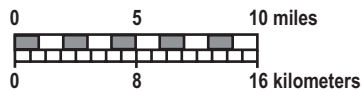
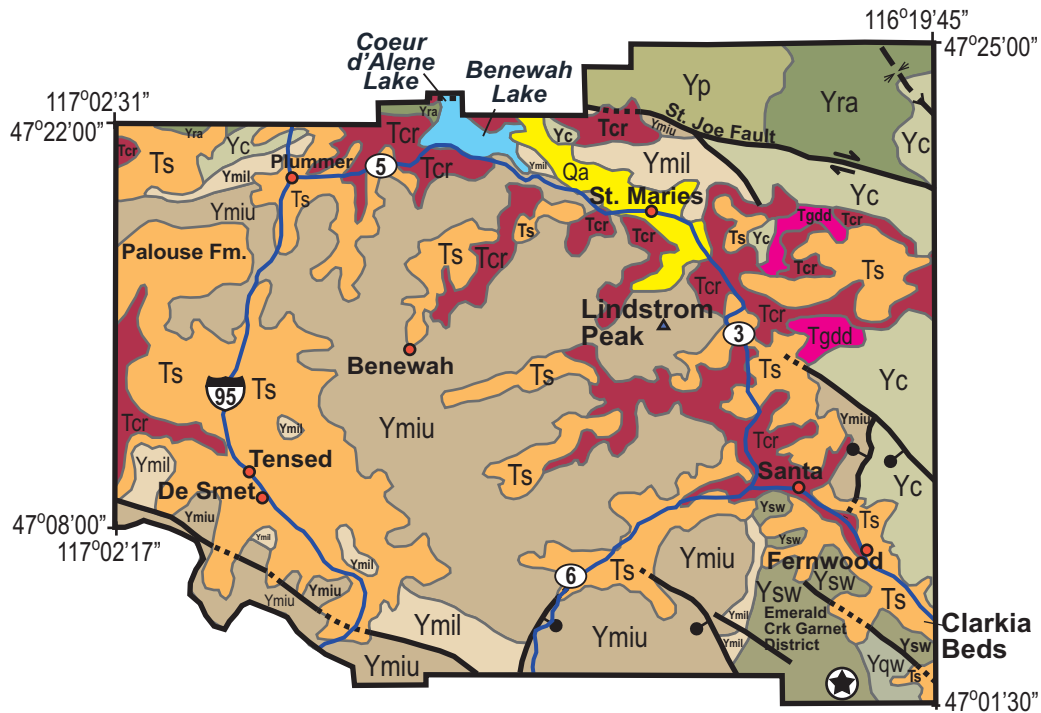


Benewah County, Idaho



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 Idaho Geological Survey
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Benewah County

This diverse county has rolling Palouse on the west, and foothills and steep forested mountains on the east. The mountains are underlain by Mesoproterozoic Belt Supergroup, with the Emerald Creek mining district in the extreme southeastern corner of the county south of Fernwood found in metamorphic rocks of the middle-Belt Wallace Formation.

Miocene Columbia River basalts cover the low farming country in the western county and up the St. Maries river to Clarkia. Lacustrine and river deposits were deposited in valleys that had been dammed up by basalt lava flows. The world famous Clarkia fossil locality formed this way.

The St. Joe fault, and Eocene feature related to continental extension and development of metamorphic core complexes runs eastward through the northeast corner of the county, north of St. Maries. Beautiful Benewah Lake and the Coeur d'Alene river make a vacation paradise, but heavy metals in mine waste along the river raise environmental concerns.

A small area southeast of St. Maries is underlain by Eocene granodiorite.















The Coeur d'Alene Indian Reservation headquarters is at Plummer in the northwestern part of the county.

Written by P.K. Link, 9/02

Description of Units for Idaho County Geologic Maps

- Ts Tertiary sedimentary rocks, undifferentiated. Includes Oligocene and Eocene sedimentary rocks in east-central Idaho (Paleogene basins of Janecke). In northern and western Idaho this unit contains Miocene lake and stream deposits formed adjacent to and above the Columbia River and Weiser basalts, which formed dams in stream canyons.
- Tcr Miocene basalt (Columbia River Basalt Group); flood basalt, extensively exposed in western Idaho; fed by fissures, many of which are near the Idaho-Oregon border. Flowed eastward up valleys cut into the Idaho mountains.
- Tgdd Eocene granodiorite and dacite porphyry intrusive, also includes diorite and, in northern Idaho, minor granitic rock; intermediate phase of Challis magmatic event (50 to 46 Ma). Summit Creek stock.
- Ymiu Upper Missoula Group. Includes Swauger Quartzite, Lawson Creek Formation in Lemhi Range, and Striped Peak and Libby formations in northern Idaho.
- Ymil Lower Missoula Group. Includes Gunsight Formation in Lemhi Range and upper Wallace Formation (equivalent to Snowslip and Shepard formations) in northern Idaho.
- Ysw Schist and phyllite of the upper part of the Wallace Formation (lower Missoula Group); garnet-bearing in Emerald Creek district, Benewah and Latah counties. Schist and phyllite of the upper part of the Wallace Formation (lower Missoula Group); garnet-bearing in Emerald Creek district, Benewah and Latah counties.
- Yc Piegan Group or Middle Belt carbonate, Apple Creek Formation [includes lower and middle Wallace Formation in northern Idaho and Apple Creek Formation and argillaceous quartzite (including rocks at Cobalt) near Salmon].
- Yqw Quartzite and calc-silicate gneiss of the lower and middle parts of the Wallace Formation.
- Yra Ravalli Group, sandstone (quartzite) and siltite, includes Big Creek Formation and lower part of Lemhi Group in Lemhi Range and Salmon River Mountains, and Burke, Revett and St. Regis formations in northern Idaho.
- Yp Prichard Formation (Lower Belt), dark fine-grained siltstone and sandstone, calcareous intervals in Boehl's Butte area.

Symbols

 <p>Geologic unit contacts with unit designation.</p>  <p>Normal fault: certain; dashed where approximately located; dotted where concealed.</p>  <p>Thrust fault: certain; dashed where approximately located; dotted where concealed.</p>  <p>Detachment fault: certain; dashed where approximately located; dotted where concealed.</p>  <p>Anticline: trace of axial plane: large arrow indicates direction of plunge.</p>  <p>Syncline: trace of axial plane: large arrow indicates direction of plunge.</p>	 <p>Overturned anticline: trace of axial plane.</p>  <p>Overturned syncline: trace of axial plane.</p>  <p>Location of ISU Rockwalk rock from each county.</p>  <p>Cities</p>  <p>Feature location</p> <p>Roads</p>  <p>Interstate Route</p>  <p>U.S. Route</p>  <p>State route</p>
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