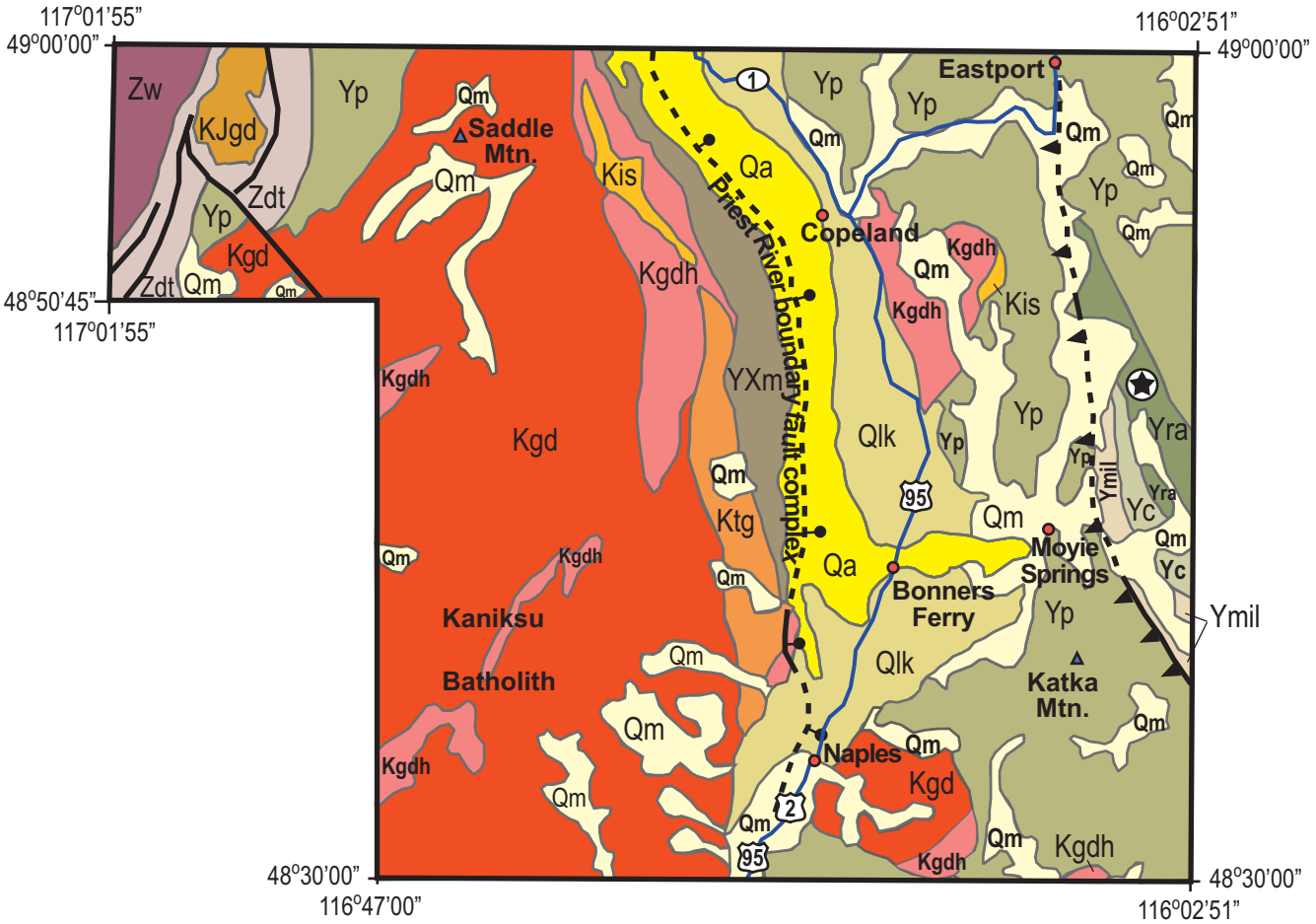
Boundary County,
Idaho



http://imnh.isu.edu/digitalatlas
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Boundary County

Boundary County lies at the north end of the Idaho panhandle, and borders Canada. The western portion of the county is part of the Priest River uplift, exposing Cretaceous granitic rocks of the Kaniksu batholith, that intrude Mesoproterozoic Belt Supergroup, and overlying Neoproterozoic Deer Trail and Windermere groups and Cambrian rocks. A small Jurassic or Cretaceous granodiorite intrudes the Deer Trail Group in the northwestern part of the county. This intrusive is associated with accretion of rocks in British Columbia known as the Kootenay arc, a possible island-arc terrane.

The eastern portion of the county, east of the east-dipping normal fault that bounds the Priest River core complex uplift, contains Belt Supergroup with small Cretaceous intrusions. A west-dipping thrust fault runs northwest-southeast, through Eastport, and formed during Cretaceous crustal shortening.

Bonners Ferry, Eastport, and most of the habitable ground is found on the flat valley of the Kootenai and Moyie rivers, which flow north into Canada before joining the Columbia, whose course bends south and returns to the USA in eastern Washington. A glacial lake, dammed by piedmont ice to the north, occupied this long-north-trending valley, and so fine-grained lake beds underlie much of the Kootenai Valley.

P.K. Link, 9/02

Descripton of Units for Idaho County Geologic Maps

Qa	Quaternary alluvial deposits
Qm	Quaternary moraine (unsorted boulders, cobbles and sand) and glaciofluvial outwash (bedded stream deposits formed from streams draining active glacial ice).
Qlk	Quaternary lake deposits; fine-grained, laminated sediment deposited on lake floors and playas (Snake River Group). Includes glacial lake deposits in northern Idaho.
Kgd	Cretaceous granitic rocks of the 2 mica suite. Idaho batholith and related plutons; granite and granodiorite that contains both muscovite and biotite. Sodium (Na) rich. Intruded between 80 and 65 Ma.
Kgdh	Cretaceous granitic rocks of the hornblende-biotite suite; granite, granodiorite and megacrystic granodiorite. Potassium (K) rich. Age about 80 to 90 Ma.
KJgd	Jurassic and Cretaceous granitic intrusive rocks, Kootenay arc.
Ktg	Cretaceous tonalite and quartz diorite; hornblende and biotite bearing early phases of the Idaho batholith. Intruded about 90 to 95 Ma.
Kis	Cretaceous syenitic rocks, northern Idaho; small stocks about 120 Ma.
Zw	Windermere Supergroup (metasedimentary and metavolcanic rocks in Big Creek area and northern Idaho).
Zdt	Deer Trail Group, quartzite, siltstone, conglomerate.
Ymil	Lower Missoula Group. Includes Gunsight Formation in Lemhi Range and upper Wallace Formation (equivalent to Snowslip and Shepard formations) in northern Idaho.
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].
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

Geologic unit contacts with unit designation.

Normal fault: certain; dashed where approximately located; dotted where concealed.

Thrust fault: certain; dashed where approximately located; dotted where concealed.

Detachment fault: certain; dashed where approximately located; dotted where concealed.

Anticline: trace of axial plane: large arrow indicates direction of plunge.

Syncline: trace of axial plane: large arrow indicates direction of plunge.

Overturned anticline: trace of axial plane.

Overturnedsyncline: trace of axial plane.

Location of ISU Rockwalk rock from each county.

Cities

Feature location

Roads