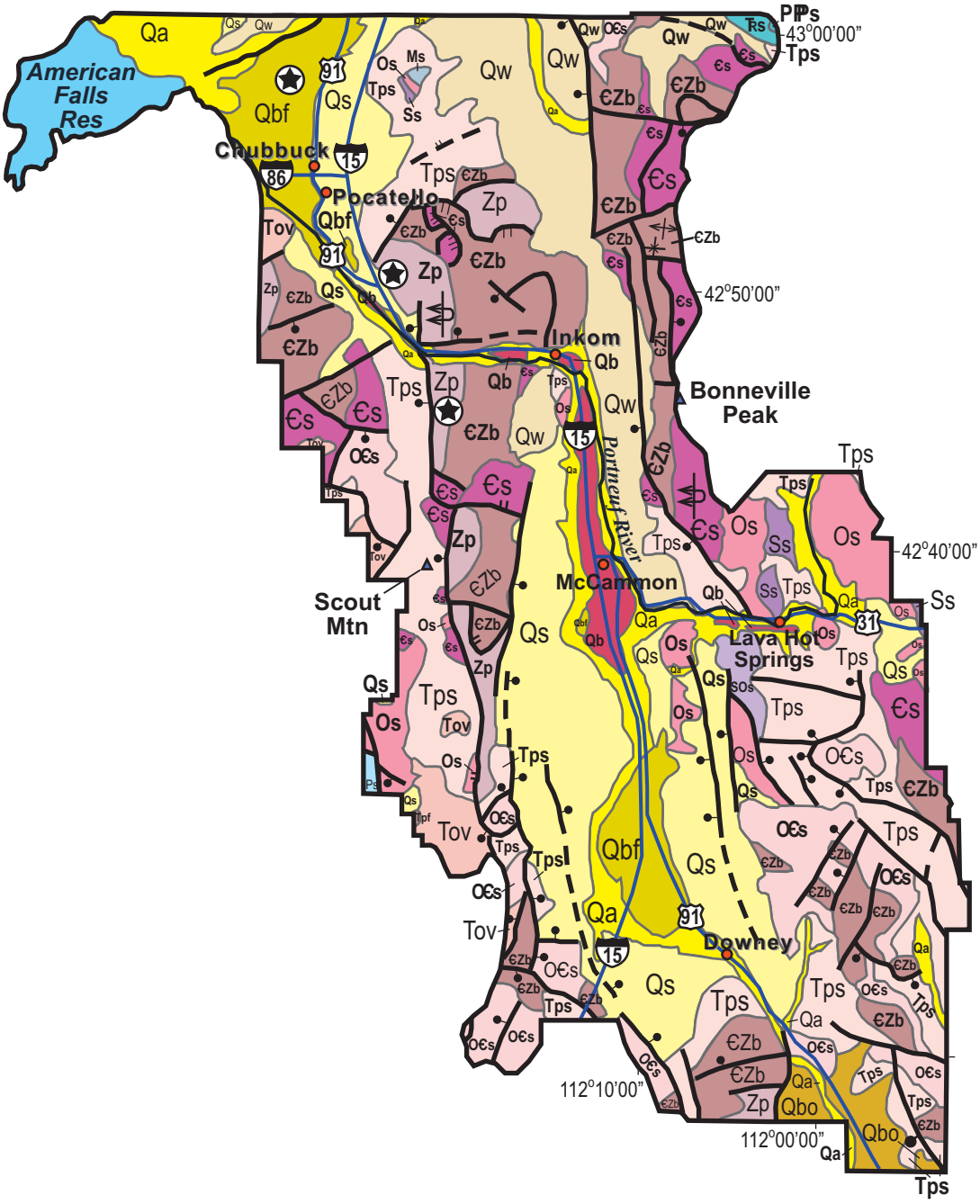
Bannock County,
Idaho



http://imnh.isu.edu/digitalatlas
Compiled by Paul K. Link,
Idaho State University, Geosciences Dept.
http://www.isu.edu/departments/geology/

0 5 10 miles
0 8 16 kilometers
1:500,000

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Bannock County

Bannock County straddles the boundary between the Basin and Range, Idaho-Wyoming thrust belt, and Snake River Plain. There are extensive discussions of the geology of Bannock County, including Marsh Valley and Lava Hot Springs in Rocks, Rails and Trails.

Bannock County contains folded and thrust-faulted Neoproterozoic and Paleozoic strata in the Bannock and Portneuf Ranges. The intervening Marsh Valley is a Miocene to recent feature, bounded by a normal fault on the east side.

The Basalt of Portneuf Valley flowed down the Portneuf River path about 600,000 years ago, and now forms inverted topography in the middle of Marsh Valley.

The Lake Bonneville flood broke out at Red Rock Pass in southern Bannock County about 14,500 years ago and flowed north through Marsh Valley and Portneuf Narrows before is spread out in the Pocatello area as it emptied onto the Snake River Plain. Flood boulders are distinctive landscape elements in the Pocatello and Chubbuck areas.

See Geology and regional sections of Rocks, Rails and Trails.

P.K. Link, 10/02

Description of Geologic Units

Qa	Quaternary alluvial deposits
Qs	Quaternary surficial cover, including colluvium, fluvial, alluvial fan, lake, and windblown deposits. Included fluveolian cover on Snake River Plain, (Snake River Group).
Qw	Quaternary windblown deposits; sand dunes and loess.
Qbf	Bonneville Flood gravels, including boulder and gravel bars north and west of Red Rock Pass through Marsh Valley and along Snake River west of Pocatello to Hells Canyon. Town of Lewiston is underlain by Bonneville gravels.
Tps	Pliocene and Upper Miocene stream and lake deposits (Salt Lake Formation, Starlight Formation, Idaho Group).
Tpf	Pliocene and Upper Miocene felsic volcanic rocks, rhyolite flows, tuffs, ignimbrites. (in Owyhee County and Mt. Bennett Hills, this should be Tmf).
Ps	Permian sedimentary rocks.
Ꞧs	Triassic sedimentary rocks.
PꞦs	Permian and Pennsylvanian sedimentary rocks.
PꞦMs	Permian and Carboniferous sedimentary rocks (Snaky Canyon Formation).
ꞦPs	Pennsylvanian sedimentary rocks.
Ms	Mississippian sedimentary rocks.
MDs	Mississippian and Devonian sedimentary rocks.
Ds	Devonian sedimentary rocks.
Ss	Silurian sedimentary rocks.

DSs	Devonian and Silurian sedimentary rocks.
DSOs	Devonian, Silurian, and Ordovician sedimentary rocks.
SOs	Silurian and Ordovician sedimentary rocks.
Os	Ordovician sedimentary rocks.
Oi	Ordovician intrusive rocks (includes Beaverhead pluton).
O€s	Ordovician and Cambrian sedimentary rocks.
€s	Cambrian sedimentary rocks.
O€Z	Ordovician, Cambrian, and Neoproterozoic sedimentary rocks, Bannock and Portneuf Ranges.
€Zb	Cambrian to Neoproterozoic Brigham Group.
Zp	Pocatello Formation; diamictite, sandstone, conglomerate, mafic.

Symbols

Yp — 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

15 Interstate Route

95 U.S. Route

1 State route