



**EXPLANATION**

<b>Sedimentary</b>	<b>Igneous</b>
<p><b>Qal</b> Stream alluvium</p> <p><b>Qls</b> Landslide deposits</p> <p><b>Qp</b> Pediment gravels</p> <p><b>Qq</b> Terrace gravels</p> <p><b>Qr</b> Windblown sand and silt</p> <p><b>Qf</b> Fan alluvium and fanglomerate</p> <p><b>Qbs</b> Bruneau Formation white-weathering lacustrine and fluvial silt and clay with minor sand</p> <p><b>Qbb</b> blue-black and dark gray olivine basalt</p> <p><b>Qbg</b> Gravels of Oreana area gravel and tuffaceous sand</p> <p><b>Qta</b> Older stream alluvium</p> <p><b>Qtf</b> Glenna Ferry Formation lake and stream deposits of thin-bedded ash, tuffaceous sand, silt, and clay</p> <p><b>Qch</b> Chalk Hills Formation lake and stream deposits of sand, silt, clay, and diatomite with minor vitric ash and basaltic tuff</p> <p><b>Qpc</b> Poison Creek Formation lake and stream deposits of tuffaceous silt, sand, and clay</p> <p><b>Qsu</b> Sucker Creek Formation vitric nonwelded tuff, volcanoclastic sandstone, arkose, granite-cobble conglomerate, and minor carbonaceous mudstone</p> <p><b>Qtp</b> Payette Formation clay, ash, silt, sand, and fine gravel</p>	<p><b>Qsn</b> Caldwell-Nampa sediments clay, silt, sand, and gravel</p> <p><b>Qtm</b> Temmie Gravel silt, sand, and gravel</p> <p><b>Qti</b> Idaho Formation clay, silt, sand, volcanic ash, and fine gravel</p> <p><b>Tpchs</b> Chalk Hills and Poison Creek Formations, undifferentiated</p> <p><b>Tbpc</b> Basalt flows associated with Chalk Hills and Poison Creek Formations, undifferentiated</p> <p><b>Tmb</b> Basalt of Murphy area subaqueous intrusive vent complex of ophitic olivine basalt</p> <p><b>Tbc</b> Tuff of Browns Creek densely welded low-layered rhyolite tuff</p> <p><b>Twc</b> Rhyolite of Wilson Creek purple flow-layered rhyolite</p> <p><b>Tjc</b> Jump Creek Rhyolite porphyritic rhyolite</p> <p><b>Tbs</b> Hornblende-biotite rhyolite</p> <p><b>Tr</b> Tuff of Swisher Ridge compound cooling unit of densely welded rhyolite</p> <p><b>Tsu</b> Sedimentary basin fill in Reynolds Basin arkose silt, sand and gravel, and vitric tuff, diatomite, pumice, breccia, and lignite</p> <p><b>Tsc</b> Silver City Rhyolite several overlapping cooling units of remobilized rhyolite welded tuff</p> <p><b>Tsp</b> Plagioclase rhyolite brownish gray densely welded rhyolite tuff</p> <p><b>Tli</b> Latite flows and associated tuff of Reynolds Basin aphyric latite or quartz latite accompanied by bedded, clay-altered tuffs</p> <p><b>Tb</b> Basalt of Reynolds Basin olivine basalt flows and tufts</p> <p><b>Tab</b> Andesite and basalt of upper Salmon Creek, gray aphyric andesite flows and red oxidized breccias interlayered with brown olivine basalt flows</p> <p><b>Kg</b> Idaho batholith, undifferentiated biotite-muscovite granodiorite, with smaller amounts of granite and quartz monzonite</p> <p><b>Qbsr</b> Snake River Basalt</p> <p><b>Qbr</b> olivine basalt and minor interbedded tuffaceous sedimentary rocks</p> <p><b>Qba</b> agglomerate</p> <p><b>Qbc</b> Basalt of Snake River Group and Bruneau Formation, undifferentiated</p> <p><b>Qbr</b> interbedded basalt, basalt tuff, and colluvium</p> <p><b>Qbsr</b> blue-gray and black olivine basalt</p> <p><b>Ta</b> Andesite dikes</p> <p><b>Tbb</b> Barbury Basalt vesicular fine-grained olivine basalt and minor interbedded stream and lake deposits</p> <p><b>Tbm</b> Rhyolite of Black Mountain grayish purple hypersthene-bearing rhyolite</p> <p><b>Tr</b> Rhyolite dikes and plugs</p> <p><b>Tbi</b> Latite and basalt intrusive masses, undifferentiated basaltic dikes and small apophyses that intrude unit Tb</p> <p><b>Tbr</b> Latite and basalt, undifferentiated interbedded thin flows of vesicular latite and basalt</p> <p><b>Tc</b> Columbia River Basalt line-grained basalt to coarse-grained diabase</p> <p><b>To</b> Older rhyolite dikes</p> <p><b>Kd</b> Diorite</p>

**SYMBOLS**

- Contact: Dashed where approximately located
- Dip-slip fault: U—upthrown block, D—downthrown block, where known. Dashed where inferred; dotted where concealed.
- Syncline
- Anticline
- Basalt maar
- Dike swarm

**CENOZOIC** (left side of legend)

**MESOZOIC** (left side of legend)

**Recent** (right side of legend)

**Quaternary** (right side of legend)

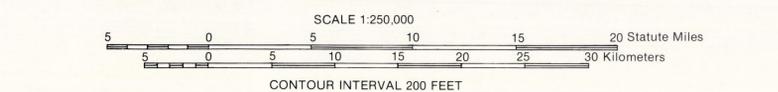
**Pliocene** (right side of legend)

**Pleistocene** (right side of legend)

**Tertiary** (right side of legend)

**Miocene** (right side of legend)

**Cretaceous** (right side of legend)



# GEOLOGIC MAP OF THE BOISE QUADRANGLE, IDAHO

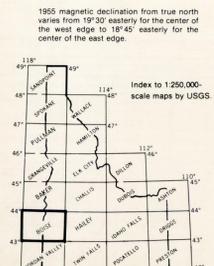
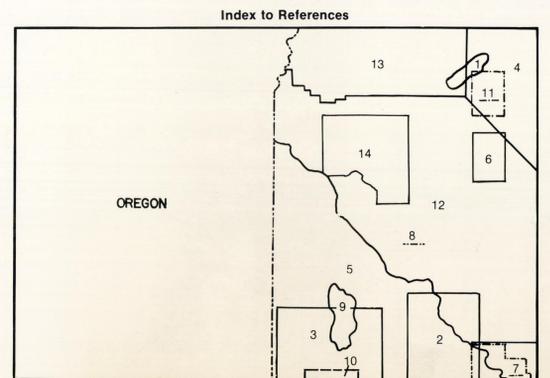
compiled by  
**Victoria E. Mitchell and Earl H. Bennett**

1979

assisted by  
**Gail S. Hustedde  
Julie A. Copeland**

### References

- Anderson, A. L., 1934. Geology of the Pearl-Horsehoe Bend gold belt. Idaho. Id. Bur. Min. Geo. Pamph. 41.
- Anderson, N. R., 1965. Upper Cenozoic stratigraphy of the Oreana, Idaho, quadrangle. Idaho. Univ. of Utah Ph.D. thesis.
- Asher, R. R., 1968. Geology and mineral resources of a portion of the Silver City region, Owyhee County, Idaho. Univ. of Idaho M.S. thesis.
- Bond, J. G., 1978. Geologic map of Idaho (scale 1:500,000). Id. Bur. Min. Geo.
- Evans, E. S., D. H. McIntyre, and E. H. Bennett, 1978. Preliminary geologic map of the west half of Owyhee County, Idaho. USGS Open-File Rept. 78-341.
- Hollenbaugh, K. M., 1973. The evaluation of geologic processes in the Boise foothills that may be hazardous to urban development. A report prepared for the Ada County Council of Governments.
- Littleton, R. T. and E. G. Crosthwaite, 1957. Groundwater geology of the Bruneau-Grand View area, Owyhee County, Idaho. USGS Water-Supply Paper 1460-D.
- Malde, H. E., and H. A. Powers, 1962. Upper Cenozoic stratigraphy of western Snake River Plain, Idaho. Geol. Soc. of Amer. Bull. 73.
- McIntyre, D. H., 1972. Cenozoic geology of the Reynolds Creek Experimental Watershed, Owyhee County, Idaho. Id. Bur. Min. Geo. Pamph. 151.
- Panzetz, A. J., Jr., 1971. Geology and ore deposits of the Silver City-Delamar-Fint region, Owyhee County, Idaho. Id. Bur. Min. Geo. Pamph. 161.
- Peebles, J. J., 1962. Engineering geology of the Cartwright Canyon quadrangle, Idaho. Id. Bur. Min. Geo. Pamph. 127.
- Savage, C. N., 1958. Geology and mineral resources of Ada and Canyon Counties, Idaho. Id. Bur. Min. Geo. County Rept. 3.
- Savage, C. N., 1961. Geology and mineral resources of Gem and Payette Counties, Idaho. Id. Bur. Min. Geo. County Rept. 4.
- Williams, J. F., 1973. Location of land areas appropriate for the disposal of wastewaters, central Canyon County, Idaho. Univ. of Idaho M.S. thesis.



The Geologic Map Series (2° Quadrangle) by the Idaho Bureau of Mines and Geology consists of geologic compilations from the best sources available. These compilations are not intended to be finished geologic maps, but they should prove useful until such maps are published. Stratigraphic correlations, contact and structural continuity, and general map interpretation are the responsibility of the compilers. Some information has been modified using aerial photography. This project was partially funded through a contract with the U. S. Department of Energy (Bendix Corporation, prime contractor).