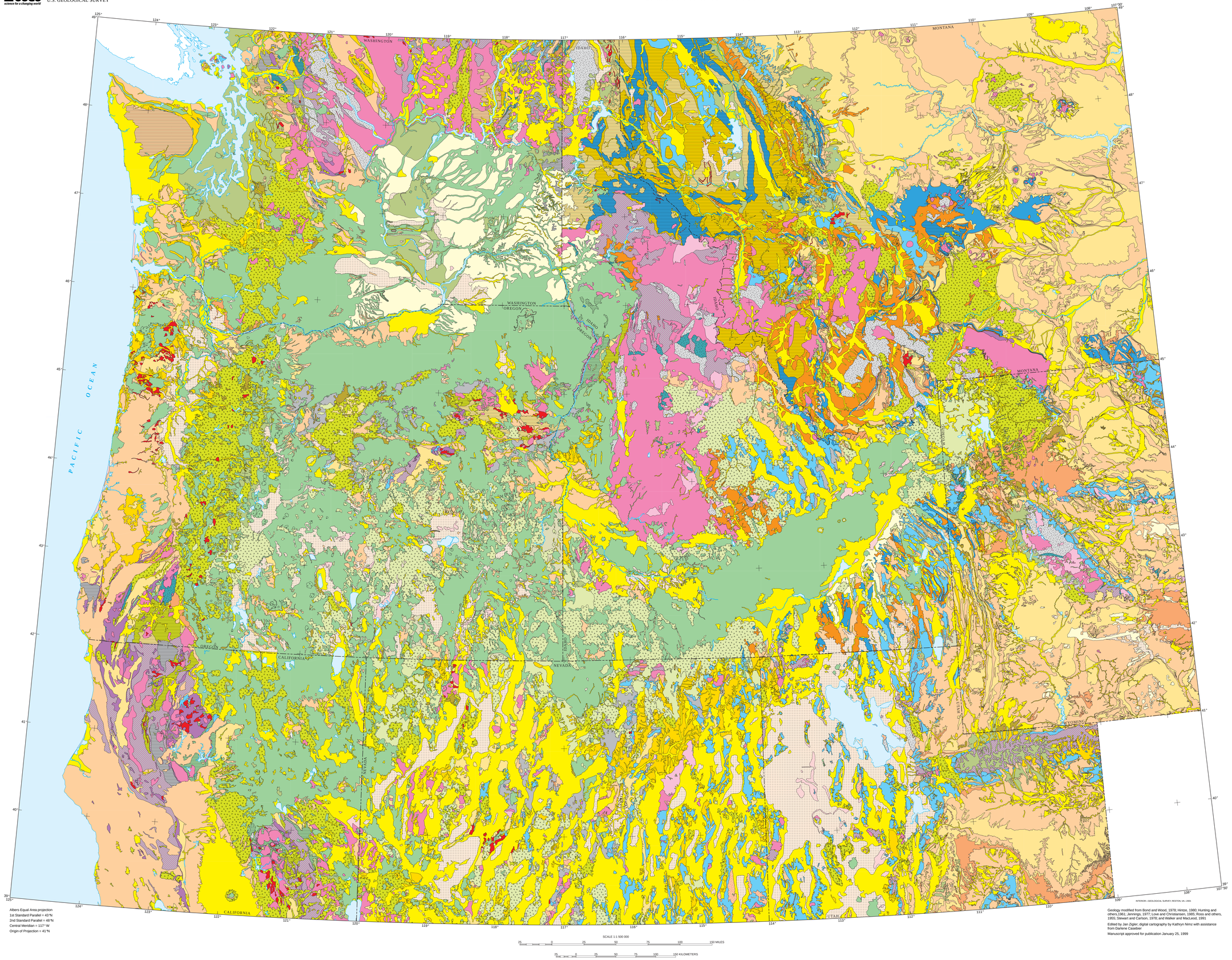
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
U.S. FOREST SERVICE and BUREAU OF LAND MANAGEMENT

GEOLOGIC INVESTIGATIONS SERIES
MAP I–2674
Pamphlet accompanies map



DESCRIPTION OF LITHOLOGIC UNITS

Alluvium—Unconsolidated sediment (clay, silt, sand, gravel). Includes glacial outwash deposits

Dune sand—Wind deposited

Loess—Windblown silt deposits

Lake sediments and playa deposits

Landslide deposits

Glacial drift—Material deposited by glacial processes. Includes till and moraine (unstratified) as well as outwash (stratified)

Shale and mudstone—Fine-grained sedimentary rock derived from clay

Argillite and slate—Fine-grained metamorphic rock formed from shale

Tuff—Volcanic ash. Includes minor amounts of detrital sediment

Siltstone—Fine-grained detrital sedimentary rock derived from silt

Meta-siltstone—Fine-grained metamorphic rock formed from siltstone

Sandstone—Medium-grained detrital sedimentary rock derived from sand

Meta-sandstone—Medium-grained metamorphic rock formed from sandstone

Quartzite

Conglomerate—Coarse-grained detrital sedimentary rock derived from gravel. Locally includes angular-fragment breccia

Meta-conglomerate—Coarse-grained metamorphic rock formed from conglomerate

Carbonate rock—Sedimentary rock, mostly composed of limestone and dolomite, locally metamorphosed to marble

Mixed sequences of miogeosynclinal sedimentary rocks—Includes interlayered shale, siltstone, lithic sandstone, quartzite, and conglomerate

Mixed sequences of eugeosynclinal sedimentary rocks having abundant dark rock fragments and mafic minerals—Includes interlayered shale, siltstone, graywacke, conglomerate, and melange with subordinate mafic volcanic rock, chert, and calcareous rock

Meta-sedimentary phyllites and schists—Fine-grained metamorphic rocks derived from shale, mudstone, and siltstone

Interlayered meta-sedimentary rocks—Fine- to coarse-grained metamorphic rocks derived from clastic and carbonate sedimentary rocks

Mixed sequences of carbonate rock and shale with subordinate sandstone and conglomerate

Mixed sequences of metamorphosed carbonate rock and shale with subordinate sandstone and conglomerate

Felsic pyroclastic rocks— Rhyolitic

Felsic volcanic flows—Rhyolitic

Calc-alkaline suite of pyroclastic rocks and volcanic flows—Generally andesite to quartz latite

Calc-alkaline suite of meta-volcanic rocks

Mafic pyroclastic rocks—Basaltic

Mafic volcanic flows—Basaltic

Mafic meta-volcanic rocks—Greenstone. Includes subordinate spilite, slate, argillite, and greywacke

Granite—Includes intrusive rhyolitic rocks

Alkalic intrusive rocks

Calc-alkaline suite of intrusive rocks—Generally granodiorite to diorite

Mafic intrusive rocks—Generally dioritic or gabbroic

Ultramafic rocks—Includes associated gabbroic rocks

Mixed granitic gneiss—Dominantly granitic gneiss, migmatite, augen gneiss, and hornblende gneiss. Includes subordinate anorthosite, amphibolite, calc-silicate gneiss, schist, marble, and quartzite

Mafic schist and foliated greenstone—Dark-colored, fine-grained, foliated metamorphic rocks, mostly metamorphosed basaltic to dioritic rocks

Mafic gneiss—Dark-colored, medium- to coarse-grained, layered metamorphic rocks. Includes amphibolites

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Geology modified from Bond and Wood, 1978; Hintze, 1980; Hunting and others,1961; Jennings, 1977; Love and Christiansen, 1985; Ross and others, 1955; Stewart and Carlson, 1978; and Walker and MacLeod, 1991

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