



2008

OPEN-FILE REPORT O-08-13

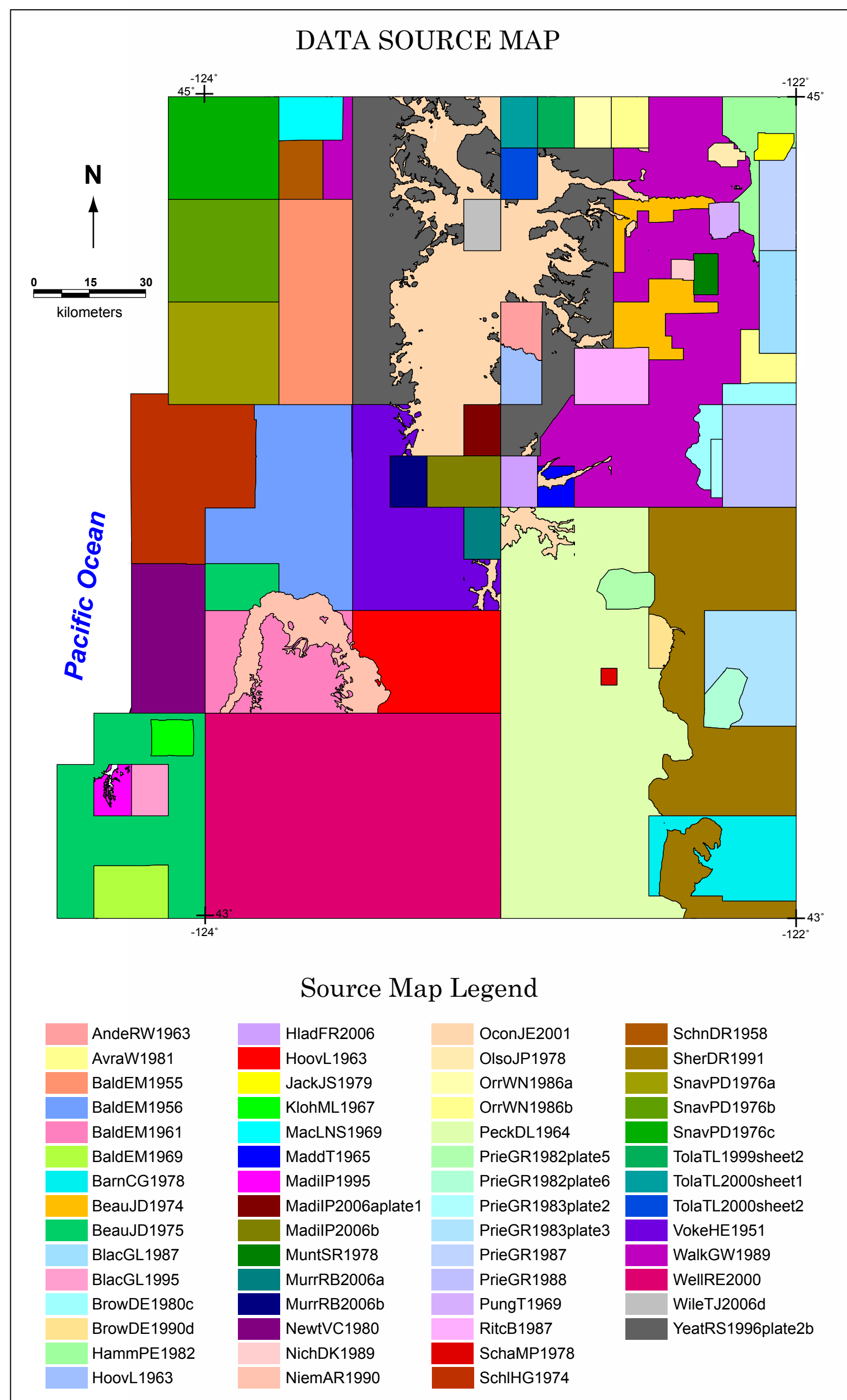
Preliminary Digital Compilation Map of Part of Western Oregon
By Ray E. Wells, Alan R. Niem, George R. Priest, Lina Ma, Clark A. Niewendorp, and Ian P. Madsen
This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program through STATEMAP Award #07HQAG0078. Additional funding came from the State of Oregon.

Notice: The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government

INTRODUCTION

This map depicts the results of a U.S. Geological Survey STATEMAP-funded project to complete the fifth of six planned phases of digital compilation of the best available geology for the entire state of Oregon. The most current version of the database is available for purchase on CD-ROM through the Nature of the Northwest (<http://www.naturenw.org/>) and includes both GIS files for the geologic polygons depicted in this map and a Microsoft Access format database with complete unit description data from the original source maps. A simplified version of the database can be viewed online at: <http://www.oregongeology.com/sub/ogdc/>

The compilation consists of a spatial database of GIS files depicting the surface geology of the area. The data were derived from 58 source maps (see index map) and include 973 unique units defined by the various source map authors. To help make sense of this large number of units, we have assigned each original, unique unit to one of 327 geologic merge units on the basis of age, lithology, and stratigraphy. The map presented here is a further simplification of those 327 units. This map was compiled at a nominal scale of 1:100,000 on a mosaic of 1:100,000 DRG base maps. It is hard to make a visually meaningful plot of the geology on the original base map at any reasonable size, so the map presented here has a simplified base map and a scale of 1:175,000.



MAP UNITS

Quaternary Surficial Deposits

- alluvium, terrace deposits, artificial fill
-  coastal terrace, estuarine, beach and dune deposits
-  landslide, alluvial fan and colluvial deposits
- glacial till and outwash deposits
-  Missoula Flood deposits

Terrestrial Sedimentation

(Miocene-Quaternary)

- Neogene Sedimentary Rocks (Pliocene)
Willamette Group (Miocene-Quaternary)

Volcanic Rocks of the Cascade Range

(Eocene-Quaternary)

- Late High Cascades Volcanic Rocks (Pliocene-Quaternary)
 Early High Cascades Volcanic Rocks (Miocene-Pliocene)
 Late Western Cascades Volcanic Rocks (Oligocene-Miocene)
 Little Butte Volcanics (Eocene-Oligocene)
 Early Western Cascades Volcanic Rocks (Eocene-Oligocene)

Marine Sedimentary Rocks

(Cretaceous-Miocene)

- Whale Cove Gnat Creek Group (Miocene)
- Astoria Group (Miocene)
- Keasey-Alsea Group (Eocene-Oligocene)
- Yaquina-Pittsburgh Bluff Group (Eocene-Oligocene)
- Coaledo-Cowlitz Group (Eocene)
- Elkton-Yamhill Group (Eocene)
- Nestucca-Hamlet Group (Eocene)
- Tyee Group (Eocene)
- Umpqua Group (Paleocene-Eocene)
- Myrtle Group (Cretaceous)

Miscellaneous Igneous Rocks

(Jurassic-Miocene)

- Columbia River Basalt Group (Miocene)
- Coast Range Intrusives (Eocene-Oligocene)
- Coast Range Alkalic Igneous Rocks (Eocene)
- Yachats-Tillamook Group (Eocene)
- Nevadan Intrusives (Jurassic-Cretaceous)

Exotic Terranes

(Jurassic-Eocene)

- Siletz River Terrane (Paleocene-Eocene)
-  Sixes River Terrane (Jurassic-Cretaceous)
- Snow Camp Terrane (Jurassic-Cretaceous)
- Western Klamath Terrane (Jurassic-Cretaceous)
-  Yolla Bolly Terrane (Jurassic-Cretaceous)

MAP SYMBOLS

- 5 Interstate Highways
— 104 State Highways

SOURCE MAP REFERENCES

[illegible][illegible][illegible][illegible][illegible]

Base map is hillshade derived from U.S. Geological Survey 30-m DEM
Projection is Oregon Lambert 1997, International Feet

Scale 1:175,000

0 10 20
miles

0 15 30
kilometers

N

For copies of this publication contact:
 Nature of the Northwest Information Center
 800 NE Oregon Street, 4th, Ste. 177
 Portland, Oregon 97232
 Telephone (503) 872-2760
<http://www.naturenw.org>