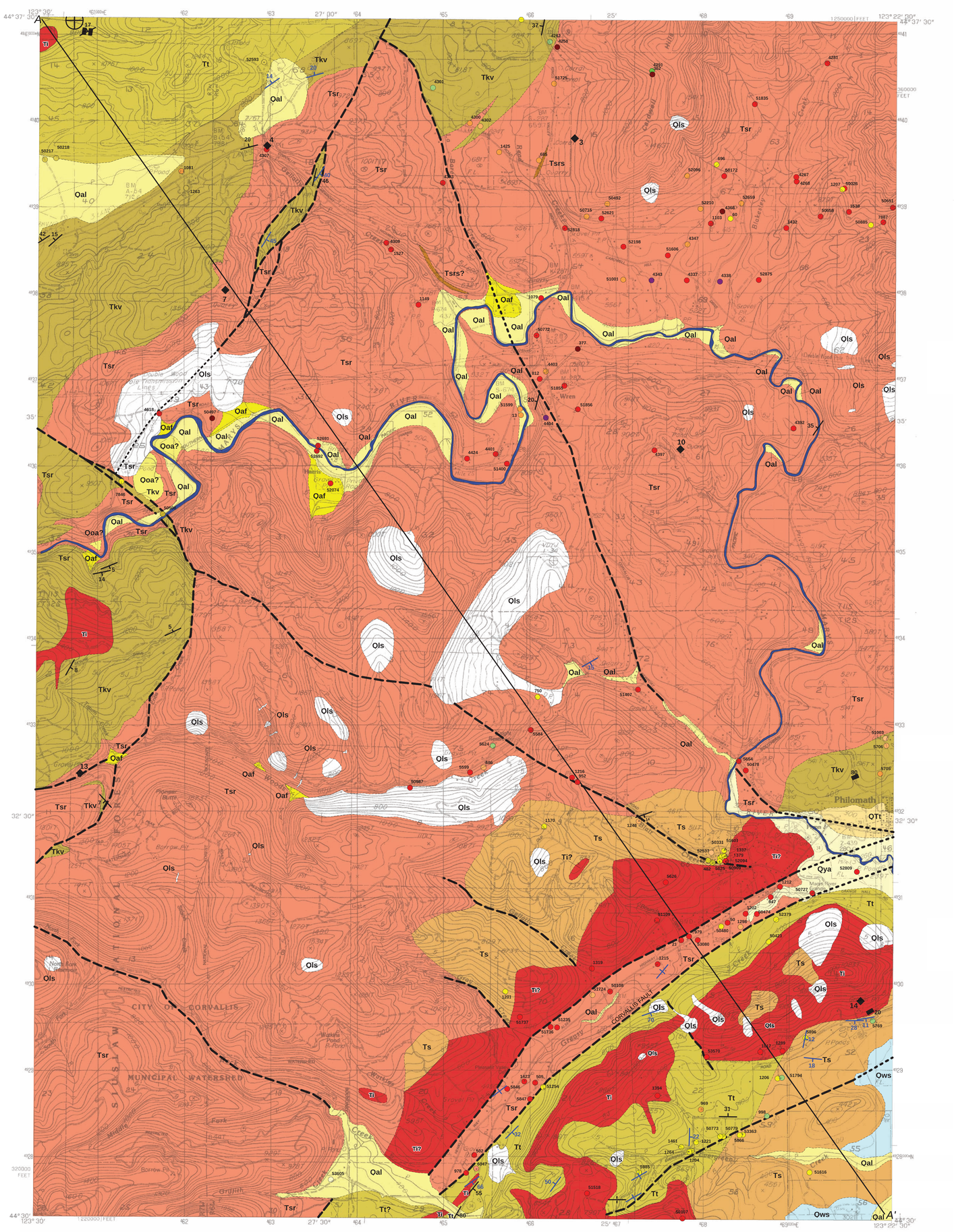
STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
VICKI S. McCONNELL, STATE GEOLOGIST

Preliminary Geologic Map of the Wren 7.5' Quadrangle, Benton County, Oregon

2008



Base map by United States Geological Survey

Control by USGS, NOS/NOAA, State of Oregon

Topography compiled from aerial photographs taken 1975-1976
Field checked 1979; map edited 1984

Universal Transverse Mercator Projection, Zone 10
Grid: 1000-m Universal Transverse Mecator grid ticks
10,000-ft state grid ticks, Oregon north zone
UTM grid declination: 0.0022 degrees west
1986 magnetic north declination 19 degrees east
Vertical datum: National Geodetic Vertical Datum of 1929
Horizontal datum: 1927 North American Datum

SCALE 1:24,000

1 0.5 0 KILOMETERS 1 2

1 0.5 0 1

1000 0 5000 10,000

FEET

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS

1	2	3	1 Summit 2 Kings Valley 3 Arlie South 4 Marys Peak 5 Corvallis 6 Alsea 7 Flat Mountain 8 Greenberry
4		5	
6	7	8	

Geology by Thomas J. Wiley,
Oregon Department of Geology and Mineral Industries

Field work conducted 2007-2008

OPEN-FILE REPORT O-08-14

Preliminary Geologic Maps of the Corvallis, Wren, and Marys Peak 7.5′ Quadrangles, Benton, Lincoln, and Linn Counties, Oregon

By Thomas J. Wiley

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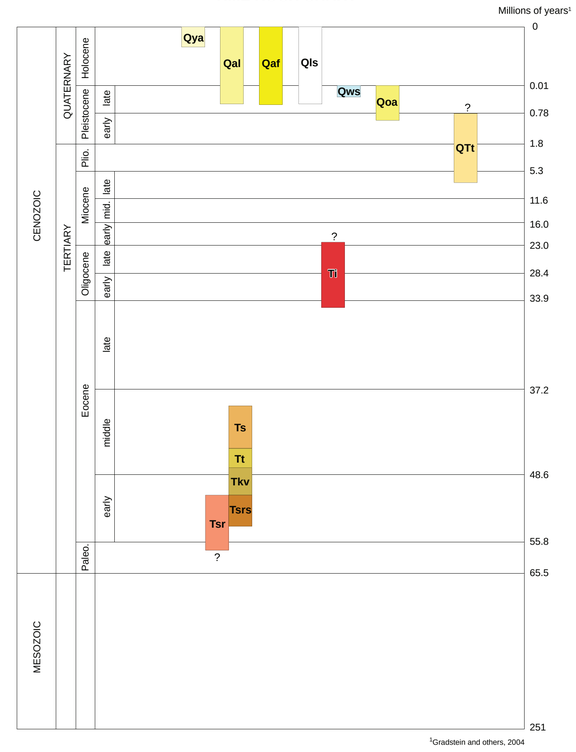
PLATE 2

NOTICE

This map cannot serve as a substitute for site-specific investigations by qualified practitioners. Site-specific data may give results that differ from those shown on the maps. 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.

TIME ROCK CHART



¹Gradstein and others, 2004

EXPLANATION OF MAP UNITS

See accompanying report text for full descriptions of units.

Surficial Deposits

Qal **Alluvium, undivided (Holocene and upper Pleistocene)** – sand, gravel, and silt deposited along streams. Locally divided to show:

Qya **Young alluvium (Holocene)** – sand, gravel, and silt deposited by modern streams

Qaf **Alluvial fan deposits (Holocene and upper Pleistocene)** – sand, gravel, boulders, and woody debris in fan-shaped accumulations at slope breaks

Qls **Landslide deposits (Holocene and upper Pleistocene)** – boulders, gravel, sand, mud, and large coherent blocks of adjacent bedrock lithologies

Qws **Willamette Silt (upper Pleistocene, 12.7–15 ka)** – thin- to medium-bedded rhythmites of silt, sandy silt, and silty clay

QTt **Terrace deposits (lower Pleistocene? to Miocene)** – sand, clay, and gravel, locally consolidated or cemented to form sandstone, claystone, and conglomerate

Unconformity

Ts **Spencer Formation (middle Eocene)** – micaceous arkosic and lithic sandstone, siltstone, and lithic arkose

Local unconformity

Tt **Tyee Formation (middle Eocene)** – micaceous sandstone and less common mudstone as turbidites

Tkv **Kings Valley Siltstone (middle and lower Eocene)** – siltstone, mudstone, lithic to tuffaceous sandstone, and rare conglomerate and tuff

Tsr **Siletz River Volcanics (lower Eocene and Paleocene?)** – basalt and basaltic-andesite lava flows and related rocks. Locally divided to show:

Tsrs **Sedimentary rocks (lower Eocene)** – sandstone, siltstone, and less common tuffaceous sandstone and conglomerate

Intrusive Rocks

Ti **Intrusive rocks (early Miocene? to late Eocene)** – mafic to intermediate, fine- to medium-grained intrusive rocks ranging from gabbro to granodiorite and baslat to baslatic andesite

EXPLANATION OF SYMBOLS

Fault, dashed where approximate, dotted where concealed

Contact, dashed where approximate, dotted where concealed

A A′ **Line of cross section showing start and end points**

◆15 **Map number for geochemical sample; refer to Table 1 in accompanying text report**

▲16 **Map number for radiometric date; refer to Table 1 in accompanying text report**

15 **Strike and dip of inclined bedding**

15 **Strike and dip of inclined bedding, compiled from older mapping (see reference list in accompanying text)**

Horizontal bedding

Vertical bedding showing strike, compiled from older mapping (see reference list in accompanying text)

85 **Strike and dip of intrusive dike**

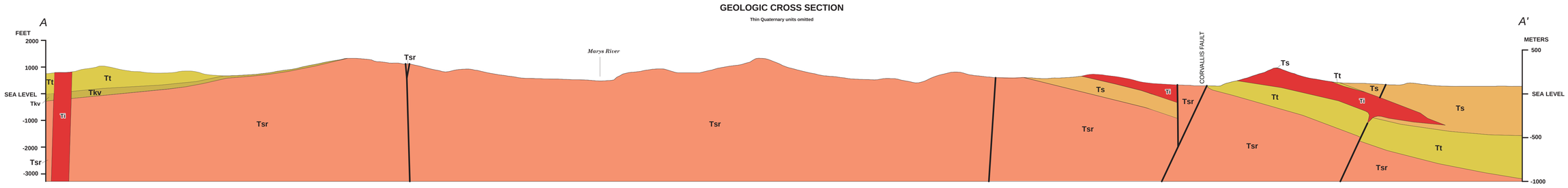
5377 **Approximate location of water well. Number, used with four-letter county code, is Oregon Water Resources Department well log number. Color indicates important intervals logged by the driller; matches the map formation color where appropriate. Other colors indicate: light blue - blue clay; tan - sand or gravel; green - shale, siltstone, or claystone; yellow - sandstone; orange - sandstone and "basalt" (igneous rock); magenta - conglomerate; purple - "sandrock" (coarse-grained intrusive, flow, or sandstone); red - "basalt" (igneous rock).**

REFERENCE

Gradstein, F. M., Ogg, J. G., and Smith, A. G., eds., 2004, A geologic time scale 2004: London, Cambridge University Press, 610 p.

GEOLOGIC CROSS SECTION

Thin Quaternary units omitted



No vertical exaggeration