

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

Preliminary Geologic Map of the Marys Peak 7.5' Quadrangle, Benton and Lincoln Counties, Oregon

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

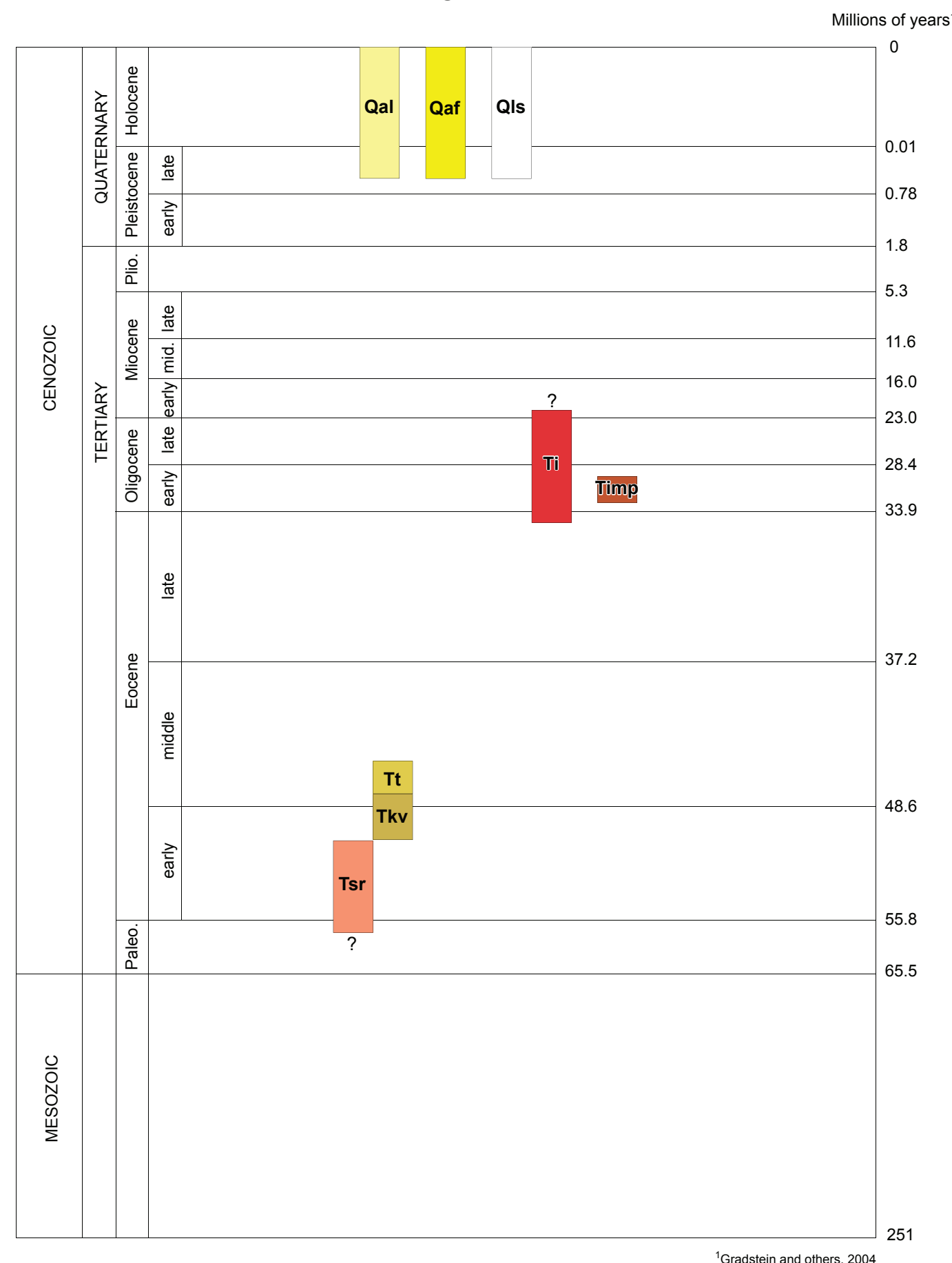
This research was supported by the U.S. Geological Survey, National Cooperative
Geologic Mapping Program, under USGS award number 07HQAG0078.

PLATE 3

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



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:
- 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

Unconformity

- Tt** Tye 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.

Intrusive Rocks

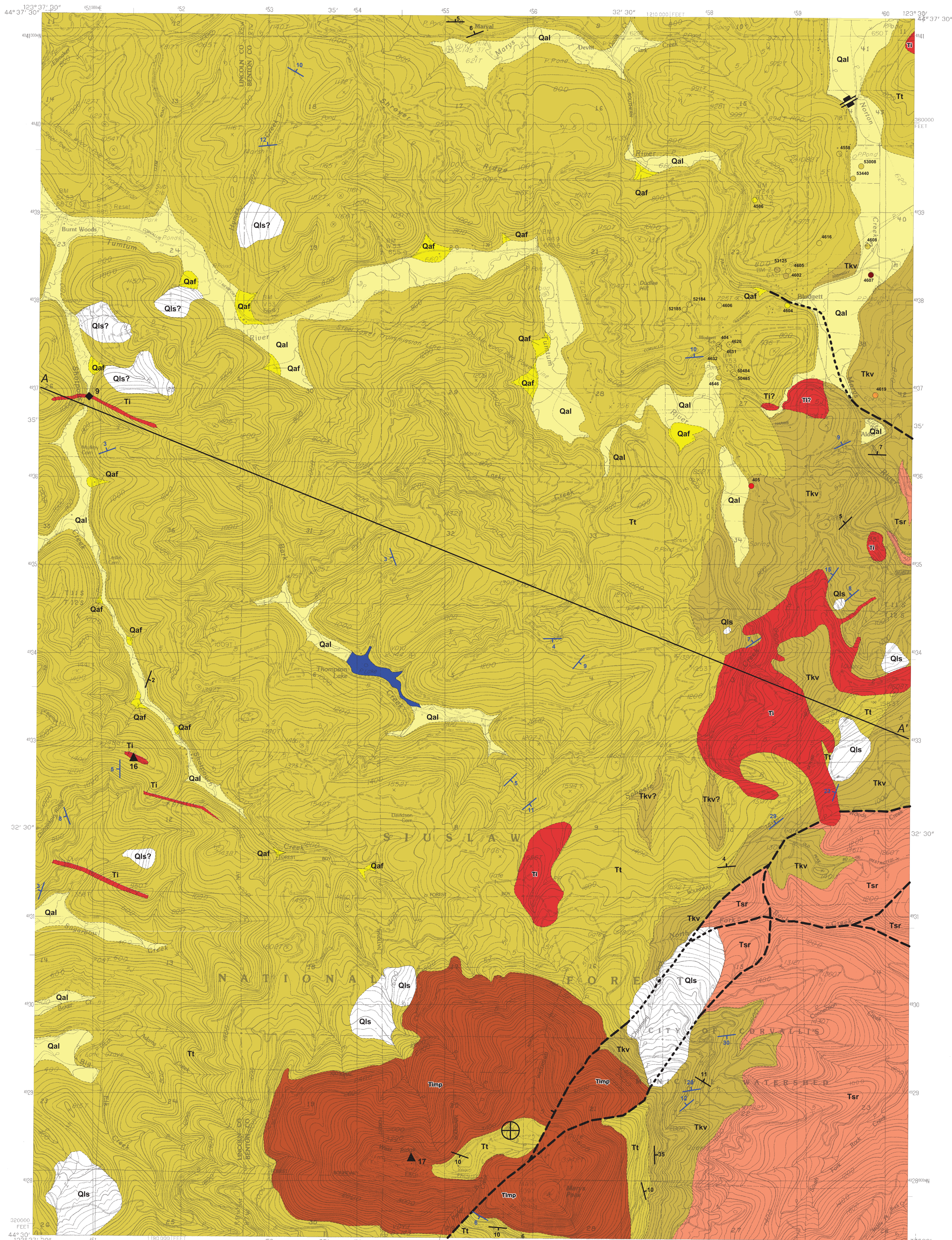
- Ti** Intrusive rocks (early Miocene? to late Eocene) – mafic to intermediate, fine- to medium-grained intrusive rocks ranging from gabbro to granodiorite and basalt to basaltic andesite. Locally divided to show:
- Timp** Marys Peak Sill (Oligocene, 30.5 and 32.46 Ma) – gabbro and related rocks that form a 400-m-thick sill

EXPLANATION OF SYMBOLS

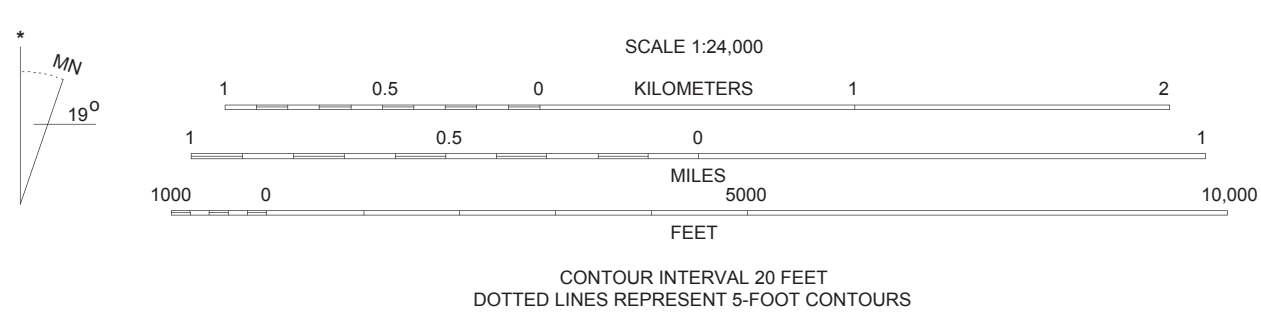
- Fault, dashed where approximate, dotted where concealed
- Contact, dashed where approximate, dotted where concealed
- Line of cross section showing start and end points
- Map number for geochemical sample; refer to Table 1 in accompanying text report
- Map number for radiometric date; refer to Table 1 in accompanying text report
- Strike and dip of inclined bedding
- Strike and dip of inclined bedding, compiled from older mapping (see reference list in accompanying text)
- Horizontal bedding
- Strike and dip of intrusive dike
- 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.



Base map by United States Geological Survey
Control by USGS, USC&GS, and State of Oregon
Topography compiled from aerial photographs taken 1967
Field checked 1969; photorevised 1968
Universal Transverse Mercator Projection, Zone 10
Grid: 1000-m Universal Transverse Mercator 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



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

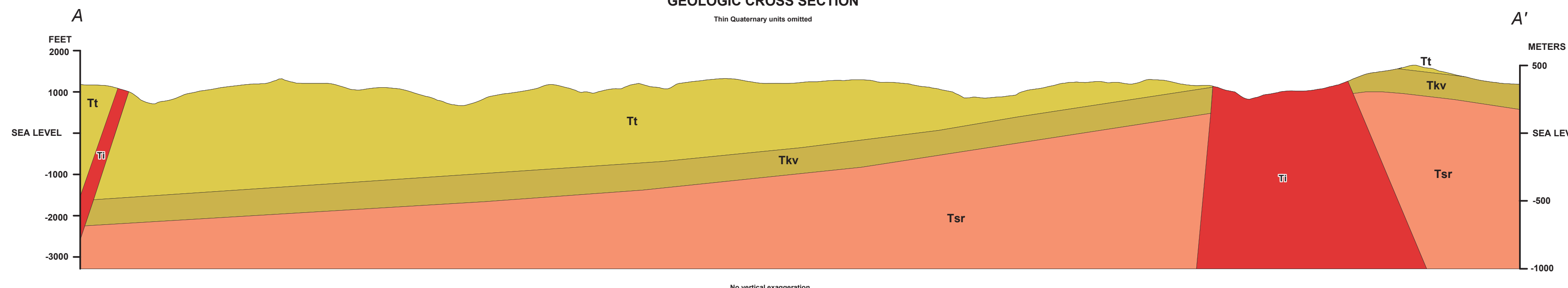
Field work conducted 2007-2008

1	2	3	1	Northern
4	5	6	2	Summit
7	8	9	3	Kings Valley
			4	Harlan
			5	Wren
			6	Grass Mountain
			7	Alsea
			8	Flat Mountain

ADJOINING 7.5' QUADRANGLE NAMES

GEOLOGIC CROSS SECTION

Thin Quaternary units omitted



For copies of this publication contact:
Nature of the Northwest Information Center
800 NE Oregon Street, #5, Ste. 177
Portland, Oregon 97232
telephone (503) 872-2750
<http://www.naturenw.org>