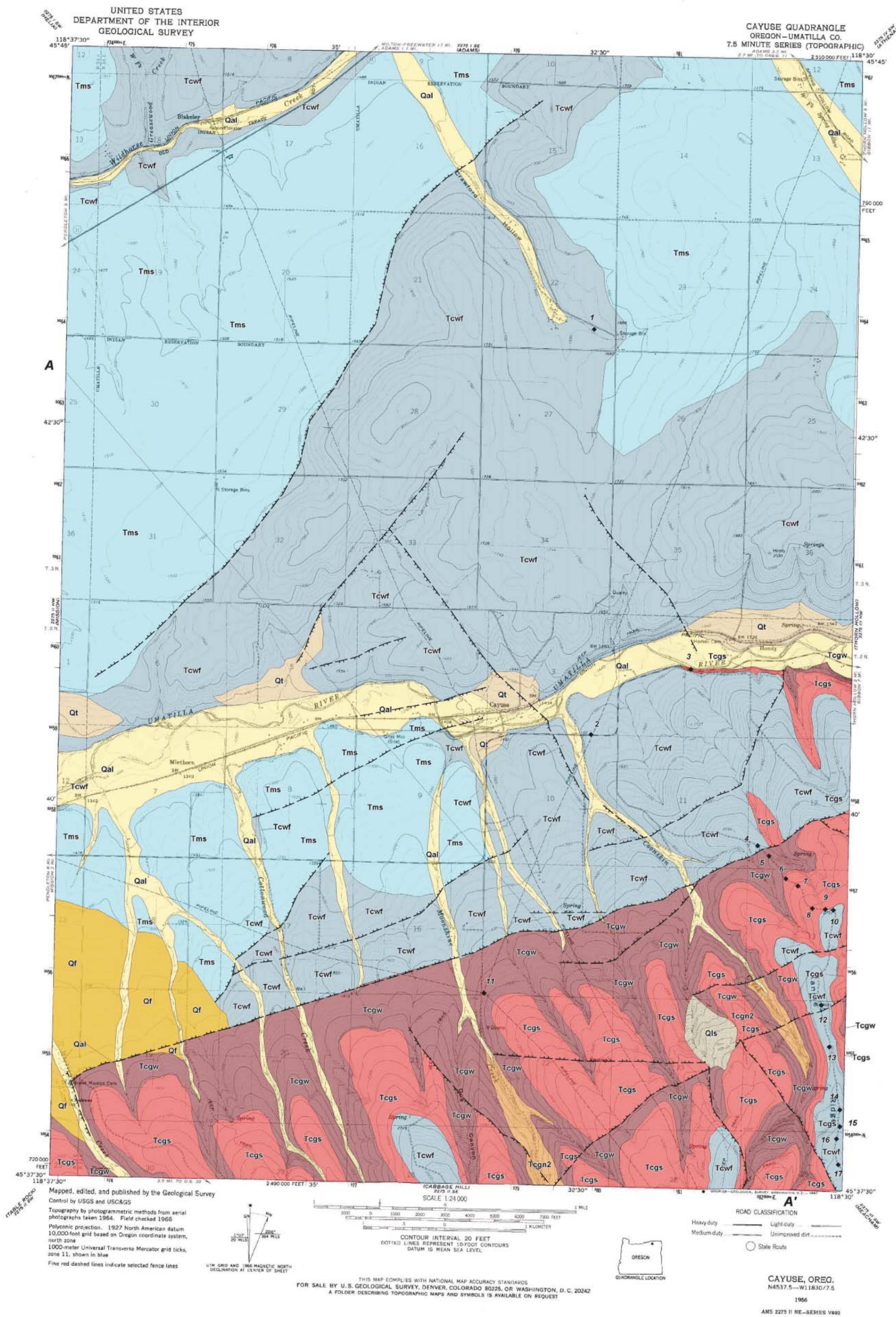
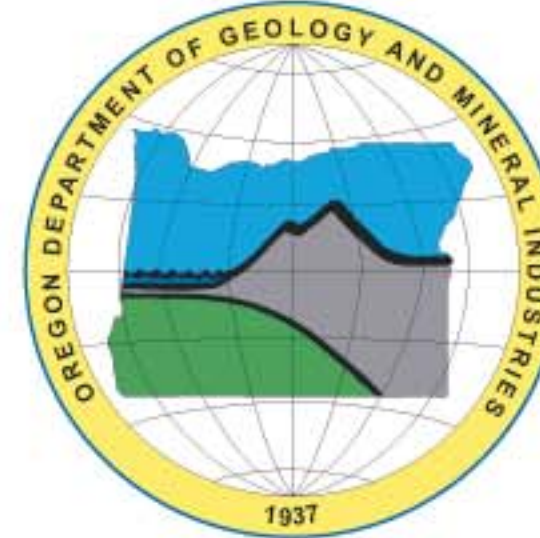
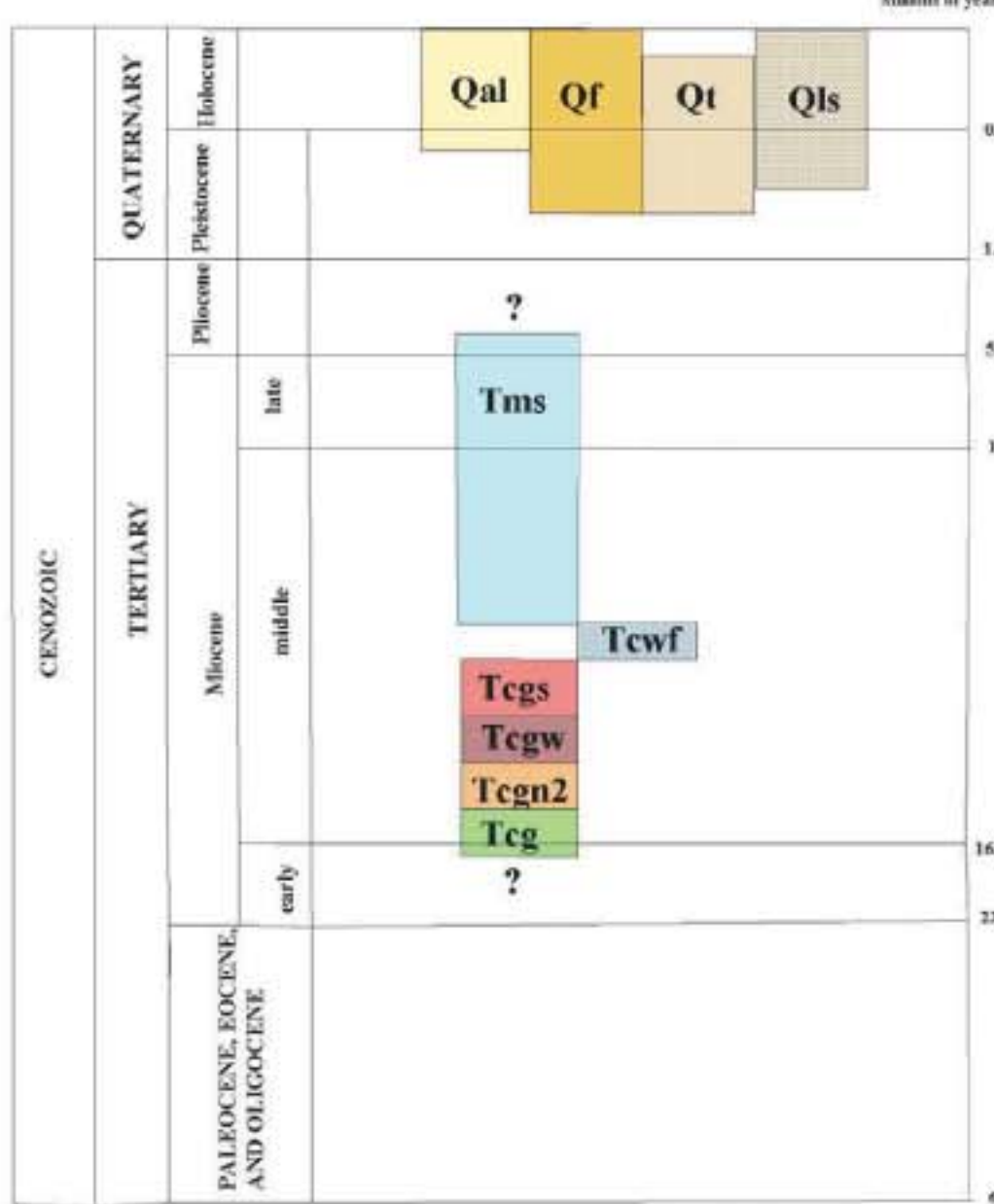


GEOLOGIC MAP OF THE CAYUSE QUADRANGLE, UMATILLA COUNTY, OREGON

BY M.L. FERNS
2004
SCALE = 1:24,000



TIME ROCK CHART



After Berggren and others, 1985 and Kent and Gradstein, 1985

EXPLANATION

Surficial Units

- Qal Alluvium (Holocene and upper Pleistocene)
- Qls Landslide deposits (Holocene? and Pleistocene)
- Qf Alluvial fan gravels (Holocene and Pleistocene?)
- Qt Terrace gravels (Holocene ? and Pleistocene)

Sedimentary Rocks

- Tms Siltstone, sandstone, and conglomerate (lower Pliocene? to middle Miocene)

Columbia River Basalt Group

Wanapum Basalt

- Tcwf Frenchman Springs member (middle Miocene)

Grande Ronde Basalt

- Tcgn2 N2 Magnetostratigraphic unit (middle Miocene)
Includes separately mapped units:
 - Tcgs Sentinel Bluffs member
 - Tcgw Winter Water member
- Tcg Undifferentiated Grande Ronde Basalt - (middle and early Miocene)
(shown in Cross Section only)

Fault, dashed where concealed
Hachures on downthrown side

7 Location from where analyzed
rock chip sample was collected

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