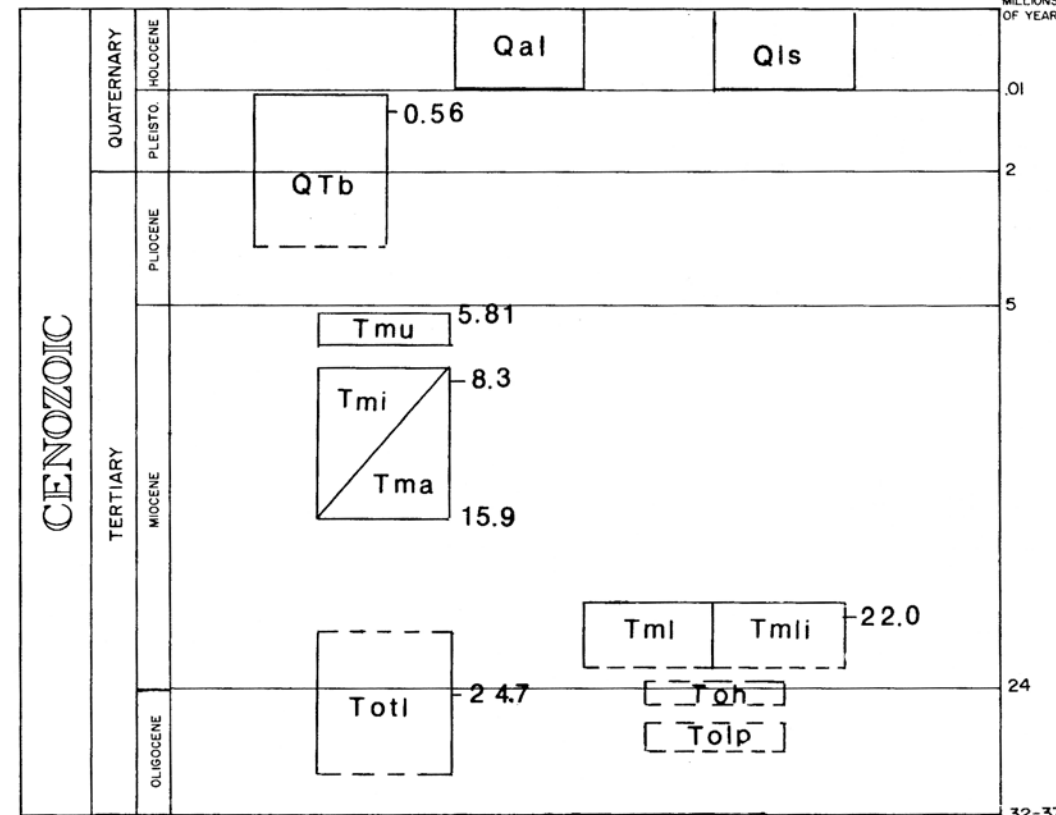


PRELIMINARY GEOLOGIC MAP OF THE
LOOKOUT POINT AREA
LANE COUNTY, OREGON

1982
PLATE 5

TIME ROCK CHART



SURFICIAL DEPOSITS

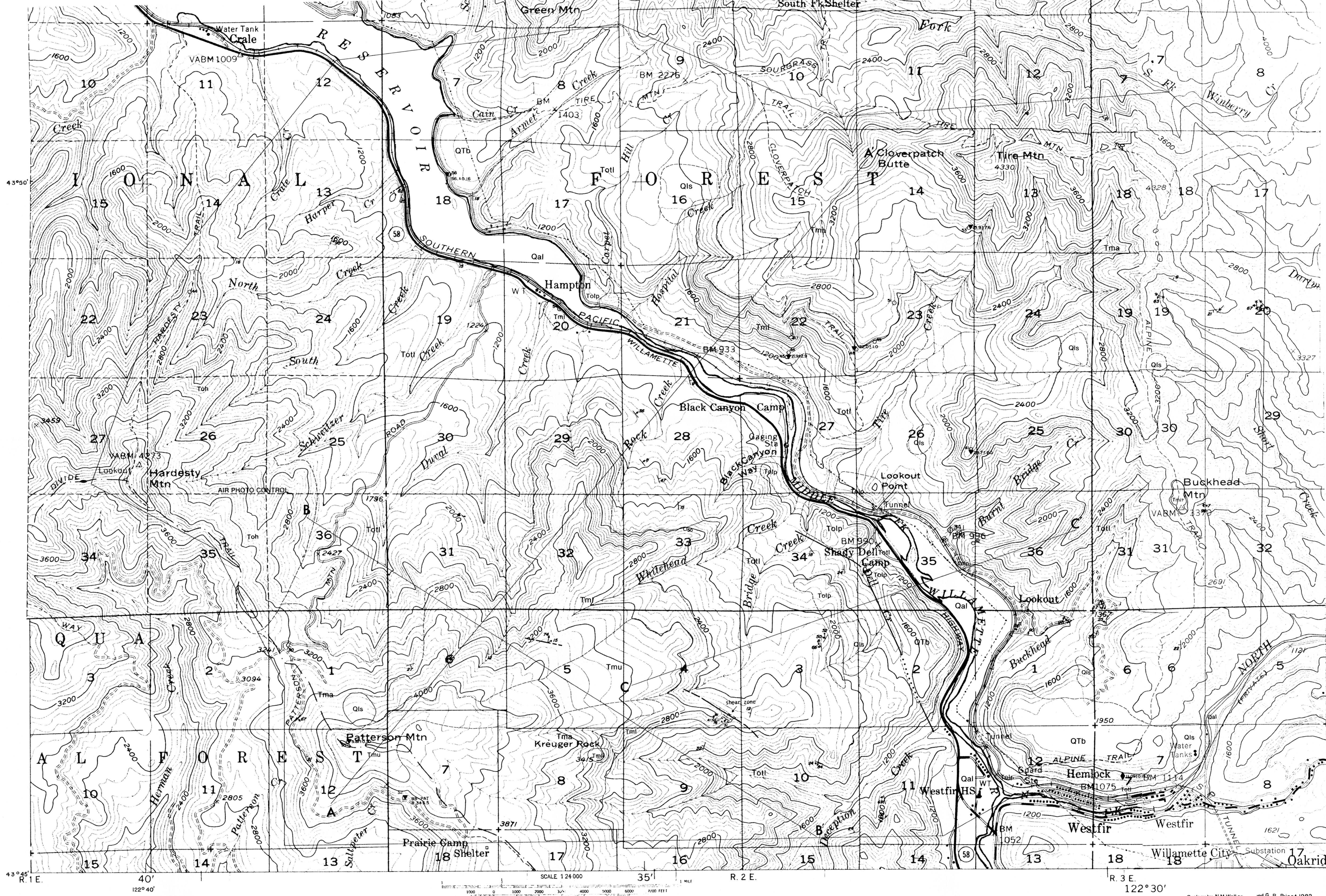
Qal	Recent alluvium: Recent unconsolidated sediments located in present river and creek channels
Qls	Landslide deposits: Unconsolidated landslide deposits, including slumps and slide blocks

BEDROCK GEOLOGIC UNITS

Qtb	Volcanic rocks of late High Cascade time Pliocene-Pleistocene(?) basaltic lavas: Diktytaxitic to compact, gray, fresh intracanyon flows of Pleistocene and late Pliocene age. Olivine altering to iddingsite; groundmass contains subophitic clinopyroxene. Equivalent to High Cascade lavas of White (1980a), basalt of High Prairie of Brown and others (1980b), and Pliocene to Pleistocene basalts of High Cascades of Brown and others (1980a); partially equivalent to volcanic rocks of High Cascades... (undivided) of Peck and others (1964). Small flow near Arnet Creek dated at 0.56 m.y. B.P.
Tmu	Volcanic rocks of early High Cascade time Upper Miocene lavas: Olivine-bearing basalt; fresh, gray, and compact; intracanyon into units Tma and Tmb. Caps Patterson Mountain. Undeformed. Dated at 5.81-5.90 m.y. B.P. Equivalent to Pliocene volcanic rocks of Brown and others (1980b), Outerson formation of White (1980a), Outerson series of Thayer (1939), and Outerson basalt of Hammond and others (1980)
Tma	Volcanic rocks of late Western Cascade time Miocene andesitic lavas: Two-pyroxene plagioclase-rich andesites with interbeds of epiclastic volcanic rocks and minor flows of olivine basalt and dacite. Appears to be intracanyon into units Totl and Tmb on north and northwest sides of Patterson Mountain. Includes at least one dacite on north side of river. Sheared and altered. One flow high on Patterson Mountain dated 8.3 m.y. B.P.; another low in section dated at 15.9 m.y. B.P. Equivalent to Sandrine formation of Peck and others (1964), Rhododendron formation of Hodge (1933), Miocene volcanic rocks of Brown and others (1980a,b), and Sandrine and Elk Lake formations of White (1980a). Tml: Intrusive equivalent of unit Tma.
Tmli	Volcanic rocks of early Western Cascade time Lavas of Black Canyon (early Miocene): Aphyritic basalts and basaltic andesites; intracanyon into unit Totl. Kreuger Rock and Beckett Butte (at southern margin) may be vents for this unit. Contains microphenocrysts of olivine and plagioclase in plagioclase groundmass. Generally black or gray. Contains interbeds of sediments and ash flows of unit Totl. Sequence extruded in short period of time about 22 m.y. B.P. Equivalent to Scorpion Mountain lavas of White (1980a,c). Tml: plug of these lavas
Toh	Lavas of Hardesty Mountain (early Miocene): Altered silicic lavas, generally plagioclase-bearing or aphyritic; some flows have pyroxene microphenocrysts; some are plagioclase porphyritic. At least one flow is amygdaloidal. Caps Hardesty Mountain west of map area. Chemical analysis of one sample yielded an icelandite composition
Totl	Oligocene and lower Miocene tuffs and lavas (undifferentiated): Tuffs are generally altered welded and nonwelded yellow, green, or red ash flows with lithic fragments of aphyric or plagioclase-bearing silicic lavas. Airtall tuffs also present. In lower part of sequence, ash flows are lithic-fragment-rich and may be partly laharic in origin. Lavas are generally silicic, altered, with plagioclase as the only megacrystic phenocryst. Unit is folded, faulted, and altered. Overlies thick sequence of sediments not exposed in area. K-Ar date high in section was 24.7 m.y. B.P. Equivalent to Little Butte Volcanic Series of Peck and others (1964), Oligocene volcanic rocks of Brown and others (1980a,b), Breitenbush tuffs of Thayer (1939), and Breitenbush formation of White (1980a) and Hammond and others (1980)
Tolp	Lavas of Lookout Point (Oligocene): Black, glassy, porphyro-plagioclase-bearing, rhyolitic lavas. Resistant compared to surrounding tuffs; forms knobby hills and exposures

GEOLOGIC SYMBOLS

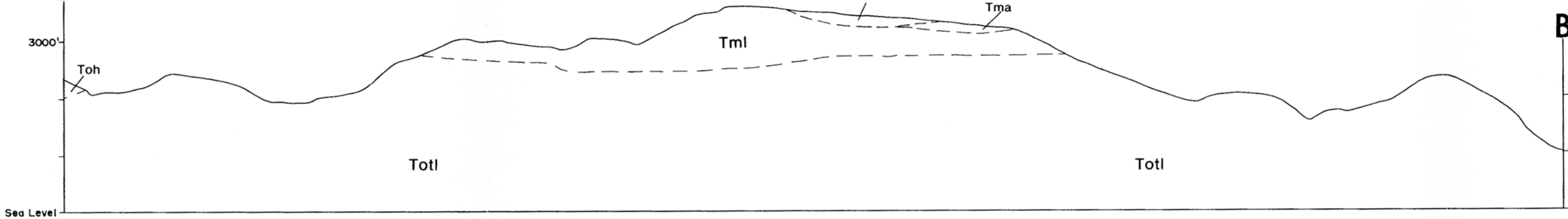
---	Contacts: Solid where visible; dashed where inferred below cover or from aerial photo interpretation
---	Fault: Solid where visible; dashed where approximately located; dotted where concealed by alluvium, landslide, colluvium, or reservoir. Dip on fault plane indicated; bar and ball on downthrown side
---	Dike: Solid where visible; dashed where inferred; dip indicated
---	Shear, with dip of plane and orientation of striations within plane
---	Strike and dip of thinly bedded epiclastic units or volcanic flow tops
---	Geochemical sample location
---	K-Ar date: sample location with age in millions of years (this study)
---	Drill hole location: Terrain-corrected gradient in °C/km and heat-flow values in mW/m² where available
---	K-Ar date: Sample location with age in millions of years (Sutter, 1978)



Base Map from USGS 15' series (Topographic)

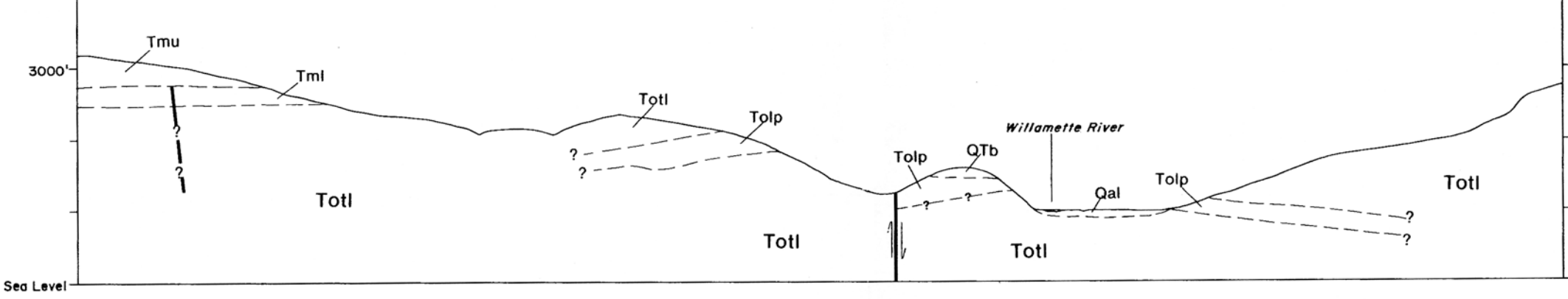


B



Geologic Cross Sections

C



Geology by M.M. Wall et al.
Field work, 1980-1982
All references cited in the explanation appear
in the list of references cited at the end
of Open-File Report 0-82-7.