



**EXPLANATION**  
**SEDIMENTARY AND EXTRUSIVE ROCKS**

**Recent**

**Qal**  
 Younger alluvium  
 (Unweathered gravel and sand deposited by Columbia River in late stages; includes small areas of dune sand)

**Qt**  
 Intermediate terrace alluvium  
 (Little-weathered gravel, sand, and silt on terrace remnants about 150 feet above sea level along Columbia River and in creek beds adjacent to the terrace. Not differentiated north of Columbia River)

**Qto**  
 Intermediate and older terrace alluvium  
 (Sand and gravel on stream terraces 125 to 225 feet above sea level; dense sand, coarse hill wash, and alluvium in prominent fans. Older unconsolidated rocks not differentiated or mapped south of Columbia River)

**Qts**  
 Andesite  
 (Massive bluish-gray pluggy andesite)

**Td**  
 Dalles formation  
 (Semi-consolidated shale, sandstone, and conglomerate, interbedded with volcanic agglomerate and fine scoria)

**Tyb**  
 Yakima basalt  
 (Dense columnar basalt with discontinuous layers of vesicular and pillow basalt and leaf-bearing shale)

**UNCONFORMITY**

**Miocene or Pliocene**

**Platocene**

**QUATERNARY**

**TERTIARY**

**Fault**  
 (Certain where line is solid; inferred where dashed.  
 U, upthrown; D, downthrown)

**Axis of anticline**

**Dip and strike of beds**

**Horizontal beds**

**Nonflowing well**

**Flowing well**

**Spring**

**Land corner found**

Base from U. S. Geological Survey topographic map of the Dalles quadrangle, U. S. G. S. traverses of Columbia River (1929) and Deschutes River (1944), U. S. General Land Office township plats, alignment plats of Oregon State highways, alignment plats of the Great Southern Railroad, and plane-table traverse by A. M. Piper



**GEOLOGIC MAP AND SECTION OF THE DALLES REGION, OREGON, SHOWING LOCATION OF TYPICAL WELLS AND SPRINGS**