



EXPLANATION

**Recent**  
Qal Alluvium  
Unconsolidated clay, silt, sand, and gravel underlying alluvial plain  
Beds of gravel yield water readily to wells in western part of area

**Pliocene**  
Qtc Terraces  
Unconsolidated silt, sand, and gravel on benches and slopes bordering the alluvial plain. Mostly above zone of saturation but may yield water to wells in southern part of alluvial plain

**Pliocene and Pleistocene (?)**  
Qt Older continental deposits  
Includes parts of Cuyama formation of English, and Morales formation and conglomerate of Dibble  
Unconsolidated clay, silt, sand, and gravel that trap out in terraces and hills bordering alluvial plain. Locally strongly deformed. Penetrated by water wells beneath alluvial plain. In eastern part of area, predominant coarse sand and gravel yield water readily; in western part, predominate clay, silt, and sand yield water

**QUATERNARY**  
Lower and/or Upper Cretaceous and Eocene to Miocene

**TERTIARY**

TKu Pre-Pliocene marine and continental deposits, undifferentiated  
Mostly consolidated shale, sandstone and conglomerate in mountain area; non-water-bearing. Some unconsolidated marine sand in southern part of area and considerable continental sand and gravel in eastern part potentially water bearing but generally not tapped by wells

Contact  
Dashed where approximately located

Fault  
Dashed where approximately located, dotted where concealed  
U, upthrown side, D, downthrown side

Axis of syncline showing direction of plunge of axis

Strike and dip of beds

**CRETACEOUS AND TERTIARY**

2300 Water-level contour  
Dashed where doubtful  
Contour interval 20 feet below 2300-foot contour, 50 feet above. Datum is mean sea level of 1929

R1 Irrigation well  
Q1 Domestic or stock well  
P1 Abandoned or unused well  
L1 Spring  
K1 Well or spring, showing altitude of water level

Site of stream or spring-flow measurement

Base from U.S. Army, Corps of Engineers, in part from U.S. Geological Survey topographic sheets. Broken land lines projected, but adjusted to local usage

MAP OF THE CUYAMA VALLEY, CALIFORNIA, SHOWING GENERALIZED GEOLOGY AND HYDROLOGIC FEATURES

By J.E. Upson and G.F. Worts, Jr., 1947  
Geology mostly from unpublished map by T.W. Dibblee, Jr., Richfield Oil Corp. 1946; in part by J.E. Upson, 1947-48

