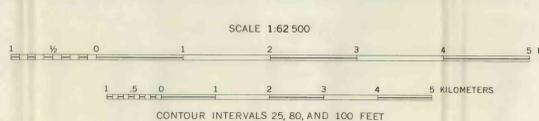


EXPLANATION

Recent		River-channel deposits Coarse sand and gravel in flood channel of Russian River and major tributaries. Very permeable.	QUATERNARY
		Alluvium Unconsolidated lenticular deposits of clay, sand, and gravel beneath flood plains and alluvial fans. Generally moderately to highly permeable.	
Pleistocene		Terrace deposits Unconsolidated and poorly sorted fluvial deposits of gravel, sand, silt, and clay. Moderately permeable.	QUATERNARY
		Glen Ellen Formation Compact lenticular poorly sorted silty clay, sand, poorly cemented conglomerate, and local fairly loose sand and gravel. Tuffaceous in lower part. Permeability generally low.	
Pliocene		Merced Formation Fossiliferous marine sand, clay, and poorly consolidated sandstone; tuffaceous in part. Permeability generally low, especially in local part.	TERTIARY
		Sonoma Volcanics Mainly andesite and basalt lava flows, pyroclastic rocks, and mud flows with interbedded volcanic sediments. Thick sections of poorly permeable tuff breccia and rubble and fractured zones in lava yield water to wells.	
Cretaceous and Jurassic		Conglomerate Massive cobble conglomerate; very shaly lenses. Yields water slowly to wells. Artesian conditions and high born locally.	JURASSIC AND CRETACEOUS
		Franciscan and Knoxville Formations undifferentiated Consolidated sandstone, shale, chert, and metamorphosed sedimentary and igneous rocks including large local argillite bodies. Impermeable except for local fractured zones.	

	Contact Dashed where approximately located.		Vertical beds
	Fault Showing relative movement. Dashed where approximately located; dotted where concealed. U, upthrown side; D, downthrown side.		Water well
	Anticlinal axis Dashed where approximately located; dotted where concealed.		Flowing well
	Syncline Showing trace of axial plane and direction and plunge of axis. Dashed where approximately located; dotted where concealed.		Destroyed well
	Strike and dip of beds		Spring
			Stream-sampling site
			Stream-gaging site
			Boundary and number of storage unit (See table 4)
			Numbers indicate location as explained in text

**GEOLOGIC MAP OF THE LOWER AND MIDDLE RUSSIAN RIVER VALLEY AREAS
SONOMA COUNTY, CALIFORNIA, SHOWING LOCATION OF WELLS**



Base from U.S. Geological Survey and U.S. Army Corps of Engineers topographic maps. Broken land lines projected for reference only.

APPROXIMATE MEAN DECLINATION, 1965

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1965—WB1448

Geology for Healdsburg 15-minute quadrangle chiefly after W. K. Gealey (1950), for Sebastopol quadrangle after R. B. Travis (1952). Remainder by G. T. Cardwell, mainly from aerial photographs and Soils maps, 1954-55. Canvass of wells by G. T. Cardwell, 1949-54.