

CALIFORNIA GEOLOGICAL SURVEY  
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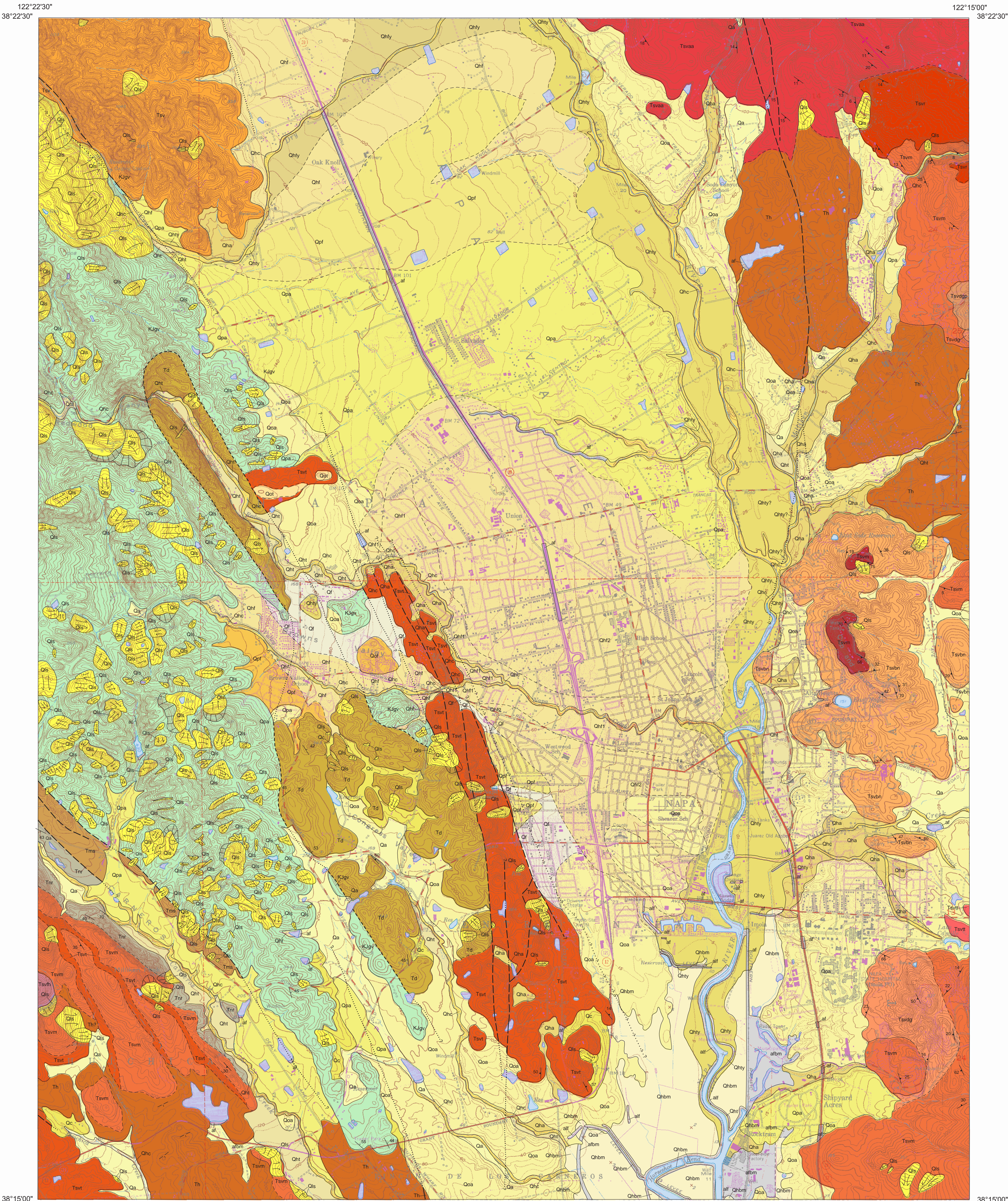
# GEOLOGIC MAP OF THE NAPA 7.5' QUADRANGLE NAPA COUNTY, CALIFORNIA: A DIGITAL DATABASE

VERSION 1.0

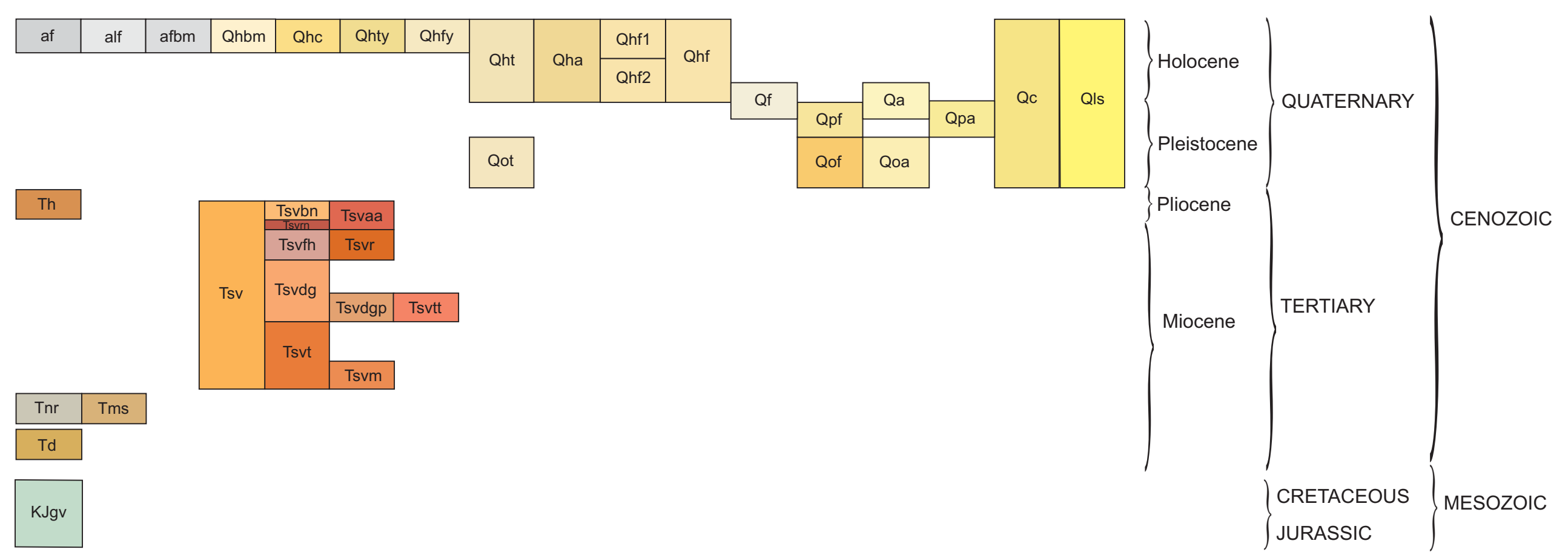
By  
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Digital Database  
by:  
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2004

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### Unit Correlation



### Unit Explanation

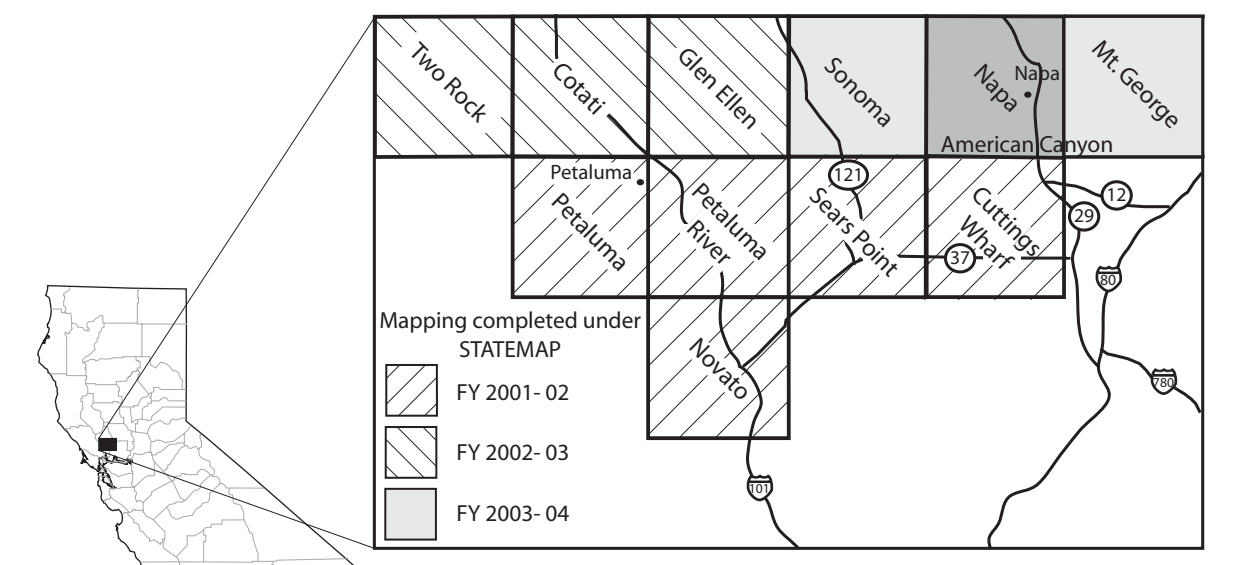
- (See Knudsen and others (2000), for more information on Quaternary units.)
- af** Artificial fill (Holocene, historic) - May be engineered and/or non-engineered.
  - alf** Artificial levee fill (Holocene, historic) - May be engineered and/or non-engineered.
  - afbm** Artificial fill placed over bay mud.
  - Qhbm** Bay mud (Holocene <10,000 years) - Silt, clay, peat, and fine sand deposited at or near sea level in San Pablo Bay.
  - Qhc** Stream channel deposits (latest Holocene <1,000 years) - Deposits in active, natural stream channels, consists of loose alluvial sand, gravel, and silt.
  - Qhty** Stream terrace deposits (Latest Holocene) - Stream terraces deposited as point bar and overbank deposits along the Napa River, composed of moderately sorted clayey sand and sandy clay with gravel.
  - Qhfy** Alluvial fan deposits (Latest Holocene) - Alluvial fan sediment deposited by streams emanating from Dry Creek drainage, composed of moderately to poorly sorted and bedded sand, gravel, silt, and clay.
  - Qht** Stream terrace deposits (Holocene <10,000 years) - Stream terraces deposited as point bar and overbank deposits, composed of moderately to well-sorted and bedded sand, gravel, silt, and minor clay.
  - Qha** Alluvium, undivided (Holocene) - Alluvium deposited on fans, terraces, or in basins, composed of sand, gravel, silt, and clay that are poorly sorted.
  - Qh** Alluvial fan deposits (Holocene) - Alluvial fan sediment deposited by streams emanating from mountain drainages onto alluvial valleys, composed of moderately to poorly sorted sand, gravel, silt and clay.
  - Qh1** Alluvial fan deposits (Latest Pleistocene <-30,000 years to Holocene) - Sand, gravel, silt and clay mapped on gently sloping, fan-shaped, relatively undivided alluvial surfaces.
  - Qh2** Alluvium, undivided (latest Pleistocene to Holocene) - Flat, relatively undivided fan, terrace, and basin deposits.
  - Qa** Alluvium, undivided (latest Pleistocene) - Alluvial fan, stream terrace, basin, and channel deposits, composed of poorly to moderately sorted sand, silt, clay, and gravel.
  - Qpa** Alluvial fan deposits (early to late Pleistocene) - Composed of consolidated sand, silt, clay, and gravel.
  - Qpf** Alluvial fan deposits (early to late Pleistocene) - Composed of consolidated sand, silt, clay, and gravel. Topography is moderately rolling with little or no original alluvial surfaces preserved, deeply dissected.
  - Qof** Alluvium (early to late Pleistocene) - Composed of consolidated sand, silt, clay, and gravel. Topography is moderately rolling with little or no original alluvial surfaces preserved, deeply dissected.
  - Qoa** Alluvium (early to late Pleistocene) - Composed of consolidated sand, silt, clay, and gravel. Topography is moderately rolling with little or no original alluvial surfaces preserved, deeply dissected.
  - Qot** Stream terrace deposits (early to late Pleistocene) - composed of moderately to well-sorted and bedded sand, gravel, silt, and minor clay. Deposits are located on an elevated surface above Redwood Creek.
  - Qc** Colluvium (Holocene to Pleistocene) - Unconsolidated and unsorted soil and weathered rock fragments accumulated on or at the base of slopes.
  - Qls** Landslide deposits (Holocene and Pleistocene) - Includes debris flows and block slides.
  - Th** Huichica Formation (early Pleistocene and Pliocene) - Gravel, sand, reworked tuff, and clay. A tuff interbed yields a K-Ar date of 4.09±0.19 Ma (Fox and others, 1985).
  - Tsvbn** Breccia of Napa - Dacite breccia underlying the low hills east of Napa. This unit is likely a resurgent dome within a caldera. It is capped by Tsvm anaphanitic rhyolite.
  - Tsvaa** Andesite of Atlas Peak - Dark to grey, plagioclase phytic, andesite interbedded with tuff. Locally has a platy foliation.
  - Tsvfh** Lava flows of Huichica Creek - Dark glassy flow rock with highly variable phenocryst assemblage, including plagioclase, pale olivine, and possible amphibole or pyroxene. Appears to be interlayered with a plagioclase phytic dacite.
  - Tsvr** Rhyolite ash flow tuff - Black to light grey vitrophyre with angular lithic clasts overlying welded tuff with flattened pumice lapilli and unwelded pumice lapilli tuff. This unit overlies the older rocks with angular unconformity.
  - Tsvdg** Dacite of Mt. George - Flows and domes of gray to tan porphyritic dacite. The dacite is typically strongly flow banded. The upper surfaces of flows are commonly perlitic. K-Ar ages for the dacite are 4.3±0.2 and 3.7±1.23 Ma (Mankinen, 1972; Fox and others, 1985).
  - Tsvdgp** Pumice breccia, pumice lapilli tuff, and pumice lapilli tuff with lithic fragments and perlitic glass fragments that mantle flows and domes and occur between dacite flows.
  - Tsvtt** Tuff of Tulucay Creek - Pumice lapilli tuff interbedded with tuffaceous volcanic agglomerate. Perlitic glass fragments are abundant in some tuff beds.
  - Tsvm** Mafic flows and breccias - Basalt, basaltic andesite and andesite flows and breccias, interbedded with volcanic agglomerate and tuff.
  - Tsvt** Light colored tuff, lithic rich in places. Locally includes tuffaceous, diatomaceous lacustrine sediments.
  - Tnr** Neroly Formation (Miocene) - Light colored to bluish-gray medium-grained sandstone.
  - Tms** Marine sandstone and mudstone (Miocene) - Light colored well-sorted sandstones, coarse-grained pumice-rich sandstone, chocolate brown siltstone.
  - Td** Domengine sandstone (late Eocene or early Miocene) - Brown quartzite-felspathic sandstone with minor thin claystone interbeds.
  - KJgv** Great Valley Sequence (early Cretaceous and late Jurassic) - Sandstone, pebble conglomerate, siltstone, and shale.

### Symbol Explanation

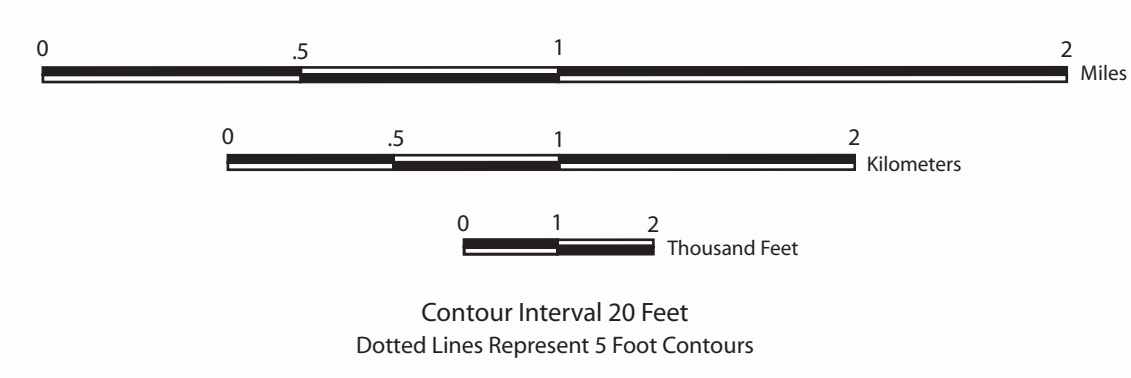
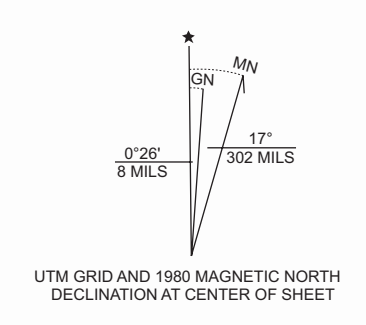
- Contact between map units - Solid where accurately located, dashed where approximately located, dotted where concealed, queried where uncertain.
- Fault - Solid where accurately located, dashed where approximately located, dotted where concealed, queried where uncertain.
- Axis of anticline - Solid where accurately located.
- Strike and dip of inclined bedding.
- Approximate strike and dip of inclined bedding.
- Strike and dip of inclined foliation.
- Landslide - Arrows indicate principal direction of movement, queried where existence is questionable (some geologic features are drawn within questionable landslides), hachured where headscarp is mappable.

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Topographic base from the U.S. Geological Survey UTM Projection, zone 10, North American Datum 1927



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