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Preliminary Geologic Map available from:
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GEOLOGIC MAP OF THE FAIRFIELD NORTH 7.5' QUADRANGLE SOLANO AND NAPA COUNTIES, CALIFORNIA: A DIGITAL DATABASE

VERSION 1.0

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2006

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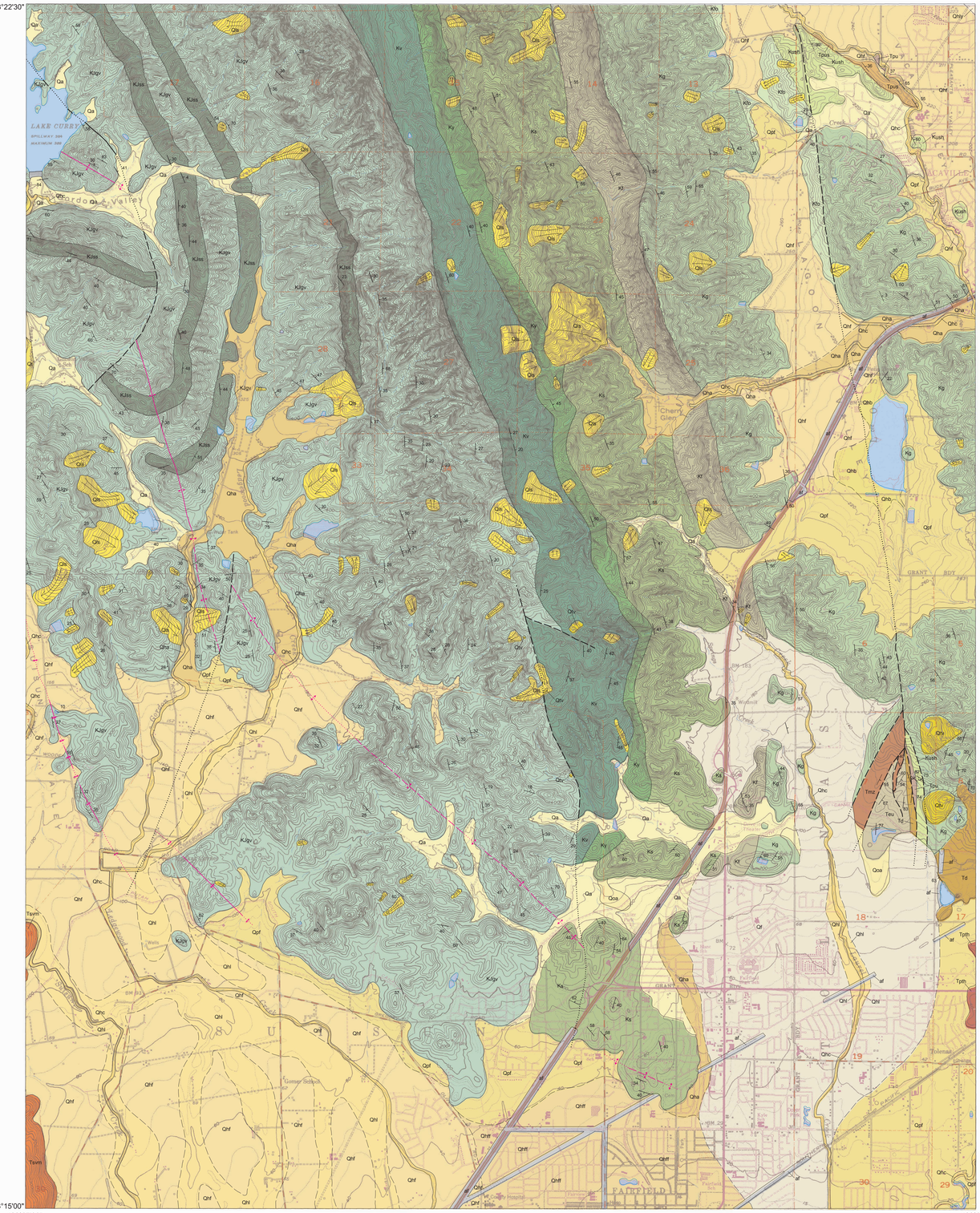

Topographic base from U.S. Geological Survey
Fairfield North 7.5-minute Quadrangle, 1980
UTM projection, North American Datum 1927

UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Scale 1:24,000

Contour Interval 20 Feet
Dotted Lines Represent 5 Foot Contours
National Geodetic Vertical Datum of 1929

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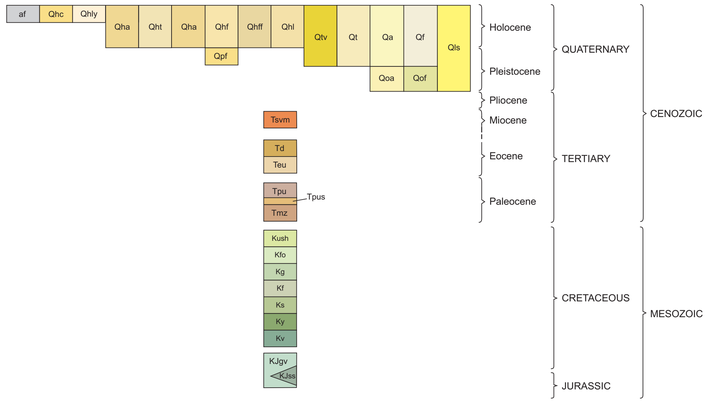
Unit Correlation



Unit Explanation

(See Witter and others (2006), for more information on Quaternary units).

af	**Artificial fill (Holocene, historic)** - May be engineered and/or non-engineered.
Qhc	**Modern stream channel deposits (Holocene <150 years)** - Deposits in active, natural stream channels; consists of loose alluvial sand, gravel, and silt.
Qhly	**Alluvial fan levee deposits (Holocene < 1,000 years)** - Sand and silt overbank deposits along channel margins of young alluvial fans.
Qht	**Stream terrace deposits (Holocene <10,000 years)** - Stream terraces deposited as point bar and overbank deposits along Lichau Creek; 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.
Qhf	**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.
Qhff	**Alluvial fan deposits, fine facies (Holocene)** - Predominantly clay and silt with interbedded coarser alluvium deposited on distal portions of alluvial fans and valley floors.
Qhl	**Fan levee deposits (Holocene)** - Fan sediments deposited as long, low ridges oriented down fan. The deposits contain coarser material than the adjoining areas.
Qhb	**Basin deposits (Holocene)** - Fine-grained clay-rich alluvium with horizontal stratification. May contain peat and interbedded coarser alluvium.
Qt	**Stream terrace deposits (late Pleistocene to Holocene)** - Deposited in point bar and overbank settings where deposits might be of late Pleistocene or Holocene age; composed of unconsolidated, poorly sorted, clayey sand and sandy clay with gravel.
Qa	**Alluvium, undivided (latest Pleistocene to Holocene)** - Flat, relatively undissected fan, terrace, and basin deposits.
Qf	**Alluvial fan deposits (latest Pleistocene <~30,000 years to Holocene)** - Sand, gravel, silt and clay mapped on gently sloping, fan-shaped, relatively undissected alluvial surfaces.
Qpf	**Alluvial fan deposits (late Pleistocene)** - Late Pleistocene age is indicated by greater dissection than is present on Holocene fans; composed of moderately to poorly sorted and bedded gravel, sand, silt, and clay.
Qoa	**Alluvial deposits, undivided (early to late Pleistocene)** - Alluvial fan, stream terrace, basin, and channel deposits. Topography is gently rolling with little or no original alluvial surfaces preserved; moderately to deeply dissected.
Qof	**Alluvial fan deposits (early to late Pleistocene)** - Alluvial fan sediment composed of weakly cemented conglomerate and sandstone. Clasts are volcanic, subrounded, and range up to 8 inches in diameter. Topography is moderately rolling with little or no original alluvial surfaces preserved; deeply dissected.
Qls	**Landslide deposits (Holocene and Pleistocene)** - Includes debris flows and block slides.
Qtv	**Travertine (Holocene and Pleistocene)** - Surficial deposits of fine- to coarse-grained travertine, microcrystalline onyx and related calcareous materials deposited by saline springs associated with faults. Spring waters are rich in ^{18}O indicating a deep basinal rather than a meteoric source (Criss, written communication, 1998). Travertine deposits are underlain by brecciated sandstone and conglomerate cemented by travertine. Travertine in the Fairfield North quadrangle was mined for cement at Cement Hill and for decorative material at both Cement Hill and Tolenas Springs (Hart, 1978).
Tsvm	**Sonoma Volcanics, mafic flows and breccias (Miocene)** - Basalt, basaltic andesite and andesite flows and breccias, interbedded with volcanic agglomerate and tuff.
Td	**Domengine Sandstone (Eocene)** - White quartz-rich sandstone with interbedded sandstone and shale.
Teu	**Unnamed mudstone, sandstone, siltstone (Eocene)** - Foram-bearing mudstone, sandstone and siltstone. Contains Early Eocene nannofossils (Ristau, unpublished data, 2006).
Tpu	**Unnamed sandstone and shale (Paleocene)** - Sandstone, siltstone and foram-bearing mudstone and shale. In the Cement Hill area, this unit contains Paleocene nannofossils and a glauconite-rich basal zone in contact with Upper Cretaceous rocks (Ristau, unpublished data, 2006).
Tpus	**Basal sandstone member** - Mica- and quartz-rich sandstone, cross-bedded in places. Present in the Vaca Valley area.
Tmz	**Martinez Formation (Paleocene)** - In the Cement Hill area, this unit contains a shell-rich sandstone bed with Paleocene Turritella fossils (Ristau, unpublished data, 2006)(Powell, written communication, 2002).
	Great Valley Sequence
Kush	**Unnamed sandstone and shale (Late Cretaceous)** - Sandstone, siliceous shale and mudstone.
Kfo	**Forbes Formation (Late Cretaceous)** - Thick beds of fine- to coarse-grained sandstone with shell fragments grading upward into interbedded siltstone and shale.
Kg	**Guinda Formation (Late Cretaceous)** - Thick-bedded to massive sandstone grading upward into siltstone and shale.
Kf	**Funks Formation (Late Cretaceous)** - Siltstone and mudstone with thin beds of sandstone.
Ks	**Sites Formation (Late Cretaceous)** - Thick-bedded, laminated fine- to medium-grained sandstone with moderately thick beds of siltstone.
Ky	**Yolo Formation (Late Cretaceous)** - Moderately thick-bedded, fine- to coarse-grained sandstone mudstone and micaceous siltstone.
Kv	**Venado Formation (Late Cretaceous)** - Massive to thick-bedded, shale-chip bearing sandstone with minor siltstone. North of the Fairfield quadrangle at Monticello Dam, this unit includes a basal submarine slump deposit consisting of megabreccia with angular blocks of sandstone and siltstone in conglomeratic mudstone matrix.
KJgv	**Sandstone and shale (Early Cretaceous and Late Jurassic)** - Mostly thin-bedded sandstone with interbedded siltstone, shale and mudstone. Contains discontinuous beds of conglomerate.
KJss	**Ridge-forming sandstone beds**.

Symbol Explanation

- Contact between map units - Solid where accurately located, dashed where approximately located, dotted where concealed.
- Fault - Solid where accurately located, dashed where approximately located, dotted where concealed.
- Axis of syncline - Solid where accurately located, dotted where concealed.
- Anticline - Solid where accurately located, dashed where approximately located; dotted where concealed.
- 25 — Strike and dip of bedding.
- Strike and dip of vertical bedding
- 25 — Strike and dip of overturned bedding
- Landslide - Arrows indicate principal direction of movement.

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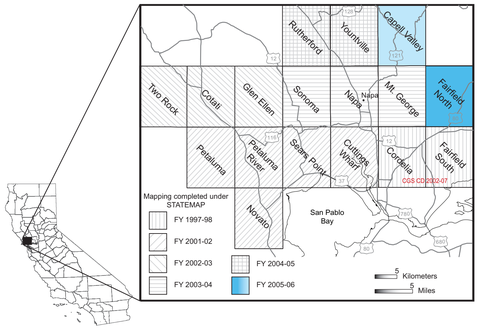

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