DIVISION OF MINES AND GEOLOGY
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STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

GEOLOGIC MAP OF CALIFORNIA
SANTA ROSA SHEET

Mapbase © Rand McNally Map Corporation, Washington 27, D.C.

EXPLANATION

SEDIMENTARY AND METASEDIMENTARY ROCKS

CENOZOIC

- **QUATERNARY — Recent**
  - Qs — Dune sand
  - Qal — Alluvium
  - Qsc — Stream channel deposits (GREAT VALLEY)
  - Qf — Fan deposits (GREAT VALLEY)
  - Qb — Basin deposits (GREAT VALLEY)
  - Qsl — Salt deposits
  - Ql — Quaternary lake deposits
  - Qg — Glacial deposits
  - Qt — Quaternary nonmarine terrace deposits
- **QUATERNARY — Pleistocene**
  - Qtm — Pleistocene marine and marine terrace deposits
  - Qc — Pleistocene nonmarine
- **QUATERNARY — Pliocene**
  - QP — Plio-Pleistocene nonmarine
  - Pc — Undivided Pliocene nonmarine
  - Puc — Upper Pliocene nonmarine
  - Pu — Upper Pliocene marine
  - Pmnc — Middle and/or lower Pliocene nonmarine
  - Pmn — Middle and/or lower Pliocene marine
- **TERTIARY — Miocene**
  - Mc — Undivided Miocene nonmarine
  - Muc — Upper Miocene nonmarine
  - Mu — Upper Miocene marine
  - Mmc — Middle Miocene nonmarine
  - Mm — Middle Miocene marine
  - Ml — Lower Miocene marine
- **TERTIARY — Oligocene**
  - Oc — Oligocene nonmarine
  - O — Oligocene marine
- **TERTIARY — Eocene**
  - Ec — Eocene nonmarine
  - E — Eocene marine
- **TERTIARY — Paleocene**
  - Epc — Paleocene nonmarine
  - Paleocene marine
- **TERTIARY — Undifferentiated**
  - QTc — Cenozoic nonmarine
  - Tertiary nonmarine
  - Tl — Tertiary lake deposits
  - Tertiary marine

IGNEOUS AND META-IGNEOUS ROCKS

- Qv — Recent volcanic: Qv^r—rhyolite; Qv^a—andesite; Qv^b—basalt; Qv^p—pyroclastic rocks
- Qtv — Pleistocene volcanic: Qtv^r—rhyolite; Qtv^a—andesite; Qtv^b—basalt; Qtv^p—pyroclastic rocks
- Quaternary and/or Pliocene cinder cones
- Pv — Pliocene volcanic: Pv^r—rhyolite; Pv^a—andesite; Pv^b—basalt; Pv^p—pyroclastic rocks
- Mv — Miocene volcanic: Mv^r—rhyolite; Mv^a—andesite; Mv^b—basalt; Mv^p—pyroclastic rocks
- Ov — Oligocene volcanic: Ov^r—rhyolite; Ov^a—andesite; Ov^b—basalt; Ov^p—pyroclastic rocks
- Ev — Eocene volcanic: Ev^r—rhyolite; Ev^a—andesite; Ev^b—basalt; Ev^p—pyroclastic rocks
- QTv — Cenozoic volcanic: QTv^r—rhyolite; QTv^a—andesite; QTv^b—basalt; QTv^p—pyroclastic rocks
- Ti — Tertiary intrusive (hypabyssal) rocks: Ti^r—rhyolite; Ti^a—andesite; Ti^b—basalt
- Tv — Tertiary volcanic: Tv^r—rhyolite; Tv^a—andesite; Tv^b—basalt; Tv^p—pyroclastic rocks

MESOZOIC

- **CRETACEOUS**
  - K — Undivided Cretaceous marine
  - Ku — Upper Cretaceous marine
  - Lower Cretaceous marine
  - kn — Knoxville Formation
- **JURASSIC**
  - Ju — Upper Jurassic marine
  - Middle and/or Lower Jurassic marine
- **TRIASSIC**
  - TR — Triassic marine
- Franciscan Formation (Fr)
  - KJfv — Franciscan volcanic and metavolcanic rocks
  - g^r — Mesozoic granitic rocks: g^r—granite and adamellite; g^d—granodiorite; g^t—tonalite and diorite
  - Si — Mesozoic basic intrusive rocks
  - Mesozoic ultrabasic intrusive rocks
  - Jtv — Jura-Trias metavolcanic rocks

UNDIVIDED

- ls — Pre-Cretaceous metamorphic rocks (ls = limestone or dolomite)
- Pre-Cretaceous metasedimentary rocks
- mv — Pre-Cretaceous metavolcanic rocks
- gm — Pre-Cenozoic granitic and metamorphic rocks
- P — Paleozoic marine (ls = limestone or dolomite
- Pv — Paleozoic metavolcanic rocks

PALEOZOIC

- **PERMIAN**
  - P — Permian marine
  - Pu — Permian metavolcanic rocks
- **CARBONIFEROUS**
  - C — Undivided Carboniferous marine
  - CP — Pennsylvanian marine
  - CM — Mississippian marine
  - Cv — Carboniferous metavolcanic rocks
- **DEVONIAN**
  - D — Devonian marine
  - Dv — Devonian metavolcanic rocks
  - Dvr — Devonian and pre-Devonian? metavolcanic rocks
- **SILURIAN**
  - S — Silurian marine
  - psS — Pre-Silurian metasedimentary rocks
  - pzi — Pre-Silurian metamorphic rocks
  - psv — Pre-Silurian metavolcanic rocks
- **ORDOVICIAN**
  - O — Ordovician marine
- **CAMBRIAN**
  - Є — Cambrian marine
  - Cambrian – Precambrian marine
  - pЄ — Precambrian igneous and metamorphic rock complex

PRECAMBRIAN

- pЄt — Undivided Precambrian metamorphic rocks: pЄg = gneiss, pЄs = schist
- pЄg — Undivided Precambrian granitic rocks
- pЄsp — Later Precambrian sedimentary and metamorphic rocks
- pЄpc — Earlier Precambrian metamorphic rocks

HEAVY BORDER ON BOXES INDICATES UNITS THAT APPEAR ON THIS SHEET

INDEX TO GEOLOGIC MAPPING
(COMPLETE INDEX ON EXPLANATORY DATA SHEET)

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TOPOGRAPHIC BASE MAP

Prepared by the Army Map Service (KCLD), Corps of Engineers, U. S. Army, Washington, D. C. Compiled in 1958 from: United States Quadrangles, 1:24,000, 1:25,000, 1:50,000, U. S. Geological Survey and AMS, 1942-59; USC&GS Charts 5534, 1957; 5531, 1956; 5602, 1955; 5502, 1952; 5603, 1952 and 5599; 1951. Planimetric detail revised by photo-planimetric methods. Control by USC&GS, USFS, and CE. Map field checked 1958.

Corrections and additions to culture by California Division of Mines and Geology, 1963

Land net prepared by U.S. Geological Survey

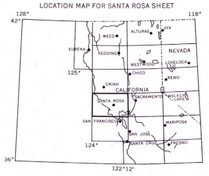
Submarine contours adapted from Shepard and Emery Special Paper No. 31, Geol. Soc. America

SUBMARINE CONTOUR INTERVAL 300 FEET

Local depressions (1500)

Limit of danger; Reef
Rocks; Awash; Sunken
Foreshore flat
Intermittent or dry stream
Marsh or swamp

LOCATION MAP FOR SANTA ROSA SHEET



Scale 1:250,000

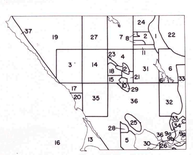
20 Statute Miles
30 Kilometers

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

Contact
(Dashed where approximately located, gradational or inferred)

Fault
(Dashed where approximately located; dotted where concealed)

Thrust fault
(Barbs on upper plate)



GEOLOGIC MAP OF CALIFORNIA
OLAF P. JENKINS EDITION
SANTA ROSA SHEET
COMPILATION BY JAMES B. KOENIG, 1963