EXPLANATION

UNCONSOLIDATED DEPOSITS

Recent

Qya — Younger alluvium

Unconsolidated sand with small quantities of gravel, silt, and clay beneath alluvial plains and stream channels; largely above the water table, but where saturated yields water to wells

Qyf — Younger fan deposits

Unconsolidated angular boulders, cobbles, and gravel with small quantities of sand and silt; include locally derived mudflow and landslide debris; largely above the water table; yield little water to wells

Qp — Playa deposits

Silt, clay, and sandy clay with various quantities of soluble salts; yield small quantities of water to wells

Qs — Windblown sand

Actively drifting fine to medium sand; where saturated yields some water to wells; water from these deposits has a wide range in quality

Qrc — River-channel deposits

Unconsolidated sand in Mojave River bed; highly permeable; above the water table

Pleistocene

Qoa — Older alluvium

Moderately sorted sand and some gravel, silt, and clay; covered in most areas by younger deposits; principal water-bearing unit; yields water freely to wells

Qof — Older fan deposits

Moderately consolidated and moderately well bedded sand, gravel, and boulders; where saturated yield water freely to wells

QUATERNARY

CONSOLIDATED ROCKS

Pleistocene and Recent

Qb — Olivine basalt

Olivine basalt, some cinders, unweathered, everywhere above the regional water table

QUATERNARY

Tc — Continental sedimentary rocks

Conglomerate, fanglomerate, sandstone, siltstone, recemented limestone breccia, water-laid tuff, and agglomerate. Yield little water to wells. Water in parts of this unit may be high in sulfate, because of the large quantity of gypsum in rocks

Tv — Volcanic rocks

Intrusive or extrusive basaltic, andesitic, and felsitic rocks, undifferentiated. In places interbedded with continental sedimentary rocks. Yield little water to wells

TERTIARY

pTb — Basement complex

Igneous and metamorphic rocks, undifferentiated

PRE-TERTIARY

MAP SYMBOLS

Geologic contact, dashed where approximately located

Fault

Dashed where approximately located or inferred; dotted where concealed; queried where doubtful. Arrows show direction of lateral movement

Cut shoreline of ancestral lake

Geophysical traverse

Public-supply or irrigation well

Equipped with 5-hp. or larger, motor

Domestic, stock, or unused well

Flowing well

Dry or destroyed well

Spring, flowing

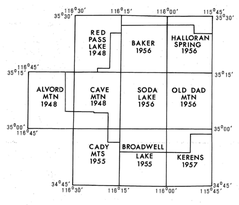
Spring, dry at time of visit

WELL-NUMBERING SYSTEM

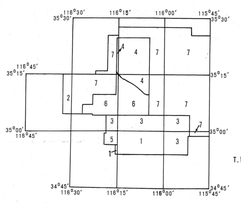
Letter after well indicates position in section thus:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

For a complete description of well-numbering system, see text



INDEX TO TOPOGRAPHIC QUADRANGLE MAPS



INDEX TO GEOLOGIC MAPPING

1 — T.W. Dibblee, Jr. and A.M. Bassett

2 — F.N. Byers, Jr.

3 — Southern Pacific Co.

4 — L.T. Grose

5 — T.W. Dibblee, Jr. and A.M. Bassett

6 — L.A. Wright and B.W. Troxel

7 — W.R. Moyle, Jr.

APPROXIMATE MEAN DECLINATION 1955

SCALE 1:62,500

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

MAP OF THE SODA, SILVER, AND CRONISE VALLEYS, CALIFORNIA

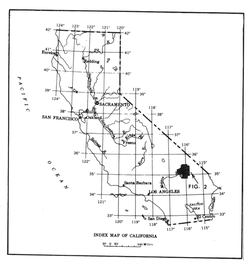
SHOWING RECONNAISSANCE GEOLOGY AND LOCATION OF WELLS AND SPRINGS

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

FEDERAL-STATE COOPERATIVE GROUND-WATER INVESTIGATION

PREPARED BY U.S. GEOLOGICAL SURVEY

BULLETIN NO. 91-13



BASE FROM U.S. GEOLOGICAL SURVEY TOPOGRAPHIC QUADRANGLE MAPS, SCALE 1:62,500., 1965

Geology compiled and mapped by W.R. Moyle, Jr., in part generalized from Dibblee and Bassett, Southern Pacific Co., Byers (1956), Grose (1959), Koster and Bassett (1962), and Wright and Troxel (1954). Location of wells and springs by W.R. Moyle, Jr., and A.F. Mooch