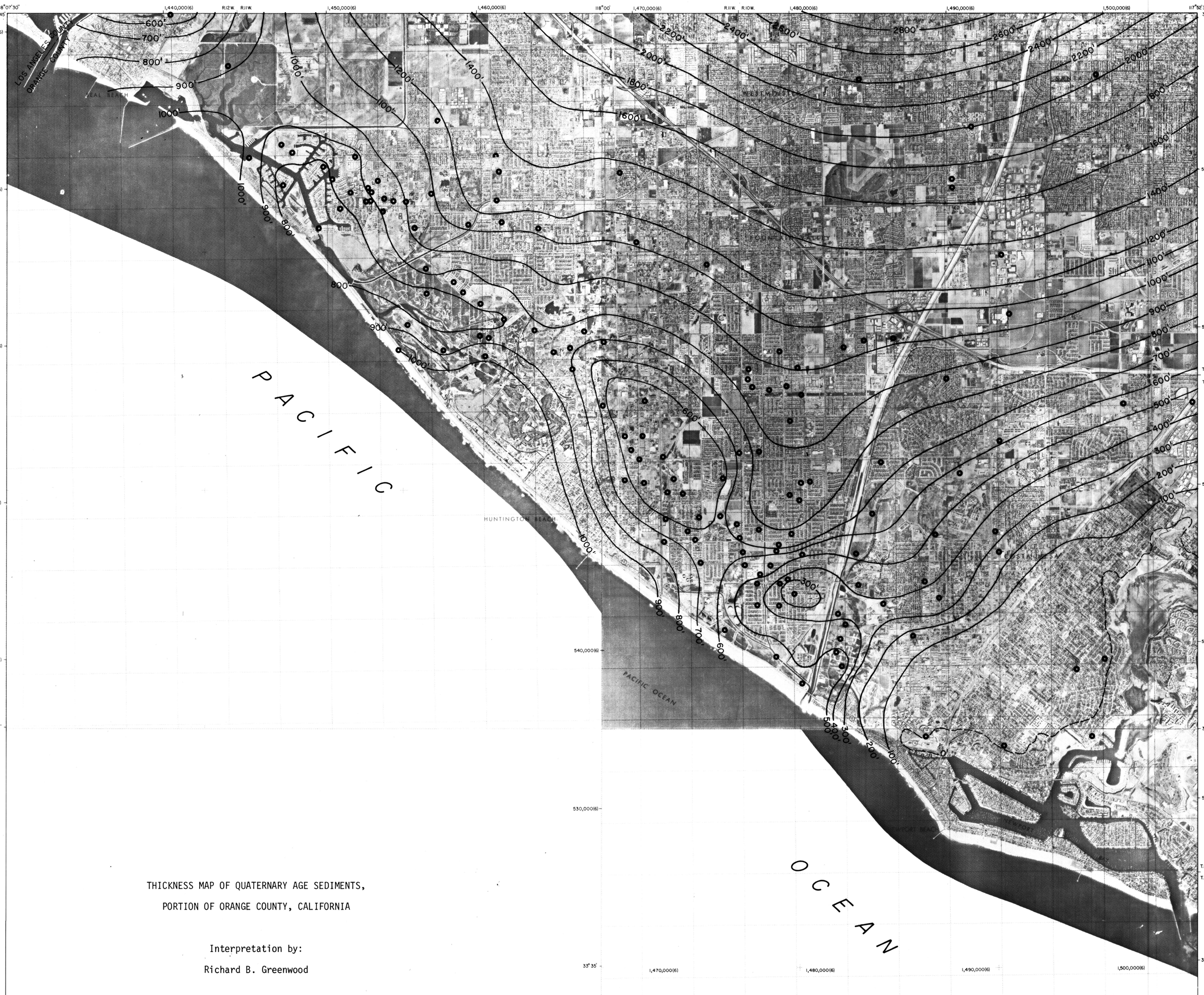
OPEN-FILE REPORT 81-966
O.F.R. 80-19 L.A.
ANNUAL TECHNICAL REPORT
F.Y. SEPT. 19, 1979 - SEPT. 18, 1980
PLATE NO. 3 MAP NO. 4

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

RESEARCH SPONSORED BY THE UNITED STATES GEOLOGICAL SURVEY,
DEPARTMENT OF INTERIOR, UNDER U.S.G.S. CONTRACT 14-08-0001-18241

PREPARED IN COOPERATION WITH THE COUNTY OF ORANGE, CALIFORNIA,
ENVIRONMENTAL MANAGEMENT AGENCY COOPERATIVE AGREEMENT NO.5-0052



THICKNESS MAP OF QUATERNARY AGE SEDIMENTS,
PORTION OF ORANGE COUNTY, CALIFORNIA

Interpretation by:
Richard B. Greenwood

This map displays the interpreted spatial distribution of Quaternary age sediments within the area of this investigation. The interpretation is based on scattered and sparse data obtained by correlation and extrapolation of available information from deep wells drilled for oil and gas exploration and development. No reflection seismic surveys were available for correlation purposes between the control wells used in this interpretation. The locations of data points of control are shown on the map but the data values have been omitted to achieve display clarity. The data have not been corrected for structural influences and reflect apparent total thickness rather than true stratigraphic thickness.

The purpose of this map is to provide a geometric definition of the young sediments directly beneath the Coastal Plain. While deeper and older sedimentary rocks may experience seismically induced deformation, these loose to semi-consolidated Quaternary sediments are the measures which are the most susceptible to seismic deformation. The thickness and configuration of these sediments are parameters which must be considered in estimating the primary and secondary effects resulting from earthquake-generated seismic waves which may impact this area.

BASE MAPS FROM U.S. GEOLOGICAL SURVEY MOSAICED ORTHOPHOTO 1:24,000 QUADRANGLES

CLASSIFICATION AND MAPPING OF QUATERNARY SEDIMENTARY DEPOSITS FOR PURPOSES OF SEISMIC ZONATION, SOUTH COASTAL LOS ANGELES BASIN, ORANGE COUNTY, CALIFORNIA

SECOND YEAR INTERIM REPORT

INVESTIGATORS: EDWARD C. SPROTTE, DAVID R. FULLER AND RICHARD B. GREENWOOD

PERIOD ENDING SEPTEMBER 18, 1980.

THICKNESS MAP OF QUATERNARY AGE SEDIMENTS,
PORTION OF ORANGE COUNTY, CALIFORNIA

LEGEND

- 200' — Line of approximate equal thickness of Quaternary age sediments.
- Point of subsurface control provided by a well or boring.
- Limit of areal investigation, the approximate edge of Quaternary sediments.
- County boundary line.

SCALE 1:48,000

1 1/2 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

N

PLATE NO. 1 PLATE NO. 2

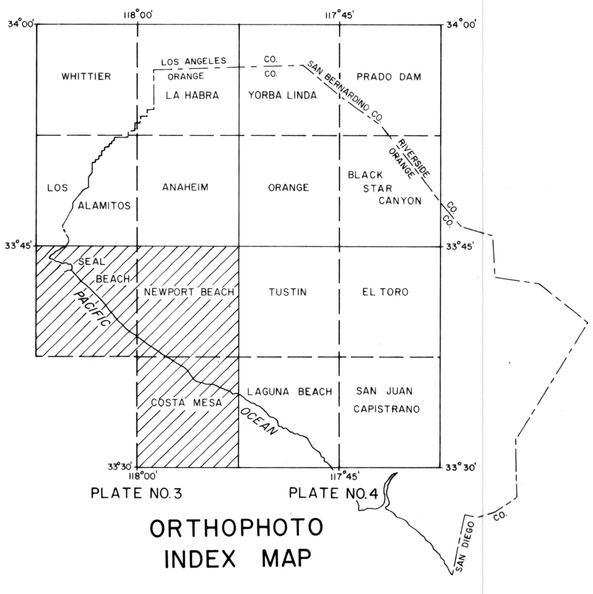


PLATE NO. 3 PLATE NO. 4

ORTHOPHOTO
INDEX MAP