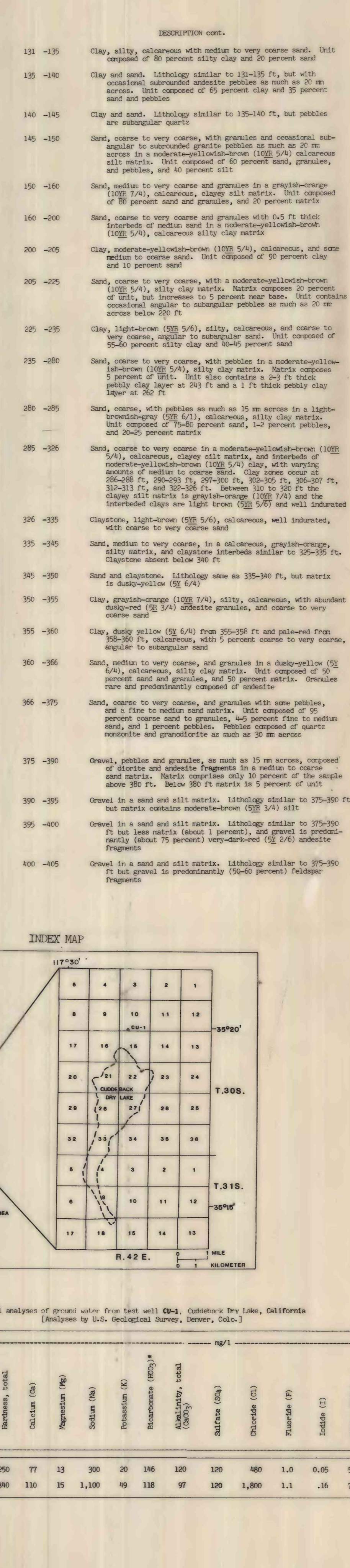
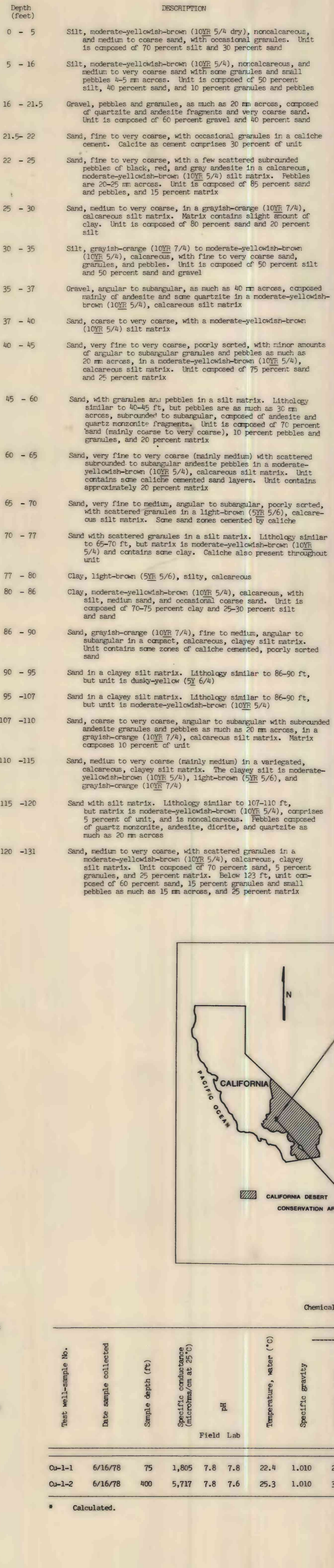


## INTRODUCTION



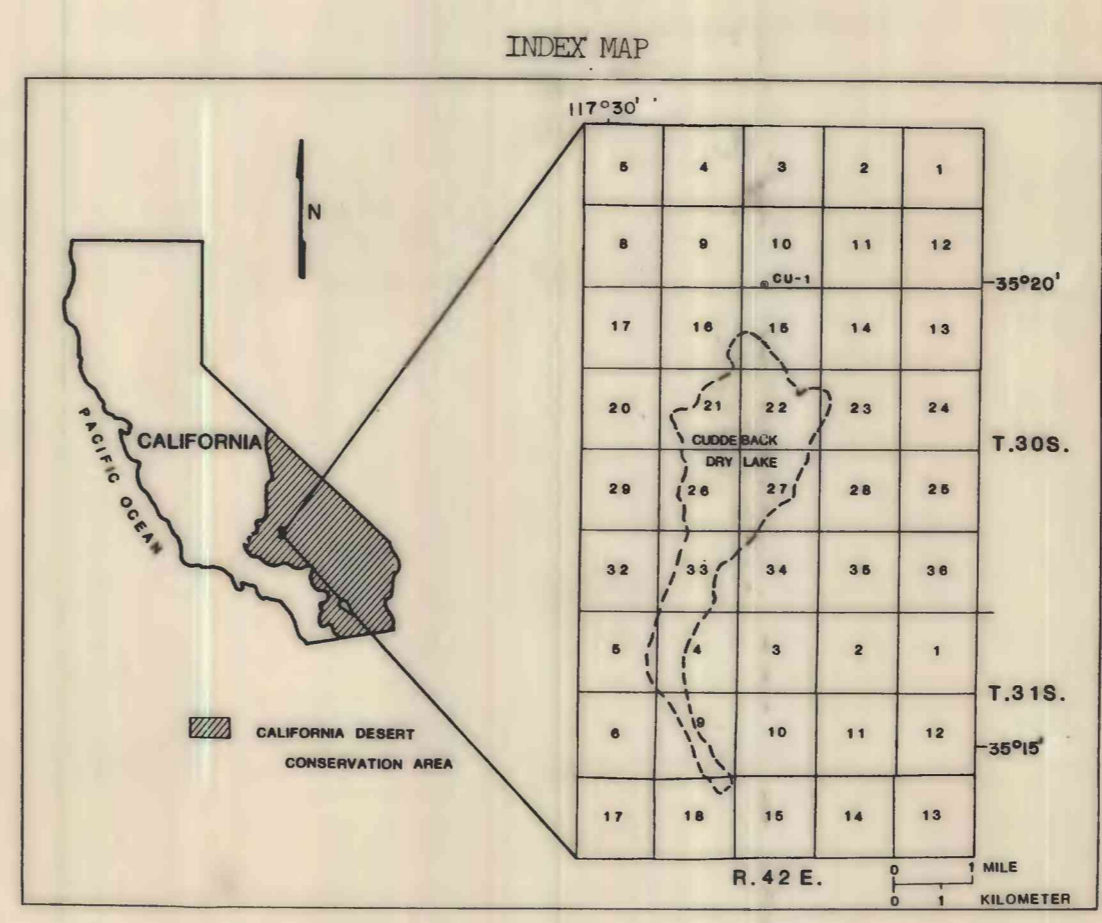
**WATER QUALITY**

Ground-water samples were collected at the first aquifer having measurable flow into the borehole and near the bottom of the test well by stopping drill rotation and pumping air through the drill string. The aquifer was allowed to flow into the borehole to remove any residual fluids and to stabilize the drill string before a ground-water sample was collected. Temperature and pH of raw, untreated samples and specific gravity of filtered samples were measured in the field. Chemical analysis of filtered samples collected from test well CU-1 are listed in the chemical analyses table.

**GEOPHYSICAL LOG**

A gamma-ray logging survey was run from the surface to a drilled depth of 350 feet. The log was run through the drill string because the solid sediment core was not available and sealed the test well. Corrections will be before conventional open-hole logs could have been run in the well. Before the log can be interpreted, corrections must be made for the effect of the drill pipe. The necessary data for the correction, furnished on Schlumberger Chart PG-8, are listed below. The corrected log will approximate the natural radioactivity, but quantitative gamma-ray measurement is not possible, inasmuch as the source was not calibrated.

Test well diameter: 4.5 in.	Total thickness of dual-wall drill pipe: 0.63 in.
Drill string inner diameter: 2.47 in.	Serde outer diameter: 1.25 in.
Outer diameter: 4.5 in.	Logging speed: 17 ft/min



CONVERSION FACTORS		
<u>Multiply English unit</u>	<u>By</u>	<u>To obtain metric units</u>
Inches (in.)	2.540	Centimeters (cm)
Feet (ft)	0.305	Meters (m)

This report has not been edited for conformity with U.S. Geological Survey editorial standards

Chemical analyses of ground water from test well Cu-1, Outerbank Dry Lake, California [Analyses by U.S. Geological Survey, Denver, Colo.]																																
Test well-sample No.		Date sample collected	Sample depth (ft)	Specific conductance (microhm/cm at 25°C)			pH	mg/l																				µg/l				
				Field Lab				Temperature, water (°C)	Specific gravity	Hardness, total	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> ) <sup>a</sup>	Alkalinity, total (CaCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Iodide (I)	Silica (SiO <sub>2</sub> )	Solids, residue on evaporation at 180°C	Nitrite plus nitrate (N)	Phosphorus (P)	Boron (B)	Iron (Fe)	Lithium (Li)	Manganese (Mn)	Strontium (Sr)	Uranium (U)		
Cu-1-1	6/16/78	75	1,805	7.8	7.8	22.4	1.010	250	77	13	300	20	186	120	120	480	1.0	0.05	59	1,180	4.3	0.00	1,400	20	370	70	1,500	3.0				
Cu-1-2	6/16/78	800	5,717	7.8	7.6	25.3	1.010	340	110	15	1,100	89	118	97	120	1,800	1.1	.16	75	3,410	2.3	.00	3,100	20	640	140	2,100	.80				
a. Calculated.																																