Table 31.--Chemical analyses of well, spring, stream, and lake waters--Continued

Part A (continued)

Location	Source (with well depth where appropriate)	Date sampled	Analyst [3]	Temperature °F	Temperature °C	Total iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na) plus potassium (K) [4]	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Dissolved solids [5]	Hardness as CaCO	Specific conductance (micromhos per cm at 25°C)	pH (lab. determination)	Salinity hazard	SAR	Sodium hazard	RSC
							Milligrams per litre (upper number) and milliequivalents per litre (lower number) [1]												Factors affecting suitability for irrigation [2]			
							PACKARD VALLEY AND WHITE PLAINS															
23/28-29dc	Well (44 ft)	10- 7-70	G	58	14.5	--	140	15	4,200	207	0	48	6,600	--	--	410	20,500	7.6	U	90	VH	S
							6.99	1.20	182.39	3.39	0.00	1.00	186.19									
24/29-26cd	Humboldt River drain	5- 1-72	G	58	14.5	--	50	30	370	361	5	220	370	--	--	250	2,090	8.5	H	10	H	S
							2.50	2.50	16.05	5.92	0.17	4.58	10.38									
		6-20-72	G	64	18.0	--	48	63	740	388	0	440	860	--	--	380	3,990	8.3	VH	20	VH	S
							2.40	5.19	32.08	6.36	0.00	9.16	24.15									
		2-28-73	G	50	10.0	--	82	110	1,700	202	12	930	2,300	--	--	640	8,000	8.6	U	30	VH	S
							4.09	8.70	75.16	3.31	0.40	19.36	64.88									
27/33-24ccd	Well	10- 8-70	G	--	--	--	110	40	100	189	0	110	280	--	--	440	1,450	7.9	M	2.1	L	S
							5.49	3.30	4.50	3.10	0.00	2.29	7.90									
28/34-31db	Spring	10- 8-70	G	63	17.0	--	66	14	50	134	0	75	100	--	--	220	692	7.6	L	1.5	L	S
							3.29	1.11	2.18	2.20	0.00	1.56	2.82									

1. Milligrams per liter and milliequivalents per liter are metric units of measure that are virtually identical to parts per million and equivalents per million, respectively, for all waters having a specific conductance less than about 10,000 micromhos. The metric system of measurement is receiving increased use throughout the United States because of its value as an international form of scientific communication. Therefore, the U.S. Geological Survey recently has adopted the system for reporting all water-quality data. Where only one number is shown, it is milligrams per liter.

2. Salinity hazard is based on specific conductance (in micromhos) as follows: 0-750, low hazard (L; water suitable for almost all applications); 750-1,500, medium (M, can be detrimental to sensitive crops); 1,500-3,000, high (H; can be detrimental to many crops); 3,000-7,500, very high (V; should be used only for tolerant plants on permeable soils); >7,500, unsuitable (U). Salinity hazards for some analyses are estimated on basis of reported dissolved-solids content. SAR (sodium adsorption ratio) provides an indication of what effect an irrigation water will have on soil-drainage characteristics. SAR is calculated as follows, using milliequivalents per liter: $SAR = Na/\sqrt{(Ca + Mg)/2}$. Where sodium plus potassium are computed by difference rather than analyzed for (footnote 4), that value is used to compute SAR. Sodium hazard is based on an empirical relation between salinity hazard and sodium-adsorption ratio: low (L), medium (M), high (H), or very high (V). RSC (residual sodium carbonate): safe (S), marginal (M), or unsuitable (U). The several factors should be used as general indicators only, because the suitability of a water for irrigation also depends on climate, type of soil, drainage characteristics, plant type, and amount of water applied. These and other aspects of water quality for irrigation are discussed by the National Technical Advisory Committee (1968, p. 143-177), and the U.S. Salinity Laboratory Staff (1954).

3. Analysts: G, U.S. Geol. Survey; C, Cook Research Lab.; H, Abbot A. Hanks, Inc.; M, Morse Laboratories; N, Nevada State Health Div.; R, U.S. Bur. Reclamation.

4. Computed as the milliequivalent-per-liter difference between the determined negative and positive ions; expressed as sodium (the concentration of sodium generally is at least 10 times that of potassium). Computation assumes that concentrations of undetermined negative ions--especially nitrate--are small.

5. Known or assumed to be residue on evaporation at 105°C, except where followed by "c" that indicates computed sum (with bicarbonate multiplied by 0.492 to make result comparable with residue values).

a. Detailed laboratory analysis; additional determinations are listed in part B of this table.