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Appendix D: SURFACE WATER QUALITY
Appendix E: GROUND WATER QUALITY

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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

Appendix A - CLIMATE

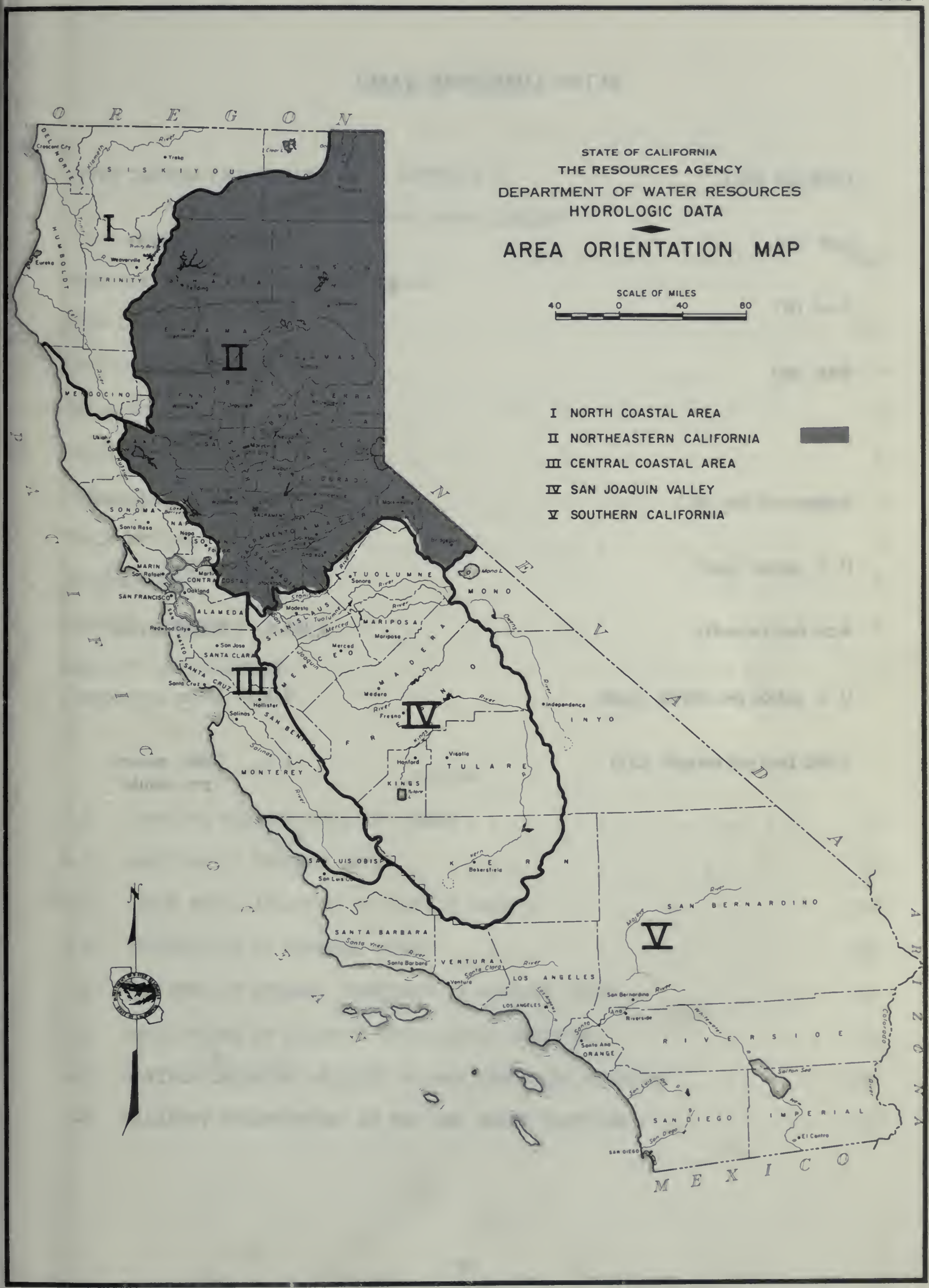
Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY

FIGURE I


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
AREA ORIENTATION MAP
SCALE OF MILES
40 0 40 80
I NORTH COASTAL AREA
II NORTHEASTERN CALIFORNIA
III CENTRAL COASTAL AREA
IV SAN JOAQUIN VALLEY
V SOUTHERN CALIFORNIA
OREGON
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN
I
II
III
IV
V
SISKIYOU
TRINITY
HUMBOLDT
MENDOCINO
SONOMA
MARIN
CONTRA COSTA
ALAMEDA
SAN FRANCISCO
SANTA CLARA
SANTA CRUZ
SAN BENITO
MONTEREY
SAN LUIS OBISPO
SANTA BARBARA
VENTURA
LOS ANGELES
ORANGE
SAN DIEGO
IMPERIAL
RIVERSIDE
SAN BERNARDINO
KERN
TULARE
KINGS
FRESNO
MADERA
MARIPOSA
MERCED
STANISLAUS
TUOLUMNE
MONO
INYO
Crescent City
Yreka
Eureka
Weaverville
Ukiah
Santa Rosa
Napa
San Rafael
Oakland
Redwood City
San Jose
Santa Cruz
Hollister
Salinas
Modesto
Sonora
Mariposa
Merced
Madera
Fresno
Hanford
Visalia
Bakersfield
Independence
San Luis Obispo
Santa Barbara
Ventura
Riverside
San Bernardino
Santa Ana
El Centro
Salton Sea
Mono L.
Tulare L.
Klamath River
Trinity River
Eel River
Russian R.
Sacramento
Stockton
Tuolumne River
Merced River
San Joaquin River
Kings River
Kern River
Owens River
Mojave River
Santa Ynez River
Santa Clara River
Los Angeles River
Santa Ana River
San Luis Rey R.
San Diego
Colorado River
Salinas River
Santa Ana
San Diego

METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT	
Inch (in)	2.54	Centimeters
Foot (ft)	0.3048	Meter
Mile (mi)	1.609	Kilometers
Acre	0.405	Hectare
Square mile (sq. mi.)	2.590	Square kilometer
U. S. gallon (gal)	3.785	Liters
Acre foot (acre-ft)	1,233.5	Cubic meters
U. S. gallon per minute (gpm)	0.0631	Liters per second
Cubic feet per second (cfs)	1.7	Cubic meters per minute

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APPENDIX D

SURFACE WATER QUALITY

INTRODUCTION

The Department's Surface Water Quality Data Program provides basic information about chemical, physical, and radiological quality characteristics of the State's surface waters. Data presented in this Appendix relate to Northeastern California as shown on the "Area Orientation Map", all of which lies within the Central Valley (No. 5) and Lahontan (No. 6) Water Quality Control Board Regions.

Figure D-1, "Surface Water Quality Sampling Stations in Sacramento-San Joaquin Delta", and Figure D-2, "Surface Water Quality Sampling Stations in Northeastern California", show the locations of stations that are routinely sampled. Table D-1, "Sampling Station Data and Index", lists pertinent information in addition to the page numbers on which data for each station may be found.

SPECIFIC CONDUCTANCE

Specific conductance of water is a measure of its capacity to conduct an electrical current. The conductance varies with the concentration of ionized substances in solution, and with the temperature of the water. The nature of the various dissolved substances, their actual and relative concentrations, and the ionic strength of the sample all affect the specific conductance. Observing variations in the conductance of a stream permits a good estimate of changes in dissolved mineral concentration. Specific conductance, as used here, is defined as the reciprocal of the resistance measured between two electrodes one centimeter apart and one square centimeter in cross section. All readings are referenced to 25°C automatically by the measuring instrument.

Specific conductance is recorded continually at a number of key points in the Sacramento-San Joaquin Delta. Monthly plots of the hourly values for each station are published quarterly by the Sacramento District. Figures D-3 and D-4 show graphs of average daily specific conductance for two major Delta inflows. The Vernalis (Station 27) recorder is maintained by the San Joaquin District, and the Walnut Grove (Station 98) recorder by the Sacramento District. Hourly readings are taken from continuous records and averaged by digital computer to arrive at average daily values.

CHEMICAL ANALYSES

Table D-2 lists results of monthly surface water sample analyses. These data are presented alphabetically by station name as listed in Table D-1, "Sampling Station Data and Index".

The monthly surface water quality sampling program consists of selecting locations to be sampled, collection of samples by Department personnel or cooperators, laboratory analyses by an assigned agency, examination of the data to note trends or significant changes, and publication of the data and findings. Samples are collected at or near tide or stream gaging stations, and sampling is performed in accordance with accepted techniques. Comments on local conditions are noted in field books but are not included in the tabulations. Table D-2 includes the following items:

Discharge was derived from rating curves for stream gaging stations and represents instantaneous flow at time of sampling.

Temperature of the water was measured in the field at the time of sampling with a standard five-inch thermometer having divisions of one degree Fahrenheit.

Dissolved Oxygen was determined at the time of sampling by the Alsterberg (Azide) modification of the Winkler Method. Percent saturation has been corrected for altitude.

Specific Conductance was measured in the laboratory with a Wheatstone Bridge.

pH was measured both in the field, with a color comparator, and in the laboratory with a line-operated pH meter.

Mineral Constituents were determined in the laboratory in accordance with U. S. Geological Survey Water Supply Paper No. 1454, "Methods for Collection and Analyses of Water Samples". Tabulated values are analytical quantities reported in parts per million (ppm), which is equivalent to milligrams per liter, and computed values for equivalents per million (epm).

Total Dissolved Solids (TDS) concentration was determined from TDS vs Specific Conductance curves when sufficient historical data were available. In May and September TDS was determined gravimetrically and by summation of constituents.

Percent Sodium is the ratio of the sodium concentration to the sum of the concentrations of the cations, all values being expressed in equivalents per million.

Hardness was determined in the laboratory by the EDTA titration method.

Total Hardness was assumed to represent the sum of the concentrations of calcium and magnesium ions, expressed as calcium carbonate.

Noncarbonate Hardness represents any excess of total hardness over total alkalinity.

Turbidity was measured in the laboratory with a line operated Hellige turbidimeter.

Coliform concentration was determined monthly for duplicate grab samples by the multitube fermentation technique. Maximum, minimum, and median values for the year are reported. Bacteriologic determinations were made by the California Department of Public Health's mobile laboratory. Results are expressed as the most probable number (MPN) of coliform

bacteria per milliliter of sample. In view of the rapidity and frequency of change in the density of coliform organisms, numerous samples are necessary before a truly reliable evaluation can be made.

TRACE METALS

Trace metal analyses of surface water samples were performed with an emission spectrograph by the U. S. Geological Survey, following the "Concentration Method for the Spectro-Chemical Determination of Minor Elements in Water", as published in U. S. Geological Survey Water Supply Paper 1540-B. Results are reported in parts per billion (ppb), which is equivalent to micrograms per liter, in Table D-3, "Trace Metal Analyses of Surface Water".

RADIOACTIVITY

Radioassays were performed by the California Department of Public Health in Berkeley. The analytical method used is outlined in Department of Water Resources Bulletin No. 65-61, Volume 1, Part 2, "Quality of Surface Waters in California, 1960-61, Northern and Central California, Appendixes". Three minor deviations employed by the Berkeley laboratory are:

1. Cesium-137 is used instead of Thallium-204 for a reference standard.

2. In preparing the sample, no colloidal graphite suspension is added.

3. Extraneous electrostatic charge is eliminated by burning the membrane filter rather than by adding an anti-static agent.

Results are expressed in terms of activity, measured in micro-microcuries (10^{-12} curies) per liter, which is equivalent to picocuries per liter. A curie has been fixed by the International Radium Standard Commission as 3.7×10^{10} disintegrations per second. Thus, one curie of an alpha emitter is that quantity which releases 3.7×10^{10} alpha particles per second. The same constant applies to beta particle and gamma ray emission sources. One micromicrocurie per liter of measured alpha activity implies a content of radioactive material sufficient to yield 2.22 alpha particles per minute. The most probable error is reported along with the measured value, and represents the 95 percent confidence limit range for the measurement.

The results of these analyses are listed in Table D-4, "Radioassay of Surface Water".

ORGANIC CHEMICALS

A program of sampling for organic chemicals was begun in 1962. Analytical results for the 1964 water year are reported in Table D-5, "Analyses of Organic Chemicals in Surface Waters". The organic samples were composited using carbon absorption techniques developed by the U.S. Public Health Service. Results of organic analyses are reported in micrograms per liter. Analytical work for these samples was performed by the California Department of Public Health in Berkeley.

SALINITY OBSERVATIONS

Table D-6 lists salinity sampling stations within the Sacramento-San Joaquin Delta. Locations are shown on Figure D-5, "Lines of Annual Maximum Salinity Encroachment". The stations are referenced to the Golden Gate as mile zero, proceeding upstream through the bay systems to the Delta area. The salinity samples were taken, when possible, at four-day intervals, one and one-half hours after high-high tide. Concentrations are reported as chloride in parts per million. The farthest point upstream at which 1,000 ppm chloride was detected is represented by the line of salinity encroachment. The lines on Figure D-5 show the 1,000 ppm chloride line for the 1964 water year and others of historical interest. Table D-7 lists the maximum observed chlorides for stations during the 1964 water year and other historical values for these stations. Complete tabulations of salinity observations made for the 1964 water year are given in Table D-8.

The Salinity Observation program is conducted by the Department of Water Resources for the U. S. Bureau of Reclamation under an annual contract.

SURFACE WATER QUALITY
SAMPLING STATIONS
CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Station Name
11	Sacramento River at Delta
11a	Cottonwood Creek below North Fork Cottonwood Creek
11b	Cottonwood Creek, South Fork above Cottonwood Creek
12	Sacramento River at Keswick
12b	Cottonwood Creek near Cottonwood
12c	Sacramento River at Bend
12d	Clear Creek near Igo
13	Sacramento River near Hamilton City
13b	Sacramento River at Colusa
13c	Stony Creek at Black Butte Dam Site
13d	Thomes Creek at Paskenta
13e	Elder Creek near Paskenta
13f	Stony Creek near Fruto
14a	Sacramento Slough near Knights Landing
14b	Sacramento River above Colusa Trough
15a	Sacramento River at Toland Landing
15c	Sacramento River near Mallard Slough
15d	R.D. 1000 at Second Bannon Slough
15e	Sacramento River above Sacramento Slough
16	Sacramento River at Rio Vista
16a	Calaveras River at Jenny Lind
16b	Calaveras River near Stockton
16c	Calaveras River below New Hogan Dam
16d	Calaveras River above Hogan Reservoir
17	Pit River near Montgomery Creek
17a	Pit River near Canby
17d	Indian Creek near Crescent Mills
17e	Pit River near Bieber
18	McCloud River above Shasta Lake
18a	Pit River, South Fork near Likely
19	Feather River near Oroville
19a	Feather River, North Fork at Big Bar
19b	Feather River, Middle Fork near Merrimac
19c	Feather River, South Fork below Ponderosa Dam
20	Feather River at Nicolaus
20a	Feather River below Shanghai Bend
20c	Feather River above Verona
21	Yuba River at Marysville
21a	Yuba River near Smartville
22	American River at Sacramento
22a	American River at Nimbus Dam
22b	American River, Middle Fork near Auburn
22c	American River, South Fork near Lotus
22d	American River at Fair Oaks
23	Mokelumne River at Woodbridge
23a	Mokelumne River near Lancha Plana
23b	Mokelumne River below Cosumnes River
23c	Mokelumne River below Georgiana Slough
27	San Joaquin River near Vernalis
28	San Joaquin River at Antioch
28b	San Joaquin River at Jersey Point
41	Clear Lake at Lakeport
42	Cache Creek near Lower Lake
42a	Cache Creek at Highway 53
78	Bear River near Wheatland
79	Cache Creek, North Fork near Lower Lake
80	Cache Creek near Capay
81	Putah Creek near Winters
81a	Putah Creek at Diversion to Putah South Canal
84	Butte Creek near Chico
85	Big Chico Creek near Chico
85a	Big Chico Creek at Chico
87	Colusa Trough near Colusa
87a	Sacramento River at Butte City
88	Mill Creek near Mouth
88a	Cow Creek near Millville
88b	Battle Creek near Cottonwood
88c	Antelope Creek near Mouth
88d	Redbank Creek near Red Bluff
88e	Antelope Creek near Red Bluff
88g	Paynes Creek near Red Bluff
94a	Cosumnes River at McConnell
94	Cosumnes River near Michigan Bar
95a	Elder Creek at Gerber
95b	Thomes Creek near Mouth
97	Sacramento River at Green's Landing
98	Delta Cross Channel near Walnut Grove
99	Little Potato Slough at Terminous
100	Stockton Ship Channel on Rindge Island
101	San Joaquin River at Garwood Bridge
101a	San Joaquin River at Brandt Bridge
102	San Joaquin River at Mossdale Bridge
103	Old River near Tracy
103a	Grant Line Canal at Tracy Road Bridge
104	Old River at Clifton Court Ferry
106	Italian Slough near Mouth
107	Indian Slough near Brentwood
108	Old River at Orwood Bridge
108a	Old River at Holland Tract
108b	Dutch Slough at Farrar Park Bridge
109	Rock Slough near Knightsen
110	Lindsey Slough near Rio Vista
110a	Cache Slough below Lindsey Slough
112	Old River at Mandeville Island
112a	False River at Webb Pump
112b	San Joaquin River at San Andreas Ldg.

LAHONTAN REGION (NO. 6)

17b	Susan River at Susanville
38	Lake Tahoe at Tahoe City
52	Truckee River near Truckee
53	Truckee River near Farad
115	Carson River, East Fork near Markleeville
115a	Carson River, West Fork at Woodfords
116	Walker River, West near Coleville
116a	Walker River, East near Bridgeport

FIGURE D-1

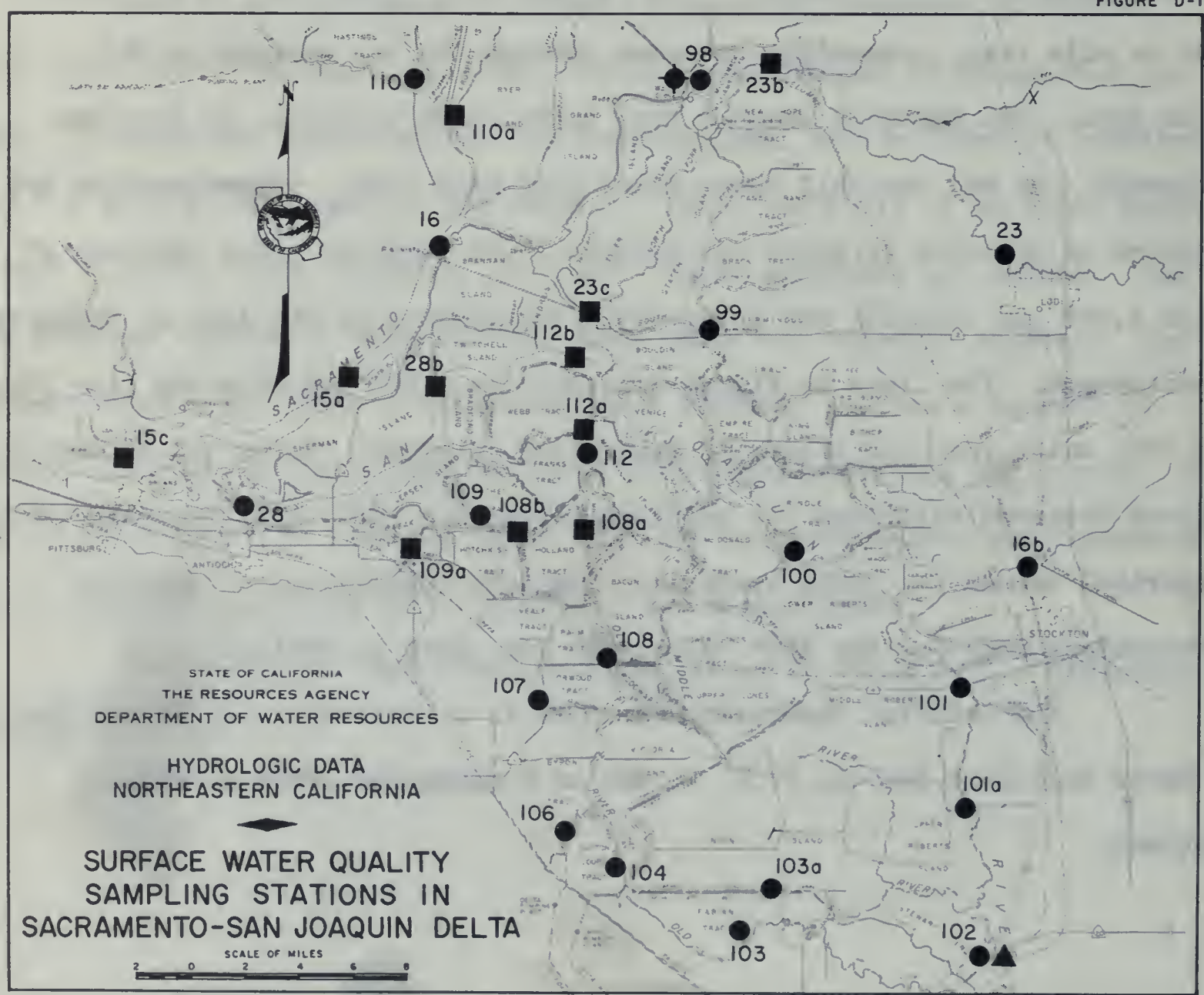
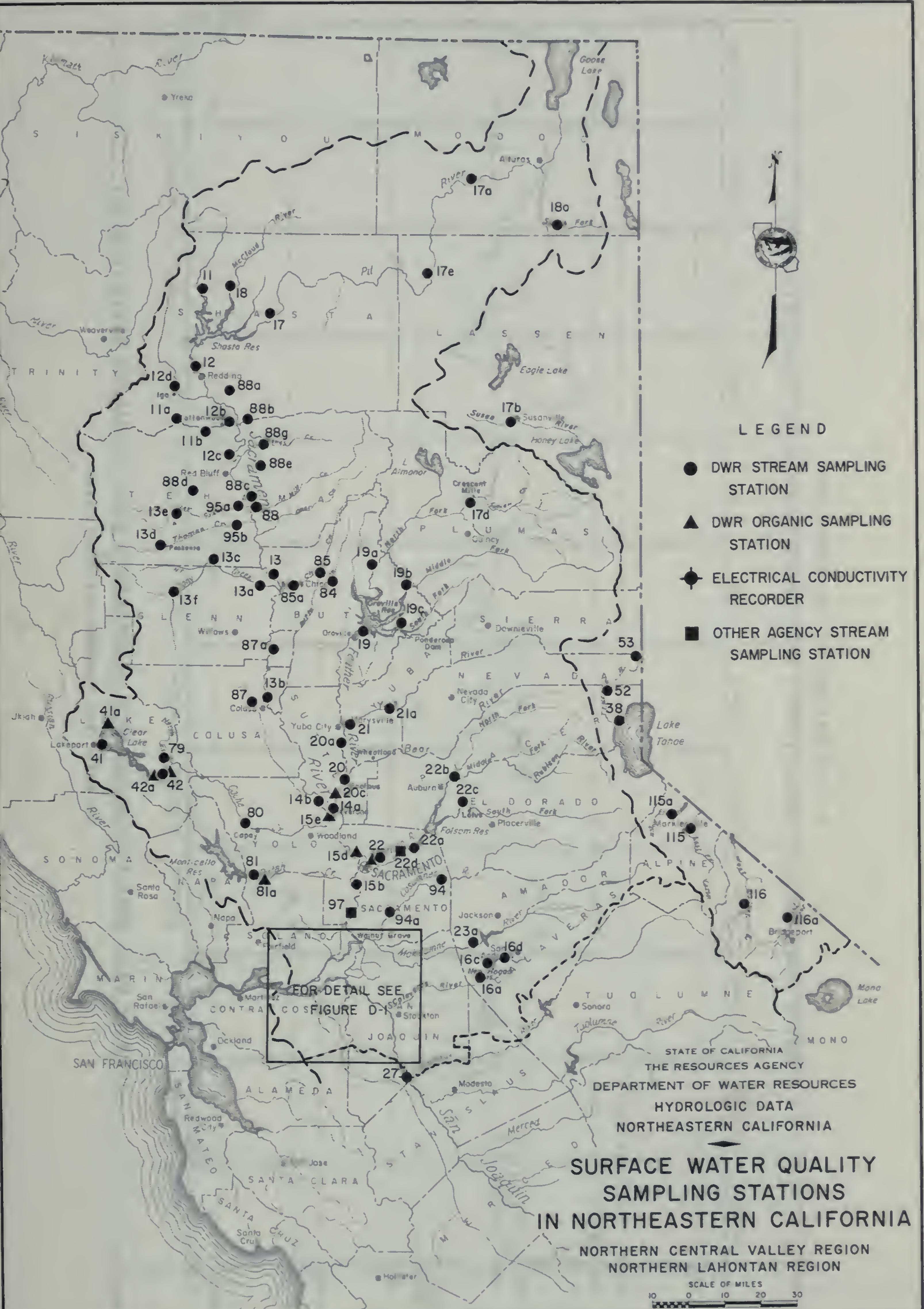


FIGURE D-2


LEGEND
DWR STREAM SAMPLING STATION
DWR ORGANIC SAMPLING STATION
ELECTRICAL CONDUCTIVITY RECORDER
OTHER AGENCY STREAM SAMPLING STATION
FOR DETAIL SEE FIGURE D-1
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
NORTHEASTERN CALIFORNIA
SURFACE WATER QUALITY
SAMPLING STATIONS
IN NORTHEASTERN CALIFORNIA
NORTHERN CENTRAL VALLEY REGION
NORTHERN LAHONTAN REGION
SCALE OF MILES
10 0 10 20 30
SISKIYOU
MODOC
SHASTA
LASSEN
TRINITY
TEHAMA
PLUMAS
GLENN
BUTTE
SIERRA
NEVADA
YUBA
COLUSA
LAKE
SUTTER
PLACER
EL DORADO
YOLO
SONOMA
NAPA
ALPINE
AMADOR
CALAVERAS
SACRAMENTO
SOLANO
MARIN
CONTRA COSTA
SAN JOAQUIN
TUOLUMNE
MONO
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
STANISLAUS
MERCED
SAN FRANCISCO
Yreka
Alturas
Goose Lake
Weaverville
Shasta Res
Redding
Eagle Lake
Susanville
Honey Lake
Red Bluff
Willows
Oroville
Downieville
Colusa
Yuba City
Marysville
Nevada City
Lake Tahoe
Auburn
Placerville
Woodland
Clear Lake
Lakeport
Ukiah
Santa Rosa
Napa
Fairfield
Jackson
Folsom Res
Stockton
Modesto
Sonora
Mono Lake
Bridgeport
Oakland
San Rafael
Redwood City
San Jose
Santa Cruz
Hollister
11
11a
11b
12
12b
12c
12d
13
13a
13b
13c
13d
13e
13f
14a
14b
15b
15d
15e
16a
16c
16d
17
17a
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17e
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18a
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22b
22c
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41a
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85a
87
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94a
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95b
97
115
115a
116
116a

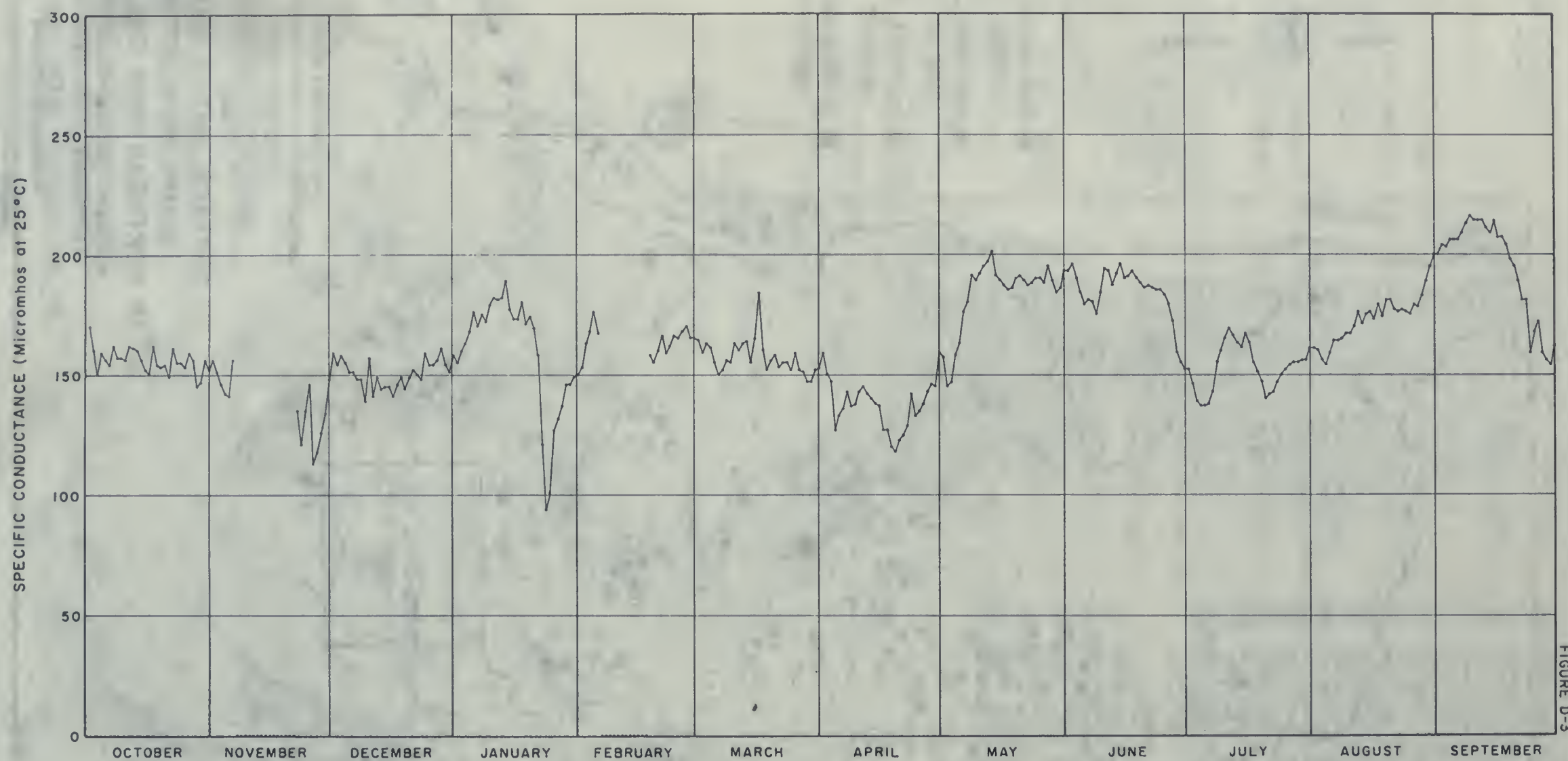


FIGURE D-3

AVERAGE DAILY SPECIFIC CONDUCTANCE – SACRAMENTO RIVER AT WALNUT GROVE (STA. 98)

OCTOBER 1963 THROUGH SEPTEMBER 1964

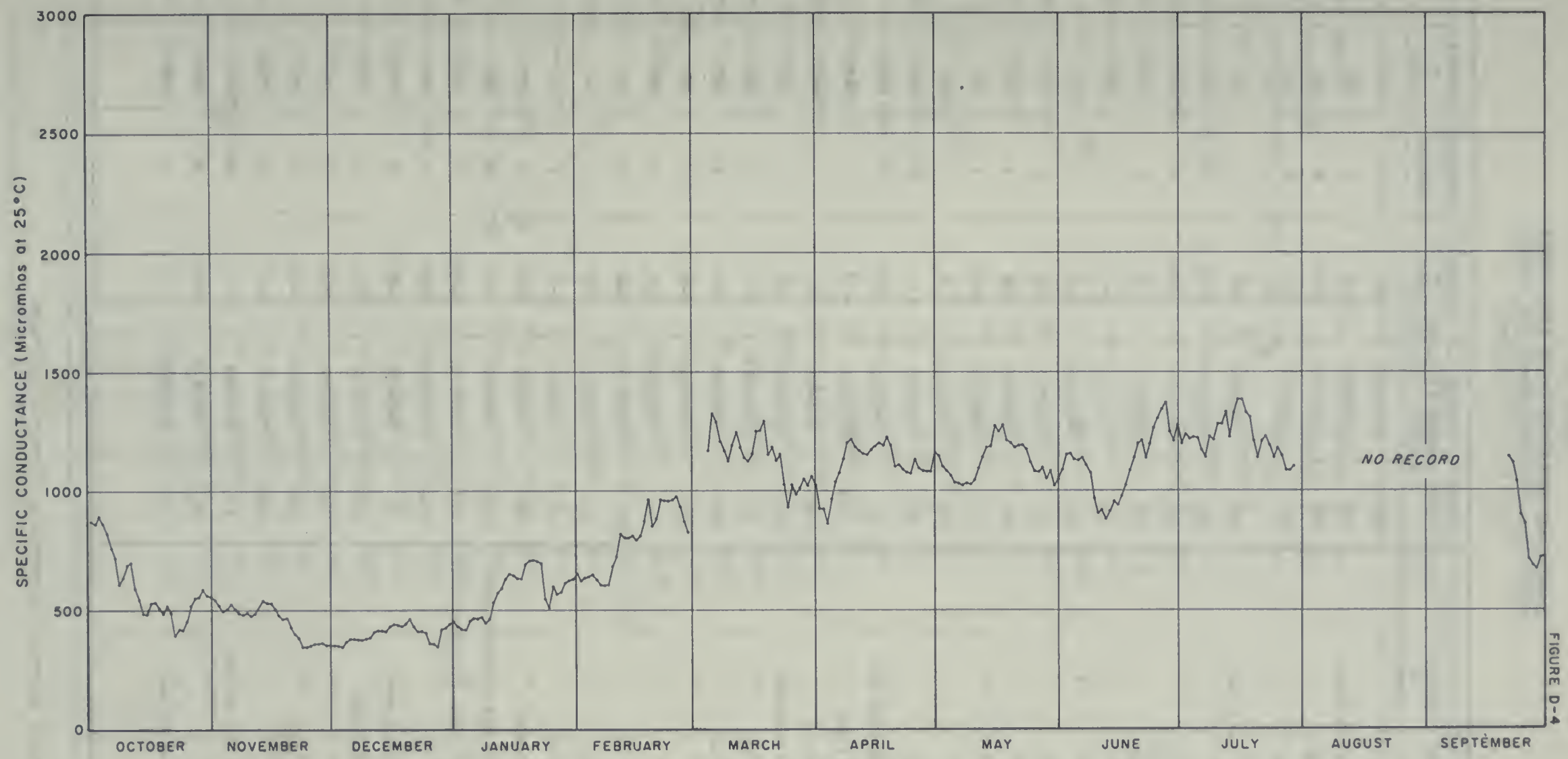


FIGURE D-4

AVERAGE DAILY SPECIFIC CONDUCTANCE – SAN JOAQUIN RIVER NEAR VERNALIS (STA. 27)

OCTOBER 1963 THROUGH SEPTEMBER 1964

TABLE D-1

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5)

Station	Station Number	Location MDB & M	Period of Record [a]	Frequency of Sampling [b]	Sampled by	Analysis on page
American River at Fair Oaks	22d	9N/6E-13	1-38	I	USBR	19
American River, Middle Fork near Auburn	22b	12N/9E-6	7-58	B	DWR	20, 128
American River at Nimbus Dam	22a	9N/7E-16	11-58	M	DWR	21, 126, 128
American River at Sacramento	22	8N/5E-3	4-51 9-62	M A	DWR DWR	22, 126, 128 135
American River, South Fork near Lotus	22c	11N/9E-11	7-58	B	DWR	23, 128
Antelope Creek near Mouth	88c	26N/2W-17	10-58	M	DWR	24, 128
Antelope Creek near Red Bluff	88e	27N/2W-8	10-58	M	DWR	25, 128
Battle Creek near Cottonwood	88b	29N/2W-6	4-58	M	DWR	26, 128
Bear River near Wheatland	78	13N/5E-3	12-51	M	DWR	27, 126, 128
Big Chico Creek at Chico	85a	22N/1E-28	1-59	M	DWR	28, 128
Big Chico Creek near Chico	85	22N/2E-9	7-52	M	DWR	29
Butte Creek near Chico	84	22N/2E-36	7-52	M	DWR	30
Cache Creek near Capay	80	10N/2W-8	12-51	M	DWR	31, 126, 128
Cache Creek at Highway 53	42a	13N/7W-34	6-52	S	DWR	135
Cache Creek near Lower Lake	42	12N/6W-6	4-51	M	DWR	32, 126, 128
Cache Creek, North Fork near Lower Lake	79	14N/6W-31	12-51	M	DWR	33, 129
Cache Slough below Lindsey Slough	110a	5N/3E-31	4-52	Q	USBR	34
Calaveras River below Hogan Dam	16c	3N/10E-1	1-64	M	CE	35
Calaveras River above Hogan Reservoir	16d	4N/11E-13	1-64	M	CE	36
Calaveras River at Jenny Lind	16a	3N/10E-27	4-51	M	DWR	37, 129
Calaveras River near Stockton	16b	2N/6E-26	7-58	M	DWR	38
Clear Creek near Igo	12d	31N/6W-27	8-58	M	DWR	39, 129
Clear Lake at Lakeport	41	14N/10W-24	4-51	M	DWR	40, 126, 129
Colusa Trough near Colusa	87	16N/2W-35	7-62	M	DWR	41, 129
Cosumnes River at McConnell	94a	6N/6E-20	7-58	B	DWR	42, 129
Cosumnes River at Michigan Bar	94	8N/8E-36	7-52	B	DWR	43, 129
Cottonwood Creek near Cottonwood	12b	29N/3W-7	4-51	M	DWR	44, 129
Cottonwood Creek below North Fork Cottonwood Creek	11a	29N/6W-2	8-58	M	DWR	45, 129
Cottonwood Creek, South Fork above Cottonwood Creek	11b	29N/4W-17	11-58	M	DWR	46
Cow Creek near Millville	88a	31N/3W-32	8-58	M	DWR	47, 129
Delta Cross Channel near Walnut Grove	98	5N/4E-35	9-52	M	DWR	48, 126
Dutch Slough at Farrar Park Bridge	108b	2N/3E-22	5-55	I	USBR	49
Elder Creek at Gerber	95a	25N/3W-2	1-59	M	DWR	50, 129
Elder Creek near Paskenta	13e	25N/6W-14	10-58	M	DWR	51, 129
False River at Webb Pump	112a	3N/3E-36	5-55	I	USBR	52
Feather River, Middle Fork near Merrimac	19b	21N/6E-2	7-63	M	DWR	53, 126, 130
Feather River at Nicolaus	20	12N/3E-12	4-51	M	DWR	54, 126, 130
Feather River, North Fork at Big Bar	19a	23N/5E-32	7-63	M	DWR	55, 130

a Beginning of record

b M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, A-Annually, I-Irregular

TABLE D-1

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5)

Station	Station Number	Location MDB & M	Period of Record [a]	Frequency of Sampling [b]	Sampled by	Analysis on page
Feather River near Oroville	19	19N/4E-2	4-51	M	DWR	56, 126, 130
Feather River below Shanghai Bend	20a	14N/3E-11	7-58	M	DWR	57, 130
Feather River, South Fork below Ponderosa Dam	19c	20N/6E-33	7-63	M	DWR	58, 130
Feather River above Verona	20c	12N/3E-27	7-62	S	DWR	135
Grant Line Canal at Tracy Road Bridge	103a	1S/5E-29	7-58	M	DWR	59
Indian Creek near Crescent Mills	17d	26N/9E-25	4-51	B	DWR	60, 130
Indian Slough near Brentwood	107	1N/3E-23	9-52	M	DWR	61, 130
Italian Slough near Mouth	106	1S/4E-7	9-52	M	DWR	62, 126, 130
Lindsey Slough near Rio Vista	110	5N/2E-25	10-52	M	DWR	63
Little Potato Slough at Terminous	99	3N/4E-13	9-52	B	DWR	64, 130
McCloud River above Shasta Lake	18	36N/3W-31	4-51	M	DWR	65, 130
Mill Creek near Mouth	88	25N/2W-9	7-52	M	DWR	66
Mokelumne River below Cosumnes River	23b	5N/5E-29	6-52	I	USBR	67
Mokelumne River below Georgiana Slough	23c	3N/4E-7	5-52	I	USBR	68
Mokelumne River near Lancha Plana	23a	4N/10E-4	4-51	B	DWR	69, 126, 131
Mokelumne River at Woodbridge	23	4N/6E-34	4-51	B	DWR	70, 126, 131
Old River at Clifton Court Ferry	104	1S/4E-20	9-52	M	DWR	71, 131
Old River at Holland Tract	108a	2N/4E-19	3-52	M	USBR	72
Old River at Mandeville Island	112	2N/4E-6	12-54	M	DWR	73, 126
Old River at Orwood Bridge	108	1N/4E-17	9-52	M	DWR	74, 131
Old River near Tracy	103	2S/5E-6	10-52	M	DWR	75, 131
Paynes Creek near Red Bluff	88g	28N/2W-3	10-58	M	DWR	76, 131
Pit River near Bieber	17e	37N/7E-34	10-58 to 12-63	M	DWR	77
Pit River near Canby	17a	41N/9E-10	4-51	M	DWR	78, 126, 131
Pit River near Montgomery Creek	17	35N/1E-32	4-51	M	DWR	79, 131
Pit River, South Fork near Likely	18a	39N/13E-11	8-58	M	DWR	80, 131
Putah Creek at Diversion to Putah South Canal	81a	8N/1W-31	7-62	S	DWR	135
Putah Creek near Winters	81	8N/2W-27	12-51	M	DWR	81, 126, 131
R. D. 1000 at Second Bannon Slough	15d	9N/4E-27	9-62	A	DWR	135
Red Bank Creek near Red Bluff	88d	26N/5W-22	1-59	M	DWR	82, 131
Rock Slough near Knightsen	109	2N/3E-33	9-52	M	DWR	83, 131
Sacramento River at Bend	12c	28N/3W-20	5-55	M	DWR	84, 126, 132
Sacramento River at Butte City	87a	19N/1W-32	5-55	M	DWR	85, 132
Sacramento River at Colusa	13b	19N/1W-32	10-58	M	DWR	86, 126, 132
Sacramento River above Colusa Trough	14b	11N/2E-14	7-60	M	DWR	87, 126, 132
Sacramento River at Delta	11	36N/5W-35	4-51	M	DWR	88, 132
Sacramento River at Freeport	15b	7N/4E-14	6-60	M	DWR	89, 127, 132

a Beginning of record

b M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, A-Annually, I-Irregular

TABLE D-1

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5)

Station	Station Number	Location MDB & M	Period of Record [a]	Frequency of Sampling [b]	Sampled by	Analysis on page
Sacramento River near Hamilton City	13	22N/1W-20	4-51	M	DWR	90, 127, 132
Sacramento River at Keswick	12	32N/5W-28	4-51	M	DWR	91, 127, 132
Sacramento River near Mallard Slough	15c	2N/1E-5	3-55	M	USBR	92
Sacramento River at Rio Vista	16	4N/3E-30	4-51	M	DWR	93, 127, 132
Sacramento River above Sacramento Slough	15e	11N/3E-32	7-62	A	DWR	135
Sacramento River at Snodgrass Slough	97	6N/4E-22	6-38	M	USBR	94
Sacramento River at Toland Landing	15a	3N/2E-21	6-52	I	USBR	95, 96, 97, 98
Sacramento River at Walnut Grove		5N/4E-35	12-60	Continuous	DWR	13
Sacramento Slough near Knights Landing	14a	11N/3E-21	6-51	M	DWR	99, 132
San Joaquin River at Antioch	28	2N/2E-18	4-51	M	DWR	100, 133
San Joaquin River at Brandt Bridge	101a	1S/6E-9	3-57	Q	USBR	101
San Joaquin River at Garwood Bridge	101	1N/6E-16	9-52	M	DWR	102
San Joaquin River at Jersey Point	28b	2N/3E-6	7-52	I	USBR	103, 104, 105, 106
San Joaquin River at Mossdale Bridge	102	2N/6E-4	9-52	M	DWR	107, 133, 135
San Joaquin River at San Andreas Landing	112b	3N/3E-13	3-52	M	USBR	108
San Joaquin River near Vernalis	27	3S/6E-13	12-61	Continuous	DWR	12
Stockton Ship Channel on Rindge Island	100	2N/5E-28	9-52	M	DWR	109
Stony Creek below Black Butte Dam	13c	23N/4W-28	8-57	M	DWR	110, 133
Stony Creek near Fruto	13f	21N/6W-15	10-60 to 2-64 3-64	M M	USGS DWR	111, 133
Thomes Creek near Mouth	95b	25N/3W-35	1-59	M	DWR	112, 133
Thomes Creek near Paskenta	13d	23N/6W-4	10-58	M	DWR	113, 133
Yuba River at Marysville	21	15N/4E-18	4-51	B	DWR	114, 147, 133
Yuba River near Smartville	21a	16N/6E-20	4-51	B	DWR	115, 133

a Beginning of record

b M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, A-Annually, I-Irregular

TABLE D-1

SAMPLING STATION DATA AND INDEX

LAHONTAN REGION (NO. 6)

Station	Station Number	Location MDB & M	Period of Record [a]	Frequency of Sampling [b]	Sampled by	Analysis on page
Carson River, East Fork near Markleeville	115	10N/20E-27	9-58	B	DWR	117, 136
Carson River, West Fork at Woodfords	115a	11N/19E-34	8-58	B	DWR	118, 136
Lake Tahoe at Tahoe City	38	15N/17E-7	4-51	B	DWR	119, 127, 136
Susan River at Susanville	17b	30N/12E-31	4-51	M	DWR	120, 136
Truckee River near Farad	53	18N/17E-12	4-51	M	DWR	121, 127, 136
Truckee River near Truckee	52	17N/16E-28	4-51	B	DWR	122, 136
Walker River, East near Bridgeport	116a	6N/25E-34	8-58	B	DWR	123, 136
Walker River, West near Coleville	116	6N/23E-9	8-58	B	DWR	124, 136

a Beginning of record

b M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, A-Annually, I-Irregular

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

AMERICAN RIVER AT FAIR OAKS (STA. 22d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH b	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/3/63 1000		64			59	7.4	5.6	2.6	2.1	0.8	0.0	21	1.9	3.6	0.0					96	15					USBR
11/1 1300		58			56	7.0	6.4	2.0	1.6	0.8	0.0	27	5.3	2.8	0.0					68	12					
1/3/64 1130		44			61	7.5	7.0	1.8	1.8	0.8	0.0	21	2.9	2.8	0.0					84	13					
4/1 1000		40			65	7.2	8.4	2.6	1.4	0.8	0.0	34	4.3	2.8	0.6					60	8					
7/1 1130		57			58	6.9	6.4	2.0	1.6	0.8	0.0	26	4.3	1.4	0.0					64	12					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

AMERICAN RIVER, MIDDLE FORK NEAR AUBURN (STA. 22b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/4/63 1030	190	55	10.2	98	87	7.3/7.7	—/0.68[c]		3.2/0.14		0/0.00	36/0.59		6.2/0.17			0.0			63[e]	17	34	4	1	Median 2.9	USGS
1/6/64 1100	294	41	12.8	102	63	7.1/7.8	—/0.49[c]		2.4/0.10		0/0.00	27/0.44		4.4/0.12			0.1			46[e]	17	24	2	1	Maximum 6.2	
3/2 0950	771	43	12.3	102	62	7.3/7.9	—/0.47[c]		3.6/0.16		0/0.00	27/0.44		3.9/0.11			0.0			45[e]	22	24	2	1	Minimum 0.21	
5/4 0930	1450	45	12.6	106	39	7.1/7.7	4.8/0.24	1.0/0.08	1.9/0.08	0.2/0.01	0/0.00	19/0.31	1.0/0.02	2.2/0.06	0.7/0.01	0.0/0.00	0.0	12	ABS 0.0 As 0.00 PO_4 0.00	33[f] / 25[g]	20	16	0	2		
7/3 1415	360	74	8.9	106	60	7.3/7.8	—/0.48[c]		3.3/0.14		0/0.00	28/0.46		3.0/0.08			0.0			44[e]	23	24	1	3		
9/18 0745	86	66	8.8	90	108	7.3/7.7	12/0.60	2.7/0.22	4.7/0.20	1.4/0.04	0/0.00	46/0.75	7.0/0.15	5.4/0.15	0.9/0.01		0.0	11	ABS 0.0 As 0.00 PO_4 0.50	68[f] / 63[g]	19	41	3	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

AMERICAN RIVER AT NIMBUS DAM (STA. 22a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 0645	2030	63	8.1	84	60	6.9/7.6	0.48[c]		2.1/0.09		0/0.00	29/0.48		2.6/0.07			0.0			43[e]	16	24	0	1	Median 6.0	USGS
11/4 0930	2070	56	8.1	76	91	7.0/7.4	0.74[c]		2.7/0.12		0/0.00	34/0.56		9.3/0.26			0.0			65[e]	14	37	9	2	Maximum 62.	
12/6 0740	5060	50	10.1	89	62	7.1/7.6	0.51[c]		1.9/0.08		0/0.00	28/0.46		1.0/0.03			0.0			44[e]	14	26	3	10	Minimum 0.62	
1/6/64 0940	1670	47	11.2	95	62	7.1/7.4	0.50[c]		2.3/0.10		0/0.00	28/0.46		3.8/0.11			0.0			44[e]	17	25	2	2		
2/7 0725	2100	45	11.7	97	67	7.2/7.8	0.52[c]		2.7/0.12		0/0.00	30/0.49		2.6/0.07			0.0			48[e]	19	26	1	2		
3/2 0735	1870	46	12.3	103	71	7.3/7.8	0.57[c]		3.4/0.15		0/0.00	32/0.52		3.6/0.10			0.0			51[e]	21	28	2	1		
4/10 0850	1270	54	11.8	110	70	7.5/7.9	0.56[c]		2.9/0.13		0/0.00	32/0.52		5.0/0.14			0.0			50[e]	19	28	2	1		
5/4 0800	1220	56	10.9	104	74	7.3/7.5	8.8/0.44	1.9/0.16	2.8/0.12	0.5/0.01	0/0.00	32/0.52	3.0/0.06	5.0/0.14	1.1/0.02	0.0/0.00	0.0	12	ABS 0.0 As 0.00 PO4 0.00	51[f]/43[g]	16	30	4	2		
6/12 0815	1450	58	10.3	101	61	7.3/7.6	0.49[c]		2.5/0.11		0/0.00	28/0.46		2.0/0.06			0.0			43[e]	18	24	1	2		
7/7 0800	3240	61	10.0	101	58	7.1/7.8	0.44[c]		3.0/0.13		0/0.00	28/0.46		1.0/0.03			0.0			41[e]	23	22	0	1		
8/3 1315	4130	68	9.2	100	55	7.1/7.5	0.44[c]		2.6/0.11		0/0.00	26/0.43		2.0/0.06			0.0			39[e]	20	22	1	1		
9/1 1315	2980	66	8.8	94	53	7.1/7.4	6.0/0.30	1.3/0.11	2.4/0.10	0.5/0.01	0/0.00	25/0.41	2.0/0.04	1.4/0.04	0.9/0.01		0.0	11	ABS 0.0 As 0.00 PO4 0.00	38[f]/40[g]	19	20	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

AMERICAN RIVER AT SACRAMENTO (STA. 22)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/9/64 0810	Not Rated	64	8.3	87	63	7.0/7.2	—/0.50[c]		2.2/0.10		0/0.00	30/0.49		3.1/0.09			0.0			45[e]	17	25	0	2	Median 6.2	USGS
11/4 0845		55	8.9	84	56	7.1/7.4	—/0.45[c]		2.0/0.09		0/0.00	26/0.43		3.0/0.08			0.0			40[e]	17	22	1	2	Maximum 23.	
12/6 0840		50	10.6	94	65	7.2/7.5	—/0.52[c]		2.3/0.10		0/0.00	30/0.49		2.0/0.06			0.0			46[e]	16	26	1	8	Minimum 0.62	
1/6/64 0900		47	11.3	96	65	7.1/7.7	—/0.51[c]		2.5/0.11		0/0.00	28/0.46		4.2/0.12			0.0			46[e]	18	26	3	2		
2/7 0825		45	11.9	98	70	7.2/7.8	—/0.54[c]		4.5/0.20		0/0.00	30/0.49		3.2/0.09			0.0			50[e]	27	27	2	2		
3/2 0840		47	11.3	96	73	7.3/7.4	—/0.56[c]		3.6/0.16		0/0.00	30/0.49		4.0/0.11			0.0			52[e]	22	28	3	2		
4/10 0800		56	10.7	102	74	7.5/7.7	—/0.58[c]		3.4/0.15		0/0.00	33/0.54		3.0/0.08			0.0			53[e]	21	29	2	2		
5/4 0700		56	11.4	109	72	7.3/7.8	8.4/0.42	1.8/0.15	2.8/0.12	0.5/0.01	0/0.00	32/0.52	5.0/0.10	4.0/0.11	1.4/0.02	0.0/0.00	0.0	11	ABS 0.1 As 0.00 PO_4 0.05	51[f]/44[g]	17	28	2	1		
6/12 0730		62	9.8	100	64	7.5/7.7	—/0.50[c]		3.0/0.13		0/0.00	28/0.46		2.5/0.07			0.0			45[e]	21	25	2	8		
7/7 0700		60	9.8	98	64	7.1/7.8	—/0.46[c]		2.9/0.13		0/0.00	27/0.44		1.5/0.04			0.0			45[e]	22	23	1	1		
8/3 1415		69	9.8	108	56	7.3/7.4	—/0.44[c]		3.2/0.14		0/0.00	26/0.43		2.0/0.06			0.0			40[e]	24	22	1	7		
9/1 1430		67	9.6	104	56	7.3/7.4	6.0/0.30	1.7/0.14	2.6/0.11	1.2/0.03	0/0.00	26/0.43	3.0/0.06	2.0/0.06	0.9/0.01		0.0	11	ABS 0.0 As 0.00 PO_4 0.05	42[f]/40[g]	19	22	1	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

AMERICAN RIVER, SOUTH FORK NEAR LOTUS (STA. 22c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/4/63 1145	1190	47	11.4	99	33	7.2/7.0	0.25[c]		1.6/0.07		0/0.00	14/0.23		2.1/0.06			0.0			26[e]	22	12	1	4	Median 6.0	USGS
1/6/64 1150	1180	42	12.4	100	32	7.0/7.4	0.23[c]		2.5/0.11		0/0.00	14/0.23		2.8/0.08			0.2			25[e]	32	12	1	3	Maximum 62.	
3/2 1045	440	42	12.8	103	80	7.3/7.9	0.63[c]		4.1/0.18		0/0.00	36/0.59		4.9/0.14			0.0			62[e]	22	32	2	2	Minimum 1.3	
5/4 1030	730	50	11.6	105	54	7.3/7.8	5.2/0.26	1.9/0.16	2.6/0.11	0.2/0.01	0/0.00	25/0.41	3.0/0.06	2.2/0.06	0.9/0.01	0.0/0.00	0.0	12	ABS 0.0 As 0.00 PO_4 0.00	40[f] 41[g]	20	21	1	3		
7/3 1330	778	65	10.0	108	32	7.1/7.6	0.22[c]		2.2/0.10		0/0.00	15/0.25		0.5/0.01			0.0			25[e]	31	11	0	4		
9/18 0900	729	55	10.5	101	28	7.1/7.1	3.2/0.16	0.5/0.04	1.7/0.07	0.5/0.01	0/0.00	13/0.21	0.0/0.00	0.7/0.02	0.4/0.01		0.0	7.8	ABS 0.0 As 0.00 PO_4 0.00	21[f] 17[g]	25	10	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ANTELOPE CREEK NEAR MOUTH (STA. 88c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
10/10/63 1110	10 est.	62	9.0	93	223	7.4/7.9	—/1.32[c]		17/0.74		0/0.00	84/1.38		22/0.62			0.5				36	66	0	3		USGS
11/7 1140	10 est.	52	10.1	92	155	7.3/7.7	—/1.12[c]		9.9/0.43		0/0.00	64/1.05		8.5/0.24			0.3				28	56	4	6		
12/5 1255	4 est.	46	11.1	94	193	7.2/8.1	—/1.52[c]		11/0.48		0/0.00	96/1.57		9.7/0.27			0.2				24	76	0	1		
1/2/64 1130	4 est.	46	11.7	99	219	7.4/8.0	—/1.64[c]		13/0.57		0/0.00	106/1.74		12/0.34			0.2				26	82	0	2		
2/5 1320	7 est.	49	11.1	98	170	7.3/8.1	—/1.36[c]		9.9/0.43		0/0.00	90/1.48		7.5/0.21			0.0				24	68	0	1		
3/13 1130	5 est.	50	11.9	106	193	7.6/8.3	—/1.60[c]		11/0.48		2/0.07	103/1.69		8.5/0.24			0.4				23	80	0	1		
4/6 1425	15 est.	57	11.5	112	183	8.0/7.5	—/1.18[c]		13/0.57		0/0.00	88/1.44		12/0.34			0.4				33	59	0	1		
5/4 1030	15 est.	55	9.7	92	173	7.3/7.1	13/0.65	5.7/0.47	11/0.48	3.5/0.09	0/0.00	58/0.95	18/0.37	11/0.31	1.2/0.02	0.1/0.01	0.4	31	ABS 0.0 As 0.01 PO_4 0.20	130[f]	28	56	8	1		
6/11 1050	20 est.	63	9.2	96	176	7.4/7.9	—/1.16[c]		12/0.52		0/0.00	59/0.97		11/0.31			0.3				31	58	10	15		
7/8 1210	5 est.	76	7.6	91	209	7.4/8.2	—/1.26[c]		15/0.65		0/0.00	67/1.10		15/0.42			0.4				34	63	8	8		
8/3 1255	1.0	79	6.0	74	322	7.3/8.3	—/2.24[c]		21/0.91		2/0.07	138/2.26		21/0.59			0.6				29	112	0	1		
9/3 1640	15 est.	70	8.8	99	209	7.7/7.4	15/0.75	6.2/0.51	16/0.70	3.3/0.08	0/0.00	78/1.28	13/0.27	18/0.51	1.3/0.02		0.4	37	ABS 0.0 As 0.02 PO_4 0.15	140[f]	34	63	0	4		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ANTELOPE CREEK NEAR RED BLUFF (STA. 86e)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
10/10/63 1035	39	62	10.3	106	154	8.1/7.9	—/1.10[c]		9.2/0.40		0/0.00	83/1.36		8.2/0.23			0.0				27	55	0	1		USGS
11/7 1110	94	52	11.3	103	127	7.7/7.8	—/0.99[c]		7.0/0.30		0/0.00	66/1.08		5.0/0.14			0.1				23	50	0	7		
12/5 1125	49	45	12.7	106	151	7.8/8.1	—/1.12[c]		9.2/0.40		0/0.00	80/1.31		8.8/0.25			0.1				26	56	0	1		
1/2/64 1240	48	47	12.7	109	155	7.8/8.3	—/1.16[c]		9.9/0.43		1/0.03	80/1.31		9.0/0.25			0.0				27	58	0	2		
2/5 1250	75	48	12.2	106	129	7.6/8.3	—/0.98[c]		8.1/0.35		1/0.03	68/1.11		6.5/0.18			0.0				27	49	0	1		
3/13 1100	77	49	11.9	105	133	7.7/8.3	—/1.00[c]		8.0/0.35		1/0.03	72/1.18		5.2/0.15			0.1				26	50	0	0		
4/9 1145	69	60	10.6	107	131	8.1/8.2	—/1.00[c]		8.8/0.38		0/0.00	72/1.18		8.0/0.23			0.1				28	50	0	1		
5/4 1200	76	57	11.0	107	113	8.2/8.2	8.8/0.44	5.1/0.42	7.1/0.31	1.1/0.03	0/0.00	62/1.02	1.0/0.02	6.0/0.17	0.7/0.01	0.1/0.01	0.1	31	ABS 0.0 As 0.00 PO_4 0.00	90[f]	26	43	0	1		
6/11 1115	64	66	10.7	115	122	8.2/8.1	—/0.92[c]		7.8/0.34		0/0.00	67/1.10		3.0/0.08			0.1				27	46	0	1		
7/8 1255	36	78	9.1	111	156	8.4/8.4	—/1.10[c]		11/0.48		1/0.03	81/1.33		8.5/0.24			0.2				30	55	0	1		
8/3 1220	30	78	10.3	125	165	8.4/8.6	—/1.20[c]		12/0.52		6/0.20	77/1.26		10/0.28			0.2				30	60	0	2		
9/3 1545	36	71	10.2	116	162	8.3/8.2	12/0.60	7.1/0.58	11/0.48	1.3/0.03	0/0.00	86/1.41	0.0/0.00	8.4/0.24	1.2/0.02		0.1	35	ABS 0.0 As 0.00 PO_4 0.00	120[f]	28	59	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BATTLE CREEK NEAR COTTONWOOD (STA. 88b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 0910	278	57	10.3	100	138	7.6/8.0	—/1.12[c]		7.6/0.33		0/0.00	86/1.41		3.9/0.11			0.0				23	56	0	1		USGS
11/7 1445	420	50	11.0	98	125	7.6/8.0	—/0.88[c]		7.0/0.30		0/0.00	72/1.18		2.0/0.06			0.1				25	44	0	15		
12/5 1405	322	48	12.1	105	137	7.7/8.0	—/1.04[c]		8.0/0.35		0/0.00	80/1.31		3.4/0.10			0.0				25	52	0	1		
1/2/64 1025	318	48	11.9	103	137	7.5/8.2	—/1.04[c]		8.0/0.35		0/0.00	82/1.34		3.6/0.10			0.0				25	52	0	2		
2/6 0945	370	45	12.6	105	130	7.5/8.2	—/1.00[c]		8.5/0.37		0/0.00	75/1.23		3.0/0.08			0.0				27	50	0	2		
3/12 1410	345	47	12.4	106	139	7.9/8.3	—/0.98[c]		8.6/0.37		2/0.07	78/1.28		3.2/0.09			0.1				27	49	0	1		
4/9 1000	426	54	11.0	103	124	7.8/8.2	—/0.96[c]		7.5/0.33		0/0.00	70/1.15		3.0/0.08			0.0				26	48	0	2		
5/7 1135	365	55	11.0	104	122	7.9/8.0	11/0.55	5.2/0.43	6.9/0.30	1.8/0.05	0/0.00	71/1.16	3.0/0.06	3.2/0.09	1.0/0.02	0.0/0.00	0.1	43	ABS 0.0 As 0.00 PO_4 0.10	102[f]	23	49	0	2		
6/11 0925	390	57	10.5	102	114	7.6/7.9	—/0.90[c]		7.0/0.30		0/0.00	66/1.08		1.0/0.03			0.0				25	45	0	3		
7/9 1055	240	65	9.9	105	142	8.0/8.3	—/1.08[c]		8.2/0.36		1/0.03	81/1.33		1.0/0.03			0.1				25	54	0	2		
8/3 0905	190	63	9.9	103	154	7.9/8.5	—/1.20[c]		9.0/0.39		4/0.13	84/1.38		3.0/0.08			0.0				25	60	0	1		
9/4 1400	204	63	10.1	105	150	7.7/8.3	11/0.55	7.7/0.63	8.3/0.36	3.1/0.08	1/0.03	86/1.41	2.0/0.04	2.1/0.06	0.8/0.01		0.1	46	ABS 0.0 As 0.00 PO_4 0.20	112[f]	22	59	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BEAR RIVER NEAR WHEATLAND (STA. 78)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
10/9/63 0925	0.8	66	8.3	89	342	8.2/8.1	3.20[c]		7.4/0.32		0/0.00	144/2.36		7.4/0.42			0.0			217[e]	9	160	42	2	Median 6.2	USGS
11/7 1400	264	58	10.1	99	211	7.8/8.1	1.82[c]		5.7/0.25		0/0.00	93/1.52		9.2/0.26			0.0			134[e]	12	91	15	40	Maximum 230.	
12/5 0800	18	46	11.0	92	175	7.4/7.9	1.58[c]		4.6/0.20		0/0.00	74/1.21		4.0/0.11			0.0			111[e]	11	79	18	25	Minimum 0.23	
1/7/64 0810	3.8	47	11.7	99	218	7.6/8.3	1.98[c]		4.9/0.21		1/1.43	87/0.18		6.5/0.18			0.0			138[e]	10	99	26	1		
2/6 0820	448	42	12.3	97	88	7.2/7.9	0.68[c]		3.2/0.14		0/0.00	30/0.49		2.2/0.06			0.1			56[e]	17	34	9	20		
3/3 0805	14	44	10.8	88	172	7.7/8.1	1.96[c]		4.0/0.17		0/0.00	82/1.34		5.0/0.14			0.0			109[e]	8	98	31	20		
4/9 0845	375	51	11.6	104	109	7.5/7.9	0.88[c]		3.6/0.16		0/0.00	46/0.75		1.0/0.03			0.0			69[e]	15	44	6	2		
5/5 0830	22	57	9.5	92	182	7.5/8.0	18/0.90	8.5/0.70	4.6/0.20	0.6/0.02	0/0.00	74/1.21	21/0.44	7.2/0.20	1.4/0.02	0.1/0.01	0.0	15	ABS 0.0 As 0.00 PO_4 0.00	112[f]/111[g]	11	80	19	4		
6/10 0750	25	60	9.4	94	185	7.3/8.1	1.62[c]		5.1/0.22		0/0.00	77/1.26		5.0/0.14			0.0			117[e]	12	81	18	4		
7/10 0745	17	73	7.5	86	202	7.3/7.8	1.78[c]		5.5/0.24		0/0.00	90/1.48		10/0.28			0.0			128[e]	12	89	15	5		
8/7 0800	16	75	6.5	80	199	7.3/8.1	1.80[c]		6.0/0.26		0/0.00	88/1.44		8.0/0.23			0.0			126[e]	13	90	18	120		
9/4 0745	11	69	7.6	84	267	7.3/8.2	28/1.40	14/1.12	6.7/0.29	0.5/0.01	0/0.00	120/1.97	25/0.52	9.5/0.27	0.4/0.01		0.0	18	ABS 0.1 As 0.00 PO_4 0.05	161[f]/166[g]	10	126	28	9		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BIG CHICO CREEK AT CHICO (STA. 85a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1325	8.7	65	10.1	108	205	8.0/8.3	1.48[c]		13/0.57		2/0.07	106/1.74		11/0.31			0.1				28	74	0	1		USGS
11/4 1550	31	54	10.3	97	207	7.6/7.6	1.50[c]		13/0.57		0/0.00	106/1.74		12/0.34			0.3				25	75	0	15		
12/2 1630	33	46	11.8	100	167	7.5/8.1	1.24[c]		11/0.48		0/0.00	86/1.41		10/0.28			0.1				28	62	0	1		
1/6/64 1340	24	44			205	8.1/8.4	1.50[c]		13/0.57		2/0.07	102/1.67		11/0.31			0.1				28	75	0	1		
2/3 1630	132	48	11.7	102	100	7.5/8.2	0.78[c]		6.5/0.28		0/0.00	53/0.87		3.5/0.10			0.1				26	39	0	5		
3/2 1630	40	50	11.5	103	162	8.1/8.4	1.24[c]		10/0.44		4/0.13	78/1.28		8.0/0.23			0.1				26	62	0	0		
4/7 1500	62	58	11.4	112	127	8.0/8.2	0.98[c]		8.1/0.35		0/0.00	69/1.13		3.0/0.08			0.1				26	49	0	3		
5/4 1430	38	56	11.1	107	167	8.1/8.1	14/0.70	7.1/0.58	10/0.44	0.9/0.02	0/0.00	89/1.46	4.0/0.08	9.0/0.25	0.4/0.01	0.1/0.01	0.2	37	ABS 0.0 As 0.01 PO_4 0.05	128[f]	25	64	0	1		
6/9 1510	33	59	9.9	99	184	7.9/8.3	1.34[c]		12/0.52		1/0.03	91/1.49		6.0/0.17			0.4				28	67	0	2		
7/7 1300	3.3	80	9.2	114	212	8.1/8.4	1.52[c]		15/0.65		2/0.07	105/1.72		11/0.31			0.2				30	76	0	2		
8/3 1620	0.6	81	9.5	119	216	8.3/8.5	1.52[c]		17/0.74		8/0.27	94/1.54		13/0.37			0.2				33	76	0	7		
9/2 1430	8.2	67	9.6	105	243	8.1/8.3	17/0.85	8.9/0.73	18/0.78	1.8/0.05	2/0.07	104/1.70	9.0/0.19	17/0.48	0.4/0.01		0.2	37	ABS 0.1 As 0.00 PO_4 0.05	168[f]	32	79	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BIG CHICO CREEK NEAR CHICO (STA. 85)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1400	28	63	9.8	102	202	8.2/8.3	1.48[c]		13/0.57		1/0.03	105/1.72		11/0.31			0.1				28	74	0	1	Median 6.2	USGS
11/5 0840	70	53	11.0	102	182	7.7/7.8	1.42[c]		10/0.44		0/0.00	94/1.54		9.5/0.27			0.1				24	71	0	1	Maximum 230.	
12/3 1120	52	44	12.3	101	171	7.6/8.1	1.28[c]		10/0.44		0/0.00	88/1.44		8.7/0.25			0.1				26	64	0	1	Minimum 0.23	
1/6/64 1520	33	43			204	8.0/8.4	1.50[c]		13/0.57		3/0.10	100/1.64		11/0.31			0.1				28	75	0	1		
2/4 1030	144	44	12.5	103	100	7.4/8.2	0.88[c]		5.7/0.25		0/0.00	53/0.87		3.5/0.10			0.1				22	44	0	5		
3/3 0940	64	43	12.7	103	154	7.7/8.3	1.18[c]		9.6/0.42		2/0.07	76/1.25		7.2/0.20			0.1				26	59	0	0		
4/7 1300	101	51	11.3	102	127	7.8/8.1	0.96[c]		7.3/0.32		0/0.00	68/1.11		3.5/0.10			0.1				25	48	0	0		
5/4 1250	59	52	11.3	103	166	8.1/8.4	14/0.70	6.9/0.57	10/0.44	0.9/0.02	3/0.10	82/1.34	4.0/0.08	8.5/0.24	1.3/0.02	0.0/0.00	0.1	39	ABS 0.0 As 0.00 PO_4 0.00	116[f]	25	63	0	1		
6/10 0850	53	57	10.4	101	176	7.9/8.3	1.28[c]		11/0.48		1/0.03	90/1.48		5.0/0.14			0.2				27	64	0	1		
7/7 1120	33	72	8.8	101	209	8.3/8.5	1.58[c]		15/0.65		3/0.10	105/1.72		11/0.31			0.3				29	79	0	1		
8/4 0650	20	70	8.6	97	216	8.1/8.4	1.54[c]		16/0.70		5/0.17	103/1.69		13/0.37			0.2				31	77	0	4		
9/2 1230	35	62	10.0	103	210	8.3/8.0	16/0.80	9.0/0.74	15/0.65	1.7/0.04	0/0.00	104/1.70	7.0/0.15	11/0.31	0.4/0.01		0.2	36	ABS 0.0 As 0.00 PO_4 0.00	150[f]	29	77	0	1		

TABLE D-2
ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BUTTE CREEK NEAR CHICO (STA. 84)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 0930	144	58	10.5	103	108	7.6/7.8	—/0.96[c]		3.3/0.14		0/0.00	65/1.07		1.8/0.05			0.0				13	48	0	1	Median 2.3	USGS
11/5 0750	305	50	10.8	96	106	7.4/7.4	—/0.94[c]		3.3/0.14		0/0.00	62/1.02		1.8/0.05			0.0				13	47	0	20	Maximum 130.	
12/3 1030	138	44	12.3	101	111	7.3/8.2	—/1.00[c]		3.4/0.15		0/0.00	67/1.10		2.0/0.06			0.0				13	50	0	1	Minimum 0.20	
1/6/64 1415	164	43			106	7.5/8.2	—/0.92[c]		3.9/0.17		0/0.00	63/1.03		2.4/0.07			0.0				16	46	0	1		
2/4 0930	375	42	12.5	100	88	7.3/8.2	—/0.77[c]		3.6/0.16		0/0.00	49/0.80		1.0/0.03			0.1				17	38	0	5		
3/3 0850	256	38	13.1	99	87	7.3/8.2	—/0.77[c]		3.8/0.17		0/0.00	50/0.82		1.2/0.03			0.0				18	38	0	2		
4/7 1355	380	52	11.6	106	80	7.6/8.0	—/0.68[c]		3.3/0.14		0/0.00	46/0.75		0.5/0.01			0.0				17	34	0	1		
5/4 1335	38	48	11.8	103	74	7.4/8.1	8.4/0.42	2.4/0.20	3.0/0.13	0.6/0.02	0/0.00	42/0.69	0.0/0.00	1.6/0.05	1.4/0.02	0.0/0.00	0.0	22	ABS 0.0 As 0.00 PO_4 0.00	58[f]	17	31	0	2		
6/10 1000	325	52	11.0	101	80	7.5/8.1	—/0.66[c]		3.1/0.13		0/0.00	46/0.75		0.5/0.01			0.1				16	33	0	1		
7/7 1205	157	68	9.4	104	97	7.9/8.1	—/0.82[c]		4.2/0.18		0/0.00	57/0.93		0.5/0.01			0.1				18	41	0	5		
8/3 1800	132	70	8.5	96	103	7.8/8.2	—/0.90[c]		4.3/0.19		0/0.00	59/0.97		1.0/0.03			0.0				17	45	0	3		
9/2 1325	138	60	10.7	111	107	8.1/8.1	12/0.60	4.4/0.36	4.7/0.20	0.7/0.02	0/0.00	64/1.05	3.0/0.06	0.6/0.02	0.7/0.01		0.0	21	ABS 0.0 As 0.00 PO_4 0.05	72[f]	17	48	0	3		

TABLE D-2
ANALYSES OF SURFACE WATER
CENTRAL VALLEY REGION (NO. 5)

CACHE CREEK NEAR CAPAY (STA. 80)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Minerol constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1545	127	71	9.0	103	446	8.3 / 8.3	/ 3.44[c]		28 / 1.22		2 / 0.07	220 / 3.61		30 / 0.85			1.2			248[e]	26	172	0	4	Median 6.0	USGS
11/5 1010	22	58	9.3	92	671	8.2 / 8.5	/ 4.80[c]		53 / 2.31		10 / 0.33	258 / 4.23		74 / 2.09			2.0			373[e]	32	240	12	2	Maximum 23.	
12/4 0915	89	49	10.8	95	730	8.1 / 8.5	/ 5.06[c]		64 / 2.78		12 / 0.40	257 / 4.21		83 / 2.34			2.8			406[e]	35	253	23	1	Minimum 0.5	
1/7/64 1430	46	53	12.8	119	866	8.3 / 8.4	/ 5.44[c]		76 / 3.31		8 / 0.27	276 / 4.52		118 / 3.33			3.2			481[e]	38	272	33	2		
2/5 1500	203	53	11.2	104	562	8.1 / 8.5	/ 3.90[c]		47 / 2.04		10 / 0.33	214 / 3.51		54 / 1.52			1.7			312[e]	34	195	3	5		
3/3 1430	94	55	11.8	112	753	8.3 / 8.6	/ 4.92[c]		64 / 2.78		17 / 0.57	245 / 4.02		91 / 2.57			2.7			418[e]	36	246	17	5		
4/7 0845	130	56	10.0	96	612	8.4 / 8.6	/ 4.22[c]		49 / 2.13		13 / 0.43	234 / 3.84		60 / 1.69			2.5			340[e]	34	211	0	0		
5/5 0850	283	57	9.5	92	423	8.3 / 8.3	28 / 1.40	33 / 2.68	9.8 / 0.43	2.6 / 0.07	2 / 0.07	208 / 3.41	14 / 0.29	26 / 0.73	2.6 / 0.04	0.1 / 0.01	1.6	20	ABS 0.0 As 0.00 PO_4 0.10	242[f] / 244[g]	9	204	30	5		
6/9 1400	347	63	9.6	100	388	8.1 / 8.2	/ 3.16[c]		22 / 0.96		0 / 0.00	198 / 3.25		20 / 0.56			1.3			216[e]	23	158	0	3		
7/9 1415	358	79	9.7	120	349	8.4+ / 8.3	/ 2.98[c]		18 / 0.78		2 / 0.07	184 / 3.02		14 / 0.39			1.0			194[e]	21	149	0	10		
8/4 1415	354	82	10.7	136	346	8.4+ / 8.4	/ 3.00[c]		18 / 0.78		4 / 0.13	186 / 3.05		12 / 0.34			1.2			192[e]	21	150	0	20		
8/31 0830	242	68	9.0	99	374	8.7 / 7.2	29 / 1.45	20 / 1.63	19 / 0.83	2.5 / 0.06	0 / 0.00	194 / 3.18	9.0 / 0.19	14 / 0.39	10 / 0.16		1.2	28	ABS 0.0 As 0.01 PO_4 0.55	229[f] / 226[g]	21	154	0	25		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CACHE CREEK NEAR LOWER LAKE (STA. 42)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1320	108	68	8.4	96	297	7.7/8.4	2.66[c]		12/0.52		4/0.13	164/2.69		7.0/0.20			1.0			165[e]	16	133	0	15	Median 6.0	USGS
11/5 1240	4.0	57	8.5	85	314	7.7/8.1	2.82[c]		12/0.52		0/0.00	176/2.88		8.2/0.23			1.0			174[e]	16	141	0	4	Maximum 62.	
12/4 1145	3.6	47	10.4	92	291	7.7/8.0	2.54[c]		13/0.57		0/0.00	158/2.59		6.0/0.17			0.8			162[e]	18	127	0	20	Minimum 0.5	
1/7/64 1015	3.6	45	11.2	96	289	7.5/8.2	2.40[c]		13/0.57		0/0.00	138/2.26		11/0.31			0.7			160[e]	19	120	7	20		
2/5 1015	4.2	45	11.6	100	284	7.7/7.5	2.31[c]		13/0.57		0/0.00	132/2.16		12/0.34			0.5			158[e]	20	116	8	15		
3/3 1015	3.4	46	10.6	93	283	7.7/8.2	2.46[c]		14/0.61		0/0.00	126/2.07		12/0.34			0.5			157[e]	20	123	20	50		
4/7 1120	82	56	10.4	103	322	8.3/8.1	2.88[c]		15/0.65		0/0.00	186/3.05		5.0/0.14			1.1			178[e]	18	144	0	8		
5/5 1315	240	57	9.7	97	305	8.1/8.0	27/1.35	17/1.41	13/0.57	2.4/0.06	0/0.00	176/2.88	9.0/0.19	8.8/0.25	2.6/0.04	0.2/0.01	1.0	27	ABS 0.0 As 0.00 PO_4 0.10	195[f] 203[g]	17	138	0	5		
6/9 0930	198	61	8.8	93	319	7.6/7.9	2.84[c]		13/0.57		0/0.00	172/2.82		8.0/0.23			1.0			177[e]	17	142	1	6		
7/9 1000	395	75	8.2	100	312	8.3/7.6	2.78[c]		13/0.57		0/0.00	172/2.82		6.0/0.17			1.0			173[e]	17	139	0	4		
8/4 0930	398	77	8.0	100	314	8.4/7.9	2.80[c]		13/0.57		0/0.00	180/2.95		7.0/0.20			1.0			174[e]	17	140	0	15		
8/31 1230	262	72	8.0	95	326	8.5/7.1	27/1.35	18/1.51	13/0.57	2.2/0.06	0/0.00	176/2.88	14/0.29	6.9/0.19	13/0.21		1.1	25	ABS 0.1 As 0.01 PO_4 0.60	207[f] 206[g]	16	143	0	10		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CACHE CREEK, NORTH FORK NEAR LOWER LAKE (STA. 79)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)[a]	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1420	3.1	72	10.5	123	535	8.4/8.6	4.08[c]		32/1.39		10/0.33	202/3.31		58/1.64			3.3			303[e]	25	204	22	2	Median 6.2	USGS
11/5 1145	19	57	10.7	106	773	8.1/8.5	5.80[c]		50/2.18		10/0.33	258/4.23		107/3.02			5.7			438[e]	27	290	62	1	Maximum 62.	
12/4 1100	35	47	11.6	101	529	8.1/8.4	4.18[c]		33/1.44		8/0.27	224/3.67		49/1.38			3.9			300[e]	26	209	12	1	Minimum 0.13	
1/7/64 1245	30	49	12.3	111	562	8.3/8.6	4.30[c]		34/1.48		11/0.37	227/3.72		55/1.55			3.8			319[e]	26	215	11	2		
2/5 1315	112	51	11.3	104	329	7.9/8.4	2.66[c]		19/0.83		7/0.23	156/2.56		17/0.48			1.2			187[e]	24	133	0	5		
3/3 1245	55	50	11.3	103	419	8.1/8.6	3.44[c]		25/1.09		14/0.47	181/2.97		28/0.79			2.6			238[e]	24	172	1	5		
4/7 1025	43	56	10.8	106	432	8.4/8.5	3.32[c]		28/1.22		7/0.23	196/3.21		30/0.85			2.5			244[e]	27	166	0	0		
5/5 1015	33	56	11.5	113	505	8.4/8.5	33/1.65	28/2.27	37/1.61	1.4/0.04	8/0.27	220/3.61	16/0.33	42/1.18	0.8/0.01	0.0/0.00	3.5	15	ABS 0.0 As 0.00 PO_4 0.00	293[f]/280[g]	29	196	2	1		
6/9 0900	14	59	9.9	101	536	8.1/8.6	4.08[c]		42/1.83		16/0.53	210/3.44		54/1.52			3.6			304[e]	31	204	6	1		
7/9 0900	4.3	72	9.1	106	587	8.1/8.6	4.16[c]		41/1.78		10/0.33	220/3.61		60/1.69			4.2			332[e]	30	208	11	1		
8/4 1245	1.9	86	10.6	143	602	8.3/8.6	4.28[c]		45/1.96		16/0.53	209/3.43		72/2.03			5.4			341[e]	31	214	16	3		
8/31 1100	0.8	71	9.8	114	676	8.1/8.4	43/2.15	35/2.85	45/1.96	1.9/0.05	7/0.23	256/4.20	13.3/0.27	82/2.31	1.1/0.02		5.3	24	ABS 0.0 As 0.00 PO_4 0.00	383[f]/385[g]	28	250	29	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CACHE SLOUGH BELOW LINDSEY SLOUGH (STA. 110a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/13/63 1000		66			187				11					11						132	26					USBR
1/20/64 1130		48			186				11					11						132	26					
4/15 1430		65			210				9.7					9.9						144	20					
7/23 1120		73			182				12					13						132	29					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CALAVERAS RIVER BELOW HOGAN DAM (STA. 16c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Minerol constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/6/64 1100	39	46	11.8	101	274	7.5/8.2	—/2.38[c]		9.2/0.40		0/0.00	127/2.08		10/0.28			0.0				14	119	15	2	Median 0.95	USGS
2/3	Not Sampled -- Dry																								Maximum 62.	
3/3 1120	35	50	11.4	103	184	7.6/7.6	—/1.60[c]		6.0/0.26		0/0.00	84/1.38		4.5/0.13			0.1				14	80	11	3	Minimum 0.046	
4/6 1115	25	57	12.9	127	198	7.6/8.6	—/1.74[c]		7.2/0.31		4/0.13	88/1.44		5.5/0.16			0.0				15	87	8	2		
5/5 0930	68	55	11.5	110	198	8.2/7.7	22/1.10	7.9/0.65	6.5/0.28	1.7/0.04	0/0.00	94/1.54	13/0.27	5.7/0.16	2.4/0.04	0.0/0.00	0.0	13	ABS 0.1 As 0.00 PO_4 0.00	118[f]/120[g]	14	88	11	1		
6/9 1100	29	58	9.0	90	210	7.7/7.8	—/1.86[c]		6.8/0.30		0/0.00	104/1.70		5.5/0.16			0.1				14	93	8	3		
7/8 0945	189	68	8.7	97	206	7.6/8.1	—/1.82[c]		6.4/0.28		0/0.00	104/1.70		4.5/0.13			0.0				13	91	6	2		
8/3 1300	196	76	8.3	101	211	7.7	—/1.98[c]		7.5/0.33		0/0.00	108/1.77		5.0/0.14			0.0				15	95	6	2		
9/8 1300	Not Sampled - Dry																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CALAVERAS RIVER ABOVE HOGAN RESERVOIR (STA. 16d)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/6/64 1305		45	11.9	100	256	6.8/8.1	2.24[c]		8.9/0.39		0/0.00	118/1.93		10/0.28			0.0				15	112	15	2	Median 23.	USGS
2/3 1405		52	11.4	106	161	7.6/8.4	1.40[c]		5.9/0.26		2/0.07	75/1.23		6.5/0.18			0.0				16	70	5	2	Maximum 62.	
3/3 1320		51	12.8	117	215	7.6/7.7	1.88[c]		7.1/0.31		0/0.00	105/1.72		7.7/0.22			0.0				14	94	8	1	Minimum 0.06	
4/6 1300		59	11.2	113	178	7.6/8.7	1.54[c]		7.1/0.31		5/0.17	83/1.36		6.8/0.19			0.0				17	77	1	1		
5/5 1205		54	10.5	100	217	8.3/7.8	25/1.25	7.4/0.61	7.2/0.31	2.3/0.06	0/0.00	107/1.75	13/0.27	8.2/0.23	1.0/0.02	0.0/0.00	0.0	17	ABS 0.1 As 0.01 PO_4 0.10	134[f]/134[g]	14	93	5	1		
6/8 1135		62	8.4	88	235	8.0/8.1	2.02[c]		8.2/0.36		0/0.00	120/1.97		7.0/0.20			0.0				15	101	3	1		
7/8 1130		76	8.1	98	227	8.3/8.0	1.96[c]		7.8/0.34		0/0.00	114/1.87		7.0/0.20			0.0				15	98	5	1		
8/3 1130		80	11.4	144	256	8.3	2.20[c]		10/0.44		3/0.10	124/2.03		10/0.28			0.0				17	110	3	1		
9/8 1130	Not Sampled -- Dry																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CALAVERAS RIVER AT JENNY LIND (STA. 16a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/7/63 1345	8	72	7.8	89	270	7.3/8.0	2.48[c]		7.0/0.30		0/0.00	143/2.34		6.5/0.18			0.0			166[e]	11	124	7	2	Median 6.2	USGS
11/6 0945	24	56	8.6	83	290	7.4/8.3	2.58[c]		7.7/0.33		2/0.07	129/2.11		8.5/0.24			0.0			178[e]	11	129	20	10	Maximum 230.	
12/2 1015	73	48	11.3	98	245	7.7/8.1	2.14[c]		7.5/0.33		0/0.00	114/1.87		7.0/0.20			0.1			151[e]	13	107	14	4	Minimum 0.62	
1/6/64 1000	45	44	12.3	101	270	8.1/8.2	2.42[c]		9.2/0.40		0/0.00	130/2.13		11/0.31			0.0			166[e]	14	121	14	1		
2/3 0930	22	46	11.6	98	308	7.9/8.2	2.68[c]		11/0.48		0/0.00	133/2.18		10/0.28			0.1			189[e]	15	134	25	2		
3/2 1115	43	48	12.6	110	193	8.1/8.1	1.70[c]		6.4/0.28		0/0.00	89/1.46		5.5/0.16			0.1			118[e]	14	85	12	3		
4/6 1340	39	60	13.3	134	214	8.8/8.7	1.92[c]		7.4/0.32		3/0.10	100/1.64		6.7/0.19			0.0			132[e]	14	96	9	1		
5/4 0915	42	56	10.8	104	200	8.4/8.0	23/1.15	7.7/0.63	6.4/0.28	1.7/0.04	0/0.00	102/1.67	15/0.31	5.0/0.14	1.4/0.02	0.0/0.00	0.1	12	ABS 0.0 As 0.00 PO_4 0.05	122[f]/119[g]	13	89	5	2		
6/8 0845	36	62	7.8	80	208	7.7/8.2	1.86[c]		9.7/0.42		0/0.00	109/1.79		5.0/0.14			0.0			128[e]	18	93	4	1		
7/3 0830	13	69	8.1	90	215	7.7/8.1	1.94[c]		6.6/0.29		0/0.00	112/1.84		5.0/0.14			0.0			132[e]	13	97	5	2		
8/11 0800	37	73	8.3	96	215	7.9/8.1	1.94[c]		8.0/0.35		0/0.00	110/1.80		5.0/0.14			0.0			132[e]	15	97	7	1		
9/17 0815	Dry																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CALAVERAS RIVER NEAR STOCKTON (STA. 16b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/7/63	Not Sampled -- Dry																								Median 23.	USGS
11/6	Not Sampled -- Dry																								Maximum 230.	
12/2		48	11.6	100	233	7.7/8.1	2.00[c]		7.5/0.33		0/0.00	110/1.80		6.0/0.17			0.1			149[e]	14	100	10	15	Minimum 23.	
1/6/64 1115	6.9	42	12.9	102	266	8.1/7.5	2.32[c]		9.8/0.43		0/0.00	117/1.92		9.5/0.27			0.0			170[e]	16	116	20	2		
2/3 1100	Not Sampled -- Dry																									
3/2 1230	6.6	51	11.7	105	230	8.2/8.2	2.00[c]		8.0/0.35		0/0.00	107/1.75		8.5/0.24			0.0			147[e]	15	100	12	4		
4/6 1505	Not Sampled -- Dry																									
5/4 1025	Not Sampled -- Dry																									
6/8 0945	Not Sampled -- Dry																									
7/2 1215	Not Sampled -- Dry																									
8/10 1415	Not Sampled -- Dry																									
9/1 1415	Not Sampled -- Dry																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CLEAR CREEK NEAR IGO (STA. 12d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/10/63 1445	1,320	55	10.9	104	93	7.5/7.8	—/0.86[c]		2.2/0.10		0/0.00	52/0.85		2.8/0.08			0.0				10	43	0	2		USGS
11/4 1525	1,350	54	11.1	105	96	7.4/7.9	—/0.88[c]		2.2/0.10		0/0.00	52/0.85		3.2/0.09			0.0				10	44	1	4		
12/2 1540	1,350	50	11.7	105	93	7.3/7.7	—/0.84[c]		2.2/0.10		0/0.00	48/0.79		3.2/0.09			0.0				11	42	3	2		
1/3/64 1510	807	48	11.9	104	92	7.3/8.0	—/0.86[c]		2.7/0.12		0/0.00	48/0.79		2.5/0.07			0.0				12	43	4	2		
2/6 1230	786	46	12.7	108	90	7.5/8.1	—/0.80[c]		3.1/0.13		0/0.00	46/0.75		1.0/0.03			0.0				14	40	2	4		
3/12 1600	364	47	11.8	102	91	7.4/8.0	—/0.80[c]		3.3/0.14		0/0.00	46/0.75		3.2/0.09			0.0				15	40	2	1		
4/9 1405	115	52	11.4	105	92	7.8/8.0	—/0.82[c]		3.5/0.15		0/0.00	48/0.79		3.6/0.10			0.0				15	41	2	1		
5/7 1400	126	55	11.4	109	95	8.2/7.9	11/0.55	4.0/0.33	2.9/0.13	0.5/0.01	0/0.00	50/0.82	3.0/0.06	3.8/0.11	0.7/0.01	0.0/0.00	0.0	15	ABS 0.0 As 0.00 PO_4 0.00	58[f]	13	44	3	1		
6/8 1400	117	53	10.7	100	96	7.8/8.0	—/0.88[c]		2.8/0.12		0/0.00	51/0.84		2.0/0.06			0.0				12	44	2	1		
7/9 0730	66	55	10.2	98	98	7.6/7.9	—/0.88[c]		3.0/0.13		0/0.00	52/0.85		2.1/0.06			0.0				13	44	1	1		
8/3 1500	53	62	10.2	106	97	8.0/8.2	—/0.92[c]		2.8/0.12		0/0.00	54/0.89		1.5/0.04			0.1				12	46	2	3		
9/4 1100	56	56	10.6	103	98	7.8/7.9	6.4/0.32	7.1/0.58	2.4/0.10	0.5/0.01	0/0.00	54/0.89	2.0/0.04	1.8/0.05	1.1/0.02		0.0	12	ABS 0.0 As 0.00 PO_4 0.00	58[f]	10	45	1	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CLEAR LAKE AT LAKEPORT (STA. 41)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/64 1000		69	5.9	68	288	8.0/7.4	2.58[c]		11/0.48		0/0.00	164/2.69		6.2/0.17			0.9			166[e]	16	129	0	30	Median 0.95	USGS
11/5 1400		58	8.4	85	285	8.4/8.2	2.60[c]		11/0.48		0/0.00	168/2.75		8.2/0.23			0.8			164[e]	16	130	0	20	Maximum 62.	
12/4 1330		53	9.0	86	279	7.7/8.4	2.56[c]		12/0.52		5/0.17	154/2.52		3.5/0.10			0.8			160[e]	17	128	0	45	Minimum 0.06	
1/7/64 1130		46	8.6	77	281	7.5/8.2	2.52[c]		11/0.48		0/0.00	162/2.66		6.8/0.19			0.8			162[e]	16	126	0	25		
2/5 1130		48	7.5	85	266	9.5/8.1	2.36[c]		10/0.44		0/0.00	152/2.49		6.8/0.19			0.6			153[e]	16	118	0	20		
3/3 1130		48	10.6	95	278	7.7/8.2	2.46[c]		11/0.48		0/0.00	157/2.57		8.1/0.23			0.7			160[e]	16	123	0	15		
4/7 1310		62	11.4	121	267	8.4/8.5	2.44[c]		9.0/0.39		4/0.13	147/2.41		7.0/0.20			0.7			154[e]	14	122	0	8		
5/5 1200		56	9.2	91	281	8.4/8.2	22/1.10	17/1.42	12/0.52	2.0/0.05	0/0.00	161/2.64	10/0.21	6.0/0.17	2.6/0.04	0.1/0.01	0.8	23	ABS 0.0 As 0.00 PO_4 0.10	174[f]/175[g]	17	126	0	20		
6/9 1145		63	7.1	77	289	7.9/8.3	2.60[c]		11/0.48		3/0.10	159/2.61		6.5/0.18			0.9			169[e]	16	130	0	10		
7/9 1200		76	7.0	87	292	7.9/8.4	2.68[c]		12/0.52		3/0.10	164/2.69		4.5/0.13			0.8			171[e]	16	134	0	20		
8/4 1100		78	7.9	100	306	8.1/8.2	2.76[c]		12/0.52		0/0.00	178/2.92		7.0/0.20			0.9			176[e]	16	138	0	15		
8/31/64 1130		74	7.5	91	323	8.3/7.6	26/1.30	18/1.48	12/0.52	2.1/0.05	0/0.00	174/2.85	9.0/0.19	6.5/0.18	8.0/0.13		1.0	34	ABS 0.0 As 0.01 PO_4 1.15	203[f]/194[g]	16	139	0	25		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COLUSA TROUGH NEAR COLUSA (STA. 87)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/8/63 1000	363	67	8.1	87	504	7.8/8.1	3.02[c]		50/2.18		0/0.00	108/3.25	59/1.23	27/0.76			0.0				42	151	0	40	Median 146.	USGS
11/4 1340	291	67	9.8	106	663	7.9/7.6	3.46[c]		73/3.18		0/0.00	202/3.31		46/1.30			0.3				48	173	7	25	Maximum 620.	
12/2 1300	265	50	10.2	90	1140	7.9/8.1	5.44[c]		134/5.83		0/0.00	300/4.92		78/2.20			0.3				52	272	26	15	Minimum 2.9	
1/6/64	Not Sampled																									
2/3 1400	157	51	11.1	99	1580	8.3/8.7	7.80[c]		225/9.79		30/1.00	330/5.41	336/7.00	130/3.67			0.4				56	390	70	30		
3/2 1340	101	54	12.6	117	1560	8.5/8.6	7.76[c]		226/9.83		18/0.60	354/5.80	322/6.70	133/3.75			0.4				56	388	68	15		
4/7 1010	255	58	9.5	93	502	8.2/7.8	2.68[c]		56/2.44		0/0.00	166/2.72	77/1.60	26/0.73			0.2				48	134	0	160		
5/4 0935	897	58	9.6	93	475	8.0/8.3	25/1.25	15/1.21	54/2.35	1.8/0.05	1/0.03	154/2.52	64/1.33	26/0.73	2.6/0.04	0.2/0.01	0.2	17	ABS 0.0 As 0.00 PO_4 0.30	294[f]	48	123	0	45		
6/9 1250	740	63	8.8	91	543	8.0/8.6	2.70[c]		68/2.96		7/0.23	183/3.00	67/1.39	30/0.85			0.4				52	135	0	130		
7/7 0835	616	75	6.9	81	501	7.8/8.4	3.00[c]		53/2.31		4/0.13	199/3.26	53/1.10	24/0.68			0.3				44	150	0	25		
8/3 1420	510	77	8.0	95	565	7.8/8.6	3.34[c]		60/2.61		10/0.33	215/3.52		30/0.85			0.3				44	167	0	20		
9/2 0700	713 est.	65	8.7	92	451	7.7/8.2	26/1.30	19/1.56	42/1.83	2.8/0.07	0/0.00	202/3.31	39/0.81	21/0.59	1.3/0.02		0.2	18	ABS 0.1 As 0.00 PO_4 0.25	275[f]	38	143	0	50		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COSUMNES RIVER AT McCONNELL (STA. 94a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
11/4/63 1500	18	56	10.4	99	96	7.4/7.6	0.76[c]		3.7/0.16		0/0.00	48/0.79		1.5/0.04			0.0			72[e]	17	38	0	4	Median 5.0	USGS
1/6/64 1430	77	44	12.5	102	113	7.4/8.2	0.92[c]		4.5/0.20		0/0.00	57/0.93		4.8/0.14			0.0			85[e]	18	46	0	1	Maximum 62.	
3/2 1340	172	50	11.5	102	102	7.5/8.1	0.94[c]		4.5/0.20		0/0.00	53/0.87		3.0/0.08			0.0			76[e]	18	47	4	2	Minimum 1.3	
5/4 1330	418	60	10.5	105	59	7.3/7.8	6.4/0.32	1.7/0.14	3.1/0.13	0.8/0.02	0.0/0.00	30/0.49	2.0/0.04	2.5/0.07	0.4/0.01	0.0/0.00	0.0	16	ABS 0.0 As 0.00 PO_4 0.00	48[f]/468	21	23	0	6		
7/7 1400	Not Sampled -- Dry																									
9/1 0745	Not Sampled -- Dry																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COSUMNES RIVER AT MICHIGAN BAR (STA. 94)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/4/63 1400	43	57	10.2	99	83	7.4/7.7	0.66[c]		3.6/0.16		0/0.00	44/0.72		2.0/0.06			0.2			62[e]	20	33	0	1	Median 2.9	USGS
1/6/64 1355	85	42	12.8	102	112	7.3/8.2	0.94[c]		4.3/0.19		0/0.00	56/0.92		4.4/0.12			0.0			83[e]	17	47	1	1	Maximum 23.	
3/2 1240	238	47	12.4	106	108	7.5/8.0	0.88[c]		4.5/0.20		0/0.00	56/0.92		3.5/0.10			0.0			80[e]	19	44	0	1	Minimum 0.21	
5/4 1230	474	53	11.7	108	61	7.3/7.6	6.2/0.31	2.1/0.17	2.8/0.12	0.4/0.01	0.0/0.00	30/0.49	3.0/0.06	2.5/0.07	0.7/0.01	0.0/0.00	0.0	16	ABS 0.0 As 0.00 PO_4 0.00	49[f]/468	20	24	0	2		
7/3 1115	49	75	9.3	109	69	7.5/8.0	0.52[c]		3.9/0.17		0/0.00	36/0.59		1.0/0.03			0.1			51[e]	25	26	0	4		
9/1 1145	11	73	10.1	117	66	7.3/8.0	6.4/0.32	2.2/0.18	3.2/0.14	1.0/0.03	0/0.00	34/0.56	2.0/0.04	0.8/0.02	3.1/0.05		0.0	15	ABS 0.0 As 0.00 PO_4 0.00	51[f]/488	21	25	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COTTONWOOD CREEK NEAR COTTONWOOD (STA. 12b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/10/63 1415	118	66	9.2	99	179	7.3/7.9	—/1.50[c]		7.3/0.32		0/0.00	98/1.61		6.1/0.17			0.0				18	75	0	10	Median 6.2	USGS
11/7 0935	410	51	10.3	93	297	7.5/8.2	—/2.36[c]		13/0.57		0/0.00	122/2.00		25/0.71			0.1				19	118	18	15	Maximum 620.	
12/5 0925	352	47	11.1	95	244	7.4/8.2	—/2.14[c]		9.0/0.39		0/0.00	124/2.03		9.7/0.27			0.0		As 0.00		15	107	5	15	Minimum 0.62	
1/8/64 1330	215	48	11.7	102	260	7.7/8.4	—/2.32[c]		11/0.48		2/0.07	126/2.07		13/0.37			0.0				17	116	9	2		
2/5 1025	700	45	11.7	98	239	7.6/8.4	—/2.16[c]		9.0/0.39		4/0.13	119/1.95		7.3/0.21			0.0				15	108	4	6		
3/3 1525	280	54	11.8	110	264	7.8/8.4	—/2.32[c]		11/0.48		2/0.07	130/2.13		12/0.34			0.0				17	116	6	2		
4/6 1245	235	61	10.3	105	263	8.0/8.5	—/2.36[c]		10/0.44		4/0.13	130/2.13		12/0.34			0.0				16	118	5	1		
5/4 1345	240	67	11.5	125	239	8.2/8.1	23/1.15	11/0.91	9.1/0.40	0.7/0.02	0/0.00	122/2.00	11/0.23	11/0.31	0.4/0.01	0.1/0.01	0.0	18	ABS 0.0 As 0.00 PO_4 0.00	139[f]	16	103	3	1		
6/8 0850	160	64	8.8	93	223	7.3/8.2	—/1.94[c]		9.8/0.43		0/0.00	119/1.95		8.5/0.24			0.0				18	97	0	1		
7/9 0930	60	71	8.8	100	200	7.4/8.2	—/1.74[c]		9.1/0.40		0/0.00	112/1.84		4.7/0.13			0.0				19	87	0	2		
8/3 1000	47	71	9.4	107	177	7.4/8.1	—/1.56[c]		8.6/0.37		0/0.00	106/1.74		3.0/0.08			0.0				19	78	0	2		
9/4 1300	56	72	11.7	134	179	7.8/8.0	17/0.85	7.9/0.65	8.4/0.37	1.4/0.04	0/0.00	103/1.69	7.0/0.15	3.2/0.09	1.4/0.02		0.0	30	ABS 0.0 As 0.00 PO_4 0.10	110[f]	19	75	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COTTONWOOD CREEK BELOW NORTH FORK COTTONWOOD CREEK (STA. 11a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/10/63 1510	25 est.	67	10.1	111	250	8.2/8.2	2.16[c]		9.5/0.41		0/0.00	126/2.07		16/0.45			0.0				16	108	5	1		[illegible]
11/4 1605	100 est.	54	10.0	95	214	7.7/8.0	1.80[c]		8.0/0.35		0/0.00	101/1.66		12/0.34			0.0				16	90	7	40		
12/2 1615	50 est.	46	11.7	100	219	7.8/8.1	2.00[c]		6.6/0.29		0/0.00	119/1.95		7.2/0.20			0.0				13	100	2	2		
1/3/64 1440	30 est.	45	12.5	105	233	8.0/8.4	2.18[c]		8.0/0.35		2/0.07	121/1.98		9.1/0.26			0.0				14	109	7	-		
2/6 1145	150 est.	43	12.8	105	230	8.0/8.5	2.16[c]		6.4/0.28		3/0.10	120/1.97		3.0/0.08			0.0				11	108	5	3		
3/12 1530	100 est.	46	11.7	100	257	8.0/8.2	2.26[c]		9.2/0.40		0/0.00	125/2.05		10/0.28			0.0				15	113	11	15		
4/9 1330	50 est.	62	10.8	112	253	8.3/8.5	2.44[c]		7.5/0.33		5/0.17	133/2.18		9.8/0.28			0.0				12	122	5	1		
5/7 1330	50 est.	66	9.7	106	239	8.2/8.2	24/1.20	12/1.02	7.1/0.31	0.6/0.02	0/0.00	130/2.13	0.0/0.19	10/0.28	0.6/0.01	0.1/0.01	0.0	19	ABS 0.0 As 0.00 PO_4 0.05	140[f]	12	111	4	40		
6/8 1310	20 est.	66	9.0	98	249	8.0/8.5	2.34[c]		8.5/0.37		4/0.13	128/2.10		9.0/0.25			0.0				14	117	5	1		
7/9 0810	8 est.	71	7.0	81	302	7.7/8.4	2.84[c]		9.7/0.42		4/0.13	156/2.56		13/0.37			0.0				13	142	8	1		
8/3 1420	3 est.	83	9.5	123	317	8.2/8.4	2.88[c]		10/0.44		4/0.13	158/2.59		9.0/0.25			0.0				13	144	8	4		
9/4 1145	15 est.	73	9.8	115	326	8.0/8.2	31/1.55	16/1.29	12/0.52	1.3/0.03	0/0.00	157/2.57	8.0/0.17	23/0.65	0.8/0.01		0.0	20	ABS 0.0 As 0.00 PO_4 0.05	181[f]	15	142	13	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COTTONWOOD CREEK, SOUTH FORK ABOVE COTTONWOOD CREEK (STA. 116b

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/7/63	Not Sampled -- Dry																									USGS
11/7 0855	50 est.	49	11.0	97	411	7.7/8.3	3.04[c]		23/1.00		3/0.10	136/2.23		48/1.35			0.2				25	152	36	6		
12/5 0855	40 est.	47	11.6	99	337	7.8/8.3	2.76[c]		17/0.74		2/0.07	141/2.31		26/0.73			0.1				21	138	19	1		
1/3/64 1400	25 est.	48	11.8	103	373	8.0/8.4	3.04[c]		19/0.83		4/0.13	146/2.39		32/0.90			0.1				21	152	26	2		
2/6 1100	150 est.	43	12.8	104	278	7.9/8.4	2.32[c]		12/0.52		2/0.07	130/2.13		13/0.37			0.0				18	116	6	3		
3/12 1450	75 est.	51	11.4	103	339	8.0/8.4	2.76[c]		17/0.74		3/0.10	145/2.38		24/0.68			0.1				21	138	14	2		
4/9 1040	50 est.	62	9.9	102	306	8.1/8.6	2.48[c]		15/0.65		5/0.17	133/2.18		21/0.59			0.1				21	124	7	2		
5/7 1230	30 est.	69	9.6	107	280	8.3/8.3	32/1.60	8.3/0.68	13/0.57	0.8/0.02	2/0.07	125/2.05	13/0.27	19/0.54	0.4/0.01	0.2/0.01	0.1	12	ABS 0.0 As 0.00 PO_4 0.00	157[f]	20	114	8	1		
6/11 1015	20 est.	72	8.9	102	274	8.2/8.5	2.22[c]		13/0.57		4/0.13	116/1.90		20/0.56			0.1				20	111	9	1		
7/9 0850	0.5 est.	74	7.6	89	317	7.7/8.5	2.68[c]		15/0.65		7/0.23	130/2.13		21/0.59			0.1				20	134	16	1		
8/3	Not Sampled -- Dry																									
9/4	Not Sampled -- Dry																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO.5)

COW CREEK NEAR MILLVILLE (STA. 88a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by [i]
10/10/63 0820	76	65	8.8	94	170	7.6/8.1	—/1.36[c]		7.7/0.33		0/0.00	92/1.51		7.0/0.20			0.0				20	68	0	3		USGS
11/7 1530	340	50	10.7	95	150	7.3/7.9	—/1.21[c]		8.2/0.36		0/0.00	62/1.02		8.8/0.25			0.1				23	60	9	20		
12/5 1445	212	45	12.4	103	154	7.3/8.0	—/1.18[c]		8.7/0.38		0/0.00	71/1.16		8.0/0.23			0.1				24	59	1	1		
1/2/64 0945	187	45	12.1	101	156	7.4/8.1	—/1.18[c]		8.7/0.38		0/0.00	71/1.16		8.5/0.24			0.0				24	59	1	2		
2/6 0855	340	42	12.4	99	140	7.5/8.1	—/1.07[c]		7.8/0.34		0/0.00	67/1.10		6.6/0.19			0.0				24	53	0	2		
3/12 1325	380	47	12.1	104	143	7.4/8.2	—/1.18[c]		7.8/0.34		0/0.00	70/1.15		6.8/0.19			0.1				22	59	2	2		
4/9 0920	114	58	9.9	97	126	7.4/8.1	—/1.00[c]		7.1/0.31		0/0.00	65/1.07		6.4/0.18			0.0				24	50	0	1		
5/7 1100	215	61	10.6	108	122	7.6/7.9	12/0.60	4.6/0.38	6.5/0.28	0.8/0.02	0/0.00	62/1.02	5.0/0.10	5.8/0.16	1.3/0.02	0.0/0.00	0.1	27	ABS 0.0 As 0.00 PO_4 0.05	93[f]	22	49	0	2		
6/11 0850	230	65	9.2	98	124	7.4/8.1	—/1.00[c]		6.6/0.29		0/0.00	66/1.08		4.0/0.11			0.0				22	50	0	5		
7/9 1130	22	82	8.9	113	167	8.0/8.4	—/1.36[c]		8.5/0.37		2/0.07	88/1.44		3.5/0.10			0.1				21	68	0	8		
8/3 0835	14	77	8.0	96	197	7.6/8.4	—/1.62[c]		10/0.44		3/0.10	104/1.70		6.0/0.17			0.1				21	81	0	1		
9/4 1445	29	77	9.6	116	206	8.0/8.1	18/0.90	8.3/0.68	12/0.52	2.3/0.06	0/0.00	100/1.64	5.0/0.10	13/0.37	0.9/0.01		0.2	32	ABS 0.0 As 0.00 PO_4 0.10	148[f]	24	79	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

DELTA CROSS CHANNEL NEAR WALNUT GROVE (STA. 98)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 0845	Tidal	63	8.0	83	153	7.3/8.0	—/1.14[c]		8.3/0.36		0/0.00	74/1.21		6.5/0.18			0.0			97[e]	24	57	0	10	Median 230.	USGS
11/8 0840		55	9.0	85	164	7.3/8.0	—/1.17[c]		9.4/0.41		0/0.00	76/1.25		6.0/0.17			0.2			104[e]	26	59	0	25	Maximum 7000.	
12/5 1245		48	10.5	90	156	7.3/7.9	—/1.12[c]		9.4/0.41		0/0.00	70/1.15		6.5/0.18			0.0			99[e]	27	56	0	9	Minimum 2.3	
1/8/64 1100		46	11.3	94	171	7.3/8.3	—/1.28[c]		10/0.44		2/0.07	74/1.21		7.5/0.21			0.0			108[e]	26	64	0	2		
2/6 1230		47	11.4	97	176	7.3/7.9	—/1.26[c]		11/0.48		0/0.00	76/1.25		8.8/0.25			0.0			111[e]	28	63	1	15		
3/4 1130		50	11.0	97	156	7.3/8.2	—/1.12[c]		9.7/0.42		0/0.00	74/1.21		5.5/0.16			0.1			99[e]	27	56	0	2		
4/8 0840		56	9.6	92	135	7.7/8.1	—/1.04[c]		7.4/0.32		0/0.00	65/1.07		3.0/0.08			0.0			85[e]	24	52	0	9		
5/6 0800		58	8.9	87	177	7.5/7.8	11/0.55	7.9/0.65	13/0.57	1.5/0.04	0.0/0.00	72/1.18	12/0.25	9.5/0.27	1.9/0.3	0.1/0.1	0.1	19	ABS 0.1 As 0.00 PO_4 0.35	111[f]/111[g]	31	60	1	9		
6/10 1200		68	7.7	84	196	7.3/8.1	—/1.34[c]		14/0.61		0/0.00	84/1.38		11/0.31			0.1			124[e]	31	67	0	7		
7/8 1300		72	8.6	98	158	7.6/8.1	—/1.16[c]		11/0.48		0/0.00	74/1.21		5.5/0.16			0.1			100[e]	29	58	0	4		
8/5 1400		75	8.1	95	154	7.5/8.1	—/1.12[c]		11/0.48		0/0.00	69/1.13		6.5/0.18			0.0			97[e]	30	56	0	3		
9/2 1345		68	7.4	81	195	7.3/7.5	14/0.70	8.0/0.66	14/0.61	1.1/0.03	0/0.00	91/1.49	9.0/0.19	8.1/0.23	1.6/0.03		0.0	20	ABS 0.0 As 0.00 PO_4 0.25	121[f]/116[g]	30	68	0	5		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

DUTCH SLOUGH AT FARRAR PARK BRIDGE (STA. 108b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm[g]	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/16/63 1140		65			262															180						USBR
11/12 1050		59			345															224						
4/15/64 1025		68			226															184						
5/11 1115		68			268															208						
6/22 1130		75			266															196						
7/20 1345					1392															428						
8/13 1410		68			1049															640						
9/17 1000		67			438															256						

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ELDER CREEK AT GERBER (STA. 95a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/11/63	Not Sampled -- No Flow																									
11/5 1410	26	57	9.9	96	439	8.1 / 8.0	3.64[c]		21 / 0.91		0 / 0.00	186 / 3.05		40 / 1.13			0.1				20	182	29	25		USGS
12/5 1200	27	48	11.3	98	401	7.9 / 8.6	3.62[c]		16 / 0.70		8 / 0.27	187 / 3.06		26 / 0.73			0.0				16	181	15	1		
1/7/64 1200	10	52			467	8.4 / 8.6	4.12[c]		20 / 0.87		10 / 0.33	201 / 3.29		38 / 1.07			0.0				17	206	25	1		
2/5 1455	39	55	11.0	104	372	8.3 / 8.6	3.34[c]		16 / 0.70		8 / 0.27	175 / 2.87		21 / 0.59			0.0				17	167	10	1		
3/3 1500	16	61	11.0	112	430	8.4 / 8.5	3.82[c]		18 / 0.78		14 / 0.47	180 / 2.95		32 / 0.90			0.1				17	191	20	1		
4/10 1010	18	60	12.1	122	426	8.4 / 8.6	3.70[c]		20 / 0.87		8 / 0.27	187 / 3.06		32 / 0.90			0.0				19	185	19	1		
5/7 1140	9.3	71	13.8	156	416	8.4 / 8.8	34 / 1.70	23 / 1.92	19 / 0.83	1.0 / 0.03	14 / 0.47	172 / 2.82	10 / 0.21	34 / 0.96	0.6 / 0.01	0.1 / 0.01	0.0	14	ABS 0.0 As 0.00 PO_4 0.05	238[f]	19	181	17	1		
6/18	Not Sampled -- No Flow																									
7/8	Not Sampled -- No Flow																									
8/3	Not Sampled -- No Flow																									
9/4	Not Sampled -- No Flow																									

TABLE D-2
ANALYSES OF SURFACE WATER
CENTRAL VALLEY REGION (NO. 5)

ELDER CREEK NEAR PASKENTA (STA. 13e)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 1330	5.6	69	9.6	108	747	8.3/8.5	—/4.88[c]		58/2.52		8/0.27	210/3.44		122/3.44			0.0				34	244	59	1		USGS
11/5 1255	31	55	10.3	99	471	8.1/8.2	—/3.92[c]		23/1.00		0/0.00	210/3.44		42/1.18			0.0				20	196	24	7		
12/3 1600	32	48	11.6	102	390	8.3/8.4	—/3.48[c]		17/0.74		4/0.13	188/3.08		23/0.65			0.2				18	174	13	1		
1/7/64 1030	17	45			494	8.3/8.8	—/4.16[c]		28/1.22		16/0.53	200/3.28		47/1.33			0.0				23	208	18	1		
2/4 1440	40	50	11.2	96	347	8.4/8.6	—/3.10[c]		13/0.57		6/0.20	164/2.69		18/0.51			0.0				16	155	11	1		
3/3 1335	20	52	11.1	102	427	8.5/8.6	—/3.72[c]		21/0.91		7/0.23	188/3.08		38/1.07			0.1				20	186	20	1		
4/8 1105	22	59	10.2	102	392	8.4/8.5	—/3.18[c]		20/0.87		5/0.17	166/2.72		33/0.93			0.0				21	159	15	2		
5/5 1000	20	55	11.0	105	391	8.4/8.6	29/1.45	20/1.67	21/0.91	0.8/0.02	7/0.23	161/2.64	9.0/0.19	35/0.99	0.7/0.01	0.2/0.01	0.0	14	ABS 0.0 As 0.00 PO_4 0.00	219[f]	22	156	12	1		
6/10 1315	16	67	9.8	108	488	8.4/8.6	—/3.74[c]		30/1.30		8/0.27	176/2.88		58/1.64			0.1				26	187	30	1		
7/8 0945	1.7	76	9.8	118	783	8.4/8.5	—/4.28[c]		68/2.96		8/0.27	140/2.29		165/4.65			0.1				41	214	86	1		
8/4 1035	1.0	77	9.5	115	1570	8.4/8.4	—/7.16[c]		158/6.87		4/0.13	96/1.57		422/11.90			0.2				49	358	273	5		
9/3 1015	0.6	62	10.0	104	2400	8.1/8.2	99/4.94	70/5.78	232/10.09	4.4/0.11	0/0.00	134/2.20	16/0.33	660/18.62	0.2/0.00		0.4	17	ABS 0.0 As 0.00 PO_4 0.00	1420[f]	48	536	426	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FALSE RIVER AT WEBB PUMP (STA. 112a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/16/63 1035		64			214															180						USBR
4/17/64 1135		65			197															140						
5/11 1230		66			310															188						
6/22 1035		71			288															196						
7/20 1240					478															284						
8/10 1230		69			681															424						
9/11 1245		69			400															244						

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FEATHER RIVER, MIDDLE FORK NEAR MERRIMAC (STA. 19b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 1240	215	58	9.6	100	144	7.4/8.0	1.22[c]		5.1/0.22		0/0.00	78/1.28		3.8/0.11			0.0				15	61	0	1	Median 2.3	USGS
11/6 1150	1860	46	11.5	103	81	7.1/7.4	0.69[c]		2.4/0.10		0/0.00	40/0.66		1.8/0.05			0.0				13	34	1	20	Maximum 23.	
12/5 1140	594	41	12.5	104	108	7.2/7.8	0.90[c]		4.3/0.19		0/0.00	59/0.97		1.0/0.03			0.1				17	45	0	2	Minimum 0.3	
1/9/64 1115	Sample Broken in Transit																									
2/6 1140	700	38	13.1	104	117	7.2/8.0	0.98[c]		5.1/0.22		0/0.00	62/1.02		3.0/0.08			0.0				18	49	0	1		
3/4 1130	Not Sampled - Road Impassable																									
4/9 1140	1360	48	11.4	104	98	7.4/8.2	0.82[c]		4.8/0.21		0/0.00	54/0.89		2.5/0.07			0.0				20	41	0	3		
5/7 1035	1370	48	11.5	105	85	7.4/7.9	10/0.50	2.7/0.22	3.6/0.16	0.5/0.01	0/0.00	46/0.75	3.0/0.06	2.5/0.07	0.7/0.01	0.2/0.01	0.0	15	ABS 0.0 As 0.00 PO_4 0.00	61[f]/538	18	36	0	2		
6/9 1120	1170	49	10.9	101	80	7.2/8.0	0.67[c]		3.4/0.15		0/0.00	43/0.70		1.0/0.03			0.0				18	34	0	2		
7/13 1255	262	73	8.6	106	122	8.0/8.2	1.06[c]		5.1/0.22		0/0.00	66/1.08		1.5/0.04			0.0				17	53	0	2		
8/14 1145	159	72	9.1	111	142	8.1/8.2	1.20[c]		5.7/0.25		0/0.00	76/1.25		2.0/0.06			0.0				17	60	0	2		
9/11 1045	144	62	10.0	109	149	7.9/8.1	19/0.95	4.0/0.33	6.2/0.27	1.1/0.03	0/0.00	79/1.29	8.0/0.17	2.6/0.07	0.6/0.01		0.0	14	ABS 0.0 As 0.00 PO_4 0.3	94[f]/898	17	64	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FEATHER RIVER AT NICOLAUS (STA. 20)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 1020	1400	66	9.2	99	126	7.8/7.7	1.06[c]		4.6/0.20		0/0.00	68/1.11		3.5/0.10			0.0			85[e]	16	53	0	2	Median 23.	USGS
11/7 0945	8220	53	9.7	89	125	7.5/7.8	1.04[c]		4.9/0.21		0/0.00	63/1.03		4.4/0.12			0.0			84[e]	17	52	0	45	Maximum 620.	
12/5 0900	5000	45	11.8	98	103	7.4/7.8	0.86[c]		3.5/0.15		0/0.00	55/0.90		1.0/0.03			0.1			69[e]	15	43	0	10	Minimum 0.62	
1/7/64 0910	3950	44	12.3	100	110	7.3/8.0	0.92[c]		4.6/0.20		0/0.00	58/0.95		3.8/0.11			0.0			74[e]	18	46	0	3		
2/6 0940	5450	44	12.1	98	103	7.5/7.9	0.84[c]		4.4/0.19		0/0.00	52/0.85		2.9/0.08			0.0			69[e]	18	42	0	25		
3/3 0900	4060	45	12.0	99	109	7.5/8.2	0.92[c]		4.5/0.20		0/0.00	58/0.95		3.8/0.11			0.0			73[e]	18	46	0	5		
4/9 0930	5840	55	10.8	102	101	7.7/8.0	0.86[c]		4.3/0.19		0/0.00	54/0.89		2.0/0.06			0.0			68[e]	18	43	0	5		
5/5 0730	4300	54	10.6	98	84	7.3/8.0	9.0/0.45	3.4/0.28	3.2/0.14	0.4/0.01	0/0.00	43/0.70	3.0/0.06	2.8/0.08	1.0/0.02	0.1/0.01	0.0	15	ABS 0.0 As 0.00 PO_4 0.05	59[f]/55[g]	16	36	1	2		
6/10 0845	4540	59	9.6	95	81	7.3/7.8	0.69[c]		3.3/0.14		0/0.00	42/0.69		1.0/0.03			0.0			54[e]	17	34	0	3		
7/10 1245	762	82	8.5	108	128	7.8/7.9	1.08[c]		5.1/0.22		0/0.00	69/1.13		2.0/0.06			0.0			86[e]	17	54	0	5		
8/7 1345	500 (est)	85	8.3	107	139	8.0/7.9	1.20[c]		5.9/0.26		0/0.00	74/1.21		2.5/0.07			0.0			93[e]	18	60	0	10		
9/4 1445	750 (est)	78	9.0	109	135	7.9/8.0	14/0.70	5.6/0.46	6.4/0.28	1.3/0.03	0/0.00	74/1.21	5.0/0.10	4.0/0.11	0.5/0.01		0.0	12	ABS 0.1 As 0.00 PO_4 0.10	85[f]/80[g]	19	58	0	5		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FEATHER RIVER, NORTH FORK AT BIG BAR (STA. 19a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/9/63 1420	57	63	10.3	111	110	7.4/8.0	/0.92[c]		4.0/0.17		0/0.00	62/1.02		2.2/0.06			0.0				16	46	0	1	Median 2.3	USGS
11/7 1540	47	49	11.3	103	106	7.2/8.0	/0.96[c]		3.3/0.14		0/0.00	62/1.02		2.1/0.06			0.0				13	48	0	2	Maximum 13.	
12/5 1145	61	45	12.9	111	113	8.1/7.9	/0.96[c]		3.6/0.16		0/0.00	65/1.07		0.5/0.01			0.1				14	48	0	1	Minimum 0.62	
1/9/64 1035	61	40	13.0	104	119	7.5/8.1	/1.02[c]		4.5/0.20		0/0.00	68/1.11		3.0/0.08			0.0				16	51	0	1		
2/6 1155	68	43	12.5	105	126	7.7/8.2	/1.14[c]		4.3/0.19		0/0.00	73/1.20		0.8/0.02			0.0				14	57	0	1		
3/5/64 1010	49	43	11.3	101	124	7.7/8.2	/1.08[c]		4.7/0.20		0/0.00	72/1.18		1.8/0.05			0.0				16	54	0	2		
4/9 1205	70	51	11.8	110	108	7.9/8.3	/0.98[c]		3.8/0.17		1/0.03	62/1.02		2.2/0.06			0.0				15	49	0	3		
5/7 1015	51	52	11.9	112	98	7.7/8.2	9.6/0.48	5.4/0.44	3.8/0.17	0.5/0.01	0/0.00	58/0.95	3.0/0.06	1.8/0.05	0.9/0.01	0.2/0.01	0.0	19	ABS 0.0 As 0.00 PO_4 0.05	62[f]/69[g]	15	46	0	1		
6/10 1130	46	55	10.8	106	101	7.7/8.0	/0.88[c]		3.7/0.16		0/0.00	58/0.95		1.0/0.03			0.0				15	44	0	1		
7/3 1530	53	74	9.8	119	118	8.0/8.2	/1.04[c]		4.9/0.21		0/0.00	70/1.15		1.0/0.03			0.0				17	52	0	1		
8/14 1430	52	75	10.4	127	110	8.2/8.1	/0.94[d]		4.8/0.21		0/0.00	65/1.07		1.5/0.04			0.0				18	47	0	2		
9/10 1530	53	70	12.3	143	115	8.3/8.0	13/0.65	4.3/0.35	5.1/0.22	1.2/0.03	0/0.00	68/1.11	2.0/0.04	1.0/0.03	1.3/0.02		0.0	12	ABS 0.0 As 0.00 PO_4 0.00	73[f]/67[g]	18	50	0	1		

TABLE D-2
ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FEATHER RIVER NEAR OROVILLE (STA. 19)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/9/63 1300	1340	63	9.9	103	111	7.4/8.0	/0.92[c]		4.2/0.18		0/0.00	62/1.02		3.0/0.08			0.0			74[e]	16	46	0	5	Median 2.3	USGS
11/6 1430	8180	50	11.7	104	81	7.1/7.4	/0.67[c]		3.0/0.13		0/0.00	42/0.69		2.0/0.06			0.0			54[e]	16	34	0	9	Maximum 230.	
12/5 1320	3900	43	13.4	109	102	7.2/8.0	/0.86[c]		3.8/0.17		0/0.00	63/1.03		0.5/0.01			0.1			68[e]	17	43	0	8	Minimum 0.13	
1/9/64 1300	2000	41	13.9	110	110	7.2/8.1	/0.92[c]		4.8/0.21		0/0.00	62/1.02		3.0/0.08			0.0			73[e]	19	46	0	1		
2/6 1325	2910	42	13.6	109	107	7.2/8.1	/0.90[c]		4.6/0.20		0/0.00	59/0.97		1.5/0.04			0.0			71[e]	18	45	0	1		
3/4 1325	3110	45	13.3	111	113	7.8/8.2	/0.94[c]		5.1/0.22		0/0.00	62/1.02		4.0/0.11			0.0			75[e]	19	47	0	3		
4/9 1330	4450	51	12.1	109	99	7.4/8.2	/0.83[c]		4.5/0.20		0/0.00	54/0.89		2.2/0.06			0.0			66[e]	19	42	0	5		
5/7 1300	4050	50	12.3	110	90	7.3/8.0	10/0.50	3.4/0.28	3.4/0.15	0.5/0.01	0/0.00	49/0.80	2.0/0.04	2.8/0.08	0.1/0.00	0.3/0.02	0.0	15	ABS 0.0 As 0.00 PO_4 0.00	62[f]/54[g]	16	39	0	2		
6/9 0905	3470	55	11.0	105	85	7.2/7.7	/0.72[c]		3.6/0.16		0/0.00	45/0.74		1.0/0.03			0.0			57[e]	18	36	0	2		
7/9 1350	1990	70	9.4	106	118	8.0/8.2	/1.06[c]		5.2/0.23		0/0.00	72/1.18		1.0/0.03			0.0			79[e]	18	53	0	3		
8/7 1000	2250	70	9.7	109	114	7.7/7.9	/0.96[c]		5.3/0.23		0/0.00	66/1.08		1.5/0.04			0.0			76[e]	19	48	0	5		
9/4 1115	1590	67	10.0	109	119	7.9/8.0	14/0.70	3.9/0.32	5.1/0.22	1.2/0.03	0/0.00	70/1.15	2.0/0.04	1.4/0.04	0.6/0.01		0.0	12	ABS 0.1 As 0.00 PO_4 0.00	74[f]/70[g]	17	51	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FEATHER RIVER BELOW SHANGHAI BEND (STA. 20a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/9/63 1115	1450	66	8.7	93	127	7.5/7.7	1.08[c]		4.5/0.20		0/0.00	69/1.13		3.5/0.10			0.0			84[e]	16	54	0	1	Median 62.	USGS
11/7 1030	6780	53	10.1	93	91	7.5/7.6	0.73[c]		3.7/0.16		0/0.00	46/0.75		2.9/0.08			0.0			60[e]	18	36	0	25	Maximum 620.	
12/5 0945	4990	45	11.9	98	106	7.5/7.9	0.86[c]		4.1/0.18		0/0.00	57/0.93		1.0/0.03			0.2			70[e]	17	43	0	15	Minimum 2.3	
1/7/64 1000	3840	44	12.3	100	107	7.3/8.0	0.90[c]		4.6/0.20		0/0.00	57/0.93		4.0/0.11			0.0			71[e]	18	45	0	2		
2/6 1020	4580	44	12.2	99	101	7.4/8.0	0.90[c]		4.2/0.18		0/0.00	54/0.89		2.0/0.06			0.0			67[e]	17	45	1	4		
3/3 0930	4320	45	12.0	99	103	7.5/8.1	0.88[c]		4.1/0.18		0/0.00	56/0.92		3.6/0.10			0.0			68[e]	17	44	0	3		
4/9 1015	5700	53	11.2	103	100	7.7/8.0	0.84[c]		4.3/0.19		0/0.00	55/0.90		2.0/0.06			0.0			66[e]	18	42	0	2		
5/5 1400	4350	56	10.9	104	85	7.3/7.9	11/0.55	2.2/0.18	3.2/0.14	0.3/0.01	0/0.00	43/0.70	5.0/0.10	2.5/0.07	0.8/0.01	5.0/0.01	0.0	15	ABS 0.0 As 0.00 PO4 0.00	61[f]/56[g]	16	36	1	3		
6/10 0925	2600	59	9.7	96	78	7.3/7.9	0.68[c]		3.2/0.14		0/0.00	41/0.67		1.5/0.04			0.0			51[e]	17	34	0	8		
7/10 1215	902	80	9.0	111	129	7.8/8.2	1.10[c]		5.2/0.23		0/0.00	69/1.13		2.0/0.06			0.0			85[e]	17	55	0	3		
8/7 1300	617	82	9.1	114	139	7.5/7.9	1.16[c]		6.2/0.27		0/0.00	73/1.20		2.5/0.07			0.0			92[e]	19	58	0	3		
9/4 1400	1090	74	8.8	102	131	7.7/8.1	14/0.70	5.1/0.42	5.5/0.24	1.7/0.04	0/0.00	72/1.18	6.0/0.12	1.7/0.05	0.3/0.00		0.0	15	ABS 0.1 As 0.01 PO4 0.05	84[f]/78[g]	17	56	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FEATHER RIVER, SOUTH FORK BELOW PONDEROSA DAM (STA. 19c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 0820	44	60	9.6	99	48	7.1 / 7.4	— / 0.37[c]		2.0 / 0.09		0 / 0.00	24 / 0.39		2.2 / 0.06			0.0				20	18	0	1	Median 2.1	USGS
11/6 0900	171	54	10.5	101	54	6.8 / 7.7	— / 0.42[c]		2.2 / 0.10		0 / 0.00	27 / 0.44		3.0 / 0.08			0.0				19	21	0	9	Maximum 6.2	
12/5 0900	148	46	11.9	103	49	6.8 / 7.4	— / 0.38[c]		1.6 / 0.07		0 / 0.00	24 / 0.39		0.5 / 0.01			0.1				16	19	0	6	Minimum 0.23	
1/9/64 0830	125	42	12.5	102	50	6.8 / 7.7	— / 0.40[c]		1.9 / 0.08		0 / 0.00	24 / 0.39		3.5 / 0.10			0.0				17	20	0	1		
2/6 0900	160	42	12.8	104	51	6.8 / 7.7	— / 0.41[c]		2.3 / 0.10		0 / 0.00	26 / 0.43		1.0 / 0.03			0.0				20	20	0	3		
3/4 0950	142	44	12.5	105	51	7.3 / 7.9	— / 0.40[c]		2.4 / 0.10		0 / 0.00	25 / 0.41		2.1 / 0.06			0.0				20	20	0	2		
4/9 0855	26	52	10.7	100	63	7.3 / 7.9	— / 0.52[c]		3.2 / 0.14		0 / 0.00	35 / 0.57		2.0 / 0.06			0.0				21	26	0	2		
5/7 0755	37	52	9.8	92	62	7.4 / 7.8	7.2 / 0.36	1.8 / 0.15	3.2 / 0.14	0.3 / 0.01	0 / 0.00	32 / 0.52	3.0 / 0.06	3.0 / 0.08	0.7 / 0.01	0.0 / 0.00	0.0	14	ABS 0.0 As 0.00 PO_4 0.00	49[f] / 39[g]	21	26	0	1		
6/9 0745	25	52	10.1	103	54	7.0 / 7.7	— / 0.43[c]		2.5 / 0.11		0 / 0.00	27 / 0.44		1.0 / 0.03			0.0				20	22	0	2		
7/13 1020	16	66	9.5	95	49	7.2 / 7.7	— / 0.40[c]		2.2 / 0.10		0 / 0.00	25 / 0.41		0.5 / 0.01			0.0				20	20	0	10		
8/14 0830	25	62	9.7	102	48	7.5 / 7.7	— / 0.39[c]		2.1 / 0.09		0 / 0.00	24 / 0.39		1.0 / 0.03			0.0				19	20	0	3		
9/11 0815	22	63	9.8	105	47	7.3 / 7.6	6.0 / 0.30	1.0 / 0.08	2.3 / 0.10	0.5 / 0.01	0 / 0.00	23 / 0.38	2.0 / 0.04	0.7 / 0.02	0.6 / 0.01		0.0	12	ABS 0.0 As 0.00 PO_4 0.00	36[f] / 36[g]	20	19	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

GRANT LINE CANAL AT TRACY ROAD BRIDGE (STA. 103a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1145	Tidal	69	9.2	102	722	7.5/8.2	3.36[c]		76/3.31		0/0.00	154/2.52		115/3.24			0.0			420[e]	50	168	42	15	Median 23.	USGS
11/5 1045		58	8.6	84	474	7.5/8.1	2.09[c]		50/2.18		0/0.00	87/1.43		74/2.09			0.1			276[e]	51	105	34	9	Maximum 1300.	
12/3 0930		49	9.4	82	357	7.2/7.8	1.62[c]		38/1.65		0/0.00	74/1.21		49/1.38			0.1			208[e]	50	81	20	6	Minimum 2.3	
1/10/64 1010		48	10.6	91	464	7.4/8.0	1.98[c]		49/2.13		0/0.00	87/1.43		69/1.95			0.1			270[e]	52	99	28	6		
2/4 1245		51	10.0	90	658	7.3/8.1	2.88[c]		66/2.87		0/0.00	108/1.77		97/2.74			0.3			383[e]	50	144	55	9		
3/5 1030		53	14.0	128	1140	8.5/8.4	5.08[c]		127/5.52		4/0.13	150/2.48		216/6.09			0.4			663[e]	52	254	124	10		
4/9 0955		62	15.7	160	1050	8.7/8.1	4.80[c]		113/4.92		0/0.00	168/2.75		190/5.36			0.4			611[e]	51	240	102	15		
5/8 0945		61	13.9	140	1070	8.7/7.7	60/2.99	24/2.01	119/5.18	4/0.10	0/0.00	182/2.98	75/1.56	200/5.64	6.6/0.11	0.3/0.02	0.3	21	ABS 0.1 As 0.01 PO_4 0.60	600[f] 611[g]	50	250	101	30		
6/11 0915		67	7.3	79	1200	8.3/8.2	5.40[c]		130/5.66		0/0.00	194/3.18		215/6.07			0.3			698[e]	51	270	111	7		
7/6 1000		71	8.8	99	1190	8.3/8.3	5.68[c]		126/5.48		8/0.27	182/2.98		235/6.63			0.4			693[e]	49	284	122	5		
8/6 0930		76	7.6	84	796	8.1/7.8	3.66[c]		84/3.65		0/0.00	136/2.23		147/4.15			0.4			464[e]	50	183	71	35		
9/3 0930		71	9.0	102	1210	8.1/7.9	62/3.09	30/2.47	135/5.87	2.4/0.06	0/0.00	205/3.36	75/1.56	232/6.54	3.9/0.06		0.4	20	ABS 0.1 As 0.00 PO_4 0.55	662[f] 687[g]	51	278	110	10		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

INDIAN CREEK NEAR CRESCENT MILLS (STA. 17d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/7/63 1330	300	45	9.9	93	136	7.0/7.7	1.10[c]		5.7/0.25		0/0.00	73/1.20		3.5/0.10			0.0			93[e]	19	55	0	45	Median 7.0	USGS
1/9/64 0900	134	34	11.8	94	153	7.3/8.2	1.26[c]		7.6/0.33		0/0.00	84/1.38		4.6/0.13			0.0			104[e]	21	63	0	2	Maximum 23.	
3/5 0810	224	38	10.3	87	142	7.5/8.2	1.16[c]		7.0/0.30		0/0.00	97/1.29		3.8/0.11			0.0			97[e]	21	58	0	8	Minimum 2.3	
5/7 0745	780	43	10.9	100	98	7.3/7.7	13/0.65[c]	2.2/0.18	5.3/0.23	0.7/0.02	0/0.00	57/0.93	3.0/0.06	1.5/0.04	0.7/0.01	0.3/0.02	0.0	23	ABS 0.0 As 0.00 PO_4 0.10	78[f] 84[g]	21	42	0	10		
7/15 0915	23	67	7.8	96	226	6.9/8.0	1.86[c]		11/0.48		0/0.00	130/2.13		4.5/0.13			0.0			154[e]	21	93	0	2		
9/16 0915	11	57	9.1	100	258	7.1/8.3	30/1.50	7.1/0.58	15/0.65	1.8/0.05	2/0.07	141/2.31	9.0/0.19	7.2/0.20	1.4/0.02		0.1	27	ABS 0.0 As 0.00 PO_4 0.15	90[f] 160[g]	23	104	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

INDIAN SLOUGH NEAR BRENTWOOD (STA. 107)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 0930	Tidal	68	6.7	73	457	7.3/8.3	2.24[c]		45/1.96		1/0.03	117/1.92		57/1.61			0.3			255[e]	47	112	14	20	Median 23.	USGS
11/6 1210		59	7.5	74	876	7.7/8.3	3.78[c]		101/4.39		1/0.03	191/3.13		117/3.30			1.8			488[e]	54	189	30	8	Maximum 2400.	
12/4 1345		50	11.3	100	1100	8.4/8.3	5.44[c]		124/5.39		4/0.13	248/4.06		144/4.06			1.1			613[e]	50	272	62	9	Minimum 2.3	
1/8/64 1020		49	10.2	89	1370	8.2/8.6	7.16[c]		154/6.70		16/0.53	342/5.61		183/5.16			2.2			763[e]	48	358	51	6		
2/5 1250		51	7.4	66	1340	8.4/8.5	5.56[c]		166/7.22		10/0.33	308/5.05		159/4.49			2.7			746[e]	56	278	9	2		
3/6 1010		52	9.9	90	1150	8.3/8.3	5.24[c]		127/5.52		1/0.03	184/3.02		175/4.94			1.4			641[e]	51	262	108	15		
4/8 1150		60	9.0	90	354	7.7/8.1	1.98[c]		34/1.48		0/0.00	92/1.51		39/1.10			0.2			197[e]	43	99	24	50		
5/6 1015		59	8.8	87	268	7.5/7.8	18/0.90	8.3/0.68	23/1.00	1.4/0.04	0/0.00	82/1.34	22/0.46	29/0.82	2.1/0.03	0.2/0.01	0.2	18	ABS 0.1 AS 0.00 PO_4 0.20	162[f] 155[g]	38	79	12	30		
6/9 1220		65	7.5	79	321	7.5/8.1	1.72[c]		32/1.39		0/0.00	91/1.49		35/0.99			0.3			179[e]	45	86	11	30		
7/2 1015		69	6.1	67	289	7.3/8.2	1.80[c]		28/1.22		0/0.00	94/1.54		30/0.85			0.2			161[e]	40	90	13	30		
8/10 1045		78	7.0	85	633	7.5/8.3	2.18[c]		79/3.44		1/0.03	85/1.39		129/3.64			0.2			352[e]	61	109	38	50		
9/8 1200		73	7.6	88	720	7.7/7.6	18/0.90	20/1.62	88/3.83	3.5/0.09	0/0.00	105/1.72	40/0.83	141/3.98	1.3/0.02		0.5	12	ABS 0.1 AS 0.00 PO_4 0.20	376[f] 412[g]	59	126	40	20		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ITALIAN SLOUGH NEAR MOUTH (STA. 106)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/8/63 0845	Tidal	70	6.6	74	342	7.1/8.0	20/1.00		10/0.86				23/0.48	38/1.07	2.3/0.04		0.1			195[e]/200[f]	42	93			Median 23.	USGS
11/5 1300		59	7.2	71	425	7.3/8.0	22/1.10	12/0.98	41/1.78		0/0.00	96/1.57	43/0.90	59/1.66	3.6/0.06		0.1			243[e]/252[f]	46	104	25	20	Maximum 230.	
12/3 1115		49	6.9	60	558	7.1/8.0	24/1.20	12/1.00	67/2.91		0/0.00	98/1.61	43/0.90	99/2.79	2.4/0.04		0.7			319[e]/313[f]	57	110	30		Minimum 2.3	
1/10/64 1155		46	9.2	77	579	7.2/7.9	/2.36[c]		64/2.78		0/0.00	87/1.43		100/2.82			0.5			331[e]	54	118	47	10		
2/4 0930		48	7.6	65	749	7.1/7.6	39/1.95	13/1.09	98/4.26		0/0.00	108/1.77	64/1.33	123/3.47	7.1/0.11		0.7			428[e]/437[f]	58	152	63	15		
3/5 1225		52	10.0	91	631	7.7/8.1	/3.08[c]		60/2.61		0/0.00	89/1.46		86/2.43			0.3			360[e]	46	154	81	10		
4/9 1255		61	9.2	93	386	7.6/8.0	23/1.15	13/0.03	54/1.48		0/0.00	83/1.36	47/0.98	44/1.24	3.2/0.05		0.2			244[g]	40	109	41	20		
5/7 1205		60	10.3	103	270	8.4/8.0	17/0.85	8.9/0.73	20/1.87	1.6/0.04	0/0.00	75/1.23	25/0.52	28/0.79	1.6/0.03	0.2/0.01	0.2	12	ABS 0.0 A 0.00 PO_4 0.15	/153[g]	34	79	17	30		
6/11 1030		66	7.6	81	342	/7.9	20/1.00	9.7/0.80	34/1.48		0/0.00	81/1.33	29/0.60	47/1.33	1.2/0.02		0.3			189[g]	45	90	24	50		
7/9 1020		74	7.0	82	269	7.7/8.2	17/0.85	8.6/0.71	25/1.09		0/0.00	86/1.41	22/0.46	27/0.76	1.6/0.03		0.2			155[g]	41	78	7	10		
8/6 0925		78	7.1	86	469	7.5/8.0	18/0.90	12/0.98	54/2.35	3.0/0.08	0/0.00	81/1.33	22/0.46	88/2.48	2.6/0.04		0.2			261[g]	55	94	28	10		
9/3 1030		73	7.8	90	541	7.5/7.7	18/0.90	13/1.10	68/2.96	2.9/0.07	0/0.00	83/1.36	28/0.58	106/2.99	1.7/0.03		0.1	16	ABS 0.0 A 0.00 PO_4 0.20	295[f]/298[g]	59	100	32	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

LINDSEY SLOUGH NEAR RIO VISTA (STA. 110)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 1130	Tidal	69	8.0	89	223	7.3/8.0	/1.56[c]		15/0.65		0/0.00	99/1.62		13/0.37			0.0			136[e]	29	78	0	35	Median 23.	USGS
11/8 1100		58	8.8	86	200	7.7/8.0	/1.42[c]		12/0.52		0/0.00	92/1.51		9.5/0.27			0.1			122[e]	27	71	0	35	Maximum 230.	
12/5 1045		47	9.6	81	276	7.2/8.0	/1.78[c]		22/0.96		0/0.00	104/1.70		19/0.54			0.2			168[e]	35	89	4	40	Minimum 1.3	
1/8/64 0915		44	11.0	90	234	7.5/8.1	/1.68[c]		17/0.74		0/0.00	97/1.59		13/0.37			0.0			143[e]	31	84	4	10		
2/6 1030		46	10.5	88	359	7.5/7.8	/2.10[c]		28/1.22		0/0.00	117/1.92		27/0.76			0.3			219[e]	37	105	9	65		
3/4 0915		49	10.6	92	269	7.5/8.2	/1.90[c]		20/0.87		0/0.00	103/1.69		18/0.51			0.2			164[e]	31	95	11	10		
4/8 1025		58	9.8	96	260	7.9/8.2	/1.74[c]		18/0.78		0/0.00	98/1.61		16/0.45			0.1		Color 5 Odor 1.4	158[e]	31	87	7	25		
5/6 0950		58	9.5	93	215	8.1/8.0	15/0.75	9.4/0.77	15/0.65	1.5/0.04	0/0.00	87/1.43	17/0.35	15/0.42	2.6/0.04	0.2/0.01	0.1	17	ABS 0.0 As 0.00 PO_4 0.30 Color 5 Odor 2	136[f]/124[g]	29	76	5	65		
6/10 0945		64	8.3	87	246	7.7/7.9	/1.70[c]		18/0.78		0/0.00	99/1.62		14/0.39			0.1			149[e]	31	85	4	65		
7/8 0945		69	8.2	91	231	7.7/8.2	/1.66[c]		21/0.91		0/0.00	97/1.59		11/0.31			0.2			146[e]	35	83	3	110		
8/5 1030		73	8.2	95	214	7.7/7.8	/1.48[c]		16/0.70		0/0.00	92/1.51		8.5/0.24			0.2			130[e]	32	74	0	50		
9/2 1015		73	8.0	92	218	7.6/8.1	15/0.75	9.4/0.77	16/0.70	2.2/0.06	0/0.00	94/1.54	14/0.29	12/0.34	1.5/0.02		0.1	19	ABS 0.0 As 0.00 PO_4 0.35	135[f]/151[g]	31	76	0	70		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

LITTLE POTATO SLOUGH AT TERMINOUS (STA. 99)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
11/8/63 0930	Tidal	58	8.3	81	176	7.3/7.8	1.22[c]		10/0.44		0/0.00	72/1.18		13/0.37			0.2			106[e]	27	61	2	15	Median 23.	USGS
1/6/64 1400		45	10.5	87	234	7.2/8.2	1.56[c]		16/0.70		0/0.00	79/1.29		24/0.68			0.0			141[e]	31	78	13	10	Maximum 230.	
3/4 1045		50	10.4	92	193	7.3/8.1	1.36[c]		13/0.57		0/0.00	38/0.62		14/0.39			0.1			116[e]	30	68	37	10	Minimum 2.3	
5/4 1245		60	9.5	95	213	7.6/7.5	15/0.75	8.1/0.67	13/0.57	1.3/0.03	0/0.00	68/1.11	80/0.11	26/0.73	1.4/0.02	0.0/0.00	0.0	17	ABS 0.1 As 0.00 PO_4 0.20	123[f]/131[g]	28	71	15	20		
7/2 1230		73	7.4	85	219	7.3/8.2	1.56[c]		15/0.65		0/0.00	82/1.34		21/0.59			0.1			132[e]	29	78	11	40		
9/8 1415		69	6.7	74	234	7.3/8.0	17/0.85	8.4/0.69	17/0.74	1.6/0.04	0/0.00	98/1.61	10/0.21	15/0.42	1.8/0.03		0.2	19	ABS 0.1 As 0.00 PO_4 0.25	145[f]/150[g]	32	77	0	10		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

McCLOUD RIVER ABOVE SHASTA LAKE (STA. 18)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/7/63 1030	1050	50	11.0	101	95	7.6/8.1	—/0.73[c]		4.6/0.20		0/0.00	54/0.89		2.9/0.08			0.0				22	36	0	1	Median 6.2	USGS
11/4 1330	1390	49	10.7	97	96	7.4/7.8	—/0.76[c]		4.4/0.19		0/0.00	53/0.87		2.0/0.06			0.0				20	38	0	3	Maximum 62.	
12/2 1300	1370	45	11.9	102	97	7.6/7.9	—/0.76[c]		4.5/0.20		0/0.00	55/0.90		0.5/0.01			0.1				21	38	0	2	Minimum 0.23	
1/6/64 1105	1150	44	12.2	103	98	7.3/8.1	—/0.76[c]		5.4/0.23		0/0.00	53/0.87		2.6/0.07			0.0				23	38	0	2		
2/3 1115	1730	44	12.4	105	95	7.5/8.1	—/0.78[c]		4.5/0.20		0/0.00	53/0.87		2.4/0.07			0.0				20	39	0	2		
3/4 1105	1240	46	12.1	105	98	7.5/8.2	—/0.78[c]		4.9/0.21		0/0.00	54/0.89		3.0/0.08			0.0				21	39	0	3		
4/7 1040	1300	47	11.7	103	97	7.5/8.1	—/0.80[c]		5.4/0.23		0/0.00	55/0.90		2.7/0.08			0.0				22	40	0	1		
5/5 1120	1260	47	11.7	103	95	7.7/8.0	10/0.50	3.0/0.25	4.7/0.20	1.1/0.03	0/0.00	52/0.85	1.0/0.02	2.8/0.08	0.5/0.01	0.0/0.00	0.0	32	ABS 0.0 As 0.00 PO_4 0.05	80[f]	20	38	0	1		
6/9 1030	1300	50	11.1	102	97	7.6/8.2	—/0.79[c]		5.2/0.23		0/0.00	54/0.89		1.0/0.03			0.1				23	40	0	1		
7/6 1045	1000	55	10.6	104	101	7.9/8.2	—/0.80[c]		5.6/0.24		0/0.00	60/0.98		1.0/0.03			0.0				23	40	0	1		
8/4 1025	931	54	10.9	105	96	7.7/8.0	—/0.76[c]		5.5/0.24		0/0.00	54/0.89		1.0/0.03			0.0				24	38	0	4		
9/1 1045	924	50	11.0	101	98	7.7/7.9	10/0.50	3.2/0.26	5.5/0.24	1.5/0.04	0/0.00	55/0.90	1.0/0.02	1.2/0.03	2.3/0.04		0.0	36	ABS 0.0 As 0.00 PO_4 0.10	78[f]	23	38	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MILL CREEK NEAR MOUTH (STA. 88)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/7/63	Not Sampled	-- No Flow																								
11/7 1205	380 est.	51	11.2	101	215	7.3/7.7	1.20[c]		17/0.74		0/0.00	40/0.66		19/0.54			0.6				38	60	27	15	Median 9.6	USGS
12/5 1230	320 est.	46	12.0	102	192	7.4/8.0	1.06[c]		16/0.70		0/0.00	51/0.84		18/0.51			0.5				40	53	11	2	Maximum 62.	
1/8/64 1210	300 est.	45	12.3	103	196	7.5/8.0	1.08[c]		17/0.74		0/0.00	54/0.89		20/0.56			0.5				41	54	10	1	Minimum 0.5	
2/5 1340	350 est.	49	11.7	103	164	7.5/8.1	0.96[c]		14/0.61		0/0.00	52/0.85		14/0.39			0.4				39	48	5	2		
3/3 1340	250 est.	49	11.6	102	186	7.6/8.0	1.02[c]		16/0.70		0/0.00	42/0.69		19/0.54			0.6				41	51	17	0		
4/6 1515	250 est.	58	10.3	101	164	7.6/8.0	0.94[c]		13/0.57		0/0.00	47/0.77		14/0.39			0.4				38	47	8	2		
5/4 1050	230 est.	53	11.2	104	144	7.4/7.6	10/0.50	3.9/0.32	11/0.48	2.0/0.05	0/0.00	38/0.62	17/0.35	12/0.34	1.2/0.02	0.1/0.01	0.4	32	ABS 0.0 As 0.01 PO_4 0.05	108[f]	36	41	10	2		
6/8 1000	200 est.	60	10.0	101	144	7.2/7.8	0.78[c]		10/0.44		0/0.00	33/0.54		8.0/0.23			1.1				36	39	12	7		
7/8 1155	2 est.	81	8.7	109	190	7.9/7.9	1.16[c]		14/0.61		0/0.00	56/0.92		14/0.39			0.4				34	58	12	5		
8/6	Not Sampled	-- No Flow																								
9/3 1620	3 est.	71	9.2	105	208	8.2/7.9	14/0.70[c]	5.6/0.46	17/0.74	2.7/0.07	0/0.00	62/1.02	18/0.37	21/0.59	0.5/0.01		0.6	35	ABS 0.0 As 0.03 PO_4 0.10	138[f]	38	58	7	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MOKELUMNE RIVER BELOW COSUMNES RIVER (STA. 23b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/15/63 1310		66			81				3.9					7.8						72	21					USBR
11/12 1300		57			83				4.1					5.7						92	21					
2/18/64 1100		50			128				4.1					3.5						80	14					
3/9 1220		52			129				4.1					5.0						112	13					
4/15 1335		67			67				2.8					2.1						80	18					
5/11 1535		70			188				21					38						132	49					
6/22 1540		74			90				4.1					3.6						80	20					
7/20 1445		78			171				11					10						124	28					
8/13 1400		71			187				14					11						108	33					
9/22 1450		70			145				11					8.5						76	33					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MOKELUMNE RIVER BELOW GEORGIANA SLOUGH (STA. 23c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/15/63 1150		67			160				8.5					7.1						128	23					USBR
11/12 1210		56			164				10					11						128	26					
2/18/64 1325		50			181				9.2					7.8						108	22					
3/9 1040		51			166				9.2					8.5						120	24					
4/14 1345		60			158				8.1					8.5						144	22					
5/11 1300		64			212				17					5.7						156	39					
6/22 1315		74			195				14					11						148	31					
7/20 1315		75			155				11					8.5						112	31					
8/13 1245		69			218				16					13						144	32					
9/22 1330		69			190				14					11						156	32					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MOKELUMNE RIVER NEAR LANCHA PLANA (STA. 23a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/6/63 0830	Not Rated	55	9.8	93	48	6.9/7.2	0.34		2.0/0.09		0/0.00	14/0.23		2.8/0.08			0.0			38[e]	21	17	6	9	Median 0.95	USGS
1/6/64 0900		47	11.6	99	35	6.7/7.5	0.22		2.0/0.09		0/0.00	14/0.23		3.2/0.09			0.1			28[e]	29	11	0	3	Maximum 23.	
3/2 1000		45	12.0	100	96	6.4/7.0	0.67		4.2/0.18		0/0.00	12/0.20		2.5/0.07			0.0			76[e]	21	34	24	2	Minimum 0.006	
5/4 0815		52	10.6	97	57	6.9/7.3	5.2/0.26	1.8/0.15	3.3/0.14	0.7/0.02	0/0.00	18/0.30	8.0/0.17	4.2/0.12	0.1/0.00	0.0/0.00	0.0	9.3	ABS 0.0 As 0.00 PO_4 0.00	42[f]/40[g]	25	20	5	1		
7/3 0930		52	12.4	113	46	7.1/7.7	0.30		3.0/0.13		0/0.00	19/0.31		1.5/0.04			0.0			36[e]	30	15	0	1		
9/17 0845		53	10.5	97	52	6.6/7.0	5.6/0.28	1.0/0.08	3.0/0.13	0.5/0.01	0/0.00	20/0.33	6.0/0.12	1.9/0.05	0.0/0.00		0.0		ABS 0.0 As 0.00 PO_4 0.00	39[f]/42[g]	26	18	2	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MOKELUMNE RIVER AT WOODBRIDGE (STA. 23)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
11/6/63 1230	92	57	10.1	97	42	7.1/7.3	/0.32[c]		2.0/0.09		0/0.00	20/0.33		2.6/0.07			0.0			31[e]	22	16	0	4	Median 13.	USGS
1/6/64 1430	62	45	12.2	101	45	7.1/7.7	/0.31[c]		2.6/0.11		0/0.00	20/0.33		3.5/0.10			0.1			33[e]	26	16	0	4	Maximum 230.	
3/2 1515	15	51	11.4	102	52	7.0/7.7	/0.38[c]		3.8/0.17		0/0.00	22/0.36		3.2/0.09			0.0			38[e]	31	19	1	2	Minimum 0.62	
5/4 0700	11	59	8.8	87	54	7.0/7.6	5.6/0.28	2.2/0.18	2.6/0.11	1.2/0.03	0/0.00	23/0.38	3.0/0.06	4.5/0.13	0.5/0.01	0.2/0.01	0.0	10	ABS 0.0 As 0.00 PO_4 0.05	41[f]/438	18	23	4	4		
7/3 1145	16	73	9.1	105	53	7.2/7.8	/0.38[c]		3.0/0.13		0/0.00	24/0.39		1.0/0.03			0.3			39[e]	25	19	0	3		
9/1 1015	55	66	9.2	98	55	7.3/7.3	6.0/0.30	1.1/0.09	3.3/0.14	1.0/0.03	0/0.00	24/0.39	5.0/0.10	2.3/0.06	0.2/0.00		0.0	8.9	ABS 0.0 As 0.00 PO_4 0.05	40[f]/428	25	20	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

OLD RIVER AT CLIFTON COURT FERRY (STA. 104)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron, (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1000	Tidal	69	8.8	97	645	7.3/8.2	—/3.10[c]		68/2.96		0/0.00	137/2.25		102/2.88			0.0			367[e]	49	155	43	25	Median 23.	USGS
11/5 1215		59	8.3	82	528	7.3/8.1	—/2.36[c]		55/2.39		0/0.00	95/1.56		84/2.37			0.1			300[e]	50	118	40	15	Maximum 230.	
12/3 1045		49	8.7	76	411	7.3/7.9	—/1.88[c]		49/1.91		0/0.00	78/1.28		58/1.64			0.2			234[e]	50	94	30	10	Minimum 1.3	
1/10/64 1120		48	10.2	88	489	7.3/8.2	—/2.14[c]		50/2.18		0/0.00	85/1.39		76/2.14			0.2			278[e]	50	107	37	8		
2/4 1115		51	9.2	82	694	7.2/7.8	—/3.12[c]		72/3.13		0/0.00	106/1.74		102/2.88			0.3			395[e]	50	156	69	10		
3/5 1145		51	10.1	90	513	7.5/8.2	—/2.60[c]		49/2.13		0/0.00	88/1.44		69/1.95			0.3			292[e]	45	130	58	10		
4/9 1110		61	9.1	91	376	7.6/8.0	—/2.12[c]		34/1.48		0/0.00	84/1.38		44/1.24			0.2			214[e]	41	106	37	35		
5/8 1100		64	10.2	107	379	8.2/7.9	24/1.20	11/0.88	34/1.48	1.6/0.04	0/0.00	87/1.43	26/0.54	53/1.50	2.1/0.03	0.2/0.01	0.1	13	ABS 0.1 As 0.00 PO_4 0.20	208[f]/226[g]	41	104	33	30		
6/11 1030		68	7.2	79	257	7.3/8.0	—/1.52[c]		21/0.91		0/0.91	82/0.00		26/1.34			0.1/0.73			146[e]	37	76	9	30		
7/6 1145		76	7.6	90	359	7.5/8.2	—/2.00[c]		34/1.48		0/0.00	93/1.52		46/1.30			0.3			204[e]	43	100	24	30		
8/6 1045		77	6.6	79	427	7.3/8.2	—/1.78[c]		48/2.09		0/0.00	80/1.31		75/2.12			0.2			243[e]	54	89	23	20		
9/3 1100		73	8.0	92	826	7.9/7.9	39/1.95	20/1.65	93/4.05	3.4/0.09	0/0.00	139/2.28	53/1.10	155/4.37	2.2/0.04		0.2	14	ABS 0.0 As 0.00 PO_4 0.30	448[f]/460[g]	52	180	66	25		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

OLD RIVER AT HOLLAND TRACT (STA. 108a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH b	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/15/63 1340		68			273				23					27						208	37					USBR
11/12 1010		59			439				42					62						296	42					
12/18 1320		47			449	7.1	26	8.1	43	2.3	0.0	77	43	64	0.0					292	48					
1/13/64 1140		45			518				48					71						380	40					
2/10 0915		50			658				58					88						400	38					
3/9 1130		50			295				24					33						188	35					
4/15 1030		65			223				15					20						184	29					
5/11 1400		68			209				15					20						172	31					
6/22 1245		73			237				18					22						160	33					
7/20 1030					399				45					70						248	49					
8/10 1025		68			677				80					418						392	51					
9/17 1030		68			376				41					65						260	47					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

OLD RIVER AT MANDEVILLE ISLAND (STA. 112)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/7/63 0945	Tidal	68	7.4	70	227	7.1/8.0	/1.46[c]		17/0.74		0/0.00	91/1.49		18/0.51			0.0			132[e]	34	73	0	15	Median 6.2	USGS
11/6 1325		59	8.7	86	289	7.7/7.7	/1.64[c]		25/1.09		0/0.00	92/1.51		31/0.87			0.0			168[e]	40	82	7	8	Maximum 62.	
12/2 1330		49	8.7	76	436	7.3/7.7	/2.14[c]		42/1.83		0/0.00	88/1.44		61/1.72			0.1			253[e]	46	107	35	20	Minimum 0.62	
1/8/64 0900		45	10.1	83	497	7.3/8.1	/2.52[c]		47/2.04		0/0.00	78/1.28		68/1.92			0.1			288[e]	45	126	62	10		
2/3 1315		51	9.1	82	527	7.1/7.7	/2.72[c]		44/1.91		0/0.00	80/1.31		70/1.97			0.1			306[e]	41	136	70	15		
3/6 0855		50	10.7	94	282	7.7/8.1	/1.68[c]		23/1.00		0/0.00	79/1.29		29/0.82			0.1			163[e]	37	84	19	10		
4/6 1045		57	10.8	104	219	7.7/8.2	/1.52[c]		16/0.70		0/0.00	78/1.28		18/0.51			0.1			127[e]	32	76	12	15		
5/6 0845		58	9.9	97	188	7.5/7.6	15/0.75	6.2/0.51	13/0.57	1.5/0.04	0/0.00	68/1.11	13/0.27	17/0.48	1.8/0.03	0.2/0.01	0.0	14	ABS 0.00 As 0.00 PO_4 0.15	115[f]/106[g]	30	63	7	15		
6/8 1100		65	8.3	88	209	7.5/8.2	/1.76[c]		16/0.70		0/0.00	82/1.34		16/0.45			0.1			121[e]	28	88	21	15		
7/2 0845		70	8.0	89	249	7.3/8.2	/1.64[c]		23/1.00		0/0.00	83/1.36		26/0.73			0.1			144[e]	38	82	14	20		
8/10 1215		76	8.0	95	590	7.8/7.8	/1.98[c]		76/3.31		0/0.00	78/1.28		122/3.44			0.1			342[e]	63	99	35	50		
9/8 1000		69	8.0	88	404	7.5/8.2	16/0.80	11/0.92	45/1.96	2.4/0.06	0/0.00	88/1.44	16/0.33	70/1.97	0.9/0.01		0.1	16	ABS 0.1 As 0.00 PO_4 0.25	220[f]/228[g]	52	86	14	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

OLD RIVER AT ORWOOD BRIDGE (STA. 108)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 0900	Tidal	68	7.3	80	310	7.3/8.1	1.76[c]		26/1.13		0/0.00	99/1.62		33/0.93			0.0			174[e]	39	88	7	9	Median 6.2	USGS
11/6 1140		61	7.9	80	417	7.5/8.0	2.13[c]		38/1.65		0/0.00	102/1.67		54/1.52			0.2			234[e]	44	106	22	20	Maximum 230.	
12/4 1300		50	8.3	73	425	7.2/8.0	1.96[c]		44/1.91		0/0.00	82/1.34		59/1.66			0.2			239[e]	49	124	31	20	Minimum 5.0	
1/8/64 1055		48	9.6	83	532	7.2/8.1	2.48[c]		50/2.18		0/0.00	79/1.29		81/2.29			0.2			299[e]	47	234	59	1		
2/5 1320		51	7.6	68	758	7.2/7.8	3.56[c]		70/3.04		0/0.00	96/1.57		108/3.05			0.3			426[e]	46	178	99	15		
3/6 1035		49	7.7	89	390	7.7/8.3	2.10[c]		34/1.48		1/0.03	82/1.34		48/1.35			0.2			219[e]	41	105	36	10		
4/8 1240		59	9.5	94	276	7.7/8.0	1.74[c]		22/0.96		0/0.00	82/1.34		26/0.73			0.1			155[e]	36	87	20	20		
5/6 1045		60	9.1	91	211	7.4/7.6	16/0.80[c]	6.8/0.56	15/0.65	1.4/0.04	0/0.00	73/1.20	15/0.31	20/0.56	1.9/0.03	0.2/0.01	0.1	13	ABS 0.1 As 0.00 PO_4 0.15	126[f]/117[g]	32	68	8	30		
6/9 1300		65	8.0	85	231	7.5/8.2	1.42[c]		19/0.83		0/0.00	79/1.29		20/0.56			0.1			130[e]	37	71	6	20		
7/2 1045		73	7.1	82	247	7.3/8.2	1.46[c]		22/0.96		0/0.00	86/1.41		22/0.62			0.1			139[e]	40	73	2	15		
8/10 1000		77	6.8	81	536	7.5/8.1	1.92[c]		64/2.78		0/0.00	80/1.31		108/3.05			0.2			301[e]	59	96	30	50		
9/8 1245		73	7.6	90	486	7.5/7.9	12/0.60	16/1.28	56/2.44	2.4/0.06	0/0.00	75/1.23	25/0.52	90/2.54	0.8/0.01		0.3	13	ABS 0.1 As 0.00 PO_4 0.20	252[f]/273[g]	56	94	32	20		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

OLD RIVER NEAR TRACY (STA. 103)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1045	Tidal	69	9.4	104	901	7.7 / 7.8	/ 4.00[c]		91 / 3.96		0 / 0.00	170 / 2.79		140 / 3.95			0.1			501[e]	50	200	61	20	Median 95.	USGS
11/5 1130		57	7.9	76	580	7.3 / 8.0	/ 2.66[c]		62 / 2.70		0 / 0.00	103 / 1.69		91 / 2.57			0.3			322[e]	50	133	49	10	Maximum 7000.	
12/3 0945		48	8.2	71	425	7.2 / 8.0	/ 1.96[c]		44 / 1.91		0 / 0.00	82 / 1.34		59 / 0.66			0.1			236[e]	49	98	31	10	Minimum 2.3	
1/10/64 1040		48	9.5	82	585	7.3 / 8.0	/ 2.78[c]		58 / 2.52		0 / 0.00	96 / 1.57		92 / 2.60			0.2			325[e]	48	139	60	8		
2/4 1200		51	9.0	81	771	7.3 / 7.8	/ 3.48[c]		80 / 3.48		0 / 0.00	120 / 1.97		120 / 3.39			0.3			429[e]	50	174	76	9		
3/5 1110		53	10.3	95	1080	8.1 / 8.1	/ 5.00[c]		115 / 5.00		0 / 0.00	152 / 2.49		192 / 5.42			0.4			600[e]	50	250	125	10		
4/9 1035		61	13.9	140	1220	8.7 / 8.0	/ 5.36[c]		124 / 5.39		0 / 0.00	190 / 3.11		199 / 5.61			0.5			678[e]	50	268	112	20		
5/8 1015		60	12.8	128	1190	8.7 / 8.4	66 / 3.29	30 / 2.43	130 / 5.66	4.2 / 0.11	4 / 0.13	186 / 3.05	88 / 1.83	228 / 6.43	8.4 / 0.14	0.3 / 0.02	0.4	17	ABS 0.1 As 0.01 PO_4 0.60	668[f] / 711[g]	49	286	127	5		
6/11 0945		66	8.9	95	1210	8.3 / 7.9	/ 5.64[c]		135 / 5.87		0 / 0.00	202 / 3.31		219 / 6.18			0.4			673[e]	51	282	116	10		
7/6 1045		71	9.8	111	1300	8.4 / 8.4	/ 6.00[c]		129 / 5.61		8 / 0.27	192 / 3.15		245 / 6.91			0.5			723[e]	48	300	129	10		
8/6 1000		77	7.0	84	1140	8.3 / 8.5	/ 5.44[c]		122 / 5.31		12 / 0.40	160 / 2.62		218 / 6.15			0.4			634[e]	49	272	121	20		
9/3 1240		71	10.0	113	2140	8.1 / 8.1	65 / 3.24	32 / 2.60	139 / 6.05	2.7 / 0.07	0 / 0.00	213 / 3.49	91 / 1.89	230 / 6.49	3.7 / 0.06		0.4	12	ABS 0.1 As 0.00 PO_4 0.50	681[f] / 706[g]	51	292	117	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PAYNES CREEK NEAR RED BLUFF (STA. 88g)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 1230	15 est.	64	8.6	91	223	7.4 / 8.3	1.50[c]		17 / 0.74		2 / 0.07	109 / 1.79		16 / 0.45			0.3				33	75	0	1		USGS
11/7 1310	20 est.	55	9.9	94	225	7.3 / 8.2	1.75[c]		17 / 0.74		0 / 0.00	116 / 1.90		13 / 0.37			0.4				30	88	0	3		
12/5 1015	20 est.	51	10.4	94	214	7.3 / 8.2	1.50[c]		16 / 0.70		0 / 0.00	114 / 1.87		12 / 0.34			0.3				32	75	0	1		
1/2/64 1320	20 est.	55	11.0	104	227	7.5 / 8.2	1.50[c]		18 / 0.78		0 / 0.00	116 / 1.90		14 / 0.39			0.3				34	75	0	2		
2/5 1215	20 est.	52	10.9	100	180	7.4 / 8.3	1.24[c]		13 / 0.57		2 / 0.07	90 / 1.48		10 / 0.28			0.2				31	62	0	2		
3/13 1215	20 est.	54	11.5	108	200	7.8 / 8.4	1.38[c]		16 / 0.70		4 / 0.13	100 / 1.64		12 / 0.34			0.3				34	69	0	2		
4/9 1220	20 est.	63	10.1	105	205	7.8 / 8.1	1.42[c]		16 / 0.70		0 / 0.00	107 / 1.75		12 / 0.34			0.2				33	71	0	4		
5/4 1240	20 est.	60	10.1	102	218	7.6 / 7.7	16 / 0.80	8.0 / 0.66	17 / 0.74	1.5 / 0.04	0 / 0.00	113 / 1.85	2.0 / 0.04	13 / 0.37	1.9 / 0.03	0.1 / 0.01	0.4	47	ABS 0.0 As 0.00 PO_4 0.20	159[f]	33	73	0	1		
6/11 1145	10 est.	67	9.5	103	228	7.6 / 8.2	1.60[c]		19 / 0.83		0 / 0.00	120 / 1.97		12 / 0.34			0.4				34	80	0	5		
7/10 0825	5 est.	63	7.9	82	261	7.2 / 7.6	1.72[c]		23 / 1.00		0 / 0.00	129 / 2.11		18 / 0.51			0.5				37	86	0	3		
8/3 1145	5 est.	61	9.4	96	223	7.5 / 8.3	1.50[c]		18 / 0.78		1 / 0.03	110 / 1.80		16 / 0.45			0.4				34	75	0	3		
9/3 1510	15 est.	69	9.0	100	241	7.5 / 7.9	14 / 0.70	10 / 0.86	21 / 0.91	1.8 / 0.05	0 / 0.00	116 / 1.90	2.0 / 0.04	18 / 0.51	1.4 / 0.02		0.6	49	ABS 0.0 As 0.00 PO_4 0.30	174[f]	36	78	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER NEAR BIERER (STA. 17e)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 1130	60	62	9.2	109	346	8.2/8.1	2.22[c]		30/1.30		0/0.00	202/3.31		8.2/0.23			0.0				37	111	0	10		USGS
11/6 1035	166	49	10.0	101	285	7.9/8.1	1.84[c]		26/1.13		0/0.00	162/2.66		7.6/0.21			0.0				38	92	0	20		
12/4 1645	151	40	11.3	101	250	8.0/8.2	1.54[c]		23/1.00		0/0.00	139/2.28		5.0/0.14			0.1				39	77	0	10		
	Discontinued																									

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER NEAR CANBY (STA. 17a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 1015	55	55	9.0	99	314	8.1/8.1	1.96[c]		28/1.22		0/0.00	184/3.02		7.0/0.20			0.0				38	98	0	25	Median 23.	USGS
11/6 1240	101	42	10.5	97	296	8.0/8.3	1.74[c]		26/1.13		2/0.07	156/2.56		9.2/0.26			0.1				39	87	0	20	Maximum 24000.	
12/4 1530	75	35	13.1	109	264	8.2/8.4	1.60[c]		25/1.09		3/0.10	137/2.25		7.0/0.20			0.2				41	80	0	10	Minimum 0.045	
1/8/64 0945	49	34			294	8.1/8.2	1.72[c]		28/1.22		0/0.00	153/2.51		9.5/0.27			0.0				41	86	0	20		
2/5 1400	149	37	13.4	115	311	8.1/8.2	1.82[c]		34/1.48		0/0.00	158/2.59		9.0/0.25			0.1				45	91	0	40		
3/4 0800	71	36	11.3	95	331	8.0/8.2	1.88[c]		34/1.48		0/0.00	155/2.54		13/0.37			0.1				44	94	0	30		
4/9 1055	250	52	9.0	94	191	7.9/8.2	1.28[c]		17/0.74		0/0.00	104/1.70		4.6/0.13			0.1				37	64	0	30		
5/6 0955	324	45	10.0	97	217	7.9/8.1	18/0.90	5.8/0.48	20/0.87	3.9/0.10	0/0.00	117/1.92	12/0.25	4.8/0.14	1.8/0.03	0.3/0.02	0.1	31	ABS 0.1 As 0.00 PO_4 0.30	166[f]	37	69	0	35		
6/10 1830	870	53	8.6	92	205	7.5/8.2	1.38[c]		18/0.78		0/0.00	112/1.84		4.0/0.11			0.1				36	69	0	30		
7/8 0945	233	72	7.2	95	219	8.2/8.3	1.48[c]		18/0.78		1/0.03	122/2.00		3.5/0.10			0.1				35	74	0	20		
8/6 0800	1.9	65	6.9	85	243	8.0/8.4	1.60[c]		21/0.91		2/0.07	132/2.16		5.5/0.16			0.1				36	80	0	20		
9/3 0740	165	55	7.7	84	285	7.6/8.1	21/1.05	9.1/0.75	25/1.09	6.2/0.16	0/0.00	158/2.59	12/0.25	5.9/0.17	0.8/0.01		0.3	32	ABS 0.4 As 0.01 PO_4 0.85	215[f]	36	90	0	20		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER NEAR MONTGOMERY CREEK (STA. 17)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 1315	2960	58	9.9	100	154	7.8/8.0	1.12[c]		10/0.44		0/0.00	88/1.44		4.8/0.14			0.0				28	56	0	2	Median 2.3	UPGS
11/6	Not Sampled	-- Inaccessible																							Maximum 23.	
12/4	Not Sampled	-- Inaccessible																								
1/8/64	Not Sampled	-- Inaccessible																							Minimum 0.23	
2/5 1100	6070	44	12.0	102	156	7.9/8.3	1.16[c]		11/0.48		2/0.07	82/1.34		2.8/0.08			0.1				29	58	0	2		
3/4	Not Sampled	-- Inaccessible																								
4/9 1405	4470	52	10.9	103	142	8.0/8.4	1.02[c]		11/0.48		1/0.03	82/1.34		4.2/0.12			0.1				32	51	0	15		
5/6 1250	4170	55	11.0	107	150	8.3/8.3	11/0.55	6.4/0.53	10/0.44	2.0/0.05	2/0.07	81/1.33	3.0/0.06	3.8/0.11	0.9/0.01	0.0/0.00	0.0	30	ABS 0.0 As 0.01 PO_4 0.10	111[f]	28	54	0	5		
6/10 1600	3150	61	10.0	105	171	8.2/8.2	1.22[c]		13/0.57		0/0.00	94/1.54		3.5/0.10			0.1				32	61	0	2		
7/8 1300	3070	68	9.3	105	166	8.4/8.4	1.18[c]		11/0.48		2/0.07	90/1.48		3.5/0.10			0.0				29	59	0	2		
8/7 0915	1430	67	9.0	101	156	8.4/8.1	1.12[c]		11/0.48		0/0.00	89/1.46		3.5/0.10			0.1				30	56	0	2		
9/4 0840	898	61	9.5	100	161	8.0/8.0	13/0.65	6.0/0.49	11/0.48	2.3/0.05	0/0.00	90/1.48	4.0/0.08	3.0/0.08	1.5/0.02		0.1	34	ABS 0.0 As 0.01 PO_4 0.25	112[f]	29	57	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER, SOUTH FORK NEAR LIKELY (STA. 18a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)[g]	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 0850	28	49	10.2	105	111	7.9/8.0	—/0.87[c]		5.0/0.22		0/0.00	68/1.11		0.5/0.01			0.0				20	44	0	2	Median 23.	USGS
11/6 1400	44	40	10.9	99	126	7.7/8.0	—/0.98[c]		5.9/0.26		0/0.00	76/1.25		1.8/0.05			0.0				21	49	0	2	Maximum 7000.	
12/4 1440	32	36	12.0	102	103	7.6/7.7	—/0.80[c]		5.0/0.22		0/0.00	58/0.95		0.5/0.01			0.0				22	40	0	6	Minimum 2.3	
1/8/64 1125	36	34			116	7.8/8.0	—/0.90[c]		6.6/0.29		0/0.00	65/1.07		1.2/0.03			0.0				24	45	0	1		
2/5 1520	46	33	12.4	101	124	7.7/8.2	—/1.00[c]		6.6/0.29		0/0.00	75/1.23		1.2/0.03			0.0				22	50	0	4		
3/4 1050	26	39	11.9	106	108	8.3/8.2	—/0.88[c]		5.8/0.25		0/0.00	66/1.08		1.0/0.03			0.0				22	44	0	4		
4/9 0950	29	44	12.3	118	111	8.4/8.4	—/0.88[c]		7.3/0.32		1/0.03	64/1.05		0.8/0.02			0.0				27	44	0	7		
5/6 0840	103	38	11.9	105	98	7.8/8.0	10/0.50	3.4/0.28	4.9/0.21	1.9/0.05	0/0.00	55/0.90	2.0/0.04	0.8/0.02	2.2/0.04	0.1/0.01	0.0	31	ABS 0.0 As 0.01 PO_4 0.10	91[f]	20	39	0	5		
6/11 0850	1.2	49	9.8	100	106	7.5/8.1	—/0.86[c]		6.1/0.27		0/0.00	63/1.03		1.0/0.03			0.0				24	43	0	15		
7/2 1240	122	65	8.3	104	98	8.2/8.1	—/0.79[c]		5.0/0.22		0/0.00	56/0.92		0.5/0.01			0.0				22	40	0	2		
8/6 0905	168	66	8.1	101	138	8.1/8.3	—/1.02[c]		8.8/0.38		2/0.07	76/1.25		2.0/0.06			0.0				27	51	0	30		
9/3 0920	83	60	8.9	105	147	8.2/7.5	14/0.70	4.1/0.34	9.3/0.40	4.5/0.12	0/0.00	81/1.33	4.0/0.08	2.1/0.06	2.1/0.03		0.1	33	ABS 0.2 As 0.00 PO_4 0.40	110[f]	26	52	0	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PUTAH CREEK NEAR WINTERS (STA. 81)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by 1
10/10/63 1115	106	59	13.2	132	298	8.1/8.4	2.90[c]		7.5/0.33		8/0.27	158/2.59		8.0/0.23			0.0			179[e]	10	145	2	1	Median 5.0	USGS
11/5 0840	11	55	9.2	87	320	7.8/8.4	3.00[c]		10/0.44		3/0.10	171/2.80		10/0.28			0.2			193[e]	13	150	5	1	Maximum 230.	
12/5 0845	30	48	11.0	96	312	7.7/8.2	2.96[c]		10/0.44		0/0.00	175/2.87		6.5/0.18			0.1			188[e]	13	148	4	2	Minimum 0.23	
1/7/64 1530	20	52	12.2	112	313	8.1/8.6	3.02[c]		8.7/0.38		6/0.20	170/2.79		7.8/0.22			0.1			188[e]	11	151	2	1		
2/6 0900	26	47	11.5	99	314	7.9/8.6	3.18[c]		9.8/0.43		10/0.33	152/2.49		8.5/0.24			0.2			189[e]	12	159	18	5		
3/3 1500	127	54	12.0	113	307	8.1/8.6	3.10[c]		8.2/0.36		8/0.27	157/2.57		5.0/0.14			0.2			185[e]	10	155	13	15		
4/8 1230	212	56	12.5	120	305	8.4/8.7	2.98[c]		9.0/0.39		6/0.20	166/2.72		5.0/0.14			0.4			184[e]	12	149	3	1		
5/5 0730	432	52	10.7	98	312	8.3/8.5	16/0.80	27/2.24	9.2/0.40	1.9/0.05	2/0.07	175/2.87	18/0.37	5.0/0.14	1.2/0.02	0.0/0.00	0.2	7.8	ABS 0.0 As 0.00 PO_4 0.05	174[f] 174[g]	11	152	5	4		
6/10 0815	274	54	11.5	108	318	8.2/8.5	3.04[c]		9.0/0.39		6/0.20	168/2.75		6.0/0.17			0.2			191[e]	11	152	4	1		
7/8 0800	536	57	11.2	109	318	8.2/8.4	3.10[c]		8.8/0.38		4/0.13	174/2.85		0.5/0.01			0.3			191[e]	11	155	6	4		
8/5 0845	530	58	11.3	103	314	8.1/8.6	3.08[c]		9.0/0.39		8/0.27	166/2.72		4.0/0.11			0.2			189[e]	11	154	5	2		
9/2 0830	352	55	11.1	105	319	8.1/8.2	19/0.95	25/2.09	8.5/0.37	1.6/0.04	0/0.00	182/2.98	16/0.33	4.7/0.13	1.1/0.02		0.1	10	ABS 0.0 As 0.00 PO_4 0.00	176[f] 158[g]	11	152	3	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

RED BANK CREEK NEAR RED BLUFF (STA. 88d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63	Not Sampled		-- No Flow																							USGS
11/5	Not Sampled		-- No Flow																							
12/3 1630	7 est.	52	10.4	96	549	8.1/8.4	5.26[c]		20/0.87		4/0.13	257/4.21		20/0.56			0.1				14	263	46	1		
1/7/64 1100	4 est.	51			559	8.0/8.4	5.36[c]		19/0.83		6/0.20	256/4.20		24/0.68			0.0				13	268	48	1		
2/4 1515	8 est.	55	10.7	102	506	8.4/8.4	4.68[c]		21/0.91		4/0.13	225/3.69		18/0.51			0.1				16	234	43	5		
3/3 1410	4 est.	58	10.6	105	515	8.2/8.4	4.88[c]		20/0.87		9/0.30	227/3.72		20/0.56			0.2				15	244	43	1		
4/8 1145	1 est.	66	9.3	101	563	8.0/8.4	5.46[c]		20/0.87		6/0.20	266/4.36		20/0.56			0.1				14	273	45	1		
5/5 1040	0	61	9.7	100	557	8.0/8.4	58/2.89	31/2.51	18/0.78	0.7/0.02	6/0.20	272/4.46	44/0.92	20/0.56	1.0/0.02	0.1/0.01	0.1	18	ABS 0.0 As 0.00 PO_4 0.10	333[f]	13	270	37	1		
6/10	Not Sampled		-- No Flow																							
7/8	Not Sampled		-- No Flow																							
8/4	Not Sampled		-- No Flow																							
9/3	Not Sampled		-- No Flow																							

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ROCK SLOUGH NEAR KNIGHTSEN (STA. 109)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/53 0745	Tidal	68	6.4	70	294	7.1 / 8.0	1.72[c]		25 / 1.09		0 / 0.00	101 / 1.66		28 / 0.79			0.0			169[e]	39	86	3	10	Median 9.5	USGS
11/6 1055		59	7.5	74	377	7.3 / 7.6	2.02[c]		32 / 1.39		0 / 0.00	110 / 1.80		44 / 1.24			0.3			217[e]	41	101	11	20	Maximum 230.	
12/4 1150		49	8.2	71	604	7.3 / 7.9	2.72[c]		65 / 2.83		0 / 0.00	112 / 1.84		88 / 2.48			0.4			347[e]	51	136	44	9	Minimum 2.3	
1/8/64 1140		49	9.7	84	578	7.3 / 8.3	2.68[c]		60 / 2.61		3 / 0.10	91 / 1.49		90 / 2.54			0.4			332[e]	49	134	54	8		
2/5 1220		51	7.2	64	908	7.2 / 8.1	4.20[c]		85 / 3.70		0 / 0.00	122 / 2.00		131 / 3.70			0.6			522[e]	47	210	110	20		
3/6 1115		51	10.0	90	445	7.5 / 8.2	2.32[c]		40 / 1.74		0 / 0.00	86 / 1.41		56 / 1.58			0.2			256[e]	43	116	45	10		
4/8 1115		60	9.3	93	298	7.7 / 8.2	1.80[c]		25 / 1.09		0 / 0.00	87 / 1.43		28 / 0.79			0.1			171[e]	38	90	19	15		
5/6 1145		59	9.3	92	231	7.3 / 7.8	18 / 0.90	7.5 / 0.62	16 / 0.70	1.3 / 0.03	0 / 0.00	73 / 1.20	21 / 0.44	21 / 0.59	2.1 / 0.03	0.2 / 0.01	0.1	14	ABS 0.1 As 0.00 PO_4 0.15	131[f] / 137[g]	31	76	16	20		
6/9 1125		65	7.3	77	225	7.3 / 8.0	1.40[c]		18 / 0.78		0 / 0.00	80 / 1.31		20 / 0.56			0.1			129[e]	36	70	4	15		
7/6 1345		78	7.9	95	261	7.6 / 8.2	1.72[c]		26 / 1.13		0 / 0.00	84 / 1.38		28 / 0.79			0.2			150[e]	40	86	17	20		
8/6 1215		79	6.8	83	592	7.7 / 7.9	2.06[c]		76 / 3.31		0 / 0.00	84 / 1.38		122 / 3.44			0.2			340[e]	62	103	34	20		
9/3 1215		72	6.6	75	640	7.3 / 7.7	19 / 0.95	15 / 1.25	78 / 3.39	4.6 / 0.12	0 / 0.00	85 / 1.39	26 / 0.54	134 / 3.78	0.8 / 0.01		0.1	13	ABS 0.0 As 0.00 PO_4 0.15	332[f] / 359[g]	59	110	40	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BEND (STA. 12c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 0950	8050	55	10.4	99	111	7.3/7.9	—/0.90[c]		4.9/0.21		0/0.00	60/0.98		3.0/0.08			0.0				19	45	0	3	Median 62.	USGS
11/7 1400	8790	53	10.3	95	121	7.3/7.7	—/0.96[c]		5.4/0.23		0/0.00	62/1.02		4.8/0.14			0.1				19	48	0	3	Maximum 620.	
12/5 1330	10600	52	10.5	96	126	7.3/7.9	—/1.02[c]		6.1/0.27		0/0.00	65/1.07		4.2/0.12			0.0				21	51	0	4	Minimum 0.2	
1/8/64 1125	8430	49	11.1	98	130	7.3/8.1	—/1.02[c]		7.3/0.32		0/0.00	68/1.11		4.2/0.12			0.0				24	51	0	2		
2/5 1110	11000	48	11.2	97	130	7.3/8.3	—/1.04[c]		7.1/0.31		1/0.03	67/1.10		2.0/0.06			0.0				23	52	0	7		
3/3 1440	7840	48	11.5	100	131	7.5/8.2	—/1.00[c]		7.5/0.33		0/0.00	69/1.13		5.0/0.14			0.0				25	50	0	2		
4/6 1340	5480	53	11.7	108	122	7.8/8.1	—/1.00[c]		6.6/0.29		0/0.00	64/1.05		4.4/0.12			0.0				22	50	0	1		
5/4 0940	10700	50	11.7	104	124	7.3/7.9	10/0.50	5.6/0.46	6.5/0.28	1.3/0.03	0/0.00	64/1.05	5.0/0.10	2.5/0.07	1.2/0.02	0.0/0.00	0.0	22	ABS 0.0 As 0.00 PO_4 0.00	87[f]	22	48	0	1		
6/8 1145	10400	54	10.5	98	120	7.3/8.1	—/1.00[c]		6.4/0.28		0/0.00	64/1.05		2.0/0.06			0.0				22	50	0	2		
7/8 1400	11200	56	10.6	102	121	7.4/8.2	—/0.99[c]		5.9/0.26		0/0.00	66/1.08		1.5/0.04	1.1/0.02		0.0		PO_4 0.15		21	50	0	1		
8/6 1400	11600	57	10.3	100	119	7.4/7.9	—/0.98[c]		6.5/0.28		0/0.00	67/1.10		2.0/0.06			0.0				22	49	0	3		
9/3 1710	8870	58	10.4	102	121	7.4/7.8	10/0.50	5.8/0.48	5.9/0.26	1.4/0.04	0/0.00	67/1.10	4.0/0.08	1.9/0.05	0.6/0.01		0.0	23	ABS 0.0 As 0.01 PO_4 0.05	88[f]	20	49	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BUTTE CITY (STA. 87a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 1130	7300	61	9.9	100	126	7.4/7.8	—/1.00[c]		5.5/0.24		0/0.00	68/1.11		3.9/0.11			0.0				19	50	0	2	Median 23.	USGS
11/4 1430	7760	55	10.9	102	125	7.5/7.8	—/1.00[c]		5.2/0.23		0/0.00	66/1.08		4.0/0.11			0.0				19	50	0	2	Maximum 62.	
12/2 1445	11300	52	10.6	96	139	7.3/7.8	—/1.10[c]		6.6/0.29		0/0.00	70/1.15		5.2/0.15			0.1				21	55	0	6	Minimum 0.62	
1/6/64 1215	9240	49			146	7.4/8.2	—/1.14[c]		7.5/0.33		0/0.00	75/1.23		5.9/0.17			0.0				22	57	0	2		
2/3 1500	13000	50	11.2	99	144	7.6/8.1	—/1.36[c]		8.0/0.35		0/0.00	71/1.16		4.5/0.13			0.1				20	68	10	5		
3/2 1510	8900	52	11.3	102	145	7.8/8.3	—/1.10[c]		8.1/0.35		2/0.07	72/1.18		4.5/0.13			0.1				24	55	0	5		
4/7 1100	5160	58	10.4	101	149	7.8/8.0	—/1.16[c]		7.4/0.32		0/0.00	77/1.26		3.0/0.08			0.1				22	58	0	5		
5/4 1040	8020	54	11.0	102	129	7.5/8.0	12/0.60	5.1/0.42	6.7/0.29	1.2/0.03	0/0.00	69/1.13	6.0/0.12	4.5/0.13	1.5/0.02	0.0/0.00	0.1	22	ABS 0.0 As 0.00 PO_4 0.05	88[f]	22	51	0	1		
6/9 1340	8240	58	10.0	97	125	7.5/8.0	—/1.10[c]		6.4/0.28		0/0.00	67/1.10		2.0/0.06			0.0				20	55	0	3		
7/7 0935	8970	63	9.6	99	127	7.6/7.7	—/1.04[c]		6.8/0.30		0/0.00	67/1.10		2.0/0.06			0.1				22	52	0	15		
8/3 1505	9920	67	9.9	107	127	7.7/8.1	—/0.96[c]		7.4/0.32		0/0.00	67/1.10		3.0/0.08			0.0				25	48	0	3		
9/2 0940	9820	59	10.2	100	126	7.6/8.1	10/0.50	6.1/0.50	7.0/0.30	1.2/0.03	0/0.00	69/1.13	5.0/0.10	1.4/0.04	0.4/0.01		0.0	22	ABS 0.0 As 0.00 PO_4 0.05	93[f]	23	50	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT COLUSA (STA. 13b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/8/63 0930	7980	62	9.7	99	126	7.4/7.5	—/1.00[c]		5.5/0.24		0/0.00	67/1.10		3.8/0.11			0.0				19	50	0	5	Median 12.2	USGS
11/4 1315	8200	55	10.5	99	123	7.5/7.8	—/0.98[c]		5.5/0.24		0/0.00	68/1.11		4.5/0.13			0.0				20	49	0	3	Maximum 62.	
12/2 1220	11600	52	10.7	97	138	7.3/8.0	—/1.08[c]		6.8/0.30		0/0.00	68/1.11		3.5/0.10			0.1				22	54	0	7	Minimum 0.23	
1/6/64 1015	9410	48			146	7.5/8.0	—/1.12[c]		8.4/0.37		0/0.00	78/1.28		4.5/0.13			0.0				25	56	0	2		
2/3 1315	13100	50	11.1	98	143	7.4/7.9	—/1.14[c]		7.8/0.34		0/0.00	71/1.16		4.0/0.11			0.1				23	57	0	10		
3/2 1230	8970	51	11.1	99	147	7.5/7.7	—/1.14[c]		8.5/0.37		0/0.00	75/1.23		4.5/0.13			0.1				25	57	0	2		
4/7 0900	5100	58	10.4	101	151	7.8/7.8	—/1.24[c]		8.0/0.35		0/0.00	80/1.31		6.2/0.17			0.0				22	62	0	8		
5/4 0840	7160	55	10.6	100	132	7.6/7.9	12/0.60	5.4/0.44	7.3/0.32	1.3/0.03	0/0.00	69/1.13	5.0/0.10	4.8/0.14	0.8/0.01	0.2/0.01	0.1	24	ABS 0.0 As 0.01 PO_4 0.05	89[f]	23	52	0	10		
6/9 1210	7760	59	9.7	96	129	7.5/8.1	—/1.08[c]		7.4/0.32		0/0.00	68/1.11		4.0/0.11			0.0				23	54	0	5		
7/7 0755	8790	65	9.2	97	128	7.8/8.0	—/1.04[c]		6.9/0.30		0/0.00	70/1.15		2.2/0.06			0.0				22	52	0	4		
8/3 1315	9320	67	9.5	102	129	7.6/7.7	—/1.04[c]		7.2/0.31		0/0.00	69/1.13		2.5/0.07			0.0				23	52	0	10		
9/2 0745	9460	60	9.9	99	124	7.8/7.9	11/0.55	5.5/0.45	7.0/0.30	1.7/0.04	0/0.00	70/1.15	4.0/0.08	1.8/0.05	1.4/0.02		0.0	23	ABS 0.0 As 0.00 PO_4 0.05	85[f]	22	50	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER ABOVE COLUSA TROUGH (STA. 14b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
10/8/63 0810	9200	61	9.6	97	130	7.4/8.0	1.04[c]		5.8/0.25		0/0.00	70/1.15		3.9/0.11			0.0				19	52	0	10	Median 6.2	USGS
11/4 1110	8220	55	10.9	102	131	7.3/7.9	1.04[c]		5.9/0.26		0/0.00	72/1.18		4.5/0.13			0.0				20	52	0	2	Maximum 230.	
12/2 1115	12910 M.D.	52	10.4	94	147	7.3/7.7	1.14[c]		7.2/0.31		0/0.00	72/1.18		4.0/0.11			0.2				21	57	0	15	Minimum 0.62	
1/6/64 0845	10200				152	7.5/8.5	1.18[c]		9.2/0.40		3/0.10	75/1.23		6.0/0.17			0.0				25	59	0	8		
2/3 1120	14800	49	10.9	95	148	7.4/8.0	1.18[c]		7.7/0.33		0/0.00	74/1.21		4.5/0.13			0.1				22	59	0	10		
3/2 1105	9676	50	11.1	98	148	7.6/8.2	1.16[c]		8.3/0.36		0/0.00	76/1.25		6.6/0.19			0.0				24	58	0	5		
4/7 0800	5370	58	10.1	98	156	7.6/7.9	1.24[c]		8.0/0.35		0/0.00	79/1.29		6.6/0.19			0.0				22	62	0	5		
5/4 0655	5250	57	10.0	96	170	7.7/8.2	13/0.65	7.2/0.59	11/0.48	1.4/0.04	0/0.00	80/1.31	12/0.25	7.5/0.21	0.9/0.01	0.1/0.01	0.1	24	ABS 0.0 As 0.00 PO_4 0.10	112[f]	27	62	0	15		
6/9 0930	5630	63	8.9	92	171	7.5/8.1	1.26[c]		11/0.48		0/0.00	82/1.34		6.0/0.17			0.1				28	63	0	10		
7/7 0655	7830	67	8.9	96	151	7.3/8.0	1.18[c]		9.3/0.40		0/0.00	76/1.25		4.0/0.11			0.0				25	59	0	10		
8/3 1135	8000 est	68	9.1	99	145	7.7/8.3	1.08[c]		9.3/0.40		1/0.03	73/1.20		3.5/0.10			0.0				27	54	0	10		
9/3 1500	11500	63	9.5	98	148	7.6/8.0	12/0.60	6.6/0.54	9.3/0.40	1.7/0.04	0/0.00	80/1.31	6.0/0.12	3.7/0.10	0.8/0.01		0.1	24	ABS 0.0 As 0.00 PO_4 0.10	102[f]	25	57	0	9		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT DELTA (STA. 11)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 0830	276	57	10.4	104	143	7.6/8.1	—/1.00[c]		8.3/0.36		0/0.00	76/1.25		8.0/0.23			0.0				25	53	0	1	Median 9.6	USGS
11/5 1000	645	50	10.5	97	121	7.6/7.9	—/0.98[c]		6.1/0.27		0/0.00	63/1.03		5.6/0.16			0.1				22	48	0	4	Maximum 230.	
12/3 0935	732	43	12.5	104	114	7.5/8.0	—/0.98[c]		4.6/0.20		0/0.00	64/1.05		4.6/0.13			0.1				17	49	0	1	Minimum 0.62	
1/6/64 1210	464	40	12.8	103	119	7.4/8.1	—/1.00[c]		6.5/0.28		0/0.00	65/1.07		5.8/0.16			0.0				22	50	0	2		
2/3 1240	1010	44	12.5	106	107	7.5/8.1	—/0.86[c]		4.8/0.21		0/0.00	57/0.93		2.5/0.07			0.1				20	43	0	2		
3/4 1230	590	45	12.3	106	110	7.8/8.1	—/0.96[c]		6.4/0.28		0/0.00	62/1.02		4.5/0.13			0.1				23	48	0	5		
4/7 1205	760	49	11.8	107	106	7.8/8.4	—/0.96[c]		4.7/0.20		2/0.07	59/0.97		4.0/0.11			0.0				17	48	0	1		
5/5 1300	600	50	11.5	106	106	7.8/7.9	5.6/0.28	7.3/0.60	4.9/0.21	0.5/0.01	0/0.00	59/0.97	1.0/0.02	2.5/0.07	1.1/0.02	0.2/0.01	0.0	20	ABS 0.0 As 0.00 PO_4 0.00	69[f]	19	44	0	1		
6/9 1130	678	48	10.7	96	112	7.7/8.1	—/0.96[c]		5.2/0.23		0/0.00	62/1.02		3.0/0.08			0.1				19	48	0	1		
7/6 1145	263	69	9.7	111	142	8.4/8.2	—/1.10[c]		8.6/0.37		0/0.00	75/1.23		5.8/0.16			0.2				25	55	0	1		
8/4 1140	185	69	9.8	113	160	8.4/8.3	—/1.12[c]		11/0.48		1/0.03	79/1.29		5.0/0.14			0.2				30	56	0	1		
9/1 1215	200	58	10.2	103	158	8.3/8.2	11/0.55	6.9/0.57	12/0.52	1.4/0.04	0/0.00	76/1.25	2.0/0.04	8.6/0.24	0.3/0.00		0.3	30	ABS 0.0 As 0.00 PO_4 0.10	110[f]	31	56	0	3		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT FREEPORT (STA. 15b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 0715	12,400	62	9.0	92	171	7.3/8.0	1.22[c]		10/0.44		0/0.00	80/1.31		8.0/0.23			0.0			113[e]	27	61	0	15	Median 230.	USCS
11/8 0740	19,600	55	9.5	89	146	7.8/7.9	1.08[c]		7.6/0.33		0/0.00	70/1.15		5.8/0.16			0.0			96[e]	23	54	0	25	Maximum 7000	
12/5 1345	23,000	47	10.6	90	144	7.3/8.0	1.08[c]		8.2/0.36		0/0.00	67/1.10		4.0/0.11			0.1			95[e]	25	54	0	8	Minimum 5.0	
1/8/64 1200	16,100	46	11.4	96	178	7.3/7.1	1.26[c]		13/0.57		0/0.00	73/1.20		8.0/0.23			0.0			117[e]	31	63	3	3		
2/6 1330	22,700	47	11.2	95	163	7.3/8.0	1.32[c]		10/0.44		0/0.00	74/1.21		5.8/0.16			0.1			108[e]	25	66	5	8		
3/4 1230	15,500	50	11.2	99	163	7.5/8.0	1.22[c]		9.7/0.42		0/0.00	76/1.25		8.5/0.24			0.0			108[e]	26	61	0	4		
4/8 0740	13,700	56	10.8	103	137	7.7/8.1	1.06[c]		7.6/0.33		0/0.00	66/1.08		5.5/0.16			0.0			90[e]	24	53	0	8		
5/6 0650	13,600	56	9.7	92	175	7.7/7.8	12/0.60	7.3/0.60	13/0.57	1.3/0.03	0/0.00	75/1.23	13/0.27	8.0/0.23	1.3/0.02	0.0/0.00	0.1	20	ABS 0.1 As 0.00 PO_4 0.35	113[f]/111[g]	32	60	0	15		
6/10 1300	13,800	64	8.7	91	192	7.3/7.9	1.28[c]		13/0.57		0/0.00	81/1.33		10/0.28			0.0			127[e]	31	64	0	10		
7/8 1400	12,200	73	8.7	100	170	7.7/7.7	1.20[c]		11/0.48		0/0.00	77/1.26		9.5/0.27			0.0			112[e]	29	60	0	10		
8/5 1500	13,000	73	8.8	101	152	7.5/7.5	1.10[c]		11/0.48		0/0.00	72/1.18		4.5/0.13			0.0			100[e]	30	55	0	5		
9/2	15,000	68	8.6	94	203	7.5/7.7	15/0.75	8.1/0.67	15/0.65	1.9/0.05	0/0.00	97/1.59	11/0.23	8.2/0.23	1.8/0.03		0.1	19	ABS 0.1 As 0.00 PO_4 0.30	128[f]/130[g]	31	71	0	8		

TABLE D-2
ANALYSES OF SURFACE WATER
CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER NEAR HAMILTON CITY (STA. 13)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/8/63 1245	7467	59	10.1	100	120	7.4/7.9	—/0.94[c]		5.4/0.23		0/0.00	63/1.03		4.0/0.11			0.0				20	47	0	3	Median 62.	USGS
11/4 1525	8210	54	10.3	96	116	7.3/8.0	—/0.96[c]		5.2/0.23		0/0.00	64/1.05		4.0/0.11			0.0				19	48	0	2	Maximum 620.	
12/2 1545	11290	51	10.7	96	133	7.3/8.0	—/1.04[c]		6.2/0.27		0/0.00	68/1.11		4.8/0.14			0.0				21	52	0	3	Minimum 6.2	
1/6/64 1305	9230	49			137	7.3/8.6	—/1.06[c]		8.4/0.37		5/0.17	70/1.15		5.5/0.16			0.0				26	53	0	2		
2/3 1600	12430	49	11.2	98	141	7.5/7.9	—/1.14[c]		7.5/0.33		0/0.00	70/1.15		6.2/0.17			0.0				22	57	0	3		
3/2 1600	9019	50	11.5	102	137	7.7/8.2	—/1.06[c]		7.7/0.33		0/0.00	70/1.15		5.1/0.14			0.0				24	53	0	3		
4/8 0815	4823	56	10.0	95	133	7.5/8.0	—/1.10[c]		7.2/0.31		0/0.00	70/1.15		5.2/0.15			0.0				22	55	0	2		
5/5 0710	8480	53	10.7	98	129	7.5/8.0	11/0.55	5.7/0.47	7.2/0.31	1.4/0.04	0/0.00	67/1.10	5.0/0.10	5.0/0.14	0.8/0.01	0.1/0.01	0.1	25	ABS 0.0 As 0.00 PO_4 0.05	88[f]	23	51	0	1		
6/9 1440	8750	55	10.6	100	122	7.4/8.0	—/1.00[c]		6.8/0.30		0/0.00	64/1.05		2.5/0.07			0.1				23	50	0	3		
7/8 0720	9360	60	9.6	96	124	7.5/8.2	—/1.02[c]		6.5/0.28		0/0.00	68/1.11		2.3/0.06			0.0				22	51	0	3		
8/3 1545	10600	62	10.3	105	121	7.5/8.2	—/0.98[c]		7.2/0.31		0/0.00	68/1.11		2.5/0.07			0.0				24	49	0	3		
9/2 1050	10200	58	10.2	99	119	7.3/7.9	14/0.70	3.4/0.28	6.6/0.29	0.9/0.02	0/0.00	66/1.08	3.0/0.06	3.1/0.09	1.6/0.03		0.0	23	ABS 0.0 As 0.00 PO_4 0.05	88[f]	22	49	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT KESWICK (STA. 12)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/7/63 1230	6280 M.D.	52	9.8	91	105	7.2/7.6	—/0.82[c]		5.2/0.23		0/0.00	56/0.92	5.0/0.10	2.6/0.07			0.0				22	41	0	2	Median 0.62	USGS
11/4 0945	5550 M.D.	54	9.2	87	104	7.2/7.9	—/0.84[c]		4.8/0.21		0/0.00	58/0.95	4.0/0.08	3.0/0.08			0.0				20	42	0	2	Maximum 230.	
12/2 1440	8020	54	8.2	78	120	7.1/7.7	—/0.92[c]		6.5/0.28		0/0.00	62/1.02	8.0/0.17	3.2/0.09			0.0				23	46	0	8	Minimum 0.06	
1/6/64 0930	7100 M.D.	51	9.8	90	124	7.2/8.1	—/0.96[c]		7.2/0.31		0/0.00	68/1.11	5.0/0.10	3.6/0.10			0.0				24	48	0	2		
2/3 0955	8530	48	9.9	87	124	7.0/7.9	—/0.96[c]		6.8/0.30		0/0.00	61/1.00	8.0/0.17	3.5/0.10			0.0				24	48	0	8		
3/4 0930	6600	48	11.1	98	117	7.3/8.2	—/1.00[c]		6.9/0.30		0/0.00	64/1.05	7.0/0.15	2.5/0.07			0.1				23	50	0	5		
4/7 0900	4690	49	12.1	107	113	7.3/7.8	—/0.98[c]		5.4/0.23		0/0.00	61/1.00	4.0/0.08	3.4/0.10			0.0				19	49	0	2		
5/5 0950	8650	49	10.7	95	120	7.2/7.8	11/0.55	4.7/0.39	7.0/0.30	1.5/0.04	0/0.00	66/1.08	4.0/0.08	4.0/0.11	0.6/0.01	0.1/0.01	0.1	25	ABS 0.0 As 0.00 PO_4 0.05	79[f]	23	47	0	1		
6/9 0900	9120 M.D.	50	10.7	96	118	7.2/8.1	—/0.94[c]		5.7/0.25		0/0.00	64/1.05	3.0/0.06	2.0/0.06			0.0				21	47	0	1		
7/6 0925	12100	51	10.0	91	120	7.3/8.2	—/0.96[c]		6.5/0.28		0/0.00	65/1.07	4.0/0.08	2.0/0.06			0.1				23	48	0	1		
8/4 0900	13000	52	9.2	85	119	7.3/7.9	—/0.94[c]		6.6/0.29		0/0.00	66/1.08	4.0/0.08	2.3/0.06			0.1				24	47	0	2		
9/1 0910	11000	54	8.1	77	120	7.2/7.6	11/0.55	5.0/0.41	6.5/0.28	1.0/0.03	0/0.00	65/1.07	6.0/0.12	1.9/0.05	0.5/0.01		0.1	23	ABS 0.0 As 0.00 PO_4 0.05	89[f]	22	48	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER NEAR MALLARD SLOUGH (STA. 15c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/17/63 1350		71			756				93					163						536.	53					USBR
11/13 1135		60			442				51					84						292	50					
12/17 1110		44			327				32					47						224	43					
1/16/64 1340		50			615				71					125						408	50					
2/11 1320		52			660				46					131						368	30					
3/10 1015		55			767				95					166						512	54					
4/16 1255		65			1825				267					490						1104	64					
5/13 1305		60			2441				373					671						1420	66					
6/12 1305		73			3800				564					1086						2368	65					
7/15 1330		81			8458				1316					2669						5668	68					
8/12 1345		72			8358															5336						
9/16 1320		70			2424				386					689						1532	69					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT RIO VISTA (STA. 16)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/10/63	Tidal	65	7.8	83	171	7.3/8.0	1.22[c]		11/0.48		0/0.00	80/1.31		7.7/0.22			0.0			109[e]	28	61	0	2	Median 23.	USGS
11/8 1010		56	9.1	87	160	7.3/8.0	1.18[c]		8.5/0.37		0/0.00	75/1.23		7.5/0.21			0.0			102[e]	24	59	0	15	Maximum 620.	
12/5 1130		47	10.0	85	175	7.3/8.0	1.20[c]		11/0.48		0/0.00	75/1.23		8.0/0.23			0.1			112[e]	29	60	0	4	Minimum 2.3	
1/8/64 1000		46	10.6	89	178	7.3/7.3	1.26[c]		14/0.61		0/0.00	74/1.21		8.0/0.23			0.0			114[e]	33	63	2	20		
2/6 1115		47	11.0	93	187	7.3/7.9	1.28[c]		12/0.52		0/0.00	77/1.26		9.2/0.26			0.1			120[e]	29	64	1	15		
3/4 1000		49	10.5	91	175	7.3/8.0	1.26[c]		11/0.48		0/0.00	77/1.26		9.5/0.27			0.0			112[e]	28	63	0	10		
4/8 0935		56	9.8	93	156	7.7/7.8	1.20[c]		9.0/0.39		0/0.00	70/1.15		7.3/0.21			0.1			100[e]	25	60	3	10		
5/6 0845		58	9.3	91	165	7.9/8.0	12/0.60	8.0/0.66	10/0.44	1.2/0.03	0/0.00	69/1.13	12/0.25	9.5/0.27	1.0/0.02	0.1/0.01	0.1	17	ABS 0.1 As 0.00 PO4 0.25	105[f]/108[g]	25	63	6	15		
6/10 1045		65	8.1	86	197	7.5/8.0	1.36[c]		13/0.57		0/0.00	85/1.39		12/0.34			0.1			125[e]	30	63	6	20		
7/8 1030		69	8.6	95	184	7.5/7.7	1.24[c]		11/0.48		0/0.00	74/1.21		12/0.34			0.0			118[e]	28	62	1	50		
8/5 1130		74	9.5	111	186	7.7/8.1	122[c]		15/0.65		0/0.00	78/1.28		13/0.37			0.1			119[e]	35	61	0	20		
9/2 1245		69	7.7	85	197	7.6/7.8	14/0.70	7.5/0.62	15/0.65	2.0/0.05	0/0.00	90/1.48	9.0/0.19	9.9/0.28	1.3/0.02		0.1	19	ABS 0.0 As 0.00 PO4 0.25	122[f]/120[g]	32	66	0	40		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT SNODGRASS SLOUGH (STA. 97)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH [b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm [g]	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform [h] MPN/ml	Analyzed by [i]
10/18/63 1210		64			150	7.2	11	7.0	8.3	1.6	0.0	67	6.7	7.1	0.0					112	24					USBR
11/12 1325		57			141	8.1	13	5.7	7.6	1.6	0.0	62	6.2	7.1	1.2					148	22					
12/17 1300		47			160	8.0	12	5.6	9.0	1.2	0.0	68	9.6	7.8	0.0					120	26					
1/14/64 1300		46			174	7.7	14	6.0	10	1.6	0.0	74	9.1	8.5	0.6					96	27					
2/10 1135		50			175	7.7	13	9.3	9.9	1.2	0.0	68	12	8.5	0.0					136	23					
3/9 1120		49			166	7.8	14	6.5	9.0	1.2	0.0	79	10	6.4	0.0					128	23					
4/15 1305		63			128	7.6	11	5.7	5.3	1.2	0.0	56	5.3	5.0	0.0					96	18					
5/11 1500		68			199	7.3	15	7.3	14	1.2	0.0	79	16	11	0.0					148	30					
6/18 1340		67			191	7.2	21	3.1	13	1.2	0.0	79	11	8.5	0.0					168	29					
7/17 1030		71			156	6.9	17	4.1	9.4	1.6	0.0	55	12	9.2	0.0					124	25					
8/17 1720		72			227	8.2	13	8.1	21	1.6	0.0	73	11	23	1.9					156	41					
9/28 1415		67			152	7.4	13	6.1	9.7	1.6	0.0	74	7.2	9.2	0.0					116	26					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT TOLAND LANDING (STA. 15a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH b	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/15/63 1025		66			298				28					41						228	41					USBR
11/12 1045		67			173															116						
4/14/64 1150		60			168															152						
4/27 1310		62			175	7.4	13	7.1	10	1.2	0.0	62	14	11	0.0					136	26					
4/30 1020		58			364	7.4	15	11	38	2.3	0.0	65	22	64	0.0					264	49					
5/4 1225		60			229				16					21						164	30					
5/7 1230		60			221				15					21						148	30					
5/11 1335		64			205				15					15						164	32					
5/14 1030		63			322				19					23						224	26					
5/18 1345					250				20					24						180	35					
5/21 1235					219				14					13						172	28					
5/25 1030					217				17					16						172	34					
5/28 1125					210				25					31						144	31					
6/1 1040		66			276				25					31						168	39					
6/4 1040					284				27					33						168	41					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT TOLAND LANDING (STA. 15a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
6/8/64 1230					226				18					17						156	35					USBR
6/11 1010					297				28					39						180	41					
6/15 1040					436				48					77						272	48					
6/18 1110					342				35					43						236	44					
6/22 1145		72			247				20					22						156	35					
6/25 1050		73			403				43					67						248	46					
6/29 1100		70			1033				134					241						588	56					
7/2 1110		69			1320				196					318						788	65					
7/6 1110		69			314				33					45						212	46					
7/9 1145		60			514				57					100						336	48					
7/13 1205		70			1675				253					433						1016	66					
7/16 1100					2376				354					643						1388	65					
7/20 1125		73			541				59					108						344	47					
7/23 1145		74			416				47					77						260	49					
7/27 1150					1185				160					293						672	59					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT TOLAND LANDING (STA. 15a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
7/30/64 1130					2109				331					568						1220	68					USBR
8/3 1130		70			1709				265					447						1004	67					
8/6 1255		72			900				122					212						532	59					
8/10 1145		73			1460				216					373						864	64					
8/13 1315		73			1420				214					362						832	66					
8/17 1420		70			1966				294					525						1152	65					
8/20 1210		70			686				81					143						416	51					
8/24 1150		70			710				91					158						408	56					
8/27 1130		66			1161				160					286						684	60					
8/31 1130		69			780				98					175						468	55					
9/3 1330		70			354				40					59						228	49					
9/8 1010		66			449				29					83						276	28					
9/10 1200		68			267				52					28						196	84					
9/14 1100		67			246				23					20						184	41					
9/17 1140		68			236				22					18						196	41					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT TOLAND LANDING (STA. 15a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
9/22/64 1130		68			234				20					18						196	37					USBR
9/25 0945		68			336				36					49						260	47					
9/28 1130		66			464				55					86						328	52					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO SLOUGH NEAR KNIGHTS LANDING (STA. 14a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/8/63 0730	438	68	6.8	74	560	7.8 / 8.4	3.95[c]		42 / 1.83		7 / 0.23	241 / 3.95		51 / 1.44			0.0				32	197	0	25	Median 23. Maximum 62. Minimum 21.	USGS
11/4	Not Sampled -- Inaccessible																									
12/2	Not Sampled -- Inaccessible																									
1/6/64	Not Sampled -- Inaccessible																									
2/3	Not Sampled -- Inaccessible																									
3/2	Not Sampled -- Inaccessible																									
4/7 0720	504 M.D.	60	9.1	91	266	7.9 / 7.8	2.08[c]		15 / 0.65		0 / 0.00	132 / 2.16		17 / 0.48			0.0				24	104	0	25		
5/4 0610	720	61	7.6	77	563	7.6 / 7.8	32 / 1.60	25 / 2.02	46 / 2.00	1.4 / 0.04	0 / 0.00	197 / 3.23	21 / 0.44	70 / 1.97	1.6 / 0.03	0.2 / 0.01	0.0	24	ABS 0.0 As 0.01 PO_4 0.40	320[f]	35	181	19	25		
6/9	Not Sampled -- Inaccessible																									
7/7 0620	602 M.D.	75	6.6	77	600	7.6 / 7.7	4.10[c]		46 / 2.00		0 / 0.00	242 / 3.97		61 / 1.72			0.1				33	205	7	30		
8/3 1050	547 M.D.	75	6.5	76	573	7.7 / 8.2	4.02[c]		45 / 1.96		0 / 0.00	255 / 4.18		52 / 1.47			0.1				33	201	0	20		
9/3 1600	1270 M.D.	71	7.7	87	478	7.8 / 8.2	32 / 1.60	24 / 2.00	34 / 1.48	2.3 / 0.06	0 / 0.00	240 / 3.93	11 / 0.23	33 / 0.93	1.1 / 0.02		0.1	28	ABS 0.1 As 0.01 PO_4 0.40	290[f]	29	180	0	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT ANTIOCH (STA. 28)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 1030	Tidal	68	7.5	82	387	7.3/7.8	1.71[c]		40/1.74		0/0.00	95/1.56		58/1.64			0.0			213[e]	50	85	7	30	Median 62.	USGS
11/6 1010		60	8.2	82	681	7.3/8.0	2.22[c]		79/3.44		0/0.00	87/1.43		144/4.06			0.1			375[e]	61	111	40	9	Maximum 950.	
12/4 1100		50	8.0	71	255	7.5/7.7	1.40[c]		22/0.96		0/0.00	72/1.18		29/0.82			0.1			140[e]	41	70	11	25	Minimum 0.5	
1/8/64 1240		49	9.8	85	304	7.2/8.3	1.58[c]		28/1.22		1/0.03	77/1.26		37/1.04			0.1			167[e]	44	79	14	15		
2/5 1125		51	8.7	78	319	7.1/7.8	1.72[c]		30/1.30		0/0.00	70/1.15		40/1.13			0.1			175[e]	43	86	29	20		
3/6 1145		52	9.9	90	337	7.7/7.8	1.72[c]		34/1.48		0/0.00	79/1.29		44/1.24			0.1			185[e]	46	86	21	10		
4/8 1000		58	10.2	99	323	7.9/7.8	1.60[c]		34/1.48		0/0.00	81/1.33		44/1.24			0.1			123[e]	48	80	14	10		
5/6 1230		61	9.5	94	1180	7.7/8.0	21/1.05	25/2.03	149/6.48	5.8/0.15	0/0.00	76/1.25	49/1.02	275/7.76	1.1/0.02	0.0/0.00	0.1	13	ABS 0.0 As 0.00 PO_4 0.15	576[f]/641[g]	67	154	92	10		
6/9 1040		65	8.1	86	618	7.7/7.9	2.08[c]		82/3.57		0/0.00	86/1.41		122/3.44			0.2			340[e]	63	104	33	15		
7/8 1145		72	8.2	93	1820	7.7/7.9	4.52[c]		275/11.96		0/0.00	92/1.51		470/13.26			0.3			1001[e]	73	226	151	30		
8/5 1245		76	7.7	92	3450	7.8/7.8	7.80[c]		532/23.14		0/0.00	84/1.38		968/27.31			0.3			1900[e]	75	390	321	35		
9/2 1130		71	7.6	86	1960	7.7/7.7	26/1.30	40/3.30	296/12.88	9.2/0.24	0/0.00	85/1.39	80/1.67	515/14.53	1.8/0.03		0.2	12	ABS 0.0 As 0.00 PO_4 0.20	1202[f]/1080[g]	73	230	160	35		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT BRANDT BRIDGE (STA. 101a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
11/19/63 1240		54			392				43					61						264	48					USBR
2/14/64 1320		51			961				94					148						536	43					
5/14 1005		67			749				79					122						460	46					
8/17 1300		72			1117				123					210						700	48					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT GARWOOD BRIDGE (STA. 101)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/8/63 1330	Tidal	71	10.4	118	734	7.7/8.3	3.36[c]		77/3.35		4/0.13	150/2.46		118/3.33			0.0			415[e]	50	168	38	6	Median 620.	USGS
11/5 0900		58	8.5	83	487	7.3/7.8	2.15[c]		50/2.18		0/0.00	95/1.56		73/2.06			0.3			276[e]	50	107	29	9	Maximum 24,000[+]	
12/3 1330		50	9.6	85	343	7.2/7.8	1.56[c]		36/1.57		0/0.00	70/1.15		47/1.33			0.1			194[e]	50	78	21	10	Minimum 62.	
1/10/64 0825		47	10.4	88	468	7.3/8.1	2.12[c]		50/2.18		0/0.00	90/1.48		66/1.86			0.1			265[e]	51	106	32	8		
2/3 1430		52	9.7	88	610	7.3/8.0	2.68[c]		64/2.78		0/0.00	105/1.72		89/2.51			0.2			345[e]	51	134	48	20		
3/5 0945		54	8.2	76	1060	7.7/8.0	4.04[c]		119/5.18		0/0.00	136/2.23		182/5.13			0.5			599[e]	56	202	40	6		
4/9 0820		62	11.8	121	931	8.5/8.1	3.98[c]		114/4.60		0/0.00	154/2.52		160/4.51			0.4			527[e]	54	199	73	15		
5/8 0800		63	4.7	49	766	7.7/7.5	42/2.10	17/1.42	86/3.74	6.2/0.16	0/0.00	154/2.52	49/1.02	130/3.67	9.4/0.15	0.3/0.02	0.3	15	ABS 0.3 As 0.01 PO_4 0.01	431[f]/437[g]	50	176	50	10		
6/11 0815		69	5.5	61	792	7.7/7.4	3.48[c]		98/4.26		0/0.00	152/2.49		130/3.84			0.3			448[e]	55	174	49	10		
7/6 0830		74	5.2	60	713	7.5/8.3	3.26[c]		73/3.18		2/0.07	136/2.23		123/3.47			0.3			404[e]	49	163	48	20		
8/6 0815		78	4.2	51	544	7.3/8.0	2.58[c]		54/2.35		0/0.00	119/1.95		85/2.40			0.2			308[e]	48	129	31	15		
9/3 0815		72	4.6	52	602	7.7/7.1	33/1.65	14/1.13	63/2.74	5.4/0.14	0/0.00	150/2.46	22/0.46	91/2.57	12/0.19		0.2	13	ABS 0.3 As 0.00 PO_4 1.50	328[f]/333[g]	48	139	16	20		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT JERSEY POINT (STA. 28b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH b	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
10/15/63 1120		65			218															168						USBR
11/12 1120		59			243															188						
4/15/64 1055		62			199															148						
4/27 1320		62			204	7.4	14	8.5	14	1.6	0.0	66	17	18	1.2					164	29					
4/30 1230		61			237	7.4	15	8.1	20	1.6	0.0	65	19	26	0.0					192	37					
5/4 1430					262				20					28						188	33					
5/7 1325					325				27					39						212	36					
5/14 1110		64			243				22					29						164	39					
5/18 1125					361				37					62						248	45					
5/21 1035					221				17					20						152	33					
5/25 1430					232				18					21						160	34					
5/28 1325		67			235				17					20						176	31					
6/1 1145					257				22					28						180	37					
6/4 1115		66			257				22					28						168	37					
6/8 1335		66			239				19					23						180	35					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT JERSEY POINT (STA. 28b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
6/11/64 1025					297				25					32						188	37					USBR
6/15 1130					344				33					48						208	42					
6/18 1230					288				27					35						176	41					
6/22 0940		70			264				22					28						168	36					
6/25 1325		74			297				27					38						220	36					
6/29 1330		72			373				38					60						224	44					
7/2 1220		70			216				15					20						144	30					
7/6 1020					384				42					64						252	48					
7/10 0920		70			873				106					197						560	53					
7/13 1030					1512				214					379						956	62					
7/16 1125		73			977				131					224						596	58					
7/20 1130		73			665				79					141						404	52					
7/23 1305		74			768				96					169						492	54					
7/27 1345					876				113					200						504	56					
7/30 1130					1260				184					310						724	63					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT JERSEY POINT (STA. 28b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
8/3/64 1320		64			1111				152					273						664	59					USBR
8/6 1125		76			1002				132					240						596	57					
8/10 1125		64			1400				195					355						864	61					
8/13 1330		74			1270				176					318						744	60					
8/17 1125		70			1312				182					331						772	60					
8/20 1435		74			1065				142					260						612	58					
8/24 1400		74			939				123					222						556	57					
8/27 1430		68			881				115					204						504	57					
8/31 1045		69			825				104					187						480	56					
9/3 0925		70			662				86					146						408	56					
9/8 1035		70			537				68					112						324	55					
9/10 1020		68			505				63					103						356	54					
9/14 0950		68			349				40					56						248	50					
9/17 0930		67			356				41					58						252	50					
9/21 1330		68			287				30					37						212	45					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT JERSEY POINT (STA. 28b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
9/24/64 1400		68			290				31					36						208	46					USBR
9/28 1210		68			306				34.					41						240	48					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT MOSSDALE BRIDGE (STA. 102)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/3/63 1230	Tidal	69	8.5	94	651	7.3 / 8.1	2.96[c]		72 / 3.13		0 / 0.00	142 / 2.33		97 / 2.74			0.0			368[e]	51	148	32	5	Median 95.	USGS
11/5 0945		58	8.8	86	474	7.3 / 8.0	2.11[c]		50 / 2.18		0 / 0.00	87 / 1.43		73 / 2.06			0.3			268[e]	51	105	34	8	Maximum 7000.	
12/3 1415		50	9.2	81	348	7.3 / 8.0	1.60[c]		36 / 1.57		0 / 0.00	71 / 1.16		48 / 1.35			0.1			197[e]	50	80	22	4	Minimum 2.3	
1/10/64 0930		48	10.5	90	489	7.4 / 7.8	2.12[c]		51 / 2.22		0 / 0.00	97 / 1.59		70 / 1.97			0.2			277[e]	51	106	26	5		
2/4 1330		51	10.5	94	665	7.3 / 8.0	2.96[c]		76 / 3.31		0 / 0.00	112 / 1.84		99 / 2.79			0.2			376[e]	53	148	56	10		
3/5 1415		57	17.5	169	1190	8.5 / 8.2	5.36[c]		135 / 5.87		0 / 0.00	168 / 2.75		227 / 6.40			0.5			673[e]	52	268	130	6		
4/9 0910		64	15.7	164	1200	8.5 / 8.2	5.40[c]		134 / 5.83		0 / 0.00	172 / 2.82		224 / 6.32			0.4			679[e]	52	270	129	20		
5/8 0900		64	14.2	148	961	8.4[j] / 7.9	52 / 2.59	23 / 1.93	108 / 4.70	3.4 / 0.09	0 / 0.00	170 / 2.79	73 / 1.52	172 / 4.85	8.1 / 0.13	0.2 / 0.01	0.3	26	ABS 0.1 As 0.01 PO_4 0.60	550[f] / 563[g]	50	226	87	20		
6/11 1145		70	13.4	148	917	8.3 / 8.2	4.20[c]		101 / 4.39		0 / 0.00	172 / 2.82		148 / 4.18			0.2			519[e]	51	210	69	15		
7/6 0930		74	13.8	162	1280	8.4[j] / 8.1	5.72[c]		133 / 5.79		0 / 0.00	184 / 3.02		252 / 7.11			0.4			724[e]	50	286	135	10		
8/6 0900		77	9.6	105	1300	8.3 / 7.9	5.80[c]		147 / 6.39		0 / 0.00	190 / 3.11		272 / 7.67			0.4			735[e]	52	290	134	20		
9/3 0900		71	12.8	144	1050	8.3 / 7.6	55 / 2.74	25 / 2.02	113 / 4.92	2.1 / 0.05	0 / 0.00	183 / 3.00	76 / 1.58	182 / 5.13	4.5 / 0.07		0.4	28	ABS 0.1 As 0.00 PO_4 0.50	576[f] / 601[g]	51	238	88	10		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT SAN ANDREAS LANDING (STA. 112b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/18/63 1110		64			162	7.5	13	6.1	9.2	1.6	0.0	68	7.7	11	0.0					140	25					USBR
11/12 1150		57			214	8.0	15	6.2	16	2.0	0.0	76	12	20	1.2					160	35					
12/17 1145		49			236	8.3	17	6.6	17	1.6	0.0	68	16	24	0.0					204	35					
1/13/64 1340		46			325	7.6	21	9.2	27	2.0	0.0	74	32	37	1.2					252	39					
2/10 1035		50			338	7.6	22	8.2	24	2.3	0.0	68	28	34	1.2					180	36					
3/9 1015		50			193	7.7	16	7.1	12	1.6	0.0	72	14	13	0.0					192	26					
4/15 1150		63			154	6.9	13	6.6	7.4	1.2	0.0	62	9.6	7.1	0.0					108	21					
5/11 1150		64			194	7.3	15	7.0	12	1.2	0.0	76	16	11	0.0					148	29					
6/18 1225		66			207	7.3	16	6.3	15	1.2	0.0	76	14	11	0.0					152	32					
7/17 1300		75			243	6.9	13	9.8	19	1.9	0.0	71	14	30	0.0					180	26					
8/10 1430		73			189	7.9	13	6.7	15	1.2	0.0	71	7.7	18	0.0					136	35					
9/17 1245		69			224	8.1	17	8.3	18	2.0	0.0	99	12	16	0.0					192	33					

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STOCKTON SHIP CHANNEL ON RINDGE ISLAND (STA. 100)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/7/63 1150	Tidal	74	5.7	67	676	7.3/8.1	—/3.08[g]		74/3.22		0/0.00	156/2.56		107/3.02			0.1			376[e]	51	154	26	9	Median 23.	USGS
11/6 1125		59	8.2	81	538	7.3/8.1	—/2.33[g]		58/2.52		0/0.00	102/1.67		86/2.43			0.3			299[e]	52	117	33	8	Maximum 950.	
12/2 1515		49	6.9	60	375	7.1/8.1	—/1.76[g]		38/1.65		0/0.00	80/1.31		52/1.47			0.1			209[e]	48	88	22	5	Minimum 0.62	
1/6/64 1245		47	9.7	82	484	7.2/8.2	—/2.28[g]		49/2.13		0/0.00	77/1.26		76/2.14			0.1			269[e]	48	114	51	5		
2/3 1130		51	7.5	68	560	7.1/7.9	—/2.46[g]		61/2.65		0/0.00	95/1.56		82/2.31			0.2			311[e]	52	123	45	9		
3/2 1345		51	10.6	95	644	7.3/7.8	—/2.92[g]		69/3.00		0/0.00	105/1.72		107/3.02			0.3			358[e]	51	146	60	9		
4/6 1555		60	12.4	124	672	8.4/8.1	—/3.08[g]		72/3.13		0/0.00	108/1.77		111/3.13			0.2			374[e]	50	154	65	20		
5/4 1140		63	10.5	109	406	8.3/7.9	23/1.15	11/0.93	40/1.74	2.2/0.06	0/0.00	88/1.44	33/0.69	59/1.66	1.2/0.02	0.0/0.00	0.1	8.2	ABS 0.1 As 0.01 PO_4 0.30	221[f]/222[g]	45	104	32	20		
6/8 1315		65	9.0	95	442	7.9/7.8	—/2.26[g]		48/2.09		0/0.00	102/1.67		66/1.86			0.1			246[e]	48	113	29	15		
7/7 1000		77	8.1	97	297	7.5/8.1	—/1.80[g]		26/1.13		0/0.00	92/1.51		34/0.96			0.2			165[e]	39	90	15	30		
8/6 1345		78	6.8	82	305	7.3/8.3	—/1.60[g]		27/1.17		1/0.03	83/1.36		39/1.10			0.1			170[e]	42	80	10	35		
9/1 0915		72	7.6	87	357	7.3/7.8	21/1.05	10/0.83	34/1.48	2.1/0.05	0/0.00	90/1.48	20/0.42	52/1.47	3.9/0.06		0.1	14	ABS 0.0 As 0.00 PO_4 0.25	201[f]/206[g]	43	94	20	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STONY CREEK BELOW BLACK BUTTE DAM (STA. 13c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/9/63 1130	128	69	10.5	117	351	8.3/8.2	3.24[c]		13/0.57		0/0.00	197/3.23		12/0.34			0.1				15	162	0	45	Median 1.5	USGS
11/5	Not Sampled		-- No Flow																						Maximum 230.	
12/3 1410	38	52	11.7	107	355	7.9/8.2	2.88[c]		17/0.74		0/0.00	152/2.49		26/0.73			0.1				20	144	19	30	Minimum 0.23	
1/7/64 0825	24	46			372	7.9/8.1	3.04[c]		19/0.83		0/0.00	164/2.69		28/0.79			0.1				21	152	18	2		
2/4 1220	12	46	12.5	106	345	8.1/8.3	2.76[c]		16/0.70		3/0.10	142/2.33		26/0.73			0.1				20	138	17	20		
3/3 1135	8	45	12.3	103	326	8.2/8.2	2.66[c]		15/0.65		0/0.00	140/2.29		24/0.68			0.1				20	133	18	7		
4/8 0920	36	57	12.3	119	329	8.4/8.3	2.76[c]		15/0.65		1/0.03	143/2.34		23/0.65			0.1				19	138	19	2		
5/5 0815	56	60	9.9	100	325	8.0/8.3	33/1.65	12/0.99	15/0.65	1.5/0.04	4/0.13	140/2.29	15/0.31	21/0.59	1.1/0.02	0.0/0.00	0.0	7.4	ABS 0.0 As 0.00 PO_4 0.10	183[f]	20	132	11	3		
6/10 1130	10 est.	71	11.7	133	331	8.4/8.5	2.82[c]		17/0.74		4/0.13	150/2.46		23/0.65			0.2				21	141	11	5		
7/8 0810	104	73	9.8	114	338	8.0/8.5	2.88[c]		16/0.70		8/0.27	150/2.46		21/0.59			0.3				20	144	8	2		
8/4 0900	114	79	9.3	114	356	8.0/8.2	3.04[c]		18/0.78		0/0.00	177/2.90		22/0.62			0.3				20	152	7	3		
9/3 0745	2 est.	68	6.4	71	341	8.0/8.1	30/1.50	15/1.26	20/0.87	2.0/0.05	0/0.00	162/2.66	13/0.27	24/0.68	1.3/0.02		0.3	3.9	ABS 0.0 As 0.00 PO_4 0.10	192[f]	24	138	5	10		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STONY CREEK NEAR FRUTO (STA. 13f)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
3/2/64 1145	78	48	13.4	116	281	7.6 / 8.2	/ 2.30[c]		13 / 0.57		0 / 0.00	112 / 1.84		21 / 0.59			0.0				20	115	23	1		USGS
4/1 1245	152	60	8.8	90	234	7.6 / 8.2	/ 1.92[c]		11 / 0.48		0 / 0.00	97 / 1.59		14 / 0.39			0.0				20	96	16	1		
5/1 0915	261	56	9.4	91	263	/ 8.5	27 / 1.35	9.1 / 0.75	14 / 0.61	0.8 / 0.02	5 / 0.17	111 / 1.82	12 / 0.25	17 / 0.48	1.4 / 0.02	0.1 / 0.01	0.1	8.9	ABS 0.0 As 0.00 PO_4 0.00	148[f]	22	105	6	9		
6/1 0945	264	63	8.2	87	296	/ 8.4	/ 2.42[c]		16 / 0.70		4 / 0.13	134 / 2.20		19 / 0.54			0.3				22	121	5	4		
7/1 0930	192	65	8.9	96	325	/ 8.4	/ 2.74[c]		17 / 0.74		4 / 0.13	154 / 2.52		20 / 0.56			0.2				21	137	4	2		
8/3 0820	102	65	8.8	95	343	/ 8.5	/ 2.88[c]		18 / 0.78		5 / 0.17	166 / 2.72		20 / 0.56			0.3				21	144	0	9		
9/1 0850	246	64	8.6	92	365	/ 8.5	33 / 1.65	17 / 1.41	20 / 0.87	0.9 / 0.02	5 / 0.17	173 / 2.84	14 / 0.29	23 / 0.65	0.8 / 0.01		0.4	9.7	ABS 0.0 As 0.00 PO_4 0.05	213[f]	22	153	3	30		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

THOMES CREEK NEAR MOUTH (STA. 95b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
10/11/63	Not Sampled		-- No Flow																							USGS
11/5	Not Sampled		-- No Flow																							
12/5 1230	30 est.	49	10.2	90	230	7.5/8.2	2.16[c]		5.5/0.24		0/0.00	122/2.00		7.0/0.20			0.0				10	108	8	1		
1/7/64 1230	-	53			259	7.3/8.5	2.48[c]		6.6/0.29		6/0.20	125/2.05		5.5/0.16			0.0				10	124	12	1		
2/5 1435	200 est.	52	11.7	107	168	7.8/8.3	1.58[c]		4.7/0.20		2/0.07	83/1.36		3.6/0.10			0.0				11	79	8	20		
3/3 1515	150 est.	59	10.1	97	229	7.8/8.5	2.20[c]		5.9/0.26		6/0.20	112/1.84		8.2/0.23			0.1				11	110	8	0		
4/10 1040	55 est.	58	10.2	100	212	8.0/8.2	1.98[c]		5.4/0.23		0/0.00	112/1.84		1.0/0.03			0.0				10	99	7	3		
5/7 1210	35 est.	68	9.0	99	237	8.1/8.4	34/1.70	7.1/0.58	5.5/0.24	0.7/0.02	2/0.07	126/2.07	14/0.29	5.8/0.16	1.3/0.02	0.1/0.01	0.1	13	ABS 0.0 As 0.00 PO_4 0.05	142[f]	9	114	7	1		
6/18 1230	3 est.	74	10.5	123	276	7.9	2.76[c]		6.6/0.29		0/0.00	153/2.51		3.5/0.10			0.0				10	138	13	1		
7/8 1130	.5 est.	78	8.8	107	269	7.5/8.3	2.74[c]		6.2/0.27		2/0.07	145/2.38		3.0/0.08			0.1				9	137	15	1		
8/3	Not Sampled		-- No Flow																							
9/4	Not Sampled		-- No Flow																							

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

THOMES CREEK NEAR PASKENTA (STA. 13d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/9/63 1230	7.0	70	11.0	126	411	8.4/8.5	[c]/3.52		16/0.70		5/0.17	147/2.41		28/0.79			0.0				17	176	47	1		USGS
11/5 1135	115	51	10.5	97	232	7.8/7.9	[c]/2.00		7.3/0.32		0/0.00	107/1.75		9.7/0.27			0.1				14	100	12	35		
12/3 1500	130	46	11.7	101	171	7.6/7.9	[c]/1.54		4.6/0.20		0/0.00	86/1.41		3.0/0.08			0.1				11	77	6	5		
1/7/64 0930	74	42			211	7.8/8.5	[c]/1.92		6.6/0.29		4/0.13	104/1.70		5.7/0.16			0.0				13	96	4	2		
2/4 1320	304	46	11.9	103	144	7.8/8.2	[c]/1.30		4.7/0.20		0/0.00	74/1.21		2.0/0.06			0.2				13	65	4	15		
3/3 1220	120	45	12.0	102	190	7.9/8.3	[c]/1.72		5.9/0.26		1/0.03	92/1.51		5.8/0.16			0.1				13	86	9	1		
4/8 1010	159	52	11.5	107	163	7.9/8.3	[c]/1.48		4.9/0.21		2/0.07	79/1.29		3.5/0.10			0.0				12	74	6	2		
5/5 0905	130	49	11.5	103	170	7.9/8.3	22/1.10	5.4/0.44	5.4/0.23	0.7/0.02	4/0.13	77/1.26	11/0.23	4.0/0.11	1.6/0.03	0.0/0.00	0.0	12	ABS 0.0 As 0.00 PO_4 0.00	104[f]	13	77	7	1		
6/10 1215	56	62	10.0	105	206	8.4/8.5	[c]/1.88		6.8/0.30		4/0.13	96/1.57		6.0/0.17			0.1				14	94	9	2		
7/8 0900	11.4	74	8.6	103	292	8.2/8.4	[c]/2.64		11/0.48		3/0.10	126/2.07		16/0.45			0.1				15	132	24	1		
8/4 0950	2.8	74	8.4	100	334	8.0/8.2	[c]/2.68		15/0.65		0/0.00	114/1.87		30/0.85			0.2				20	134	41	9		
9/3 0850	1.8	67	8.9	99	409	8.0/8.2	43/2.15	11/0.93	21/0.91	0.9/0.02	0/0.00	104/1.70	38/0.79	50/1.41	0.1/0.00		0.2	11	ABS 0.0 As 0.00 PO_4 0.00	245[f]	23	154	69	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

YUBA RIVER AT MARYSVILLE (STA. 21)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
11/7/63 1110	315	58	9.5	93	137	7.7/8.0	/1.20c		3.7/0.16		0/0.00	66/1.08		2.5/0.07			0.0			95e	12	60	6	9	Median 5.0	USGS
1/7/64 1240	850	47	12.2	104	94	7.3/8.0	/0.82c		2.8/0.12		0/0.00	45/0.74		3.5/0.10			0.0			65e	13	41	4	2	Maximum 62.	
3/3 1005	1260	44	12.2	99	95	7.5/8.0	/0.83c		4.1/0.18		0/0.00	47/0.77		2.6/0.07			0.0			66e	18	42	3	3	Minimum 0.13	
5/5 1015	1740	53	11.3	104	77	7.3/7.9	9.6/0.48	2.4/0.20	2.3/0.10	0.2/0.01	0/0.00	40/0.66	3.0/0.06	2.0/0.06	0.8/0.01	0.0/0.00	0.0	14	ABS 0.0 As 0.01 PO_4 0.00	54f 53g	13	34	1	4		
7/10 1100	112	75	8.8	103	118	7.4/8.2	/1.04c		3.4/0.15		0/0.00	58/0.95		1.0/0.03			0.0			82e	13	52	4	1		
9/4 1245	236	74	9.7	113	126	7.7/7.9	15/0.75c	4.7/0.39	3.3/0.14	0.8/0.02	0/0.00	64/1.05	8.0/0.17	1.0/0.03	0.3/0.00		0.0	15	ABS 0.1 As 0.01 PO_4 0.10	80f 80g	11	57	5	1		

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

YUBA RIVER NEAR SMARTVILLE (STA. 21a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/7/63 1215	430	57	10.0	97	112	7.4/8.0	—/1.00[c]		3.0/0.13		0/0.00	54/0.89		3.0/0.08			0.0			77[e]	12	50	6	4	Median 0.6	USGS
1/7/64 1100	900	46	13.0	110	84	8.1/7.9	—/0.73[c]		2.4/0.10		0/0.00	40/0.66		3.0/0.08			0.0			57[e]	12	36	3	2	Maximum 62.	
3/3 1110	1310	46	13.1	111	92	8.4/8.1	—/0.79[c]		3.6/0.16		0/0.00	46/0.75		2.8/0.08			0.0			63e	17	40	2	1	Minimum 0.06	
5/5 1215	2100	53	11.1	103	70	7.3/8.0	9.8/0.49	1.7/0.14	2.5/0.11	0.2/0.01	0/0.00	38/0.62	4.0/0.08	1.8/0.05	1.0/0.02	0.0/0.00	0.0	13	ABS 0.0 As 0.01 PO_4 0.00	53[f]/46[g]	15	32	1	1		
7/10 0930	510	72	9.5	109	73	7.5/7.8	—/0.64[c]		2.5/0.11		0/0.00	38/0.62		0.5/0.01			0.0			50e	15	32	1	1		
9/10 1245	560	75	12.2	145	115	8.1/8.2	15/0.75	3.0/0.25	3.1/0.13	0.8/0.02	0/0.00	58/0.95	5.0/0.10	1.2/0.03	0.5/0.01		0.0	15	ABS 0.0 As 0.00 PO_4 0.00	73[f]/76[g]	11	50	2	1		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

CARSON RIVER, EAST FORK NEAR MARKLEEVILLE (STA. 115)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
11/7/63 1000		34	11.1	95	131	7.3/7.8	/0.92[c]		7.2/0.31		0/0.00	63/1.03		2.7/0.08			0.2			97[e]	25	46	0	5	Median 2.4	USGS
1/9/64 1000		32	12.1	100	145	7.4/8.1	/1.04[c]		9.0/0.39		0/0.00	71/1.16		3.2/0.09			0.1			107[e]	27	52	0	1	Maximum 23.	
3/5 0915		35	11.4	99	145	7.3/8.3	/1.02[c]		9.6/0.42		1/0.03	72/1.18		5.5/0.16			0.3			107[e]	29	51	0	5	Minimum 0.93	
5/7 0845		35	12.1	105	97	7.5/8.0	11/0.55	1.8/0.15	6.5/0.28	0.6/0.02	0/0.00	49/0.80	4.0/0.08	4.0/0.11	1.5/0.02	0.2/0.01	0.1	19	ABS 0.1 As 0.00 PO_4 0.05	73[f]/65[g]	28	35	0	1		
7/14 0845		59	8.5	103	97	7.7/8.1	/0.76[c]		6.1/0.27		0/0.00	50/0.82		1.5/0.04			0.1			72[e]	26	38	0	4		
9/15 0915		53	9.2	103	144	7.7/7.9	16/0.80	3.2/0.26	9.2/0.40	1.7/0.04	0/0.00	79/1.29	8.0/0.17	3.0/0.08	0.9/0.01		0.0	20	ABS 0.0 As 0.01 PO_4 0.05	101[f]/105[g]	27	53	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

CARSON RIVER, WEST FORK AT WOODFORDS (STA. 115a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by 1
11/7/63 0930	29	33	11.3	96	74	7.3/7.5	/0.57[c]		3.0/0.13		0/0.00	40/0.66		0.1/0.00			0.2			60[e]	19	28	0	2	Median 4.6	USGS
1/9/64 0915	24	32	12.3	103	75	7.1/7.9	/0.60[c]		3.8/0.17		0/0.00	41/0.67		1.5/0.04			0.0			61[e]	22	30	0	1	Maximum 60.	
3/5 1000	37	35	11.3	99	74	7.1/8.0	/0.58[c]		3.8/0.17		0/0.00	40/0.66		1.0/0.03			0.0			60[e]	23	29	0	0	Minimum 0.23	
5/7 0805	105	34	11.6	100	59	7.2/7.8	7.6/0.38	1.2/0.10	3.1/0.13	0.4/0.01	0/0.00	33/0.54	1.0/0.02	1.8/0.05	1.9/0.03	0.1/0.01	0.1	17	ABS 0.1 As 0.01 PO_4 0.00	50[f]/56[g]	21	24	0	3		
7/14 0815	37	59	8.2	99	68	7.5/7.9	/0.54[c]		3.1/0.13		0/0.00	36/0.59		0.5/0.01			0.0			56[e]	19	27	0	3		
9/15 0830	11	50	9.3	102	84	7.5/7.5	11/0.55	1.3/0.11	4.3/0.19	1.8/0.05	0/0.00	48/0.79	2.0/0.04	0.4/0.01	0.8/0.01		0.0	21	ABS 0.0 As 0.00 PO_4 0.00	67[f]/65[g]	21	33	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

LAKE TAHOE AT TAHOE CITY (STA. 38)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/8/63 0930		48	8.8	95	92	7.5/7.9	0.65[c]		5.4/0.23		0/0.00	51/0.84		3.4/0.10			0.0			62[e]	26	33	0	1	Median 0.23	USGS
1/10/64 1015		37	9.9	91	92	7.3/8.1	0.63[c]		6.1/0.27		0/0.00	48/0.79		2.2/0.06			0.1			62[e]	30	32	0	5	Maximum 0.62	
3/6 1015		37	10.0	92	94	7.1/8.2	0.65[c]		6.1/0.27		0/0.00	50/0.82		3.6/0.10			0.0			63[e]	29	32	0	2	Minimum <0.045	
5/8 0905		43	9.8	99	93	7.1/7.9	11/0.55	1.1/0.09	5.9/0.26	1.5/0.04	0/0.00	50/0.82	1.0/0.02	4.0/0.11	0.7/0.01	0.0/0.00	0.0	13	ABS 0.0 As 0.00 PO_4 0.00	63[f]/60[g]	28	32	0	1		
7/13 1030		64	8.5	112	92	7.7/8.1	0.65[c]		6.4/0.28		0/0.00	50/0.82		1.5/0.04			0.1			62[e]	30	32	0	1		
9/14 1115		63	8.6	112	95	8.1/8.2	11/0.55	1.6/0.13	6.5/0.28	1.7/0.04	0/0.00	52/0.85	3.0/0.06	1.4/0.04	0.0/0.00		0.0	16	ABS 0.0 As 0.00 PO_4 0.00	67[f]/66[g]	28	34	0	1		

TABLE D-2
ANALYSES OF SURFACE WATER
IAHONTAN REGION (NO. 6)

SUSAN RIVER AT SUSANVILLE (STA. 17b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/10/63 0630	8.7	50	9.3	95	175	7.8/8.2	1.60[c]		5.6/0.24		0/0.00	112/1.84		1.2/0.03			0.0				13	80	0	3	Median 6.2	USGS
11/6 1615	43	44	10.4	99	133	7.5/7.7	1.18[c]		4.2/0.18		0/0.00	81/1.33		1.4/0.04			0.0				13	59	0	15	Maximum 620.	
12/4 1130	21	33	12.4	100	153	7.5/8.0	1.34[c]		4.9/0.21		0/0.00	95/1.56		0.5/0.01			0.0				14	67	0	4	Minimum 0.62	
1/8/64 1345	16	34			153	7.6/8.3	1.36[c]		5.7/0.25		1/0.03	93/1.52		2.2/0.06			0.0				16	68	0	1		
2/5 1800	26	32	12.3	98	152	7.9/8.2	1.34[c]		5.9/0.26		0/0.00	93/1.52		1.0/0.03			0.0				16	67	0	1		
3/4 1250	20	42	11.3	105	151	7.9/8.3	1.34[c]		5.5/0.24		2/0.07	88/1.44		3.0/0.08			0.0				15	67	0	2		
4/9 0755	125	39	11.7	103	105	7.5/8.2	0.96[c]		5.1/0.22		0/0.00	64/1.05		1.6/0.05			0.0				19	48	0	10		
5/6 0640	85	34	12.0	99	102	7.3/8.2	11/0.55	4.0/0.33	4.0/0.17	0.8/0.02	0/0.00	60/0.98	1.0/0.02	1.0/0.03	1.4/0.02	0.0/0.00	0.0	23	ABS 0.0 As 0.00 PO_4 0.00	74[f]	16	44	0	4		
6/11 1230	129	56	9.1	101	71	7.6/7.8	0.63[c]		3.0/0.13		0/0.00	40/0.66		1.0/0.03			0.0				17	32	0	5		
7/2 1500	91	70	8.0	103	68	7.7/7.8	0.61[c]		3.2/0.14		0/0.00	39/0.64		1.0/0.03			0.0				19	30	0	15		
8/6 1125	3.9	70	7.5	98	181	7.9/8.0	1.66[c]		6.5/0.28		0/0.00	116/1.90		1.0/0.03			0.0				14	83	0	2		
9/3 1120	5.4	57	9.4	105	189	7.8/7.9	19/0.95	9.6/0.79	7.0/0.30	2.3/0.06	0/0.00	122/2.00	1.0/0.02	0.8/0.02	1.0/0.02		0.0	38	ABS 0.0 As 0.00 PO_4 0.10	126[f]	14	87	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

TRUCKEE RIVER NEAR FARAD (STA. 53)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
10/11/63 1015	418	53	9.4	104	87	7.3/7.4	8.3/0.41	2.6/0.21	4.7/0.20	1.9/0.05	0/0.00	45/0.74	2.1/0.04	1.9/0.05	0.8/0.01	0.0/0.00	0.04	12	PO_4 0.01 NH_4 0.00 Color 10	56[f]/62[g]	23	31	0	0.7	Median 2.4	DWR
11/8 0830	421	49	10.0	105	105	7.3/7.0	9.5/0.47	2.8/0.23	5.4/0.23	1.7/0.04	0/0.00	50/0.82	3.1/0.06	2.0/0.06	0.6/0.01	0.1/0.00	0.14	14	PO_4 0.08 NH_4 0.58 Color 5	63[f]/62[g]	24	35	0	4.0	Maximum 2400.	
12/6 1115	386	38	11.6	105	93	7.3/6.8	9.5/0.47	2.8/0.23	5.0/0.22	1.5/0.04	0/0.00	48/0.79	1.6/0.03	2.0/0.06	1.2/0.02	0.1/0.00	0.2	17	PO_4 0.04 NH_4 0.00 Color 10	65[f]/66[g]	23	35	0	4	Minimum 0.13	
1/10/64 0845	410	34	11.4	96	102	7.3/7.5	9.5/0.47	3.3/0.27	5.7/0.25	1.8/0.05	0/0.00	52/0.85	2.3/0.05	2.4/0.07	0.7/0.01	0.2/0.01	0.1	16	PO_4 0.02 NH_4 0.00 Color 5	68[f]/72[g]	24	37	0	1.1		
2/7 1015	368	33	12.3	102	106	7.3/7.5	10/0.50	3.2/0.26	5.9/0.26	1.7/0.04	0/0.00	54/0.88	2.1/0.04	2.9/0.08	0.2/0.00	0.1/0.00	0.0	17	PO_4 0.04 NH_4 0.01 Color 5	69[f]/69[g]	24	38	0	4		
3/6 0915	340	36	11.6	101	107	7.3/7.1	10/0.50	3.6/0.30	5.8/0.25	1.8/0.05	0/0.00	53/0.87	4.9/0.10	2.8/0.08	0.1/0.00		0.1		PO_4 0.02 NH_4 0.01 Color 5	/71[g]	23	40	0	4		
4/10 0925	547	41	10.8	102	98	7.8/7.3	10/0.50	2.9/0.24	5.4/0.23	1.6/0.04	0/0.00	48/0.79	3.1/0.06	1.2/0.03	0.9/0.01		0.0		PO_4 0.28 NH_4 0.04 Color 25	/74[g]	23	37	0	1		
5/8 0730	950	43	10.6	103	82	7.5/7.8	8.0/0.40	2.9/0.24	4.2/0.18	1.2/0.03	0/0.00	43/0.70	2.3/0.05	1.6/0.04	0.2/0.00		0.0		PO_4 0.00 NH_4 0.07 Color 5	/57[g]	21	32	0	7		
6/10 0930	848	51	9.6	104	71	7.5/7.8	7.1/0.35	2.3/0.19	3.4/0.15	1.1/0.03	0/0.00	38/0.62	1.5/0.03	1.7/0.05	0.8/0.01		0.1		PO_4 0.04 NH_4 0.11 Color 10	54[e]	21	27	0	10		
7/13 1215	515	64	8.3	105	78	7.7/7.9	7.7/0.38	2.7/0.22	4.2/0.18	1.1/0.03	0/0.00	42/0.69	2.5/0.05	1.0/0.03	0.9/0.01		0.0		PO_4 0.02 NH_4 0.00 Color 10	/62[g]	22	30	0	2		
8/3 0930	565	65	7.9	101	82	7.8/7.9	8.6/0.43	2.3/0.19	4.4/0.19	1.3/0.03	0/0.00	47/0.77	1.6/0.03	0.8/0.02	0.9/0.01		0.0		PO_4 0.02 NH_4 0.00 Color 10	/61[g]	23	31	0	4		
9/14 1245	525	59	8.7	104	85	7.7/7.7	13/0.65	0.1/0.01	4.8/0.21	1.6/0.04	0/0.00	44/0.72	0.6/0.01	3.0/0.08	0.5/0.01		0.1		T. PO_4 0.07 NH_4 0.00 Color 10	/56[g]	23	33	0	2		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

TRUCKEE RIVER NEAR TRUCKEE (STA. 52)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/8/63 0915		45	9.5	97	98	7.3/7.8	9.6/0.48	2.4/0.20	5.2/0.23		0/0.00	50/0.82		3.5/0.10			0.0			70[e]	24	35	0	2	Median 2.3	USGS
1/10/64 0945		34	11.2	97	97	7.3/8.2	9.6/0.48[c]		6.1/0.27		0/0.00	50/0.82		2.8/0.08			0.1			69[e]	28	34	0	4	Maximum 6.2	
3/6 1045		35	11.0	97	101	7.1/8.2	9.6/0.48[c]		6.6/0.29		0/0.00	52/0.85		4.0/0.11			0.0			72[e]	23	48	5	10	Minimum <0.045	
5/8 0825		41	10.9	105	90	7.3/7.5	9.6/0.48	2.4/0.20	4.7/0.20	0.5/0.01	0/0.00	41/0.67	6.0/0.12	3.8/0.11	0.8/0.01	0.0/0.00	0.0	19	ABS 0.0 As 0.00 PO_4 0.00	67[f]/68[g]	22	34	0	1		
7/13 1115		66	8.2	109	98	7.7/8.1	9.6/0.48[c]		6.1/0.27		0/0.00	51/0.84		1.5/0.04			0.0			70[e]	27	36	0	1		
9/14 1200		61	8.5	106	99	7.7/8.1	8.4/0.42	3.2/0.26	6.2/0.27	1.9/0.05	0/0.00	51/0.84	3.0/0.06	1.9/0.05	0.2/0.00		0.2	13	ABS 0.0 As 0.00 PO_4 0.05	67[f]/66[g]	27	34	0	1		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

WALKER RIVER, EAST NEAR BRIDGEPORT (STA. 116a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
11/7/63 1245	22	47	9.4	101	179	8.4/8.1	—/1.33[c]		10/0.44		0/0.00	97/1.59		0.3/0.01			0.2			121[e]	25	66	0	9	Median 0.21	USGS
1/9/64 1200	21	40	9.9	97	200	7.7/8.3	—/1.48[c]		12/0.52		5/0.17	102/1.67		2.0/0.06			0.0			135[e]	26	74	0	2	Maximum 0.62	
3/5 1230	19	43	9.2	94	227	7.5/8.5	—/1.68[c]		14/0.61		3/0.10	122/2.00		1.5/0.04			0.1			153[e]	27	84	0	0	Minimum 0.03	
5/7 1110	151	47	9.8	106	229	8.2/8.1	28/1.40	3.4/0.28	15/0.65	3.2/0.08	0/0.00	123/2.02	14/0.29	2.5/0.07	1.5/0.02	0.2/0.01	0.1	17	ABS 0.0 As 0.01 PO_4 0.15	146[f]/142[g]	27	84	0	5		
7/14 1115	231	67	7.6	105	231	8.1/8.4	—/1.70[c]		15/0.65		3/0.10	127/2.08		3.0/0.08			0.2			156[e]	28	85	0	2		
9/15 1215	134	61	7.1	91	246	7.7/8.0	30/1.50	4.6/0.38	15/0.65	4.4/0.11	0/0.00	138/2.26	14/0.29	2.4/0.07	1.8/0.03		0.0	8.5	ABS 0.0 As 0.01 PO_4 0.00	147[f]/146[g]	25	94	0	7		

TABLE D-2

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

WALKER RIVER, WEST NEAR COLEVILLE (STA. 116)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
11/7/63 1145	85	36	11.1	103	106	7.3/7.8	—/0.69[c]		7.4/0.32		0/0.00	54/0.89		0.9/0.03			0.2			72[e]	32	34	0	1	Median 2.1	USGS
1/9/64 1115	50	32	11.4	99	163	7.5/8.2	—/0.88[c]		18/0.78		0/0.00	78/1.28		4.2/0.12			0.1			110[e]	47	44	0	1	Maximum 6.2	
3/5 1115	75	36	11.0	102	131	7.1/8.1	—/0.84[c]		10/0.44		0/0.00	67/1.10		2.0/0.06			0.1			88[e]	34	42	0	0	Minimum 0.20	
5/7 1015	157	40	10.8	107	148	7.7/8.1	13/0.65	1.5/0.12	15/0.65	1.5/0.04	0/0.00	71/1.16	9.0/0.19	5.2/0.15	0.9/0.01	0.0/0.00	0.1	15	ABS 0.0 As 0.02 PO_4 0.05	96[f]/86[g]	45	38	0	3		
7/14 1215	198	64	8.0	108	46	7.4/7.8	—/0.37[c]		2.8/0.12		0/0.00	24/0.39		1.0/0.03			0.0			31[e]	24	18	0	4		
9/15 1115	49	57	9.8	122	164	8.1/8.0	17/0.85	2.8/0.23	13/0.57	1.6/0.04	0/0.00	84/1.38	12/0.25	2.8/0.08	1.2/0.02		0.0	11	ABS 0.0 As 0.02 PO_4 0.25	102[f]/92[g]	34	54	0	1		

TABLE D-3

TRACE METAL ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

Station	Sta No.	Date 1964	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
American River at Nimbus Dam	22a	5/6	1.4**	0.57*[1]	0.29*	1.4*	1.4**	1.4*	1.4*	4.0	0.57*	0.29*	1.4*	0.29*	0.29**	1.4*	0.57*	0.37	5.7*
		9/1	2.9	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	5.4	5.7*	0.29*	1.4*	0.29*	0.43	1.4*	0.57*	0.80	5.7*
American River at Sacramento	22	5/4	2.5	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	3.1	5.7*	0.29*	1.4*	0.29*	0.29**	1.4*	0.57*	0.51	5.7*
		9/1	13	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	9.7	5.7*	0.29*	1.4*	0.29*	0.69	1.4*	0.57*	0.69	5.7*
Bear River near Wheatland	78	5/5	1.4**	0.57*	0.29*	1.4*	1.4**	1.4*	2.0	4.3	5.7*	0.29*	1.4*	0.29**	0.42	1.4*	0.57*	0.46	5.7*
		9/4	3.4	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	4.3	5.7*	0.29*	1.4*	0.29**	0.37	1.4*	0.57*	1.5	5.7*
Cache Creek near Capay	80	5/5	1.9	0.57*	0.29*	1.4*	1.4**	1.4*	2.4	12.0	5.7*	0.29*	1.4*	0.49	1.8	1.4*	0.57*	1.7	5.7*
		8/31	4.0	0.57*	0.29*	1.4*	1.8	1.4*	1.4**	3.1	5.7*	0.29*	1.4*	1.0	1.9	1.4*	0.57*	4.6	5.7*
Cache Creek near Lower Lake	42	5/5	1.4	0.57*	0.29*	1.4*	1.4*	1.4*	1.4**	10	5.7*	0.29*	1.4*	0.29**	0.91	1.4*	0.57*	1.9	5.7*
		8/31	9.7	0.57*	0.29*	1.4*	23	1.4*	1.4*	15	5.7*	0.29*	1.4*	0.29**	1.7	1.4*	0.57*	4.9	5.7*
Clear Lake at Lakeport	41	5/5	7.7	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	19	5.7*	0.29*	1.4*	0.29**	1.4	1.4*	0.57*	2.5	5.7*
		8/31	4.9	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	43	5.7*	0.29*	27	1.0	1.7	1.4*	0.57*	3.4	5.7*
Delta Cross Channel Near Walnut Grove	98	5/6	3.7	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	21	5.7*	0.29*	1.4*	0.74	1.4	1.4*	0.57*	4.0	5.7*
		9/2	2.3	0.57*	0.29*	1.4*	1.4**	1.4*	2.9	2.4	5.7*	0.29*	1.4*	0.77	0.86	1.4*	0.57*	3.4	5.7*
Feather River, Middle Fork near Merrimac	19b	5/7	11	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	16	5.7*	0.29*	1.4*	0.29**	0.71	1.4*	0.57*	0.54	5.7*
		9/11	4.6	1.3*	0.67*	3.3*	3.7	3.3*	3.3*	7.1	13*	0.67*	3.3*	0.67**	0.80	3.3*	1.3*	1.1	13*
Feather River at Nicolaus	20	5/5	1.4**	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	8.0	5.7*	0.29*	1.4*	0.29**	0.29	1.4*	0.57*	0.74	5.7*
		9/4	5.7	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	12	5.7*	0.29*	1.4*	0.29**	0.46	1.4*	0.57*	2.1	5.7*
Feather River near Oroville	19	5/7	2.6	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	18	5.7*	0.29*	1.4*	0.29*	0.51	1.4*	0.57*	0.69	5.7*
		9/4	6.9	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	4.9	5.7*	0.29*	1.4*	0.29**	0.46	1.4*	0.57*	1.1	5.7*
Italian Slough at Mouth	106	9/3	25	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	26	5.7*	0.29*	1.4*	1.5	1.1	1.4*	0.57*	6.9	5.7*
Mokelumne River at Lancha Plana	23a	9/17	19	0.57*	0.29*	1.4*	1.4*	1.4*	22	19	5.7*	0.29*	20	0.29*	0.89	1.4*	0.57*	0.29**	314
Mokelumne River at Woodbridge	23	5/4	21	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	71	5.7*	0.29*	1.4*	0.29**	0.29**	1.4*	0.57*	0.69	5.7*
		9/1	6.0	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	23	5.7*	0.29*	1.4*	0.29*	0.63	1.4*	0.57*	0.83	5.7*
Old River at Mandeville Island	112	5/6	11	0.57*	0.57*	1.4*	1.4*	1.4*	1.4*	25	5.7*	0.29*	1.4*	0.29**	0.59	1.4*	0.57*	4.9	5.7*
		9/8	46	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	49	5.7*	0.29*	1.4*	0.29**	0.91	1.4*	0.57**	6.9	5.7*
Pit River near Canby	17a	5/6	2370	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	100***	5.7*	0.29*	1.4*	0.29*	1.3	1.4*	46	4.0	5.7*
		9/3	1270	0.67*	0.57*	3.3*	3.3*	3.3*	3.3*	137	13*	0.67*	3.3*	3.9	3.2	3.3*	65	13	13*
Putah Creek near Winters	81	5/5	1.4**	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	2.0	5.7*	0.29*	1.4*	0.29**	1.9	1.4*	0.57*	1.1	5.7*
		9/2	6.0	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	3.1	5.7*	0.29*	1.4*	0.29**	1.8	1.4*	0.57*	2.0	5.7*
Sacramento River at Bend	12c	9/3	11	1.3*	0.67*	3.3*	3.3**	3.3*	3.3*	22	3.3*	13*	3.3*	0.67**	0.67**	3.3*	1.3*	3.7	13*
Sacramento River at Colusa	13b	5/4	1.9	0.57*	0.29*	1.4*	1.4*	1.4*	1.4**	17	5.7*	0.29*	1.4*	0.29*	1.1	1.4**	0.57*	4.0	5.7*
		9/2	9.4	0.57*	0.29*	1.4*	1.4*	1.4*	4.9	23	5.7*	0.29*	1.4*	0.71	0.74	1.4*	0.57*	4.3	5.7*
Sacramento River above Colusa Trough	14b	5/4	4.3	0.57*	0.29*	1.4*	1.4*	1.4*	1.4**	11	5.7*	0.29*	1.4*	1.1	0.63	1.4*	0.57*	3.7	5.7*
		9/3	10	0.57*	0.29*	1.4*	2.6	1.4*	6.0	27	5.7*	0.29*	1.4*	0.86	0.71	1.4*	0.57*	4.9	5.7*

TABLE D-3

TRACE METAL ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

Station	Sta No.	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Sacramento River at Freeport	15b	5/6	2.8	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	20	5.7*	0.29*	1.4*	0.25**	0.97	1.4*	0.57*	3.1	5.7*
		9/2	4.9	0.57*	0.29*	1.4*	1.4*	1.4*	6.3	8.6	5.7*	0.29*	1.4*	1.1	1.3	1.4*	0.57*	5.1	5.7*
Sacramento River near Hamilton City	13	5/5	2.9	0.57*	0.29*	1.4*	1.4*	1.4*	1.4**	20	5.7*	0.29*	1.4*	0.29*	0.46	1.4*	0.57*	3.1	5.7*
		9/2	7.7	0.57*	0.29*	1.4*	1.4*	1.4*	3.1	14	5.7*	0.29*	1.4*	0.29**	0.65	1.4*	0.57*	2.6	5.7*
Sacramento River near Keswick	12	5/5	7.7	0.67*	0.33*	1.7*	1.7*	1.7*	1.7*	23	6.7*	0.33*	1.7*	0.33*	0.56	1.7*	0.67*	3.1	6.7*
		9/1	33	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	37	13*	0.67*	3.3*	0.67*	0.93	3.3*	1.3*	4.1	13*
Sacramento River near Rio Vista	16	5/6	3.4	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	25	5.7*	0.29*	1.4*	0.29**	0.71	1.4*	0.57*	4.9	5.7*
		9/2	23	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	23	5.7*	0.29*	1.4*	0.91	1.0	1.4*	0.57*	7.1	5.7*
Yuba River at Marysville	21	5/5	1.4**	0.57*	0.29*	1.4*	1.4**	1.4*	1.4*	3.7	5.7*	0.29*	1.4*	0.29**	0.40	1.4*	0.57*	0.37	5.7*
		9/4	3.1	0.57*	0.29*	1.4*	1.4*	1.4*	1.4**	7.1	5.7*	0.29*	1.4*	0.49	0.37	1.4*	0.57*	1.3	5.7*
LAHONTAN REGION (NO. 6)																			
Lake Tahoe at Tahoe	38	5/8	1.4**	0.57*	1.4**	1.4*	9.1	1.4*	1.4**	1.4**	5.7*	0.29*	1.4*	2.0	0.29	1.4*	0.57*	0.37	5.7*
		9/14	6.3	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	7.4	5.7*	0.29*	1.4*	3.7	0.37	1.4*	0.57*	0.80	5.7*
Truckee River near Farad	53	5/8	31	0.57*	0.29*	1.4*	1.4*	1.4*	1.7	13	5.7*	0.29*	1.4*	0.29**	0.29**	1.4*	0.57*	0.66	5.7*
		9/4	8.5	1.0*	0.50*	2.5*	2.5*	2.5*	2.5*	70	10*	0.50*	2.5*	1.6	0.50**	2.5*	1.0*	1.1	10*

TABLE D-4

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
22b	American River, Middle Fork	Auburn	5-4	0.06 ± 1.35	0.24 ± 0.56	1.14 ± 10.45	6.02 ± 8.29
			9-18	0.74 ± 0.96	-0.18 --	-0.93 --	-0.28 --
22a	American River	Nimbus Dam	5-4	-0.07 ± 0.42	-0.12 ± 0.42	-11.26 ± 7.57	15.55 ± 9.81
			9-1	-0.43 ± 0.46	0.32 ± 1.36	-7.81 ± 8.41	3.45 ± 9.93
22	American River	Sacramento	5-4	-0.30 ± 0.83	-0.46 ± 0.23	-0.87 ± 8.57	-1.76 ± 10.59
			9-1	-0.79 ± 0.28	-0.03 ± 0.68	4.16 ± 7.94	0.90 ± 10.36
22c	American River, South Fork	Lotus	5-4	-0.18 ± 0.60	-0.76 ± 0.70	4.70 ± 8.26	1.98 ± 11.13
			9-18	-0.78 --	0.20 ± 3.43	-5.66 --	8.44 ± 10.06
88c	Antelope Creek	Mouth	5-4	-1.46 ± 1.01	-0.08 ± 0.59	4.92 ± 12.25	3.64 ± 8.13
			9-3	1.08 ± 1.40	0.33 ± 0.89	2.20 ± 9.10	-7.80 --
88e	Antelope Creek	Red Bluff	5-4	-3.49 ± 2.42	0.46 ± 0.89	-11.60 ± 13.67	-1.09 ± 9.00
			9-3	1.69 ± 1.59	0.00 --	9.70 ± 10.12	1.78 ± 8.52
88b	Battle Creek	Cottonwood	5-7	0.02 ± 0.89	0.07 ± 0.71	6.12 ± 10.77	-6.67 ± 8.87
78	Bear River	Wheatland	5-5	0.80 ± 1.05	-0.22 ± 1.00	-1.67 ± 8.14	6.19 ± 11.81
			9-4	-0.51 ± 0.75	-1.02 ± 1.03	9.65 ± 9.28	-5.46 ± 11.77
85a	Big Chico Creek	Chico	5-4	0.30 ± 1.17	-0.01 ± 0.71	18.52 ± 10.40	7.81 ± 8.15
			9-2	-0.58 ± --	-0.15 --	-8.22 --	5.07 ± 9.09
80	Cache Creek	Capay	5-5	-0.31 ± 0.82	0.09 ± 1.57	-4.38 ± 8.62	0.13 ± 11.12
			8-31	-0.26 --	-0.20 --	8.72 ± 8.99	8.57 ± 10.46
42	Cache Creek	Lower Lake	5-5	0.00 ± 0.63	0.26 ± 1.63	-11.42 ± 8.38	-3.66 ± 11.33
			8-31	0.28 ± 1.08	0.32 ± 1.64	2.73 ± 9.59	-5.47 ± 11.56

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
79	Cache Creek, North Fork	Lower Lake	5-5	-0.04 ± 0.71	-0.65 ± 0.40	-0.21 ± 8.76	-3.78 ± 11.05
			8-31	-0.56 --	-0.36 --	-9.04 --	1.32 --
16a	Calaveras River	Jenny Lind	5-4	0.00 ± 0.63	-0.13 ± 1.03	-10.54 ± 8.29	12.53 ± 10.70
12d	Clear Creek	Igo	5-7	-0.16 ± 0.71	-0.24 ± 0.40	10.47 ± 10.53	1.91 ± 9.08
			9-4	0.16 ± 0.70	0.22 ± 0.81	1.30 ± 9.40	-1.14 --
41	Clear Lake	Lakeport	5-5	0.10 ± 0.81	-0.72 ± 0.77	7.64 ± 9.05	6.65 ± 11.46
			8-31	0.08 ± 1.00	-0.33 ± 1.08	-11.91 ± 9.03	20.15 ± 11.99
87	Colusa Trough	Colusa	5-4	-1.22 ± 1.19	0.11 ± 0.75	2.75 ± 14.05	13.83 ± 9.40
			9-2	-1.88 --	-0.57 --	0.36 ± 10.69	-0.90 --
94a	Cosumnes River	McConnell	5-4	0.75 ± 1.05	0.01 ± 0.79	0.44 ± 8.87	14.52 ± 10.20
94	Cosumnes River	Michigan Bar	5-4	0.21 ± 0.81	-0.15 ± 0.69	14.97 ± 9.91	14.03 ± 11.04
			9-1	0.00 --	0.30 ± 0.73	16.55 ± 10.46	0.23 ± 8.67
12b	Cottonwood Creek	Cottonwood	5-4	0.74 ± 1.63	-0.16 ± 0.60	-6.62 ± 13.58	-9.34 ± 8.81
			9-4	-0.27 ± 0.87	0.78 ± 1.08	-14.76 ± 10.66	-8.06 ± 8.66
11a	Cottonwood Creek	below N. F. Cottonwood Cr.	5-7	-0.57 ± 0.30	-0.26 ± 0.60	-3.28 ± 9.88	2.18 ± 9.34
			9-4	-0.96 --	0.04 ± 0.76	7.54 ± 9.46	-7.43 --
88a	Cow Creek	Millville	5-7	0.04 ± 0.95	-1.18 ± 0.77	-2.75 ± 11.49	10.77 ± 10.57
95a	Elder Creek	Gerber	5-7	-1.11 ± 0.54	-0.24 ± 0.60	1.74 ± 10.90	-4.63 ± 8.55
13e	Elder Creek	Paskenta	5-5	-0.91 ± 0.96	-0.38 ± 0.45	22.35 ± 12.54	5.72 ± 9.07
			9-3	-4.00 --	0.15 ± 0.73	0.00 --	-2.20 --

TABLE D-4

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
19b	Feather River, Middle Fork	Merrimac	5-7	0.07 ± 0.42	0.58 ± 1.00	1.51 ± 8.02	-7.74 ± 9.57
			9-11	0.00 ± 0.58	0.47 ± 1.26	3.64 ± 8.59	-2.93 ± 10.74
20	Feather River	Nicolaus	5-5	-0.56 ± 0.47	-0.05 ± 0.85	0.65 ± 8.63	-9.36 ± 10.19
			9-4	-0.04 --	0.11 ± 1.51	-4.60 --	2.90 ± 11.28
19a	Feather River, North Fork	Big Bar	5-7	0.00 ± 0.80	-0.59 ± 0.26	0.91 ± 8.86	1.12 ± 9.42
			9-10	-0.16 ± 0.60	0.29 ± 1.19	-5.99 ± 8.50	22.02 ± 12.00
19	Feather River	Oroville	5-7	0.46 ± 0.89	0.19 ± 0.99	-5.40 ± 8.69	191.16 ± 15.57
			9-4	0.04 ± 0.81	-0.63 --	-0.75 --	3.99 ± 8.74
20a	Feather River	below Shanghai Bend	5-5	-0.16 ± 0.59	0.08 ± 0.83	-0.27 ± 8.15	8.55 ± 10.98
			9-4	0.22 --	-0.34 --	2.82 --	4.24 ± 9.92
19c	Feather River, South Fork	below Ponderosa Dam	9-11	0.29 ± 0.80	0.59 ± 1.45	5.05 ± 8.95	6.71 ± 10.12
17d	Indian Creek	Crescent Mills	5-7	0.30 ± 0.90	0.17 ± 1.06	9.10 ± 8.62	15.18 ± 11.41
			9-16	0.42 ± 0.80	-0.82 ± 1.19	0.13 ± 8.53	-3.76 ± 11.50
107	Indian Slough	Brentwood	5-6	-0.20 ± 0.74	-0.72 ± 1.14	0.96 ± 9.38	-6.36 ± 11.47
			9-8	0.34 ± 0.61	-0.41 --	2.98 ± 9.21	10.49 ± 11.75
106	Italian Slough	Mouth	9-3	0.77 ± 1.00	-0.17 --	-4.33 --	-6.05 --
99	Little Potato Slough	Terminous	5-4	1.29 ± 1.25	0.08 ± 0.51	5.23 ± 8.64	-7.04 ± 9.52
			9-8	-0.11 ± --	-0.42 --	5.42 ± 8.91	2.11 ± 9.87
18	McCloud River	above Shasta Lake	5-5	0. ± 0.75	0.51 ± 0.89	-2.35 ± 9.48	2.23 ± 8.09
			9-1	-0.38 --	0.26 ± 0.89	3.55 ± 8.92	-7.24 --

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
23a	Mokelumne River	Lancha Plana	5-4	0.04 ± 0.41	-0.80 ± 0.77	-1.97 ± 7.90	11.89 ± 10.93
			9-17	0.30 ± 0.81	-0.89 --	-6.12 --	1.73 ± 8.93
23	Mokelumne River	Woodbridge	5-4	0.13 ± 0.57	1.47 ± 2.03	0.56 ± 8.10	-6.91 ± 10.27
			9-1	0.43 ± 0.90	-0.92 ± 0.75	0.39 ± 8.81	2.43 ± 10.86
104	Old River	Clifton Court Ferry	5-8	1.53 ± 1.30	0.67 ± 1.89	1.44 ± 9.31	1.43 ± 11.79
			9-3	0.38 ± 0.84	1.56 ± 2.88	3.81 ± 8.98	-4.13 --
108	Old River	Orwood Bridge	5-6	-0.33 ± 0.82	1.99 ± 1.79	2.92 ± 9.76	7.38 ± 11.58
			9-8	0.27 ± 0.75	0.73 ± 0.60	3.64 ± 8.98	4.38 ± 11.07
103	Old River	Tracy	5-8	-0.39 ± 0.31	2.16 ± 3.63	-1.98 ± 8.72	5.35 ± 12.51
			9-3	0.43 ± 0.76	3.05 ± 4.68	8.87 ± 9.27	12.81 ± 12.65
88g	Paynes Creek	Red Bluff	5-4	-1.83 ± 1.27	-0.18 ± 0.60	-8.90 ± 12.35	-0.33 ± 8.94
			9-3	-0.25 --	0.33 ± 0.89	2.96 ± 10.36	1.83 ± 8.52
17a	Pit River	Canby	5-6	-0.71 ± 0.34	-0.05 ± 0.61	14.86 ± 10.55	7.09 ± 8.87
			9-3	-0.57 --	0.18 ± 0.68	10.07 ± 10.56	0.20 ± 8.30
18a	Pit River, South Fork	Likely	5-6	-0.06 ± 0.79	-0.35 ± 0.45	15.41 ± 11.60	-6.23 ± 8.79
			9-3	-0.59 --	-0.31 --	7.77 ± 9.16	3.73 ± 8.16
17	Pit River	Montgomery Creek	5-6	-0.83 ± 0.74	-0.01 ± 0.71	7.77 ± 11.57	5.17 ± 8.59
			9-4	-1.03 --	-0.07 --	5.00 ± 9.90	-2.62 --
81	Putah Creek	Winters	5-5	-0.39 ± 0.20	-0.46 ± 0.74	-3.88 ± 8.71	-6.93 ± 11.33
			9-2	0.18 --	4.83 ± 0.63	0.00 --	-6.26 --
88d	Red Bank Creek	Red Bluff	5-5	-1.44 ± 0.85	-0.60 ± 0.25	3.21 ± 13.52	3.25 ± 8.53
109	Rock Slough	Knightsen	5-6	0.14 ± 0.91	-0.17 ± 1.35	10.56 ± 9.40	-1.66 ± 10.71
			9-3	-0.19 --	0.24 ± 1.38	-0.84 --	4.13 ± 8.52

TABLE D-4

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
12c	Sacramento River	Bend	5-4	-0.51 ± 0.99	0.32 ± 0.80	16.94 ± 11.18	4.32 ± 7.87
			9-3	0.05 ± 0.98	0.23 ± 0.92	5.08 ± 8.65	4.06 ± 8.20
87a	Sacramento River	Butte City	5-4	-0.17 ± 0.99	-0.16 ± 0.60	2.49 ± 13.22	7.87 ± 9.27
			9-2	-0.32 --	0.07 ± 0.81	5.16 ± 8.71	1.28 ± 8.94
13b	Sacramento River	Colusa	5-4	-0.83 ± 0.49	-0.35 ± 0.45	4.23 ± 10.74	2.14 ± 9.00
			9-2	0.35 ± 1.27	0.92 ± 1.13	0.00 --	5.50 ± 8.09
14b	Sacramento River	above Colusa Trough	5-4	-0.42 ± 0.70	-0.25 ± 0.44	-1.10 ± 10.28	-0.20 ± 7.86
			9-3	-0.85 --	1.08 ± 1.03	11.97 ± 8.99	-0.42 --
11	Sacramento River	Delta	5-5	0. ± 0.86	0.07 ± 0.71	0.96 ± 9.91	3.53 ± 8.49
			9-1	-0.79 --	-0.18 --	-3.45 --	8.56 ± 8.80
15b	Sacramento River	Freeport	5-6	-0.24 ± 0.60	-0.36 ± 0.22	10.83 ± 9.14	3.20 ± 10.20
			9-2	-0.48 --	-0.82 --	7.03 ± 8.81	6.99 ± 10.50
13	Sacramento River	Hamilton City	5-5	-0.65 ± 0.38	-0.60 ± 0.25	14.02 ± 11.55	10.18 ± 8.87
			9-2	-0.79 --	0.07 ± 0.81	1.41 ± 8.60	0.70 ± 8.74
12	Sacramento River	Keswick	5-5	-0.23 ± 0.59	0.26 ± 0.81	10.40 ± 10.11	11.94 ± 8.89
			9-1	-0.14 --	-0.04 --	7.32 ± 9.87	-1.25 --
16	Sacramento River	Rio Vista	5-6	0.39 ± 1.38	-0.18 ± 0.59	0.25 ± 9.11	-9.08 ± 9.64
			9-2	0.00 --	0.00 --	-2.93 --	3.60 ± 10.23
14a	Sacramento Slough	Knights Landing	5-4	-0.51 ± 1.45	0.14 ± 0.70	3.65 ± 11.67	-3.20 ± 9.23
			9-3	0.45 ± 1.09	0.50 --	3.15 ± 7.80	2.21 ± 9.17

TABLE D-4

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
28	San Joaquin River	Antioch	5-6	-0.39 ± 0.20	-1.03 ± 2.38	-1.82 ± 9.15	15.75 ± 13.81
			9-2	1.54 ± 1.34	-3.00 ± --	1.95 ± 9.31	2.16 ± 13.06
102	San Joaquin River	Mossdale Bridge	5-8	1.23 ± 1.75	3.26 ± 5.24	-0.92 ± 9.28	6.23 ± 12.19
			9-3	0.39 ± 0.85	4.59 ± 3.21	5.08 ± 9.13	0.43 ± 9.75
13c	Stony Creek	below Black Butte Dam	5-5	-0.10 ± 1.36	-0.45 ± 0.21	16.62 ± 12.79	-2.67 ± 8.86
			9-3	-1.18 --	1.93 ± 1.41	11.47 ± 10.63	-1.69 --
13f	Stony Creek	Fruto	9-1	-1.59 --	0.71 ± 1.15	-5.92 --	5.25 ± 8.00
95b	Thomes Creek	Mouth	5-7	-0.20 ± 1.13	-0.33 ± 0.45	5.18 ± 13.12	2.52 ± 8.58
13d	Thomes Creek	Paskenta	5-5	-0.19 ± 0.95	0.24 ± 0.81	7.81 ± 11.16	-3.94 ± 8.70
			9-3	0.25 ± 1.66	-1.00 --	-3.25 --	-2.68 --
21	Yuba River	Marysville	5-5	-0.38 ± 0.45	-0.46 ± 0.99	2.76 ± 8.33	-3.49 ± 9.66
			9-4	1.75 ± 1.36	0.00 --	-1.09 --	-0.87 --
21a	Yuba River	Smartville	5-5	0.52 ± 0.98	0.08 ± 0.82	5.98 ± 9.07	8.83 ± 10.89
			9-10	-0.74 ± 0.27	0.50 ± 1.02	-1.99 ± 7.60	-10.21 ± 10.40

TABLE D-4

RADIOASSAY OF SURFACE WATERS

LAHONTAN REGION (NO. 6)

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
115	Carson River, East Fork	Markleeville	5-7	0.39 ± 1.11	0.10 ± 1.48	8.33 ± 9.21	10.70 ± 11.02
			9-15	1.04 ± 1.09	-0.61 --	-4.55 --	6.55 ± 8.93
115a	Carson River, West Fork	Woodfords	5-7	-0.04 ± 0.71	0.05 ± 0.47	8.68 ± 9.08	-0.23 ± 9.51
			9-15	2.23 ± 1.41	0.31 ± 0.98	3.94 ± 8.71	8.44 ± 8.90
38	Lake Tahoe	Tahoe City	5-8	-0.16 ± 0.59	-0.97 ± 0.45	-2.16 ± 7.99	2.59 ± 10.89
			9-14	-0.48 --	0.47 ± 0.83	0.55 ± 7.86	8.09 ± 9.62
17b	Susan River	Susanville	5-6	0.05 ± 0.93	-0.01 ± 0.71	-2.93 ± 10.85	9.01 ± 8.72
			9-3	0.81 ± 1.18	2.23 ± 1.41	0.40 ± 9.73	5.54 ± 8.76
53	Truckee River	Farad	5-8	0.21 ± 0.81	-0.11 ± 0.88	4.48 ± 8.48	14.00 ± 10.34
			9-14	-0.37 --	-0.04 --	-6.12 --	-1.69 --
52	Truckee River	Truckee	5-8	0.39 ± 1.11	-0.34 ± 0.96	-0.07 ± 8.90	16.08 ± 10.71
			9-14	0.33 ± 0.89	10.46 ± 3.01	2.29 ± 8.67	0.00 --
116a	Walker River, East	Bridgeport	5-7	0.68 ± 1.35	0.97 ± 1.44	2.92 ± 7.99	0.82 ± 11.46
			9-15	-0.58 ± 0.63	0.62 ± 1.40	0.28 ± 9.07	3.24 ± 11.93
116	Walker River, West	Coleville	5-7	0.80 ± 1.05	-1.06 ± 0.49	0.76 ± 8.92	-3.59 ± 10.95
			9-15	0.37 ± 0.75	1.91 ± 1.55	-6.72 --	2.01 ± 9.11

TABLE D-5

ANALYSES OF ORGANIC CHEMICALS IN SURFACE WATER[a]

(Recovered by Carbon Filter Technique)

Results in parts per billion (ppb)

Station	Date Sampled	Total Extract		Chloroform Extractables		Alcohol Extractables		Group Separation of Chloroform Extractables																Group Separation of Neutrals									
								Ether Insolubles		Water Solubles		Amines		Strong Acids		Weak Acids		Neutrals (see breakdown)		Total		Loss		Aliphatics		Aromatics		Oxygenates		Total		Loss	
		ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%	ppb	%
American River at Sacramento	8/22/64	271		94	34.8	177	65.2	7	7.6	36	38.1	1	1.4	8	8.2	10	10.2	19	20.2	81	85.7	13	14.3	3	18.0	1	5.4	15	79.2	19	102.6	0	
Cache Creek at Highway 53	6/5/64	389		146	37.6	243	62.4	2	1.0	49	33.4	3	2.1	13	9.0	16	10.8	48	32.6	131	88.9	15	11.1	5	9.7	2	4.0	39	81.5	46	95.2	2	4.8
	9/24/64	707		255	36.1	452	63.9	8	3.0	92	36.1	5	2.0	21	8.2	29	11.1	71	27.9	226	88.3	29	11.7	12	16.2	4	5.4	49	69.3	65	90.9	6	9.1
Feather River above Verona	8/28/64	263		94	35.8	169	64.2	4	4.2	35	37.3	2	1.7	8	8.0	11	12.1	27	28.8	87	92.1	7	7.9	4	13.9	1	5.4	22	81.3	27	100.6	0	
Putah Creek at Diversion to Putah South Canal	6/1/64	201		55	27.2	146	72.8	1	2.1	19	35.4	1	2.3	5	9.3	6	10.2	14	25.4	46	84.7	9	15.3	2	17.7	1	6.7	10	74.0	13	98.4	1	1.6
	10/3/64	282		36	12.9	246	87.1	0	0.9	11	30.2	2	6.0	2	4.3	4	10.4	13	35.5	32	87.3	4	12.7			0		10					
Reclamation District 1000 Drain at Second Bannon Slough	9/23/64	464		132	28.4	332	71.6	4	3.3	51	38.8	6	4.4	12	9.1	16	11.9	35	26.6	124	94.1	8	5.9	8	22.2	1	2.6	22	63.7	31	88.5	4	11.5
Sacramento River above Sacramento Slough	10/3/63	134		51	38.1	83	61.9	4	7.4	15	29.6	1	1.3	5	10.5	4	7.0	8	15.1	37	70.9	14	29.1	1	7.2	0	2.9	7	84.0	8	94.1	0	5.9
	7/27/64	165		41	24.8	124	75.2	1	2.3	14	34.0	1	1.8	4	9.5	5	12.6	10	25.4	35	85.6	6	14.4	1	11.4	1	8.2	9	83.5	11	103.1		
	10/30/64	167		48	28.6	119	71.4	1	1.8	16	32.8	3	6.0	5	9.7	6	13.6	16	34.6	47	98.5	1	1.5	3	19.1	1	5.4	10	61.9	14	86.4	2	13.6
San Joaquin River at Mossdale Bridge	10/4/63	179		68	37.8	111	62.2	3	4.0	19	28.4	1	1.3	7	10.1	6	8.5	14	21.2	50	73.5	18	26.5	1	5.1	1	3.8	12	85.9	14	94.8	0	5.2
	7/24/64	336		117	34.8	219	65.2	3	2.9	35	29.9	3	2.3	10	8.8	15	12.9	31	26.5	97	83.8	20	15.7	2	6.3	2	5.4	29	93.7	33	105.4		
	10/29/64	272		71	26.2	201	73.8	2	2.7	23	31.9	2	2.5	5	7.1	7	10.2	22	31.2	61	85.6	10	14.4	3	14.5	1	5.7	15	67.3	19	87.5	3	12.5

a Analyses made by California Department of Public Health, Sanitation and Radiation Laboratory.

TABLE D-6

DESCRIPTION OF SALINITY
OBSERVATION STATIONS

STATION	MAP REFERENCE NUMBER (a)	MILES FROM GOLDEN GATE (b)	TIME INTERVAL		LOCATION
			Hours	Min.	
					SUISUN BAY
Crockett		29.5	3	30	West end of Carquinez Strait, south shore, 0.2 mile east of Carquinez Bridge on wharf of C and H Sugar Refinery Corporation.
Martinez		34.9	3	50	Sampled from Shell Oil Company dock, about 0.6 mile downstream from Southern Pacific Company railroad bridge.
Port Chicago		41.1	4	20	South shore of Suisun Bay at U. S. Naval ammunition loading wharf below Port Chicago.
Middle Point		44.6			South shore of Suisun Bay, about 0.5 mile upstream from Middle Point at Allied Chemical Corporation yard.
Spoonbill Creek	1	49.9	5	05	At Sacramento Northern Railroad crossing.
Pittsburg	2	50.2	5	00	East end of Suisun Bay, south shore, at Pittsburg Yacht Harbor.
					SACRAMENTO RIVER DELTA
Collinsville	3	53.0	5	25	Sacramento River, north bank at junction with San Joaquin River.
Emmaton	4	59.5	5	45	Sacramento River, south bank, 5.9 miles downstream from Rio Vista.
Threemile Slough Bridge	5	62.3	5	55	At junction of slough and Sacramento River.
Rio Vista Bridge	6	66.0	6	05	At highway bridge near northerly limits of Rio Vista.
Isleton Bridge	7	72.0	6	30	Sacramento River, one mile upstream from Isleton.
					SAN JOAQUIN RIVER DELTA
Antioch	8	54.4	5	55	San Joaquin River at City Water Works pumping plant.
Antioch Bridge	9	57.3	6	10	South shore San Joaquin River at Antioch Bridge.
Jersey Island	10	61.3	6	20	San Joaquin River, left bank approximately 1.5 miles below mouth of False River.
Threemile Slough	11	63.5	6	30	Threemile slough, west bank, of junction of slough with the San Joaquin River.
Webb Ferry	12	68.0	6	40	False River at junction with Fisherman's Cut.
San Andreas Landing	13	70.3	6	55	San Joaquin River, right bank, one mile below the mouth of the Mokelumne River.
Dutch Slough	14	73.0	7	05	At Bethel Island Bridge.
Mossdale Bridge	15	108.5	10	50	San Joaquin River at U. S. 50 Highway crossing about three miles southwest of Lathrop.

a Mileage measured to station along main channel. For stations off the main channel, the mileage shown is the same distance along the main channel to a point whereon the time of the occurrence of the tidal phase is the same as that of the observation station.
b Time interval between high tide at Golden Gate and time for taking samples at station.

FIGURE D-5

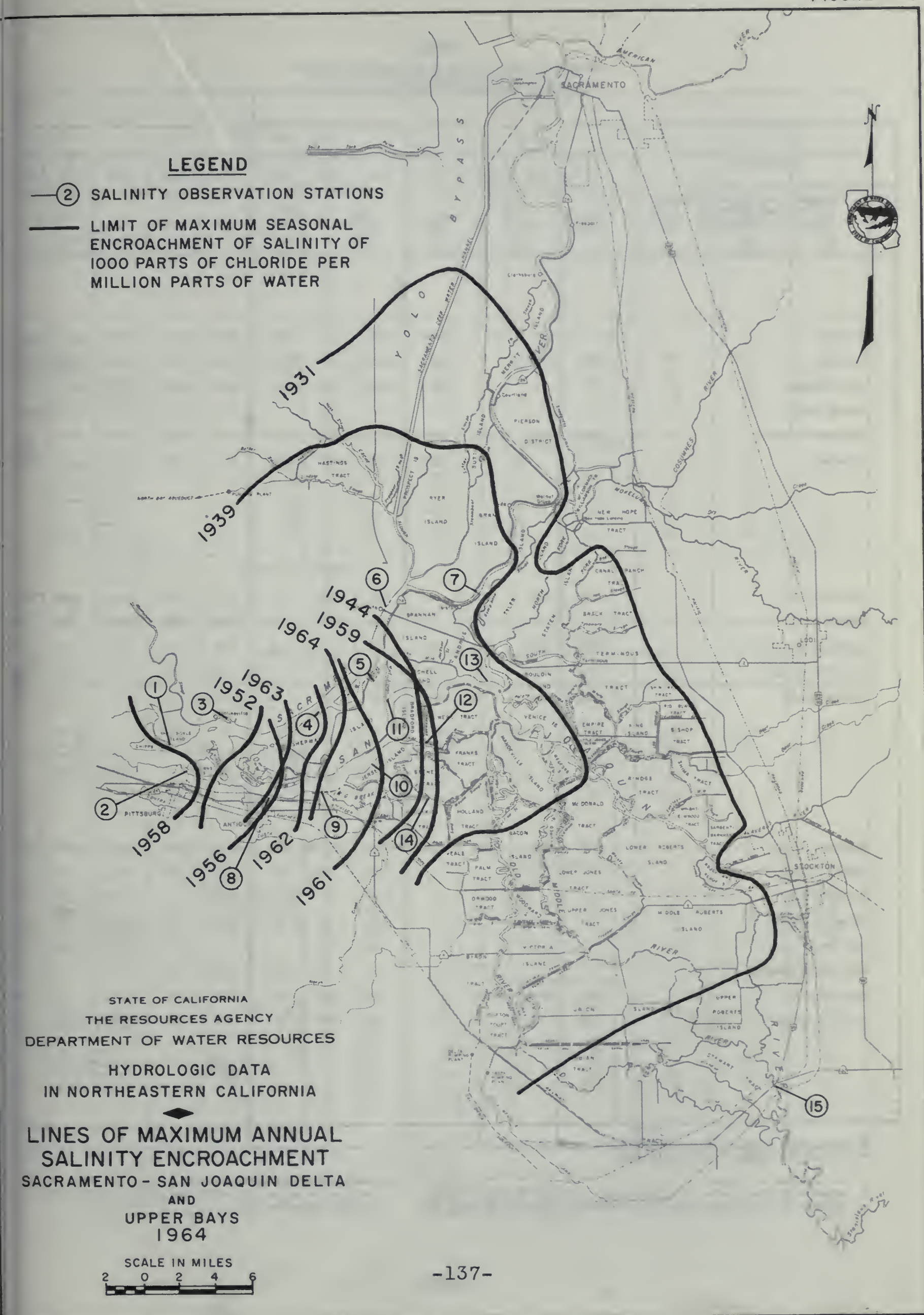

LEGEND
2 SALINITY OBSERVATION STATIONS
LIMIT OF MAXIMUM SEASONAL ENCROACHMENT OF SALINITY OF 1000 PARTS OF CHLORIDE PER MILLION PARTS OF WATER
SACRAMENTO
YOLO BYPASS
1931
1939
1944
1959
1964
1963
1952
1958
1956
1962
1961
STOCKTON
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
IN NORTHEASTERN CALIFORNIA
LINES OF MAXIMUM ANNUAL SALINITY ENCROACHMENT
SACRAMENTO - SAN JOAQUIN DELTA
AND
UPPER BAYS
1964
SCALE IN MILES
2 0 2 4 6

TABLE D-7

MAXIMUM OBSERVED SALINITY AT BAY AND DELTA STATIONS
FOR SELECTED YEARS
In parts of chloride per million parts of water*

Station (a)	Water Year											
	1931	1939	1944 b	1952	1955	1956 c	1958	1959	1961	1962	1963	1964
Sacramento-San Joaquin System Unimpaired Runoff in percent of average (d)	34	49	62	168	63	175	166	66	61			
Suisun Bay												
Crockett				13200	16600	15300	11900	15000	19900	13900	13100	14600
Martinez	16900	16400		8900	11900	11900	7150	10200	11600	12700	11500	12900
Port Chicago				6900	12500	9750	5830	15640	11900	9370	9200	11200
Middle Point												10100
Spoonbill Creek**	13900	11800	7300	2800	6400	4040	930	6270	5900	3540	2940	2980
Pittsburg				1200	7800	3440	1200	5110	3920	3980	1350	3280
Sacramento River Delta												
Collinsville	12600	10400	4700	783	3880	2280	550	5430	4300	2430	1980	3730
Emmaton					1080	158	29	2600	2070	841	382	1470
Threemile Slough Bridge	8600	5900	1610	175	635	56	18	1480	633	232	134	459
Rio Vista Bridge	7400	4050	550	175	158	21	17	219	69	52	38	690
Isleton Bridge	6350	2500	50	125	23	17	14	20	18	18	14	20
San Joaquin River Delta												
Antioch	12400	9200	4000	354	3320	1270	184	3410	2930	1770	1040	2500
Antioch Bridge					2360	160	122	2570	1360	479	317	892
Jersey Island					1130	152	52	1220		84	136	863
Threemile Slough					428	82	45	1900	489	130	56	262
Webb Ferry					331	79					98	315
San Andreas Landing					98	66	46	248	345	57	41	72
Dutch Slough	5100	2250	690	88	454	107	110	1044	825	192	98	434
Mossdale Bridge	120	160	130	122	224	206	219	261	346	308	196	318

* Ocean water contains approximately 18,200 parts per million.
** Station discontinued December 10, 1963.

a For location see Plate.
b Releases of stored water from Shasta Lake commenced in 1944.
c Releases of stored water from Folsom Reservoir commenced in 1956.
d Average taken as mean annual unimpaired flow at foothill stations of major tributaries for 50-year period October, 190 through September, 1957.

TABLE D-8

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	October 1963							
	2	6	10	14	18	22	26	30
Suisun Bay								
Crockett	11200			10400	9800	9220	8040	10400
Martinez	5880	8820	a7160	7740	7840	a6280	6860	7350
Port Chicago	4510	1960	6180	3950	2740	3380	2940	4020
Spoonbill Creek	a657	480	a569	407			220	419
Pittsburg	bd233		a235	169		a142	d71	116
Sacramento River Delta								
Collinsville	a230	230	a76	82	a41	a25	a20	87
Emmaton	a31	28	a35	28	31	24	bd19	bd22
Threemile Slough Br.	a12	a13	a12	12	14	11	10	14
Rio Vista Bridge	11	10	b8	9	8	9	11	9
Isleton Bridge	7	6	b6	7	7	5	6	4
San Joaquin River Delta								
Antioch	a110	109	a74	84	a58	a41	35	44
Antioch Bridge	a28	25	a28	20	22	28	22	22
Jersey Island			a18	17	14	14	19	
Threemile Slough	a14	16		13	14	a16	19	21
Webb Ferry	a17		ad14	16	14	18	21	
San Andreas Ldg.	a13	12	a14	16	17	a22	23	20
Dutch Slough	28	a26	a27	26	a24	a29	27	29

Station	November 1963							
	2	6	10	14	18	22	26	30
Suisun Bay								
Crockett	11300		6760	10000	7450	4510	5980	7600
Martinez	10700	a7840	ae4410	7840	6220	a4120	6470	6130
Port Chicago	5490		2160		1810	470	1470	1950
Spoonbill Creek	485	2980			108			26
Pittsburg			bd88		45	a31		
Sacramento River Delta								
Collinsville	336	167	36	27	22	15		
Emmaton	31	a27	bd15	14	11	a10	10	9
Threemile Slough Br.	14	a18	9	10	9	a9	6	12
Rio Vista Bridge	15	8	10	14	4	8	6	11
Isleton Bridge	6	6	7	5	6	9	7	8
San Joaquin River Delta								
Antioch	118	a120	47	42	25	25	27	24
Antioch Bridge	a25	30	30	38	33	a30	35	37
Jersey Island	26							
Threemile Slough	22	a19		19	19			24
Webb Ferry	a22	a20	20		22	a23	33	26
San Andreas Ldg.	20	d20	a24	20	20	31	26	26
Dutch Slough		a32	36	38	42	a48	53	60
Mossdale Bridge		a74		ad75	ad65	a52		a53

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low high tide
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.

TABLE D-8

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	December 1963							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	6860	5490	7450	7400	7500	6180	ae7200	8920
Martinez	3870	4260	4070	2840	6810	4750		5930
Port Chicago		529	3240	2720		1790	4510	3530
Spoonbill Creek	45	31						
Pittsburg			28			41		59
				Sacramento River Delta				
Collinsville	11		14	13	a12		19	37
Emmaton	10	13	13	13	13	12	15	14
Threemile Slough Br.	10	9	14	12	12	8		abd17
Rio Vista Bridge	8	8	8	7		9	8	8
Isleton Bridge	6	6	8	6	6	7	7	6
				San Joaquin River Delta				
Antioch	28	32		34	34	38	36	55
Antioch Bridge	42	38	41	46	a49	45	45	45
Jersey Island						34	30	36
Threemile Slough		d28		25	a27		23	26
Webb Ferry	28			31	a31		32	31
San Andreas Ldg.	26	28	24	31	29	30	24	d31
Dutch Slough	a67	66	61	a64	a68	63	63	a62
Mossdale Bridge	a55		d58		a65	d61		a68

Station	January 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett							5200	4610
Martinez	4800	7650	8480	7940	6180	3430	6030	1470
Port Chicago	3280	3280	3870			2060		abd64
Middle Point	1400	2350	3240	3680	3040	1520	451	58
Pittsburg	72	56	52	bd74		94	38	30
				Sacramento River Delta				
Collinsville	a21	34	23	113	30	28	14	15
Emmaton	abd15	15	25	bd20	a20	16	bd16	
Threemile Slough Br.	a13	14	15	16	15	12	11	15
Rio Vista Bridge	7	8	8	8	9	8	9	15
Isleton Bridge	6	7	7	9	7		8	9
				San Joaquin River Delta				
Antioch	a46	41	40	51	51	45	34	37
Antioch Bridge	48	48	46	46	48	46	51	57
Jersey Island	a34	41	37	a38	36	39	43	a40
Threemile Slough	a27	31	37		a36	38	27	
Webb Ferry	a32	d34		35		38	34	36
San Andreas Ldg.	34	29	38	37	a39		34	a34
Dutch Slough	a59	63	61	a60	a62	67	74	a79
Mossdale Bridge	a69	70	a72	ad101			a87	a99

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.

TABLE D-8

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	February 1964							
	2	6	10	14	18	22	26	
				Suisun Bay				
Crockett	3870	6320	7400	7200	6080	8040	8820	
Martinez		4460	d2110	6620	4850			
Port Chicago	52	868	3580	2010	882	bd3190	2200	
Middle Point	34	515	2940	1720	a181	3580	2550	
Pittsburg	44	41		45	45	46	bd68	
				Sacramento River Delta				
Collinsville	16	24	19	20	18	29	19	
Emmaton	d14	15	19	22	ad17	23	20	
Threemile Slough Br.	13	11	17		19	cd15	14	
Rio Vista Bridge	12	9	9	14	13	9	11	
Isleton Bridge	6	6	6	8	7	6	6	
				San Joaquin River Delta				
Antioch	43	42	36	43	43	37	46	
Antioch Bridge	65	63	53	52	a56	48	41	
Jersey Island	a38	41	43	abd45	bd35	37	33	
Threemile Slough		20	31	31		26	21	
Webb Ferry		39	39	37	28		30	
San Andreas Ldg.	34	18	34	29	22	23	19	
Dutch Slough	83	70	76	a68	66	60	54	
Mossdale Bridge	97	99	126	d137	158	a179	d198	

Station	March 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	8630	7650	9610	9800	10800	10000	9220	10100
Martinez	5100	6370	7450	7740	8140	ae7260	6370	a6270
Port Chicago	2110	2400	4460	3630	5240	6180	2740	3920
Middle Point	1620	1370	3870	2790	4900			1720
Pittsburg	a77		bd111		a174	bd343	bd216	abd139
				Sacramento River Delta				
Collinsville	42	24	75		372	274	176	198
Emmaton	20	24	25	29	50	bd37	33	a48
Threemile Slough Br.	14	13	13	14	14	17	17	14
Rio Vista Bridge	9	9	10	11	13	10	11	11
Isleton Bridge	8	8	7	9	10	6	7	8
				San Joaquin River Delta				
Antioch	50	45	49	85	131	228	113	110
Antioch Bridge	50	57	43	43	37	41	39	a36
Jersey Island	29	bd34	26	25	41	34	cd24	31
Threemile Slough	19	19					8	13
Webb Ferry		22	23	a19	25	22	17	a17
San Andreas Ldg.	11	11	14	12	12	12	12	12
Dutch Slough	38	29	39	a41	33	27	33	29
Mossdale Bridge	228	250	a220		162	a218		d191

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.

TABLE D-8

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	April 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	9410	7840	10800	8430	10300	10700	11400	11600
Martinez	7650	5780	8240	6860	10200	9020	9410	9410
Port Chicago	3820	2500	a3770	6080	7200	bd6270	6570	6760
Middle Point	2990	1720	3480	5640		4800	5340	d5830
Pittsburg	abd74	152	a122	a255	618	a622		a672
				Sacramento River Delta				
Collinsville	179	34	a39	a113	613	a672	a706	1410
Emmaton	38	12	a22	37	96	a122	a78	341
Threemile Slough Br.	14	9	a10	13	27	a24	28	44
Rio Vista Bridge	9	8	8	9	12	8	14	14
Isleton Bridge	a7	7	6	6	6	6	8	7
				San Joaquin River Delta				
Antioch	d43	61	a49	110	314	a316	a201	559
Antioch Bridge	37	34	a34	a34	37	a47	a61	81
Jersey Island	27	24	a28	34	68	a53	a40	bdg32
Threemile Slough	14	14	a13	a13	20			
Webb Ferry	16	15	a15	17	16	a22	29	
San Andreas Ldg.	11	6	a9	a12	12	a12	a10	
Dutch Slough	22	26	a25	24	24	a26	32	35
Mossdale Bridge	d176	203	230	d216	bd235	203	220	

Station	May 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	10900	a10400	11800	12600	11000	11600	10700	
Martinez	9100	9300	9610	9900	a8430	9020	10200	a7840
Port Chicago			6370	ed7990	abd4560	5540	6760	5200
Middle Point		5050	5740	6670		a2110	5440	3920
Pittsburg	1040	a720	a470	a529	a564	a333	a397	
				Sacramento River Delta				
Collinsville	1120	a539	a539	1540	a470	a211	a326	
Emmaton		a55	a55	152	a111	a34	a50	bd122
Threemile Slough Br.	45	a19	a18	34	a22	a16	30	26
Rio Vista Bridge	10	9	a12	19	b13	11	11	12
Isleton Bridge	9	10	11	10	b9	8	8	8
				San Joaquin River Delta				
Antioch		a265	a208	397	a260	a142	a126	212
Antioch Bridge	104	a86	a63	d89	d68	a52	a44	61
Jersey Island	102	a53		92	a53		33	
Threemile Slough			d17	ad16		a14	a14	
Webb Ferry	44		a25	36	a28	a20	25	26
San Andreas Ldg.	12	a9	a12	12	a10	a11	a11	12
Dutch Slough	38	a44	a38	34	a33	a31	28	26
Mossdale Bridge		ad191			a240	220		

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Taken at low low tide.

TABLE D-8

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	June 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett		12000	11800		e11600	10900	12400	11200
Martinez	9490	10400	10400		e7690	9330	ad9420	10300
Port Chicago	b3240	bd7170	7790	ed6370	6340	7600	9120	
Middle Point		5460	3530	5690	2400	3940		5480
Pittsburg	a356	a392	abd853	abd774	a510	a577	d2280	
				Sacramento River Delta				
Collinsville	a333	a394	a755	1050	a404	a510	a1560	1840
Emmaton	a129	a75	a59	161	abd50			462
Threemile Slough Br.		a24	47	42	a31	a40	a35	75
Rio Vista Bridge	b14	13	17	13	13	22	24	20
Isleton Bridge	a10	9	9	a9	10	9	12	9
				San Joaquin River Delta				
Antioch	a192	a174	a233	567	a231	abd262	1400	991
Antioch Bridge	a65	a51	a58	86	a65	a96	ad322	a252
Jersey Island	a41	ce145	a38		a35	a41	d98	175
Threemile Slough		a17	a17	28	a22	a20		
Webb Ferry	a14	a21	ad24	19	a34			39
San Andreas Landing	9	a12	12	11	a12	a13	15	15
Dutch Slough	a28	a31	32	34	a34	a38	45	57
Mossdale Bridge	a198	bd220	a152	d162	180			

Station	July 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	12300	a12000	13500	13200	e13300	14000	14600	13800
Martinez	a3670	10300	12200	a11700		a9250		
Port Chicago	7400	8020	9810	8060	e9380	9980	10200	9250
Middle Point	5350	8560	8480	7040	8620	8520	9000	8170
Pittsburg	abd1400			1650	a1780		a2220	2340
				Sacramento River Delta				
Collinsville	a1160	a1500		a2750	a1850	a2360		a2890
Emmaton	a396	a252	408	a1060	a540	a515	a679	a1030
Threemile Slough Br.	abd70	a108	a184	a280	a165	a209	a308	a191
Rio Vista Bridge	b24	37	16	66	65	57	99	16
Isleton Bridge	b10	11	13	16	17	7	12	9
				San Joaquin River Delta				
Antioch	710	abd588	914	a1490	a1080	a1080	2500	1910
Antioch Bridge	a262	a256	a444	559	a538	a612	892	a677
Jersey Island	a136	a134	a176	a469			a444	ad574
Threemile Slough			a166	a177	a198	a167	a191	a247
Webb Ferry	a78		225	a178	ad215	a234		a279
San Andreas Landing	a11	a15	35	a41	a34	a35	46	a36
Dutch Slough	a58	a73	119	a160	a172	a210	324	a371
Mossdale Bridge	a246	ad252	239	a273		266	a279	adb272

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.

TABLE D-8

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	August 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	e14100	14100		a14000	e14200		13200	12700
Martinez		12900	9960	a10100	a10200	12200	11400	a9820
Port Chicago	e9620	a7710	9580	10600	10000	ed10700		11200
Middle Point		d7630	8900	8750	6540	9410	7670	10100
Pittsburg	a2270		3280	a2570			bd2160	ad1960
				Sacramento River Delta				
Collinsville	a2250	a2570	3730	a2410		a2550		
Emmaton	a500	a765	1470	a803	a510	a946	1030	985
Threemile Slough Br.	a202	a269	459	a229	a389	a343	222	a155
Rio Vista Bridge	102	161	200	690	63	123	43	65
Isleton Bridge	12	17	8	b20	8	10	10	b10
				San Joaquin River Delta				
Antioch	a1230	a1380	2380		e1360	a1470	1180	a1420
Antioch Bridge	692	a729	875	a642	a715	892	abd539	a402
Jersey Island	a310	a400	863			a417	a446	
Threemile Slough		a206	a210	a262	a228	a216	202	
Webb Ferry				a315	a295	a309	83	
San Andreas Landing	a37	a53	47	a61	a72	47	47	a32
Dutch Slough	321	ad283	d336	ad325	a303	434	370	a291
Mossdale Bridge	317	270	318	bd277				

Station	September 1964							
	2	6	10	14	18	22	26	30
				Suisun Bay				
Crockett	e11900	13000	10800	9840	11600	11400	12700	e9990
Martinez	a6130	10700	9260	a6180	a8780	a7640	a7380	e8600
Port Chicago	8440	9050	6130	4390	6910	5890	7560	e6120
Middle Point	6300	8100	5090	4580	d3080	4230	6290	
Pittsburg	abd1290		a830	a684	a425		a687	a412
				Sacramento River Delta				
Collinsville		a1570	1040	a334	a392	a340	a697	
Emmaton	a256	a169	a115	a43	a48	34	a117	a36
Threemile Slough Br.	a135	91	a62		a30	a24	a29	a20
Rio Vista Bridge	26	10	18	b11	12	21	11	8
Isleton Bridge	9	9	11	b11	11	10	7	5
				San Joaquin River Delta				
Antioch	a809	1310	a422	a206	a213	a288	a306	a191
Antioch Bridge	a367	318	a239	bd140	a117	a69	87	a65
Jersey Island	a194	a172	a133	a74		a52	a77	
Threemile Slough	a99	a66	40	ad55	a26	a26	a28	a21
Webb Ferry								
San Andreas Landing	a35	28	a24	a21	a14	17	a17	a12
Dutch Slough	a252	a220	a151	a116	a94	73	a57	a52
Mossdale Bridge			bd213			187	ad138	

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.

Appendix E

GROUND WATER QUALITY

INTRODUCTION

Data presented in this appendix are measured values of selected quality characteristics of ground waters in Northeastern California. The program under which this information was obtained consisted of the following:

A. Selection of locations to be sampled.

B. Collection of samples by Department personnel or cooperators.

C. Analysis of samples by an assigned laboratory.

D. Examination of results to note trends or significant changes.

E. Publication of data.

The program was performed in cooperation with other state, local, and federal agencies.

Field sampling was performed in accordance with accepted engineering practice. Comments on local conditions were noted in field books, which are on file in the Department's District offices.

Laboratory analysis of ground water samples was performed, in the Department's Chemical Laboratory at Bryte and by contract with the U. S. Geological Survey laboratory in Sacramento, in accordance with procedures outlined in "Standard Methods for the Examination of Water and Waste Water", Eleventh Edition. Heavy metals determinations were made by "wet" analysis at the Bryte laboratory. Radioassays were conducted by the California Department of Public Health in Berkeley in a manner identical to that outlined on page 8

Mineral Analyses

Table E-1, "Mineral Analyses of Ground Water", was prepared for reproduction by automated procedures in the Department's Engineering Computations Branch. Expression of results varies slightly from that used in previous reports. An item-by-item explanation of the table follows:

State Well Number. The state well numbering system used in this report is based on township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report the number of a well is referred to as the State Well Number. Under the system, each section is divided into 40-acre tracts lettered as follows:

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

Note that I and O are omitted in the grid. Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. Thus, a well which has the number 10N/7E-13K2M would lie in Township 10 North, Range 7 East, Section 13, Mount Diablo Base and Meridian and would be further designated as the second well assigned a State Well Number in tract K.

Date and Time Sampled. Appearing immediately below the State Well Number is the date on which the sample was collected. In some instances the time has been noted also.

Agency Collecting Sample. This four digit number is a program code designation. The first digit denotes the type of well numbering system and the last three digits specify an agency. In this appendix, 5050 is used for all samples to show that the State Well Numbering System (5) is used and that the Department of Water Resources (050) provided the data.

Temperature. The temperature of the water was recorded only when the sample was taken directly from an operating pump. If it was necessary to

sample from a pressure tank, or if some other reason prevented a "fresh" sample, the temperature was not recorded.

Specific Conductance and pH were determined in the laboratory.

Mineral Constituents were determined in the laboratory. Results in milligrams per liter were transmitted to the electronic data processing center, where equivalents per million and percent reactance value were computed automatically.

Total Dissolved Solids. In some cases two values are reported. The upper number represents a summation of constituents; the lower is the result of a gravimetric analysis.

Total Hardness is computed automatically from the values for calcium and magnesium concentrations.

Basin and sub-basin names and code numbers are shown on the tabulation sheets.

Acknowledgements

The extensive coverage of the Ground Water Quality Data Program in Northeastern California is made possible through the cooperation of local agencies. The Department wishes to express its appreciation for the valuable assistance and cooperation received from the following county agencies.

Butte County Farm Advisor
Colusa County Farm Advisor
Glenn County Farm Advisor
Placer County Health Department
Sacramento County Farm Advisor
Shasta County Department of Water Resources
Sutter County Farm Advisor
Tehama County Farm Advisor
Yolo County Farm Advisor
Yuba County Farm Advisor

INDEX OF MONITORED AREAS

CENTRAL VALLEY REGION (NO. 5)

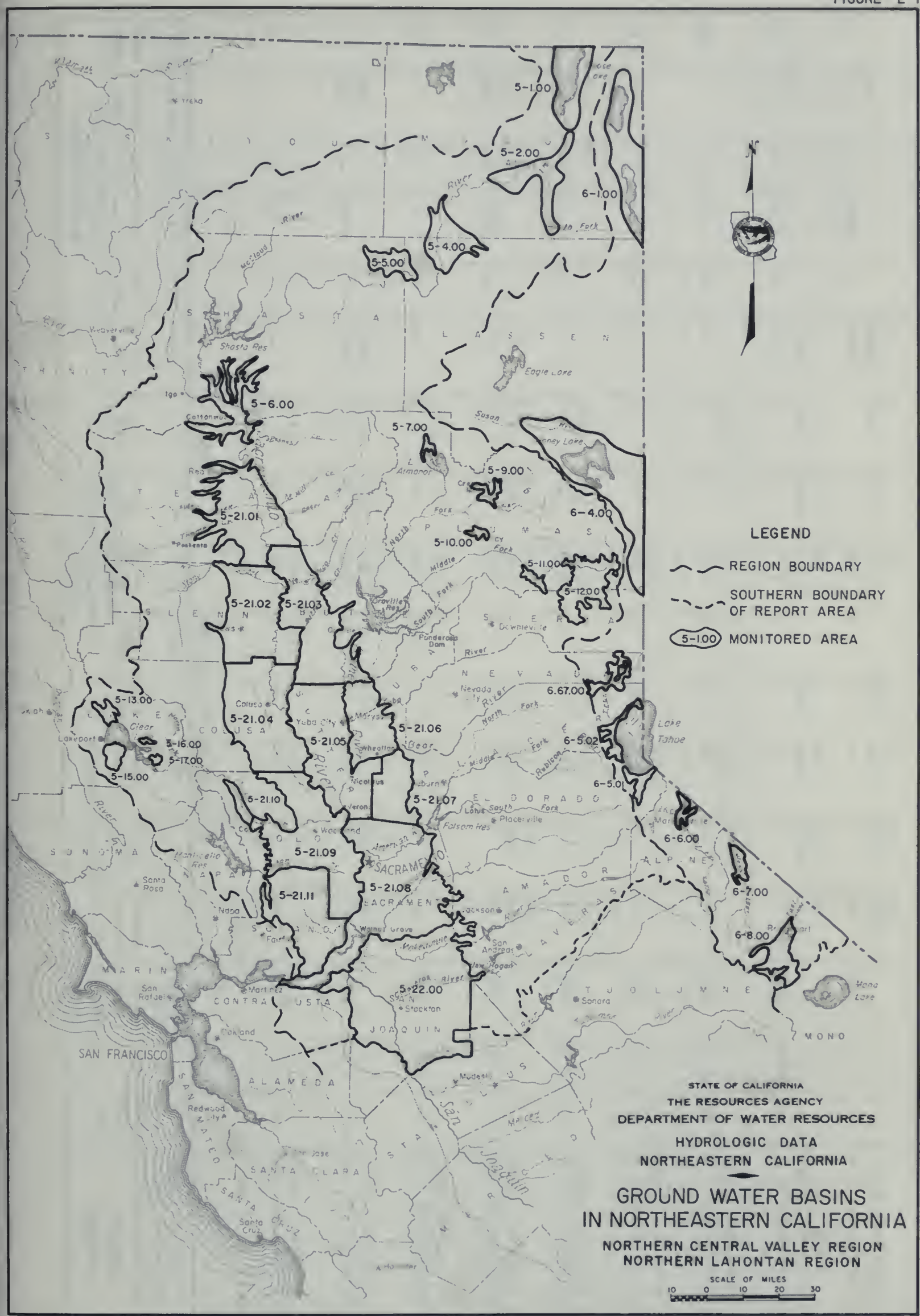
5-1.00 GOOSE LAKE VALLEY
5-2.00 ALTURAS BASIN
5-4.00 BIG VALLEY
5-5.00 FALL RIVER VALLEY
5-6.00 REDDING BASIN
5-7.00 LAKE ALMANOR VALLEY
5-9.00 INDIAN VALLEY
5-10.00 AMERICAN VALLEY
5-11.00 MOHAWK VALLEY
5-12.00 SIERRA VALLEY
5-13.00 UPPER LAKE VALLEY
5-15.00 KELSEYVILLE VALLEY
5-16.00 HIGH VALLEY
5-17.00 BURNS VALLEY
5-21.00 SACRAMENTO VALLEY
- 5-21.01 TEHAMA COUNTY
- 5-21.02 GLENN COUNTY
- 5-21.03 BUTTE COUNTY
- 5-21.04 COLUSA COUNTY
- 5-21.05 SUTTER COUNTY
- 5-21.06 YUBA COUNTY
- 5-21.07 PLACER COUNTY
- 5-21.08 SACRAMENTO COUNTY
- 5-21.09 YOLO COUNTY
- 5-21.11 SOLANO COUNTY

5-22.00 SAN JOAQUIN VALLEY
- SAN JOAQUIN COUNTY

LAHONTAN REGION (NO. 6)

6-1.00 SURPRISE VALLEY
6-4.00 HONEY LAKE VALLEY
6-5.01 SOUTH TAHOE VALLEY
6-5.02 NORTH TAHOE VALLEY
6-6.00 CARSON VALLEY
6-7.00 TOPAZ VALLEY
6-8.00 BRIDGEPORT VALLEY
6-67.00 TRUCKEE VALLEY

FIGURE E-1


LEGEND
REGION BOUNDARY
SOUTHERN BOUNDARY OF REPORT AREA
5-1.00 MONITORED AREA
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
NORTHEASTERN CALIFORNIA
GROUND WATER BASINS IN NORTHEASTERN CALIFORNIA
NORTHERN CENTRAL VALLEY REGION
NORTHERN LAHONTAN REGION
SCALE OF MILES
10 0 10 20 30
5-1.00
5-2.00
6-1.00
5-4.00
5-5.00
5-6.00
5-7.00
5-9.00
6-4.00
5-10.00
5-11.00
5-12.00
5-21.01
5-21.02
5-21.03
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5-21.09
5-21.10
5-21.11
5-22.00
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5-15.00
5-16.00
5-17.00
6.67.00
6-5.02
6-5.01
6-6.00
6-7.00
6-8.00
SHASTA
LASSEN
TRINITY
TEHAMA
PLUMAS
GLENN
SIERRA
NEVADA
COLUSA
LAKE
EL DORADO
SONOMA
NAPA
SACRAMENTO
AMADOR
ALPINE
MARIN
CONTRA COSTA
SAN JOAQUIN
TUOLUMNE
MONO
SAN FRANCISCO
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
Shasta Res
Eagle Lake
Lake Tahoe
Mono Lake
Folsom Res
Placerville
Downieville
Nevada City
Colusa
Yuba City
Lakeport
Santa Rosa
Napa
Fairfield
Martinez
Oakland
San Rafael
Redwood City
San Jose
Santa Cruz
Stockton
Modesto
Sonora
San Andreas
Jackson
Walnut Grove
Woodland
Nicolaus
Wheatland
Marysville
Yreka
Weaverville
Igo
Cottonwood
Red Bluff
Paskenta
Oroville Res
Ponderosa Dam
Almanor
Susan
Middle Fork
North Fork
South Fork
Bear
Rubicon
Mokelumne
Merced
San Joaquin
Sacramento
Clear
Pit
Mt. Hoffman

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION											50000							
GOOSE LAKE VALLEY					50100													
44N/13E-36A 1 M		--	8.3	185	--	--	24	--	1	97	--	4	--	--	--	--		42
8-26-64	5050						1.04		0.03	1.59		0.11						
44N/14E- 7K 1 M		--	7.8	433	41	18	22	2	0	224	11	9	22.0	--	0.00	--	235	177
8-26-64	5050				2.05	1.48	0.96	0.05		3.67	0.23	0.25	0.35				290	
					45	33	21	1		82	5	6	8					
45N/14E-32L 1 M		--	7.6	239	--	--	13	--	0	149	--	2	--	--	--	--		97
8-26-64	5050						0.57			2.44		0.06						
47N/13E- 7Q 1 M		--	8.3	212	18	8	13	4	0	133	2	4	0.0	--	0.00	--	114	78
8-26-64	5050				0.90	0.66	0.57	0.10		2.18	0.04	0.11					160	
					40	30	26	4		94	2	5						
47N/14E- 2H 1 M		--	8.2	542	--	--	110	--	0	138	--	57	--	--	--	--		4
8-26-64	5050						4.78			2.26		1.61						
47N/14E-14B 2 M		--	7.4	163	--	--	5	--	0	89	--	0	--	--	--	--		69
8-26-64	5050						0.22			1.46								
48N/13E-20G 1 M		--	8.2	568	--	--	16	--	0	341	--	5	--	--	--	--		273
8-26-64	5050						0.70			5.59		0.14						
48N/14E-23K 1 M		--	7.4	236	22	8	15	2	0	131	4	1	14.0	--	0.00	--	130	88
8-26-64	5050				1.10	0.66	0.65	0.05		2.15	0.08	0.03	0.23				158	
					45	27	26	2		86	3	1	9					
48N/14E-35A 1 M		--	7.7	223	24	8	9	1	0	109	4	1	24.0	--	0.00	--	125	93
8-26-64	5050				1.20	0.66	0.39	0.03		1.79	0.08	0.03	0.39				157	
					53	29	17	1		78	3	1	17					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled, Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
GOOSE LAKE VALLEY					50100 (CONTINUED)							50000						
48N/14E-35A 2 M 8-26-64 5050		--	7.6	753	--	--	148 6.44	--	0	216 3.54	--	91 2.57	--	3.1	4.10	--		13
ALTURAS BASIN					50200													
39N/13E- 6N 1 M 8-27-64 5050		--	8.1	189	--	--	27 1.18	--	0	104 1.69	--	4 0.13	--	--	--	--		27
40N/12E-11F 1 M 8-27-64 5050		--	8.1	173	--	--	21 0.91	--	0	85 1.39	--	3 0.08	--	--	--	--		29
40N/12E-25J 1 M 8-27-64 5050		--	8.2	460	--	--	66 2.87	--	0	259 4.25	--	6 0.17	--	--	--	--		81
41N/11E- 2J 1 M 8-27-64 5050		--	8.3	349	--	--	57 2.48	--	0	130 2.13	--	12 0.34	--	--	--	--		18
41N/12E-15H 1 M 8-27-64 5050		--	8.1	219	--	--	27 1.18	--	0	110 1.80	--	7 0.18	--	--	--	--		39
41N/13E-18P 1 M 8-25-64 5050		--	8.3	1020	--	--	24 1.04	--	0	280 4.59	--	14 0.39	--	--	--	--		529
42N/10E-29H 1 M 8-27-64 5050		--	8.3	260	--	--	57 2.48	--	0	144 2.36	--	2 0.06	--	--	--	--		7
42N/11E-19E 1 M 8-27-64 5050		--	8.5	470	--	--	100 4.35	--	4 0.13	223 3.65	--	7 0.20	--	--	--	--		6

DWR 1982

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION 50000																		
ALTURAS BASIN					50200 (CONTINUED)													
42N/12E-11Q 1 M		--	8.4	477	--	--	59	--	3	169	--	35	--	--	--	--		86
8-27-64	5050						2.57		0.10	2.77		0.99						
42N/13E-31G 1 M		--	8.5	582	--	--	103	--	7	362	--	4	--	--	--	--		78
8-25-64	5050						4.48		0.23	5.93		0.11						
42N/13E-32G 1 M		--	8.4	368	--	--	28	--	3	217	--	3	--	--	--	--		126
8-25-64	5050						1.22		0.10	3.56		0.08						
BIG VALLEY					50400													
37N/ 7E-13B 1 M		--	7.6	213	12	8	18	4	0	116	2	4	9.4	--	0.00	--	114	63
8- 4-64	5050				0.60	0.66	0.78	0.10		1.90	0.04	0.11	0.15				168	
					28	31	36	5		86	2	5	7					
38N/ 7E- 2P 1 M		--	7.4	524	29	20	44	10	0	239	4	39	1.4	--	0.10	--	265	155
8- 4-64	5050				1.45	1.64	1.91	0.26		3.92	0.08	1.10	0.02				325	
					28	31	36	5		77	2	21						
38N/ 7E-14G 5 M		--	7.2	536	43	23	24	3	0	91	106	44	12.0	--	0.00	--	300	202
8- 4-64	5050				2.15	1.89	1.04	0.08		1.49	2.21	1.24	0.19				389	
					42	37	20	2		29	43	24	4					
38N/ 7E-23D 1 M		--	7.5	280	15	11	25	3	0	150	6	7	1.0	--	0.00	--	142	83
8- 5-64	5050				0.75	0.90	1.09	0.08		2.46	0.12	0.20	0.02				201	
					27	32	39	3		88	4	7	1					
38N/ 8E-17K 1 M		--	7.8	214	13	12	14	3	0	121	6	2	1.7	--	0.00	--	111	82
8- 4-64	5050				0.65	0.99	0.61	0.08		1.98	0.12	0.06	0.03				177	
					28	42	26	3		90	5	3	1					
38N/ 9E-21L 1 M		--	8.1	334	18	4	48	8	0	198	2	4	1.6	--	0.00	--	183	62
8- 4-64	5050				0.90	0.33	2.09	0.20		3.25	0.04	0.11	0.03				266	
					26	9	59	6		95	1	3	1					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
							CENTRAL VALLEY REGION											
BIG VALLEY					50400	(CONTINUED)					50000							
39N/ 7E-13Q 1 M		--	8.0	200	--	--	30	--	--	100	--	4	--	--	--	--		34
8- 4-64	5050						1.30			1.64		0.13						
39N/ 7E-14R 1 M		--	8.2	2170	180	91	160	2	0	544	149	246	56.0	--	0.00	--	1151	824
8- 5-64	5050				8.98	7.48	6.96	0.05		8.92	3.10	6.94	0.90				1360	
					38	32	30			45	16	35	5					
39N/ 8E-26J 1 M		--	7.8	1030	78	40	64	8	0	192	62	57	56.0	--	0.00	--	459	359
8- 5-64	5050				3.89	3.29	2.78	0.20		3.15	1.29	1.61	0.90				719	
					38	32	27	2		45	19	23	13					
39N/ 9E-28F20 M		--	7.9	188	20	1	18	5	0	109	1	2	2.5	--	0.00	--	103	54
8- 5-64	5050				1.00	0.08	0.78	0.13		1.79	0.02	0.06	0.04				161	
					50	4	39	7		94	1	3	2					
FALL RIVER VALLEY					50500													
37N/ 5E- 9N 1 M		--	7.6	713	30	19	106	6	0	439	2	18	1.9	--	0.30	--	399	153
8- 4-64	5050				1.50	1.56	4.61	0.15		7.20	0.04	0.51	0.03				432	
					19	20	59	2		93	1	7						
37N/ 5E-14R 1 M		--	9.5	195	--	--	40	--	26	53	--	3	--	--	--	--		5
8- 4-64	5050						1.74		0.87	0.62		0.06						
37N/ 5E-19P 2 M		--	7.6	513	--	--	47	--	0	314	--	0	--	--	--	--		124
8- 4-64	5050						2.05			6.48								
37N/ 6E-19L 1 M		--	8.1	196	--	--	10	--	0	97	--	2	--	--	--	--		75
8- 4-64	5050						0.43			1.22		0.07						
37N/ 6E-29B 1 M		--	8.1	303	--	--	13	--	0	127	--	6	--	--	--	--		116
8- 4-64	5050						0.57			2.47		0.20						

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STATE OF CALIFORNIA - THE RESOURCES AGENCY - DEPARTMENT OF WATER RESOURCES

TABLE B-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																			
FALL RIVER VALLEY						50500 (CONTINUED)													
38N/ 3E-24F 1 M	8- 4-64	5050	--	7.6	146	--	--	4 0.17	--	0	87 1.43	--	0	--	--	--	--		68
38N/ 4E-30H 1 M	8- 4-64	5050	--	7.0	228	--	--	15 0.65	--	0	133 2.18	--	6 0.17	--	--	--	--		83
REDDING BASIN						50600													
29N/ 4W- 2M 1 M	8-25-64	5050	--	8.2	188	--	--	16 0.70	--	0	109 1.75	--	3 0.06	--	--	--	--		63
30N/ 3W- 4M 1 M	8-25-64	5050	--	8.1	186	--	--	9 0.39	--	0	107 1.77	--	3 0.06	--	--	--	--		77
30N/ 3W-34D 1 M	8-25-64	5050	64	8.3	238	--	--	9 0.39	--	0	143 2.24	--	3 0.06	--	--	--	--		107
30N/ 4W- 1E 1 M	8-26-64	5050	66	8.1	153	--	--	9 0.39	--	0	69 1.46	--	7 0.18	--	--	--	--		54
30N/ 4W-16H 2 M	8-25-64	5050	66	8.2	193	--	--	11 0.48	--	0	107 1.77	--	5 0.12	--	--	--	--		77
30N/ 5W-15R 1 M	8-25-64	5050	72	7.7	187	--	--	18 0.78	--	0	93 1.16	--	2 0.07	--	--	--	--		57
30N/ 5W-17R 1 M	8-25-64	5050	68	8.1	143	--	--	17 0.74	--	0	82 1.25	--	2 0.07	--	--	--	--		37

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
REDDING BASIN					50600 (CONTINUED)						50000							
31N/ 3W- 7K 1 M 8-25-64 5050		68	8.4	233	--	--	25 1.09	--	2 0.07	124 2.40	--	13 0.35	--	--	--	--		60
31N/ 3W-12E 1 M 8-25-64 5050		65	8.3	391	--	--	43 1.87	--	0	128 2.46	--	52 1.22	--	--	--	--		81
31N/ 4W- 7A 1 M 8-26-64 5050		--	8.4	225	--	--	15 0.65	--	3 0.10	138 2.38	--	3 0.06	--	--	--	--		90
31N/ 4W-15B 1 M 8-26-64 5050		69	7.8	213	--	--	19 0.83	--	0	122 2.00	--	9 0.25	--	--	--	--		72
31N/ 4W-16Q 1 M 8-26-64 5050		64	8.0	166	--	--	11 0.48	--	0	92 1.17	--	4 0.13	--	--	--	--		62
31N/ 5W-13D 1 M 8-25-64 5050		--	8.0	458	--	--	68 2.96	--	0	143 2.24	--	66 2.15	--	--	--	--		61
31N/ 5W-25K 1 M 8-25-64 5050		--	7.1	261	--	--	42 1.83	--	0	112 1.87	--	24 0.86	--	--	--	--		37
32N/ 3W-17E 2 M 8-26-64 5050		63	8.4	2860	37 1.85 7	1 0.08	546 23.74 92	3 0.08	2 0.07	151 2.47 9	128 2.66 10	744 20.98 80	4.1 0.07	--	12.00	--	1551 1590	97
32N/ 3W-20P 1 M 8-26-64 5050		66	8.3	322	--	--	45 1.96	--	0	103 1.70	--	34 0.77	--	--	--	--		46

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SIO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION 5000																		
REDDING BASIN 50600 (CONTINUED)																		
32N/ 3W-32J 2 M 8-26-64 5050		--	8.3	445	--	--	39 1.69	--	0	167 3.12	--	43 1.40	--	--	--	--		127
32N/ 3W-35C 1 M 8-25-64 5050		68	8.5	388	--	--	43 1.87	--	2 0.07	125 2.40	--	51 1.18	--	--	--	--		81
32N/ 4W-14F 2 M 8-26-64 5050		--	8.3	210	--	--	39 1.69	--	0	91 1.11	--	10 0.28	--	--	--	--		20
32N/ 4W-34P 1 M 8-26-64 5050		--	8.3	339	--	--	41 1.78	--	0	141 2.19	--	31 0.66	--	--	--	--		72
32N/ 5W-26M 1 M 8-26-64 5050		--	8.3	282	--	--	27 1.18	--	0	125 2.40	--	9 0.24	--	--	--	--		83

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION											50000							
LAKE ALMANOR VALLEY					50700													
28N/ 7E- 5L 1 M 8-19-64 5050		--	7.9	88	9 0.45 51	2 0.16 18	5 0.22 25	2 0.05 6	0	45 0.74 90	1 0.02 2	1 0.03 4	1.7 0.03 4	--	0.00	--	44 89	31
28N/ 7E- 5N 1 M 8-19-64 5050		--	7.8	90	9 0.45 51	2 0.16 18	5 0.22 25	2 0.05 6	0	52 0.85 94	1 0.02 2	1 0.03 3	0.0	0.0	0.00	--	46 86	31
28N/ 7E- 7A 1 M 8-19-64 5050		--	7.9	105	12 0.60 56	2 0.16 15	6 0.26 24	2 0.05 5	0	63 1.03 95	1 0.02 2	1 0.03 3	0.1	--	0.00	--	55 89	38
28N/ 7E- 7H 1 M 8-19-64 5050		--	8.0	140	16 0.80 55	5 0.41 28	4 0.17 12	3 0.08 5	0	83 1.36 94	1 0.02 1	2 0.06 4	0.2	--	0.00	--	72 108	61
28N/ 7E-18B 1 M 8-19-64 5050		--	8.3	684	84 4.19 56	34 2.80 37	8 0.35 5	8 0.20 3	0	460 7.54 99	0	2 0.06 1	0.3	--	0.00	--	362 410	350
28N/ 7E-18D 1 M 8-19-64 5050		--	7.6	69	8 0.40 61	1 0.08 12	3 0.13 20	2 0.05 8	0	42 0.69 100	0	0	0.2	--	0.00	--	35 66	24
28N/ 7E-18M 1 M 8-19-64 5050		--	7.3	54	6 0.30 58	1 0.08 15	2 0.09 17	2 0.05 10	0	31 0.51 96	0	0	1.0 0.02 4	--	0.00	--	27 58	19

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION											50000							
INDIAN VALLEY					50900													
26N/10E-28M 1 E		--	8.2	153	14	8	8	0	0	95	2	1	0.1	--	0.00	--	80	68
8-19-64	5050				0.70	0.66	0.35			1.56	0.04	0.03					111	
					41	39	20			96	2	2						
26N/10E- 4E 1 M		--	8.2	179	9	8	20	0	0	115	1	1	0.0	--	0.00	--	96	56
8-19-64	5050				0.45	0.66	0.87			1.88	0.02	0.03					114	
					23	33	44			97	1	2						
26N/10E- 6E 1 M		--	8.1	516	25	10	56	1	0	111	10	89	1.1	--	0.70	--	247	104
8-19-64	5050				1.25	0.82	2.43	0.03		1.82	0.21	2.51	0.02				288	
					28	18	54	1		40	5	55						
26N/10E-16P 1 M		--	8.6	498	33	16	44	1	6	197	27	34	1.5	--	0.20	--	260	149
8-19-64	5050				1.65	1.32	1.91	0.03	0.20	3.23	0.56	0.96	0.02				289	
					34	27	39	1	4	65	11	19						
26N/10E-18M 1 M		--	--	--	18	15	11	0	2	143	6	1	0.1	--	0.00	--	123	107
8-19-64	5050				0.90	1.23	0.48		0.07	2.34	0.12	0.03					144	
					34	47	18		3	91	5	1						
26N/10E-23A 1 M		--	8.3	192	25	7	5	1	0	113	5	1	1.0	--	0.00	--	101	92
8-19-64	5050				1.25	0.58	0.22	0.03		1.85	0.10	0.03	0.02				114	
					60	28	11	1		93	5	2	1					
26N/10E-27R 1 M		--	8.0	115	9	5	5	2	0	61	4	1	1.0	--	0.00	--	57	43
8-19-64	5050				0.45	0.41	0.22	0.05		1.00	0.08	0.03	0.02				80	
					40	36	19	4		88	7	3	2					
26N/10E-30F 1 M		--	8.3	179	20	7	8	1	0	109	3	0	0.0	--	0.00	--	93	79
8-19-64	5050				1.00	0.58	0.35	0.03		1.79	0.06						125	
					51	30	18	2		97	3							
27N/ 9E-35P 1 M		--	8.4	227	25	10	9	0	2	140	2	2	0.0	--	0.00	--	119	104
8-19-64	5050				1.25	0.82	0.39		0.07	2.29	0.04	0.06					156	
					51	33	16		3	93	2	2						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																			
AMERICAN VALLEY						51000						50000							
24N/ 9E- 2A 1 M	8-20-64	5050	--	8.3	182	10	11	11	1	0	120	2	0	0.0	--	0.00	--	94	70
						0.50	0.90	0.48	0.03		1.97	0.04						116	
						26	47	25	2		98	2							
24N/ 9E-10H 1 M	8-20-64	5050	52	8.2	165	27	4	2	1	0	104	3	0	0.2	--	0.00	--	88	84
						1.35	0.33	0.09	0.03		1.70	0.06						96	
						75	18	5	2		97	3							
24N/ 9E-10L 1 M	8-20-64	5050	--	7.2	32	5	0	1	0	0	16	2	0	0.0	--	0.00	--	16	13
						0.25		0.04			0.26	0.04						29	
						86		14			87	13							
24N/ 9E-16H 1 M	8-20-64	5050	--	7.6	79	10	2	2	1	0	42	3	0	2.0	--	0.00	--	41	33
						0.50	0.16	0.09	0.03		0.69	0.06		0.03				59	
						64	21	12	4		88	8		4					
24N/10E- 6N 1 M	8-20-64	5050	--	8.2	345	35	5	22	1	0	188	1	4	0.1	--	0.10	--	161	108
						1.75	0.41	0.96	0.03		3.08	0.02	0.11					190	
						56	13	30	1		96	1	3						
24N/10E- 8L 1 M	8-20-64	5050	--	8.4	259	28	13	8	1	4	158	7	1	0.1	--	0.00	--	140	124
						1.40	1.07	0.35	0.03	0.13	2.59	0.15	0.03					157	
						49	38	12	1	4	89	5	1						
24N/10E-18D 1 M	8-20-64	5050	--	7.5	99	12	3	2	0	0	54	4	1	1.2	--	0.00	--	50	43
						0.60	0.25	0.09			0.89	0.08	0.03	0.02				64	
						64	27	10			87	8	3	2					
24N/10E-19B 1 M	8-20-64	5050	--	7.7	107	15	3	2	1	0	62	4	0	0.2	--	0.00	--	56	50
						0.75	0.25	0.09	0.03		1.02	0.08						69	
						67	22	8	3		93	7							
24N/10E-19D 1 M	8-20-64	5050	--	7.5	103	12	4	3	1	0	63	3	0	0.0	--	0.00	--	54	47
						0.60	0.33	0.13	0.03		1.03	0.06						67	
						55	30	12	3		94	6							

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MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
						CENTRAL VALLEY REGION (CONTINUED)													
AMERICAN VALLEY						51000						50000							
24N/10E-20D 1 M	8-20-64 5050		--	7.5	44	6	1	2	1	0	24	0	1	1.7	--	0.00	--	25	19
						0.30	0.08	0.09	0.03		0.39		0.03	0.03				36	
						60	16	18	6		87		7	7					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
MOHAWK VALLEY					51100						50000							
22N/12E- 9Q 1 M		--	8.2	329	16	15	15	5	0	114	4	0	45.0	--	0.00	--	156	102
8-25-64	5050				0.80	1.23	0.65	0.13		1.87	0.08		0.73				183	
					28	44	23	5		70	3		27					
22N/13E-19N 1 M		--	7.8	234	22	8	14	4	0	139	9	1	1.7	--	0.00	--	128	88
8-25-64	5050				1.10	0.66	0.61	0.10		2.28	0.19	0.03	0.03				170	
					45	27	25	4		90	8	1	1					
22N/13E-30R 1 M		--	7.5	377	13	11	44	3	0	103	66	20	1.1	--	0.40	--	209	78
8-25-64	5050				0.65	0.90	1.91	0.08		1.69	1.37	0.56	0.02				256	
					18	25	54	2		46	38	15	1					
SIERRA VALLEY					51200													
21N/14E-22L 1 M		--	7.6	739	24	18	91	11	0	172	23	117	1.6	--	0.80	--	371	134
8-26-64	5050				1.20	1.48	3.96	0.28		2.82	0.48	3.30	0.03				426	
					17	21	57	4		43	7	50						
21N/14E-29J 1 M		--	8.4	221	19	14	9	1	3	141	0	0	0.2	--	0.00	--	116	105
8-26-64	5050				0.95	1.15	0.39	0.03	0.10	2.31							155	
					38	46	15	1	4	96								
21N/14E-36K 1 M		--	8.3	195	16	10	10	3	1	118	1	2	2.2	--	0.00	--	103	81
8-26-64	5050				0.80	0.82	0.43	0.08	0.03	1.93	0.02	0.06	0.04				143	
					38	38	20	4	1	93	1	3	2					
21N/15E- 5D 1 M		--	7.8	1450	12	1	273	0	0	151	151	253	14.0	--	5.10	--	783	34
8-26-64	5050				0.60	0.08	11.87			2.47	3.14	7.13	0.23				923	
					5	1	95			19	24	55	2					
21N/15E- 9Q 3 M		--	7.8	239	12	7	26	5	0	133	13	0	0.5	--	0.10	--	129	59
8-25-64	5050				0.60	0.58	1.13	0.13		2.18	0.27		0.01				186	
					25	24	46	5		89	11							
22N/14E-14F 2 M		57	7.6	155	13	8	8	1	0	97	1	0	1.0	--	0.00	--	80	66
8-26-64	5050				0.65	0.66	0.35	0.03		1.59	0.02		0.02				120	
					38	39	21	2		98	1		1					

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium No	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION (CONTINUED)																		
SIERRA VALLEY					51200						50000							
22N/15E-11F 1 M		--	7.3	607	5	4	116	7	0	306	0	32	0.7	--	1.40	--	317	29
8-25-64	5050				0.25	0.33	5.04	0.18		5.02		0.90	0.01				422	
					4	6	87	3		85		15						
22N/15E-12B 1 M		75	7.2	261	4	4	24	6	0	143	0	1	0.9	--	0.10	--	110	27
8-25-64	5050				0.20	0.33	1.04	0.15		2.34		0.03	0.01				175	
					12	19	60	9		98		1						
22N/15E-17C 3 M		84	7.8	395	4	1	71	2	0	189	1	22	1.4	--	1.20	--	197	14
8-25-64	5050				0.20	0.08	3.09	0.05		3.10	0.02	0.62	0.02				285	
					6	2	90	1		82	1	16	1					
22N/15E-26K 2 M		--	7.9	1550	31	43	244	3	0	394	277	135	1.3	--	0.10	--	928	255
8-25-64	5050				1.55	3.54	10.61	0.08		6.46	5.77	3.81	0.02				966	
					10	22	67	1		40	36	24						
22N/16E- 5N 2 N		74	7.3	197	3	3	26	3	0	114	0	1	0.6	--	0.10	--	93	20
8-25-64	5050				0.15	0.25	1.13	0.08		1.87		0.03	0.01				157	
					9	16	70	5		98		2	1					
22N/16E-19E 1 M		64	7.1	219	10	8	20	7	0	106	4	7	1.7	--	0.10	--	110	58
8-25-64	5050				0.50	0.66	0.87	0.18		1.74	0.08	0.20	0.03				174	
					23	30	39	8		85	4	10	1					
23N/14E-35L 2 M		--	8.0	798	21	1	136	1	0	88	108	118	0.8	--	1.70	--	431	57
8-25-64	5050				1.05	0.08	5.91	0.03		1.44	2.25	3.33	0.01				456	
					15	1	84			20	32	47						
23N/15E-35C 1 M		74	7.5	432	6	5	58	6	0	164	0	42	1.2	--	1.20	--	200	36
8-25-64	5050				0.30	0.41	2.52	0.15		2.69		1.18	0.02				265	
					9	12	75	4		69		30	1					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
UPPER LAKE VALLEY					51300						50000							
14N/ 9W- 6F 2 M 6- 4-64 5050		--	7.5	42	--	--	2 0.09	--	0	20 0.33	--	3 0.08	--	--	--	--		13
15N/ 9W- 6F 1 M 6- 4-64 5050		60	8.1	190	--	--	6 0.26	--	0	96 1.57	--	5 0.14	--	--	--	--		81
15N/ 9W- 7B 1 M 6- 4-64 5050		--	6.9	400	27 1.35 32	25 2.06 48	19 0.83 19	1 0.03 1	0	250 4.10 96	3 0.06 1	4 0.11 3	0.0	--	0.40	--	202 214	171
15N/ 9W-31P 1 M 6- 4-64 5050		--	8.0	205	--	--	14 0.61	--	0	123 2.02	--	5 0.14	--	--	--	--		76
15N/10W- 3C 1 M 6- 4-64 5050		--	8.5	386	--	--	9 0.39	--	6 0.20	208 3.41	--	7 0.20	--	--	--	--		194
15N/10W- 3J 1 M 6- 4-64 5050		--	8.2	755	43 2.15 26	49 4.03 49	45 1.96 24	3 0.08 1	0	303 4.97 61	108 2.25 28	33 0.93 11	0.1	--	0.02	--	430 439	309
15N/10W-10E 1 M 6- 4-64 5050		--	8.4	2020	26 1.30 7	6 0.49 3	392 17.04 90	3 0.08	22 0.73 4	267 4.38 23	4 0.08	482 13.59 72	3.1 0.05	--	10.00	--	1079 1240	90
15N/10W-12K 2 M 6- 4-64 5050		--	8.0	211	--	--	7 0.30	--	0	110 1.80	--	4 0.11	--	--	--	--		90
16N/ 9W-31L 3 M 6- 4-64 5050		--	8.3	244	--	--	11 0.48	--	0	130 2.13	--	4 0.11	--	--	--	--		104

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
KELSEYVILLE VALLEY					51500						50000							
13N/ 9W- 2K 2 M 6-24-64	5050	62	8.5	608	--	--	12 0.52	--	8 0.27	342 5.61	--	16 0.45	--	--	--	--		323
13N/ 9W- 3C 1 M 6- 4-64	5050	60	8.5	355	--	--	6 0.26	--	8 0.27	185 3.03	--	6 0.17	--	--	--	--		179
13N/ 9W- 6B 1 M 6-24-64	5050	63	8.6	783	--	--	28 1.22	--	18 0.60	471 7.72	--	22 0.62	--	--	--	--		406
13N/ 9W- 8B 1 M 6-11-64	5050	--	8.3	480	--	--	10 0.43	--	0	255 4.18	--	8 0.23	--	--	--	--		239
13N/ 9W- 8N 2 M 6-11-64	5050	--	7.2	256	--	--	10 0.43	--	0	149 2.44	--	7 0.20	--	--	--	--		114
13N/ 9W-17A 1 M 6-24-64	5050	--	7.3	1020	--	--	26 1.13	--	0	307 5.03	--	12 0.34	--	--	--	--		544
13N/ 9W-17A 2 M 6-24-64	5050	--	7.1	414	--	--	11 0.48	--	0	207 3.39	--	9 0.25	--	--	--	--		194
13N/ 9W-22J 1 M 6-24-64	5050	--	7.3	393	--	--	9 0.39	--	0	237 3.88	--	7 0.20	--	--	--	--		194
14N/ 9W-32J 1 M 6-24-64	5050	--	8.3	786	--	--	16 0.70	--	0	503 8.24	--	18 0.51	--	--	--	--		428

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION (CONTINUED)																		
KELSEYVILLE VALLEY					51500						50000							
14N/ 9W-32J	2 M	63	8.4	553	--	--	13	--	6	325	--	11	--	--	--	--		286
6- 4-64	5050						0.57		0.20	5.33		0.31						
HIGH VALLEY					51600													
14N/ 8W-23K	1 M	56	8.4	391	19	22	27	4	3	165	20	24	1.9	--	0.00	--	202	138
6- 3-64	5050				0.95	1.81	1.17	0.10	0.10	2.70	0.42	0.68	0.03				224	
					24	45	29	2	3	69	11	17	1					
14N/ 8W-24B	2 M	69	6.8	1300	84	96	81	6	0	910	0	18	0.4	--	3.80	--	737	605
6- 3-64	5050				4.19	7.90	3.52	0.15		14.91		0.51	0.01				800	
					27	50	22	1		97		3						
14N/ 8W-24L	1 M	69	8.0	934	72	59	55	4	0	615	0	9	25.0	--	0.08	--	526	422
6- 3-64	5050				3.59	4.85	2.39	0.10		10.08		0.25	0.40				595	
					33	44	22	1		94		2	4					
BURNS VALLEY					51700													
13N/ 7W-15N	1 M	--	8.5	283	16	9	32	1	5	149	1	6	4.7	--	1.00	--	149	77
6- 2-64	5050				0.80	0.74	1.39	0.03	0.17	2.44	0.02	0.17	0.08					
					27	25	47	1	6	85	1	6	3					
13N/ 7W-21B	1 M	--	7.8	206	15	11	11	0	0	103	12	6	0.9	--	0.00	--	107	83
6- 2-64	5050				0.75	0.90	0.48			1.69	0.25	0.17	0.01				128	
					35	42	23			80	12	8						
13N/ 7W-21H	1 M	78	8.5	810	10	56	84	5	18	395	0	64	0.6	--	8.20	--	440	256
6- 2-64	5050				0.50	4.61	3.65	0.13	0.60	6.47		1.80	0.01				518	
					6	52	41	1	7	73		20						
13N/ 7W-21J	1 M	--	8.6	701	66	44	33	4	26	424	1	17	1.2	--	1.40	--	402	346
6- 2-64	5050				3.29	3.62	1.43	0.10	0.87	6.95	0.02	0.48	0.02				476	
					39	43	17	1	10	83		6						

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION (CONTINUED)																		
BURNS VALLEY					51700						50000							
13N/ 7W-22B 2 M 6- 3-64 5050		--	7.4	491	38 1.90 37	26 2.14 42	24 1.04 20	2 0.05 1	0	235 3.85 77	9 0.19 4	20 0.56 11	23.0 0.37 7	--	0.30	--	258 317	202
SACRAMENTO VALLEY					52100													
TEHAMA COUNTY						52101												
23N/ 2W- 5A 1 M 8-10-64 5050		--	8.1	222	--	--	21 0.91	--	0	122 2.42	--	4 0.13	--	--	--	--		72
23N/ 3W-35B 1 M 8-10-64 5050		--	7.9	222	--	--	15 0.65	--	0	90 1.09	--	15 0.40	--	--	--	--		77
24N/ 2W-30C 1 M 8-11-64 5050		--	7.8	487	--	--	28 1.22	--	0	264 8.49	--	11 0.31	--	--	--	--		200

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY TEHAMA COUNTY					52100	52101 (CONTINUED)					50000							
24N/ 3W- 3P 1 M		--	7.6	290	--	--	12	--	0	139	--	5	--	--	--	--		119
8-11-64	5050						0.52			2.37		0.12						
24N/ 3W- 4K 1 M		--	7.8	341	33	18	9	1	0	163	20	6	12.0	--	0.00	--	179	157
8-11-64	5050				1.65	1.48	0.39	0.03		2.67	0.42	0.17	0.19				222	
					46	42	11	1		77	12	5	6					
24N/ 3W-14M 1 M		--	7.7	254	--	--	14	--	0	140	--	5	--	--	--	--		104
8-11-64	5050						0.61			2.17		0.12						
24N/ 3W-20N 1 M		--	7.6	143	--	--	13	--	0	72	--	3	--	--	--	--		45
8-11-64	5050						0.57			1.34		0.06						
25N/ 2W- 4M 1 M		--	7.3	271	--	--	12	--	0	107	--	16	--	--	--	--		106
8-11-64	5050						0.52			1.77		0.48						
25N/ 2W- 7K 1 M		--	7.5	577	--	--	21	--	0	276	--	31	--	--	--	--		259
8-11-64	5050						0.91			8.49		0.66						
25N/ 3W-31R 1 M		--	7.5	442	--	--	9	--	0	247	--	6	--	--	--	--		219
8-11-64	5050						0.39			7.74		0.20						
26N/ 3W- 3N 1 M		--	7.5	337	--	--	14	--	0	173	--	8	--	--	--	--		146
8-25-64	5050						0.61			2.97		0.17						
26N/ 3W-29E 1 M		--	7.1	183	--	--	13	--	0	90	--	4	--	--	--	--		67
8-25-64	5050						0.57			1.09		0.13						

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY					52100						50000							
TEHAMA COUNTY						52101 (CONTINUED)												
26N/ 4W-10D 1 M		--	7.8	375	--	--	25	--	0	238	--	2	--	--	--	--		153
8-25-64	5050						1.09			7.83		0.07						
27N/ 3W-19A 1 M		--	7.8	227	--	--	15	--	0	134	--	3	--	--	--	--		89
8-25-64	5050						0.65			2.32		0.06						
GLENN COUNTY						52102												
18N/ 2W- 7F 1 M		71	8.6	566	23	31	56	1	9	261	77	9	8.1	--	0.20	--	343	185
8-20-64	5101				1.15	2.55	2.43	0.03	0.30	4.28	1.60	0.25	0.13				342	
					19	41	39		5	65	24	4	2					
18N/ 3W-10K 1 M		76	9.0	527	--	--	65	--	37	199	--	18	--	--	--	--		135
8-20-64	5101						2.83		1.23	2.84		0.45						
18N/ 4W- 2F 1 M		76	7.8	1070	75	41	91	1	0	380	22	116	63.0	--	0.60	--	596	356
8-20-64	5101				3.74	3.37	3.96	0.03		6.23	0.46	3.27	1.02				649	
					34	30	36			57	4	30	9					
19N/ 2W- 6G 1 M		70	8.8	340	--	--	12	--	18	169	--	6	--	--	--	--		159
8-19-64	5101						0.52		0.60	3.10		0.20						
19N/ 2W-23N 1 M		69	8.6	672	33	50	48	0	15	380	38	11	2.8	--	0.10	--	385	288
8-19-64	5101				1.65	4.11	2.09		0.50	6.23	0.79	0.31	0.05				399	
					21	52	27		6	79	10	4	1					
19N/ 3W- 9J 1 M		70	9.1	670	--	--	154	--	37	273	--	13	--	--	--	--		36
8-20-64	5101						6.69		1.23	8.41		0.35						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION 50000																		
SACRAMENTO VALLEY GLENN COUNTY					52100	52102 (CONTINUED)												
19N/ 3W-18P 1 M		78	8.9	616	--	--	57	--	27	241	--	25	--	--	--	--		213
8-20-64	5101						2.48		0.90	3.95		0.71						
20N/ 2W-13Q 1 M		72	9.0	454	--	--	18	--	23	236	--	9	--	--	--	--		210
8-19-64	5101						0.78		0.77	3.87		0.25						
20N/ 3W- 2D 1 M		67	8.8	441	--	--	16	--	17	185	--	22	--	--	--	--		192
8-19-64	5101						0.70		0.57	2.87		0.80						
20N/ 4W- 2Q 1 M		74	8.9	354	--	--	14	--	9	167	--	7	--	--	--	--		151
8-19-64	5101						0.61		0.30	2.74		0.20						
21N/ 2W- 2D 1 M		71	8.5	467	--	--	24	--	6	207	--	26	--	--	--	--		186
8-18-64	5101						1.05		0.20	7.21		0.92						
21N/ 2W-15C 1 M		68	8.7	438	49	17	19	1	10	188	15	27	6.8	--	0.10	--	237	193
8-19-64	5101				2.45	1.40	0.83	0.03	0.33	3.08	0.31	0.76	0.11				283	
					52	30	18	1	7	67	7	17	2					
21N/ 3W- 2Q 1 M		--	8.8	525	--	--	21	--	20	224	--	28	--	--	--	--		234
8-18-64	5101						0.91		0.67	7.84		0.89						
21N/ 3W-20D 1 M		72	8.7	364	--	--	28	--	9	146	--	28	--	--	--	--		120
8-19-64	5101						1.22		0.30	2.31		0.89						
22N/ 1W-29C 1 M		71	8.8	489	--	--	22	--	16	201	--	26	--	--	--	--		204
8-18-64	5101						0.96		0.53	7.10		0.92						

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY					52100							50000						
GLENN COUNTY						52102 (CONTINUED)												
22N/ 2W- 3A 1 M		71	8.9	544	--	--	28	--	20	162	--	38	--	--	--	--		214
8-18-64	5101						1.22		0.67	3.06		0.80						
22N/ 2W-26B 1 M		68	8.6	453	49	19	20	1	11	203	22	21	6.1	--	0.20	--	249	201
8-18-64	5101				2.45	1.56	0.87	0.03	0.37	3.33	0.46	0.59	0.10				273	
					50	32	18	1	8	69	9	12	2					
22N/ 3W- 4G 1 M		75	8.8	493	--	--	19	--	19	221	--	23	--	--	--	--		213
8-20-64	5101						0.83		0.63	3.62		0.65						
22N/ 3W-22Q 1 M		72	8.6	348	--	--	19	--	7	130	--	22	--	--	--	--		130
8-20-64	5101						0.83		0.23	2.27		0.80						
22N/ 3W-25B 1 M		69	8.6	346	--	--	19	--	7	131	--	22	--	--	--	--		126
8-18-64	5101						0.83		0.23	2.28		0.80						
22N/ 4W-10B 1 M		73	8.9	546	--	--	17	--	23	214	--	33	--	--	--	--		244
8-18-64	5101						0.74		0.77	7.30		0.70						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY					52100													
BUTTE COUNTY						52103												
17N/ 1E- 1R 1 M		--	8.5	728	34	51	50	2	0	404	15	37	11.0	--	0.10	--	399	295
8- 5-64 5050					1.70	4.19	2.17	0.05		6.62	0.31	1.04	0.18				415	
					21	52	27	1		81	4	13	2					
17N/ 2E- 2D 1 M		--	8.4	347	26	26	11	1	6	204	6	4	4.2	--	0.00	--	185	172
8- -64 5050					1.30	2.14	0.48	0.03	0.20	3.34	0.12	0.11	0.07				224	
					33	54	12	1	5	87	3	3	2					
17N/ 3E-18Q 1 M		--	8.5	630	50	51	24	1	26	396	6	2	5.2	--	0.00	--	360	335
8- -64 5050					2.50	4.19	1.04	0.03	0.87	6.49	0.12	0.06	0.08				392	
					32	54	13		11	85	2	1	1					
17N/ 4E-20P 1 M		--	8.2	442	30	13	38	2	0	146	15	58	1.1	--	0.30	--	229	129
8- 3-64 5050					1.50	1.07	1.65	0.05		2.39	0.31	1.64	0.02				285	
					35	25	39	1		55	7	38						
18N/ 1E-14R 1 M		--	8.3	291	23	16	14	3	4	166	7	5	1.3	--	0.00	--	155	124
8- 3-64 5050					1.15	1.32	0.61	0.08	0.13	2.72	0.15	0.14	0.02				211	
					36	42	19	3	4	86	5	4	1					
18N/ 2E-12B 1 M		--	7.5	222	18	13	11	0	0	132	7	2	1.2	--	0.00	--	117	99
8- -64 5050					0.90	1.07	0.48			2.16	0.15	0.06	0.02				155	
					37	44	20			90	6	3	1					
18N/ 3E-16P 2 M		--	8.4	610	47	50	12	2	8	292	49	7	35.0	--	0.00	--	354	323
8- -64 5050					2.35	4.11	0.52	0.05	0.27	4.79	1.02	0.20	0.56				380	
					33	58	7	1	4	70	15	3	8					

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY					52100						50000							
BUTTE COUNTY						52103 (CONTINUED)												
18N/ 3E-33D 1 M		--	7.9	255	19	15	12	3	0	155	3	4	0.3	--	0.00	--	133	109
8- -64 5050					0.95	1.23	0.52	0.08		2.54	0.06	0.11					176	
					34	44	19	3		94	2	4						
18N/ 4E-21P 1 M		--	8.4	246	21	13	11	1	2	122	7	6	8.1	--	0.20	--	129	106
8-18-64 5050					1.05	1.07	0.48	0.03	0.07	2.00	0.15	0.17	0.13				177	
					40	41	18	1	3	79	6	7	5					
18N/ 4E-28M 1 M		--	8.4	2420	43	26	495	3	12	136	680	260	4.8	--	5.80	--	1596	215
8-18-64 5050					2.15	2.14	21.52	0.08	0.40	2.23	14.16	7.33	0.08				1620	
					8	8	83		2	9	59	30						
20N/ 2E-29R 3 M		--	7.9	389	32	17	22	2	0	178	8	28	0.0	--	0.00	--	197	150
11- 1-63 5050					1.60	1.40	0.96	0.05		2.92	0.17	0.79					245	
					40	35	24	1		75	4	20						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY					52100						50000							
BUTTE COUNTY						52103												
20N/ 2E-29R 1 M		--	8.7	626	56	33	32	2	28	234	18	61	8.2	--	0.00	--	353	275
10-24-64 5050					2.79	2.71	1.39	0.05	0.93	3.84	0.37	1.72	0.13				418	
					40	39	20	1	13	55	5	25	2					
20N/ 3E-15H 1 M		--	8.3	154	13	9	6	2	4	84	4	1	2.2	--	0.00	--	83	70
7-10-64 5050					0.65	0.74	0.26	0.05	0.13	1.38	0.08	0.03	0.04				111	
					38	44	15	3	8	83	5	2	2					
21N/ 1E-26Q 1 M		--	8.7	497	42	36	22	2	28	283	8	5	6.6	--	0.00	--	289	253
9-25-64 5050					2.10	2.96	0.96	0.05	0.93	4.64	0.17	0.14	0.11				321	
					35	49	16	1	16	77	3	2	2					
21N/ 2E-30C 1 M		--	8.6	256	20	18	9	1	12	130	7	2	9.1	--	0.00	--	142	124
9-29-64 5050					1.00	1.48	0.39	0.03	0.40	2.13	0.15	0.06	0.15				198	
					34	51	13	1	14	74	5	2	5					
21N/ 3E-10Q 1 M		--	8.5	255	22	16	9	2	16	132	0	3	2.8	--	0.00	--	136	121
9- 8-64 5050					1.10	1.32	0.39	0.05	0.53	2.16		0.08	0.05				200	
					38	46	14	2	19	77		3	2					
22N/ 1E- 9M 1 M		--	8.7	498	38	35	17	1	18	226	13	12	36.0	--	0.10	--	281	239
9-25-64 5050					1.90	2.88	0.74	0.03	0.60	3.70	0.27	0.34	0.58				296	
					34	52	13	1	11	67	5	6	11					
22N/ 2E-18J 1 M		--	8.4	210	14	11	12	1	2	106	4	8	2.9	--	0.20	--	107	80
9- 8-64 5050					0.70	0.90	0.52	0.03	0.07	1.74	0.08	0.23	0.05				147	
					33	42	24	1	3	80	4	11	2					
23N/ 1E- 9L 1 M		--	7.5	451	34	31	11	2	0	210	15	4	45.0	--	0.00	--	245	213
7-27-64 5050					1.70	2.55	0.48	0.05		3.44	0.31	0.11	0.73				295	
					36	53	10	1		75	7	2	16					
23N/ 1E-32K 1 M		--	7.9	191	15	8	11	1	0	88	1	5	18.0	--	0.10	--	102	71
7-27-64 5050					0.75	0.66	0.48	0.03		1.44	0.02	0.14	0.29				150	
					39	34	25	2		76	1	7	15					

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium No	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY					52100		CENTRAL VALLEY REGION				50000							
COLUSA COUNTY						52104 (CONTINUED)												
13N/ 1W- 8B 1 M		--	7.9	1230	90	51	64	2	0	189	6	289	6.9	--	0.40	--	602	434
5-28-64 5050					4.49	4.19	2.78	0.05		3.10	0.12	8.15	0.11				696	
					39	36	24			27	1	71	1					
13N/ 1W-15R 2 M		--	8.0	603	--	--	43	--	0	251	--	24	--	--	--	--		234
5-28-64 5050							1.87			7.65		0.86						
13N/ 1W-36Q 2 M		--	8.0	440	--	--	36	--	0	187	--	31	--	--	--	--		140
6-16-64 5050							1.56			2.94		0.66						
13N/ 2W-10R 1 M		--	8.0	1170	--	--	121	--	0	187	--	258	--	--	2.50	--		288
5-28-64 5050							5.26			2.94		8.56						
13N/ 2W-15D 1 M		--	7.3	644	--	--	78	--	0	207	--	82	--	--	1.40	--		144
5-28-64 5050							3.39			7.21		1.75						
13N/ 2W-22G 1 M		--	7.8	832	49	39	57	2	0	278	7	118	6.9	--	0.70	--	416	283
5-28-64 5050					2.45	3.21	2.48	0.05		4.56	0.15	3.33	0.11				468	
					30	39	30	1		56	2	41	1					
13N/ 2W-29R 1 M		--	8.1	1010	37	38	106	2	0	260	20	181	5.0	--	1.90	--	519	249
5-28-64 5050					1.85	3.13	4.61	0.05		4.26	0.42	5.10	0.08				565	
					19	32	48	1		43	4	52	1					
14N/ 1E-18A 1 M		--	8.4	357	--	--	66	--	2	201	--	8	--	--	--	--		40
6-16-64 5050							2.87		0.07	7.10		0.17						
14N/ 1W- 2D 1 M		--	8.2	996	49	41	88	3	0	232	93	148	0.8	--	0.20	--	537	291
6-16-64 5050					2.45	3.37	3.83	0.08		3.80	1.94	4.17	0.01				596	
					25	35	39	1		38	20	42						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY					52100	CENTRAL VALLEY REGION					50000							
COLUSA COUNTY						52104 (CONTINUED)												
14N/ 1W-12A 1 M		--	8.4	581	11	6	110	1	3	261	2	51	0.0	--	0.60	--	313	52
6-16-64 5050					0.55	0.49	4.78	0.03	0.10	4.28	0.04	1.44					354	
					9	8	82	1	2	73	1	25						
14N/ 1W-31Q 1 M		--	8.2	510	38	16	40	1	0	164	5	70	8.6	--	0.50	--	260	161
5-28-64 5050					1.90	1.32	1.74	0.03		2.69	0.10	1.97	0.14				298	
					38	26	35	1		55	2	40	3					
14N/ 2W-29J 1 M		--	8.0	270	14	13	21	1	0	138	1	7	11.0	--	0.00	--	136	89
5-28-64 5050					0.70	1.07	0.91	0.03		2.26	0.02	0.20	0.18				163	
					26	39	34	1		85	1	8	7					
14N/ 2W-35P 1 M		--	8.0	502	25	23	40	1	0	192	6	53	6.7	--	0.40	--	250	157
5-28-64 5050					1.25	1.89	1.74	0.03		3.15	0.12	1.49	0.11				286	
					25	38	35	1		65	2	31	2					
15N/ 2W-32R 1 M		--	8.0	680	--	--	60	--	0	306	--	34	--	--	--	--		234
5-28-64 5050							2.61			6.40		0.77						
15N/ 4W-25P 1 M		--	7.9	1020	44	28	130	2	0	343	92	103	1.4	--	5.20	--	574	225
5-28-64 5050					2.20	2.30	5.65	0.05		5.62	1.92	2.90	0.02				598	
					22	23	55			54	18	28						
16N/ 1W-29J 1 M		--	8.3	381	22	18	33	1	0	236	0	8	0.5	--	0.40	--	199	129
5-28-64 5050					1.10	1.48	1.43	0.03		3.87		0.23	0.01				232	
					27	37	35	1		94		6						
16N/ 2W- 4H 1 M		--	8.1	621	--	--	48	--	0	226	--	41	--	--	--	--		217
5-28-64 5050							2.09			7.93		1.37						
16N/ 2W-35B 1 M		--	8.0	695	17	25	98	2	0	270	72	41	0.9	--	0.30	--	389	146
5-28-64 5050					0.85	2.06	4.26	0.05		4.43	1.50	1.16	0.01				431	
					12	29	59	1		62	21	16						

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY					52100						50000							
COLUSA COUNTY						52104 (CONTINUED)												
16N/ 3W- 9N 1 M		--	8.1	640	--	--	59	--	0	240	--	68	--	--	--	--		201
5-28-64	5050						2.56			7.62		2.12						
17N/ 1W- 6R 1 M		--	8.2	347	28	12	28	2	0	201	2	9	0.0	--	0.10	--	180	120
6-16-64	5050				1.40	0.99	1.22	0.05		3.29	0.04	0.25					204	
					38	27	33	1		92	1	7						
17N/ 2W-12C 1 M		--	8.3	482	--	--	35	--	0	269	--	21	--	--	--	--		183
5-28-64	5050						1.52			8.54		0.75						
17N/ 3W-33R 1 M		--	8.3	1010	--	--	144	--	0	279	--	120	--	--	--	--		192
5-28-64	5050						6.26			8.46		3.54						
13N/ 1E-22J 1 M		--	7.8	973	--	--	44	--	0	521	--	18	--	--	--	--		468
6-16-64	5050						1.92			6.25		0.45						
13N/ 1W- 7A 1 M		--	7.8	1670	154	45	86	1	0	158	8	441	8.6	--	0.50	--	822	569
5-28-64	5050				7.68	3.70	3.74	0.03		2.59	0.17	12.44	0.14				1050	
					51	24	25			17	1	81	1					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SUTTER COUNTY							52105												
11N/ 3E-24D 0 M	7-21-64	5050	--	8.3	625	40	33	54	2	0	400	9	9	0.1	--	0.10	--	344	236
						2.00	2.71	2.35	0.05		6.56	0.19	0.25					335	
						28	38	33	1		94	3	4						
11N/ 4E- 9D 1 M	6-16-64	5050	65	7.8	338	29	15	17	2	0	176	12	12	0.3	--	0.10	--	174	134
						1.45	1.23	0.74	0.05		2.88	0.25	0.34					234	
						42	35	21	1		83	7	10						
12N/ 2E- 9B 2 M	5-26-64	5050	65	8.7	641	12	9	118	1	12	242	17	64	0.4	--	0.60	--	353	67
						0.60	0.74	5.13	0.03	0.40	3.97	0.35	1.80	0.01				410	
						9	11	79		6	61	5	28						
12N/ 2E-11N 1 M	5-26-64	5050	--	8.4	1290	26	14	220	5	8	250	3	280	0.3	--	0.90	--	680	123
						1.30	1.15	9.57	0.13	0.27	4.10	0.06	7.90					726	
						11	9	79	1	2	33		64						

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed / Evap 180°C	TOTAL hardness as $CaCO_3$
					CENTRAL VALLEY REGION													
SACRAMENTO VALLEY SUTTER COUNTY					52100	52105 (CONTINUED)						50000						
12N/ 2E-14B 1 M		65	8.4	4330	--	--	546	--	4	190	--	1280	--	--	--	--		804
5-26-64	5050						23.74		0.13	3.11		36.10						
12N/ 2E-16R 1 M		65	8.7	944	--	--	166	--	20	401	--	83	--	--	--	--		126
5-26-64	5050						7.22		0.67	6.57		2.34						
12N/ 2E-23Q 1 M		65	8.5	957	14	10	172	3	8	249	3	176	0.2	--	0.80	--	509	76
5-26-64	5050				0.70	0.82	7.48	0.08	0.27	4.08	0.06	4.96					564	
					8	9	82	1	3	44	1	53						
12N/ 2E-26A 1 M		64	8.5	1160	--	--	195	--	9	264	--	227	--	--	--	--		116
5-26-64	5050						8.48		0.30	4.33		6.40						
12N/ 3E-26R 1 M		66	8.4	830	46	43	50	1	5	202	14	154	0.5	--	0.20	--	413	292
6- 3-64	5050				2.30	3.54	2.17	0.03	0.17	3.31	0.29	4.34	0.01				492	
					29	44	27		2	41	4	53						
13N/ 3E-10M 2 M		--	8.6	882	--	--	49	--	14	325	--	90	--	--	--	--		374
5-26-64	5050						2.13		0.47	5.33		2.54						
13N/ 4E-21A 1 M		--	8.3	947	86	67	24	2	0	310	257	12	1.8	--	0.10	--	602	490
5-22-64	5050				4.29	5.51	1.04	0.05		5.08	5.35	0.34	0.03				684	
					39	51	10			47	50	3						
14N/ 1E-24N 1 M		--	8.5	355	18	19	31	1	5	193	12	7	0.2	--	0.20	--	188	123
5-20-64	5050				0.90	1.56	1.35	0.03	0.17	3.16	0.25	0.20					230	
					23	41	35	1	4	84	7	5						
14N/ 3E- 3C 2 M		--	8.3	1210	67	82	58	4	0	144	74	161	1.4	--	0.20	--	518	504
6- 1-64	5050				3.34	6.74	2.52	0.10		2.36	1.54	4.54	0.02				758	
					26	53	20	1		28	18	54						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY SUTTER COUNTY					52100	CENTRAL VALLEY REGION 52105 (CONTINUED)					50000							
14N/ 3E-14E 2 M 6-26-64 5050		--	8.0	294	--	--	8 0.35	--	0	169 2.77	--	3 0.08	--	--	--	--		135
14N/ 3E-15H 1 M 5-26-64 5050		--	8.5	1020	--	--	52 2.26	--	8 0.27	418 6.85	--	103 2.90	--	--	--	--		443
14N/ 3E-16B 2 M 6-18-64 5050		--	8.5	1490	--	--	66 2.87	--	14 0.47	344 5.64	--	270 7.61	--	--	--	--		626
14N/ 3E-18A 2 M 7-15-64 5050		--	8.4	733	44 2.20	--	--	--	5 0.17	387 6.34	--	35 0.99	--	--	--	--		110
14N/ 3E-23M 2 M 6-24-64 5050		--	8.2	400	--	--	19 0.83	--	0	213 3.49	--	5 0.14	--	--	--	--		169
14N/ 3E-28D 1 M 6-24-64 5050		66	8.4	1040	74 3.69 35	52 4.28 41	58 2.52 24	2 0.05	4 0.13 1	292 4.79 45	37 0.77 7	173 4.88 46	0.4 0.01	--	0.20	--	544 643	399
14N/ 3E-28R 1 M 5-22-64 5050		--	8.2	1570	--	--	77 3.35	--	0	297 4.87	--	350 9.87	--	--	--	--		600
14N/ 3E-31B 3 M 5-22-64 5050		68	8.4	1020	34 1.70 17	48 3.95 39	103 4.48 44	3 0.08 1	10 0.33 3	276 4.52 45	13 0.27 3	171 4.82 48	7.6 0.12 1	--	0.20	--	526 595	283
15N/ 1E-16R 1 M 5-25-64 5050		65	8.2	731	57 2.84 34	52 4.28 52	25 1.09 13	3 0.08 1	0	437 7.16 87	16 0.33 4	25 0.71 9	3.2 0.05 1	--	1.10	--	397 450	356

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY					52100	CENTRAL VALLEY REGION					50000							
SUTTER COUNTY						52105 (CONTINUED)												
15N/ 1E-35R 1 M		--	8.5	751	--	--	17	--	5	321	--	69	--	--	--	--		367
5-25-64	5050						0.74		0.17	5.26		1.95						
15N/ 2E-26D 2 M		68	8.6	956	--	--	52	--	16	382	--	68	49.0	--	--	--		412
5-19-64	5050						2.26		0.53	6.26		1.92	0.79					
15N/ 3E- 4C 2 M		65	8.3	965	--	--	30	--	0	471	--	25	50.0	--	--	--		487
5-19-64	5050						1.30			7.72		0.71	0.81					
15N/ 3E-15C 0 M		--	8.1	154	11	10	6	1	0	88	2	3	0.4	--	0.00	--	77	69
7-13-64	5050				0.55	0.82	0.26	0.03		1.44	0.04	0.08	0.01				108	
					33	49	16	2		92	3	5	1					
15N/ 3E-23C 0 M		--	8.4	400	16	11	56	4	2	218	3	17	0.5	--	0.40	--	217	85
7-13-64	5050				0.80	0.90	2.43	0.10	0.07	3.57	0.06	0.48	0.01				263	
					19	21	57	2	2	85	1	11						
15N/ 3E-26M 1 M		64	8.2	421	--	--	44	--	0	216	--	24	--	--	--	--		120
6-11-64	5050						1.91			3.54		0.68						
16N/ 3E- 4E 1 M		--	8.3	358	22	22	17	1	0	140	34	3	30.0	--	0.00	--	198	146
5-20-64	5050				1.10	1.81	0.74	0.03		2.29	0.71	0.08	0.48				257	
					30	49	20	1		64	20	2	13					
YUBA COUNTY						52106												
13N/ 5E- 4B 2 M		--	8.1	922	42	12	118	2	0	114	18	215	2.9	--	0.50	--	466	155
7-22-64	5050				2.10	0.99	5.13	0.05		1.87	0.37	6.06	0.05				570	
					25	12	62	1		22	4	73	1					

TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY YUBA COUNTY					52100	52106 (CONTINUED)					50000							
14N/ 3E-24M 0 M 7-20-64 5050		--	7.7	481	35 1.75 34	25 2.06 40	28 1.22 24	3 0.08 2	0	217 3.56 71	33 0.69 14	25 0.71 14	1.7 0.03 1	--	0.10	--	257 280	191
14N/ 4E- 7M 1 M 7-20-64 5050		69	8.4	552	--	--	27 1.17	--	4 0.13	240 3.93	--	20 0.56	--	--	--	--		241
14N/ 4E-22H 1 M 7-22-64 5050		--	7.5	242	--	--	18 0.78	--	0	99 1.62	--	18 0.51	--	--	--	--		73
14N/ 5E-15C 1 M 7-22-64 5050		--	8.2	212	--	--	14 0.61	--	0	83 1.36	--	15 0.42	--	--	--	--		70
14N/ 5E-16C 2 M 7-22-64 5050		--	7.5	217	--	--	21 0.91	--	0	89 1.46	--	16 0.45	--	--	--	--		58
14N/ 5E-21G 1 M 7-22-64 5050		67	8.0	687	41 2.05 33	15 1.23 20	65 2.83 46	2 0.05 1	0	90 1.48 24	18 0.37 6	149 4.20 69	2.2 0.04 1	--	0.20	--	337 464	164
14N/ 5E-22M 1 M 7-22-64 5050		--	7.9	367	22 1.10 33	8 0.66 20	34 1.48 45	2 0.05 2	0	88 1.44 44	10 0.21 6	56 1.58 48	3.1 0.05 2	--	0.00	--	178 243	88
14N/ 5E-30J 2 M 7-22-64 5050		--	7.8	393	--	--	37 1.61	--	0	101 1.66	--	63 1.78	--	--	--	--		96
15N/ 4E-20J 2 M 7-21-64 5050		--	8.2	397	--	--	14 0.61	--	0	184 3.02	--	7 0.20	--	--	--	--		179

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State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
								CENTRAL VALLEY REGION					50000						
SACRAMENTO VALLEY YUBA COUNTY						52100	52106 (CONTINUED)												
15N/ 4E-31A 1 M	7-21-64	5050	--	8.3	251	--	--	12 0.52	--	0	137 2.25	--	9 0.25	--	--	--	--		101
15N/ 5E-19N 1 M	7-22-64	5050	71	7.7	168	9 0.45 28	6 0.49 30	15 0.65 40	1 0.03 2	0	70 1.15 72	4 0.08 5	8 0.23 14	8.6 0.14 9	--	0.00	--	86 158	47
16N/ 3E-11N 1 M	7-16-64	5050	--	7.5	1300	--	--	110 4.78	--	0	170 2.79	--	322 9.08	--	--	--	--		355
16N/ 3E-11R 2 M	8- 6-64	5050	--	7.9	478	--	--	17 0.74	--	0	263 4.31	--	8 0.23	--	--	--	--		222
16N/ 3E-23B 1 M	7-16-64	5050	67	8.0	262	17 0.85 31	16 1.32 49	11 0.48 18	2 0.05 2	0	134 2.20 80	10 0.21 8	7 0.20 7	8.2 0.13 5	--	0.00	--	137 172	109
16N/ 3E-26Q 1 M	7-16-64	5050	68	8.1	263	24 1.20 44	10 0.82 30	15 0.65 24	3 0.08 3	0	133 2.18 80	10 0.21 8	12 0.34 12	0.4 0.01	--	0.00	--	140 193	101
16N/ 4E- 9D 1 M	7-16-64	5050	--	7.6	216	--	--	11 0.48	--	0	78 1.28	--	13 0.37	--	--	--	--		78
16N/ 4E- 9D 2 M	7-16-64	5050	--	7.4	220	15 0.75 34	10 0.82 37	13 0.57 26	2 0.05 2	0	96 1.57 72	11 0.23 11	13 0.37 17	0.2	--	0.00	--	111 176	79

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MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																			
SACRAMENTO VALLEY						52100						50000							
PLACER COUNTY							52107												
10N/ 5E- 6D 1 M	7- 8-64	5050	--	7.9	304	19	10	28	1	0	138	1	19	6.2	--	0.20	--	152	89
						0.95	0.82	1.22	0.03		2.26	0.02	0.54	0.10				193	
						31	27	40	1		77	1	18	3					
10N/ 6E- 5C 0 M	7- 8-64	5050	--	7.5	180	10	8	14	1	0	83	1	10	12.0	--	0.00	--	97	58
						0.50	0.66	0.61	0.03		1.36	0.02	0.28	0.19				175	
						28	37	34	2		74	1	15	10					
10N/ 6E-10D 0 M	7- 8-64	5050	--	7.2	438	30	21	27	2	0	189	5	30	14.0	--	0.00	--	222	162
						1.50	1.73	1.17	0.05		3.10	0.10	0.85	0.23				291	
						34	39	26	1		72	2	20	5					
11N/ 5E- 6A 1 M	7- 8-64	5050	--	8.0	232	14	8	22	2	0	111	1	13	5.4	--	0.20	--	120	68
						0.70	0.66	0.96	0.05		1.82	0.02	0.37	0.09				188	
						30	28	41	2		79	1	16	4					
11N/ 5E-18H 1 M	7- 8-64	5050	--	8.0	243	15	9	22	1	0	113	1	15	6.4	--	0.10	--	125	75
						0.75	0.74	0.96	0.03		1.85	0.02	0.42	0.10				178	
						30	30	39	1		77	1	18	4					
11N/ 5E-31A 1 M	7- 8-64	5050	--	8.2	268	15	9	28	1	0	123	1	19	3.7	--	0.10	--	137	75
						0.75	0.74	1.22	0.03		2.02	0.02	0.54	0.06				178	
						27	27	45	1		77	1	20	2					
11N/ 6E-16M 1 M	7- 8-64	5050	--	8.0	348	13	6	44	2	0	86	8	45	14.0	--	0.70	--	175	57
						0.65	0.49	1.91	0.05		1.41	0.17	1.27	0.23				263	
						21	16	62	2		46	6	41	7					
11N/ 6E-27Q 0 M	7- 8-64	5050	--	7.7	285	19	10	22	1	0	134	3	14	5.3	--	0.10	--	140	89
						0.95	0.82	0.96	0.03		2.20	0.06	0.39	0.09				221	
						34	30	35	1		80	2	14	3					
11N/ 6E-34B 0 M	7- 8-64	5050	--	7.5	266	19	11	21	1	0	142	4	10	2.6	--	0.10	--	139	93
						0.95	0.90	0.91	0.03		2.33	0.08	0.28	0.04				177	
						34	32	33	1		85	3	10	1					

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STATE OF CALIFORNIA - THE RESOURCES AGENCY - DEPARTMENT OF WATER RESOURCES

TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance volue: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY					52100	CENTRAL VALLEY REGION					50000							
PLACER COUNTY						52107 (CONTINUED)												
12N/ 5E- 2B 1 M		--	7.9	186	10	8	17	1	0	92	6	7	1.6	--	0.20	--	96	58
7- 8-64 5050					0.50	0.66	0.74	0.03		1.51	0.12	0.20	0.03				179	
					26	34	38	2		81	6	11	2					
12N/ 5E- 3A 1 M		--	7.7	186	12	10	10	1	0	84	1	7	12.0	--	0.00	--	94	71
7- 8-64 5050					0.60	0.82	0.43	0.03		1.38	0.02	0.20	0.19				166	
					32	44	23	2		77	1	11	11					
12N/ 5E-23P 2 M		--	7.7	221	10	9	22	1	0	94	2	12	14.0	--	0.20	--	116	62
7- 8-64 5050					0.50	0.74	0.96	0.03		1.54	0.04	0.34	0.23				201	
					22	33	43	1		72	2	16	11					
12N/ 6E-16D 2 M		--	7.4	789	21	18	114	1	0	162	70	104	18.0	--	1.20	--	427	127
7- 8-64 5050					1.05	1.48	4.96	0.03		2.66	1.46	2.93	0.29				492	
					14	20	66			36	20	40	4					
13N/ 5E-13D 1 M		--	7.4	506	18	12	62	1	0	82	44	77	4.9	--	0.40	--	260	95
7- 8-64 5050					0.90	0.99	2.70	0.03		1.34	0.92	2.17	0.08				349	
					19	21	58	1		30	20	48	2					
13N/ 5E-22C 2 M		--	7.3	650	32	14	70	2	0	81	35	127	5.1	--	0.40	--	325	138
7- 8-64 5050					1.60	1.15	3.04	0.05		1.33	0.73	3.58	0.08				445	
					27	20	52	1		23	13	63	1					
13N/ 5E-24P 1 M		--	7.5	248	13	9	24	1	0	105	6	18	4.1	--	0.10	--	127	70
7- 8-64 5050					0.65	0.74	1.04	0.03		1.72	0.12	0.51	0.07				192	
					26	30	42	1		71	5	21	3					
13N/ 6E-16D 1 M		--	7.0	130	8	4	11	1	0	51	5	5	9.8	--	0.00	--	69	37
7- 8-64 5050					0.40	0.33	0.48	0.03		0.84	0.10	0.14	0.16				104	
					32	27	39	2		68	8	11	13					
13N/ 6E-33C 1 M		--	7.2	246	18	13	14	0	0	126	13	6	1.6	--	0.00	--	128	99
7- 8-64 5050					0.90	1.07	0.61			2.07	0.27	0.17	0.03				172	
					35	41	24			81	11	7	1					

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STATE OF CALIFORNIA - THE RESOURCES AGENCY - DEPARTMENT OF WATER RESOURCES

TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																			
SACRAMENTO VALLEY						52100						50000							
SACRAMENTO COUNTY							52108												
5N/ 5E- 3F 1 M	9-23-64	5050	--	7.9	380	25	21	26	2	0	221	9	11	0.4	--	0.10	--	203	149
						1.25	1.73	1.13	0.05		3.62	0.19	0.31	0.01				248	
						30	42	27	1		88	5	8						
5N/ 7E- 7E 2 M	9-23-64	5050	--	8.2	173	12	5	6	2	0	78	1	9	8.8	--	0.00	--	82	51
						0.60	0.41	0.26	0.05		1.28	0.02	0.25	0.14				170	
						45	31	20	4		76	1	15	8					
6N/ 6E-29J 1 M	9-23-64	5050	--	9.3	312	22	13	25	2	37	90	10	10	5.1	--	0.00	--	168	109
						1.10	1.07	1.09	0.05	1.23	1.48	0.21	0.28	0.08				243	
						33	32	33	2	38	45	6	9	2					
6N/ 8E-15J 1 M	8-29-64	5050	--	8.0	153	12	5	8	3	0	58	1	10	12.0	--	0.00	--	80	51
						0.60	0.41	0.35	0.08		0.95	0.02	0.28	0.19				173	
						42	28	24	6		66	1	19	13					
7N/ 5E- 7C 1 M	9-24-64	5050	--	8.5	265	24	8	18	2	4	124	0	20	1.2	--	0.00	--	138	93
						1.20	0.66	0.78	0.05	0.13	2.03		0.56	0.02				168	
						45	25	29	2	5	74		20	1					
7N/ 5E-32J 2 M	9-23-64	5050	--	9.1	333	18	16	24	2	21	120	3	11	1.9	--	0.00	--	156	111
						0.90	1.32	1.04	0.05	0.70	1.97	0.06	0.31	0.03				197	
						27	40	31	2	23	64	2	10	1					
7N/ 6E-22R 2 M	9-24-64	5050	--	7.7	221	15	10	15	1	0	121	0	6	4.5	--	0.00	--	111	79
						0.75	0.82	0.65	0.03		1.98		0.17	0.07				184	
						33	36	29	1		89		8	3					
8N/ 8E-29K 1 M	9-23-64	5050	--	8.2	191	11	6	15	1	0	44	33	13	0.7	--	0.00	--	101	52
						0.55	0.49	0.65	0.03		0.72	0.69	0.37	0.01				166	
						32	28	38	2		40	39	21	1					
9N/ 4E- 8L 1 M	9- 9-64	5050	--	8.8	770	15	40	90	2	18	236	78	70	6.1	--	0.30	--	435	202
						0.75	3.29	3.91	0.05	0.60	3.87	1.62	1.97	0.10				456	
						9	41	49	1	7	47	20	24	1					

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MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled, Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																			
SACRAMENTO VALLEY						52100						50000							
SACRAMENTO COUNTY							52108 (CONTINUED)												
9N/ 4E-27F 1 M	9- 9-64	5050	--	8.5	700	27	19	85	2	8	152	0	140	5.1	--	0.40	--	361	146
						1.35	1.56	3.70	0.05	0.27	2.49		3.95	0.08				409	
						20	23	56	1	4	37		58	1					
9N/ 5E-21E 1 M	9- 9-64	5050	--	8.5	355	22	13	30	3	8	120	6	42	2.0	--	0.20	--	185	109
						1.10	1.07	1.30	0.08	0.27	1.97	0.12	1.18	0.03				255	
						31	30	37	2	8	55	3	33	1					
9N/ 7E-32D 1 M	9-23-64	5050	--	9.4	145	11	8	7	0	20	40	5	3	1.2	--	0.00	--	75	61
						0.55	0.66	0.30		0.67	0.66	0.10	0.08	0.02				117	
						36	44	20		44	43	7	5	1					
10N/ 8E-27L 0 M	9- 9-64	5050	--	8.6	320	36	9	18	1	8	143	0	28	1.5	--	0.00	--	172	127
						1.80	0.74	0.78	0.03	0.27	2.34		0.79	0.02				246	
						54	22	23	1	8	68		23	1					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY YOLO COUNTY					52100	52109					50000							
6N/ 3E-25A 1 M 8-19-64	5050	75	9.0	512	--	--	96 4.17	--	21 0.70	195 3.20	--	28 0.79	--	--	1.00	--		59
6N/ 3E-25A 2 M 8-19-64	5050	80	8.9	608	--	--	91 3.96	--	19 0.63	209 3.43	--	57 1.61	--	--	1.00	--		114
7N/ 3E- 9J 1 M 8-12-64	5050	76	8.8	815	53 2.64 28	54 4.44 47	56 2.43 25	1 0.03	31 1.03 11	368 6.03 65	30 0.62 7	40 1.13 12	30.0 0.48 5	--	0.60	--	477 502	354
7N/ 3E-31M 1 M 8-12-64	5050	73	9.1	846	--	--	77 3.35	--	54 1.80	406 6.65	--	24 0.68	--	--	1.10	--		336
8N/ 1W-13G 1 M 8- 6-64	5050	71	8.4	566	30 1.50 24	31 2.55 41	48 2.09 34	1 0.03	4 0.13 2	270 4.43 72	30 0.62 10	29 0.82 13	8.1 0.13 2	--	0.40	--	314 356	203
8N/ 2E-13F 2 M 8-11-64	5050	75	8.8	673	--	--	47 2.04	--	26 0.87	327 5.36	--	20 0.56	--	--	--	--		283
8N/ 3E- 5P 1 M 8-19-64	5050	70	9.0	741	--	--	86 3.74	--	37 1.23	267 4.38	--	44 1.24	--	--	1.10	--		212
8N/ 3E-19D 1 M 8-12-64	5050	68	8.5	1310	25 1.25 8	125 10.28 65	95 4.13 26	2 0.05	16 0.53 3	576 9.44 60	150 3.12 20	80 2.26 14	20.0 0.32 2	--	0.80	--	797 851	577
8N/ 3E-19M 2 M 8-12-64	5050	77	9.1	1520	--	--	154 6.70	--	108 3.60	576 9.44	--	72 2.03	--	--	1.80	--		588

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STATE OF CALIFORNIA · THE RESOURCES AGENCY · DEPARTMENT OF WATER RESOURCES

TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SACRAMENTO VALLEY YOLO COUNTY					52100	52109 (CONTINUED)					50000							
8N/ 4E- 3B 1 M		76	8.6	828	--	--	64	--	9	155	--	172	--	--	--	--		238
8-12-64	5050						2.78		0.30	2.54		4.85						
9N/ 1E-12A 1 M		72	8.8	760	--	--	67	--	37	201	--	81	--	--	1.50	--		248
8- 6-64	5050						2.91		1.23	3.29		2.28						
9N/ 1W-16H 1 M		78	8.7	770	--	--	106	--	12	180	--	98	--	--	0.80	--		149
8- 6-64	5050						4.61		0.40	2.95		2.76						
9N/ 1W-30L 1 M		69	8.6	656	--	--	47	--	10	142	--	87	--	--	0.40	--		213
8- 6-64	5050						2.04		0.33	2.33		2.45						
9N/ 2E- 4L 1 M		72	8.5	625	32	35	48	2	8	280	24	48	4.5	--	1.70	--	341	224
8-10-64	5050				1.60	2.88	2.09	0.05	0.27	4.59	0.50	1.35	0.07				370	
					24	44	32	1	4	68	7	20	1					
9N/ 2E-10D 1 M		69	8.3	675	28	43	48	2	4	296	24	50	7.7	--	1.70	--	354	247
8-11-64	5050				1.40	3.54	2.09	0.05	0.13	4.85	0.50	1.41	0.12				395	
					20	50	30	1	2	69	7	20	2					
9N/ 3E- 7D 2 M		73	8.5	589	25	29	55	2	12	268	30	35	0.8	--	1.70	--	322	182
8-10-64	5050				1.25	2.38	2.39	0.05	0.40	4.39	0.62	0.99	0.01				350	
					21	39	39	1	6	68	10	15						
9N/ 4E-33L 1 M		80	8.3	1880	94	35	212	1	4	216	5	475	0.6	--	1.40	--	934	379
8-12-64	5050				4.69	2.88	9.22	0.03	0.13	3.54	0.10	13.40	0.01				1250	
					28	17	55		1	21	1	78						
10N/ 1E- 1C 1 M		72	8.8	677	--	--	49	--	17	237	--	64	--	--	1.80	--		238
8-11-64	5050						2.13		0.57	3.88		1.80						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
SACRAMENTO VALLEY						CENTRAL VALLEY REGION					50000							
YOLO COUNTY					52100	52109 (CONTINUED)												
10N/ 1E-15G 1 M		78	8.6	1090	52	65	93	1	20	396	133	77	8.7	--	1.10	--	646	397
8- 6-64	5050				2.59	5.35	4.04	0.03	0.67	6.49	2.77	2.17	0.14				671	
					22	45	34		5	53	23	18	1					
10N/ 1E-26A 1 M		69	8.9	554	--	--	42	--	14	196	--	44	--	--	1.60	--		181
8- 6-64	5050						1.83		0.47	3.21		1.24						
10N/ 2E- 1Q 1 M		73	8.3	2280	--	--	119	--	0	87	--	542	--	--	3.30	--		859
8-10-64	5050						5.17			1.43		15.28						
10N/ 2E-18L 1 M		80	8.3	1370	--	--	129	--	0	394	--	104	--	--	1.60	--		412
8- 4-64	5050						5.61			6.46		2.93						
10N/ 1W- 4D 1 M		72	8.7	542	--	--	44	--	20	257	--	19	--	--	--	--		200
8- 4-64	5050						1.91		0.67	4.21		0.54						
10N/ 2W- 1M 1 M		72	8.6	481	27	26	40	1	10	266	17	8	7.2	--	0.20	--	267	175
8- 4-64	5050				1.35	2.14	1.74	0.03	0.33	4.36	0.35	0.23	0.12				291	
					26	41	33	1	6	81	6	4	2					
10N/ 2W-16L 1 M		75	8.0	1830	76	89	169	3	0	512	86	300	9.2	--	2.30	--	986	556
8- 4-64	5050				3.79	7.32	7.35	0.08		8.39	1.79	8.46	0.15				1080	
					20	39	40			45	10	45	1					
10N/ 2W-17J 2 M		84	8.8	838	--	--	118	--	18	267	--	78	--	--	--	--		118
8- 4-64	5050						5.13		0.60	4.38		2.20						
10N/ 2W-18F 1 M		82	8.7	2010	--	--	270	--	27	440	--	454	--	--	1.10	--		410
8- 4-64	5050						11.74		0.90	7.21		12.80						

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
						CENTRAL VALLEY REGION					50000							
SACRAMENTO VALLEY YOLO COUNTY					52100	52109 (CONTINUED)												
10N/ 2W-18F 2 M		80	8.5	1330	--	--	142	--	10	171	--	349	--	--	1.50	--		336
8- 4-64	5050						6.17		0.33	2.80		9.84						
10N/ 2W-23A 1 M		78	8.8	514	--	--	38	--	19	253	--	12	--	--	--	--		199
8- 4-64	5050						1.65		0.63	4.15		0.34						
11N/ 1E- 4R 1 M		72	9.2	1030	--	--	141	--	62	448	--	32	--	--	4.00	--		263
8-10-64	5050						6.13		2.07	7.34		0.90						
11N/ 2E-22A 1 M		80	8.9	1660	--	--	224	--	58	423	--	194	--	--	6.80	--		392
8-10-64	5050						9.74		1.93	6.93		5.47						
11N/ 2E-32G 0 M		68	8.7	663	19	43	54	2	20	260	26	51	6.4	--	1.70	--	351	225
8-11-64	5050				0.95	3.54	2.35	0.05	0.67	4.26	0.54	1.44	0.10				377	
					14	51	34	1	10	61	8	21	1					
11N/ 2W-35J 1 M		76	8.5	543	--	--	40	--	10	269	--	12	--	--	--	--		214
8- 4-64	5050						1.74		0.33	4.41		0.34						
11N/ 3W- 9Q 1 M		78	8.0	1000	88	50	46	1	0	376	55	105	7.0	--	0.20	--	537	425
8- 4-64	5050				4.39	4.11	2.00	0.03		6.16	1.15	2.96	0.11				647	
					42	39	19			59	11	29	1					
11N/ 3W-10E 2 M		73	8.9	807	--	--	121	--	21	256	--	66	--	--	3.00	--		153
8- 4-64	5050						5.26		0.70	4.20		1.86						
11N/ 3W-26M 3 M		69	8.6	658	--	--	14	--	12	197	--	72	--	--	1.10	--		230
8- 3-64	5050						0.61		0.40	3.23		2.03						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Call.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
						CENTRAL VALLEY REGION						50000						
SACRAMENTO VALLEY					52100													
YOLO COUNTY						52109 (CONTINUED)												
12N/ 1W-15N 2 M		84	8.2	529	--	--	21	--	0	242	--	26	--	--	--	--		234
8-10-64	5050						0.91			3.97		0.73						
12N/ 2W- 2A 1 M		76	8.3	813	--	--	67	--	0	325	--	89	--	--	--	--		280
8-10-64	5050						2.91			5.33		2.51						
SOLANO COUNTY						52111												
4N/ 3E-31F 2 M		--	8.4	862	--	--	148	--	3	363	--	73	--	--	--	--		124
5-22-64	5050						6.44		0.10	5.95		2.06						
5N/ 2E-25K 0 M		--	8.5	1500	--	--	258	--	19	933	--	21	--	--	--	--		333
5-22-64	5050						11.22		0.63	15.29		0.59						
6N/ 1E-19L 2 M		--	7.8	702	--	--	56	--	0	308	--	30	--	--	--	--		250
5-21-64	5050						2.43			5.05		0.85						
6N/ 1E-19Q 1 M		--	7.6	764	--	--	60	--	0	303	--	44	--	--	--	--		270
5-22-64	5050						2.61			4.97		1.24						
6N/ 1W- 1B 4 M		67	8.2	499	39	17	42	1	0	237	10	22	19.0	--	0.00	--	267	168
5-21-64	5050				1.95	1.40	1.83	0.03		3.88	0.21	0.62	0.31				318	
					37	27	35	1		77	4	12	6					
6N/ 1W-23L 1 M		67	8.0	570	--	--	43	--	0	276	--	14	--	--	--	--		204
5-21-64	5050						1.87			4.52		0.39						

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MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
						Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value									Mineral constituents in milligrams per liter				
CENTRAL VALLEY REGION																			
SACRAMENTO VALLEY						52100						50000							
SOLANO COUNTY							52111 (CONTINUED)												
7N/ 1E-36C 1 M	6-24-64	5050	64	8.4	1000	34	84	69	1	12	484	64	54	14.0	--	0.40	--	570	431
						1.70	6.91	3.00	0.03	0.40	7.93	1.33	1.52	0.23				560	
						15	59	26		4	70	12	13	2					
7N/ 2E- 2D 1 M	5-21-64	5050	66	8.1	948	--	--	53	--	0	576	--	24	--	--	--	--		437
								2.30			9.44		0.68						
7N/ 2E-34C 2 M	5-21-64	5050	65	8.3	779	--	--	44	--	0	428	--	26	--	--	--	--		345
								1.91			7.01		0.73						
8N/ 1E-26F 1 M	5-21-64	5050	66	8.1	732	--	--	41	--	0	399	--	16	--	--	--	--		322
								1.78			6.54		0.45						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SAN JOAQUIN VALLEY					52200						50000							
1N/ 4E- 3N 1 M		64	8.7	1240	--	--	186	--	34	435	--	162	--	--	--	--		212
6-30-64	5050						8.09		1.13	7.13		4.57						
1N/ 6E- 4D 1 M		72	8.4	392	6	10	62	0	2	173	3	32	1.1	--	0.20	--	201	56
7-16-64	5050				0.30	0.82	2.70		0.07	2.84	0.06	0.90	0.02				268	
					8	21	71		2	73	2	23	1					
1N/ 6E-10P 1 M		73	7.6	2980	125	49	384	1	0	154	1	867	0.9	--	0.90	--	1505	514
7-31-64	5050				6.24	4.03	16.70	0.03		2.52	0.02	24.45	0.01				1860	
					23	15	62			9		91						
1N/ 7E-11J 1 M		67	8.0	261	--	--	15	--	0	127	--	10	--	--	--	--		94
7-23-64	5050						0.65			2.08		0.28						
1N/ 9E-18G 1 M		68	8.2	205	--	--	11	--	0	85	--	10	--	--	--	--		66
7-16-64	5050						0.48			1.39		0.28						
2N/ 6E-27L 1 M		66	8.4	349	--	--	29	--	4	176	--	10	--	--	--	--		110
7- 3-64	5050						1.26		0.13	2.88		0.28						
2N/ 7E-14N 1 M		66	8.2	402	35	20	17	1	0	226	4	10	4.1	--	0.00	--	202	170
7- 3-64	5050				1.75	1.64	0.74	0.03		3.70	0.08	0.28	0.07				269	
					42	39	18	1		90	2	7	2					
2N/ 8E-15L 1 M		67	8.2	224	--	--	9	--	0	120	--	5	--	--	--	--		85
7-16-64	5050						0.39			1.97		0.14						
2N/ 9E- 7G 1 M		62	8.1	268	--	--	9	--	0	130	--	8	--	--	--	--		110
7-16-64	5050						0.39			2.13		0.23						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																			
SAN JOAQUIN VALLEY (CONTINUED)						52200						50000							
3N/ 7E-11G 1 M	7- 3-64	5050	68	8.2	333	25	12	20	0	0	129	12	19	12.0	--	0.00	--	163	112
						1.25	0.99	0.87			2.11	0.25	0.54	0.19				248	
						40	32	28			68	8	17	6					
3N/ 8E- 8E 1 M	7- 3-64	5050	69	8.0	175	11	5	14	1	0	75	1	9	7.8	--	0.00	--	86	48
						0.55	0.41	0.61	0.03		1.23	0.02	0.25	0.13				141	
						34	26	38	2		75	1	15	8					
4N/ 4E-14C 1 M	7- 3-64	5050	72	8.4	1030	--	--	178	--	7	213	--	212	--	--	--	--		62
								7.74		0.23	3.49		5.98						
4N/ 5E- 8H 1 M	7- 3-64	5050	66	8.0	--	--	--	480	--	0	337	--	1960	--	--	--	--		1960
								20.87			5.52		55.27						
4N/ 6E-11P 1 M	7- 3-64	5050	72	8.1	228	--	--	10	--	0	122	--	7	--	--	--	--		88
								0.43			2.00		0.20						
4N/ 7E-23B 3 M	7- 3-64	5050	68	8.1	432	33	17	21	0	0	166	1	43	12.0	--	0.00	--	209	153
						1.65	1.40	0.91			2.72	0.02	1.21	0.19				302	
						42	35	23			66		29	5					
5N/ 5E-33J 1 M	7- 3-64	5050	62	8.0	332	--	--	52	--	0	197	--	9	--	--	--	--		52
								2.26			3.23		0.25						
5N/ 8E-31J 1 M	7- 3-64	5050	71	8.0	188	--	--	12	--	0	89	--	6	--	--	--	--		60
								0.52			1.46		0.17						
1S/ 4E-14M 1 M	6-30-64	5050	66	8.4	1500	--	--	237	--	7	244	--	200	--	--	--	--		166
								10.30		0.23	4.00		5.64						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION																		
SAN JOAQUIN VALLEY					52200 (CONTINUED)						50000							
1S/ 5E-10H 2 M		65	8.5	1150	44	46	108	0	10	235	59	191	0.6	--	0.20	--	574	299
6-30-64 5050					2.20	3.78	4.70		0.33	3.85	1.23	5.39	0.01				703	
					21	35	44		3	36	11	50						
1S/ 6E- 4A 1 M		68	8.3	1990	--	--	139	--	0	178	--	540	--	--	--	--		602
7-23-64 5050							6.04			2.92		15.23						
1S/ 7E-10A 1 M		66	8.3	263	--	--	20	--	0	129	--	11	--	--	--	--		88
7-16-64 5050							0.87			2.11		0.31						
1S/ 9E- 8H 1 M		70	8.1	216	--	--	15	--	0	88	--	11	--	--	--	--		69
7-23-64 5050							0.65			1.44		0.31						
2S/ 4E- 1P 1 M		68	8.2	638	--	--	87	--	0	106	--	50	--	--	--	--		104
6-30-64 5050							3.78			1.74		1.41						
2S/ 5E-22Q 1 M		68	8.0	1510	--	--	148	--	0	224	--	261	--	--	--	--		422
7-23-64 5050							6.44			3.67		7.36						
2S/ 5E-23P 1 M		64	8.1	1960	--	--	192	--	0	237	--	363	--	--	--	--		546
6-30-64 5050							8.35			3.88		10.24						
2S/ 5E-29D 1 M		65	8.2	1860	--	--	186	--	0	277	--	322	--	--	--	--		521
6-30-64 5050							8.09			4.54		9.08						
2S/ 6E-20J 5 M		69	8.3	1610	66	34	198	0	0	167	145	323	2.1	--	0.70	--	851	305
7-23-64 5050					3.29	2.80	8.61			2.74	3.02	9.11	0.03				975	
					22	19	59			18	20	61						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled / Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
CENTRAL VALLEY REGION 50000																		
SAN JOAQUIN VALLEY 52200 (CONTINUED)																		
2S/ 7E-20R 1 M		68	8.5	504	--	--	29	--	7	198	--	20	--	--	--	--		192
7-23-64 5050							1.26		0.23	3.25		0.56						
3S/ 5E- 8L 1 M		74	8.1	846	--	--	71	--	0	155	--	94	--	--	--	--		244
6-30-64 5050							3.09			2.54		2.65						
3S/ 5E-14D 1 M		68	8.2	1340	--	--	125	--	0	132	--	215	--	--	--	--		361
6-30-64 5050							5.44			2.16		6.06						
3S/ 5E-24F 1 M		71	8.3	1350	87	53	103	0	0	184	348	101	40.0	--	0.90	--	823	435
6-30-64 5050					4.34	4.36	4.48			3.02	7.25	2.85	0.65				936	
					33	33	34			22	53	21	5					
3S/ 5E-26M 0 M		75	8.2	1310	--	--	114	--	0	222	--	77	--	--	--	--		435
7-23-64 5050							4.96			3.64		2.17						
3S/ 5E-35B 1 M		74	8.2	1360	65	59	137	0	0	217	394	63	23.0	--	0.90	--	849	405
7-23-64 5050					3.24	4.85	5.96			3.56	8.20	1.78	0.37				764	
					23	35	42			26	59	13	3					
3S/ 6E- 7F 1 M		65	8.1	1760	--	--	220	--	0	198	--	308	--	--	--	--		358
6-30-64 5050							9.57			3.25		8.69						
3S/ 6E-22Q 1 M		72	8.3	647	--	--	63	--	0	167	--	34	--	--	--	--		171
6-30-64 5050							2.74			2.74		0.96						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
							LAHONTAN REGION				60000							
SURPRISE VALLEY					60100													
40N/16E-11G 1 M		--	8.2	212	--	--	13	--	0	132	--	0	--	--	--	--		84
7-15-64 5050							0.57			2.16								
40N/16E-13R 1 M		55	8.3	222	26	6	11	4	0	135	2	1	2.7	--	0.00	--	119	90
7-15-64 5050					1.30	0.49	0.48	0.10		2.21	0.04	0.03	0.04				148	
					55	21	20	4		95	2	1	2					
40N/16E-36F 1 M		--	8.0	298	28	9	21	2	0	167	8	1	5.0	--	0.00	--	156	107
7-15-64 5050					1.40	0.74	0.91	0.05		2.74	0.17	0.03	0.08				188	
					45	24	29	2		91	6	1	3					
40N/17E-20C 1 M		57	8.3	374	26	5	40	6	0	140	36	22	0.6	--	0.10	--	205	86
7-15-64 5050					1.30	0.41	1.74	0.15		2.29	0.75	0.62	0.01				250	
					36	11	48	4		62	20	17						
41N/16E-25C 3 M		58	8.2	186	6	1	34	2	0	83	17	4	0.6	--	0.20	--	106	19
7-15-64 5050					0.30	0.08	1.48	0.05		1.36	0.35	0.11	0.01				148	
					16	4	77	3		74	19	6	1					
41N/16E-35D 2 M		58	7.9	286	26	13	14	2	0	171	4	1	2.6	--	0.00	--	147	119
7-15-64 5050					1.30	1.07	0.61	0.05		2.80	0.08	0.03	0.04				179	
					43	35	20	2		95	3	1	1					
42N/16E- 6R 2 M		--	7.7	325	--	--	13	--	0	189	--	1	--	--	--	--		143
7-15-64 5050							0.57			2.93		0.03						
42N/16E-21L 1 M		--	8.2	232	--	--	22	--	0	141	--	1	--	--	--	--		76
7-15-64 5050							0.96			2.19		0.03						
42N/16E-34F 1 M		--	8.2	338	--	--	57	--	0	211	--	1	--	--	--	--		53
7-15-64 5050							2.48			7.26		0.03						

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MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
LAHONTAN REGION																		
SURPRISE VALLEY					60100 (CONTINUED)						60000							
43N/16E-20B 1 M		--	8.5	283	--	--	59	--	4	152	--	2	--	--	--	--		17
7-15-64	5050						2.56		0.13	2.26		0.07						
43N/16E-33M 3 M		--	8.2	425	--	--	28	--	0	238	--	4	--	--	--	--		167
7-15-64	5050						1.22			7.83		0.13						
44N/16E- 6E 2 M		77	8.3	678	--	--	150	--	0	281	--	73	--	0.8	5.70	--		12
7-15-64	5050						6.52			8.28		1.83						
45N/16E-17D 1 M		--	7.7	282	--	--	10	--	0	167	--	2	--	--	--	--		123
7-15-64	5050						0.43			3.12		0.07						
45N/16E-19Q 1 M		--	8.2	326	42	0	27	3	0	187	7	3	0.3	--	0.10	--	174	105
7-15-64	5050				2.10		1.17	0.08		3.06	0.15	0.08					199	
					63		35	2		93	5	2						
HONEY LAKE VALLEY					60400													
26N/15E- 3F 1 M		67	8.1	209	17	5	18	3	0	107	14	3	0.4	--	0.00	--	113	63
7- 8-64	5050				0.85	0.41	0.78	0.08		1.75	0.29	0.08	0.01				133	
					40	19	37	4		82	14	4						
27N/14E-26E 1 M		--	6.6	192	--	--	17	--	0	68	--	7	--	--	--	--		53
7- 8-64	5050						0.74			1.47		0.18						
28N/13E- 9E 1 M		--	6.9	209	--	--	9	--	0	94	--	4	--	--	--	--		84
7- 8-64	5050						0.39			1.15		0.13						
28N/14E-17B 1 M		--	8.0	420	30	12	44	2	0	243	12	5	1.6	--	0.10	--	226	125
7- 8-64	5050				1.50	0.99	1.91	0.05		3.98	0.25	0.14	0.03				250	
					34	22	43	1		90	6	3	1					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
HONEY LAKE VALLEY					60400	LAHONTAN REGION (CONTINUED)					60000							
28N/17E-18K 1 M		62	8.4	265	--	--	43	--	2	100	--	13	--	--	--	--		27
7- 7-64	5050						1.87		0.07	1.64		0.35						
29N/12E-15A 1 M		--	7.7	212	--	--	13	--	0	122	--	4	--	--	--	--		80
7- 7-64	5050						0.57			2.42		0.13						
29N/13E- 1N 1 M		--	8.2	564	--	--	114	--	0	164	--	23	--	--	--	--		14
7- 7-64	5050						4.96			2.69		0.65						
29N/13E-14G 1 M		--	7.7	576	10	6	103	4	0	196	26	25	37.0	--	0.20	--	308	50
7- 7-64	5050				0.50	0.49	4.48	0.10		3.21	0.54	0.71	0.60				410	
					9	9	80	2		63	11	14	12					
29N/13E-34N 1 M		--	7.2	166	14	6	9	1	0	70	3	2	20.0	--	0.00	--	89	60
7- 8-64	5050				0.70	0.49	0.39	0.03		1.15	0.06	0.06	0.32				149	
					43	30	24	2		72	4	4	20					
29N/14E- 4N 1 M		--	8.1	795	--	--	148	--	0	357	--	25	--	--	--	--		56
7- 7-64	5050						6.44			6.94		0.84						
29N/14E-13R 1 M		--	8.2	1060	--	--	206	--	0	351	--	27	--	--	--	--		94
7- 7-64	5050						8.97			6.83		0.90						
29N/14E-19A 2 M		--	8.1	1830	20	10	377	16	0	481	426	31	41.0	--	2.90	--	1160	91
7- 7-64	5050				1.00	0.82	16.39	0.41		7.88	8.87	0.87	0.66				1260	
					5	4	88	2		43	49	5	4					
29N/15E-21H 1 M		63	8.3	892	--	--	178	--	--	463	--	58	--	--	--	--		47
7- 7-64	5050						7.74			6.76		1.32						

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TABLE B-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
HONEY LAKE VALLEY					60400	LAHONTAN REGION (CONTINUED)						60000							
29N/15E-30A 2 M	7- 7-64	5050	--	8.3	604	--	--	125 5.44	--	0	376 7.67	--	8 0.17	--	--	--	--		45
30N/12E-33N 2 M	7- 8-64	5050	64	7.9	199	--	--	8 0.35	--	0	120 2.35	--	3 0.06	--	--	--	--		90

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
							LAHONTAN REGION					60000							
TAHOE VALLEY						60500													
SOUTH TAHOE VALLEY							60501												
12N/18E- 5L 1 M	9-17-64	5050	--	7.6	97	9	3	6	1	0	59	1	0	0.7	--	0.00	--	50	35
						0.45	0.25	0.26	0.03		0.97	0.02		0.01				90	
						45	25	26	3		97	2		1					
12N/18E- 5P 1 M	9-17-64	5050	--	7.8	84	5	1	13	1	0	49	1	1	0.3	--	0.00	--	46	17
						0.25	0.08	0.57	0.03		0.80	0.02	0.03					64	
						27	9	61	3		94	2	4						
12N/18E-29L 1 M	9-17-64	5050	--	7.7	77	7	1	7	1	0	41	3	1	0.0	--	0.00	--	40	22
						0.35	0.08	0.30	0.03		0.67	0.06	0.03					60	
						46	11	39	4		88	8	4						

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MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
LAHONTAN REGION																			
TAHOE VALLEY						60500													
NORTH TAHOE VALLEY							60502												
14N/16E- 1C 1 M	9-21-64 5050		--	8.1	151	17	6	5	1	0	93	0	2	0.2	--	0.00	--	77	67
						0.85	0.49	0.22	0.03		1.52		0.06					107	
						53	31	14	2		96		4						
14N/16E- 1K 1 M	9-21-64 5050		--	7.9	128	14	5	4	1	0	82	0	3	0.2	--	0.00	--	68	56
						0.70	0.41	0.17	0.03		1.34		0.08					98	
						53	31	13	2		94		6						
14N/17E- 8N 1 M	9-21-64 5050		--	7.7	118	16	1	6	1	0	65	0	3	2.3	--	0.00	--	61	44
						0.80	0.08	0.26	0.03		1.07		0.08	0.04				92	
						68	7	22	3		90		7	3					
15N/16E-24A 1 M	9-21-64 5050		--	8.1	169	19	7	3	1	0	94	1	3	2.7	--	0.00	--	83	77
						0.95	0.58	0.13	0.03		1.54	0.02	0.08	0.04				104	
						56	34	8	2		92	1	5	2					
15N/16E-25C 1 M	9-21-64 5050		--	7.8	139	16	4	4	1	0	72	2	2	5.1	--	0.00	--	70	57
						0.80	0.33	0.17	0.03		1.18	0.04	0.06	0.08				102	
						60	25	13	2		87	3	4	6					
15N/17E- 6J 1 M	9-21-64 5050		--	8.2	175	15	9	5	3	0	106	0	2	2.0	--	0.00	--	88	75
						0.75	0.74	0.22	0.08		1.74		0.06	0.03				113	
						42	41	12	4		95		3	2					
15N/17E- 7E 1 M	9-21-64 5050		--	7.5	168	13	6	6	2	0	46	1	24	2.4	--	0.00	--	77	57
						0.65	0.49	0.26	0.05		0.75	0.02	0.68	0.04				123	
						45	34	18	3		50	1	46	3					
16N/16E-28E 1 M	9-21-64 5050		50	4.6	270	27	3	7	1	0	3	88	14	1.9	--	0.00	--	143	80
						1.35	0.25	0.30	0.03		0.05	1.83	0.39	0.03				199	
						70	13	16	2		2	80	17	1					
16N/16E-32D 1 M	9-21-64 5050		--	8.1	224	33	3	6	1	0	79	28	7	3.0	--	0.00	--	120	95
						1.65	0.25	0.26	0.03		1.29	0.58	0.20	0.05				126	
						75	11	12	1		61	27	9	2					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
LAHONTAN REGION																		
TAHOE VALLEY					60500						60000							
NORTH TAHOE VALLEY						60502 (CONTINUED)												
16N/17E-13H 1 M		--	7.4	121	8	8	3	1	0	68	1	2	2.8	--	0.00	--	59	53
9-21-64 5050					0.40	0.66	0.13	0.03		1.11	0.02	0.06	0.05				75	
					33	54	11	2		90	2	5	4					
16N/17E-14B 1 M		--	8.3	254	26	9	10	4	0	138	0	7	8.0	--	0.00	--	132	102
9-21-64 5050					1.30	0.74	0.43	0.10		2.26		0.20	0.13				174	
					51	29	17	4		87		8	5					
16N/17E-14C 1 M		--	8.3	274	28	11	10	5	0	159	1	4	5.1	--	0.00	--	142	115
9-21-64 5050					1.40	0.90	0.43	0.13		2.61	0.02	0.11	0.08				169	
					49	31	15	5		93	1	4	3					
16N/18E-30B 1 M		--	8.9	636	7	0	114	4	16	51	37	116	2.2	--	2.70	--	324	18
9-21-64 5050					0.35		4.96	0.10	0.53	0.84	0.77	3.27	0.04				402	
					6		92	2	10	15	14	60	1					
CARSON VALLEY					60600													
11N/19E-24B 1 M		--	7.5	138	13	4	9	2	0	78	1	1	5.7	0.0	--	--	74	49
9-17-64 5050					0.65	0.33	0.39	0.05		1.28	0.02	0.03	0.09				97	
					46	23	27	4		90	1	2	6					
11N/19E-35D 2 M		--	7.7	118	12	2	8	2	0	64	8	0	0.2	--	0.00	--	64	38
9-17-64 5050					0.60	0.16	0.35	0.05		1.05	0.17						94	
					52	14	30	4		86	14							
11N/19E-35K 1 M		--	7.6	80	8	2	6	1	0	46	3	0	0.2	--	0.00	--	43	28
9-17-64 5050					0.40	0.16	0.26	0.03		0.75	0.06						78	
					47	19	31	4		93	7							
11N/20E- 7M 1 M		--	7.1	112	12	2	7	2	0	51	3	3	10.0	--	0.00	--	64	38
9-17-64 5050					0.60	0.16	0.30	0.05		0.84	0.06	0.08	0.16				88	
					54	14	27	5		74	5	7	14					

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
						LAHONTAN REGION					60000							
TOPAZ VALLEY					60700													
8N/23E-16P 1 M		--	8.3	251	20	8	21	3	0	141	8	3	4.0	--	0.00	--	136	83
9-17-64	5050				1.00	0.66	0.91	0.08		2.31	0.17	0.08	0.06				157	
					38	25	34	3		88	6	3	2					
8N/23E-28E 3 M		--	8.1	282	18	2	35	1	0	80	43	14	1.1	--	0.20	--	154	53
9-17-64	5050				0.90	0.16	1.52	0.03		1.31	0.90	0.39	0.02				183	
					34	6	58	1		50	34	15	1					
8N/23E-29C 2 M		--	7.5	125	11	4	8	2	0	70	4	2	0.5	--	0.00	--	66	44
9-17-64	5050				0.55	0.33	0.35	0.05		1.15	0.08	0.06	0.01				78	
					43	26	27	4		88	6	5	1					
9N/22E-24D 1 M		--	7.8	143	11	42	13	2	0	77	5	3	0.0	--	0.10	--	114	200
9-17-64	5050				0.55	3.45	0.57	0.05		1.26	0.10	0.08					99	
					12	75	12	1		88	7	6						
9N/22E-24M 1 M		--	8.2	216	20	6	16	2	0	115	10	3	1.4	--	0.00	--	115	75
9-17-64	5050				1.00	0.49	0.70	0.05		1.88	0.21	0.08	0.02				143	
					45	22	31	2		86	10	4	1					
9N/23E-20P 1 M		--	8.2	255	28	7	17	2	0	137	7	4	11.0	--	0.10	--	143	99
9-17-64	5050				1.40	0.58	0.74	0.05		2.25	0.15	0.11	0.18				172	
					51	21	·27	2		84	6	4	7					
9N/23E-30C 2 M		--	8.2	342	12	2	47	3	0	89	19	39	0.2	--	1.70	--	168	38
9-17-64	5050				0.60	0.16	2.04	0.08		1.46	0.40	1.10					204	
					21	6	71	3		49	14	37						
9N/23E-32A 1 M		--	8.3	313	13	4	46	2	0	164	10	4	0.8	--	0.20	--	161	49
9-17-64	5050				0.65	0.33	2.00	0.05		2.69	0.21	0.11	0.01				186	
					21	11	66	2		89	7	4						

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number	Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium No	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
								LAHONTAN REGION											
BRIDGEPORT VALLEY						60800						60000							
4N/24E- 4A 1 M	9-18-64	5050	--	8.7	1470	20	5	284	20	13	389	348	31	0.3	--	0.70	--	913	71
						1.00	0.41	12.35	0.51	0.43	6.38	7.25	0.87					987	
						7	3	87	4	3	43	49	6						
4N/25E- 4B 1 M	9-18-64	5050	--	7.3	835	56	22	77	14	0	190	242	21	0.7	--	0.20	--	526	230
						2.79	1.81	3.35	0.36		3.11	5.04	0.59	0.01				608	
						34	22	40	4		36	58	7						
4N/25E- 4F 1 M	9-18-64	5050	--	7.1	3020	105	30	560	42	0	1100	585	126	0.0	--	3.50	--	1992	386
						5.24	2.47	24.35	1.07		18.03	12.18	3.55					2090	
						16	7	73	3		53	36	11						
5N/25E-25G 1 M	9-18-64	5050	--	7.0	127	14	4	5	2	0	73	6	0	0.1	--	0.00	--	67	52
						0.70	0.33	0.22	0.05		1.20	0.12						80	
						54	25	17	4		91	9							
5N/25E-28K 1 M	9-18-64	5050	--	8.0	450	36	14	30	11	0	228	34	6	0.8	--	0.00	--	244	148
						1.80	1.15	1.30	0.28		3.74	0.71	0.17	0.01				281	
						40	25	29	6		81	15	4						
5N/25E-28Q 1 M	9-18-64	5050	--	7.8	382	29	12	26	10	0	194	26	5	0.8	--	0.00	--	204	122
						1.45	0.99	1.13	0.26		3.18	0.54	0.14	0.01				247	
						38	26	30	7		82	14	4						
9N/24E-13E 1 M	9-18-64	5050	--	7.7	107	12	3	4	2	0	56	5	0	0.5	--	0.00	--	54	43
						0.60	0.25	0.17	0.05		0.92	0.10		0.01				75	
						56	23	16	5		89	10		1					
TRUCKEE VALLEY						66700													
17N/16E- 8M 1 M	9-22-64	5050	48	8.1	129	14	6	4	1	0	82	0	0	0.7	--	0.00	--	66	60
						0.70	0.49	0.17	0.03		1.34			0.01				97	
						50	35	12	2		99			1					
17N/16E-10M 0 M	9-22-64	5050	--	8.3	174	15	9	7	3	0	114	0	0	0.0	--	0.00	--	90	75
						0.75	0.74	0.30	0.08		1.87							107	
						40	40	16	4		100								

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TABLE E-1

MINERAL ANALYSES OF GROUND WATER

State Well Number / Date Sampled Time	Agy. Coll.	Temp. when Sampled °F	pH	Specific conductance (micromhos at 25°C)	Mineral Constituents in milligrams per liter / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in milligrams per liter: Fluoride F	Boron B	Silica SiO_2	TDS Computed Evap 180°C	TOTAL hardness as $CaCO_3$
TRUCKEE VALLEY					66700	LAHONTAN REGION (CONTINUED)					60000							
17N/16E-14F 1 M		--	8.1	127	14	6	3	1	0	81	0	0	0.7	--	0.00	--	65	60
9-22-64 5050					0.70	0.49	0.13	0.03		1.33			0.01				92	
					52	36	10	2		99			1					
17N/16E-15G 1 M		--	8.2	133	14	7	3	1	0	86	0	0	0.8	--	0.00	--	68	64
9-22-64 5050					0.70	0.58	0.13	0.03		1.41			0.01				96	
					49	40	9	2		99			1					
17N/16E-16L 1 M		--	8.1	187	24	5	5	2	0	91	1	11	1.4	--	0.00	--	94	81
9-22-64 5050					1.20	0.41	0.22	0.05		1.49	0.02	0.31	0.02				135	
					64	22	12	3		81	1	17	1					
17N/16E-17F 1 M		--	7.4	148	15	4	6	3	0	76	1	6	1.8	--	0.00	--	74	54
9-22-64 5050					0.75	0.33	0.26	0.08		1.25	0.02	0.17	0.03				106	
					53	23	18	6		85	1	12	2					

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TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number (MDB&M)	Date Sampled	Micromicrocuries per liter	
		Gross Alpha	Gross Beta
CENTRAL VALLEY REGION (NO. 5)			
UPPER LAKE VALLEY (5-13.00)			
15N/9W-6F1	6/ 4/64	-0.32 ± 1.21	- 3.13 ± 12.28
15N/9W-7B	6/ 4/64	-1.39 ± 1.48	0.52 ± 12.61
15N/9W-31P1	6/ 4/64	-0.62 ± 0.36	1.32 ± 10.46
15N/10W-3C1	6/ 4/64	-1.03 ± 1.04	- 9.58 ± 11.68
15N/10W-3J1	6/ 4/64	-0.42 ± 1.92	1.05 ± 11.97
15N/10W-10E1	6/ 4/64	-1.67 ±18.21	-11.92 ± 16.27
15N/10W-12K2	6/ 4/64	0.40 ± 1.23	- 3.33 ± 11.13
15N/10W-13A1	6/24/64	-0.38 ± 0.75	- 5.54 ± 11.15
16N/9W-31L3	6/24/64	-0.58 ± 1.03	5.67 ± 11.93
KELSEYVILLE VALLEY (5-15.00)			
13N/9W-2K2	6/ 4/64	-1.49 ± 1.20	- 0.66 ± 12.33
13N/9W-3C1	6/ 4/64	-1.21 ± 0.51	14.18 ± 12.86
13N/9W-6C1	6/24/64	-1.86 ± 0.88	6.40 ± 13.48
13N/9W-8C1	6/11/64	-0.60 ± 2.26	-11.14 ± 13.38
13N/9W-8N1	6/11/64	-0.55 ± 1.40	- 6.77 ± 11.84
13N/9W-16D1	6/24/64	-0.41 ± 3.29	2.65 ± 15.27
13N/9W-16D2	6/24/64	0.15 ± 0.83	- 3.85 ± 9.59
13N/9W-22J1	6/24/64	-0.62 ± 0.38	- 4.39 ± 10.73
14N/9W-32J1	6/24/64	-1.21 ± 0.75	-25.32 ± 11.42
14N/9W-32J2	6/ 4/64	-1.59 ± 0.78	- 5.88 ± 12.75

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
CENTRAL VALLEY REGION (NO. 5)					
MOHAWK VALLEY (5-11.00)					
22N/12E-9Q1	8/25/64	-0.83 ± ---	-0.48 ± ---	3.68 ± 10.17	-4.31 ± ---
22N/13E-19N1	8/25/64	1.49 ± 1.64	3.08 ± 1.63	-0.21 ± ---	-1.30 ± ---
22N/14E-14F	8/25/64	0.06 ± 1.11	0.15 ± 0.81	-7.62 ± ---	5.54 ± 8.89
22N/15E-11F1	8/25/64	-1.05 ± ---	-3.16 ± ---	8.04 ± 10.36	-2.25 ± ---
22N/15E-12B1	8/25/64	-0.82 ± ---	0.82 ± 1.09	3.46 ± 8.40	2.27 ± 8.76
22N/15E-17C3	8/25/64	1.78 ± 2.58	0.00 ± ---	-4.00 ± ---	8.41 ± 9.21
22N/15E-26K2	8/25/64	2.00 ± 6.26	1.26 ± 1.09	3.23 ± 11.89	-1.83 ± ---
22N/16E-5N2	8/25/64	0.00 ± ---	0.30 ± 0.89	0.00 ± ---	2.46 ± 8.67
22N/16E-19E1	8/25/64	-0.81 ± ---	-0.30 ± ---	4.33 ± 10.40	7.13 ± 8.39
23N/13E-30R1		0.00 ± ---	0.37 ± 0.89	-0.76 ± ---	-1.62 ± ---
23N/14E-25G2	8/25/64	1.02 ± 2.03	0.15 ± 0.63	-6.40 ± ---	4.93 ± 8.41
23N/14E-35L1	8/25/64	0.89 ± ---	0.00 ± ---	9.62 ± 11.53	4.78 ± 9.01

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
MOHAWK VALLEY (5-11.00) - Continued					
23N/15E-28H4	8/25/64	-0.36 ± ---	-0.48 ± ---	-0.04 ± ---	0.98 ± 7.70
23N/15E-35C1	8/25/64	-0.59 ± ---	1.41 ± 1.21	1.60 ± 9.44	4.57 ± 8.89
SIERRA VALLEY (5-12.00)					
20N/14E-4G2	8/26/64	-1.14 ± ---	0.00 ± ---	4.09 ± 10.51	-3.77 ± ---
21N/14E-22L1	8/26/64	-0.10 ± ---	-0.08 ± ---	26.80 ± 12.50	2.30 ± 8.99
21N/14E-29J1	8/26/64	0.00 ± ---	-0.22 ± ---	-4.72 ± ---	25.91 ± 10.05
21N/14E-36K1	8/26/64	-0.11 ± 0.84	0.18 ± 0.81	-15.23 ± 11.27	-6.54 ± 8.40
21N/15E-5D1	8/26/64	1.33 ± 4.56	0.04 ± 0.71	-2.87 ± 13.90	-2.55 ± 8.57
21N/15E-9Q3	8/25/64	-1.16 ± ---	-0.11 ± ---	9.62 ± 9.41	-2.22 ± ---
BUTTE COUNTY (5-21.03)					
17N/1E-1R1	8/ 5/64	0.43 ± 2.80	0.45 ± 0.64	4.50 ± 10.67	-2.75 ± ---
17N/2E-2D1		0.39 ± 1.33	-0.26 ± ---	3.99 ± 10.09	-3.36 ± ---

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
		BUTTE COUNTY (5-21.03) - Continued			
17N-3E-4D1		0.84 ± 1.55	-0.07 ± ---	-2.31 ± ---	9.38 ± 8.96
17N/3E-18Q1		9.03 ± 5.44	-0.20 ± ---	-0.56 ± ---	7.12 ± 9.41
17N/4E-20P	8/ 3/64	-1.02 ± ---	0.22 ± 0.49	6.01 ± 14.67	-3.25 ± ---
18N/1E-14R1	8/ 3/64	-1.23 ± ---	-0.15 ± ---	3.66 ± 10.46	-3.65 ± ---
18N/2E-12B1		-0.12 ± ---	-0.07 ± ---	-2.94 ± ---	-1.68 ± ---
18N/3E-16P2		1.11 ± 2.78	-0.26 ± ---	2.61 ± 10.15	5.48 ± 8.89
18N/4E-21P1	8/18/64	-0.30 ± ---	0.86 ± 1.03	0.45 ± 10.41	-9.62 ± ---
18N/4E-28M	8/18/64	3.16 ± 4.54	0.04 ± 0.52	10.00 ± 26.47	-8.45 ± ---
19N/2E-16R1	8/ 3/64	0.00 ± ---	-0.11 ± ---	0.90 ± 9.58	1.57 ± 8.16
19N/4E-6P1	9/ 8/64	-0.49 ± ---	-0.56 ± ---	-5.67 ± ---	-0.81 ± ---
20N/1E-4H	8/21/64	-1.30 ± ---	-0.33 ± ---	5.66 ± 10.79	-5.42 ± ---
20N/2E-29R1	10/24/64	0.00 ± ---	0.22 ± 0.73	-8.30 ± ---	2.33 ± 7.70
20N/3E-15H1	9/10/64	0.49 ± 1.08	0.04 ± 0.81	-1.40 ± ---	-5.70 ± ---

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
BUTTE COUNTY (5-21.03) - Continued					
21N/1W-26Q1	9/25/64	-0.93 ± ---	-0.56 ± ---	-21.11 ± ---	-9.36 ± ---
21N/2E-30C1	9/29/64	-0.55 ± ---	-0.52 ± ---	-7.06 ± ---	1.54 ± 7.75
21N/3E-10Q1	9/ 8/64	-0.41 ± ---	0.18 ± 0.63	0.28 ± 9.39	-21.18 ± ---
22N/1E-9M1	9/25/64	-0.80 ± ---	-0.37 ± ---	-8.06 ± ---	-2.27 ± ---
22N/2E-18J1	9/ 8/64	0.38 ± 1.07	0.30 ± 0.81	0.85 ± 9.51	1.25 ± 8.58
23N/1W-9L1	9/27/64	-0.44 ± ---	-0.37 ± ---	-9.05 ± ---	-5.16 ± ---
23N/1E-32K1	9/27/64	-0.05 ± ---	-0.41 ± ---	-4.93 ± ---	3.28 ± 8.98
SAN JOAQUIN VALLEY (5-22.00)					
2S/5E/22Q1	6/4/64	2.42 ± 5.70	-0.51 ± 0.47	-3.35 ± 14.30	-11.85 ± 8.32

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
LAHONTAN REGION (NO. 6)					
SOUTH TAHOE VALLEY (6-5.01)					
12N/18E-3A1	9/16/64	0.00 ± ---	0.26 ± 0.88	0.00 ± ---	0.00 ± ---
12N/18E-3C1	9/16/64	2.06 ± 1.46	0.86 ± 0.89	3.12 ± 8.21	9.54 ± 8.89
12N/18E-3F1	9/16/64	0.24 ± 2.62	2.19 ± 1.25	19.70 ± 9.81	0.00 ± ---
12N/18E-3J1	9/16/64	0.04 ± 0.09	0.00 ± ---	-0.64 ± 3.22	38.00 ± 4.69
12N/18E-5L1	9/16/64	0.14 ± 0.62	0.15 ± 0.40	-1.62 ± ---	3.97 ± 8.29
12N/18E-5P1	9/16/64	0.73 ± 1.05	-0.11 ± ---	3.26 ± 9.00	-1.71 ± ---
CARSON VALLEY (6-6.00)					
11N/19E-24B1	9/16/64	-0.53 ± ---	0.04 ± 0.63	-1.72 ± ---	0.43 ± 7.70
11N/19E-35D2	9/16/64	0.84 ± 1.28	-0.11 ± ---	-4.03 ± ---	0.79 ± 8.87
11N/19E-35K1	9/16/64	0.29 ± 1.07	0.00 ± ---	0.00 ± ---	0.23 ± 7.70
11N/20E-7M1	9/16/64	-0.63 ± ---	-0.63 ± ---	-2.27 ± ---	-4.61 ± ---

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
		TOPAZ VALLEY (6-7.00)			
8N/23E-16P1	9/17/64	17.28 ± 5.39	-0.17 ± 0.43	-1.28 ± 12.94	8.45 ± 8.65
8N/23E-28E3	9/17/64	7.20 ± 3.27	0.04 ± 0.73	0.00 ± ---	4.40 ± 8.96
8N/23E-29C2	9/17/64	0.86 ± 1.55	-0.51 ± 0.47	-9.33 ± 10.94	-3.74 ± 7.60
9N/22E-24D1	9/17/64	-0.16 ± ---	0.26 ± 0.89	6.68 ± 10.01	-2.59 ± ---
9N/22E-24M1	9/17/64	-0.35 ± 1.15	0.42 ± 0.80	14.25 ± 11.88	7.99 ± 8.69
9N/23E-20P1	9/17/64	2.45 ± 1.86	0.16 ± 0.81	12.74 ± 10.74	-5.41 ± 8.51
9N/23E-30C2	9/17/64	0.06 ± 1.22	-0.32 ± 0.61	1.99 ± 11.38	-2.88 ± 7.60
9N/23E-32A1	9/17/64	6.60 ± 3.44	0.43 ± 0.90	10.50 ± 11.37	-6.03 ± 8.54
		BRIDGEPORT VALLEY (6-8.00)			
4N/24E-4A1	9/18/64	0.58 ± 2.65	-0.22 ± 0.44	22.79 ± 15.64	-1.30 ± 8.61
4N/24E-13E1	9/18/64	0.80 ± 1.57	-0.38 ± 0.97	4.01 ± 10.21	-5.49 ± 10.71
4N/25E-4B1	9/18/64	2.10 ± 4.21	0.22 ± 0.63	9.00 ± 12.60	-2.70 ± ---

TABLE E-2

RADIOASSAYS OF GROUND WATER
1964

Well Number	Date Sampled	Micromicrocuries per liter			
		Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
BRIDGEPORT VALLEY (6-8.00) - Continued					
4N/25E-4F1	9/18/64	0.38 ± 2.15	0.56 ± 0.89	7.58 ± 10.56	7.93 ± 8.81
5N/24E-25G1	9/18/64	-1.15 ± ---	0.22 ± 0.89	1.41 ± 9.64	3.83 ± 7.82
5N/25E-28K1	9/18/64	7.94 ± 4.29	-0.37 ± ---	-2.48 ± ---	1.77 ± 8.53
5N/25E-28Q1	9/18/64	2.42 ± 2.35	0.33 ± 0.89	-1.50 ± ---	4.17 ± 8.82

TABLE E-3

TRACE ELEMENT ANALYSES OF GROUND WATER
1964

State Well Number (MDB & M)	Date Sampled	Constituents in parts per million						
		Alumi-num	Arsenic	Copper	Iron (total)	Lead	Manga-nese	Zinc
REDDING BASIN (5-6)								
29N/4W-2M1	8-25-64	0.06	0.00	0.00	0.00	0.01	0.00	0.01
30N/3W-4M1	8-25-64	0.08	0.00	0.00	0.00	0.00	0.00	0.10
30N/3W-34D1	8-25-64	0.00	0.00	0.00	0.01	0.00	0.00	0.04
30N/4W-1E1	8-26-64	0.08	0.00	0.00	0.00	0.00	0.00	0.01
30N/4W-16H2	8-25-64	0.03	0.00	0.00	0.00	0.00	0.00	0.02
30N/5W-15R1	8-25-64	0.01	0.00	0.00	0.14	0.00	0.00	0.05
30N/5W-17R1	8-25-64	0.00	0.00	0.02	0.00	0.00	0.00	0.22
31N/3W-7K1	8-25-64	0.01	0.00	0.00	0.02	0.00	0.00	0.00
31N/3W-12E1	8-25-64	0.00	0.00	0.00	0.01	0.01	0.00	0.02
31N/4W-7A1	8-26-64	0.00	0.01	0.00	0.06	0.00	0.00	0.06
31N/4W-15B1	8-26-64	0.00	0.00	0.00	0.13	0.00	0.00	0.08
31N/4W-16Q1	8-26-64	0.00	0.00	0.00	0.07	0.00	0.00	0.01
31N/5W-13D1	8-25-64	0.01	0.00	0.02	0.09	0.00	0.00	0.05
31N/5W-25K1	8-25-64	0.02	0.00	0.00	0.67	0.00	0.00	0.07
32N/3W-17E2	8-26-64	0.00	0.00	0.02	0.48	0.00	0.00	0.02
32N/3W-20P1	8-26-64	0.15	0.00	0.00	0.58	0.00	0.00	0.11
32N/3W-32J2	8-26-64	0.00	0.00	0.00	0.00	0.00	0.00	0.03
32N/3W-35C1	8-25-64	0.01	0.00	0.00	0.00	0.00	0.00	0.02
32N/4W-14F2	8-26-64	0.31	0.01	0.00	3.2	0.00	0.00	0.18
32N/4W-34P1	8-26-64	0.02	0.00	0.00	0.22	0.01	0.00	0.06
32N/5W-26M1	8-26-64	0.00	0.00	0.00	0.00	0.00	0.00	0.03

TABLE E-3

TRACE ELEMENT ANALYSES OF GROUND WATER
1964

State Well Number (MDB&M)	Date Sampled	Constituents in parts per million						
		Aluminum	Arsenic	Copper	Iron (total)	Lead	Manganese	Zinc
CENTRAL VALLEY REGION (NO. 5)								
LAKE ALMANOR VALLEY (5-7)								
28N/7E-5L1	8/19/64	0.01	0.00	0.01	0.01	0.00	0.00	0.27
28N/7E-5N1	8/19/64	0.03	0.01	0.00	0.89	0.00	0.00	0.21
28N/7E-7A1	8/19/64	0.01	0.01	0.01	0.07	0.00	0.00	0.10
28N/7E-7H1	8/19/64	0.10	0.00	0.00	0.18	0.00	0.00	1.7
28N/7E-18B1	8/19/64	0.07	0.00	0.01	2.3	0.00	0.01	0.47
28N/7E-18D1	8/19/64	0.02	0.00	0.00	0.01	0.00	0.00	0.99
28N/7E-18M1	8/19/64	0.00	0.01	0.00	0.01	0.00	0.00	0.70
INDIAN VALLEY (5-9)								
27N/9E-35P1	8/19/64	0.01	0.00	0.01	0.10	0.00	0.00	0.33
26N/10E-4E1	8/19/64	0.05	0.00	0.00	2.5	0.01	0.00	0.92
26N/10E-6E1	8/19/64	0.65	0.01	0.04	6.3	0.06	0.00	0.37
26N/10E-16P1	8/19/64	0.04	0.01	0.00	1.3	0.00	0.01	0.02
26N/10E-18M1	8/19/64	0.04	0.00	0.00	0.10	0.00	0.00	0.55
26N/10E-23A1	8/19/64	0.02	0.00	0.02	0.09	0.02	0.00	3.5
26N/10E-27R1	8/19/64	0.00	0.00	0.00	0.03	0.00	0.00	0.10
26N/10E-28M1	8/19/64	0.02	0.00	0.00	0.01	0.00	0.00	0.00
26N/10E-30F1	8/19/64	0.09	0.01	0.00	0.02	0.00	0.00	0.00

TABLE E-3

TRACE ELEMENT ANALYSES OF GROUND WATER
1964

State Well Number (MDB&M)	Date Sampled	Constituents in parts per million						
		Aluminum	Arsenic	Copper	Iron (total)	Lead	Manganese	Zinc
AMERICAN VALLEY (5-10)								
24N/9E-2A1	8/20/64	0.08	0.01	0.00	8.9	0.00	0.00	0.82
24N/9E-10H1	8/20/64	0.02	0.00	0.00	0.90	0.00	0.00	0.01
24N/9E-10L1	8/20/64	0.15	0.00	0.00	0.06	0.00	0.00	0.07
24N/9E-16H1	8/20/64	0.02	0.00	0.00	0.31	0.00	0.00	0.34
24N/10E-6N1	8/20/64	0.00	0.00	0.00	0.06	0.00	0.00	0.20
24N/10E-8L1	8/20/64	0.00	0.00	0.00	1.0	0.01	0.00	1.9
24N/10E-18D1	8/20/64	0.00	0.00	0.01	0.12	0.00	0.00	1.1
24N/10E-19B1	8/20/64	0.00	0.00	0.03	0.27	0.00	0.00	1.7
24N/10E-19D1	8/20/64	0.01	0.00	0.00	0.20	0.00	0.00	2.9
24N/10E-20D1	8/20/64	0.01	0.00	0.10	0.02	0.00	0.00	0.04
HIGH VALLEY (5-16)								
14N/8W-23K1	6/ 3/64	0.04	0.00	0.02	1.2	0.00	0.33	0.09
14N/8W-24B2	6/ 3/64	0.22	0.00	0.00	1.4	0.00	0.00	0.02
14N/8W-24L1	6/ 3/64	0.22	0.00	0.00	27	0.00	0.00	0.03
BURNS VALLEY (5-17)								
13N/7W-15N1	6/ 2/64	0.06	0.00	0.00	0.16	0.00	0.00	0.28
13N/7W-21B1	6/ 2/64	0.08	0.00	0.02	0.67	0.01	0.00	0.97
13N/7W-21H1	6/ 2/64	0.09	0.00	0.00	10.	0.00	0.00	0.01
13N/7W-21J1	6/ 2/64	0.05	0.00	0.00	1.8	0.00	0.00	2.2
13N/7W-22B2	6/ 3/64	0.13	0.00	0.00	0.03	0.00	0.00	0.11

TABLE E-3

TRACE ELEMENT ANALYSES OF GROUND WATER
1964

State Well Number (MDB & M)	Date Sampled	Constituents in parts per million						
		Alumi-num	Arsenic	Copper	Iron (total)	Lead	Manga-nese	Zinc
SACRAMENTO VALLEY (5-21)								
COLUSA COUNTY								
13N/1E-22J1	6-16-64	0.00	0.00	0.00	0.00	0.00	0.03	0.09
13N/1W-7A1	5-28-64	0.01	0.00	0.00	0.08	0.00	0.00	0.36
13N/1W-8B1	5-28-64	0.05	0.00	0.00	0.12	0.00	0.00	0.00
13N/1W-15R2	5-28-64	0.00	0.02	0.01	0.09	0.00	0.01	0.03
13N/1W-36Q2	6-16-64	0.00	0.01	0.00	0.01	0.00	0.00	0.13
13N/2W-10R1	5-28-64	0.02	0.00	0.00	0.01	0.00	0.00	0.00
13N/2W-15D1	5-28-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13N/2W-22G1	5-28-64	0.12	0.00	0.00	1.9	0.01	0.00	0.59
13N/2W-29R1	5-28-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14N/1E-18A1	6-16-64	1.1	0.00	0.04	1.3	0.01	0.05	0.08
14N/1W-2D1	6-16-64	0.00	0.01	0.00	0.12	0.00	0.32	0.01
14N/1W-12A1	6-16-64	0.02	0.02	0.00	0.02	0.00	0.02	0.00
14N/1W-31Q1	5-28-64	0.10	0.00	0.00	0.18	0.02	0.00	0.01
14N/2W-29J1	5-28-64	0.64	0.00	0.02	0.71	0.01	0.12	0.04
14N/2W-35P1	5-28-64	0.01	0.00	0.00	0.04	0.01	0.00	0.00
15N/2W-32R1	5-28-64	0.01	0.00	0.00	0.01	0.00	0.00	0.05
15N/4W-25P1	5-28-64	0.03	0.00	0.00	0.19	0.03	0.00	2.6
16N/1W-29J1	5-28-64	0.00	0.01	0.00	0.17	0.00	0.09	0.02
16N/2W-4H1	5-28-64	0.00	0.01	0.00	0.03	0.00	0.00	0.02
16N/2W-35B1	5-28-64	0.01	0.02	0.00	0.13	0.01	0.01	0.04
16N/3W-9N1	5-28-64	0.00	0.02	0.00	0.01	0.00	0.00	0.85
17N/1W-6R1	6-16-64	0.00	0.02	0.00	0.07	0.00	0.15	0.01

TABLE E-3

TRACE ELEMENT ANALYSES OF GROUND WATER
1964

State Well Number (MDB & M)	Date Sampled	Constituents in parts per million						
		Alumi-num	Arsenic	Copper	Iron (total)	Lead	Manga-nese	Zinc
COLUSA COUNTY (cont.)								
17N/2W-12C1	5-28-64	0.00	0.01	0.00	0.10	0.00	0.00	0.02
17N/3W-33R1	5-28-64	0.00	0.02	0.00	0.02	0.00	0.00	0.02

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