1971

Water Resources Data for Colorado

Part 2. Water Quality Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Colorado
and with other agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
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NOVEMBER 1970

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29	30					

DECEMBER 1970

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JANUARY 1971

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31						

FEBRUARY 1971

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28						

MARCH 1971

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28	29	30	31			

APRIL 1971

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MAY 1971

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30	31					

JUNE 1971

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JULY 1971

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25	26	27	28	29	30	31

AUGUST 1971

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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER 1971

S	M	T	W	T	F	S
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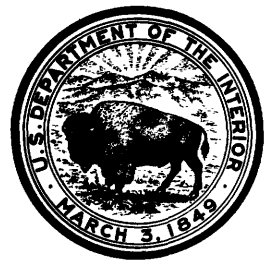
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

1971

Water Resources Data for Colorado

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Colorado and with other agencies

Prepared in cooperation with

Colorado Water Conservation Board
Bureau of Reclamation, U.S. Department of the Interior
Environmental Protection Agency

Water resources records, 1971, for Colorado are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Colorado
   Part 1: Surface Water Records

2. Water Resources Data for Colorado
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Denver Federal Center
Lakewood, Colorado 80225

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[*Letters after station name designate type of data: (c), chemical; (t), water temperature; (s), sediment*]

Water Resources Data for Colorado, 1971

Part 2: Water Quality Records

INTRODUCTION

Water-resources investigations of the U.S. Geological Survey include the collection of water quality data on the chemical and physical characteristics of surface- and ground-water supplies of the Nation. These water quality data for surface waters in Colorado for the 1971 water year are presented in this report. Data for a few water-quality stations in bordering States are also included. The data were collected by the Water Resources Division of the U.S. Geological Survey under the direction of E. A. Moulder, district chief, Water Resources Division.

Water quality information is presented for chemical quality, fluvial sediment, and water temperatures. The chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium-adsorption-ratio, specific conductance, and pH. Fluvial sediment information is given for suspended-sediment discharges and concentrations and for particle size distribution of suspended sediment and bed material. Water temperature data represent once-daily observations except for stations where a continuous temperature recorder furnishes information from which daily minimums and maximums are obtained.

The Geological Survey has published an annual series of water-supply papers, "Quality of Surface Waters of the United States," since 1941 which contain the chemical quality, temperature, and fluvial sediment data of the water. Each volume covers an area whose boundaries coincides with those of certain natural drainage areas. Beginning with the 1964 water year, water quality records for surface and ground water obtained by the Geological Survey were published in a new series of annual releases on a state boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year and to meet local needs. These records will be published later in Geological Survey Water-Supply Papers.

COOPERATION

Most data in this report were obtained as part of the Federal Program of the U.S. Geological Survey or in cooperation with the Bureau of Reclamation, U.S. Department of the Interior, and the Environmental Protection Agency. Investigations of some ground water and surface water were made under cooperative agreement between the U.S. Geological Survey and the Colorado Water Conservation Board, F. L. Sparks, director.

DEFINITION OF TERMS

The terms and abbreviations of water-quality and hydrologic data as used in the text and tabular data of this report, are as follows:

Acre-foot (ac-ft) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or 325,851 gallons.

Cfs-days is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It equals 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

Cubic feet per second (cfs, CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge, in its simplest concept, means outflow; therefore, the use of this term is not restricted as to course or location. In this report, it represents the total fluids measured in the stream.

Daily mean discharge is the mean discharge for one day.

Mean daily discharge is the arithmetic mean discharge for the same day during a specific period of years.

Mean discharge is the arithmetic mean of individual daily mean discharge during a specific period.

Instantaneous discharge (at time of sampling). If the discharge at the time of sampling is reported instead of the daily mean, the heading of the discharge column is "Discharge (cfs)."

Drainage area of a stream at a specified location is that area, measured in horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (ug/l,UG/L) is a more precise unit for expressing the concentration of chemical constituents in solution. One thousand micrograms per liter is equivalent to one milligram per liter. See below.

Milligrams per liter (mg/l,MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandths of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 4. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 5.

Particle size is the diameter, in millimeters (mm) of suspended sediment or bed material determined by sieve and sedimentation methods.

Particle size classification agrees closely with recommendations made by the American Geophysical Union Subcommittee on sediment terminology (Lane and others, 1947, p. 937). The classification is as follows:

Clay:	Smaller than 0.004 mm.
Silt:	Between 0.004 and 0.062 mm.
Sand:	Between 0.062 and 2.0 mm.
Gravel:	Between 2.0 and 64.0 mm.

The particle size distributions given in this report are not necessarily representative of the particle sizes of sediment in transport in the natural stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis of the silt and clay.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})...	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as NH_4^{+1}..	.05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*...	.14411
Bromide (Br^{-1})....	.01251	Magnesium (Mg^{+2})..	.08226
Calcium (Ca^{+2})....	.04990	Manganese (Mn^{+2})*.	.03640
Carbonate (CO_3^{-2}).	.03333	Nickel (Ni^{+2})*....	.03406
Chloride (Cl^{-1})...	.02821	Nitrate (NO_3^{-1})...	.01613
Chromium (Cr^{+6})*..	.11539	Nitrite (NO_2^{-1})...	.02174
Cobalt (Co^{+2})*....	.03394	Phosphate (PO_4^{-3}).	.03159
Copper (Cu^{+2})*....	.03148	Potassium (K^{+1})...	.02557
Cyanide (CN^{-1})*...	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1})....	.05264	Strontium (SR^{+2})*.	.02283
Hydrogen (H^{+1})....	.99209	Sulfate (SO_4^{-2})...	.02082
Hydroxide (OH^{-1})..	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-717	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time (Colby and Hembree, 1955).

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. The following general relations are applicable:

$$\text{Specific conductance} \times (0.65 \pm 0.05) = \text{mg/l dissolved solids};$$

$$\frac{\text{Specific conductance}}{100} = \frac{\text{total epm}}{2}$$

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Water year in Geological Survey reports dealing with surface water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1971, is called the "1971 water year."

Weighted average is used in this report to indicate the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

SPECIAL NETWORKS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual water-supply paper series, "Quality of Surface Water for Irrigation, Western States."

DOWNSTREAM ORDER AND STATION NUMBERS

A station number has been assigned as an added means of identification for each stream location where regular measurements of streamflow and determinations of water quality have been made. The numbers have been assigned in the same downstream order used in the annual series of water-supply papers. In assigning station numbers, no distinction is made between surface water gaging stations and water quality record stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive.

The complete 8-digit number for each station, such as 06754000, includes the part number "06" and a 6-digit station number. This complete number appears just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

COLLECTION AND EXAMINATION OF DATA

Samples of surface water ordinarily were obtained at or near gaging stations because water-discharge data are essential for computation and interpretation of water-quality records. Samples taken daily were taken by local observers trained and supervised by personnel of the Geological Survey. Samples taken less frequently than daily generally were taken by Geological Survey personnel or by personnel of cooperating agencies. The map (figure 1) shows the location of the surface-water stations sampled in 1971.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.00 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.00 g/ml, values in parts per million should be multiplied by the density to covert to milligrams per liter. (See table 2 on page 6.) To covert temperature in degrees Fahrenheit to degrees Celsius, see table 3, page 9.

Table 3.--Degrees Fahrenheit (°F) to degrees Celsius (°C)*
(Temperature reported to nearest 0.5°C)

°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
32	0.0	50	10.0	68	20.0	86	30.0	104	40.0
33	.5	51	10.5	69	20.5	87	30.5	105	40.5
34	1.0	52	11.0	70	21.0	88	31.0	106	41.0
35	1.5	53	11.5	71	21.5	89	31.5	107	41.5
36	2.0	54	12.0	72	22.0	90	32.0	108	42.0
37	3.0	55	13.0	73	23.0	91	33.0	109	43.0
38	3.5	56	13.5	74	23.5	92	33.5	110	43.5
39	4.0	57	14.0	75	24.0	93	34.0	111	44.0
40	4.5	58	14.5	76	24.5	94	34.5	112	44.5
41	5.0	59	15.0	77	25.0	95	35.0	113	45.0
42	5.5	60	15.5	78	25.5	96	35.5	114	45.5
43	6.0	61	16.0	79	26.0	97	36.0	115	46.0
44	6.5	62	16.5	80	26.5	98	36.5	116	46.5
45	7.0	63	17.0	81	27.0	99	37.0	117	47.0
46	8.0	64	18.0	82	28.0	100	38.0	118	48.0
47	8.5	65	18.5	83	28.5	101	38.5	119	48.5
48	9.0	66	19.0	84	29.0	102	39.0	120	49.0
49	9.5	67	19.5	85	29.5	103	39.5	121	49.5

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Solutes

The methods of collecting water samples and of compositing daily samples prior to laboratory analysis are described in a manual by Eugene Brown and others (1970). No single method of compositing of daily samples is applicable for all water-quality stations; the method used depends on the type of water problem being studied at the station. Generally, only samples having similar dissolved-solids content, indicated by measurements of conductivity, are included in any given composite. At sites where water-quality data were collected less frequently than daily, the data may represent conditions only at the time of sampling. For such sites, however, observations obtained over a period of years show relations that are useful in predicting the long-term water-quality characteristics.

Temperature

Water temperatures were measured at most of the water-quality stations. For daily stations, the water temperatures were taken at about the same time each day in order that the data would be relatively unaffected by diurnal variations in water temperature. Most large swiftly flowing streams probably have a small diurnal variation in water temperature, whereas sluggish or shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. The thermometers used for determining the water temperature were accurate to plus or minus 0.5°C.

At stations where thermographs are located, the records consist of maximum and minimum temperatures for each day and the monthly averages of maximum daily and minimum daily temperatures.

Sediment

Suspended-sediment samples generally were collected periodically with depth-integrating cable-suspended or hand samplers at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and the bed material are included.

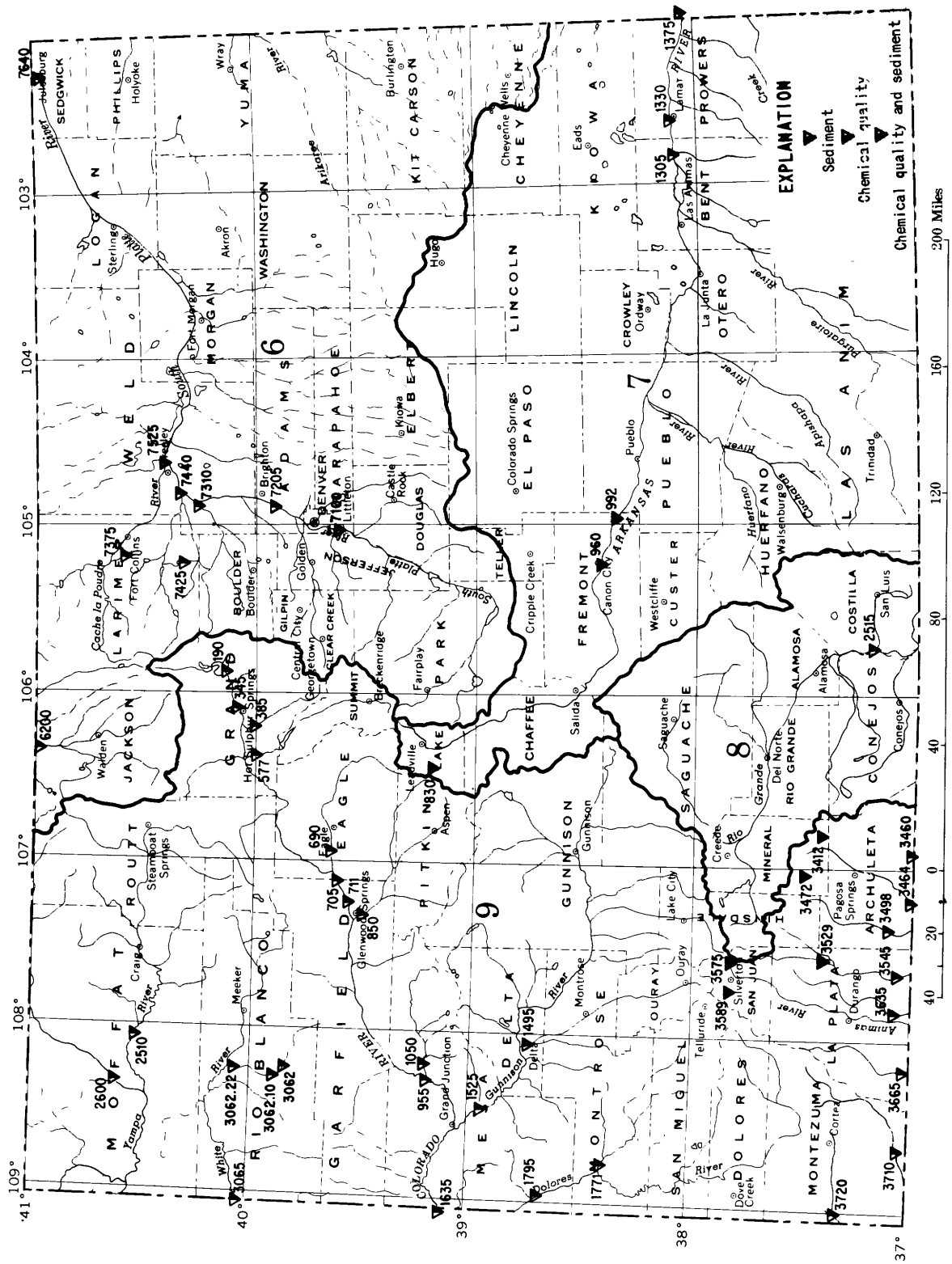

Figure 1.—Map of Colorado showing locations of sites where data on quality of surface water were obtained during the water year. Water-temperature data were obtained daily at some of these sites.

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PART 6. MISSOURI RIVER BASIN

PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, at gaging station at bridge on State Highway 125, 0.8 mile upstream from Camp Creek, 4.2 miles northwest of Northgate, and 4.4 miles south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1966.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
04...	153	13.0	7.1	29	5.2	14	2.0	122	26	2.1	.7
NOV.											
04...	180	--	12	37	5.6	17	1.1	140	29	4.6	.7
DEC.											
01...	146	--	12	32	8.1	14	2.0	134	30	4.6	.6
JAN.											
07...	93	.0	14	29	7.1	14	1.6	128	21	3.2	.7
MAR.											
03...	102	--	15	32	6.2	14	1.6	128	21	3.2	.6
APR.											
14...	1760	7.0	9.4	24	4.1	12	4.7	98	18	5.2	.4
MAY											
04...	1290	12.0	10	24	5.1	10	2.2	92	22	3.9	.4
26...	678	8.0	11	29	6.8	16	1.8	122	30	5.0	.4
JUNE											
09...	1270	12.0	13	30	8.8	17	2.2	140	24	3.1	.5
JULY											
07...	937	14.0	9.9	33	7.9	15	.9	149	18	1.1	.4
AUG.											
04...	390	--	8.4	25	4.0	12	.9	103	17	.8	.4

DATE	NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.										
04...	.0	40	146	.21	64.4	95	0	.6	249	8.3
NOV.										
04...	.0	80	176	.25	88.5	120	5	.7	295	8.0
DEC.										
01...	.2	40	169	.23	67.8	110	D	.6	274	8.2
JAN.										
07...	.2	20	154	.21	39.7	100	0	.6	273	7.4
MAR.										
03...	.4	10	157	.21	43.0	100	0	.6	249	7.5
APR.										
14...	.4	30	126	.17	608	78	0	.6	204	7.6
MAY										
04...	.6	20	123	.17	446	80	5	.5	192	7.8
26...	.4	50	160	.22	297	100	D	.7	257	7.8
JUNE										
09...	.6	50	168	.24	604	110	0	.7	273	7.8
JULY										
07...	.3	40	160	.23	425	120	0	.6	274	7.8
AUG.										
04...	.2	20	120	.17	128	80	0	.6	203	7.8

06710000 SOUTH PLATTE RIVER AT LITTLETON, COLO.

LOCATION.--Lat 39°37'08", long 105°01'07", in NE¼ sec.17, T.5 S., R.68 W., Arapaho County, temperature recorder at gaging station 200 ft downstream from Crestline Avenue Bridge at Littleton and 3.1 miles upstream from Bear Creek.

DRAINAGE AREA.--3,069 sq mi.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	17.0	8.5	8.0	6.0	5.0	2.0	0.0	5.5	3.0	3.0	0.0
2	19.0	16.0	9.0	6.5	5.5	3.0	0.5	0.0	6.0	1.0	4.5	0.0
3	20.0	16.0	11.0	6.5	4.0	3.0	0.5	0.5	3.5	1.0	5.0	0.0
4	19.0	16.0	11.0	6.0	4.5	3.5	1.0	0.0	3.5	1.0	7.5	0.0
5	19.5	16.0	10.5	6.0	4.5	4.0	1.5	0.0	2.0	0.5	3.5	0.5
6	18.5	16.0	11.0	7.5	4.5	3.5	2.0	0.0	1.0	0.5	4.0	0.0
7	17.5	13.0	10.5	9.0	5.0	3.5	1.5	0.0	1.0	0.5	6.0	0.0
8	13.0	11.5	11.0	7.0	5.5	3.0	0.5	0.0	3.5	0.0	5.0	0.0
9	16.5	8.5	10.0	5.5	5.5	4.5	0.5	0.0	4.5	0.0	6.5	0.5
10	15.0	11.5	8.0	6.0	5.0	4.5	0.5	0.0	5.5	0.5	9.0	1.0
11	18.0	10.0	8.0	7.0	4.5	2.0	0.5	0.5	4.0	1.0	7.5	1.0
12	20.0	11.0	8.0	7.0	3.5	1.5	0.5	0.5	6.0	0.5	10.5	1.5
13	15.0	13.0	---	---	3.0	1.5	0.5	0.5	3.5	2.0	6.5	2.5
14	14.0	11.0	---	---	4.5	2.0	0.5	0.5	4.5	3.0	6.5	5.5
15	14.0	13.0	---	---	4.0	3.0	2.0	0.0	4.5	3.0	5.5	3.0
16	14.0	12.5	---	---	3.5	2.0	2.5	1.0	4.0	3.0	6.0	3.5
17	14.0	13.0	---	---	4.0	2.5	4.5	1.5	4.0	3.5	6.0	3.5
18	14.0	11.5	---	---	4.5	1.5	3.5	1.5	4.0	4.0	5.5	2.5
19	12.5	10.0	---	---	3.0	2.0	6.5	1.0	4.5	3.0	4.5	2.0
20	13.0	11.0	---	---	3.0	2.0	6.5	1.0	4.5	3.0	6.0	2.0
21	13.0	12.0	---	---	3.5	2.0	6.0	0.5	3.5	2.0	7.5	3.5
22	13.0	12.0	---	---	3.5	2.0	4.0	0.0	3.0	1.5	7.5	5.0
23	14.0	10.0	---	---	3.0	2.0	4.0	0.0	2.5	1.0	5.5	4.5
24	12.5	11.5	---	---	2.5	1.0	4.5	0.5	2.5	1.5	5.5	5.0
25	13.0	11.0	---	---	2.5	1.5	3.5	1.0	3.0	1.5	6.5	4.5
26	11.0	9.5	---	---	3.0	1.5	6.0	1.5	3.0	2.0	8.0	5.5
27	12.0	8.5	---	---	3.0	1.0	7.0	2.0	2.5	1.0	9.0	6.5
28	10.0	7.5	---	---	3.0	1.0	6.5	2.0	2.0	0.0	9.5	8.0
29	11.5	9.0	---	---	2.5	0.5	5.0	2.5	---	---	12.5	6.0
30	12.5	9.0	---	---	1.0	0.0	5.5	3.0	---	---	14.0	6.0
31	11.5	8.5	---	---	2.5	0.5	7.0	3.5	---	---	12.5	7.5

06710000 SOUTH PLATTE RIVER AT LITTLETON, COLO.--Continued

PERIOD OF RECORD.--Water temperatures: April 1970 to September 1971.

EXTREMES, 1970-71.--Water temperatures: Maximum, 25°C July 17; minimum, 0°C on many days during December to March.
Period of record.--Water temperatures: Maximum, 25°C July 17, 1971; minimum, freezing point on many days during winter months.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	5.0	13.5	11.0	20.0	12.5	20.0	17.0	18.5	17.0	20.5	17.5
2	12.5	3.5	14.5	12.0	20.0	14.0	18.5	16.0	21.0	18.0	22.5	18.0
3	11.0	4.5	17.5	13.0	20.0	15.0	20.5	16.0	20.0	17.5	21.5	17.5
4	12.0	3.5	16.5	13.0	18.5	14.5	21.0	16.0	21.5	16.5	19.0	17.0
5	8.0	4.0	15.5	12.5	17.0	12.5	23.5	16.0	20.5	16.0	20.5	14.5
6	15.0	3.0	12.5	10.5	18.0	13.0	22.0	17.0	22.0	16.0	21.5	15.0
7	11.5	4.0	11.5	10.0	19.5	14.5	21.0	16.0	21.5	16.0	23.0	15.0
8	13.5	5.5	15.5	10.0	19.0	15.0	19.0	17.5	21.5	15.5	23.0	15.5
9	9.5	7.0	13.5	12.5	16.0	14.0	20.0	16.5	22.0	15.5	23.5	16.0
10	9.5	7.5	12.5	11.5	16.5	14.5	22.0	17.0	21.5	16.5	23.5	15.5
11	13.5	6.0	11.5	9.0	17.0	13.0	23.5	17.5	22.5	17.0	20.0	15.0
12	15.0	7.5	14.5	8.0	18.0	13.5	21.5	19.0	22.0	17.0	18.5	18.0
13	11.5	8.0	14.0	11.5	21.5	14.0	---	---	22.5	16.5	18.0	17.5
14	10.5	8.5	15.0	12.5	19.0	16.0	---	---	22.5	16.5	18.5	17.5
15	10.5	9.0	14.0	11.5	21.5	15.5	23.0	---	23.0	17.0	18.0	15.0
16	12.0	9.5	16.5	11.0	22.0	16.0	23.0	18.0	23.0	17.0	16.5	14.0
17	12.0	9.5	15.5	11.0	21.5	16.0	25.0	19.0	23.5	17.5	13.5	9.5
18	10.0	9.0	12.0	9.0	19.0	16.0	23.5	19.0	22.0	17.5	13.0	10.0
19	10.0	9.0	11.0	9.5	18.0	17.0	20.5	18.5	22.0	17.5	15.0	8.0
20	10.0	9.0	11.0	10.0	22.0	17.0	20.5	17.5	19.5	16.5	13.5	9.0
21	13.5	8.0	14.0	10.0	21.5	16.0	19.5	18.5	19.0	17.0	11.5	9.5
22	10.0	5.5	16.5	13.0	21.0	17.5	19.0	18.0	21.5	17.5	13.5	9.0
23	8.5	7.0	14.5	10.5	22.0	17.0	20.5	17.0	22.0	17.0	14.0	9.5
24	9.0	8.5	16.0	8.5	21.0	17.0	20.0	17.0	22.0	17.0	13.5	9.5
25	12.0	9.0	16.0	12.0	21.0	16.5	20.0	17.5	23.0	17.0	12.0	9.5
26	11.0	6.5	18.5	12.5	20.5	17.5	18.5	17.0	20.5	19.0	14.0	12.0
27	9.0	6.5	18.5	13.0	20.5	16.0	20.0	17.0	20.0	18.5	14.5	10.5
28	12.5	8.5	19.5	13.5	20.5	18.0	21.0	18.0	21.0	17.0	15.5	10.5
29	12.0	8.0	17.0	13.5	21.0	18.0	20.0	16.5	22.0	18.0	13.5	10.0
30	14.0	9.0	17.0	12.5	20.0	18.0	16.0	14.0	20.0	17.0	15.5	11.0
31	---	---	17.0	11.5	---	---	17.5	15.5	22.0	17.0	---	---

06720500 SOUTH PLATTE RIVER AT HENDERSON, COLO.

LOCATION.--Lat 39°55'19", long 104°52'00", in SE¼NE¼ sec.34, T.1 S., R.67 W., Adams County, at gaging station on right bank 500 ft upstream from bridge on State Highway 22 and 0.3 mile northwest of Henderson.

DRAINAGE AREA.--4,713 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1957, June 1962 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)
OCT. 07...	1150	295	11.0	80	17	2	1
NOV. 19...	1205	327	9.5	70	15	--	--
DEC. 17...	1045	408	7.0	75	18	0	0
JAN. 15...	0900	408	5.0	84	16	--	--
FEB. 23...	1015	210	6.0	78	17	--	--
MAR. 10...	1045	300	9.0	80	16	--	--
APR. 21...	1100	242	14.5	63	15	--	--
MAY 13...	1245	1040	5.5	38	10	0	1
JUNE 23...	1020	1020	15.0	22	4.8	--	--
JULY 14...	1515	650	24.0	39	12	--	--
AUG. 11...	1120	224	22.0	69	15	--	--
SEP. 14...	1415	164	21.0	77	18	0	0

DATE	TOTAL MERCURY (HG) (UG/L)	CHLO-RIDE (CL) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	HARD-NESS (CA,MG) (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT. 07...	.4	2.0	.000	.00	270	1160	7.7
NOV. 19...	--	50	2.9	.56	236	1010	7.0
DEC. 17...	--	93	.040	5.9	260	1030	7.3
JAN. 15...	.0	95	3.0	8.9	280	1040	6.9
FEB. 23...	--	120	8.2	.35	260	1150	6.9
MAR. 10...	--	120	2.8	.34	270	1170	7.0
APR. 21...	--	100	3.0	7.5	220	1070	7.0
MAY 13...	.0	42	1.2	1.6	140	544	6.9
JUNE 23...	--	23	.90	.06	75	309	6.9
JULY 14...	--	50	.90	1.6	150	598	7.3
AUG. 11...	--	76	2.8	.13	230	928	7.7
SEP. 14...	--	93	4.7	6.6	270	1090	6.7

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, COLO.

LOCATION.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., Weld County, at gaging station, on right bank 140 ft downstream from bridge on county road, 1.3 miles upstream from mouth, and 4 miles northwest of Platteville.

DRAINAGE AREA.--976 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1955 to August 1956, September 1965 to September 1968, October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
27...	271	10.0	10	30	--	78	52	95	4.0	250	378	19
NOV.												
17...	280	5.0	9.0	100	--	79	57	92	3.5	235	350	20
DEC.												
14...	212	8.0	10	120	--	84	60	99	3.8	255	400	21
JAN.												
21...	209	1.0	10	210	--	87	70	110	4.7	278	460	24
FEB.												
12...	159	1.0	10	150	--	89	69	110	4.6	285	460	27
MAR.												
09...	192	9.0	8.8	160	230	83	63	100	5.3	268	400	28
APR.												
14...	74	18.5	4.1	30	200	110	93	140	4.0	302	600	28
MAY												
13...	928	12.5	10	120	0	41	26	39	2.2	113	160	11
JUNE												
15...	640	20.0	8.0	110	17	40	23	34	2.9	124	160	9.2
JULY												
14...	206	25.0	9.9	30	370	100	64	100	4.5	258	450	30
AUG.												
12...	143	25.0	9.8	20	80	110	74	120	4.5	302	560	29
SEP.												
24...	406	14.0	9.8	20	40	91	59	100	4.0	261	460	16

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
27...	.8	5.0	.40	250	766	1.14	615	408	203	2.0	1150	7.4
NOV.												
17...	.8	3.5	.40	230	726	1.15	637	432	239	1.9	1140	7.6
DEC.												
14...	1.0	4.2	.50	190	810	1.10	464	460	251	2.0	1180	7.8
JAN.												
21...	1.1	1.3	.50	270	910	1.24	514	510	282	2.1	1320	8.0
FEB.												
12...	1.2	2.1	.60	270	920	1.25	395	510	276	2.1	1380	7.8
MAR.												
09...	1.2	.60	.80	260	830	1.13	430	470	250	2.0	1220	7.5
APR.												
14...	1.1	1.5	.40	260	1140	1.55	228	660	410	2.4	1600	8.4
MAY												
13...	.5	1.1	.20	140	351	.48	879	210	120	1.2	598	7.5
JUNE												
15...	.5	1.4	.20	140	346	.47	598	190	93	1.1	545	7.8
JULY												
14...	.6	2.3	.40	320	898	1.22	499	510	300	1.9	1310	7.7
AUG.												
12...	1.1	3.0	.19	330	1070	1.46	413	580	330	2.2	1520	8.0
SEP.												
24...	.9	2.7	.30	270	882	1.20	967	470	260	2.0	1200	7.5

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, COLO.

LOCATION.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R.69 W., Larimer County, on tributaries of Cache la Poudre River, 4.8 miles west of city hall in Fort Collins.

PERIOD OF RECORD.--Chemical analyses: September 1969 to September 1971.

REMARKS.--Samples collected from surface, middle, and bottom depths in middle of reservoir at Soldier Canyon Dam.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESERVOIR STORAGE (AC-FT)	DEPTH (FT)	TEMPERATURE (DEG C)	NITRATE (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT.									
28...	79760	2.0	10.0	.2	.000	.00	.030	54	81
28...	79760	70	10.0	.1	.000	.00	.030	56	81
28...	79760	140	9.0	.2	.000	.00	.030	57	83
NOV.									
18...	84490	2.0	9.0	.1	.000	.00	.020	49	83
18...	84490	55	9.0	.1	.000	.00	.000	54	83
18...	84490	110	9.0	.1	.000	.00	.030	47	82
DEC.									
16...	88820	2.0	5.0	.1	.000	.05	.020	49	81
16...	88820	50	5.0	.1	.000	.00	.020	46	83
16...	88820	100	5.0	.1	.000	.00	.020	49	82
FEB.									
16...	102600	2.0	3.0	.2	.000	.00	.070	60	78
16...	102600	60	2.0	.1	.000	.00	.050	42	78
16...	102600	120	2.0	.1	.000	.00	.030	50	78
MAR.									
17...	111600	2.0	2.0	.07	.030	.01	.98	54	92
17...	111600	55	2.0	.1	.000	.01	.030	62	79
17...	111600	110	2.0	.1	.000	.00	.030	52	77
APR.									
28...	126900	2.0	8.0	.5	.000	.18	.10	43	77
28...	126900	60	7.0	.5	.000	.10	.080	46	77
28...	126900	120	7.0	.3	.000	.09	.10	50	79
MAY									
26...	139200	2.0	13.0	.04	.000	.03	.070	58	75
26...	139200	60	7.0	.04	.000	.01	.050	54	76
26...	139200	120	6.0	.06	.000	.03	.080	49	79
JUNE									
25...	138300	2.0	23.0	.01	.000	.04	.030	57	79
25...	138300	45	8.5	.08	.000	.04	.13	60	77
25...	138300	120	7.0	.1	.010	.24	--	68	--
JULY									
21...	104600	2.0	21.0	.01	.000	.10	--	66	95
21...	104600	30	17.0	.02	.000	.12	.060	57	79
21...	104600	110	11.0	.1	.000	.13	.050	63	77
AUG.									
19...	88400	2.0	21.5	.01	.000	.04	.61	76	78
19...	88400	60	10.5	.08	.000	.06	--	66	105
19...	88400	110	25.0	.06	.000	.10	.080	50	66
SEP.									
15...	64110	2.0	18.5	.00	.010	.15	.92	56	84
15...	64110	60	15.0	.05	.000	.12	.090	53	68
15...	64110	80	12.5	.06	.000	.13	.34	40	--

06742500 CARTER LAKE NEAR BERTHOUD, COLO.

LOCATION.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., Larimer County, on Dry Creek, 7.0 miles west of Berthoud, and 8.9 miles upstream from mouth.

PERIOD OF RECORD.--Chemical analyses: February 1970 to September 1971.

REMARKS.--Samples collected at surface, middle, and bottom depths near the center of the reservoir.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESERVOIR STORAGE (AC-FT)	DEPTH (FT)	TEMPERATURE (DEG C)	NITRATE (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT.									
28...	72020	2.0	9.5	.1	.000	.00	.030	57	100
28...	72020	50	8.0	.1	.000	.00	.000	46	88
28...	72020	100	7.5	.1	.000	.00	.070	45	88
NOV.									
18...	78500	2.0	8.0	.1	.000	.00	.030	47	90
18...	78500	50	7.5	.1	.000	.00	.030	73	107
18...	78500	100	8.0	.1	.000	.00	.020	48	90
DEC.									
16...	86330	2.0	5.0	.1	.000	.00	.050	42	92
16...	86330	50	5.0	.1	.000	.00	.000	42	91
16...	86330	100	5.0	.1	.000	.02	.020	48	91
MAR.									
17...	103900	2.0	3.0	.1	.000	.01	--	56	106
17...	103900	60	2.0	.1	.000	.00	.040	58	87
17	103900	120	2.0	.00	.000	.00	.030	60	88
APR.									
28...	109100	2.0	7.0	.2	.000	.13	.000	49	87
28...	109100	60	6.0	.4	.000	.07	.080	55	88
28...	109100	120	6.0	.1	.000	.08	.010	49	90
MAY									
26...	108600	2.0	12.0	.00	.000	.03	.040	58	89
26...	108600	60	6.0	.00	.000	.01	.050	63	88
26...	108600	120	5.0	.00	.000	.00	.020	53	89
JUNE									
25...	107500	2.0	21.0	.01	.000	.03	.24	80	129
25...	107500	35	9.0	.02	.000	.04	.040	62	145
25...	107500	120	5.5	.02	.000	.04	.010	50	93
JULY									
21...	88960	2.0	21.0	.05	.000	.11	.25	55	96
21...	88960	35	12.0	.01	.000	.11	.40	56	111
21...	88960	110	8.0	.01	.000	.11	.30	63	90
AUG.									
19...	70900	2.0	21.0	.04	.000	.05	.040	60	97
19...	70900	30	14.0	.01	.000	.06	.030	64	98
19...	70900	100	6.0	.05	.000	.08	.050	60	88
SEP.									
15...	55720	2.0	18.5	.01	.000	.13	.080	54	100
15...	55720	60	8.5	.01	.000	.04	.080	59	96
15...	55720	90	7.0	.02	.000	.13	.94	44	--

06744000 BIG THOMPSON RIVER AT MOUTH, NEAR LASALLE, COLO.

LOCATION.--Lat 40°21'00", long 104°47'04", in SW¼SE¼ sec.33, T.5 N., R.66 W., Weld County, at gagirg station, on left bank just southeast of gage on Evans Town ditch, 0.7 mile upstream from mouth, and 4 miles west of LaSalle.

DRAINAGE AREA.--828 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1954 to July 1956, October 1967 to September 1968, October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
27...	105	9.0	12	30	--	156	120	171	9.2	411	862	19
NOV.												
17...	100	5.5	12	20	--	180	118	155	11	421	802	26
DEC.												
14...	80	8.0	11	160	--	190	130	170	14	421	950	22
JAN.												
20...	89	4.0	11	120	--	190	120	150	14	437	850	22
FEB.												
12...	70	3.0	11	200	--	200	140	190	10	430	990	23
MAR.												
09...	66	9.0	9.9	140	260	190	130	180	9.0	411	960	24
APR.												
14...	56	17.0	6.3	40	260	190	140	180	9.4	378	1100	29
MAY												
13...	580	11.0	11	200	50	37	23	31	2.3	96	160	5.9
JUNE												
15...	235	16.0	8.8	60	65	56	31	39	2.4	120	240	7.5
JULY												
14...	153	21.0	9.1	20	93	120	76	99	5.0	222	610	15
AUG.												
12...	84	22.5	9.7	40	190	160	100	150	6.0	321	820	18
SEP.												
24...	112	12.0	9.3	70	120	200	140	190	6.7	373	1200	21

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATID	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
27...	.8	5.0	.26	170	1560	2.39	499	882	545	2.5	2120	7.5
NOV.												
17...	.8	3.2	.26	170	1510	2.49	494	934	589	2.2	2080	7.5
DEC.												
14...	1.0	6.0	.030	360	1700	2.31	367	1000	655	2.3	2210	7.4
JAN.												
20...	1.1	2.0	.050	370	1600	2.18	384	950	592	2.1	2100	7.5
FEB.												
12...	1.2	1.8	.070	420	1800	2.45	340	1100	747	2.5	2300	7.6
MAR.												
09...	1.2	.30	.13	390	1700	2.31	303	1000	663	2.5	2330	7.5
APR.												
14...	1.1	1.9	.50	390	1850	2.52	280	1100	740	2.4	2330	7.4
MAY												
13...	.3	.80	.10	120	322	.44	504	190	110	1.0	536	7.2
JUNE												
15...	.3	1.5	.080	160	451	.61	286	270	170	1.0	688	7.1
JULY												
14...	.7	1.8	.20	360	1050	1.43	434	610	430	1.7	1420	7.3
AUG.												
12...	.6	2.8	.10	340	1440	1.96	327	810	550	2.3	1870	7.6
SEP.												
24...	1.0	3.4	.57	530	1970	2.68	596	1100	770	2.5	2420	7.6

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, COLO.

LOCATION.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., Weld County, at gaging station, on right bank 25 ft downstream from highway bridge, 3 miles east of court house in Greeley, and 3 miles upstream from mouth.

DRAINAGE AREA.--1,877 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1951 to September 1952, August 1954 to August 1956, December 1963 to September 1966, October 1967 to September 1968, October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
27...	201	10.5	13	50	--	164	89	130	8.3	384	702	43
NOV.												
17...	195	7.5	13	10	--	139	73	96	5.9	318	525	25
DEC.												
14...	178	9.0	14	140	--	160	74	100	6.3	348	570	31
JAN.												
20...	144	5.0	15	--	--	150	59	120	6.8	305	560	47
FEB.												
12...	122	5.0	12	--	--	160	88	120	6.3	335	620	40
MAR.												
09...	128	8.0	12	160	210	160	76	120	6.3	327	650	37
APR.												
14...	81	17.0	14	40	230	160	96	130	6.4	375	720	44
MAY												
13...	824	12.0	14	180	30	39	17	24	1.9	110	120	9.6
JUNE												
15...	238	17.0	12	60	85	55	25	34	3.0	153	200	10
JULY												
14...	52	20.5	13	20	140	130	61	83	8.7	259	510	30
AUG.												
12...	44	24.0	13	20	160	150	72	120	6.5	310	610	36
SEP.												
24...	150	12.5	15	120	170	190	99	150	14	432	830	43

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
27...	1.0	3.0	1.1	350	1340	1.99	792	775	460	2.0	1800	7.3
NOV.												
17...	.8	7.0	.78	360	1040	1.60	621	647	386	1.6	1520	7.5
DEC.												
14...	1.0	6.0	.72	270	1100	1.50	529	700	415	1.6	1530	7.6
JAN.												
20...	1.1	5.3	1.3	280	1100	1.50	428	620	370	2.1	1620	7.6
FEB.												
12...	1.5	1.3	1.4	300	1200	1.63	395	760	485	1.9	1760	7.5
MAR.												
09...	1.1	.90	.85	300	1200	1.63	415	710	442	2.0	1670	7.5
APR.												
14...	1.0	3.3	1.1	290	1370	1.86	300	790	490	2.0	1860	7.3
MAY												
13...	.4	1.3	.15	100	287	.39	639	170	77	.8	466	7.3
JUNE												
15...	.4	2.5	.32	170	427	.58	274	240	110	1.0	733	7.0
JULY												
14...	.7	4.5	.65	320	986	1.34	138	580	360	1.5	1360	7.7
AUG.												
12...	.8	4.4	.88	480	1180	1.60	140	670	420	2.0	1620	7.2
SEP.												
24...	1.0	4.5	.86	400	1580	2.15	640	880	530	2.2	2090	7.1

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.
(Irrigation network station)

LOCATION.--Lat 40°58'46", long 102°15'15", in NW¼NE¼ and SE¼NE¼ (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, at gaging station, at bridge on U.S. Highway 385, 0.9 mile southeast of Julesburg, 3 miles upstream from Colorado-Nebraska State line, and 8 miles downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1971.
Water temperatures: October 1945 to September 1971.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 3,270 micromhos Jan. 12; minimum daily, 976 micromhos May 22.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	2010	1880	1810	1770	1850	1840	1100	1280	1570	1730	1820
2	1800	2000	1860	1800	1760	1840	1830	1090	1220	1600	1750	1890
3	1820	2000	1860	1950	1770	1850	1810	1120	1110	1580	1750	1860
4	1840	2000	1880	2000	1800	1830	1810	1190	1070	1660	1760	1860
5	1860	1990	1900	2100	1790	1790	1810	1190	1140	1640	1770	1860
6	1870	1980	1880	2100	1820	1750	1820	1190	1230	1580	1760	1860
7	1900	1960	1910	2130	1860	1790	1820	1130	1320	1610	1780	1840
8	1900	1840	1880	2170	1660	1820	1840	1100	1410	1590	1800	1910
9	1920	1810	1900	2170	1800	1820	1890	1060	1360	1580	1810	1900
10	1920	1830	1880	2950	1800	1820	1890	1040	1440	1530	1800	1910
11	1950	1870	1920	2140	1770	1820	1890	1110	1490	1560	1800	1910
12	1960	1870	1910	3270	1780	1810	1890	1150	1510	1650	1800	1930
13	1980	1900	1880	2160	1780	1840	1890	1180	1530	1650	1810	1910
14	1960	1870	1690	2020	1770	1830	1890	1130	1480	1670	1810	1930
15	1960	1880	1810	2060	1770	1820	1890	1100	1490	1670	1830	1930
16	1950	1900	1810	1850	1770	1820	1900	1100	1530	1690	1780	1830
17	1960	1860	1780	1780	1770	1840	1890	1100	1530	1690	1840	1820
18	1970	1830	1800	1760	1780	1780	1910	1100	1490	1710	1840	1830
19	1970	1800	1600	1690	1750	1830	1770	1070	1460	1710	1840	1840
20	1970	1810	1880	1680	1800	1800	1890	1030	1440	1720	1830	1850
21	1980	1840	1650	1620	1780	1790	1900	985	1290	1720	1850	1830
22	1990	1840	1810	1630	1770	1810	1910	976	1040	1720	1830	1610
23	1980	1720	1630	1620	1790	1800	1840	997	1000	1720	1860	1580
24	1990	1870	1540	1670	1790	1740	2070	1030	1030	1740	1840	1680
25	1990	1870	1970	1670	1790	1740	1920	1100	1090	1740	1870	1720
26	1960	1790	1880	1650	1790	1800	1850	1120	1190	1730	1810	1750
27	1970	1900	1920	1680	1780	1840	1470	1100	1340	1740	1880	1750
28	1980	1880	1580	1730	1840	1830	1450	1120	1460	1740	1880	1790
29	2020	1790	1830	1760	---	1820	1440	1210	1440	1730	1880	1820
30	1990	1880	1810	1760	---	1810	1180	1240	1530	1760	1810	1820
31	1990	---	1840	1770	---	1830	---	1330	---	1770	1840	---

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.--Continued

EXTREMES, 1970-71.--Continued
Water temperatures: Maximum, 21.0°C Aug. 22, 23; minimum, freezing point on many days during December to March.
Period of record.--Specific conductance: Maximum daily, 3,270 micromhos Jan. 12, 1971; minimum daily, 348 micromhos Aug. 15, 1968.
Water temperatures (1946-49, 1950-71): Maximum, 34°C July 28, Aug. 1, 1953, July 7, 18, 1963; minimum, freezing point on many days during winter period.

REMARKS.--Samples for specific conductance and temperature collected from channel no. 2 (06763990). For monthly chemical analyses considered applicable to this site, see record for South Platte River near Julesburg, Colo. (sta. 06764200).

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	4.5	4.5	1.0	1.0	3.5	6.5	10.0	8.0	11.0	10.0	11.0
2	12.0	3.5	2.0	0.0	0.0	2.0	12.0	4.5	9.0	14.5	14.5	12.0
3	14.5	2.0	3.5	0.0	1.0	1.0	10.0	5.5	10.0	10.0	9.0	15.5
4	13.5	3.5	1.0	0.0	0.0	4.5	6.5	5.5	9.0	13.5	8.0	10.0
5	13.5	3.5	1.0	0.0	0.0	4.5	5.5	4.5	8.0	11.0	8.0	15.5
6	13.5	4.5	4.5	0.0	0.0	4.5	12.0	2.0	10.0	11.0	8.0	20.0
7	9.0	10.0	3.5	1.0	0.0	0.0	9.0	2.0	6.5	12.0	6.5	14.5
8	4.5	5.5	2.0	0.0	0.0	0.0	14.5	4.5	9.0	8.0	8.0	5.5
9	5.5	4.5	3.5	0.0	1.0	8.0	15.5	4.5	8.0	10.0	8.0	11.0
10	8.0	4.5	1.0	0.0	4.0	8.0	11.0	4.5	8.0	9.0	14.5	5.5
11	8.0	9.0	1.0	0.0	3.5	6.5	10.0	1.0	8.0	15.5	9.0	8.0
12	6.5	6.5	1.0	0.0	2.0	4.5	12.0	2.0	10.0	11.0	10.0	10.0
13	10.0	8.0	0.0	0.0	4.0	8.0	15.5	4.5	9.0	10.0	10.0	4.5
14	9.0	4.5	0.0	0.0	5.5	2.0	11.0	4.5	8.0	10.0	18.0	4.5
15	5.5	2.0	2.0	0.0	5.5	3.5	18.0	4.5	5.5	13.5	9.0	4.5
16	4.5	3.5	0.0	1.0	4.5	4.5	14.5	10.0	5.5	10.0	10.0	4.5
17	12.0	4.5	1.0	0.0	3.5	10.0	15.5	9.0	10.0	11.0	10.0	3.5
18	8.0	8.0	1.0	1.0	4.5	4.5	15.5	4.5	10.0	13.5	11.0	9.0
19	10.0	8.0	0.0	0.0	4.5	1.0	13.5	2.0	12.0	8.0	10.0	9.0
20	9.0	2.0	0.0	1.0	3.5	4.5	13.5	4.5	12.0	9.0	10.0	4.5
21	10.0	4.5	0.0	1.0	1.0	5.5	15.5	10.0	11.0	10.0	9.0	13.5
22	10.0	3.5	0.0	1.0	0.0	4.5	10.0	8.0	14.5	9.0	21.0	10.0
23	10.0	0.5	0.0	1.0	0.0	2.0	9.0	5.5	12.0	9.0	21.0	6.5
24	9.0	2.0	0.0	1.0	0.0	1.0	13.5	4.5	14.5	9.0	9.0	10.0
25	9.0	4.5	0.0	0.0	5.5	1.0	10.0	5.5	14.5	10.0	10.0	12.0
26	5.5	4.5	0.0	2.0	3.5	12.0	4.5	5.5	13.5	6.5	12.0	11.0
27	5.5	4.5	1.0	0.0	0.0	14.5	6.5	5.5	11.0	8.0	10.0	12.0
28	6.5	4.5	0.0	4.5	0.0	4.5	9.0	5.5	10.0	8.0	15.5	13.5
29	9.5	3.5	1.0	2.0	---	9.0	11.0	6.5	9.0	6.5	11.0	11.0
30	12.0	4.5	1.0	4.5	---	8.0	3.5	6.5	10.0	4.5	11.0	13.5
31	4.5	---	0.0	1.0	---	15.5	---	5.5	---	6.5	10.0	---

06764200 SOUTH PLATTE RIVER NEAR JULESBURG, COLO.

LOCATION.--Lat 41°00'59", long 102°10'34", in SE¼NW¼ sec.13, T.12 N., R.43 W., Deuel County, Nebr., 4.7 miles downstream from gaging station at Julesburg, at diversion to Western Canal about 1.7 miles downstream from Colorado-Nebraska State line, and about 6 miles northeast of Julesburg.

DRAINAGE AREA.--23,200 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
30...	390	3.5	27	140	77	200	63	203	18	323	780	79
NOV.												
30...	606	3.5	--	--	--	190	54	--	15	--	700	69
DEC.												
30...	622	--	--	--	--	180	60	--	--	--	650	70
JAN.												
29...	1240	3.0	--	--	--	170	58	--	--	--	640	76
FEB.												
26...	966	2.0	21	140	60	170	47	177	14	310	650	76
MAR.												
31...	918	--	--	--	--	180	54	--	--	--	530	78
APR.												
29...	1870	14.5	17	90	42	130	47	140	12	240	510	60
MAY												
27...	2330	15.5	--	--	--	100	37	--	--	--	360	39
JUNE												
29...	222	29.0	46	160	140	190	44	140	24	254	690	66
JULY												
30...	35	20.0	--	--	--	120	51	--	--	--	680	85
AUG.												
31...	20	--	27	10	600	180	52	160	16	195	710	88
SEP.												
30...	580	--	--	--	--	130	53	--	--	--	580	61

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
30...	.9	.8	.19	250	1620	2.20	1710	760	490	3.2	1950	8.0
NOV.												
30...	--	2.0	.53	--	1470	2.00	2410	700	--	--	1810	--
DEC.												
30...	--	2.9	.49	--	1370	1.86	2300	700	--	--	1490	--
JAN.												
29...	--	4.0	1.3	--	1370	1.86	4590	660	--	--	1700	--
FEB.												
26...	.9	4.7	.87	320	1400	1.90	3650	630	370	3.1	1860	8.1
MAR.												
31...	--	5.1	.63	--	1410	1.92	3500	660	--	--	1770	--
APR.												
29...	.9	3.0	1.3	250	1100	1.50	5550	500	310	2.7	1380	8.0
MAY												
27...	--	2.2	.72	--	810	1.10	5100	400	--	--	1070	--
JUNE												
29...	.7	--	.050	240	--	1.84	809	660	450	2.4	1850	8.0
JULY												
30...	--	--	.25	--	1370	1.86	129	510	--	--	1740	--
AUG.												
31...	.9	--	.20	250	1370	1.86	74.0	660	500	2.7	1760	7.9
SEP.												
30...	--	--	.35	--	1230	1.67	1930	540	--	--	1670	--

ARKANSAS RIVER BASIN

07083000 HALFMOON CREEK NEAR MALTA, COLO.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°10'20", long 106°23'20", in SE¼SE¼ sec.13, T.10 S., R.81 W., Lake County, at gaging station, 1.4 miles upstream from culvert, 3.3 miles upstream from mouth, and 4.3 miles southwest of Malta.

DRAINAGE AREA.--23.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1966 to September 1971.
Water temperatures: May 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
09...	24	.0	6.0	--	--	10	3.8	1.7	.5	49	6.8	2.0
NOV.												
10...	12	.0	6.0	--	--	8.9	3.5	1.4	.7	46	4.8	.0
DEC.												
11...	7.5	.0	5.9	40	0	11	4.1	1.6	3.4	51	6.5	.0
JAN.												
20...	4.9	.0	7.0	160	0	9.8	4.0	1.8	.6	51	4.8	1.5
FEB.												
10...	3.2	.0	7.0	400	0	10	4.2	3.0	1.2	60	4.5	.6
MAR.												
03...	2.7	.0	6.8	160	50	11	4.0	2.0	1.1	53	5.2	.7
APR.												
23...	5.5	5.0	6.4	100	23	11	4.2	2.4	1.0	50	10	.9
MAY												
04...	22	9.0	6.5	100	90	8.4	3.5	1.9	.8	41	3.5	.4
JUNE												
01...	50	8.0	5.2	80	0	9.5	4.0	2.3	.8	41	3.3	.7
JULY												
14...	80	12.0	--	--	--	6.7	2.1	--	--	34	4.0	.2
AUG.												
02...	35	10.5	4.0	180	20	8.3	3.0	2.8	.9	34	3.5	.1
SEP.												
08...	29	12.0	--	--	--	8.9	3.0	--	--	47	3.3	.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
2	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
3	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
4	7.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
5	7.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
6	8.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
7	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
8	2.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
10	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---
11	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
12	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
13	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
14	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
15	5.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
16	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
17	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
18	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
19	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
20	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
21	5.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
22	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
23	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
24	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
25	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
31	0.0	0.0	---	---	0.0	0.0	0.0	0.0	---	---	---	---

07083000 HALFMOON CREEK NEAR MALTA, COLO.--Continued

EXTREMES, 1970-71.--Water temperatures: Maximum, 14.5°C July 16, Aug. 22, Sept. 11, 13; minimum, freezing point on many days during October to February.
Period of record.--Water temperatures: Maximum, 17°C July 28, 1969; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
09...	.1	.20	.000	20	55	.08	3.76	40	0	.1	88	7.6
NOV.												
10...	.1	.30	.000	20	49	.07	1.72	36	0	.1	86	7.5
DEC.												
11...	.1	.20	.000	30	58	.08	1.17	44	2	.1	89	7.8
JAN.												
20...	.1	.20	.030	10	55	.07	.73	41	0	.1	91	7.5
FEB.												
10...	.4	.20	.020	0	62	.08	.54	42	0	.2	94	7.3
MAR.												
03...	.4	.20	.000	0	58	.08	.42	44	1	.1	100	7.8
APR.												
23...	.0	.20	.000	0	62	.08	.92	45	4	.2	91	8.1
MAY												
04...	.3	.10	.060	50	46	.06	2.73	35	2	.1	77	7.5
JUNE												
01...	.1	.08	.010	10	47	.06	6.34	40	7	.2	71	7.6
JULY												
14...	--	.11	--	--	--	.04	6.05	25	0	--	--	7.7
AUG.												
02...	.0	.10	.000	--	40	.05	3.78	33	5	.2	62	8.0
SEP.												
08...	--	.17	--	--	--	.05	2.66	35	0	--	--	7.6

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	12.0	1.5	10.5	1.5	8.0	3.5	13.0	5.5	12.5	5.0
2	---	---	12.5	1.5	9.5	1.5	10.5	4.0	11.5	6.0	12.0	5.5
3	---	---	12.0	2.0	7.5	2.0	11.0	4.0	11.0	5.5	12.0	5.0
4	---	---	9.5	1.0	8.0	2.0	11.0	4.0	12.5	6.0	10.5	3.5
5	---	---	7.0	1.5	8.0	1.5	12.0	3.5	13.0	6.0	11.0	2.5
6	---	---	9.0	1.0	10.5	2.0	9.5	4.0	12.0	6.0	12.5	3.0
7	---	---	7.5	2.0	9.0	2.0	9.0	5.0	13.5	6.0	10.0	4.5
8	---	---	5.5	1.0	6.5	2.5	11.5	5.0	14.0	5.5	13.5	4.5
9	---	---	6.5	1.5	9.0	1.5	12.0	5.5	13.5	6.0	13.5	4.5
10	---	---	5.0	1.5	5.5	2.0	11.5	5.0	11.0	6.0	14.0	5.0
11	---	---	7.5	2.0	8.0	1.5	13.5	4.5	12.5	6.0	14.5	5.5
12	---	---	10.0	2.5	8.5	2.5	13.5	5.0	11.0	7.0	12.5	6.5
13	---	---	10.0	1.0	10.0	2.5	12.5	5.5	12.5	5.5	14.5	6.0
14	---	---	8.0	1.5	9.0	2.5	12.0	6.5	13.0	5.5	14.0	6.0
15	---	---	10.5	1.0	8.5	2.0	13.5	6.0	11.5	6.0	13.0	5.0
16	---	---	12.0	1.5	8.0	2.5	14.5	6.0	13.0	6.0	12.0	4.5
17	---	---	7.5	1.0	8.5	2.5	14.0	6.5	13.0	6.5	7.0	2.0
18	---	---	4.5	1.0	6.5	2.5	11.5	7.0	11.5	7.0	5.5	2.0
19	---	---	6.5	1.0	8.5	2.5	10.0	7.5	12.0	7.5	8.0	2.0
20	---	---	9.5	0.5	9.5	2.5	11.5	7.0	10.5	7.0	8.0	1.5
21	---	---	11.5	0.5	8.5	3.0	12.5	7.0	14.0	6.5	7.0	3.5
22	---	---	10.5	1.0	8.5	2.5	12.5	7.5	14.5	6.0	9.0	2.5
23	---	---	5.5	1.0	9.0	3.0	11.0	7.5	11.0	6.0	9.5	2.0
24	7.5	1.5	10.0	0.5	10.0	3.5	11.5	5.5	14.0	7.0	10.0	2.0
25	10.0	1.5	12.0	1.5	10.5	3.5	12.0	6.0	11.5	6.5	10.5	2.5
26	6.0	1.5	11.5	1.5	10.5	3.5	13.0	6.0	12.5	7.0	10.5	3.0
27	8.0	1.0	10.5	2.5	10.5	3.5	13.0	6.0	11.0	8.0	10.0	2.5
28	8.5	1.0	8.5	2.0	10.5	3.5	13.0	6.0	11.0	7.0	10.0	3.0
29	6.5	1.0	6.5	3.0	9.0	4.0	12.0	6.0	12.5	7.5	7.5	3.5
30	11.0	1.0	7.5	1.5	8.5	4.0	13.5	6.0	11.0	5.5	11.0	5.0
31	---	---	10.5	2.0	---	---	12.5	6.5	13.5	5.0	---	---

07083000 HALFMOON CREEK NEAR MALTA, COLO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 9, 1970	1100	0.0	22	3	.18												
NOV 10.....	1425	----	12	4	.10												
APR 4, 1971	1600	9.0	22	4	.24												
JUN 1.....	1400	8.0	50	30	4.0												
JUL 14	1430	12.0	80	2	.43												
AUG 2.....	1515	5.0	35	2	.19												
SEP 8.....	1800	12.0	29	7	.55												

ARKANSAS RIVER BASIN

07096000 ARKANSAS RIVER AT CANON CITY, COLO.

LOCATION.--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec.31, T.18 S., R.70 W., Fremont County, at gaging station, on right bank 800 ft upstream from Sand Creek, 0.7 mile downstream from Grape Creek, and 0.7 mile upstream from First Street Bridge in Canon City.

DRAINAGE AREA.--3,117 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1963 to September 1965, January 1966 to September 1968, October 1970 to September 1971.
Sediment records: October 1970 to September 1971.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 7, 1970	1350	8.0	692	29	54												
21.....	1215	7.0	646	26	45												
NOV 5.....	1330		485	17	22												
20.....	1430	4.0	445	7	8.4												
DEC 3.....	1130		450	12	15												
18.....	1450		380	18	18												
JAN 8, 1971	1120		260	24	17												
19.....	1130	2.5	440	197	234						17	25	41	82	100		VWC
FEB 5.....	1020	4.0	272	22	16												
19.....	1050	3.0	328	18	16												
MAR 15.....	1005	6.5	308	24	20												
APR 7.....	1015	9.0	455	42	52						47	63	79	97	100		VWC
19.....	1545	13.0	775	113	236						30	36	54	99	100		VWC
MAY 9.....	1730		712	171	329						25	42	67	100			VWC
25.....	1335		515	29	40						15	46	75	100			VWC
JUN 3.....	0955	13.0	1280	156	539						26	39	61	92	100		VWC
14.....	1115	14.5	1450	195	763						18	31	57	85	100		VWC
JUL 8.....	1300	16.0	2090	671	3790						5	7	21	71	78	96	SVWC
19.....	1615		1890	611	3120	35	45		65		73	76	83	93	100		VPWC
AUG 11.....	1530	18.5	975	25	66						41	65	91	100			VWC
27.....	1330	18.5	975	68	179						40	61	83	100			VW
SEP 13.....	1255	17.0	346	70	71												
28.....	1100	12.0	344	26	24												

07096000 ARKANSAS RIVER AT CANON CITY, COLO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
07...	679	8.0	11	34	8.6	9.6	1.9	130	26	4.5	.2
NOV.											
05...	485	11.0	13	32	7.6	12	1.8	144	28	5.0	.4
DEC.											
22...	376	2.0	14	39	9.3	15	3.4	136	34	8.6	.7
JAN.											
19...	445	2.5	13	36	9.8	14	2.7	138	24	6.8	.6
FEB.											
19...	328	3.0	14	41	8.4	15	2.1	153	32	6.1	.7
MAR.											
05...	340	3.0	13	34	8.6	13	2.2	142	31	7.2	.8
APR.											
07...	455	9.0	11	27	7.0	10	2.2	106	26	6.1	.4
MAY											
17...	1010	13.0	8.3	21	5.2	6.3	1.4	71	24	3.0	.2
JUNE											
03...	1280	13.0	8.8	22	4.8	6.1	1.0	77	24	2.4	.4
JULY											
08...	2070	16.0	7.4	17	3.9	4.5	1.2	65	17	2.0	.4
AUG.											
27...	984	18.5	9.1	24	5.1	5.9	1.4	93	20	3.4	.3
SEP.											
13...	376	17.0	12	35	8.2	9.9	1.9	134	29	7.1	.4

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
07...	.30	.000	50	160	.23	313	120	13	.4	270	7.8
NOV.											
05...	.20	.000	20	171	.23	219	112	0	.5	301	7.9
DEC.											
22...	.60	.010	0	190	.26	193	140	28	.6	301	8.0
JAN.											
19...	.50	.050	20	180	.24	216	130	17	.5	304	7.7
FEB.											
19...	.20	.050	20	190	.26	168	140	14	.6	313	8.1
MAR.											
05...	.20	.050	0	180	.24	165	120	4	.5	314	7.7
APR.											
07...	.20	.030	0	143	.19	176	96	9	.4	246	7.5
MAY											
17...	.03	.010	20	105	.14	286	74	16	.3	180	7.5
JUNE											
03...	.10	.020	0	108	.15	373	75	12	.3	173	7.5
JULY											
08...	.14	.020	70	86	.12	481	58	5	.3	139	7.5
AUG.											
27...	.09	.010	--	115	.16	306	81	5	.3	185	7.7
SEP.											
13...	.19	.010	80	170	.23	173	120	11	.4	270	7.6

07099200 ARKANSAS RIVER NEAR PORTLAND, COLO.

LOCATION.--Lat 38°20'16", long 104°56'24", in NW¼SW¼ sec.6, T.20 S., R.67 W., Fremont County, at gaging station, 1.2 miles downstream from Willow Spring Creek and 5.3 miles southeast of Portland.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
08...	896	6.0	13	53	15	19	2.0	144	102	7.0	.7
NOV.											
05...	602	3.0	14	64	19	23	2.2	164	125	7.5	.7
DEC.											
22...	389	2.0	14	43	13	19	1.9	176	140	9.2	1.0
JAN.											
19...	449	2.0	13	61	19	28	2.9	162	130	8.5	.8
FEB.											
16...	312	8.5	15	67	21	28	2.6	177	140	9.5	.8
MAR.											
05...	344	3.0	13	62	19	26	3.1	162	140	9.6	.9
13...	324	13.0	12	65	21	31	2.8	170	160	12	.7
APR.											
06...	515	11.0	11	47	14	20	2.6	125	100	7.4	.5
MAY											
17...	966	15.0	8.7	36	9.6	14	1.8	91	71	4.4	.2
JUNE											
03...	1320	18.5	9.7	33	8.8	11	1.3	95	68	3.1	.5
JULY											
09...	1860	19.0	8.0	25	6.3	8.5	1.4	74	49	2.0	.3
AUG.											
30...	1250	20.0	10	39	9.8	13	2.2	128	110	4.5	.4
SEP.											
14...	417	20.0	13	61	18	25	2.6	172	140	8.4	.5

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-ERA-TURE (°C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
OCT 8, 1970	1130	6.0	896	84	203												
21.....	1345	10.0	820	42	93												
NOV 5.....	1100		602	35	57												
20.....	1100	4.0	510	557	767												
DEC 3.....	1340		477	21	27												
8.....	1500		500	35	47												
23.....	1430		397	114	122												
JAN 8, 1971	1400		248	40	27												
19.....	1030	2.0	449	72	87												
FEB 7.....	1615	1.5	282	32	24												
16.....	1435	8.0	312	25	21												
MAR 5.....	1015	3.0	344	20	19												
15.....	1325	7.0	324	26	23												
APR 6.....	1345	11.0	515	61	85						52	67	87	100			VW
29.....	1230	18.0	397	29	31						38	67	100				VW
MAY 14.....	1600	16.5	723	61	119						86	97	100				VW
25.....	1200		644	241	419						9	14	27	66	100		VW
JUN 3.....	1400	18.5	1200	287	930						32	49	81	98	100		VW
14.....	1315	16.5	1490	302	1210						22	40	79	100			VW
JUL 9.....	1545	19.0	1880	757	3840						6	9	20	64	75	97	SVW
19.....	1215		1810	722	3530	28	32		45		64	74	83	95	100		PVWC
AUG 10.....	1200		924	65	162						34	51	79	100			VW
30.....	1820	20.0	1210	346	1130	24	29		45		84	91	95	100			PVWC
SEP 14.....	1530	20.0	417	50	56												
28.....	1500	17.0	401	32	35												

07099200 ARKANSAS RIVER NEAR PORTLAND, COLO.--Continued

DRAINAGE AREA.--4,280 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1971.
Sediment records: October 1964 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
08...	.60	.000	50	283	.39	699	194	76	.6	445	7.8
NOV.											
05...	.60	.000	40	337	.47	558	238	103	.6	533	8.0
DEC.											
22...	1.0	.003	60	--	--	--	160	16	.7	581	7.9
JAN.											
19...	1.1	.070	40	340	.46	412	230	97	.8	529	7.8
FEB.											
16...	.10	.10	50	370	.50	312	250	105	.8	590	8.2
MAR.											
05...	.50	.080	30	350	.48	325	230	97	.7	582	7.5
13...	.25	.050	--	389	.53	340	250	110	.9	586	8.3
APR.											
06...	.30	.050	20	265	.36	368	170	72	.7	446	7.6
MAY											
17...	.10	.030	20	191	.26	498	130	55	.5	321	7.7
JUNE											
03...	.15	.030	30	183	.25	652	120	41	.4	296	7.6
JULY											
09...	.13	.010	70	138	.19	693	88	28	.4	222	7.9
AUG.											
30...	.30	.030	90	254	.35	857	140	33	.5	422	7.4
SEP.											
14...	.20	.020	90	354	.48	399	230	85	.7	546	8.2

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, COLO.
(Irrigation network station)

LOCATION.--Lat 38°05'02", long 102°55'10", in NW¼NW¼ sec.4, T.23 S., R.49 W., Bent County, at gaging station, 1.1 miles upstream from Caddoa Creek, 1.7 miles downstream from John Martin Dam, and 2.9 miles southeast of Hasty.

DRAINAGE AREA.--18,917 sq mi, of which 785 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1942 to August 1943, October 1945 to July 1949, January 1951 to September 1971.
Water temperatures: January 1951 to September 1971.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 4,590 micromhos Jan. 6; minimum daily, 1,100 micromhos July 3, 4, Aug. 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
19...	145	10.5	14	208	108	283	7.0	193	1270	50	.8
MAR.											
24...	54	13.0	13	320	130	320	7.7	297	1600	80	.6
APR.											
12...	959	11.5	--	290	150	--	--	287	1600	96	--
MAY											
19...	96	14.0	12	320	150	420	7.8	306	1900	140	.7
JUNE											
16...	352	24.0	11	180	79	210	7.6	186	1000	65	1.2
AUG.											
10...	257	22.5	--	220	79	--	--	250	1000	58	--
SEP.											
21...	170	12.0	13	240	92	220	5.0	262	1200	70	.9

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	2890	3180	---	4240	3630	3030	2720	2200	1600	2500	1350
2	2000	2900	3200	---	3890	3690	2920	2810	2100	1200	2300	1900
3	2000	2900	3200	---	3970	3730	2860	3230	2300	1100	1900	2250
4	1990	2940	3220	4290	3860	3690	2920	3550	2300	1100	1850	2800
5	1870	2960	---	4360	3920	3880	2920	3530	2300	1150	2180	3250
6	1680	2960	---	4590	---	---	2940	3750	2500	1200	2200	3400
7	1600	3090	3220	4360	---	---	2890	3710	2300	1250	2300	3500
8	1650	---	3220	4310	4230	3840	2970	3650	2250	1500	1600	3600
9	3430	4330	3220	---	4190	3920	2970	3620	2250	1550	1400	3600
10	3790	4460	3200	---	4360	3080	2960	3710	2400	1550	2000	3500
11	3760	---	3220	4140	3900	3020	2970	3750	2200	1500	2600	3500
12	4020	3490	---	4290	3940	3190	3000	3650	2250	1500	3000	3600
13	2250	3800	---	4230	---	---	3060	3550	2200	1650	3300	3500
14	2600	---	3210	3970	---	---	3090	3590	2050	1400	3400	3500
15	2610	---	3230	4190	---	3090	3090	3520	2000	1300	3400	3500
16	2830	3290	3240	---	4240	3190	3150	3520	2000	1250	3400	3500
17	2550	3290	3250	---	3450	3000	3090	3710	2100	1400	2950	3800
18	2530	3290	3250	4080	3540	3000	3190	3590	2050	1900	3400	3500
19	2650	3290	---	3990	3160	3010	3210	3370	1950	1750	3400	3500
20	2550	3260	---	4060	---	---	3660	3620	1800	1400	3400	3000
21	2730	---	3300	4230	---	---	3770	2890	1800	1850	1300	2600
22	2760	---	3310	4130	3900	---	3520	2180	1650	2200	1620	2200
23	2690	3290	3280	---	3810	3040	3600	2090	1600	2500	2400	2200
24	2770	3310	3280	---	3820	3030	3120	2310	1700	1700	3100	2250
25	2770	3300	---	4230	3880	3030	2620	2220	1700	1800	3200	2200
26	2800	---	---	4280	3850	2970	2540	2400	1600	1800	3300	2200
27	2910	3390	---	3890	---	3050	2300	2400	1650	1750	3500	2200
28	2860	---	4380	4220	---	3050	2620	2120	1170	1950	3500	2250
29	3050	---	4420	4250	---	3050	2840	2070	1620	1850	3500	2250
30	3050	3430	4450	---	---	3110	2970	2550	1700	2000	1100	2250
31	3600	---	4340	---	---	3130	---	2150	---	2000	1900	---

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, COLO.--Continued

EXTREMES, 1970-71.--Continued.
Water temperatures: Maximum, 25.5°C July 14, 18; minimum, 0.5°C Dec. 23, 24.
Period of record.--Dissolved solids (1951-60): Maximum, 4,530 mg/l Feb. 1-3, 1965; minimum, 29[illegible] mg/l June 18, 1965.
Hardness (1951-69): Maximum, 1,910 mg/l Aug. 8, 1955; minimum, 224 mg/l July 6, 1960, June 18, 1965.
Water temperatures: Maximum, 29°C Aug. 6, 1951; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
19...	2.5	.01	380	2040	3.02	869	963	805	4.0	2580	8.1
MAR.											
24...	.50	1.6	440	--	3.67	394	1300	1100	3.8	2940	8.2
APR.											
12...	.20	.01	--	--	--	7220	1300	1100	--	3310	7.7
MAY											
19...	1.4	--	570	3110	4.23	806	1400	1200	4.9	3720	8.0
JUNE											
16...	1.8	--	330	1650	2.24	1570	770	620	3.3	2181	7.4
AUG.											
10...	1.8	.01	--	--	2.54	1300	870	670	--	2240	7.1
SEP.											
21...	3.1	--	--	1980	2.69	909	980	760	3.1	2530	7.6

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	8.0	5.0	---	7.5	5.5	7.0	13.5	18.5	21.5	22.0	21.0
2	14.0	8.0	5.0	---	4.0	4.0	9.0	13.5	18.5	22.0	23.5	22.0
3	14.0	4.5	7.0	---	5.5	4.0	9.5	13.5	18.5	23.0	21.0	20.5
4	15.0	4.0	6.0	8.0	5.5	6.0	9.5	14.5	18.5	---	20.5	18.5
5	15.0	4.0	3.0	9.0	4.0	7.5	9.5	13.5	18.5	23.5	23.5	18.0
6	15.5	7.0	---	8.0	---	---	9.0	14.5	18.5	23.0	19.5	17.0
7	13.5	7.0	3.5	8.5	---	---	9.0	8.0	19.0	23.5	22.0	17.0
8	5.5	---	3.5	6.5	7.0	7.0	10.0	13.5	21.5	23.5	22.0	17.0
9	9.0	10.0	4.0	---	7.0	9.5	10.5	13.0	19.5	23.5	22.0	18.0
10	10.5	10.0	4.5	---	7.0	9.5	10.5	7.0	20.0	24.0	21.5	18.0
11	11.5	---	3.5	6.5	7.0	7.0	10.5	12.0	18.5	25.0	20.5	19.0
12	11.0	7.0	10.0	6.5	7.0	9.5	11.0	10.0	18.5	25.0	23.5	18.0
13	11.0	8.5	---	6.5	---	---	9.0	13.0	19.5	20.5	23.5	15.5
14	11.0	10.0	3.5	6.5	---	---	9.0	12.0	20.0	25.5	23.5	16.0
15	10.5	---	2.0	6.5	---	7.0	13.5	13.0	21.0	24.5	20.5	15.0
16	9.0	5.0	2.0	---	10.5	7.0	14.0	13.5	23.0	19.0	21.0	12.5
17	9.0	5.0	2.0	---	8.5	7.0	14.5	13.5	21.0	24.5	21.0	11.0
18	9.0	5.0	2.0	9.5	7.0	7.0	14.5	11.5	23.0	25.5	21.0	7.0
19	9.0	5.0	10.0	8.0	6.0	8.0	14.5	10.0	23.0	23.5	22.0	8.0
20	9.0	5.0	---	8.0	---	---	11.5	14.0	24.0	19.0	21.0	10.0
21	9.0	13.0	3.0	10.0	---	---	13.0	14.0	24.0	19.5	21.5	10.0
22	9.0	---	3.0	7.5	8.5	---	12.0	14.5	21.0	24.0	21.5	9.0
23	10.0	5.0	0.5	---	4.5	6.0	9.0	17.0	24.0	24.5	21.5	8.0
24	10.0	5.0	0.5	---	4.5	7.0	11.0	13.0	24.5	23.5	20.5	7.5
25	11.5	5.5	---	8.0	4.5	5.0	10.0	15.5	24.5	23.5	20.0	12.0
26	11.0	11.0	---	8.0	4.5	7.0	10.5	17.0	24.0	21.5	21.0	15.0
27	8.0	5.5	---	8.0	---	8.5	11.0	16.0	23.5	20.0	20.0	14.5
28	9.0	1.5	9.0	10.0	---	9.0	11.5	18.0	23.5	22.0	21.5	14.0
29	8.0	---	9.0	8.0	---	9.0	13.5	16.5	24.0	23.5	21.0	14.0
30	8.0	8.0	9.0	---	---	9.5	13.0	16.5	24.0	18.5	20.0	15.0
31	8.0	---	9.0	---	---	9.5	---	17.0	---	22.0	21.0	---

07133000 ARKANSAS RIVER AT LAMAR, COLO.

LOCATION.--Lat 38°06'24", long 102°37'04", in SE¼ sec.30, T.22 S., R.46 W., Prowers County, at gaging station at downstream side of bridge on U.S. Highways 50 and 287, 1.4 miles north of courthouse in Lamar.

DRAINAGE AREA.--19,780 sq mi, of which 950 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1963 to September 1965, September 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	SUS-PENDED SOLIDS (MG/L)
OCT.											
20...	6.7	10.0	298	190	304	2380	140	4.5	.10	.030	20
NOV.											
13...	3.4	7.0	314	196	266	2180	143	4.3	.08	.000	37
DEC.											
16...	5.7	7.5	380	180	333	2400	150	2.6	.15	.010	32
JAN.											
14...	38	2.0	400	200	328	--	120	.10	.00	.10	49
FEB.											
12...	26	10.0	430	190	309	--	360	.10	.15	.070	34
MAR.											
09...	8.5	4.0	380	200	343	2600	5.5	.80	.01	.030	2
APR.											
13...	472	9.0	300	150	284	1500	92	.50	.31	.20	81
MAY											
19...	6.7	22.0	390	200	295	2500	150	2.3	.24	.060	66
JUNE											
15...	6.7	17.0	350	180	291	2300	150	2.8	4.7	.050	45
JULY											
22...	6.7	28.0	320	160	316	1200	120	2.3	.25	.10	8
AUG.											
10...	14	27.0	280	130	264	1700	100	2.1	.27	.26	77
SEP.											
21...	7.3	14.0	350	180	297	2400	100	2.6	.08	.15	38

DATE	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.										
20...	15	0	--	3900	5.30	70.6	1520	1270	4610	7.7
NOV.										
13...	20	0	--	3930	5.34	36.1	1590	1370	4660	7.8
DEC.										
16...	17	--	--	4180	5.68	64.3	1700	1430	4540	7.8
JAN.										
14...	8	--	--	3880	5.28	398	1800	1530	4300	8.1
FEB.										
12...	0	--	--	4280	5.82	300	1900	1650	4540	8.1
MAR.										
09...	5	0	1	4240	5.77	97.3	1800	1520	4820	8.0
APR.										
13...	35	10	50	2960	4.03	3770	1400	1100	3390	7.8
MAY										
19...	21	10	3	4320	5.88	78.1	1800	1600	4616	7.9
JUNE										
15...	24	--	20	4080	5.55	73.8	1600	1400	4530	7.8
JULY										
22...	18	20	30	3470	4.72	62.8	1500	1200	--	7.9
AUG.										
10...	28	20	100	2870	3.90	108	1200	1000	3410	7.7
SEP.										
21...	18	20	30	3420	4.65	67.4	1600	1400	4440	7.6

07137500 ARKANSAS RIVER NEAR COOLIDGE, KANS.

LOCATION.--Lat 38°01'34", long 102°00'41", in NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, at gaging station at bridge, 1 mile south of Coolidge and 1.9 miles downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 sq mi, of which 1,708 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1963 to September 1968, October 1969 to September 1971. Water temperatures: October 1964 to September 1968.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	SUS-PENDED SOLIDS (MG/L)
OCT.											
20...	176	16.0	332	165	249	1980	140	3.4	.11	.020	393
NOV.											
12...	153	9.5	327	176	238	2260	143	3.9	.34	.020	180
DEC.											
15...	139	4.0	390	170	312	2200	150	1.9	.19	.010	212
JAN.											
14...	155	1.0	420	180	276	--	140	.10	.03	.10	21
FEB.											
12...	136	8.0	370	150	296	--	130	.80	.04	.070	66
MAR.											
10...	139	16.0	370	180	267	2500	--	.20	.00	.11	82
APR.											
13...	43	15.0	310	150	267	1700	100	.80	.36	.32	160
MAY											
19...	71	23.0	370	170	234	2300	130	1.9	.63	.10	111
JUNE											
15...	139	26.0	350	160	277	1900	160	2.1	.67	.30	208
JULY											
22...	122	27.0	250	110	229	740	100	3.2	.42	.35	492
AUG.											
11...	119	20.5	320	130	270	1900	130	2.5	.25	.38	151
SEP.											
22...	44	8.0	360	170	291	2200	110	2.4	.11	.23	83

DATE	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.										
20...	19	0	--	3570	4.86	1700	1510	1310	4230	8.5
NOV.										
12...	20	0	--	3860	5.25	1600	1540	1350	4260	8.1
DEC.										
15...	24	--	--	3960	5.39	1490	1700	1440	4310	7.9
JAN.										
14...	0	--	--	4060	5.52	1700	1800	1570	4310	8.1
FEB.										
12...	210	--	--	3940	5.36	1450	1500	1260	4250	8.1
MAR.										
10...	8	0	1	4040	5.49	1520	1700	1480	4590	7.9
APR.										
13...	31	10	90	3120	--	366	1400	1200	3580	7.5
MAY										
19...	41	5	50	3980	--	763	1600	1400	4363	8.0
JUNE										
15...	30	--	100	3680	5.00	1380	1500	1300	4280	7.6
JULY										
22...	0	20	300	2520	3.43	830	1100	890	--	7.8
AUG.										
11...	27	40	200	3150	4.28	1010	1300	1100	3740	7.8
SEP.										
22...	16	5	60	3220	4.38	388	1600	1400	4310	7.8

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, COLO.

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, at gaging station at highway bridge, 6 miles north of Colorado-New Mexico State line, 7 miles downstream from Culebra Creek, 10 miles east of Lobatos, and 14 miles east of Antonito.

DRAINAGE AREA.--7,700 sq mi, approximately (includes 2,940 sq mi in closed basin in northern part of San Luis Valley, Colo.).

PERIOD OF RECORD.--Chemical analyses: September 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	SUS-PENDED SOLIDS (MG/L)
OCT.											
06...	254	10.5	39	8.0	129[a]	76	8.4	.10	.00	.060	14
NOV.											
03...	692	4.0	25	5.1	89	44	5.7	.30	.00	.070	18
DEC.											
02...	544	1.0	28	5.5	96	48	5.4	.20	.00	.040	18
JAN.											
11...	270	.0	30	5.3	120	34	4.8	.60	.03	.13	4
FEB.											
03...	500	3.0	25	4.0	85	--	3.6	.20	.00	.10	3
MAR.											
01...	370	.0	30	6.2	107	70	7.0	.40	.06	.16	15
APR.											
01...	808	8.0	25	5.0	70	37	4.0	.50	.01	.30	97
MAY											
06...	88	9.0	75	19	210	280	27	.00	.17	.090	7
JUNE											
08...	110	18.0	65	17	173	230	20	.00	.21	.10	21
JULY											
06...	118	18.0	98	24	215	320	28	.02	.21	.080	1
AUG.											
04...	128	24.7	44	9.7	163	83	8.7	.00	--	--	--
SEP.											
02...	102	19.0	33	6.7	140	62	9.5	.01	.25	.20	25

a Includes 3 mg/l Carbonate as bicarbonate.

08251500 RIO GRANDE NEAR LOBATOS, COLO.--Continued

DRAINAGE AREA.--7,700 sq mi, approximately (includes 2,940 sq mi in closed basin in northern part of San Luis Valley, Colo.).

PERIOD OF RECORD.--Chemical analyses: September 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.										
06...	10	0	--	259	.35	178	130	24	402	8.3
NOV.										
03...	11	0	--	156	.21	291	84	11	252	8.1
DEC.										
02...	10	0	--	183	.25	269	92	13	286	7.9
JAN.										
11...	13	--	--	184	.25	134	97	0	261	7.9
FEB.										
03...	17	--	--	142	.19	192	79	9	215	7.7
MAR.										
01...	11	0	--	232	.32	232	100	12	284	7.7
APR.										
01...	34	20	40	170	.23	371	83	26	228	7.3
MAY										
06...	23	0	10	628	.85	149	270	93	911	7.8
JUNE										
08...	24	--	6	516	.70	153	230	90	760	7.8
JULY										
06...	0	30	6	712	.97	227	340	170	--	7.5
AUG.										
04...	--	--	--	--	.40	102	150	16	466	7.7
SEP.										
02...	0	20	10	252	.34	69.4	110	0	--	7.3

COLORADO RIVER MAIN STEM

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, COLO.

LOCATION.--Lat 40°04'27", long 106°06'24", Grand County, at bridge at Hot Sulphur Springs, 1 mile downstream from gaging station and 3.5 miles upstream from Beaver Creek.

DRAINAGE AREA.--825 sq mi (at gaging station).

PERIOD OF RECORD.--Chemical analyses: April 1947 to September 1971.
Water temperatures: April 1949 to September 1971.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 196 micromhos Feb. 27; minimum daily, 69 micromhos June 21.
Water temperatures: Maximum, 28°C July 17; minimum, freezing point on many days during November to April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
26...	113	5.0	13	18	3.2	6.9	1.7	84	5.2	4.0	.2
NOV.											
24...	95	5.0	13	17	2.8	6.3	1.6	78	6.5	4.0	.2
DEC.											
15...	85	.0	14	16	3.3	7.2	1.7	81	7.5	1.4	.8
JAN.											
23...	90	.0	22	16	3.2	6.5	2.3	79	2.2	1.4	.2
FEB.											
20...	80	.0	14	17	2.9	6.4	1.6	77	7.0	2.5	.4
MAR.											
14...	85	.0	14	18	4.6	8.2	1.6	71	6.8	1.7	.2
APR.											
08...	208	5.5	14	18	3.9	7.3	2.8	87	7.5	1.4	.2
MAY											
21...	1280	6.5	11	9.5	1.6	3.5	.8	43	4.0	.7	.1
JUNE											
14...	1680	9.5	12	11	2.4	3.9	.9	53	5.3	1.0	.1
JULY											
20...	510	14.0	13	20	3.1	5.1	1.2	80	3.3	.9	.2
AUG.											
25...	177	16.0	13	19	3.3	7.1	2.0	91	7.5	1.4	.1
SEP.											
20...	95	9.0	14	19	3.1	7.0	1.4	89	6.3	.9	.2

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	139	---	151	146	184	132	100	70	120	130	129
2	---	143	---	162	147	183	132	78	125	115	160	127
3	---	140	---	149	149	187	150	72	115	115	140	139
4	---	142	---	150	148	182	109	72	70	115	140	142
5	---	143	---	158	145	157	150	84	72	80	140	139
6	---	140	---	157	148	151	149	82	70	80	135	142
7	---	140	---	145	148	156	153	100	70	110	120	128
8	---	140	---	143	150	153	101	81	70	105	135	128
9	---	140	---	143	69	157	146	70	72	80	145	128
10	---	141	---	143	150	160	146	81	73	75	140	142
11	---	141	---	144	168	184	128	92	80	70	135	143
12	---	138	---	144	172	154	132	78	80	70	135	127
13	---	138	---	158	170	153	132	72	74	115	135	143
14	---	138	---	158	148	106	126	100	75	120	135	126
15	---	157	---	144	170	152	130	92	72	70	130	132
16	---	142	---	144	169	155	124	76	79	75	140	127
17	---	141	---	145	170	156	102	100	120	120	140	125
18	---	142	---	158	170	141	103	77	135	70	130	125
19	---	141	---	174	166	141	103	75	135	70	130	142
20	---	143	---	138	169	142	104	83	71	120	130	126
21	---	150	---	151	170	144	92	70	69	125	145	144
22	---	148	---	164	172	145	92	78	79	125	135	139
23	---	172	---	158	173	145	92	100	73	120	135	143
24	---	175	---	153	194	148	92	100	75	120	140	127
25	---	150	---	159	195	126	100	98	115	130	130	127
26	---	150	---	158	194	126	100	76	115	120	135	166
27	---	149	---	170	196	126	92	76	70	100	135	145
28	---	144	---	159	186	126	92	130	72	100	130	138
29	---	111	---	153	---	127	92	87	115	135	160	142
30	---	143	---	150	---	127	92	78	115	120	140	125
31	---	---	---	148	---	127	---	88	---	120	145	---

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, COLO.--Continued

EXTREMES, 1970-71--Continued.
Period of record.--Specific conductance: Maximum daily, 263 micromhos Mar. 5, 1967; minimum daily, 48 micromhos June 27, 1947.
Water temperatures (1949-71): Maximum, 28°C July 17, 1971; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHD. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT. 26...	.10	.020	20	93	.13	29.0	58	0	.4	148	7.5
NOV. 24...	.10	.030	20	89	.14	26.2	54	0	.4	137	7.5
DEC. 15...	.20	.010	0	92	.13	21.1	54	0	.4	135	7.8
JAN. 23...	.20	.030	30	93	.13	22.6	53	0	.4	141	7.6
FEB. 20...	.10	.030	0	90	.12	19.4	54	0	.4	143	8.1
MAR. 14...	.10	.020	20	91	.12	20.9	64	6	.4	136	7.9
APR. 08...	.10	.10	0	99	.13	55.6	61	0	.4	160	7.5
MAY 21...	.01	.030	30	53	.07	183	30	0	.3	80	7.6
JUNE 14...	.01	.030	60	63	.09	286	37	0	.3	85	7.1
JULY 20...	.01	.030	60	86	.12	118	63	0	.3	124	7.7
AUG. 25...	.24	.030	30	99	.13	47.3	61	0	.4	152	7.4
SEP. 20...	.02	.040	20	96	.13	24.6	60	0	.4	151	7.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	4.0	---	0.0	0.0	0.0	5.0	8.0	11.5	13.0	16.0	18.0
2	---	4.0	---	0.0	0.0	0.0	5.0	9.0	11.0	13.0	19.0	18.0
3	---	4.0	---	0.0	0.0	0.0	5.0	9.5	11.0	14.0	18.0	18.0
4	---	4.0	---	0.0	0.0	0.0	2.0	8.0	10.0	13.5	17.0	18.0
5	---	4.0	---	0.0	0.0	0.0	0.0	8.0	8.5	14.5	15.0	18.0
6	---	4.0	---	0.0	0.0	0.0	0.0	7.5	8.0	14.0	16.0	18.0
7	---	4.0	---	0.0	0.0	0.0	2.0	8.0	10.0	14.0	17.0	18.0
8	---	4.0	---	0.0	0.0	0.0	0.0	7.0	9.5	13.0	16.5	17.0
9	---	4.0	---	0.0	0.0	0.0	0.0	8.0	10.0	12.0	14.0	17.5
10	---	4.0	---	0.0	0.0	0.0	0.0	8.0	9.5	14.0	19.0	18.0
11	---	4.0	---	0.0	0.0	0.0	2.0	7.0	13.0	13.0	16.5	18.0
12	---	4.0	---	0.0	0.0	0.0	2.0	8.0	13.0	13.0	18.5	18.0
13	---	4.0	---	0.0	0.0	0.0	5.0	7.0	12.0	13.5	18.5	17.0
14	---	3.0	---	0.0	0.0	0.0	6.0	7.0	14.0	14.0	17.0	18.0
15	---	4.0	---	0.0	0.0	0.0	6.0	8.0	9.0	13.0	18.0	17.5
16	---	3.0	---	0.0	0.0	0.0	6.0	7.0	12.0	12.5	16.0	8.5
17	---	0.0	---	0.0	0.0	0.0	6.0	7.0	13.0	28.0	19.0	15.0
18	---	0.0	---	0.0	0.0	0.0	6.0	7.0	13.5	24.0	15.0	18.0
19	---	0.0	---	0.0	0.0	0.0	6.0	7.0	13.0	26.0	17.0	16.0
20	---	0.0	---	0.0	0.0	0.0	6.0	6.0	12.0	21.0	17.0	11.0
21	---	0.0	---	0.0	0.0	0.0	5.0	7.0	9.5	18.5	17.0	10.5
22	---	0.0	---	0.0	0.0	0.0	5.0	12.5	10.0	14.0	18.0	9.0
23	---	1.0	---	0.0	0.0	2.0	4.0	12.0	14.5	20.0	18.0	8.0
24	---	0.0	---	0.0	0.0	2.0	5.0	12.0	14.0	22.0	19.0	8.0
25	---	0.0	---	0.0	0.0	4.0	4.0	12.5	11.0	19.0	17.0	7.5
26	---	0.0	---	0.0	0.0	4.0	2.0	10.5	13.0	21.0	18.0	6.0
27	---	0.0	---	0.0	0.0	4.0	4.0	11.0	13.0	18.0	16.0	7.0
28	---	0.0	---	0.0	0.0	4.0	4.0	12.0	12.5	21.0	17.0	8.0
29	---	0.0	---	2.0	---	4.0	4.0	13.0	13.0	20.0	18.5	7.5
30	---	0.0	---	2.0	---	4.0	4.0	13.0	12.0	17.0	18.5	10.0
31	---	---	---	2.0	---	4.0	---	12.0	---	21.0	18.5	---

09069000 EAGLE RIVER AT GYPSUM, COLO.

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, at bridge at Gypsum, about 400 ft upstream from Gypsum Creek, about 520 ft upstream from bridge on U.S. Highways 6 and 24, and about 550 ft upstream from gaging station.

DRAINAGE AREA.--844 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1947 to September 1971.
Water temperatures: April 1949 to September 1971.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 936 micromhos Jan. 7; minimum daily, 180 micromhos June 20, 27, and 28.
Water temperatures: Maximum, 19°C Aug. 16; minimum, freezing point on many days during December to March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
21...	426	5.5	9.0	91	18	26	1.9	144	182	34	.2
NOV.											
24...	290	4.0	9.0	102	21	30	2.6	170	220	39	.1
DEC.											
15...	224	.0	10	120	24	46	2.7	177	250	70	.3
JAN.											
25...	208	1.0	8.9	110	22	46	3.1	156	220	65	.2
FEB.											
22...	178	.5	7.7	110	24	53	2.6	166	220	80	.4
MAR.											
23...	228	6.0	8.4	97	23	35	3.9	151	230	54	.0
APR.											
19...	960	5.5	8.1	41	8.3	12	27	89	64	35	.2
MAY											
20...	960	5.0	7.8	45	10	10	1.3	102	73	11	.1
JUNE											
15...	2920	9.0	6.0	27	6.4	15	1.1	92	44	7.4	.0
JULY											
26...	654	17.5	8.1	90	18	25	2.0	149	180	35	.0
AUG.											
23...	265	18.0	11	150	27	41	3.1	212	300	56	.1
SEP.											
27...	305	12.0	12	170	30	33	2.9	205	400	40	.2

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	640	695	799	756	891	689	450	235	240	625	610
2	---	650	788	752	811	871	742	320	225	280	650	790
3	---	703	746	908	824	860	742	285	220	295	670	690
4	---	757	751	752	845	827	740	300	205	270	680	800
5	---	697	739	914	825	793	746	270	220	260	635	740
6	---	701	729	908	868	834	713	310	225	280	660	710
7	---	676	787	936	868	851	746	355	215	325	675	790
8	---	686	743	793	835	893	676	325	205	335	675	680
9	---	672	699	756	814	822	644	320	205	355	700	600
10	---	701	687	756	799	839	553	325	220	325	725	670
11	---	670	711	791	797	837	461	350	230	360	700	700
12	---	684	745	759	832	837	389	365	220	365	690	750
13	---	682	772	776	830	787	371	330	220	380	700	750
14	---	679	887	766	805	793	343	280	230	380	705	790
15	---	715	796	683	793	854	321	305	200	405	740	790
16	---	790	773	751	806	871	304	280	195	435	750	850
17	---	689	738	776	819	863	294	275	195	445	720	850
18	---	722	715	737	813	863	288	275	195	455	800	800
19	---	748	752	728	798	883	316	290	190	460	800	800
20	---	695	752	771	820	901	326	325	180	440	750	800
21	---	723	757	731	820	837	370	310	195	480	750	760
22	---	692	731	779	890	760	401	280	195	480	740	750
23	---	686	848	773	924	792	410	295	200	480	780	770
24	---	697	810	789	916	726	417	325	200	470	820	790
25	---	684	857	798	822	677	398	305	200	500	860	790
26	---	692	745	783	845	722	411	275	210	530	750	800
27	---	676	811	777	862	769	411	290	180	540	830	810
28	---	692	769	790	871	627	432	265	180	550	590	790
29	---	735	806	826	---	735	441	270	200	560	625	---
30	---	731	797	816	---	714	453	210	235	580	680	---
31	---	---	779	798	---	654	---	220	---	600	790	---

09069000 EAGLE RIVER AT GYPSUM, COLO.--Continued

EXTREMES, 1970-71--Continued.
Period of record.--Specific conductance: Maximum daily, 1,850 micromhos Aug. 6, 1949; minimum daily, 155 micromhos May 23, 1958.
Water temperatures (1949-71): Maximum, 24°C Aug. 24, 1949; minimum, freezing point on many days during winter months.

REMARKS.--Records of discharge are given for Eagle River below Gypsum, Colo.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
21...	.30	.000	40	433	.61	513	301	183	.7	671	7.6
NOV.											
24...	.60	.000	50	508	.75	429	341	202	.7	803	6.8
DEC.											
15...	.60	.010	16	610	.83	369	400	255	1.0	924	8.0
JAN.											
25...	.60	.030	20	550	.75	309	360	232	1.0	836	7.9
FEB.											
22...	.10	.030	10	590	.80	284	380	244	1.2	957	8.0
MAR.											
23...	.40	.000	60	527	.72	324	340	210	.8	848	7.7
APR.											
19...	.40	.040	30	241	.33	625	140	64	.4	415	7.7
MAY											
20...	.18	.020	30	209	.28	542	150	70	.4	349	7.5
JUNE											
15...	.22	.010	50	153	.21	1210	94	18	.7	238	7.7
JULY											
26...	.17	.010	40	432	.59	763	300	180	.6	677	7.9
AUG.											
23...	.31	.010	--	694	.94	497	490	310	.8	1050	7.9
SEP.											
27...	.44	.010	--	791	1.08	651	550	380	.6	1110	7.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	5.0	0.5	0.0	1.5	0.0	6.0	9.5	6.5	13.0	11.5	14.0
2	---	4.5	0.0	0.0	3.0	0.0	6.0	10.5	7.0	14.0	11.5	14.5
3	---	3.5	1.5	0.0	0.5	0.0	6.5	9.0	7.0	11.5	12.0	14.0
4	---	4.0	0.0	0.0	0.0	0.0	9.0	10.0	7.0	11.5	13.5	8.5
5	---	3.5	3.0	0.0	0.0	0.0	8.0	9.5	5.5	13.5	13.0	6.5
6	---	4.5	0.0	0.0	0.0	0.0	8.5	9.0	10.5	10.0	13.0	13.5
7	---	4.5	0.5	0.0	0.0	0.0	9.0	9.0	9.5	12.0	14.0	13.0
8	---	4.5	1.5	0.0	0.0	0.0	9.0	9.0	9.0	11.0	15.0	15.5
9	---	2.0	1.5	0.0	0.0	0.0	9.0	9.5	8.0	11.5	13.5	14.5
10	---	3.5	1.5	0.0	0.0	0.5	10.0	10.0	6.5	11.0	14.0	15.5
11	---	3.5	1.5	0.0	0.5	2.5	10.5	10.0	10.0	10.0	15.0	11.0
12	---	3.5	1.0	0.0	1.5	4.0	10.0	13.0	7.5	11.0	13.5	10.5
13	---	4.5	0.0	0.0	0.0	3.0	8.0	13.0	9.5	12.0	13.0	11.0
14	---	2.0	0.0	0.0	3.0	1.5	10.0	10.5	9.0	14.0	12.0	12.5
15	---	2.0	0.0	0.0	3.0	2.0	10.0	10.5	10.5	11.5	18.5	13.0
16	---	1.5	0.5	0.0	0.0	4.0	11.0	11.5	11.0	12.0	19.0	11.5
17	---	1.0	0.0	1.5	3.0	2.0	8.0	5.5	12.0	13.0	13.0	11.5
18	---	3.0	0.0	0.5	1.5	4.0	8.0	6.5	11.5	14.0	15.0	11.5
19	---	1.0	0.0	2.0	3.0	3.5	7.0	8.0	8.5	14.0	14.0	10.0
20	---	2.0	0.0	0.0	3.0	3.0	7.0	8.0	7.0	13.0	14.0	7.0
21	---	2.0	0.0	0.5	1.5	3.5	7.0	8.5	11.5	14.0	14.0	11.5
22	---	1.5	0.0	0.0	0.0	4.0	5.0	6.0	13.0	14.0	15.0	11.0
23	---	1.0	0.0	0.0	0.0	5.0	9.5	5.5	13.0	13.0	14.5	11.0
24	---	6.5	0.0	0.5	0.0	5.5	10.0	4.5	13.5	11.5	13.0	14.0
25	---	4.0	0.0	1.5	0.5	6.0	5.0	6.0	13.0	13.0	14.0	14.5
26	---	1.0	0.0	1.5	0.0	9.0	5.5	9.5	10.0	14.5	14.5	11.5
27	---	4.0	0.5	3.0	0.0	8.5	7.0	8.0	12.0	12.5	15.5	11.0
28	---	1.0	0.0	2.5	0.0	6.5	8.5	8.0	12.0	13.5	14.5	12.0
29	---	1.0	0.0	2.0	---	7.5	10.0	8.0	11.0	12.5	14.0	---
30	---	0.5	0.0	0.0	---	11.5	10.5	7.0	13.5	10.5	13.5	---
31	---	---	0.0	1.0	---	5.0	---	5.5	---	13.0	13.0	---

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, COLO.
(Irrigation network station)

LOCATION.--Lat 39°34'12", long 107°13'34", Garfield County, at Shoshone powerplant, 6 miles upstream from Glenwood Springs and 6.5 miles upstream from Roaring Fork River.

DRAINAGE AREA.--4,560 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1941 to September 1971.
Water temperatures: May 1949 to September 1971.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 793 micromhos Jan. 7; minimum daily, 205 micromhos May 25, 27, 28.
Water temperatures: Maximum, 20°C Aug. 21, 28; minimum, freezing point on several days during December to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
21...	1660	6.0	11	52	11	43	1.3	126	80	60	.3
NOV.											
24...	1470	3.5	10	47	10	46	2.1	121	68	50	.3
DEC.											
15...	1010	.0	12	60	13	63	2.5	138	97	93	--
JAN.											
25...	1270	.0	11	49	11	62	2.8	125	66	85	.4
FEB.											
22...	1150	.5	9.8	55	10	62	2.4	120	75	100	.5
MAR.											
23...	1600	5.0	9.8	57	11	42	3.0	115	100	67	.3
APR.											
19...	3790	6.0	11	35	6.4	21	3.3	113	36	27	.3
MAY											
20...	5880	6.5	11	28	6.8	15	1.5	100	33	16	.2
JUNE											
15...	8610	12.0	9.9	26	6.0	14	1.4	99	32	12	.1
JULY											
26...	3120	16.5	9.7	50	9.1	30	2.0	119	83	37	.1
AUG.											
23...	1880	18.5	9.8	49	10	45	2.2	124	71	67	.3
SEP.											
27...	1760	11.0	10	57	13	51	2.0	128	110	67	.2

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	593	590	620	603	611	433	---	225	225	520	600
2	---	596	612	580	602	619	490	355	225	240	530	600
3	---	599	609	616	586	599	515	332	220	260	530	600
4	---	602	627	667	631	588	511	288	215	280	530	610
5	---	607	592	739	655	553	515	273	---	290	530	590
6	---	600	617	767	669	580	528	267	235	295	540	590
7	---	592	597	793	648	649	526	269	225	300	540	585
8	---	618	604	775	638	639	510	277	220	320	540	650
9	---	595	587	742	611	595	505	270	225	340	540	530
10	---	595	586	576	559	569	452	271	225	330	540	550
11	---	593	585	550	551	579	406	279	240	---	535	570
12	---	594	713	569	564	577	379	288	240	---	540	590
13	---	581	607	571	575	572	346	291	240	---	540	590
14	---	603	620	590	571	581	330	266	240	---	540	610
15	---	614	632	---	570	581	322	255	235	---	540	600
16	---	616	603	606	564	590	313	257	220	---	550	600
17	---	713	605	584	569	591	304	253	225	395	560	600
18	---	595	561	557	568	586	309	236	230	410	560	590
19	---	587	605	551	566	626	305	257	215	435	550	580
20	---	588	540	531	563	591	313	264	225	410	545	580
21	---	603	605	539	570	600	343	273	215	420	540	575
22	---	601	573	571	638	607	347	259	220	790	545	565
23	---	566	601	616	638	573	351	250	215	590	540	575
24	---	581	686	607	620	654	358	251	210	475	545	580
25	---	592	672	610	591	499	357	261	205	455	545	580
26	---	581	694	610	597	530	359	266	215	445	525	580
27	---	577	556	607	687	469	346	252	205	450	550	590
28	---	586	612	605	628	435	377	238	205	455	515	580
29	---	594	585	604	---	456	381	224	220	460	520	590
30	---	594	---	603	---	474	381	211	225	460	525	590
31	---	---	---	602	---	464	---	223	---	495	550	---

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, COLO.--Continued

EXTREMES, 1970-71.--Continued.
Period of record.--Specific conductance: Maximum daily, 2,260 micromhos Aug. 10, 1947; minimum daily, 153 micromhos May 24, 1948.
Water temperatures (1949-71): Maximum, 22°C July 31, 1954, Aug. 19, 1955; minimum, freezing point on many days during winter months.

REMARKS.--Discharges obtained by subtracting the daily mean flow in Roaring Fork River at Glenwood Springs from the daily mean flow in Colorado River below Glenwood Springs.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
21...	.20	.000	30	321	.46	1510	174	71	1.4	556	7.4
NOV.											
24...	.10	.000	--	294	.38	1120	158	59	1.6	542	7.6
DEC.											
15...	.40	.010	30	410	.56	1120	200	87	1.9	674	8.0
JAN.											
25...	.50	.030	50	350	.48	1200	170	67	2.1	616	7.4
FEB.											
22...	.10	.030	20	370	.50	1150	180	82	2.0	677	7.9
MAR.											
23...	.10	.000	40	347	.47	1500	190	93	1.3	613	7.6
APR.											
19...	.40	.000	50	197	.27	2020	110	21	.9	373	7.8
MAY											
20...	.09	.020	40	161	.22	2560	98	16	.7	274	7.9
JUNE											
15...	.15	.020	50	151	.21	3510	90	8	.6	238	7.7
JULY											
26...	.05	.010	60	280	.38	2360	160	65	1.0	441	7.6
AUG.											
23...	.05	.010	--	316	.43	1600	160	62	1.5	547	7.6
SEP.											
27...	.08	.010	--	374	.51	1780	200	91	1.6	625	7.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	4.5	1.5	1.0	0.5	0.5	5.0	---	11.0	15.0	18.0	18.5
2	---	4.5	1.5	0.5	1.5	0.5	4.5	11.5	12.0	14.0	18.0	18.0
3	---	3.5	1.0	0.0	1.0	1.0	6.0	11.5	12.0	14.0	18.0	16.0
4	---	3.5	1.0	0.0	1.0	1.0	6.0	8.5	11.0	15.0	18.0	11.0
5	---	3.5	0.5	0.0	1.0	1.0	5.5	9.5	---	15.0	18.0	14.0
6	---	5.0	1.5	0.0	0.0	0.5	6.0	9.0	11.5	15.0	18.0	16.0
7	---	4.5	0.5	0.0	0.5	0.5	6.0	9.0	12.0	15.0	19.0	17.0
8	---	5.5	1.0	0.0	0.5	0.5	7.0	9.0	11.5	15.5	17.0	16.0
9	---	5.5	1.0	1.0	0.5	1.0	8.0	8.0	12.0	15.5	18.5	16.0
10	---	4.0	1.0	0.0	0.5	1.0	9.5	9.0	11.5	15.0	18.5	17.0
11	---	3.0	0.5	0.5	1.0	1.5	9.0	9.0	11.0	---	19.0	17.0
12	---	3.0	0.5	0.5	1.0	2.0	8.0	11.0	11.0	---	19.0	18.0
13	---	4.5	1.0	0.5	0.5	3.0	8.5	11.0	12.5	---	19.0	18.0
14	---	2.0	0.5	0.5	1.5	3.5	9.0	11.5	12.0	---	18.0	16.0
15	---	1.5	0.0	---	1.5	3.5	9.0	10.5	12.5	---	17.0	15.0
16	---	2.0	0.0	0.5	1.0	3.0	9.0	11.0	13.0	---	19.0	14.0
17	---	1.5	0.0	1.0	1.0	3.5	9.0	9.0	12.5	---	19.0	10.0
18	---	3.5	0.5	0.5	1.5	2.5	8.5	8.0	12.0	18.0	19.0	9.5
19	---	3.0	1.0	0.5	1.5	1.5	7.0	7.0	13.0	17.0	19.0	10.0
20	---	1.5	1.0	0.5	2.0	3.0	6.0	8.5	14.0	17.0	19.0	11.0
21	---	0.5	0.5	0.5	2.5	4.5	7.0	11.0	14.5	18.0	20.0	10.0
22	---	1.0	0.5	0.5	1.0	5.0	7.0	11.0	14.5	17.5	18.0	11.0
23	---	3.0	0.0	1.0	0.5	5.0	8.5	10.0	14.5	17.5	18.5	12.0
24	---	4.0	0.5	0.0	0.5	6.5	9.0	9.5	14.5	17.0	18.5	12.0
25	---	4.5	0.5	0.5	0.5	6.5	9.0	10.5	15.0	16.0	18.5	12.5
26	---	4.5	0.0	0.5	0.5	6.0	8.5	11.5	14.0	17.0	18.5	13.0
27	---	4.5	0.5	0.5	0.5	7.0	8.0	12.0	15.0	17.5	19.0	12.0
28	---	2.5	0.5	0.5	1.0	6.5	9.0	12.5	15.0	17.5	20.0	13.0
29	---	1.5	1.0	0.5	---	5.5	9.0	13.0	15.0	17.5	19.0	12.0
30	---	3.0	0.0	0.5	---	6.5	9.5	10.0	14.5	17.5	18.5	12.5
31	---	---	0.0	1.0	---	6.0	---	10.0	---	18.0	18.5	---

09095500 COLORADO RIVER NEAR CAMEO, COLO.

LOCATION.--Lat 39°11'20", long 108°16'56", Mesa County, at Grand Valley project diversion dam, 3.7 miles upstream from Cameo, 0.4 mile upstream from Plateau Creek, and 5.9 miles downstream from gaging station.

DRAINAGE AREA.--8,050 sq mi, approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1933 to September 1971.
Water temperatures: April 1949 to September 1971.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 1,110 micromhos Feb. 28; minimum daily, 280 micromhos on several days during June.
Water temperatures: Maximum, 20°C on several days during August; minimum, freezing point on many days during December to January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
23...	7520	8.0	11	74	18	102	4.2	164	160	130	.2
NOV.											
30...	2660	4.0	10	68	17	104	4.1	164	112	160	.4
DEC.											
16...	2230	.0	10	76	20	130	4.4	169	160	170	.4
JAN.											
29...	2010	1.5	10	71	18	130	4.1	157	150	170	.5
FEB.											
26...	1880	.0	9.1	69	17	120	4.1	150	140	170	.6
MAR.											
23...	2270	6.5	8.8	71	17	110	4.3	151	150	150	.5
APR.											
20...	6540	6.5	10	45	9.3	40	3.5	112	74	51	.2
MAY											
17...	10300	11.0	10	37	9.3	30	2.7	125	49	35	.1
JUNE											
17...	15700	13.5	8.1	31	6.5	18	1.7	105	37	23	.1
JULY											
30...	4140	19.0	8.6	59	12	72	2.5	144	100	100	.1
AUG.											
25...	2560	22.0	9.9	71	15	110	3.9	168	140	120	.5
SEP.											
29...	2520	12.0	9.4	71	18	110	3.4	161	150	140	.3

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	937	973	970	1000	1020	1030	719	410	335	385	725	950
2	947	967	1050	985	1050	1060	842	415	350	385	780	950
3	947	971	1040	971	1040	1060	842	420	345	390	810	950
4	959	971	1040	994	1050	1060	845	416	335	390	820	950
5	933	945	1040	1030	1040	1060	843	422	330	390	840	950
6	950	948	1060	965	1030	1070	842	419	335	390	840	950
7	956	968	1060	982	1040	1070	824	440	335	390	860	950
8	950	948	1050	1000	1050	1060	824	440	330	445	880	910
9	981	948	1040	994	1050	1060	607	441	320	450	880	910
10	980	948	1050	994	1040	1060	601	440	320	450	890	890
11	955	---	1040	997	1050	1070	598	461	330	450	890	900
12	974	---	1060	991	1040	1020	605	461	320	450	925	900
13	969	974	1040	994	1020	1040	603	370	320	580	925	920
14	972	962	1060	997	1020	1060	507	369	320	580	925	900
15	914	973	1060	991	1030	1000	470	367	320	580	920	900
16	909	976	1050	997	1030	990	468	368	305	580	920	950
17	903	979	1050	991	1030	997	474	366	305	580	930	950
18	911	974	1060	1020	1020	997	475	366	290	580	930	950
19	969	950	961	1020	1020	993	474	384	285	580	960	950
20	971	953	990	1020	1020	990	578	384	280	585	970	950
21	978	948	1020	1030	1020	997	572	383	280	610	960	950
22	912	951	1000	1020	1020	993	573	425	280	600	960	950
23	915	948	1020	1030	1020	990	575	418	280	660	960	950
24	923	951	1080	1030	1030	729	574	419	280	630	960	950
25	925	951	1080	1010	1020	719	574	417	280	630	960	950
26	920	953	1050	1020	1010	723	576	417	280	630	860	960
27	919	953	1070	1020	1020	722	575	417	280	680	860	960
28	925	953	1060	1020	1110	708	575	418	290	680	860	960
29	978	953	1070	1030	---	721	601	333	305	680	860	960
30	971	951	1070	1010	---	721	601	332	300	680	860	960
31	---	---	1060	1020	---	719	---	331	---	710	860	---

09095500 COLORADO RIVER NEAR CAMEO, COLO.--Continued

EXTREMES, 1970-71.--Continued
Period of record.--Specific conductance: Maximum daily, 1,860 micromhos June 16, 1964; minimum daily, 244 micromhos July 2, 1947, July 3, 1957.
Water temperatures (1949-71): Maximum, 24°C Aug. 16, 1962; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
23...	1.4	.000	50	582	.81	12000	258	123	2.8	973	7.6
NOV.											
30...	1.3	.10	60	558	.76	4010	240	105	2.9	870	7.8
DEC.											
16...	.90	.000	29	650	.88	3910	270	131	3.4	1100	7.9
JAN.											
29...	.70	.030	70	630	.86	3420	250	121	3.6	1050	7.6
FEB.											
26...	.10	.020	40	610	.83	3100	240	117	3.4	1100	8.0
MAR.											
23...	.60	.000	70	589	.80	3610	250	120	3.0	1030	7.6
APR.											
20...	.60	.000	30	291	.40	5140	150	59	1.4	594	7.7
MAY											
17...	.57	.010	90	237	.32	6590	130	28	1.1	491	7.5
JUNE											
17...	.50	.020	50	179	.24	7590	100	18	.8	313	7.6
JULY											
30...	.12	.010	50	426	.58	4760	200	79	2.2	710	7.7
AUG.											
25...	.55	.010	--	555	.75	3840	240	100	3.1	930	7.6
SEP.											
29...	.80	.010	--	585	.80	3980	250	120	3.0	1050	7.8

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	4.0	4.0	0.5	---	0.5	8.5	---	10.0	14.0	20.0	15.0
2	13.0	4.0	3.0	0.5	---	0.5	8.0	---	12.0	15.0	20.0	15.0
3	11.0	4.0	3.0	0.5	---	0.5	8.0	---	12.0	15.0	20.0	15.0
4	11.0	4.0	2.0	0.5	---	0.5	8.0	---	12.0	15.0	20.0	15.0
5	11.0	4.5	2.0	0.5	---	0.5	8.0	---	12.0	15.0	19.0	15.0
6	11.0	4.5	2.0	0.5	---	0.0	8.0	---	13.0	15.0	19.0	15.0
7	10.0	6.5	2.0	0.5	---	0.0	8.0	---	13.0	15.0	19.0	15.0
8	7.0	6.0	2.0	0.5	---	0.5	8.0	---	13.0	15.0	20.0	15.0
9	8.0	5.5	2.0	0.5	0.5	0.5	9.0	---	12.0	15.0	20.0	15.0
10	8.0	5.5	2.0	0.5	0.5	1.0	9.0	---	12.0	16.0	19.0	15.0
11	8.5	5.5	2.0	0.5	0.5	1.0	9.0	---	13.0	16.0	19.0	15.0
12	8.5	5.5	2.0	0.5	0.5	1.0	9.0	---	12.0	16.0	20.0	15.0
13	9.0	5.5	1.5	0.5	0.5	1.5	9.5	---	13.0	16.0	20.0	16.0
14	9.0	4.5	1.0	0.5	0.5	2.5	9.5	---	13.0	17.0	20.0	16.0
15	8.0	3.5	1.0	0.5	1.0	3.5	10.5	---	13.0	17.0	20.0	16.0
16	8.0	3.5	1.0	0.5	1.0	3.5	10.5	---	13.0	17.0	20.0	16.0
17	8.0	3.5	1.0	0.0	1.0	3.5	7.5	---	13.0	18.0	20.0	12.0
18	8.0	3.5	1.0	0.0	1.0	3.5	7.5	---	13.0	18.0	20.0	11.0
19	8.0	3.5	1.0	0.0	1.0	3.5	6.5	---	13.0	18.0	20.0	10.0
20	8.0	3.5	1.0	0.0	1.0	4.0	---	---	13.0	18.0	20.0	10.0
21	8.0	4.0	0.5	0.0	1.0	4.0	---	---	13.0	18.0	20.0	10.0
22	8.0	4.0	0.5	0.0	1.5	4.0	---	9.0	14.0	18.0	20.0	10.0
23	8.0	4.0	0.5	0.0	1.5	4.5	---	9.0	14.0	19.0	20.0	10.0
24	7.0	4.0	0.0	0.0	1.5	6.0	---	9.0	14.0	19.0	19.0	9.0
25	6.5	4.0	0.0	0.0	1.5	6.5	---	11.0	14.0	19.0	19.0	10.0
26	6.0	4.0	0.0	0.0	1.0	6.5	---	12.0	14.0	19.0	19.0	10.0
27	5.0	3.5	0.0	0.0	1.0	7.0	---	11.0	14.0	19.0	19.0	11.0
28	4.0	3.5	0.0	0.0	0.5	7.5	---	12.0	14.0	19.0	19.0	11.0
29	4.0	4.0	0.0	0.0	---	7.5	---	10.0	14.0	19.0	17.0	11.0
30	4.0	4.0	0.0	0.0	---	8.5	---	10.0	14.0	19.0	16.0	11.0
31	7.0	---	0.0	0.0	---	8.5	---	10.0	---	---	19.0	---

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, COLO.
(Irrigation network station)

LOCATION.--Lat 38°59', long 108°27', near center of sec.14, T.2 S., R.1 E., Mesa County, at gaging station at bridge on State Highway 141, 0.4 mile downstream from Whitewater Creek, 0.5 mile south of Whitewater, and 8 miles southeast of Grand Junction.

DRAINAGE AREA.--7,928 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1931 to September 1971.
Water temperatures: April 1949 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
23...	3190	9.5	17	90	35	64	4.0	183	320	8.0	.4
NOV.											
25...	2810	7.5	13	74	27	52	3.2	151	254	6.0	.3
DEC.											
16...	2900	3.0	14	65	28	47	3.0	153	240	14	.4
JAN.											
28...	3430	4.5	12	55	22	36	2.7	139	160	15	.4
FEB.											
26...	3150	2.5	11	45	16	26	2.2	130	110	5.9	.6
MAR.											
25...	4400	7.5	11	52	15	27	2.6	127	130	7.4	.3
APR.											
20...	5200	6.0	12	43	14	24	3.1	114	120	5.3	.2
MAY											
17...	4560	12.0	13	70	21	36	2.6	125	220	5.4	.2
JUNE											
17...	3790	16.5	14	73	25	40	2.8	132	250	8.4	.2
JULY											
30...	1870	17.5	15	110	34	63	3.2	162	390	9.5	.2
AUG.											
27...	1520	21.0	15	140	44	84	5.0	210	520	15	.5
SEP.											
30...	2450	14.0	15	130	42	84	3.4	191	480	25	.4

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	830	749	589	498	430	546	549	800	950	940	1100
2	---	851	745	601	521	477	384	740	875	1050	920	1080
3	---	842	746	598	601	490	444	832	820	740	900	1080
4	---	838	737	585	548	470	404	721	830	900	900	1200
5	---	842	721	544	466	494	463	659	795	1020	940	1200
6	---	844	715	510	479	472	429	743	820	1050	950	1110
7	---	827	701	516	511	433	483	769	860	1100	850	1100
8	---	811	698	496	492	445	452	796	800	1050	750	1100
9	---	806	731	526	465	459	447	899	765	1120	750	1150
10	---	878	725	543	461	466	416	929	810	1170	730	1050
11	---	839	761	566	549	451	389	798	800	1200	720	1080
12	---	802	708	579	562	572	399	726	850	1200	895	1000
13	---	785	678	622	486	471	463	646	840	1200	875	990
14	---	775	674	613	474	579	336	608	870	1250	735	990
15	---	759	689	611	521	584	327	654	810	1300	735	1100
16	---	740	715	591	497	486	390	650	640	1300	875	1000
17	---	780	698	583	561	405	322	617	710	1400	1350	1000
18	---	769	731	611	509	404	352	578	670	1420	1000	1000
19	---	763	711	625	520	395	427	606	650	950	890	1000
20	---	770	690	696	505	404	434	664	690	910	900	1000
21	---	768	722	690	480	467	475	704	675	890	975	1000
22	---	767	682	701	472	502	490	732	625	825	1100	1000
23	---	773	663	690	458	661	556	718	640	1900	1250	990
24	---	762	613	632	461	551	737	781	680	810	1250	1080
25	---	749	580	594	426	595	539	832	660	860	1250	1100
26	---	770	571	585	447	625	537	851	675	860	1200	1100
27	---	798	581	574	609	569	507	763	710	990	1200	1080
28	---	810	639	539	446	595	541	691	720	960	1100	1080
29	---	760	622	547	---	529	564	486	770	925	1050	1050
30	---	761	609	593	---	513	557	668	870	960	1100	1010
31	---	---	593	534	---	444	---	734	---	940	1100	---

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, COLO.--Continued

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 1,900 micromhos July 23; minimum daily, 322 micromhos Apr. 17.
Water temperatures: Maximum, 24°C July 17, 18; minimum, freezing point on several days during January to February.
Period of record: Specific conductance: Maximum daily, 2,730 micromhos Sept. 10, 1956; minimum daily, 280 micromhos May 23, 1948.
Water temperatures (1949-71): Maximum, 30°C Aug. 13, 1958; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
23...	1.3	.000	100	630	.92	5840	368	218	1.5	901	7.8
NOV.											
25...	1.0	.000	100	504	.62	3440	296	172	1.3	772	7.9
DEC.											
16...	1.2	.000	0	490	.67	3840	280	154	1.2	720	8.0
JAN.											
28...	.70	.030	70	370	.50	3430	230	116	1.0	572	7.7
FEB.											
26...	.30	.020	40	290	.39	2470	180	73	.8	474	8.1
MAR.											
25...	.40	.000	90	310	.42	3680	190	87	.8	490	7.8
APR.											
20...	.40	.070	50	280	.38	3930	160	71	.8	445	7.9
MAY											
17...	.65	.020	100	433	.59	5330	260	160	1.0	645	7.3
JUNE											
17...	1.3	.020	150	484	.66	4950	290	180	1.0	733	7.8
JULY											
30...	1.2	.020	120	710	.97	3590	410	280	1.3	1000	7.6
AUG.											
27...	1.5	.010	--	934	1.27	3830	530	360	1.6	1280	7.5
SEP.											
30...	1.2	.020	--	879	1.20	5820	500	340	1.6	1200	8.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.0	6.5	1.5	4.5	1.5	6.5	11.0	13.5	18.5	18.5	18.5
2	---	8.5	6.0	3.5	5.0	1.5	5.5	10.5	14.5	17.5	19.0	18.5
3	---	6.5	5.0	0.5	5.5	3.0	6.5	11.0	15.5	17.5	18.5	18.0
4	---	6.0	5.0	0.5	1.5	5.0	6.5	11.5	15.0	18.0	19.5	15.5
5	---	6.5	5.0	0.0	4.0	5.0	7.5	11.5	14.0	18.5	20.0	15.0
6	---	8.0	5.0	0.0	3.0	3.0	7.5	11.0	14.0	17.5	20.5	15.5
7	---	6.5	5.0	0.0	3.0	3.0	7.5	10.5	15.0	18.0	20.0	17.0
8	---	7.0	3.5	0.0	3.0	5.0	7.5	11.5	15.5	18.5	18.5	17.0
9	---	6.5	5.5	0.0	3.0	4.0	9.0	11.5	15.0	19.0	20.0	16.0
10	---	8.0	5.0	0.0	3.0	5.0	10.0	10.5	10.5	20.5	18.5	17.0
11	---	7.0	4.0	0.5	4.0	5.0	9.0	11.0	15.0	19.0	19.5	16.5
12	---	8.0	3.5	3.0	5.0	5.5	9.5	11.0	14.5	20.0	19.0	17.0
13	---	6.5	3.5	3.0	5.0	6.5	10.0	14.0	14.5	20.5	19.0	17.5
14	---	4.5	2.0	3.0	5.0	3.0	10.0	15.0	16.0	23.0	19.5	17.0
15	---	4.5	3.0	3.0	5.0	5.0	10.0	14.5	16.0	23.0	19.0	15.0
16	---	4.5	2.0	3.0	5.5	5.0	10.0	14.0	17.0	23.5	20.5	12.5
17	---	8.0	3.0	4.0	5.5	5.0	10.0	14.0	17.5	24.0	21.0	17.0
18	---	8.0	5.0	5.0	5.5	4.0	8.5	10.5	17.5	24.0	21.5	11.0
19	---	10.0	1.5	5.0	5.5	4.0	6.5	10.5	16.0	21.0	20.5	10.5
20	---	6.0	3.5	5.0	5.0	5.0	6.0	11.0	15.0	20.5	20.0	10.5
21	---	5.0	4.0	5.0	3.0	5.5	6.5	12.0	18.0	19.5	19.5	11.0
22	---	6.0	4.0	4.0	3.0	6.5	7.0	12.5	18.0	19.5	20.0	11.0
23	---	7.0	4.0	5.0	3.0	6.5	8.5	12.0	18.0	18.0	20.5	11.5
24	---	7.0	2.0	5.0	4.0	7.5	7.5	12.0	20.0	19.0	20.0	12.0
25	---	8.0	1.5	4.5	4.0	7.5	10.0	13.5	18.0	18.5	20.5	12.0
26	---	8.0	1.0	5.5	3.0	9.0	10.0	15.0	18.0	19.5	20.5	12.5
27	---	7.0	1.0	4.0	0.0	9.5	8.5	15.0	18.5	19.5	21.0	14.0
28	---	7.0	3.0	5.0	0.0	9.5	9.0	16.0	18.0	19.0	20.5	12.5
29	---	6.5	0.5	5.0	---	7.5	10.0	15.5	18.5	18.5	20.0	12.5
30	---	7.0	1.5	5.0	---	7.5	10.0	12.5	17.5	18.0	19.0	12.5
31	---	---	3.0	5.0	---	8.5	---	12.5	---	18.5	18.0	---

09179500 DOLORES RIVER AT GATEWAY, COLO.

LOCATION.--Lat 38°40'52", long 108°05'18", Mesa County, 500 ft downstream from bridge on State Highway 141, and 0.3 miles west of Gateway.

DRAINAGE AREA.--4,350 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1970 to September 1971.

REMARKS.--Records of discharge are given for Dolores River near Cisco, Utah.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.										
01...	195	14.0	4.1	123	59	361	19	141	420	550
22...	225	9.5	9.0	104	46	446	22	131	338	740
NOV.										
20...	207	1.5	9.0	105	54	520	26	194	385	800
DEC.										
17...	225	.5	9.0	100	44	370	19	116	360	540
JAN.										
28...	262	.5	7.6	110	47	490	24	211	280	750
FEB.										
25...	231	1.0	7.3	110	42	670	31	153	360	1100
MAR.										
25...	978	8.5	7.0	79	29	150	9.1	171	190	210
APR.										
23...	1087	9.0	8.0	54	16	67	6.8	125	140	92
MAY										
21...	1640	12.5	7.7	51	15	35	3.3	137	90	37
JUNE										
16...	1750	18.0	7.2	45	12	36	2.9	121	88	52
JULY										
29...	150	21.5	5.6	92	34	180	10	118	280	260
AUG.										
26...	495	21.5	9.4	75	23	230	14	256	200	330
SEP.										
30...	58	12.0	6.1	190	110	900	40	122	930	1400

DATE	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.										
01...	--	1630	2.22	895	550	434	--	6.7	2690	7.4
22...	.000	1770	2.43	1090	448	341	1.8	9.2	2920	6.7
NOV.										
20...	.000	2000	2.72	1120	484	325	2.4	10	3440	7.2
DEC.										
17...	.000	1500	2.04	911	430	335	1.2	7.8	2560	7.1
JAN.										
28...	.000	1800	2.45	1270	460	287	.90	9.9	3080	7.2
FEB.										
25...	.020	2400	3.26	1500	440	314	.40	14	4220	7.0
MAR.										
25...	.000	761	1.04	2010	320	180	.60	3.7	1300	7.5
APR.										
23...	.040	451	.61	1320	200	98	1.3	2.1	726	7.4
MAY										
21...	.060	311	.42	1380	190	77	.94	1.1	520	7.6
JUNE										
16...	.010	310	.42	1470	160	62	1.7	1.2	533	7.6
JULY										
29...	.020	935	1.27	379	370	270	3.5	4.1	1610	7.1
AUG.										
26...	.030	1020	1.39	1360	280	72	2.8	6.0	1680	7.1
SEP.										
30...	.020	3650	4.96	572	930	830	2.9	13	5910	6.7

09251000 YAMPA RIVER NEAR MAYBELL, COLO.

LOCATION.--Lat 40°32'20", long 108°05'18", Moffat County, at county bridge, 1 mile north of Maybell and about 3.5 miles downstream from gaging station.

DRAINAGE AREA.--3,410 sq mi, approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: November 1950 to September 1971.
Water temperatures: November 1950 to September 1971.
Sediment records: December 1950 to May 1958.

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 677 micromhos Feb. 18, 19; minimum daily, 100 micromhos May 28.
Water temperatures: Maximum, 26°C on several days during August; minimum, 0.5°C on many days during December to February.

EXTREMES, 1970-71.--Continued.
Period of record.--Specific conductance: Maximum daily, 947 micromhos Sept. 24, 1955; minimum daily, 94 micromhos June 14, 1959.
Water temperatures: Maximum, 29°C Aug. 5, 1963; minimum, freezing point on many days during winter montns.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
20...	474	7.0	8.0	41	16	29	2.3	159	81	12	.3
NOV.											
23...	486	2.0	10	43	20	38	2.2	175	102	14	.3
DEC.											
14...	174	.5	10	42	22	41	2.4	190	110	17	.4
JAN.											
26...	480	.0	11	44	26	41	3.2	183	130	14	.4
FEB.											
23...	370	.5	9.4	49	28	54	2.7	206	140	21	.6
MAR.											
24...	1310	1.5	8.9	43	22	40	4.5	174	140	12	.3
APR.											
22...	5580	7.0	12	38	14	24	3.2	120	100	6.7	.2
MAY											
19...	6940	6.5	11	21	8.6	14	1.4	89	29	4.6	.1
JUNE											
14...	7860	13.5	9.1	14	4.5	5.7	1.1	64	18	3.5	.1
JULY											
27...	838	22.5	9.0	26	10	17	1.7	123	39	8.1	.0
AUG.											
24...	177	24.5	3.9	41	19	45	2.7	187	97	2[illegible]	.3
SEP.											
28...	268	13.0	5.4	39	18	33	1.9	177	84	14	.2

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
20...	.20	.000	60	268	.51	481	168	38	1.0	437	8.1
NOV.											
23...	.10	--	80	316	.46	446	190	46	1.2	507	8.2
DEC.											
14...	.10	.000	0	340	.46	160	200	44	1.3	540	8.1
JAN.											
26...	.60	.020	60	360	.49	467	220	70	1.2	568	7.7
FEB.											
23...	.20	.020	80	410	.56	410	240	71	1.5	682	8.1
MAR.											
24...	.90	.020	100	360	.49	1270	200	55	1.2	578	7.6
APR.											
22...	1.0	.040	40	262	.36	3950	150	54	.8	403	7.8
MAY											
19...	.18	.050	60	134	.18	2510	88	15	.7	200	7.6
JUNE											
14...	.25	.020	60	89	.12	1890	53	1	.3	130	7.4
JULY											
27...	.01	.010	70	171	.23	387	110	5	.7	320	8.1
AUG.											
24...	.06	.000	--	327	.44	156	180	27	1.5	544	8.0
SEP.											
28...	.02	.020	--	283	.38	205	170	26	1.1	470	8.0

09251000 YAMPA RIVER NEAR MAYBELL, COLO.--Continued

SPECIFIC CONDUCTANCE (MICRDMHDS AT 25°C), WATER YEAR OCTDBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	527	598	660	479	476	245	245	120	130	510	530
2	498	521	599	659	484	496	230	250	120	105	520	570
3	499	516	595	656	482	498	225	245	120	135	520	530
4	498	516	597	655	484	494	240	245	140	140	520	535
5	510	516	589	657	482	497	235	245	120	145	525	535
6	498	512	595	656	482	497	230	245	120	145	515	540
7	497	512	589	652	482	277	230	245	120	155	530	535
8	500	510	592	655	484	498	235	245	120	160	530	540
9	500	513	586	653	483	274	230	250	120	365	530	520
10	500	587	596	655	676	274	240	245	125	305	530	525
11	502	588	596	658	676	274	230	245	105	230	530	475
12	522	588	554	652	676	273	230	245	120	380	525	475
13	499	585	570	654	675	274	240	185	120	340	525	475
14	498	587	593	655	675	274	240	240	185	320	525	480
15	520	588	587	657	570	500	245	245	165	355	525	525
16	520	588	585	659	675	442	245	110	185	305	525	495
17	522	586	596	656	675	273	245	120	190	385	510	505
18	522	586	586	656	677	226	245	105	190	220	530	450
19	523	599	590	660	677	497	245	120	190	225	530	460
20	520	588	585	659	672	230	185	110	190	380	525	445
21	543	588	586	667	487	490	240	135	190	520	535	445
22	522	589	589	662	482	231	245	120	185	520	525	540
23	524	589	594	656	480	602	245	115	185	520	525	540
24	523	591	594	653	482	309	240	140	190	520	525	545
25	523	589	590	659	482	278	245	105	190	520	560	545
26	523	594	595	660	482	264	245	105	190	275	530	540
27	459	592	596	651	483	277	150	120	185	520	535	540
28	546	592	586	663	676	277	180	100	185	520	545	540
29	546	589	583	660	---	277	160	105	185	520	540	540
30	547	591	587	656	---	278	145	105	295	520	535	540
31	556	---	596	662	---	277	---	105	---	520	540	---

TEMPERATURE (°C) DF WATER, WATER YEAR OCTDBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	15.5	3.5	0.5	1.0	1.5	3.5	9.0	11.5	16.5	22.0	23.0
2	24.0	14.5	2.0	0.5	0.5	1.0	4.5	8.0	14.5	20.0	24.0	24.0
3	25.5	12.0	2.0	0.5	1.0	2.0	4.5	9.0	14.5	18.5	22.0	18.0
4	23.0	13.0	3.0	0.5	1.0	1.5	4.0	8.0	14.5	20.0	23.0	22.0
5	24.5	10.0	2.0	0.5	1.0	1.5	4.5	9.0	11.5	21.0	22.0	21.0
6	23.0	11.0	3.0	0.5	0.5	1.0	5.0	9.0	14.5	20.0	24.0	18.0
7	22.0	9.0	2.0	1.0	1.0	2.0	4.5	9.0	11.5	22.0	23.0	18.0
8	23.5	10.0	2.0	0.5	1.0	1.5	3.5	8.0	11.5	21.0	23.0	22.0
9	21.0	10.0	1.0	1.0	1.0	1.5	5.5	8.0	14.5	21.0	24.0	21.0
10	21.0	6.5	2.0	1.0	1.0	1.5	5.5	8.0	12.0	21.0	25.0	20.0
11	20.0	6.5	1.0	0.5	1.0	2.0	3.5	9.0	14.5	22.0	25.0	20.0
12	21.0	9.0	1.0	1.0	1.0	1.5	5.5	8.0	12.0	20.0	26.0	20.0
13	19.0	4.5	1.0	0.5	1.0	1.0	4.5	9.0	13.0	21.0	26.0	23.0
14	21.0	6.5	1.5	1.0	1.0	1.5	6.5	9.0	12.0	21.0	25.0	21.0
15	20.0	6.5	0.5	0.5	1.0	1.0	9.0	8.0	15.5	22.0	26.0	14.0
16	19.5	4.5	1.0	1.0	1.0	3.0	8.5	8.0	13.5	---	23.0	14.0
17	20.0	6.5	1.0	0.5	1.0	3.5	9.0	9.0	15.5	---	25.0	12.0
18	20.0	4.5	1.0	1.0	1.0	1.5	9.0	8.0	14.5	24.0	23.0	16.0
19	18.0	4.0	0.5	0.5	1.0	3.5	6.5	9.0	14.5	22.0	26.0	14.0
20	20.0	5.5	0.5	1.0	1.0	2.0	8.5	9.0	16.5	22.0	23.0	18.0
21	16.5	4.5	1.0	0.5	0.5	3.5	9.0	9.0	16.0	21.0	26.0	18.0
22	18.0	4.0	0.5	1.0	1.0	3.0	8.0	10.0	18.5	22.0	25.0	18.0
23	15.5	4.5	1.0	1.0	1.0	4.0	9.0	10.0	18.5	23.0	26.0	14.0
24	18.0	3.0	0.5	0.5	1.0	3.0	8.0	9.0	15.5	22.0	23.0	18.0
25	15.5	4.5	1.0	1.0	1.0	4.0	6.5	10.0	18.5	24.0	25.0	16.0
26	16.5	4.0	1.0	0.5	1.0	4.0	9.0	10.0	18.5	24.0	23.0	18.0
27	14.5	1.5	0.5	0.5	1.0	4.0	8.0	10.0	16.5	22.0	25.0	18.0
28	15.5	1.5	1.0	0.5	0.5	3.0	8.5	12.0	16.5	22.0	24.0	16.0
29	16.5	3.5	0.5	0.5	---	4.0	8.0	10.0	16.5	24.0	25.0	14.0
30	13.5	2.0	1.0	0.5	---	3.0	9.0	14.5	16.5	22.0	22.0	18.0
31	13.5	---	0.5	0.5	---	3.0	---	12.0	---	24.0	23.0	---

09260000 LITTLE SNAKE RIVER NEAR LILY, COLO.

LOCATION.--Lat 40°32'50", long 108°25'25", in NW¼NE¼ sec.20, T.7 N., R.98 W., Moffat County, at gaging station 170 ft downstream from highway bridge, 6 miles north of Lily, and 10 miles upstream from mouth.

DRAINAGE AREA.--3,730 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: September 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SD4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
20...	170	6.5	15	45	11	60	2.1	199[a]	88	19	.4
NOV.											
23...	150	.0	16	49	15	53	1.9	218[b]	108	18	.4
DEC.											
14...	140	.0	19	60	17	70	2.5	249	130	25	.6
JAN.											
25...	155	.0	14	30	7.5	45	1.7	165	45	15	.4
FEB.											
23...	155	.5	14	54	12	71	2.2	210	120	34	.6
MAR.											
24...	853	4.0	11	31	9.3	52	2.5	185	96	16	.4
APR.											
22...	2010	7.0	15	27	7.1	18	2.9	87	46	6.2	.3
MAY											
18...	4880	8.5	13	21	5.2	12	1.2	90	19	4.5	.1
JUNE											
14...	3850	15.5	13	19	3.9	9.5	.7	86	14	5.1	.1
JULY											
27...	142	18.5	14	52	13	59	3.5	206	100	18	.1
AUG.											
24...	10	16.5	14	69	16	110	4.4	235	240	43	.2
SEP.											
28...	68	6.5	11	57	18	100	2.9	260	180	37	.3

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
20...	.30	.030	70	339	.50	168	158	0	2.1	551	8.3
NOV.											
23...	.30	.020	80	369	.53	159	184	5	1.7	572	8.3
DEC.											
14...	.30	.010	56	450	.61	170	220	16	2.1	685	8.3
JAN.											
25...	.90	.030	80	240	.33	100	110	0	1.9	394	7.7
FEB.											
23...	.30	.020	60	410	.56	172	180	8	2.3	654	7.9
MAR.											
24...	.20	.000	110	310	.42	714	120	0	2.1	531	7.7
APR.											
22...	.40	.010	150	167	.23	906	97	25	.8	260	8.0
MAY											
18...	.12	.050	110	121	.16	1590	74	0	.6	186	7.4
JUNE											
14...	.06	.030	100	108	.15	1120	63	0	.5	163	7.9
JULY											
27...	.00	.020	80	361	.49	138	180	14	1.9	487	8.0
AUG.											
24...	.03	.010	--	612	.83	17.0	240	45	3.1	932	8.1
SEP.											
28...	.05	.010	--	534	.73	98.0	220	3	3.0	836	8.0

a Includes 7 mg/l Carbonate as bicarbonate.
b Includes 4 mg/l Carbonate as bicarbonate.

09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, COLO.

LOCATION.--Lat 39°55'16", long 108°17'49", in sec.32, T.1 S., R.97 W., Rio Blanco County, at gaging station, on left bank at downstream side of bridge, 40 ft downstream from Ryan Gulch and 23 miles northwest of Rio Blanco.

DRAINAGE AREA.--485 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1970 to September 1971.

WATER-QUALITY DATA, DECEMBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
DEC.												
15...	22	.5	17	80	14	84	67	150	2.6	560	300	16
JAN.												
27...	16	.5	17	130	0	82	74	140	2.4	558	300	15
FEB.												
24...	14	.0	17	160	0	84	74	160	2.5	576	330	21
MAR.												
24...	125	5.0	11	160	80	41	21	66	3.6	258	110	10
APR.												
21...	10	9.5	20	40	100	88	95	200	4.8	676	450	20
MAY												
19...	14	4.5	20	70	90	76	92	240	4.7	758	430	18
JUNE												
15...	9.5	10.5	18	80	110	74	100	250	4.0	811	470	24
JULY												
28...	13	12.5	19	60	70	70	87	230	3.2	700	390	18
AUG.												
25...	7.8	14.5	19	40	100	85	93	210	3.5	672	430	17
SEP.												
29...	8.2	6.5	17	20	140	78	97	230	3.2	721	470	18

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
DEC.											
15...	.8	1.0	.020	910	1.24	54.1	480	21	3.0	1310	8.1
JAN.											
27...	.8	.80	.030	910	1.24	41.0	510	52	2.7	1330	8.0
FEB.											
24...	1.0	.20	.030	970	1.32	38.5	510	37	3.1	1460	8.2
MAR.											
24...	.7	.30	.10	392	.53	132	190	0	2.1	600	8.0
APR.											
21...	.7	.10	.050	1210	1.65	33.7	610	56	3.5	1760	8.1
MAY											
19...	.7	.22	.080	1260	1.71	48.6	570	0	4.4	1820	8.2
JUNE											
15...	.8	.26	.040	1340	1.82	34.4	600	0	4.5	2040	8.2
JULY											
28...	.5	.17	.050	1160	1.58	43.5	530	0	4.3	1690	7.9
AUG.											
25...	.8	.23	.040	1190	1.62	25.1	590	44	3.7	1600	7.9
SEP.											
29...	.6	.04	.020	1270	1.73	28.1	590	3	4.1	1800	7.9

09306210 PICEANCE CREEK NEAR WHITE RIVER, COLO.

LOCATION.--Lat 39°56'21", long 108°17'19", in NE¼NW¼ sec.28, T.1 S., R.97 W., Rio Blanco County, 0.5 mile downstream from Hutch Gulch, 11 miles southwest of White River and 23 miles northwest of Rio Blanco.

DRAINAGE AREA.--495 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1970 to September 1971.

REMARKS.--Records of discharge are given for 09306200 Piceance Creek below Ryan Gulch, near Rio Blanco.

WATER-QUALITY DATA, DECEMBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	TEMPERATURE (DEG C)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
DEC.												
15...	22	.5	18	80	71	84	72	160	2.7	565	300	15
JAN.												
27...	16	.5	17	110	0	80	76	150	2.5	566	380	13
FEB.												
24...	14	.0	18	140	50	88	73	170	2.6	617	330	20
MAR.												
24...	125	5.0	10	140	22	42	23	70	3.6	280	120	11
APR.												
21...	10	10.5	19	30	170	87	100	210	4.9	594	480	21
MAY												
19...	14	5.5	20	80	90	77	96	260	4.6	815	450	20
JUNE												
15...	9.5	11.0	18	80	120	73	110	300	4.4	920	540	25
JULY												
28...	13	12.5	19	80	60	69	94	260	3.2	758	440	22
AUG.												
25...	7.8	14.5	19	30	80	81	92	230	3.3	706	450	19
SEP.												
29...	8.2	5.5	17	20	100	73	97	250	4.0	744	480	21

DATE	DISSOLVED FLUORIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
DEC.											
15...	.8	.80	.000	930	1.26	55.2	510	47	3.1	1320	8.2
JAN.											
27...	.8	.90	.000	1000	1.36	45.1	510	46	2.9	1360	7.9
FEB.											
24...	1.0	.50	.030	1000	1.36	39.7	520	14	3.2	1550	7.7
MAR.											
24...	.4	.50	.030	420	.57	142	200	0	2.2	684	7.6
APR.											
21...	.7	.30	.020	1220	1.66	33.9	630	140	3.6	1830	8.1
MAY											
19...	.6	.22	.080	1330	1.81	51.4	590	0	4.7	1930	8.2
JUNE											
15...	.8	.04	.060	1520	2.07	39.0	630	0	5.2	2210	8.3
JULY											
28...	.6	.08	.050	1280	1.74	48.0	560	0	4.8	1800	8.0
AUG.											
25...	.7	.25	.040	1240	1.69	26.1	580	2	4.2	1780	7.9
SEP.											
29...	.6	.01	.020	1310	1.78	29.0	580	0	4.5	1860	7.9

09306222 PICEANCE CREEK AT WHITE RIVER, COLO.

LOCATION.--Lat 40°04'39", long 108°14'08", in SE¼SE¼ sec.2, T.1 N., R.97 W., Rio Blanco County, at gaging station, on bridge on county highway 1 mile southwest of White River, 1.3 miles upstream from mouth, and 17 miles west of Meeker.

DRAINAGE AREA.--629 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1970 to September 1971.
Water temperatures: January 1971 to September 1971.

WATER-QUALITY DATA, DECEMBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SID2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
DEC.												
15...	27	.5	16	100	0	72	72	280	3.1	792	0	310
JAN.												
27...	50	.0	17	130	0	70	77	280	3.1	851	0	330
FEB.												
24...	19	.0	17	130	30	72	81	330	3.1	921	0	360
MAR.												
24...	171	6.0	9.9	180	14	33	18	76	3.1	292	0	81
APR.												
21...	11	10.5	18	80	43	61	88	580	5.6	1280	0	510
MAY												
19...	2.2	7.5	12	100	30	41	93	1000	5.9	2130	47	--
JUNE												
15...	2.8	12.5	12	60	60	37	96	1100	6.6	1010	0	570
JULY												
28...	1.5	10.0	8.4	560	60	23	90	1400	5.2	2740	232	50
AUG.												
25...	7.8	15.0	18	80	30	43	88	680	4.7	1540	0	560
SEP.												
29...	10	4.0	12	30	20	45	100	600	3.4	1430	0	520

SPECIFIC CONDUCTANCE (MICRDMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	1650	1980	1400	2600	3100	4900	6100	3100
2	---	---	---	---	1780	1830	1650	2800	3900	5000	6800	3100
3	---	---	---	---	1690	1720	1780	2800	4200	4600	6900	2900
4	---	---	---	---	1700	1630	1860	2800	4400	4500	6800	2900
5	---	---	---	---	1650	1700	1890	3200	4000	5000	6000	2900
6	---	---	---	---	1940	2020	1910	3700	4100	5000	6000	2700
7	---	---	---	---	1710	1860	1990	5400	4500	---	5300	2800
8	---	---	---	---	1820	1700	1960	5300	5100	4900	5400	2700
9	---	---	---	---	1890	1760	1990	5400	5000	4700	5500	2780
10	---	---	---	---	1710	1800	2220	6200	5000	4600	6100	2880
11	---	---	---	---	1670	1810	2220	8200	5000	4300	6000	2870
12	---	---	---	---	1770	1670	2120	5900	4900	4600	6000	2770
13	---	---	---	1820	1790	1110	2030	5900	---	4700	4700	2810
14	---	---	---	1850	1810	1330	2040	5600	4100	6000	4800	2980
15	---	---	---	1820	1730	1700	2170	5200	3900	6200	4600	2950
16	---	---	---	1840	1680	1830	---	6000	4300	6000	4400	2980
17	---	---	---	1800	1740	1780	2020	5900	4000	5900	4700	2910
18	---	---	---	1730	1780	1900	2140	5100	3300	4100	4700	2690
19	---	---	---	1790	1780	1980	2550	5200	4900	6000	4200	2650
20	---	---	---	1800	1820	1820	2550	5100	4000	5300	3600	2690
21	---	---	---	1790	1830	741	2590	5200	6000	5700	3100	2710
22	---	---	---	1830	2000	747	2440	3600	4700	5200	2900	2720
23	---	---	---	1840	1900	687	2650	5100	4300	5800	2900	2810
24	---	---	---	1840	1870	704	2640	6500	4300	4800	3000	2800
25	---	---	---	1840	1800	759	2790	5900	5400	4500	3100	2760
26	---	---	---	1830	2340	1140	2770	4900	6000	4400	2950	2810
27	---	---	---	1790	2030	760	2770	5400	5800	4000	2800	2790
28	---	---	---	1820	2010	888	2770	4300	5800	4400	2800	3190
29	---	---	---	1820	---	1190	2770	4100	4700	2200	3000	3310
30	---	---	---	1830	---	1200	2740	4100	5000	3500	3000	3000
31	---	---	---	1820	---	1200	---	4000	---	---	3100	---

09306222 PICEANCE CREEK AT WHITE RIVER, COLO.--Continued

EXTREMES, 1971.--Specific conductance: Maximum daily, 8,200 micromhos May 11; minimum daily, 687 micromhos Mar. 23.
Water temperatures: Maximum, 25°C June 16; minimum, freezing point on many days during January to March.
Period of record.--Specific conductance: Maximum daily, 8,200 micromhos May 11, 1971; minimum daily, 687 micromhos Mar. 23, 1971.
Water temperatures: Maximum, 25°C June 16, 1971; minimum, freezing point on many days during January to March 1971.

WATER-QUALITY DATA, DECEMBER 1970 TO SEPTEMBER 1971

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
DEC.												
15...	35	1.0	1.6	.020	1200	1.63	87.5	480	0	5.6	1700	8.2
JAN.												
27...	37	1.2	1.0	.16	1200	1.63	162	490	0	5.5	1840	8.1
FEB.												
24...	47	1.5	.10	.050	1400	1.90	71.8	510	0	6.3	2040	8.1
MAR.												
24...	11	.5	.40	.040	378	.51	175	160	0	2.6	641	7.6
APR.												
21...	80	1.5	.50	.080	1980	2.69	62.5	510	0	11	2760	8.2
MAY												
19...	150	2.7	.44	.10	--	--	--	480	0	20	4360	8.4
JUNE												
15...	1000	3.0	.03	.030	3320	4.52	25.1	490	0	22	5020	8.5
JULY												
28...	240	4.1	.02	.10	3400	4.62	13.8	430	0	29	5440	8.5
AUG.												
25...	86	1.8	.14	.070	2240	3.05	47.2	470	0	14	3180	8.2
SEP.												
29...	76	1.4	.06	.030	2060	2.80	55.6	520	0	11	2990	8.2

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	2.0	0.0	2.5	5.0	10.0	10.0	17.5	12.5
2	---	---	---	---	2.0	0.0	2.5	6.0	12.0	17.0	16.0	11.5
3	---	---	---	---	1.0	0.0	2.0	8.0	10.0	13.5	17.0	11.5
4	---	---	---	---	0.0	0.0	2.5	6.0	12.0	13.5	17.0	11.0
5	---	---	---	---	0.5	0.0	2.0	5.5	15.0	11.5	17.0	10.0
6	---	---	---	---	0.0	0.0	2.0	10.0	15.0	15.0	14.5	10.0
7	---	---	---	---	0.5	1.5	2.0	11.0	10.0	---	17.5	13.0
8	---	---	---	---	0.5	1.5	4.0	10.0	15.0	19.0	14.5	11.0
9	---	---	---	---	0.0	1.5	4.5	6.5	10.0	17.5	13.0	10.0
10	---	---	---	---	1.0	3.0	5.0	7.0	12.0	20.0	14.0	14.0
11	---	---	---	---	1.0	4.0	5.5	7.0	10.0	11.0	13.0	11.0
12	---	---	---	---	0.5	4.0	5.5	8.0	12.0	19.0	13.0	13.0
13	---	---	---	0.0	1.5	4.5	7.0	13.0	---	20.0	12.0	9.0
14	---	---	---	0.0	0.0	3.0	5.5	13.0	12.0	13.5	14.0	9.0
15	---	---	---	0.0	2.0	3.0	4.0	11.0	12.0	15.0	12.5	7.0
16	---	---	---	1.0	2.0	0.0	---	11.0	25.0	15.0	12.0	7.0
17	---	---	---	0.5	1.5	2.0	7.0	6.5	15.0	13.0	14.0	7.0
18	---	---	---	1.0	4.0	0.5	4.5	7.0	20.0	21.0	17.0	3.0
19	---	---	---	1.0	1.5	0.0	5.0	15.0	20.0	15.0	14.5	3.0
20	---	---	---	0.0	1.0	2.0	4.5	7.5	11.0	15.0	16.0	4.0
21	---	---	---	0.0	0.0	4.0	5.0	6.0	15.0	15.0	15.5	6.5
22	---	---	---	0.0	0.0	4.0	7.5	9.5	12.0	20.0	16.0	6.0
23	---	---	---	0.0	0.0	5.0	5.0	9.0	15.0	15.0	14.0	7.0
24	---	---	---	0.0	0.0	5.5	5.5	10.0	16.0	15.0	16.5	5.5
25	---	---	---	1.0	0.0	4.5	8.0	9.0	11.0	11.0	16.5	6.0
26	---	---	---	0.0	0.0	7.5	6.0	11.0	12.0	20.0	15.0	7.0
27	---	---	---	0.0	0.0	7.5	5.0	17.0	17.0	16.0	15.0	5.0
28	---	---	---	0.5	0.0	4.5	5.0	18.0	15.0	13.0	14.0	3.0
29	---	---	---	1.0	---	4.5	6.0	10.0	17.0	11.0	16.0	3.5
30	---	---	---	1.0	---	5.0	5.5	9.0	16.0	15.0	13.0	4.0
31	---	---	---	2.0	---	5.5	---	10.0	---	---	11.0	---

09306500 WHITE RIVER NEAR WATSON, UTAH

LOCATION.--Lat 39°59', long 109°11', in sec.2, T.10 S., R.24 E., Uintah County, at bridge on State Highway 45, 350 ft upstream from gaging station, about 1 mile downstream from Evacuation Creek, and 7 miles north of Watson.

DRAINAGE AREA.--4,020 sq mi, approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: December 1950 to September 1971.
Water temperatures: December 1950 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	TEMPERATURE (DEG C)	SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 13...	585	7.0	--	--	--	--	--	--	--	--	--
JAN. 13...	460	.0	19	82	26	63	2.9	258	200	31	.5
FEB. 23...	370	.0	13	72	24	60	1.5	233	150	35	--
MAR. 29...	831	8.5	--	61	23	56	4.5	198	190	20	--
APR. 13...	755	12.5	--	58	22	44	3.1	191	130	25	--
MAY 13...	1060	16.0	--	48	14	22	1.3	158	78	15	--
JUNE 07...	1850	14.5	--	45	13	18	1.1	159	61	8.3	--
JULY 07...	908	18.0	--	52	15	19	1.6	171	79	12	--
AUG. 16...	299	21.0	--	62	24	55	2.1	214	150	33	--
SEP. 02...	412	24.0	16	69	25	68	3.3	270	170	29	.2

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	642	672	706	712	725	823	794	540	340	320	625	750
2	654	666	694	---	711	786	717	539	370	350	625	800
3	632	659	681	---	714	778	731	534	390	400	620	720
4	636	653	667	697	754	822	740	491	385	400	620	700
5	997	623	698	---	728	764	756	428	365	400	630	710
6	678	663	680	667	771	774	738	370	355	400	650	710
7	1790	668	669	732	749	740	735	366	375	420	---	690
8	1050	654	658	758	764	713	712	384	370	435	650	660
9	779	676	687	714	789	692	728	389	365	445	650	710
10	681	676	674	783	784	788	706	397	350	480	650	670
11	707	686	696	848	763	879	692	417	355	495	---	660
12	705	686	634	866	736	664	661	436	360	500	650	640
13	696	667	---	832	---	719	608	438	355	500	625	620
14	657	633	669	682	---	734	555	420	350	510	---	620
15	656	602	760	635	697	690	509	---	345	495	675	620
16	636	664	717	---	695	687	491	---	340	505	680	600
17	829	673	802	---	691	693	457	373	330	525	680	610
18	847	677	692	656	780	726	434	361	330	540	660	740
19	642	735	---	662	725	803	418	330	325	575	675	720
20	638	649	---	684	743	751	488	358	315	580	690	620
21	647	627	738	669	760	711	491	381	310	575	710	600
22	645	654	---	624	762	807	541	399	315	580	680	600
23	644	696	---	674	786	743	581	411	305	595	730	600
24	639	676	747	664	767	787	587	373	305	625	750	600
25	655	673	---	699	795	822	587	391	305	650	760	600
26	681	798	---	726	816	716	565	410	295	625	760	610
27	659	710	---	727	---	738	548	414	305	620	800	610
28	652	657	792	713	---	812	520	410	305	625	760	610
29	650	697	804	712	---	684	531	375	305	625	790	620
30	697	686	742	696	---	751	530	334	315	620	790	630
31	732	---	739	694	---	761	---	332	---	640	775	---

09306500 WHITE RIVER NEAR WATSON, UTAH--Continued

EXTREMES, 1970-71.--Specific conductance: Maximum daily, 1,790 micromhos Oct. 7; minimum daily, 295 micromhos June 26.
Water temperatures: Maximum, 22.0°C July 18, 22, Aug. 9; minimum, freezing point on many days during January to March.
Period of record.--Specific conductance: Maximum daily, 4,450 micromhos Aug. 4, 1955; minimum daily, 295 micromhos June 26, 1971.
Water temperatures: Maximum, 31°C Aug. 8, 1954; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIOS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
13...	--	--	--	--	--	--	--	--	--	800	7.4
JAN.											
13...	.50	--	40	550	.75	686	310	98	1.6	817	7.7
FEB.											
23...	.00	--	--	470	.64	471	280	89	1.6	765	8.0
MAR.											
29...	.70	.050	--	455	.62	1026	250	85	1.6	696	7.9
APR.											
13...	.00	.010	--	376	.51	767	240	79	1.2	627	7.7
MAY											
13...	.10	.020	--	--	--	--	180	48	.7	453	8.0
JUNE											
07...	.16	.020	20	--	--	--	170	35	.6	384	8.0
JULY											
07...	.04	.010	--	--	--	--	190	51	.6	444	8.1
AUG.											
16...	.05	.010	--	--	--	--	250	78	1.5	678	8.0
SEP.											
02...	.52	.020	100	516	.70	574	280	54	1.8	807	7.8

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	5.0	3.0	0.5	1.0	0.5	4.5	8.0	11.0	16.0	21.0	18.0
2	11.0	2.0	2.5	---	1.0	0.5	4.5	8.0	11.0	16.0	21.0	18.0
3	10.0	2.0	2.0	---	1.0	0.0	2.5	8.0	10.0	16.0	20.5	16.5
4	9.0	2.0	3.0	0.0	0.5	1.0	2.5	12.0	13.5	16.0	21.0	20.0
5	8.0	2.0	2.5	---	0.5	1.0	3.5	8.0	12.5	18.0	21.0	14.5
6	6.0	2.0	---	0.0	0.5	1.0	4.5	8.0	14.0	18.0	21.0	14.5
7	6.0	2.0	---	0.0	0.5	1.0	4.5	8.0	13.5	16.5	---	16.5
8	6.0	2.0	4.0	0.0	0.5	1.0	4.5	8.0	14.5	19.0	21.0	20.0
9	7.0	1.0	4.0	0.0	0.5	1.0	5.5	7.0	13.5	18.0	22.0	15.5
10	7.0	1.0	3.0	0.0	0.5	1.0	5.5	8.0	13.5	18.5	21.0	15.5
11	5.0	1.0	2.5	0.0	0.5	1.0	9.0	7.0	13.5	18.0	---	16.5
12	3.0	2.0	3.0	0.0	0.5	1.0	5.5	11.0	20.0	18.0	21.0	17.5
13	2.0	2.0	3.0	0.0	---	0.0	5.0	11.5	13.5	19.0	20.0	18.0
14	2.0	1.0	3.0	0.0	---	0.5	7.0	9.0	14.5	19.0	---	18.0
15	4.0	1.0	3.0	0.5	1.0	0.5	8.5	---	15.5	20.0	20.0	14.5
16	5.0	1.0	3.0	---	1.0	1.0	7.0	---	14.5	20.0	18.5	15.5
17	---	1.0	3.0	---	1.0	1.0	6.5	10.0	15.5	21.5	21.0	15.5
18	5.0	2.0	3.0	0.5	1.0	1.0	7.0	8.0	19.5	22.0	21.0	11.0
19	4.0	2.0	---	0.5	1.0	1.0	6.5	8.0	15.5	21.0	21.0	10.0
20	3.0	2.0	5.0	0.5	1.0	1.0	5.5	8.0	17.0	21.0	21.0	15.5
21	3.0	2.0	4.0	0.5	0.5	1.0	5.5	7.0	16.5	21.0	21.0	9.0
22	4.0	2.0	2.0	0.5	0.5	1.0	7.5	12.0	16.5	22.0	21.0	9.0
23	4.0	2.0	4.0	0.5	0.5	4.5	7.0	7.0	16.5	21.0	21.0	9.0
24	6.0	2.0	3.5	0.5	0.5	4.0	10.0	7.0	---	20.0	21.0	9.0
25	5.0	1.0	5.0	0.5	1.0	4.0	10.0	9.0	16.5	21.0	21.0	7.0
26	4.0	---	3.0	0.5	1.0	5.5	9.0	13.5	16.5	20.5	21.0	8.5
27	5.0	2.5	---	0.0	---	4.5	9.0	13.5	16.0	21.0	20.0	9.0
28	5.0	2.5	---	0.0	---	4.0	9.0	14.5	16.5	21.0	20.5	9.0
29	4.0	2.5	6.0	0.0	---	3.5	8.0	15.5	16.5	20.0	20.0	8.5
30	3.0	2.5	5.0	0.0	---	3.5	9.5	14.5	16.5	20.0	20.0	11.0
31	3.0	---	6.5	0.0	---	3.5	---	11.0	---	20.5	18.0	---

09341200 WOLF CREEK NEAR PAGOSA SPRINGS, COLO.

LOCATION.--Lat 37°26'47", long 106°53'00", Mineral County, at gaging station, on right bank 0.3 mile upstream from Fall Creek and 14 miles northeast of Pagosa Springs.

DRAINAGE AREA.--14.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	TEMPERATURE (DEG C)	SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.											
07...	13	8.0	16	5.4	.7	2.6	.9	22	2.5	2.0	.0
NOV.											
04...	11	5.0	18	6.0	.7	2.9	1.0	26	4.5	2.0	.1
APR.											
07...	28	2.0	17	5.1	.7	2.7	1.2	22	1.3	.5	.1
19...	31	2.0	17	5.7	.6	3.7	2.4	21	4.5	.9	.0
MAY											
05...	48	4.0	18	4.5	.7	3.1	1.0	18	4.3	.3	.3
19...	50	6.0	16	4.8	.4	2.2	.9	19	5.3	.0	.0
JUNE											
02...	73	6.0	16	4.1	.4	2.1	.7	21	4.5	.6	.0
16...	99	11.0	15	3.9	.4	2.0	.5	20	2.3	.4	.1
JULY											
07...	24	12.0	16	4.8	.3	2.6	1.8	21	2.8	1.2	.1
AUG.											
11...	5.8	14.0	18	6.6	.7	3.0	.8	24	2.3	.1	.0
SEP.											
08...	6.7	10.0	16	6.4	.6	2.9	.9	28	5.3	.7	.1

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.											
07...	.10	.020	20	41	.06	1.66	16	0	.3	57	6.9
NOV.											
04...	.00	.000	30	48	.05	1.22	18	0	.3	61	7.8
APR.											
07...	.10	.020	0	40	.05	3.10	16	0	.3	48	7.7
19...	.10	.050	110	46	.06	3.90	17	0	.4	43	7.5
MAY											
05...	.00	.020	60	41	.06	5.40	14	0	.4	41	7.5
19...	.02	.020	0	39	.05	5.36	14	0	.3	40	7.1
JUNE											
02...	.12	.020	20	39	.05	7.75	12	0	.3	38	7.1
16...	.07	.020	0	35	.05	9.37	11	0	.3	38	7.0
JULY											
07...	.02	.020	20	40	.05	2.64	13	0	.3	40	7.0
AUG.											
11...	.02	.020	--	43	.06	.68	19	0	.3	56	7.7
SEP.											
08...	.00	.010	--	47	.06	.85	18	0	.3	54	7.1

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
APR 19, 1971	1445	2.0	31.4	19	1.6												
MAY 19.....	1400	6.0	50.9	22	3.0												
JUN 16.....	1300	11.0	99.2	22	5.9												
JUL 7.....	1240	12.0	24.4	7	.46												
AUG 11.....	0930	14.0	5.9	3	.05												
SEP 8.....	1145	10.0	6.7	27	.49												

09347200 MIDDLE FORK PIEDRA RIVER NEAR PAGOSA SPRINGS, COLO.

LOCATION.--Lat 37°29'12", long 107°09'46", in SW¼NW¼ sec.35, T.38 N., R.3 W., Hinsdale County, at gaging station, on right bank 0.6 mile upstream from headgate on Toner-Taylor ditch, 4.1 miles northeast of Piedra guard station, and 17 miles northwest of Pagosa Springs.

DRAINAGE AREA.--32.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
07...	24	9.0	22	6.7	1.4	4.0	1.1	25	4.5	1.5	.0
NOV.											
04...	10	6.0	23	6.8	1.6	4.6	.9	36	3.5	3.0	.1
APR.											
07...	31	5.0	18	6.7	1.4	4.9	1.6	30	5.8	2.0	.1
19...	33	4.0	17	6.9	1.3	4.8	1.4	32	6.8	.7	.0
MAY											
05...	37	5.0	22	6.7	1.3	5.3	1.4	29	9.2	.6	.3
19...	49	8.0	21	6.8	1.2	3.9	1.1	29	7.0	.3	.0
JUNE											
02...	75	6.0	18	5.4	1.0	3.1	.6	28	3.8	.6	.1
16...	126	10.0	16	4.5	.9	2.3	1.0	21	5.3	.9	.1
JULY											
07...	34	13.0	19	5.6	.9	3.1	1.0	26	3.8	1.0	.2
AUG.											
11...	10	18.0	21	7.6	1.4	4.4	1.3	34	3.5	.3	.0
SEP.											
08...	14	14.0	22	6.8	1.2	4.2	1.1	36	5.0	1.1	.1

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
07...	.10	.010	0	53	.09	4.35	22	1	.4	70	7.1
NOV.											
04...	.00	.030	30	62	.08	1.62	24	0	.4	75	7.6
APR.											
07...	.00	.080	20	56	.08	4.82	22	0	.5	74	8.1
19...	.00	.080	40	55	.07	4.97	23	0	.4	63	7.1
MAY											
05...	.00	.030	80	61	.08	6.24	22	0	.5	62	7.3
19...	.03	.030	10	56	.08	7.42	22	0	.4	63	7.1
JUNE											
02...	.02	.10	30	47	.06	9.52	18	0	.3	109	7.1
16...	.01	.020	0	41	.06	13.9	15	0	.3	43	7.2
JULY											
07...	.00	.030	10	47	.06	4.34	18	0	.3	57	7.4
AUG.											
11...	.00	.050	--	56	.08	1.54	25	0	.4	68	7.6
SEP.											
08...	.01	.030	--	59	.08	2.25	22	0	.4	69	7.2

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-ERA-TURE (°C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
APR 19, 1971	1115	4.0	33.5	11	.99												
MAY 19.....	1100	8.0	49.1	7	.93												
JUN 16.....	1015	10.0	126	26	8.8												
JUL 7.....	1540	13.0	34.2	5	.46												
AUG 11.....	1245	18.0	10.2	2	.06												
SEP 8.....	1540	14.0	14.1	10	.38												

09352900 VALLECITO CREEK NEAR BAYFIELD, COLO.
(Hydrologic bench-mark station)

LOCATION.--Lat 37°28'39", long 107°32'35", in NW¼ sec.16, T.37 N., R.6 W., (projected), La Plata County, at gaging station, 60 ft upstream from Fall Creek, 0.8 mile downstream from Bear Creek, 6.7 miles north of Vallecito Dam, and 18 miles north of Bayfield.

DRAINAGE AREA.--72.1 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1968, August 1970 to September 1971. Water temperatures: November 1962 to September 1971.

WATER QUALITY DATA, AUGUST 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
AUG.												
11...	72	3.1	--	--	--	8.6	1.6	.8	.6	28	5.2	.9
SEP.												
09...	92	3.0	--	--	--	9.2	1.7	.9	.6	34	6.0	.9
OCT.												
08...	70	3.0	--	--	--	11	2.2	1.0	2.3	39	8.2	1.9
NOV.												
05...	50	3.2	0	0	0	11	2.0	1.0	3.9	40	9.0	.0
DEC.												
10...	32	3.5	0	0	0	11	2.4	1.6	2.2	41	6.5	.0
JAN.												
07...	24	5.0	100	0	40	12	2.3	1.8	1.0	52	8.0	.7
FEB.												
04...	17	4.0	120	0	40	11	2.3	1.4	.6	46	7.0	.0
25...	12	4.6	60	0	--	12	2.4	1.6	1.1	42	10	.8
APR.												
01...	130	4.5	40	10	--	9.8	2.2	1.1	.8	37	5.0	.3
22...	102	4.4	20	57	--	11	2.1	1.3	.7	38	7.5	.4
MAY												
06...	147	4.5	120	97	40	10	2.2	1.7	.9	33	5.8	1.0
17...	296	4.0	30	30	40	8.8	1.5	.8	.5	32	7.8	.5
20...	176	4.2	30	30	10	10	2.0	.9	.7	32	7.5	.0
JUNE												
08...	518	3.2	60	60	10	7.3	1.4	.7	.2	28	8.8	.4
17...	544	2.9	40	20	30	6.6	1.5	.7	.2	23	8.8	.7
JULY												
08...	245	2.6	10	64	20	4.9	1.0	.5	.4	19	4.5	.8
AUG.												
12...	44	3.4	10	0	--	9.1	1.8	1.0	.6	30	7.0	.1
SEP.												
01...	94	3.5	10	340	--	10	1.8	.9	.5	34	7.3	.7

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
AUG.											
11...	.3	.10	0	35	.05	6.87	28	5	.1	60	7.5
SEP.											
09...	.2	.30	30	40	.05	8.77	30	2	.1	65	8.0
OCT.											
08...	.2	.10	30	52	.06	7.78	36	4	.1	79	7.5
NOV.											
05...	.2	.10	30	50	.07	6.86	36	3	.1	77	7.7
DEC.											
10...	.2	.20	30	48	.07	4.17	38	4	.1	81	8.0
JAN.											
07...	.1	.20	10	56	.08	3.66	40	0	.1	86	8.0
FEB.											
04...	.3	.20	10	50	.07	2.32	37	0	.1	86	7.9
25...	.5	.10	0	54	.07	1.76	40	6	.1	91	8.0
APR.											
01...	.2	.10	0	43	.06	15.1	34	3	.1	74	8.0
22...	.1	.10	10	47	.06	12.9	36	5	.1	74	7.5
MAY											
06...	.5	.10	60	44	.06	17.5	34	7	.1	73	7.4
17...	.2	.07	10	40	.05	32.0	28	2	.1	67	7.4
20...	.1	.11	0	42	.06	20.0	33	7	.1	71	7.2
JUNE											
08...	.2	.11	30	37	.05	51.7	24	1	.1	65	7.1
17...	.3	.09	0	34	.05	49.9	23	4	.1	52	7.7
JULY											
08...	.3	.09	0	25	.03	16.5	16	1	.1	41	7.3
AUG.											
12...	.1	.08	--	38	.05	4.53	30	6	.1	68	7.5
SEP.											
01...	.2	.08	--	42	.06	10.7	32	5	.1	71	7.5

09352900 VALLECITO CREEK NEAR BAYFIELD, COLO.--Continued

EXTREMES, 1970-71.--Water temperatures: Maximum, 17.0°C on several days during July and August, minimum, freezing point on many days during October to March.
Period of record.--Water temperatures: Maximum, 17°C July 21, 1963, several days during July and August, 1971; minimum, freezing point on many days during winter months.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	6.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	6.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
5	4.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
6	4.0	4.0	2.0	1.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
7	5.0	4.0	2.0	0.0	1.0	1.0	0.0	0.0	---	---	0.0	0.0
8	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
9	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
10	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
11	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
12	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
13	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
14	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
15	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
16	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
17	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	1.0	0.0
18	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	1.0	1.0
19	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	1.0	1.0
20	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	1.0	1.0
21	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	1.0	1.0
22	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	2.0	1.0
23	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	2.0	1.0
24	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	2.0	1.0
25	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0
26	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	5.0	5.0
30	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	5.0	5.0
31	1.0	0.0	---	---	0.0	0.0	0.0	0.0	---	---	5.0	5.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.0	1.0	---	---	10.0	5.0	13.0	10.0	16.0	12.0	14.0	10.0
2	3.0	2.0	---	---	9.0	5.0	14.0	12.0	16.0	12.0	14.0	11.0
3	4.0	2.0	---	---	10.0	6.0	14.0	11.0	14.0	12.0	13.0	11.0
4	4.0	2.0	---	---	---	---	15.0	10.0	14.0	13.0	13.0	7.0
5	4.0	4.0	---	---	---	---	15.0	9.0	14.0	13.0	11.0	6.0
6	5.0	4.0	6.0	4.0	---	---	15.0	11.0	14.0	11.0	12.0	8.0
7	4.0	4.0	7.0	4.0	---	---	12.0	11.0	17.0	13.0	12.0	10.0
8	6.0	4.0	6.0	4.0	9.0	7.0	13.0	8.0	17.0	13.0	14.0	10.0
9	8.0	5.0	7.0	4.0	10.0	7.0	13.0	10.0	17.0	13.0	14.0	10.0
10	7.0	5.0	7.0	5.0	10.0	8.0	13.0	11.0	15.0	13.0	13.0	10.0
11	9.0	5.0	8.0	6.0	11.0	8.0	13.0	9.0	15.0	13.0	14.0	10.0
12	9.0	5.0	10.0	7.0	10.0	9.0	15.0	10.0	10.0	9.0	14.0	11.0
13	8.0	5.0	10.0	6.0	13.0	9.0	17.0	11.0	13.0	9.0	13.0	11.0
14	9.0	6.0	10.0	6.0	13.0	9.0	17.0	13.0	13.0	10.0	12.0	9.0
15	9.0	7.0	9.0	6.0	13.0	9.0	17.0	13.0	12.0	11.0	12.0	8.0
16	10.0	7.0	9.0	6.0	11.0	9.0	14.0	11.0	12.0	10.0	12.0	7.0
17	10.0	7.0	9.0	6.0	12.0	9.0	15.0	11.0	11.0	11.0	10.0	8.0
18	7.0	5.0	6.0	4.0	10.0	8.0	14.0	12.0	12.0	11.0	8.0	4.0
19	5.0	4.0	7.0	3.0	11.0	7.0	13.0	12.0	12.0	11.0	6.0	3.0
20	4.0	4.0	10.0	4.0	11.0	7.0	15.0	12.0	11.0	11.0	6.0	4.0
21	5.0	4.0	10.0	5.0	12.0	8.0	15.0	13.0	12.0	11.0	6.0	5.0
22	---	---	8.0	5.0	13.0	9.0	15.0	13.0	13.0	11.0	6.0	4.0
23	---	---	8.0	5.0	13.0	9.0	14.0	13.0	13.0	10.0	6.0	4.0
24	---	---	10.0	4.0	13.0	9.0	15.0	11.0	14.0	11.0	8.0	5.0
25	---	---	9.0	5.0	14.0	9.0	15.0	11.0	14.0	11.0	8.0	5.0
26	---	---	10.0	5.0	13.0	10.0	15.0	13.0	14.0	12.0	8.0	6.0
27	---	---	10.0	6.0	13.0	9.0	15.0	13.0	15.0	11.0	8.0	5.0
28	---	---	9.0	5.0	12.0	9.0	16.0	11.0	15.0	11.0	7.0	5.0
29	---	---	7.0	5.0	14.0	9.0	16.0	11.0	13.0	11.0	7.0	6.0
30	---	---	7.0	4.0	13.0	8.0	17.0	11.0	11.0	10.0	8.0	6.0
31	---	---	10.0	5.0	---	---	17.0	13.0	13.0	10.0	---	---

09352900 VALLECITO CREEK NEAR BAYFIELD, COLO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 8, 1970	0755	1.0	70.3	1	.19												
NOV 5.....	0930	1.0	50.8	1	.14												
DEC 10.....	0930	0.0	32.2	0	.00												
JAN 7, 1971	1000	0.0	24.2	1	.07												
FEB 4.....	1000	0.0	17.2	0	.00												
25.....	1000	0.0	12.1	2	.07												
APR 1.....	0900	1.0	130	2	.70												
22.....	0950	4.0	102	2	.55												
MAY 6.....	0930	4.0	147	2	.79												
20.....	0930	4.0	176	2	.95												
JUN 8.....	0930	7.0	518	20	28												
17.....	1800	11.0	544	21	31												
JUL 8.....	0920	8.0	245	14	9.3												
AUG 12.....	0930	9.0	44.2	12	1.4												
SEP 1.....	0915	10.0	94.0	12	3.0												

SAN JUAN RIVER BASIN

09357500 ANIMAS RIVER AT HOWARDSVILLE, COLO.

LOCATION.--Lat 37°50'00", long 107°35'55", in sec.12, T.41 N., R.7 W., San Juan County, at gaging station, on right bank 1,000 ft downstream from bridge on State Highway 110, 0.3 mile southwest of Howardsville, and 0.4 mile downstream from Cunningham Creek.

DRAINAGE AREA.--55.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1971.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
APR 21, 1971	1245	6.0	74.5	6	1.2												
MAY 5.....	1310	4.0	93.1	322	81	15	17				62	86	99	100			VPWC
19.....	1150	5.0	133	10	3.6												
JUN 16.....	1810	9.0	615	201	334	9	13				54	66	81	94	100		VPWC
JUL 9.....	1300	12.0	232	7	4.4												
AUG 13.....	1500	15.0	43.7	1	.12												
SEP 10.....	1015	10.0	54.4	4	.59												

09357500 ANIMAS RIVER AT HOWARDSVILLE, COLO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
07...	60	4.0	6.5	41	2.3	2.1	.6	39	87	1.0	.2
NOV.											
04...	42	6.0	8.0	45	2.7	2.4	.5	42	99	2.0	.5
APR.											
07...	52	7.0	7.1	42	2.8	2.2	.9	42	91	.5	.4
21...	74	6.0	7.1	38	2.3	2.3	1.1	32	85	.5	.9
MAY											
05...	93	7.0	7.3	35	2.1	2.7	.7	33	69	.6	.7
19...	133	5.0	6.1	30	2.0	1.4	.5	29	62	.2	.3
JUNE											
04...	238	6.0	5.3	22	1.4	1.3	.3	34	43	.8	.3
16...	615	9.0	3.9	15	1.1	.9	.1	24	29	.4	.4
JULY											
09...	232	12.0	4.7	22	1.6	1.1	.6	26	43	.9	.5
AUG.											
13...	43	15.0	6.4	38	2.1	1.9	.4	36	79	.0	.3
SEP.											
10...	54	10.0	6.5	38	2.3	1.9	.5	52	78	.7	.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
07...	.20	.000	0	160	.25	29.5	112	80	.1	264	7.3
NOV.											
04...	.20	.000	20	181	.25	20.9	124	90	.1	286	7.2
APR.											
07...	.20	.030	0	169	.23	24.0	120	82	.1	270	7.9
21...	.30	.000	20	154	.21	31.0	100	78	.1	244	7.2
MAY											
05...	.30	.030	40	136	.19	34.2	96	69	.1	216	7.0
19...	.25	.020	0	118	.16	42.4	83	59	.1	194	7.2
JUNE											
04...	.19	.010	30	92	.13	59.1	61	33	.1	146	7.7
16...	.16	.000	0	63	.09	105	42	22	.1	105	7.2
JULY											
09...	.12	.010	0	88	.12	55.1	61	40	.1	143	7.1
AUG.											
13...	.09	.000	---	147	.20	17.3	100	74	.1	238	7.3
SEP.											
10...	.15	.010	---	155	.21	22.8	100	62	.1	243	7.4

09358900 MINERAL CREEK ABOVE SILVERTON, COLO.

LOCATION.--Lat 37°51'04", long 107°43'31", San Juan County, at gaging station, on right bank 200 ft upstream from bridge, 0.6 miles upstream from Middle Fork, and 4.3 miles northwest of Silverton.

DRAINAGE AREA.--11.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
07...	11	3.0	10	41	3.0	3.2	.4	6	121	1.0	.1
NOV.											
04...	8.6	.0	11	47	3.2	3.4	.4	6	135	1.0	.3
APR.											
07...	20	4.0	8.9	31	2.3	5.8	.6	7	98	.5	.3
21...	18	2.0	9.7	32	2.5	3.2	.7	2	97	.6	.1
MAY											
05...	28	3.0	9.8	27	2.3	3.1	.5	3	80	.4	.4
19...	30	1.0	8.5	27	2.3	2.3	.5	2	83	.0	.2
JUNE											
04...	49	7.0	6.5	19	1.7	2.0	.2	8	56	.7	.2
16...	113	9.0	4.3	13	1.3	1.2	.0	12	36	.4	.2
JULY											
09...	42	9.0	5.4	17	1.1	1.5	.5	18	42	.7	.3
AUG.											
13...	12	12.0	8.5	32	1.9	2.5	.4	11	88	.2	.1
SEP.											
10...	12	11.0	7.9	35	2.0	2.3	.4	20	84	.8	.3

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
07...	.10	.000	20	183	.26	5.96	115	110	.1	283	6.8
NOV.											
04...	.00	.000	10	204	.29	5.02	130	125	.1	311	6.9
APR.											
07...	.30	.000	0	152	.21	8.21	87	81	.3	230	6.6
21...	.20	.000	10	148	.20	7.19	90	88	.1	237	5.1
MAY											
05...	.20	.030	60	126	.17	9.56	77	74	.2	202	6.5
19...	.14	.010	10	125	.17	10.1	77	75	.1	201	5.1
JUNE											
04...	.12	.010	20	91	.12	12.1	54	48	.1	146	6.9
16...	.11	.000	0	63	.09	19.2	38	28	.1	100	6.9
JULY											
09...	.05	.000	0	78	.11	8.93	47	32	.1	126	7.0
AUG.											
13...	.05	.000	--	140	.19	4.61	88	79	.1	219	7.1
SEP.											
10...	.06	.000	--	143	.19	4.63	96	79	.1	219	6.8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-ERA-TURE (°C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
APR 21, 1971	1000	2.0	18.0	12	.58												
MAY 19.....	0910	1.0	30.0	23	1.9												
JUN 16.....	1540	9.0	113	97	30						40	50	64	86	100		VW
JUL 9.....	1010	9.0	42.4	7	.80												
AUG 13.....	1145	12.0	12.2	3	.10												
SEP 10.....	1200	11.0	12.0	5	.16												

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
09019000 - COLORADO RIVER BELOW LAKE GRANBY COLO (LAT 40 08 39 LONG 105 52 00)										
OCT., 1970										
26...	21	8.0	7.0	6.5	1.2	2.5	.7	29	2.8	5.0
JAN., 1971										
23...	19	3.0	5.7	6.6	1.6	2.5	.8	30	3.2	.6
MAY										
27...	418	6.5	5.6	6.7	1.1	2.5	.7	34	4.3	.4
SEP.										
20...	9.8	8.0	6.0	7.6	.8	5.6	.8	31	4.5	.2
09038500 - WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, COLO (LAT 40 02 07 LONG 106 12 17)										
OCT., 1970										
26...	252	8.0	18	12	2.0	8.9	9.1	53	3.8	1.3
MAY , 1971										
27...	274	6.0	10	13	2.0	3.1	1.5	62	3.8	.6
09057700 - BLUE RIVER AT MOUTH, NEAR KREMMLING, COLO (LAT 40 01 55 LONG 106 23 09)										
OCT., 1970										
26...	367	6.0	10	28	5.6	5.7	1.0	89	32	8.0
MAY , 1971										
27...	702	10.0	6.7	23	4.2	4.8	1.6	84	28	1.7
09070500 - COLORADO RIVER NEAR DOTSERO (LAT 39 38 40 LONG 107 04 40)										
NOV., 1970										
24...	1110	3.5	11	47	11	22	1.8	120	76	20
FEB., 1971										
22...	971	1.5	9.3	39	8.8	20	2.1	115	58	26
MAY										
20...	5720	6.5	12	25	6.2	8.2	1.5	93	26	5.2
AUG.										
23...	1570	18.5	9.9	44	9.0	19	2.0	120	54	22
09085000 - ROARING FORK RIVER AT GLENWOOD SPRINGS, COLO (LAT 39 32 37 LONG 107 19 44)										
NOV., 1970										
24...	734	6.0	10	74	12	25	1.2	146	126	29
FEB., 1971										
22...	530	.0	8.1	89	12	24	1.6	145	160	28
MAY										
20...	1530	5.5	9.1	56	9.4	11	1.3	120	80	10
AUG.										
23...	689	14.5	12	90	14	36	2.4	206	140	49
09105000 - PLATEAU CREEK NEAR CAMEO, COLO (LAT 39 11 00 LONG 108 16 10)										
NOV., 1970										
30...	162	4.5	25	42	35	67	5.0	388	74	10
FEB., 1971										
26...	82	.5	27	59	35	61	4.2	374	97	14
MAY										
17...	720	10.5	14	33	11	18	2.6	166	22	3.2
AUG.										
25...	100	21.5	35	72	40	78	6.6	450	110	11
09149500 - UNCOMPAHGRE RIVER AT DELTA, COLO (LAT 38 44 30 LONG 108 04 50)										
NOV., 1970										
25...	228	5.0	14	180	73	166	4.4	135	---	13
FEB., 1971										
26...	96	.5	15	230	92	200	4.9	292	1100	23
MAY										
17...	496	9.5	16	150	48	95	4.5	210	590	11
AUG.										
27...	236	17.0	20	220	61	130	4.5	294	840	15

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
09019000 - COLORADO RIVER BELOW LAKE GRANBY COLO (LAT 40 08 39 LONG 105 52 00)										
OCT., 1970										
26...	.10	.000	40	.09	3.63	21	0	.2	73	8.0
JAN., 1971										
23...	.10	.020	36	.05	1.85	23	0	.2	54	7.5
MAY										
27...	.04	.020	38	.05	42.9	21	0	.2	55	7.3
SEP.										
20...	.13	.010	41	.06	1.09	22	0	.5	56	7.1
09038500 - WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, COLO (LAT 40 02 07 LONG 106 12 17)										
OCT., 1970										
26...	.12	4.8	--	.07	36.7	38	0	.6	92	7.7
MAY , 1971										
27...	.09	.020	65	.09	48.1	41	0	.2	99	7.4
09057700 - BLUE RIVER AT MOUTH, NEAR KREMMLING, COLO (LAT 40 01 55 LONG 106 23 09)										
OCT., 1970										
26...	5.0	.020	136	.17	124	93	20	.3	217	7.7
MAY , 1971										
27...	.03	.010	111	.15	210	75	6	.2	182	7.5
09070500 - COLORADO RIVER NEAR DOTSERO (LAT 39 38 40 LONG 107 04 40)										
NOV., 1970										
24...	.10	.000	248	.36	791	162	64	.8	417	7.9
FEB., 1971										
22...	.10	.020	220	.30	577	130	36	.8	388	8.0
MAY										
20...	.09	.020	130	.18	2010	88	12	.4	215	7.6
AUG.										
23...	.03	.010	219	.30	928	150	48	.7	395	7.6
09085000 - ROARING FORK RIVER AT GLENWOOD SPRINGS, COLO (LAT 39 32 37 LONG 107 19 44)										
NOV., 1970										
24...	.40	.000	350	.51	745	234	114	.7	591	8.0
FEB., 1971										
22...	.10	.020	400	.54	572	270	151	.6	644	8.2
MAY										
20...	.14	.010	236	.32	975	180	80	.4	395	7.6
AUG.										
23...	.22	.010	446	.61	830	280	110	.9	700	7.9
09105000 - PLATEAU CREEK NEAR CAMEO, COLO (LAT 39 11 00 LONG 108 16 10)										
NOV., 1970										
30...	.50	.030	450	.61	197	249	0	1.8	730	8.3
FEB., 1971										
26...	.10	.030	480	.65	106	290	0	1.6	770	8.0
MAY										
17...	.54	.050	188	.26	365	130	0	.7	304	7.6
AUG.										
25...	.46	.060	577	.78	156	340	0	1.8	872	7.9
09149500 - UNCOMPAHGRE RIVER AT DELTA, COLO (LAT 38 44 30 LONG 108 04 50)										
NOV., 1970										
25...	3.7	.000	--	2.01	911	749	638	2.6	1880	7.9
FEB., 1971										
26...	.90	.020	1800	2.45	467	960	720	2.8	2330	8.0
MAY										
17...	2.5	.030	1030	1.40	1380	570	400	1.7	1360	7.8
AUG.										
27...	3.2	.040	1450	1.97	924	800	560	2.0	1860	7.7

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971--Continued

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
09163500 - COLORADO RIVER NEAR COLORADD-UTAH STATE LINE (LAT 39 10 00 LONG 108 57 24)										
NOV., 1970										
10...	5550	6.5	12	83	28	92	4.0	174	282	55
FEB., 1971										
10...	6100	2.0	12	69	23	79	3.2	157	190	70
JUNE										
02...	15100	14.0	11	54	16	35	2.2	151	130	27
SEP.										
13...	4780	19.5	14	120	36	95	4.2	202	380	74
09177100 - SAN MIGUEL RIVER BELDW URAVAN, COLO (LAT 38 23 08 LONG 108 45 28)										
NOV., 1970										
20...	130	2.D	9.0	98	53	54	4.8	116	400	22
FEB., 1971										
25...	100	2.5	6.9	100	72	86	7.2	97	480	170
MAY										
21...	510	11.0	7.8	56	26	24	3.2	89	190	15
AUG.										
26...	160	22.0	9.0	91	41	34	4.2	88	370	25
09346000 - NAVAJO RIVER AT EDITH, COLO (LAT 37 00 10 LONG 106 54 25)										
OCT., 1970										
12...	68	2.5	24	24	4.7	8.0	1.4	74	39	.3
JAN., 1971										
20...	37	.0	27	26	6.0	9.6	1.7	80	50	1.0
20...	40	.0	27	26	6.0	9.6	1.7	80	50	1.0
APR.										
19...	42	1.5	22	24	6.2	10	2.6	78	37	.9
JULY										
22...	48	20.5	25	28	7.1	10	2.3	108	39	1.3
09346400 - SAN JUAN RIVER NEAR CARRACAS, COLO (LAT 37 00 43 LONG 107 18 34)										
OCT., 1970										
12...	282	8.5	19	26	5.1	14	1.9	91	42	1.0
JAN., 1971										
20...	180	.0	21	32	7.4	26	2.9	107	74	4.5
APR.										
19...	650	5.5	18	16	3.6	11	1.9	63	25	1.4
JULY										
21...	165	20.5	18	30	7.0	17	2.6	119	48	2.4
09349800 - PIEDRA RIVER NEAR ARBOLES, COLO (LAT 37 05 18 LONG 107 23 50)										
OCT., 1970										
12...	167	10.0	15	39	5.0	12	1.8	108	52	.8
JAN., 1971										
20...	100	.0	17	52	7.2	19	2.5	130	94	4.0
APR.										
19...	485	6.5	13	30	3.8	7.1	2.0	82	29	7.3
JULY										
21...	103	20.5	15	47	6.1	14	2.6	141	59	2.5
09354500 - LOS PINOS RIVER AT LA BOCA, COLO (LAT 37 00 37 LONG 107 35 49)										
OCT., 1970										
12...	340	12.5	5.0	20	3.0	6.3	1.1	80	11	1.4
JAN., 1971										
20...	135	.0	4.7	27	4.5	13	1.7	110	17	2.7
APR.										
19...	54	10.5	5.7	34	5.2	20	2.3	134	25	4.0
JULY										
21...	188	22.5	9.2	32	5.1	13	2.6	143	16	2.2

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971--Continued

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
09163500 - COLORADO RIVER NEAR COLORADO-UTAH STATE LINE (LAT 39 10 00 LONG 108 57 24)										
NOV., 1970										
10...	1.8	--	644	.97	10700	322	179	2.2	1030	7.8
FEB., 1971										
10...	.80	.030	520	.71	8560	270	141	2.1	826	7.5
JUNE										
02...	.55	.020	352	.48	14400	200	77	1.1	621	7.0
SEP.										
13...	1.3	.010	828	1.13	10700	450	280	2.0	1240	8.0
09177100 - SAN MIGUEL RIVER BELOW URAVAN, COLO (LAT 38 23 08 LONG 108 45 28)										
NOV., 1970										
20...	11	.000	710	1.07	277	462	367	1.1	1130	7.8
FEB., 1971										
25...	4.3	.000	990	1.35	267	560	480	1.6	1580	6.8
MAY										
21...	7.0	.010	397	.54	547	250	170	.7	624	6.6
AUG.										
26...	6.0	.010	644	.88	278	400	320	.7	951	6.3
09346000 - NAVAJO RIVER AT EDITH, COLO (LAT 37 00 10 LONG 106 54 25)										
OCT., 1970										
12...	--	--	138	.21	27.9	79	18	.4	197	7.8
JAN., 1971										
20...	--	--	170	.21	15.8	90	24	.4	236	7.6
20...	.10	--	170	.21	17.1	90	24	.4	236	7.6
APR.										
19...	.20	.080	143	.19	15.6	85	21	.5	219	7.7
JULY										
22...	.05	.060	167	.23	22.3	99	11	.4	237	8.0
09346400 - SAN JUAN RIVER NEAR CARRACAS, COLO (LAT 37 00 43 LONG 107 18 34)										
OCT., 1970										
12...	--	--	154	.22	126	84	10	.7	234	7.8
JAN., 1971										
20...	.10	--	230	.30	108	110	22	1.1	353	7.9
APR.										
19...	.00	.010	108	.15	190	55	3	.6	164	8.0
JULY										
21...	.28	.010	185	.25	82.0	100	6	.7	285	8.1
09349800 - PIEDRA RIVER NEAR ARBOLES, COLO (LAT 37 05 18 LONG 107 23 50)										
OCT., 1970										
12...	--	--	179	.27	88.4	119	30	.5	290	7.9
JAN., 1971										
20...	.10	--	260	.35	70.2	160	53	.7	406	7.6
APR.										
19...	.20	.020	134	.18	175	90	23	.3	204	8.0
JULY										
21...	.10	.010	217	.30	60.3	140	27	.5	332	7.9
09354500 - LOS PINOS RIVER AT LA BOCA, COLO (LAT 37 00 37 LONG 107 35 49)										
OCT., 1970										
12...	--	--	87	.13	88.1	61	0	.3	150	7.8
JAN., 1971										
20...	.00	--	130	.18	49.6	86	0	.6	193	7.8
APR.										
19...	.10	.000	163	.22	23.8	110	0	.8	275	8.1
JULY										
21...	.03	.040	151	.20	73.1	100	0	.6	238	7.9

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971--Continued

DATE	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
09363500 - ANIMAS RIVER NEAR CEDAR HILL, N. MEX (LAT 37 02 15 LONG 107 52 25)										
OCT., 1970										
13...	582	7.5	7.2	58	8.7	14	2.3	126	88	11
JAN., 1971										
21...	340	.5	7.4	66	11	19	3.3	153	100	16
APR.										
20...	980	3.5	7.3	46	6.4	8.1	2.1	104	61	5.8
AUG.										
17...	346	17.5	10	77	12	28	4.0	203	120	21
09366500 - LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE (LAT 36 59 59 LONG 108 11 17)										
MAY , 1971										
13...	35	17.0	9.2	67	36	22	2.2	184	200	10
SEP.										
02...	9.2	22.0	14	120	65	40	2.7	245	390	18
09371000 - MANCOS RIVER NEAR TOWAOC, COLO (LAT 37 01 39 LONG 108 44 27)										
MAY , 1971										
13...	248	14.0	10	56	24	23	2.0	121	170	3.7
SEP.										
02...	17	22.0	9.4	250	88	170	7.7	201	1100	29
09372000 - MCELMO CREEK NEAR COLORADO-UTAH STATE LINE (LAT 37 19 27 LONG 109 00 54)										
MAY , 1971										
13...	111	14.0	11	190	110	100	4.7	254	820	28
SEP.										
02...	74	22.0	13	280	130	140	6.1	285	1200	32

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971--Continued

DATE	NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
09363500 - ANIMAS RIVER NEAR CEDAR HILL, N. MEX (LAT 37 02 15 LONG 107 52 25)										
OCT., 1970										
13...	--	--	258	.36	420	187	84	.4	427	8.4
JAN., 1971										
21...	.00	--	300	.48	327	210	84	.6	466	7.9
APR.										
20...	.20	.010	189	.28	545	140	56	.3	318	8.1
AUG.										
17...	.13	.050	374	.50	340	240	75	.8	606	8.1
09366500 - LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE (LAT 36 59 59 LONG 108 11 17)										
MAY , 1971										
13...	.40	.020	439	.60	41.8	320	160	.5	709	7.9
SEP.										
02...	.10	.010	771	1.05	19.2	570	370	.7	1140	7.9
09371000 - MANCOS RIVER NEAR TOWAOC, COLO (LAT 37 01 39 LONG 108 44 27)										
MAY , 1971										
13...	.20	.050	349	.47	234	240	140	.6	573	7.8
SEP.										
02...	1.3	.020	1760	2.39	82.7	990	820	2.4	2250	7.4
09372000 - MCELMO CREEK NEAR COLORADO-UTAH STATE LINE (LAT 37 19 27 LONG 109 00 54)										
MAY , 1971										
13...	1.7	.060	1400	1.90	420	930	720	1.4	1880	7.9
SEP.										
02...	1.9	.020	1950	2.65	390	1200	1000	1.7	2250	7.7

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