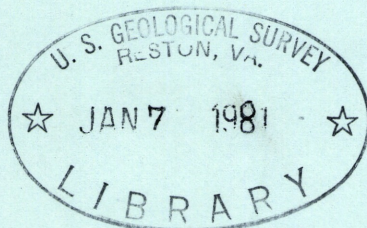


R
(200)
Ga 3
Wyoming
1974
part 2

1974

Water Resources Data for Wyoming

Part 2. Water Quality Records



RECEIVED

OCT 20 1975

DATA REPORTS UNIT



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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

CALENDAR FOR WATER YEAR 1974

1973

OCTOBER

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	25	26	27
28	29	30	31			

NOVEMBER

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
25	26	27	28	29	30	

DECEMBER

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	25	26	27	28	29
30	31					

1974

JANUARY

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	25
26	27	28	29	30	31	

FEBRUARY

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	25	26	27	28		

MARCH

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	25	26	27	28	29	30
31						

APRIL

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	25	26	27
28	29	30				

MAY

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	25
26	27	28	29	30	31	

JUNE

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	25	26	27	28	29
30						

JULY

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	25	26	27
28	29	30	31			

AUGUST

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
25	26	27	28	29	30	31

SEPTEMBER

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	25	26	27	28
29	30					

1974

Water Resources Data for Wyoming

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

**Prepared in cooperation with the State of Wyoming
and with other agencies**

Prepared in cooperation with

Office of the Wyoming State Engineer
Wyoming Department of Economic Planning and Development
Wyoming Department of Environmental Quality
Wyoming State Department of Agriculture
Wyoming Game and Fish Commission
Bureau of Land Management, U.S. Department of the Interior
Bureau of Reclamation, U.S. Department of the Interior
Environmental Protection Agency

Water resources records, 1974, for Wyoming are in
the following reports of the U.S. Geological Survey:

1. Water Resources Data for Wyoming
Part 1: Surface-Water Records
2. Water Resources Data for Wyoming
Part 2: Water-Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
4015 Warren Avenue
P. O. Box 2087
Cheyenne, Wyoming 82001

CONTENTS

	Page
List of water-quality stations, in downstream order, for which records are published.	IV
Introduction	1
Cooperation.	2
Definition of terms.	2
Special networks and programs.	8
Downstream order and station number.	10
Well number.	10
Explanation of water-quality data.	11
Collection and examination of data	11
Solutes.	13
Temperature.	13
Sediment	14
Water-supply papers.	14
Selected references.	15
Water-quality records.	19
Index.	237

ILLUSTRATIONS

Figure 1. Map of Wyoming showing locations of sites where data were obtained on the quality of surface water	241
Figure 2. Map of Wyoming showing locations of sites where data were obtained on the quality of ground water.	243

TABLES

Table 1. Factors for conversion of chemical constituents in milligrams or micrograms per litre to milliequivalents per litre	5
2. Factors for conversion of sediment concentration in milligrams per litre to parts per million	5
3. Degrees Celsius (°C) to degrees Fahrenheit (°F).	12
4. Water-supply paper numbers and parts, water year 1948-71	15
5. Factors for converting English units to International System (SI) units.	18

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

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

Page

MISSOURI RIVER BASINYELLOWSTONE RIVER BASIN

Yellowstone River at Corwin Springs, Mont. (c)	19
Clarks Fork Yellowstone River near Belfry, Mont. (c)	20
Big Sand Coulee above State ditch, near Badger Basin (ts)	21
Big Sand Coulee at Wyoming-Montana State line (ts)	24
Silver Tip Creek near Belfry, Mont. (cs)	27
Wind River (head of Bighorn River) near Dubois (c)	30
Wind River near Crowheart (s)	31
Wyoming Canal near Lenore (s)	31
Wind River at Riverton (ct)	32
Little Wind River above Arapahoe (c)	35
Beaver Creek near Arapahoe (c)	36
Little Wind River near Riverton (ct)	37
Wind River above Boysen Reservoir, near Shoshoni (c)	39
Fivemile Creek above Wyoming Canal, near Pavillion (cs)	40
Fivemile Creek near Shoshoni (cs)	41
Badwater Creek:	
Dry Creek near Bonneville (s)	42
Wind River below Boysen Reservoir (ct)	43
Bighorn River:	
Bighorn River at Lucerne (c)	46
Bighorn River at Worland (c)	47
Nowood River near Ten Sleep (cs)	48
Paint Rock Creek near mouth, below Hyattville (c)	49
Nowood River at Manderson (ct)	50
Greybull River near Basin (c)	52
Shell Creek near Greybull (c)	53
Bighorn River at Kane (cts)	54
Shoshone River below Buffalo Bill Reservoir (c)	58
Shoshone River above Dry Creek, near Cody (c)	60
Bitter Creek near Garland (ct)	61
Whistle Creek near Garland (ct)	64
Shoshone River near Lovell (cts)	66
Sage Creek at Sidon Canal, near Deaver (ct)	69
Crooked Creek:	
Big Coulee near Lovell (s)	71
Bighorn River near St. Xavier, Mont. (ct)	72
Little Bighorn River below Pass Creek, near Wyola, Mont (cts)	76
Tongue River near Dayton (c)	80
Tongue River at Monarch (c)	82
Goose Creek below Sheridan (cs)	83
Tongue River at State line, near Decker, Mont. (ct)	85
Powder River near Kaycee (c)	88
South Fork Powder River near Kaycee (c)	90
Salt Creek near Sussex (c)	91
Crazy Woman Creek at upper station, near Arvada (c)	92

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

V

MISSOURI RIVER BASIN--Continued

Page

YELLOWSTONE RIVER BASIN--Continued

Powder River at Arvada (cts)	93
Clear Creek near Arvada (c).	96
Powder River below Fence Creek, near Moorhead, Mont. (t)	98
Powder River at Moorhead, Mont. (c).	99

CHEYENNE RIVER BASIN

Cheyenne River near Spencer (s).	100
Beaver Creek near Newcastle (c).	101
Cheyenne River at Edgemont, S. Dak. (c).	102
Belle Fourche River at Devils Tower (c).	104
Belle Fourche River at Wyoming-South Dakota State line (ct). . .	106
Redwater Creek at Wyoming-South Dakota State line (s).	108

PLATTE RIVER BASIN

North Platte River (head of Platte River)	
near Northgate, Colo. (cs)	109
Encampment River above Hog Park Creek, near Encampment (cs). . .	111
Encampment River at mouth, near Encampment (c)	113
North Platte River near Saratoga (t)	114
Sage Creek near Saratoga (cs).	115
North Platte River above Seminoe Reservoir, near Sinclair (cts). . .	116
Medicine Bow River:	
Little Medicine Bow River at Heward Ranch,	
near Shirley Basin (c)	119
Little Medicine Bow River near Shirley Basin (c)	119
Little Medicine Bow River near Medicine Bow (cs)	120
Medicine Bow River above Seminoe Reservoir, near Hanna (cs). . .	121
Seminoe Reservoir near Leo (c)	122
North Platte River above Pathfinder Reservoir (c).	125
Sweetwater River:	
Rock Creek at Atlantic City (ts)	126
Sweetwater River near Alcova (c)	129
Pathfinder Reservoir near Alcova (c)	130
Alcova Reservoir near Alcova (c)	133
North Platte River at Alcova (ct).	135
Bates Creek near Alcova (c).	137
North Platte River at Mills (c).	138
Middle Fork Casper Creek (head of Casper Creek) near Bucknum (c)	140
Casper Creek at Casper (c)	141
North Platte River at Casper (cts)	142
North Platte River below Casper (c).	144
Deer Creek below Millar wasteway, at Glenrock (ct)	146
North Platte River below Deer Creek, near Glenrock (t)	148
North Platte River near Glenrock (ct).	149
North Platte River near Careyhurst (t)	151
North Platte River at Orpha (t).	152
North Platte River at Orin (cs).	153
Glendo Reservoir near Glendo (c)	155
North Platte River below Glendo Reservoir (c).	157
North Platte River below Guernsey Reservoir (c).	158

MISSOURI RIVER BASIN--ContinuedPLATTE RIVER BASIN--Continued

North Platte River at recorder station, below Whalen (c)	159
Laramie River at Howell (cs)	160
Laramie River at Two Rivers (c).	161
Little Laramie River at Two Rivers (c)	162
Laramie River near Fort Laramie (cts).	163
North Platte River near Lingle (cs).	166
North Platte River at Wyoming-Nebraska State line (cts).	168
South Platte River:	
Crow Creek near Cheyenne (c)	171

COLORADO RIVER BASINGREEN RIVER BASIN

Green River at Warren Bridge, near Daniel (c).	173
Green River near Big Piney (c)	174
New Fork River near Big Piney (c).	175
Green River near La Barge (ct)	176
Green River below Fontenelle Reservoir (ct).	179
Big Sandy River near Farson (s).	182
Big Sandy River below Eden (cs).	183
Green River at Big Island, near Green River (c).	185
Green River near Green River (cts)	186
Green River below Green River (c).	192
Blacks Fork:	
Smiths Fork near Lyman (c)	193
Blacks Fork near Lyman (cts)	194
Hams Fork near Granger (cs).	197
Blacks Fork near Little America (cts).	198
Henrys Fork near Manila, Utah (ct)	201
Green River near Greendale, Utah (ct).	203
Yampa River:	
Little Snake River near Dixon (s).	205
Little Snake River near Baggs (c).	205

THE GREAT BASINGREAT SALT LAKE BASINBEAR RIVER BASIN

Bear River above reservoir, near Woodruff, Utah (c).	206
Bear River at Border (ct).	207

SNAKE RIVER BASINSnake River:FLAT CREEK BASINFlat Creek:

Cache Creek near Jackson (cs).	210
Snake River above reservoir, near Alpine (cts)	212

SALT RIVER BASIN

Salt River above reservoir, near Etna (ct)	217
Analyses of samples collected at miscellaneous sites in Wyoming. . .	220
Analyses of samples of ground water in Wyoming, excluding Yellowstone National Park	232
Analyses of samples of ground water in Yellowstone National Park, Wyoming	234

PART 2. WATER QUALITY RECORDS

by F. C. Boner, S. J. Rucker, IV, and J. R. Schuetz

INTRODUCTION

Water-resources data for the 1974 water year for Wyoming include records of data for the chemical and physical characteristics of surface and ground water. Water-quality data on chemical, physical, and biological characteristics of surface and ground water were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently. Records are given for 159 sampling stations of which 109 are continuous-record stations and 50 are miscellaneous sites. Records of chemical analyses also are given for 76 ground-water sites. Locations of surface water-quality stations are shown in figure 1 and locations of ground-water sites are shown in figure 2. A few pertinent stations (not included above) in bordering States are also included. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming. The records were collected by the Water Resources Division of the U.S. Geological Survey under the direction of Sam W. West, district chief. Wyoming district personnel who contributed significantly to the collection and preparation of data included in this report were: E. R. Cox, S. A. Druse, M. E. Lowry, D. J. O'Connell, W. R. Glass, G. W. Armentrout, Jr., M. A. Crist, B. H. Ringen, W. B. Borchert, G. C. Lines, H. B. Fabricius, P. B. McCollam, C. F. Obert, K. G. Polinoski, L. L. De Long, W. J. Head, K. D. Peter, D. J. Wangsness, D. J. Pangburn, L. W. Lenfest, B. C. Pedersen, T. W. Custis, R. L. Muench, J. O. Ragsdale, M. D. Stevens, R. C. Baumann, D. W. Brownell, M. T. O'Grady, M. R. Hollingsworth, S. L. Green, M. L. Smally, J. P. Kyner, H. I. Kennedy, and D. W. Pollock.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as is possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between the reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

The Geological Survey has published records of chemical quality, water temperatures, and sediment since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Water of the United States." Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year. These records will be published later in Geological Survey water-supply papers.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

Wyoming Department of Agriculture, Glenn J. Hertzler, Jr.,
commissioner

Wyoming State Engineer, Floyd A. Bishop

Wyoming Department of Economic Planning and Development,
Myron W. Goodson, Chief of Water Development

Wyoming Department of Environmental Quality,
Arthur E. Williamson, Administrator, Water Quality Division

Wyoming Game and Fish Commission, James B. White, commissioner

Agencies furnishing assistance were:

Bureau of Land Management, U.S. Department of the Interior
Bureau of Reclamation, U.S. Department of the Interior
Environmental Protection Agency

Funds for many stations were provided under the Missouri River Basin Development Program for collection of data to meet the needs of several agencies of the Department of the Interior.

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report, are defined below. See also table for converting English units to International System of units (SI) on page 18.

Acre-foot (AC-FT, ac-ft) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic metres.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C $\pm$ 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C $\pm$ 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C $\pm$ 1.0°C on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the shifting portion of fragmented alluvial material of which the streambed is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per litre, used for the decomposition of organic matter by microorganisms, such as bacteria.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic metres. It represents a runoff of approximately 0.0372 inches from 1 square mile or 0.3468 millimetre from 1 square kilometre.

Continuing Record Station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken once or more times daily.
3. When sediment discharge records include those periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Cubic foot 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 or 0.02832 cubic metres per second.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

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

Instantaneous discharge is the discharge at a given time.

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 stream and bodies of impounded surface water.

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 that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Micrograms per litre (UG/L, $\mu\text{g}/\text{l}$) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (litre) of water. One thousand micrograms per litre is equivalent to one milligram per litre.

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

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

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi- ply by</u>
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 litre; multiply by factor and divide results by 1,000.

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

Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide 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	604-617	1.38		

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

Particle size is the diameter, in millimetres (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

pH indicates the degree of acidity or alkalinity of water and is expressed in terms of pH units. The pH value of a solution is the negative logarithm of the concentration of hydrogen ions, in moles per litre. A pH of 7.0 indicates that the water is neither acid nor alkaline. pH readings progressively lower than 7.0 denote increasing acidity and those progressively higher than 7.0 denote increasing alkalinity. The pH of most natural surface waters ranges between 6 and 8.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed 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.

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 sediment per litre 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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that 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 centimetre 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. Commonly, the amount of dissolved solids (in milligrams per litre) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

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 or digital mechanism that automatically records water temperature on paper tape.

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 litre 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 day.

Weighted average is used in this report to indicate 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. See also table for converting English units to International units (SI) on page 18.

SPECIAL NETWORKS AND PROGRAMS

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.

National stream-quality accounting network is an accounting network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in stream quality.

Pesticide program is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides includes insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide in the early 1930's, there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds of these compounds. Although efforts are being made to substitute many of the chlorinated hydrocarbon pesticides with more specific, fast-acting, and easily degradable compounds, chlorinated hydrocarbon pesticides are still commonly used in many areas of the country.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in $\mu\text{g/l}$ (micrograms per litre), radium as radium - 226 in PC/L, (pCi/l, picocuries per litre), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per litre ($\mu\text{g/l}$). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay sized) sediments in the samples are also determined.

A picocurie (PC,pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of water-quality stations in the front of this report the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each water-quality station, gaging station, and miscellaneous site has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between continuous-record stations and miscellaneous sites; therefore, the station number for a miscellaneous site indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations have the same number as the gaging station. 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 06259000 which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "259000." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 6 (Missouri River Basin), Part 9 (Colorado River Basin), Part 10 (The Great Basin), and Part 13 (Snake River Basin). 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.

WELL NUMBER

The well numbers used in this report indicate the well location. The numbering system is based on the Federal system of land subdivision. The number shows the location of the well by township, range, section, and position within the section. The first numeral indicates the township, the second the range, and the third the section in which the well is located. Lowercase letters following the section number locate the well within the section. The first letter denotes the quarter section, the second the quarter-quarter section, and the third the quarter-quarter-quarter section. The letters are assigned within the section in a counterclockwise direction beginning with (a) in the northeast quarter of the section. Letters are assigned within each quarter section and quarter-quarter section in the same manner. Where two or more locations are within the smallest subdivision, consecutive numbers beginning with 1 are added to the letters in the order in which the wells were inventoried. For example, 30-110-15daa2 indicates a well in the northeast quarter of the northeast quarter of the southeast quarter of sec. 15, T. 30 N., R. 110 W., and shows that this is the second well inventoried in the quarter-quarter-quarter section.

For a small irregularly-shaped area in west central Wyoming the well numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counter-clockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given on the preceding page.

Because the Federal system of land subdivision does not extend to Yellowstone National Park, a well-code numbering system based on latitude and longitude is used in this report for that area. The six digits before the letter N denote the latitude; the remaining seven digits denote the longitude. The degree, minute, and second symbols have been omitted for brevity. For example, the number 441025N1103045 would indicate the well or spring is located at latitude 44°10'25" north, longitude 110°30'45" west.

EXPLANATION OF WATER QUALITY DATA

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment discharge. Discharge records for streams in Wyoming have been released in the report, "Water Resources Data for Wyoming, 1974, Part 1. Surface Water Records."

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations. For ground-water sampling stations, no descriptive statements are given. However, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

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

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 reporting data for chemical constituents and concentrations of suspended sediment in milligrams per litre (mg/l) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per millilitre), parts per million and milligrams per litre can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per litre. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using the table below.

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

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

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

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per litre instead of milligrams per litre. (See "Definitions of Terms," p. 2, and table for converting English units to SI units, p. 18.)

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). The method for determining elemental constituents by emission spectrographic techniques is described by Barnett and Mallory (1971). Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Lamar (1967); Lamar, Goerlitz, and Law (1965); and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological and microbiological samples are described by Slack and others (1973).

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

The daily chemical-quality data in this report generally represent equal-volume composites for 2- to 30-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

Ground water does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are analyzed individually.

Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day when sample is collected. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

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

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically 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 in predicting long-term sediment-discharge characteristics of the stream.

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

WATER-SUPPLY PAPERS

The annual series of water-supply papers that give information on quality of surface waters in Wyoming are shown in the following table:

Table 4.--Water-supply paper numbers and parts,
water years, 1948-71

<u>Year</u>	<u>Parts</u> <u>5-6</u>	<u>Parts</u> <u>9-14</u>	<u>Year</u>	<u>Parts</u> <u>5-6</u>	<u>Parts</u> <u>9-14</u>
1948	1132	A1133	1956	1451	1453
1949	1162	A1163	1957	1521	1523
1950	1187	1189	1958	1572	1574
1951	1198	1200	1959	1643	1645
1952	1251	1253	1960	1743	1745
1953	1291	1293	1961	1883	1885
1954	1351	1353	1962	1943	1945
1955	1401	1403	1963	1949	1951

<u>Year</u>	<u>Parts</u> <u>5-6</u>	<u>Part</u> <u>6</u>	<u>Parts</u> <u>9-10</u>	<u>Parts</u> <u>9-11</u>	<u>Parts</u> <u>12-16</u>
1964	1956	--	--	1958	B1959
1965	1963	--	--	1965	1966
1966	1993	--	--	1995	1996
1967	2013	--	--	2015	2016
1968	--	2095	2098	--	2100
1969	--	C2145	2148	--	2150
1970	--	C2155	C2158	--	C2160
1971	--	C2165	C2168	--	C2170

A Parts 7-14.

B Parts 12-15.

C In press.

SELECTED REFERENCES

- American Public Health Association, and others, 1971, Standard methods for the examination of water and wastewater, 13th ed.: Am. Public Health Assoc., New York, 874 p.
- Barker, F. B., and Johnson, J. O., 1964, Determination of radium in water: U.S. Geol. Survey Water-Supply Paper 1696-B, 29 p.
- Barker, F. B., and others, 1965, Determination of uranium in natural water: U.S. Geol. Survey Water-Supply Paper 1696-C, 25 p.
- Barker, F. B., and Robinson, B. P., 1963, Determination of beta activity in water: U.S. Geol. Survey Water-Supply Paper 1696-A, 32 p.

- Barnett, P. R., and Mallory, Jr., E. C., 1971, Determination of minor elements in water by emission spectroscopy: U.S. Geol. Survey Techniques of Water Resources Inv., book 5, chap. A2, 31 p.
- Brown, Eugene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A1, 160 p.
- Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurement of sediment discharge: U.S. Geol. Survey Bull. 1181-A, 47 p.
- Colby, B. R., and Hembree, C. H., 1955, Computations of total sediment discharge, Niobrara River near Cody, Nebraska: U.S. Geol. Survey Water-Supply Paper 1357, 187 p.
- Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U.S. Geol. Survey Water-Supply Paper 1593, 17 p.
- Goerlitz, D. F., and Brown, Eugene, 1972, Methods for analysis of organic substances in water: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A3, 40 p.
- Goerlitz, D. F., and Lamar, W. L., 1967, Determination of phenoxy acid herbicides in water by electron-capture and microcoulometric gas chromatography: U.S. Geol. Survey Water-Supply Paper 1817-C, 21 p.
- Guy, H. R., 1969, Laboratory theory and methods for sediment analysis: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C1, 58 p.
- 1970, Fluvial sediment concepts: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C1, 55 p.
- Guy, H. P., and Norman, V. W., 1970, Field methods for measurement of fluvial sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C2, 59 p.
- Hem, J. D., 1970, Study and interpretation of the chemical characteristics of natural water, 2d ed.: U.S. Geol. Survey Water-Supply Paper 1473, 363 p.
- Lamar, W. L., Goerlitz, D. F., and Law, L. M., 1965, Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography: U.S. Geol. Survey Water-Supply Paper 1817-B, 12 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

- Lohman, S. W., and others, 1972, Definitions of selected ground-water terms--revisions and conceptual refinements: U.S. Geol. Survey Water-Supply Paper 1988, p. 2.
- Porterfield, George, 1972, Computations of fluvial-sediment discharge: U.S. Geol. Survey Techniques of Water Resources Inv., book 3, chap. C3, 66 p.
- Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C3, 33 p. (open file).
- Rose, Arthur and Elizabeth, 1966, The condensed chemical dictionary: Reinhold Pub. Corp., New York, 7th ed., p. 257.
- Slack, K. V., and others, 1973, Methods for collection and analysis of aquatic, biological and microbiological samples: U.S. Geol. Survey Techniques of Water Resources Inv., book 5, chap. A-4, 165 p.
- U.S. Inter-Agency Committee on Water Resources, Subcommittee on Sedimentation, A study of methods used in measurement and analysis of sediment loads in streams. Published by the St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minn.
- _____ 1941, Methods of analyzing sediment samples: Rept. 4.
- _____ 1953, Accuracy of sediment size analyses made by the bottom-withdrawal-tube method: Rept. 10.
- _____ 1957, The development and calibration of visual accumulation tube: Rept. 11.
- _____ 1957, Some fundamentals of particle size analysis: Rept. 12.
- _____ 1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.
- _____ 1961, The single stage sampler for suspended sediment: Rept. 13.
- _____ 1963, Determinations of fluvial sediment discharge: Rept. 14.

Table 5.--Factors for converting English Units to International System (SI) Units.

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

<u>Multiply English units</u>	<u>By</u>	<u>To obtain SI units</u>
Length		
feet (ft)	.3048	metres (m)
miles (mi)	1.609	kilometres (km)
Area		
acres	4047	square metres (m ²)
	.4047	*hectares (ha)
	.4047	square hectometre (hm ²)
	.004047	square kilometres (km ²)
square miles (mi ²)	2.590	square kilometres (km ²)
Volume		
cubic feet (ft ³)	28.32	cubic decimetres (dm ³)
	.02832	cubic metres (m ³)
cfs-day (ft ³ /s-day)	2447	cubic metres (m ³)
	.002447	cubic hectometres (hm ³)
acre-feet (acre-ft)	1233	cubic metres (m ³)
	.001233	cubic hectometres (hm ³)
	.000001233	cubic kilometres (km ³)
Flow		
cubic feet per second (ft ³ /s)	28.32	litres per second (l/s)
	28.32	cubic decimetres per second (dm ³ /s)
	.02832	cubic metres per second (m ³ /s)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p. 15, 1972 edition.

WATER-QUALITY RECORDS

19

PART 6. MISSOURI RIVER BASIN

YELLOWSTONE RIVER BASIN

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT.

LOCATION.--Lat 45°06'43", long 110°47'37", in SE¼NW¼ sec.30, T.8 S., R.8 E., Park County, at gaging station, at highway bridge at Corwin Springs, 1.3 mi (2.1 km) upstream from Mol Herron Creek, 7 mi (11 km) northwest of Gardiner, and at mile 530.5 (853.6 km).

DRAINAGE AREA.--2,623 mi² (6,794 km²).

PERIOD OF RECORD.--Chemical analyses: July 1969 to July 1970 (monthly), October 1970 to April 1972 (partial-record station), July 1972 to December 1973 (monthly), discontinued.

REMARKS.--Flow affected by natural storage in Yellowstone Lake.

CHEMICAL ANALYSES, OCTOBER TO DECEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT. 25...	1200	1270	18	5.5	22	32	11	.9	160	.22	544
DEC. 26...	1245	869	21	6.8	27	47	15	1.1	180	.24	422

DATE	HARDNESS (CA, MG) (MG/L)	SODIUM ADSORPTION RATIO	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DIS-SOLVED ORTHO-PHOSPHORUS (P) (MG/L)	TOTAL ORTHO-PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT. 25...	68	1.2	.13	.25	.14	.11	.09	.10	.09	.8
DEC. 26...	80	1.3	.27	.60	.31	.29	.07	.07	.07	1.7

FIELD DETERMINATIONS

DATE	TIME	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	PH (UNITS)	ALKALINITY AS CaCO3 (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 25...	1200	7.5	5.5	246	11.8	119	7.3	65	130	0
DEC. 26...	1245	2.0	-4.5	288	13.2	115	7.3	73	7	0

YELLOWSTONE RIVER BASIN

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT.

LOCATION.--Lat 45°00'40", long 109°04'00", in E4NE4 sec.31, T.9 S., R.22 E., Carbon County, at bridge on county road, 0.4 mi (0.6 km) downstream from gaging station, just upstream from Sand Coulee, 0.8 mi (1.3 km) north of Wyoming-Montana State line, 9.5 mi (15.3 km) southwest of Belfry, and at mile 78.1 (125.7 km).

DRAINAGE AREA.--1,154 mi² (2,989 km²), at gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1969 (daily), October 1969 to September 1974 (monthly).

Water temperatures: October 1965 to September 1969.

Sediment records: April to August 1971.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 01...	1830	394	8.8	31	9.9	9.1	1.4	113	6	37	1.5	.2
DEC. 04...	1130	263	8.7	42	13	12	1.4	140	4	60	.3	.2
JAN. 18...	0945	331	10	36	11	9.6	1.4	131	0	48	1.9	.2
FEB. 20...	1605	214	10	42	13	11	1.4	149	3	52	1.9	.2
MAR. 27...	1530	303	7.3	41	14	12	1.6	149	0	62	1.9	1.0
APR. 29...	1530	660	10	32	3.1	8.6	1.2	100	0	24	1.9	.1
MAY 21...	1655	653	10	30	1.9	6.4	.5	79	6	19	1.8	.2
JUNE 19...	1700	9050	6.8	15	.3	2.7	.5	52	0	2.5	.0	.1
JULY 18...	1745	2760	5.0	10	4.1	3.2	.5	49	0	9.9	.0	.1
AUG. 22...	1120	551	6.0	23	9.3	7.5	.9	110	0	21	.0	.2
SEP. 04...	1010	384	7.3	28	10	5.9	1.4	130	0	21	.0	.1
30...	1610	A226	8.4	41	15	11	2.1	170	3	44	.0	.2

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 01...	.07	--	160	.22	170	120	17	.4	273	8.7	14.0
DEC. 04...	.09	.00	211	.29	150	160	38	.4	361	8.5	1.0
JAN. 18...	.16	.04	183	.25	164	140	33	.4	316	8.0	.0
FEB. 20...	.09	.01	208	.28	120	160	33	.4	344	8.4	4.0
MAR. 27...	.00	.06	213	.29	174	160	38	.4	347	8.2	9.0
APR. 29...	.09	.01	130	.18	232	93	11	.4	216	8.1	12.0
MAY 21...	.07	.00	115	.16	203	83	8	.3	177	8.5	8.0
JUNE 19...	.20	.01	54	.07	1320	40	0	.2	94	8.2	11.5
JULY 18...	.05	.00	57	.08	425	43	3	.2	93	7.8	19.0
AUG. 22...	.09	.00	122	.17	182	95	5	.3	210	8.3	13.5
SEP. 04...	.07	.00	137	.19	142	110	3	.2	248	8.3	12.0
30...	.18	.01	208	.28	127	170	26	.4	352	8.4	12.5

YELLOWSTONE RIVER BASIN

21

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WYO.

LOCATION.--Lat 44°55'30", long 109°00'38", in NW¼SE¼NE¼ sec.14, T.57 N., R.101 W., Park County, at gaging station, 1.8 mi (2.9 km) upstream from return from state ditch, and 3.0 mi (4.8 km) east of Badger Basin.

DRAINAGE AREA.--98.3 mi² (254.6 km²).

PERIOD OF RECORD.--Water temperatures: October 1973, March to September 1974.
Sediment records: May to October 1973, March to September 1974.

EXTREMES.--October 1973, March to September 1974:

Water temperatures: Maximum observed, 20.0°C Oct. 1, June 14; minimum observed, 2.0°C Oct. 27.

Sediment concentrations: Maximum daily, 24,100 mg/l Sept. 12; minimum daily, no flow for many days during period.

Sediment discharge: Maximum daily, 275 tons (249 tonnes) Sept. 12; minimum daily, 0 tons on many days during period.

Period of record:

Water temperatures: Maximum observed, 20.0°C Oct. 1, 1973, June 14, 1974; minimum observed, 2.0°C Oct. 27, 1973.

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days during period.

Sediment discharge: Maximum daily, 10,000 tons (9,070 tonnes) Sept. 8, 1973; minimum daily, 0 tons on many days.

TEMPERATURE (°C) OF WATER, OCTOBER 1973, MARCH TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENTS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	---	---	---	---	---	---	---	---	---	---	---
2	10.0	---	---	---	---	---	---	---	---	---	---	---
3	5.0	---	---	---	---	---	---	---	---	---	---	---
4	8.0	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	8.0	---	---	---	---	---	---	---	---	---	---	---
9	8.0	---	---	---	---	---	---	---	---	---	---	---
10	10.0	---	---	---	---	---	---	---	---	18.0	---	---
11	10.0	---	---	---	---	---	---	---	15.0	---	---	---
12	14.0	---	---	---	---	---	---	---	15.0	---	---	5.0
13	14.0	---	---	---	---	---	---	---	15.0	---	---	3.0
14	10.0	---	---	---	---	---	---	---	20.0	---	14.0	10.0
15	9.0	---	---	---	---	---	---	---	---	---	14.0	---
16	12.0	---	---	---	---	---	---	---	---	---	---	---
17	9.0	---	---	---	---	---	---	---	---	---	---	---
18	7.0	---	---	---	---	---	---	---	---	---	---	---
19	5.0	---	---	---	---	---	---	---	---	---	---	---
20	7.0	---	---	---	---	---	---	---	---	---	---	---
21	9.0	---	---	---	---	---	---	12.0	---	---	---	---
22	8.0	---	---	---	---	---	---	---	---	---	---	---
23	8.0	---	---	---	---	---	---	12.0	---	---	---	---
24	8.0	---	---	---	---	---	---	12.0	---	---	---	---
25	8.0	---	---	---	---	---	---	12.0	---	---	---	---
26	6.0	---	---	---	---	---	---	14.0	---	---	---	8.0
27	2.0	---	---	---	---	---	---	14.0	---	---	---	10.0
28	8.0	---	---	---	---	---	---	12.0	---	---	---	12.0
29	8.0	---	---	---	---	---	---	12.0	---	---	---	14.0
30	---	---	---	---	---	---	---	8.0	---	---	---	13.0
31	---	---	---	---	---	---	---	10.0	---	---	---	---
MONTH	9.0	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	20.0	MIN	2.0	MEAN	10.5						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, OCTOBER 1973, MARCH TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT CHARGE (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
SEP. 12...	0830	5.0	2.4	30600	198	95	98	100

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, OCTOBER 1973, MARCH TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.41	140	.15						
2	.82	220	.49						
3	1.2	250	.81						
4	1.2	215	.70						
5	1.5	190	.77						
6	1.8	205	1.0						
7	2.2	260	1.5						
8	2.6	310	2.2						
9	2.6	310	2.2						
10	2.4	320	2.1						
11	2.6	285	2.0						
12	2.1	185	1.0						
13	1.8	170	.83						
14	1.8	190	.92						
15	1.8	285	1.4						
16	1.8	220	1.1						
17	1.8	165	.80						
18	2.2	225	1.3						
19	2.5	305	2.1						
20	3.0	315	2.6						
21	2.9	330	2.6						
22	3.0	310	2.5						
23	2.2	235	1.4						
24	1.7	220	1.0						
25	1.2	100	.32						
26	.82	35	.08						
27	.49	34	.04						
28	.20	37	.02						
29	.10	32	.01						
30	0	--	--						
31	0	--	--						
TOTAL	50.74	--	33.94						

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1									
2									
3									
4									
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									
31									
TOTAL							0	--	0

YELLOWSTONE RIVER BASIN

23

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, OCTOBER 1973, MARCH TO SEPTEMBER 1974

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	--	--	1.8	350	1.7
2				0	--	--	.59	44	.07
3				0	--	--	0	--	--
4				0	--	--	0	--	--
5				0	--	--	0	--	--
6				0	--	--	0	--	--
7				0	--	--	.30	637	.52
8				0	--	--	8.2	2390	53
9				0	--	--	3.9	1640	17
10				0	--	--	2.2	1120	6.7
11				0	--	--	2.9	1010	7.9
12				0	--	--	3.7	1000	10
13				0	--	--	3.5	920	8.7
14				0	--	--	4.4	930	11
15				0	--	--	2.9	780	6.1
16				0	--	--	1.3	350	1.2
17				0	--	--	.23	41	.03
18				0	--	--	.03	12	0
19				0	--	--	0	--	--
20				0	--	--	0	--	--
21				1.0	476	1.7	0	--	--
22				2.2	700	4.2	0	--	--
23				2.8	950	7.2	0	--	--
24				3.4	1350	12	0	--	--
25				3.9	1420	15	0	--	--
26				4.9	1520	20	0	--	--
27				4.8	1290	17	0	--	--
28				4.6	940	12	0	--	--
29				2.9	680	5.3	0	--	--
30				2.2	480	2.9	0	--	--
31				1.8	460	2.2	--	--	--
TOTAL	0	--	0	34.5	--	99.5	35.95	--	123.92

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	--	--	0	--	--	0	--	--
2	0	--	--	0	--	--	0	--	--
3	1.5	774	3.1	0	--	--	0	--	--
4	.11	56	.02	0	--	--	0	--	--
5	0	--	--	0	--	--	0	--	--
6	0	--	--	0	--	--	0	--	--
7	0	--	--	0	--	--	0	--	--
8	0	--	--	0	--	--	0	--	--
9	.61	1120	1.8	0	--	--	0	--	--
10	1.5	2750	11	0	--	--	0	--	--
11	.02	9	0	.32	846	.73	.50	2070	2.8
12	0	--	--	1.1	2070	6.1	3.5	24100	275
13	0	--	--	1.3	1100	3.9	2.6	2900	20
14	0	--	--	1.3	510	1.8	1.8	900	4.4
15	0	--	--	.30	185	.28	.57	257	.40
16	0	--	--	.06	42	.01	.21	41	.02
17	0	--	--	0	--	--	0	--	--
18	0	--	--	0	--	--	0	--	--
19	0	--	--	0	--	--	0	--	--
20	0	--	--	0	--	--	0	--	--
21	0	--	--	0	--	--	0	--	--
22	0	--	--	0	--	--	0	--	--
23	0	--	--	0	--	--	0	--	--
24	0	--	--	0	--	--	0	--	--
25	0	--	--	0	--	--	.02	7	0
26	0	--	--	0	--	--	.91	320	.79
27	0	--	--	0	--	--	1.1	290	.86
28	0	--	--	0	--	--	2.1	380	2.2
29	0	--	--	0	--	--	2.8	420	3.2
30	0	--	--	0	--	--	2.6	410	2.9
31	0	--	--	0	--	--	--	--	--
TOTAL	3.74	--	15.92	4.38	--	12.82	18.71	--	312.57

TOTAL DISCHARGE FOR PERIOD (CFS-DAYS)
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR PERIOD (TONS)

148.02
598.67

YELLOWSTONE RIVER BASIN

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE

LOCATION.--Lat 45°00'17", long 109°03'29", in SE¼NE¼SW¼ sec.32, T.9 S., R.22 E., Carbon County, Mont., at gaging station, 0.3 mi (0.5 km) north of Wyoming-Montana State line, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--Water temperatures: May to October 1973, March to September 1974.
Sediment records: May to October 1973, March to September 1974.

EXTREMES.--October 1973, March to September 1974:

Water temperatures: Maximum 24.0°C July 19, minimum, 6.0°C Oct. 31, Mar. 6.

Sediment concentrations: Maximum daily, 1,950 mg/l June 8; minimum daily, 9 mg/l Mar. 27.

Sediment discharge: Maximum daily, 421 tons (382 tonnes) June 8; minimum daily, 0.04 tons (0.04 tonne) Mar. 27, Apr. 19-21.

Period of record:

Water temperatures: Maximum 24.0°C July 5, 6, 11, 1973, July 19, 1974; minimum, 6.0°C Oct. 31, 1973, Mar. 6, 1974.

Sediment concentrations: Maximum daily, 11,800 mg/l Sept. 8, 1973; minimum daily, 9 mg/l Mar. 27, 1974.

Sediment discharge: Maximum daily, 8,470 tons (7,680 tonnes) Sept. 9, 1973; minimum daily, 0.04 ton (0.04 tonne) Mar. 27, Apr. 19-21, 1974.

TEMPERATURE (°C) OF WATER, OCTOBER 1973, MARCH TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENTS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	---	---	---	---	13.0	13.0	15.0	15.0	18.0	20.0	17.0
2	12.0	---	---	---	---	9.0	10.0	10.5	16.0	16.0	20.0	16.0
3	10.0	---	---	---	---	8.0	11.0	14.0	16.0	16.0	21.0	15.0
4	10.0	---	---	---	---	7.0	15.0	15.0	15.0	20.0	20.0	14.5
5	12.0	---	---	---	---	8.0	15.0	16.0	11.0	21.0	20.0	17.0
6	12.0	---	---	---	---	6.0	14.0	11.0	14.0	20.0	18.0	18.0
7	14.0	---	---	---	---	10.0	14.5	15.0	---	20.0	16.0	18.0
8	8.0	---	---	---	---	10.0	15.0	17.0	19.0	21.0	15.5	19.0
9	7.0	---	---	---	---	10.0	16.0	12.0	20.0	20.0	14.0	17.0
10	9.0	---	---	---	---	11.0	7.0	7.0	16.0	20.0	18.0	15.0
11	9.0	---	---	---	---	13.0	9.0	12.0	19.0	20.0	15.0	9.0
12	9.0	---	---	---	---	11.0	8.0	16.0	20.0	21.0	17.0	10.0
13	11.0	---	---	---	---	10.0	11.5	9.0	21.0	21.0	15.0	11.0
14	15.0	---	---	---	---	12.0	12.0	14.0	20.0	21.0	17.0	16.0
15	12.0	---	---	---	---	11.0	10.0	11.0	15.0	21.0	18.0	16.0
16	12.0	---	---	---	---	14.0	17.0	12.0	20.0	21.0	15.0	16.0
17	13.0	---	---	---	---	10.0	14.5	12.0	20.0	21.0	16.0	16.0
18	11.0	---	---	---	---	11.0	17.0	11.0	21.0	21.0	19.0	14.0
19	12.0	---	---	---	---	10.0	15.0	19.0	18.0	24.0	20.0	15.0
20	10.0	---	---	---	---	10.0	16.0	8.0	22.0	21.0	14.0	14.0
21	11.0	---	---	---	---	12.0	18.0	9.5	18.0	23.0	17.0	11.0
22	13.0	---	---	---	---	11.0	20.0	12.0	17.0	20.0	16.0	14.0
23	12.0	---	---	---	---	10.0	16.5	17.0	16.0	19.0	19.0	12.0
24	13.0	---	---	---	---	11.0	14.0	15.0	23.0	19.0	18.0	15.0
25	9.0	---	---	---	---	13.0	16.0	17.0	21.0	22.0	19.0	17.0
26	9.0	---	---	---	---	13.0	16.0	20.0	21.0	---	17.0	18.0
27	7.0	---	---	---	---	15.0	11.0	16.0	20.0	20.0	18.0	11.0
28	10.0	---	---	---	---	12.5	12.0	16.0	19.0	21.0	16.0	11.0
29	8.0	---	---	---	---	12.0	12.0	12.0	20.0	20.0	18.0	11.0
30	7.0	---	---	---	---	13.0	12.0	12.0	23.0	20.0	17.0	15.0
31	6.0	---	---	---	---	14.0	---	11.0	---	20.0	18.0	---
MONTH	10.5	---	---	---	---	11.0	13.5	13.5	18.5	20.5	17.5	14.5
YEAR	MAX	24.0	MIN	6.0	MEAN	15.0						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, OCTOBER 1973, MARCH TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
FEB. 20...	1705	9.0	2.2	4	.02	--	--	--	--	--	--
APR. 25...	1400	16.0	40	2330	252	57	86	100	--	--	--
MAY 21...	1610	9.5	93	693	174	26	36	63	87	99	100
JUNE 19...	1610	18.0	89	849	204	19	35	76	96	100	--

YELLOWSTONE RIVER BASIN

25

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

SUSPENDED-SEDIMENT DISCHARGE, OCTOBER 1973, MARCH TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	89	80	19						
2	82	140	31						
3	76	175	36						
4	80	126	27						
5	82	172	38						
6	77	142	30						
7	77	138	29						
8	75	164	33						
9	84	158	36						
10	84	152	34						
11	78	148	31						
12	78	128	27						
13	75	157	32						
14	61	112	18						
15	60	122	20						
16	63	114	19						
17	54	116	17						
18	43	110	13						
19	48	102	13						
20	47	98	12						
21	43	126	15						
22	44	107	13						
23	50	122	16						
24	35	132	12						
25	41	118	13						
26	47	98	12						
27	49	92	12						
28	51	90	12						
29	46	108	13						
30	51	98	13						
31	62	112	19						
TOTAL	1932	--	665						
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1							2.9	59	.46
2							2.8	49	.37
3							2.8	25	.19
4							2.6	19	.13
5							2.6	17	.12
6							2.4	19	.12
7							2.4	22	.14
8							2.4	26	.17
9							2.1	24	.14
10							2.1	27	.15
11							1.9	26	.13
12							1.9	18	.09
13							1.8	15	.07
14							1.7	11	.05
15							1.7	14	.06
16							1.8	17	.08
17							1.8	16	.08
18							1.7	16	.07
19							1.6	16	.07
20							1.5	16	.06
21							1.6	12	.05
22							1.6	13	.06
23							1.5	13	.05
24							1.5	16	.06
25							1.5	20	.08
26							1.4	13	.05
27							1.5	9	.04
28							1.5	18	.07
29							1.6	19	.08
30							1.7	19	.09
31							2.1	14	.08
TOTAL							60.0	--	3.46

YELLOWSTONE RIVER BASIN

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

SUSPENDED-SEDIMENT DISCHARGE, OCTOBER 1973, MARCH TO SEPTEMBER 1974

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.2	12	.07	46	440	55	54	190	28
2	2.2	10	.06	40	750	81	52	190	27
3	1.9	14	.07	48	910	118	67	210	38
4	1.7	32	.15	53	760	109	71	200	38
5	1.7	45	.21	50	630	85	76	240	49
6	1.7	32	.15	51	500	69	63	200	34
7	1.7	25	.11	40	280	30	55	1090	162
8	1.6	28	.12	36	300	29	80	1950	421
9	1.6	24	.10	32	420	36	75	810	164
10	1.6	34	.15	39	400	42	82	530	117
11	1.8	38	.18	40	300	32	78	300	63
12	1.7	41	.19	44	350	42	80	200	43
13	1.6	32	.14	50	320	43	84	260	59
14	1.6	32	.14	50	400	54	90	490	119
15	1.5	44	.18	52	390	55	84	500	113
16	1.5	48	.19	46	430	53	75	230	47
17	1.4	21	.08	45	460	56	63	350	60
18	1.2	15	.05	49	480	64	75	290	59
19	1.3	11	.04	72	650	126	87	700	164
20	1.3	11	.04	91	840	206	85	350	80
21	1.4	10	.04	89	780	187	85	262	60
22	1.3	14	.05	80	640	138	66	260	46
23	1.1	25	.08	73	760	150	57	164	25
24	41	1640	182	69	510	95	61	142	23
25	41	1650	183	76	470	96	89	160	38
26	45	1490	181	90	550	134	66	148	26
27	45	750	91	104	730	205	64	122	21
28	45	610	74	91	720	177	63	150	26
29	43	310	36	91	410	101	61	158	26
30	39	190	20	81	250	55	61	150	25
31	--	--	--	69	230	43	--	--	--
TOTAL	345.5	--	849.51	1887	--	2766	2149	--	2201
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	65	142	25	56	190	29	66	82	15
2	61	128	21	58	180	28	73	76	15
3	90	720	175	62	280	47	70	79	15
4	98	150	40	73	380	75	67	63	11
5	96	90	23	91	590	145	65	60	11
6	81	86	19	82	300	66	66	17	3.0
7	72	95	18	85	210	48	65	12	2.1
8	67	127	23	82	290	64	71	22	4.2
9	76	268	55	85	360	83	69	48	8.9
10	72	230	45	98	325	86	66	57	10
11	70	192	36	103	265	74	81	940	206
12	62	158	26	97	225	59	97	710	186
13	49	234	31	87	220	52	97	420	110
14	53	270	39	81	200	44	85	140	32
15	47	266	34	82	170	38	70	32	6.0
16	39	158	17	89	240	58	66	78	14
17	48	198	26	84	180	41	62	74	12
18	56	295	45	90	60	15	58	84	13
19	49	308	41	80	52	11	52	68	9.5
20	46	228	28	62	148	25	51	67	9.2
21	47	172	22	65	110	19	53	72	10
22	47	138	18	64	100	17	54	70	10
23	48	420	54	64	108	19	50	38	5.1
24	56	500	76	66	82	15	50	23	3.1
25	57	330	51	82	172	38	64	17	2.9
26	63	250	43	81	142	31	64	26	4.5
27	60	240	39	75	110	22	64	50	8.6
28	58	300	47	72	93	18	70	112	21
29	58	280	44	70	100	19	69	90	17
30	53	220	31	70	85	16	64	82	14
31	56	210	32	70	80	15	--	--	--
TOTAL	1900	--	1224	2406	--	1317	1999	--	789.1

TOTAL DISCHARGE FOR PERIOD (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR PERIOD (TONS)

12678.5
9815.07

YELLOWSTONE RIVER BASIN

27

06207540 SILVER TIP CREEK NEAR BELFRY, MT.

LOCATION.--Lat 45°09'32", long 108°58'31", in NE¼NW¼ sec.12, T.8 S., R.22 E., Carbon County, at gaging station, 0.1 mi (0.2 km) upstream from county bridge, 1.5 mi (2.4 km) upstream from mouth, and 2.0 mi (3.2 km) north-east of Belfry.

DRAINAGE AREA.--88.0 mi² (228 km²). Area at site used prior to May 12, 1972, 87.6 mi² (227 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to March 1972 (daily), April 1972 to September 1974 (monthly).
Water temperatures: October 1968 to April 1972.

Sediment records: October 1968 to April 1972 (daily), May 1972 to June 1973 (monthly), July to December 1973 (partial-record station), January 1974 to September 1974 (daily).

REMARKS.--No flow for many days during water year. Flow affected by ice most of winter months. Flow affected by oil recovery operations upstream from station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (MCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.												
10...	1030	1.5	4.0	8.2	40	270	120	890	24	309	0	2300
24...	1130	.06	8.0	5.6	0	230	130	1000	74	290	0	2400
NOV.												
12...	1130	1.5	.5	6.3	10	180	83	650	24	258	0	1600
JAN.												
16...	1040	16	.5	5.4	20	140	53	490	27	192	0	1300
MAR.												
26...	1300	1.7	5.0	7.7	30	230	120	840	22	307	0	2200
APR.												
10...	1600	.32	4.5	10	100	290	140	1100	41	333	0	2800
25...	1000	.34	11.5	13	30	280	140	1200	53	303	0	2700
MAY												
10...	1050	.94	9.5	11	40	180	90	670	32	233	0	1700
24...	1100	.26	17.5	10	20	290	150	1100	46	282	0	2900
JUNE												
09...	1630	2.0	--	8.2	10	220	88	770	28	299	0	2000
17...	1650	.36	--	9.6	40	270	150	1200	18	272	0	2900
SEPT.												
11...	1230	.37	8.0	4.6	50	130	50	490	26	207	--	1200
23...	1020	.48	8.0	9.6	0	270	140	1100	47	279	--	2700

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
10...	310	.9	.02	.05	4080	5.55	16.6	1200	910	11	5390	8.1
24...	340	.6	.02	.04	4320	5.88	.70	1100	870	13	5970	7.7
NOV.												
12...	220	.9	.20	.03	2890	3.93	11.5	790	580	10	4040	7.9
JAN.												
16...	130	.7	.48	.01	2240	3.05	94.3	570	410	9.0	2920	7.5
MAR.												
26...	320	.7	.28	.02	3890	5.29	18.0	1100	820	11	5240	8.1
APR.												
10...	400	1.2	.77	.03	4950	6.73	4.28	1300	1000	13	6500	8.0
25...	520	1.4	.75	.03	5060	6.88	4.65	1300	1000	15	6540	7.8
MAY												
10...	300	.9	.38	.02	3100	4.22	7.87	820	630	10	4240	8.2
24...	430	.4	.06	.02	5070	6.90	3.56	1300	1100	13	6560	7.7
JUNE												
09...	250	1.1	.14	.02	3510	5.07	20.4	910	670	11	4700	7.6
17...	470	1.3	.54	.04	5160	7.02	5.02	1300	1100	15	6900	8.0
SEPT.												
11...	130	.6	.90	.03	2140	2.91	2.14	530	360	9.3	3020	--
23...	480	1.0	.57	.00	4890	6.65	6.34	1300	1000	14	6520	8.1

YELLOWSTONE RIVER BASIN

06207540 SILVER TIP CREEK NEAR BELFRY, MT.--Continued

SUSPENDED-SEDIMENT DISCHARGE, JANUARY TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	--	--	.10	560	.15	.40	4950	5.3
2	0	--	--	.10	558	.15	.20	5400	2.9
3	0	--	--	.10	488	.13	.10	3590	.97
4	0	--	--	.10	373	.10	.10	2890	.56
5	0	--	--	.10	302	.08	.10	5320	1.4
6	0	--	--	0	--	--	.10	3980	1.1
7	0	--	--	0	--	--	.10	3890	1.1
8	0	--	--	0	--	--	.10	9410	2.5
9	0	--	--	0	--	--	.10	5000	1.6
10	0	--	--	0	--	--	.10	10100	2.7
11	0	--	--	0	--	--	.10	16600	4.5
12	0	--	--	0	--	--	.20	24000	6.7
13	0	--	--	0	--	--	.10	15300	4.1
14	0	--	--	0	--	--	0	--	--
15	8.0	6900	149	0	--	--	0	--	--
16	15	15400	624	0	--	--	0	--	--
17	11	6910	205	0	--	--	0	--	--
18	6.0	1540	25	0	--	--	0	--	--
19	4.0	6580	71	0	--	--	0	--	--
20	3.0	822	6.7	0	--	--	0	--	--
21	2.0	257	1.4	0	--	--	0	--	--
22	1.0	223	.60	0	--	--	0	--	--
23	.40	212	.23	0	--	--	0	--	--
24	.20	445	.24	0	--	--	0	--	--
25	.10	381	.10	0	--	--	.80	17100	37
26	.10	219	.06	0	--	--	1.7	14700	67
27	.10	253	.07	.30	770	.62	.90	10700	26
28	.10	350	.09	.40	1670	1.8	.30	5110	4.1
29	.10	430	.12	--	--	--	.20	1880	1.0
30	.10	496	.13	--	--	--	0	--	--
31	.10	538	.15	--	--	--	0	--	--
TOTAL	51.30	--	1083.89	1.20	--	3.03	5.80	--	170.53

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	--	--	.90	2000	4.9	0	--	--
2	0	--	--	.90	2540	6.2	0	--	--
3	0	--	--	.30	2280	1.8	0	--	--
4	0	--	--	.10	1670	.45	0	--	--
5	0	--	--	.10	2000	.54	.10	410	.11
6	1.1	1180	3.5	.10	2120	.57	.20	2290	1.2
7	.90	1300	3.2	.70	3100	5.9	.50	2710	3.7
8	1.6	1750	7.6	.80	3680	7.9	13	31900	1120
9	1.4	1650	6.2	.70	4100	7.7	3.4	9300	85
10	1.1	2040	6.1	.90	2600	6.3	1.0	5820	16
11	.90	9100	22	1.0	2000	5.4	.70	5920	11
12	.80	10500	23	.70	1300	2.5	.50	3310	4.5
13	1.7	10700	49	.50	800	1.1	0	--	--
14	5.2	11100	156	.70	2420	4.6	0	--	--
15	5.2	10700	150	.80	6800	15	0	--	--
16	3.6	8790	85	1.0	4390	12	.10	710	.19
17	2.2	8890	53	1.0	3660	9.9	.20	1220	.66
18	2.0	7140	39	.90	1700	4.1	.30	1120	.91
19	1.7	3600	17	.80	1430	3.1	.50	1060	1.4
20	1.2	2020	6.5	1.7	5080	23	0	--	--
21	.80	2090	4.5	1.8	3800	18	0	--	--
22	.40	2080	2.2	1.8	2290	11	0	--	--
23	1.3	3820	13	1.4	2210	8.4	0	--	--
24	1.3	3330	12	.40	2120	2.3	0	--	--
25	.40	3500	3.8	.30	2890	2.3	0	--	--
26	.60	3750	6.1	1.3	2180	7.7	0	--	--
27	.90	5420	13	1.2	2200	7.1	0	--	--
28	1.3	3110	11	1.0	3100	8.4	0	--	--
29	1.3	2280	8.0	.30	1180	.96	0	--	--
30	1.1	2850	8.5	1.0	1950	5.3	0	--	--
31	--	--	--	1.6	4480	19	--	--	--
TOTAL	40.00	--	709.2	26.70	--	213.42	20.50	--	1244.67

YELLOWSTONE RIVER BASIN

29

06207540 SILVER TIP CREEK NEAR BELFRY, MT.--Continued

SUSPENDED-SEDIMENT DISCHARGE, JANUARY TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	--	--	0	--	--	0	--	--
2	.80	3980	8.6	0	--	--	0	--	--
3	1.6	25000	108	0	--	--	0	--	--
4	.20	5200	2.8	0	--	--	0	--	--
5	0	--	--	0	--	--	0	--	--
6	0	--	--	0	--	--	0	--	--
7	0	--	--	0	--	--	0	--	--
8	0	--	--	0	--	--	0	--	--
9	0	--	--	0	--	--	0	--	--
10	0	--	--	0	--	--	0	--	--
11	0	--	--	0	--	--	1.6	8400	36
12	0	--	--	0	--	--	.80	6300	14
13	0	--	--	0	--	--	.40	2750	3.0
14	0	--	--	0	--	--	.20	1630	.88
15	0	--	--	0	--	--	.10	1150	.31
16	0	--	--	0	--	--	.10	920	.25
17	0	--	--	0	--	--	.10	760	.21
18	0	--	--	0	--	--	.10	880	.18
19	0	--	--	0	--	--	.10	810	.16
20	0	--	--	4.0	3950	43	.10	560	.15
21	0	--	--	1.9	2510	13	.10	500	.14
22	0	--	--	.20	1100	.59	.10	430	.12
23	0	--	--	0	--	--	.10	320	.09
24	0	--	--	0	--	--	.10	2330	.63
25	0	--	--	0	--	--	.10	3620	.98
26	0	--	--	0	--	--	.10	3100	.84
27	0	--	--	0	--	--	.10	2260	.61
28	0	--	--	0	--	--	0	--	--
29	0	--	--	0	--	--	0	--	--
30	0	--	--	0	--	--	0	--	--
31	0	--	--	0	--	--	--	--	--
TOTAL	2.60	--	119.4	6.10	--	56.59	4.30	--	58.55

TOTAL DISCHARGE FOR PERIOD (CFS-DAYS)

176.00

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR PERIOD (TONS)

3659.28

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDIM- ENT CONCEN- TRATION (MG/L)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
OCT.											
10...	0950	4.0	1.5	1020	4.1	--	--	--	--	--	--
16...	1050	6.5	1.1	416	1.2	--	--	--	--	--	--
24...	1200	8.0	.10	215	.06	--	--	--	--	--	--
29...	1400	7.0	.40	241	.26	--	--	--	--	--	--
NOV.											
12...	1100	.5	1.5	5530	22	--	--	--	--	--	--
19...	1600	.0	.10	466	.13	--	--	--	--	--	--
29...	1000	.0	.20	140	.08	--	--	--	--	--	--
MAR.											
12...	1845	3.0	.10	29500	8.0	29	45	94	99	100	--
25...	1900	2.0	.80	33400	72	26	52	93	99	100	--
APR.											
13...	1640	5.0	1.9	10200	96	68	88	96	99	100	--
JUNE											
08...	1140	6.0	18	47900	2330	30	41	69	99	99	100
JULY											
03...	1145	16.0	1.5	26300	107	62	74	94	99	100	--
SEP.											
11...	1230	8.0	.37	18500	190	60	85	96	99	100	--

YELLOWSTONE RIVER BASIN

06218500 WIND RIVER NEAR DUBOIS, WYO.

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼NE¼ sec.25, T.42 N., R.108 W., Fremont County, at gaging station, 2.5 mi (4.0 km) upstream from Warm Springs Creek, and 7.0 mi (11.3 km) northwest of Dubois.

DRAINAGE AREA.--232 mi² (601 km²).

PERIOD OF RECORD.--Chemical analyses: April 1947 to September 1948 (daily), October 1949 to December 1950 (monthly), June to September 1953 (monthly), July 1965 to September 1974 (monthly).

Water temperatures: April 1947 to September 1948.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
01...	1130	70	24	23	5.1	7.5	2.6	106	0	11	1.8	.2
NOV.												
05...	1030	72	25	29	5.4	10	2.3	132	0	12	1.5	.2
26...	1110	60	26	28	5.8	9.6	2.6	128	0	12	2.8	.2
JAN.												
07...	1600	A55	25	24	6.6	8.0	2.3	108	0	12	1.9	.2
FEB.												
04...	1515	A55	26	29	4.8	9.1	2.3	123	0	9.9	1.9	.2
MAR.												
04...	1345	A65	25	26	5.2	9.1	2.1	120	0	9.9	1.9	.1
APR.												
01...	1400	A65	17	27	8.2	10	2.8	134	0	13	3.1	.1
29...	1420	118	9.9	24	5.1	12	3.3	100	0	21	1.9	.3
MAY												
28...	1545	887	16	14	3.4	12	1.9	70	0	14	1.8	.2
JULY												
08...	1330	483	22	17	.9	2.7	1.6	58	0	4.1	.0	.1
AUG.												
05...	1250	194	25	17	4.0	4.3	1.6	82	0	.8	.0	.2
SEP.												
03...	1245	116	22	17	7.0	5.4	1.6	92	0	8.2	.0	.2

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
01...	.02	--	127	.17	24.0	79	0	.4	8.0	194	8.0
NOV.											
05...	.00	.08	150	.20	29.2	95	0	.4	8.1	237	.0
26...	.00	.07	150	.20	24.3	95	0	.4	8.1	228	.0
JAN.											
07...	.05	.07	133	.18	19.8	87	0	.4	8.0	207	.0
FEB.											
04...	.07	.07	145	.20	21.5	92	0	.4	8.2	218	.5
MAR.											
04...	.07	.07	139	.19	24.4	90	0	.4	8.2	212	.0
APR.											
01...	.00	.14	147	.20	25.8	100	0	.4	8.3	221	2.0
29...	.18	.02	127	.17	40.5	80	0	.6	7.8	216	6.0
MAY											
28...	.07	.02	98	.13	255	50	0	.7	8.0	124	8.0
JULY											
08...	.02	.01	77	.10	100	45	0	.2	7.7	99	11.5
AUG.											
05...	.02	.01	93	.13	48.7	58	0	.2	8.0	140	13.0
SEP.											
03...	.00	.01	106	.14	33.2	70	0	.3	8.3	157	8.5

FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
01...	1130	70	--	10.2	--
NOV.					
05...	1030	72	3	10.9	160
26...	1110	60	1	10.9	52
JAN.					
07...	1600	A55	2	10.2	6
FEB.					
04...	1515	A55	2	10.6	82
MAR.					
04...	1345	A65	3	10.7	20
APR.					
01...	1400	A65	8	10.3	47
29...	1420	118	10	9.5	88
MAY					
28...	1545	887	100	9.1	150
JULY					
08...	1330	483	4	8.6	22
AUG.					
05...	1250	194	4	8.2	25
SEP.					
03...	1245	116	2	9.1	9

A Daily mean discharge.

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

31

06225500 WIND RIVER NEAR CROWHEART, WYO.

LOCATION.--Lat 43°14'33", long 109°00'35", in NW¼NW¼ sec.16, T.3 N., R.2 W., Fremont County, Wind River Indian Reservation, at gaging station, 0.9 mi (1.4 km) downstream from Bull Lake Creek, and 9.0 mi (14.5 km) south-east of Crowheart.

DRAINAGE AREA.--1,891 mi² (4,898 km²).

PERIOD OF RECORD.--Sediment records: October 1971 to September 1974.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE DI- MENT CHARGE (MG/L)	SUS- PENDE DI- MENT CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
OCT.											
11...	1700	4.5	825	14	31	--	--	--	--	--	--
NOV.											
02...	1230	.5	588	8	13	--	--	--	--	--	--
29...	1600	1.0	531	16	23	--	--	--	--	--	--
JAN.											
14...	1230	.0	A315	14	12	--	--	--	--	--	--
FEB.											
01...	1325	.5	A350	16	15	--	--	--	--	--	--
MAR.											
06...	1235	2.5	380	24	25	--	--	--	--	--	--
25...	1230	4.0	368	41	41	--	--	--	--	--	--
APR.											
26...	1530	10.5	1800	827	4020	42	71	97	100	--	--
MAY											
10...	1345	10.0	2400	422	2740	--	--	--	--	--	--
31...	1225	12.0	3620	512	5000	19	32	70	92	100	--
JUNE											
12...	1315	9.0	4970	855	11500	--	--	--	--	--	--
18...	1315	12.0	10200	1350	37200	28	32	62	80	97	100
JULY											
01...	1145	16.0	5180	152	2130	--	--	--	--	--	--
AUG.											
26...	1115	17.5	1400	6	23	--	--	--	--	--	--

A Daily mean discharge.

06226000 WYOMING CANAL NEAR LENORE, WYO.

LOCATION.--Lat 43°13'45", long 108°53'40", in SE¼SE¼ sec.17, T.3 N., R.1 W., Fremont County, sampled as site 0.3 mi (0.5 km) downstream from diversion dam on Wind River, 3.0 mi (4.8 km) upstream from gaging station, and 12 mi (19 km) southeast of Lenore.

PERIOD OF RECORD.--Sediment records: April to September 1974.

REMARKS.--Samples collected by Bureau of Reclamation.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, APRIL TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE DI- MENT CHARGE (MG/L)	SUS- PENDE DI- MENT CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .052 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
APR.												
23...	1040	8.0	272	52	46	--	--	--	--	--	--	--
30...	1040	6.5	214	54	31	--	--	--	--	--	--	--
MAY												
07...	1050	8.5	468	707	893	14	23	37	39	45	90	100
14...	1145	7.0	988	104	277	--	--	--	--	--	--	--
21...	1000	7.0	1020	135	380	--	--	--	--	--	--	--
28...	1050	10.0	1580	4510	19200	22	45	90	99	100	--	--
JUNE												
04...	1430	8.0	1660	1330	5960	10	23	56	86	100	--	--
11...	1450	13.0	1640	725	3210	--	--	--	--	--	--	--
18...	0945	15.0	1540	2770	11500	16	32	63	85	99	100	--
25...	1000	14.0	998	1970	5310	5	12	30	50	93	100	--
JULY												
02...	1015	13.0	1210	544	1780	--	--	--	--	--	--	--
09...	1045	15.0	1500	300	1220	--	--	--	--	--	--	--
16...	1015	17.0	1520	877	3600	--	--	--	--	--	--	--
23...	1000	16.0	1470	136	540	--	--	52	50	79	100	--
30...	0950	16.0	1490	150	644	--	--	9	13	21	84	100
AUG.												
06...	0950	15.0	1380	114	425	--	--	--	--	--	--	--
13...	0930	14.0	822	45	100	--	--	20	23	55	100	--
20...	0915	14.0	910	18	44	--	--	--	--	--	--	--
27...	1015	15.0	1030	25	72	--	--	--	--	--	--	--
SEP.												
03...	1015	12.0	1320	25	93	--	--	--	--	--	--	--
10...	1045	14.5	746	15	30	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WYO.

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼NW¼ sec.2, T.1 S., R.4 E., Fremont County, Wind River Indian Reservation, 265 ft (81 m) upstream from gaging station at bridge on State Highway 789, 1.1 mi (1.8 km) southeast of post office in Riverton, and 1.6 mi (2.6 km) upstream from Little Wind River.

DRAINAGE AREA.--2,309 mi² (5,980 km²).

PERIOD OF RECORD.--Chemical analyses: March 1947 to September 1949 (daily), November 1949 to December 1950 (monthly), May to June 1953 (monthly), October 1965 to September 1974 (daily).
 Water temperatures: April 1947 to September 1949, April to September 1953, August 1954 to September 1956, October 1965 to September 1974.
 Sediment records: October 1948 to December 1953 (daily), August 1954 to September 1956 (daily), October 1956 to October 1958 (monthly), October 1959 to September 1964 (monthly), June 1965 (monthly).

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 905 micromhos Feb. 13; minimum daily, 150 micromhos June 24.
 Water temperatures: Maximum, 25.0°C July 18; minimum, freezing point on many days during November to February.

Period of record:

Specific conductance (1947-49, 1965-74): Maximum daily, 932 micromhos Dec. 16, 1965; minimum daily, 148 micromhos June 14, 1972.
 Water temperatures: Maximum, 27.0°C July 23, Aug. 4, 1969, Aug. 7, 1970, June 27, July 10, 1973; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 12...	1615	897	15	37	12	18	1.4	143	0	54	3.1	.3
NOV. 01...	1400	640	13	43	13	23	2.6	171	0	63	1.5	.4
19...	1100	706	12	38	12	19	1.9	153	0	53	4.9	.3
JAN. 03...	1315	A220	18	63	18	36	3.3	242	3	100	8.4	.4
FEB. 11...	1430	A365	15	58	10	27	2.6	203	0	71	6.5	.4
MAR. 08...	1000	A410	15	49	14	26	2.3	184	0	72	6.9	.3
28...	1140	420	11	49	15	28	2.8	196	0	79	.0	.2
APR. 25...	1500	848	14	32	6.7	16	2.1	130	0	36	3.8	.2
MAY 23...	1420	A21	10	71	3.0	61	2.6	183	18	130	11	.5
JUNE 25...	0810	4330	11	23	.8	5.9	1.6	73	0	11	1.8	.1
AUG. 01...	1200	376	9.9	25	8.7	17	1.9	113	0	39	1.8	.2
29...	1055	124	7.7	33	12	31	2.3	150	0	71	3.7	.3

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 12...	--	--	211	.29	511	140	23	.7	8.0	356	8.5
NOV. 01...	.20	.11	244	.33	422	160	20	.8	8.2	422	3.5
19...	.00	.04	216	.29	412	140	14	.7	8.3	362	2.0
JAN. 03...	.09	.01	372	.51	221	230	26	1.0	8.4	588	.0
FEB. 11...	.11	.02	291	.40	287	190	23	.9	8.2	472	.0
MAR. 08...	.18	.03	276	.38	306	180	29	.8	8.2	441	.5
28...	.00	.05	281	.38	319	180	19	.9	8.3	459	9.0
APR. 25...	.09	.01	172	.23	394	108	1	.7	8.0	280	18.0
MAY 23...	.18	.00	398	.54	22.6	190	10	1.9	8.9	596	21.0
JUNE 25...	.07	.01	92	.13	1080	60	0	.3	8.0	144	16.0
AUG. 01...	.05	.00	159	.22	161	98	5	.7	8.3	266	22.0
29...	.07	.00	234	.32	78.3	130	7	1.2	8.3	389	17.5

YELLOWSTONE RIVER BASIN

33

06228000 WIND RIVER AT RIVERTON, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 12...	1615	897	50	10.1	--
NOV. 01...	1400	640	3	12.2	100
19...	1100	706	7	11.6	42
JAN. 03...	1315	A220	3	12.2	100
FEB. 11...	1430	A365	3	9.0	88
MAR. 08...	1000	A410	6	10.3	819
28...	1140	420	15	10.0	6
APR. 25...	1500	848	80	8.6	79
MAY 23...	1420	A21	2	9.4	33
JUNE 25...	0810	4330	65	7.2	180
AUG. 01...	1200	376	3	8.4	1100
29...	1055	124	4	9.9	53

A Daily mean discharge.

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	338	405	410	544	499	429	493	281	230	163	273	412
2	335	400	413	568	459	440	468	297	236	161	263	378
3	321	397	418	606	468	452	487	297	192	173	270	379
4	325	423	399	612	478	471	511	305	188	174	290	369
5	327	443	433	594	481	508	531	321	179	174	284	353
6	346	443	422	556	481	485	564	297	181	195	293	339
7	353	431	426	586	485	452	417	263	192	210	295	341
8	363	411	397	760	502	446	417	259	206	217	293	366
9	366	418	420	562	512	446	403	234	244	193	303	363
10	362	408	445	576	478	451	362	246	277	182	327	354
11	362	405	442	509	476	472	471	231	274	180	346	369
12	355	402	448	544	501	491	376	255	207	184	360	385
13	346	392	450	516	905	488	327	306	180	191	325	383
14	345	384	432	511	466	482	430	318	179	203	322	364
15	335	353	395	641	465	518	424	386	179	217	354	370
16	334	363	458	508	469	510	420	439	185	218	370	366
17	327	366	441	733	449	500	338	496	187	214	387	371
18	335	366	428	441	466	499	320	595	171	205	358	371
19	356	362	445	473	476	475	314	598	166	210	377	357
20	375	363	440	465	485	470	315	365	167	204	371	344
21	378	372	459	446	490	486	300	411	162	197	379	350
22	382	396	452	476	490	505	275	520	159	190	384	378
23	378	423	405	487	477	498	316	611	155	198	380	382
24	385	396	436	491	486	480	316	405	150	204	391	370
25	393	408	481	488	507	466	294	323	157	230	409	335
26	387	432	496	489	491	500	270	293	164	225	434	327
27	393	423	556	481	470	499	287	254	154	235	454	317
28	405	435	551	488	448	493	277	230	154	236	389	320
29	414	434	491	494	---	487	282	210	156	246	399	339
30	409	423	483	490	---	464	293	196	151	271	400	324
31	410	---	513	474	---	487	---	212	---	262	401	---
MONTH	363	403	448	536	495	479	377	337	186	205	351	359
YEAR	MAX	905	MIN	150	MEAN	378						

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	3.5	2.0	0.0	0.0	2.0	8.0	15.5	17.0	18.5	23.0	14.5
2	16.0	2.0	1.0	0.0	0.0	1.0	5.5	12.0	18.0	18.0	21.5	17.0
3	14.0	1.0	0.0	0.0	0.0	1.0	7.0	12.0	16.5	18.0	22.0	18.0
4	13.0	0.0	0.5	0.0	0.0	1.0	8.5	16.0	16.0	20.0	20.5	19.5
5	14.0	0.0	0.0	0.0	0.0	1.0	9.5	17.0	13.5	18.5	20.5	20.0
6	12.0	1.0	0.0	0.0	0.0	2.0	10.5	17.0	14.5	19.0	23.0	20.0
7	13.0	5.0	1.0	0.0	0.0	1.5	11.5	17.5	11.0	21.0	22.0	20.0
8	12.0	7.0	1.0	0.0	0.0	2.0	12.0	17.5	10.5	21.5	21.5	20.0
9	7.0	7.0	0.5	0.0	0.0	2.0	10.5	15.5	18.0	22.5	15.5	20.0
10	8.0	7.0	0.5	0.0	0.0	2.0	7.0	13.5	12.5	22.0	20.0	20.0
11	8.0	7.0	0.5	0.0	0.0	2.5	9.0	13.5	21.5	21.5	20.0	13.0
12	9.0	8.0	1.0	0.0	0.0	3.0	8.0	14.0	18.0	21.5	21.0	13.0
13	11.5	7.0	1.0	0.0	0.0	3.0	7.0	12.0	18.5	23.0	20.0	14.0
14	12.5	5.0	1.0	0.0	0.0	5.5	9.5	13.0	18.0	22.0	21.0	15.5
15	13.0	3.0	0.5	0.0	0.0	6.5	13.5	15.0	17.5	23.0	22.0	17.0
16	14.0	4.0	0.5	0.0	0.0	5.5	14.5	16.0	18.0	23.0	23.0	17.0
17	14.0	4.5	1.0	0.0	0.0	10.0	15.0	13.5	17.0	23.5	23.0	18.0
18	14.0	5.0	0.5	0.0	0.0	7.5	15.0	17.5	17.5	25.0	23.0	18.5
19	14.0	4.0	1.0	0.0	0.0	6.0	12.0	15.0	18.0	23.0	22.0	17.0
20	12.0	3.0	0.0	0.0	0.0	2.5	9.5	15.5	18.5	23.0	19.0	15.0
21	12.0	3.0	0.5	0.0	0.0	4.5	11.0	14.0	18.5	23.0	19.0	16.0
22	12.5	1.0	0.5	0.0	0.0	2.0	13.5	17.5	18.5	23.5	21.0	16.0
23	11.5	1.0	1.0	0.0	0.0	3.0	15.0	21.5	19.5	22.0	22.5	16.5
24	10.0	0.5	1.0	0.0	0.0	2.5	16.5	21.5	19.0	22.5	22.0	15.5
25	8.5	0.5	0.5	0.0	0.5	7.0	17.0	21.0	20.0	24.0	23.0	16.0
26	8.0	0.0	0.5	0.0	0.5	8.0	14.0	19.0	20.0	24.5	22.5	17.0
27	8.0	0.0	0.5	0.0	1.0	10.5	11.5	17.0	20.0	24.0	23.5	12.5
28	9.0	1.5	0.5	0.0	1.0	10.0	12.0	16.0	20.5	23.0	23.0	14.0
29	5.5	1.0	0.5	0.0	---	9.0	13.5	14.0	20.0	24.0	21.5	14.5
30	6.0	1.0	0.5	0.0	---	9.0	15.0	12.0	20.0	23.0	21.0	14.5
31	7.5	---	0.0	0.0	---	8.0	---	14.5	---	23.5	21.0	---
MONTH	11.0	3.0	0.5	0.0	0.0	4.5	11.5	15.5	17.5	22.0	21.5	16.5
YEAR	MAX	25.0	MIN	0.0	MEAN	10.5						

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WYO.

LOCATION.--Lat 42°57'37", long 108°29'54", in NE¼ sec.22, T.1 S., R.3 E., Fremont County, Wind River Indian Reservation, at bridge on county road, 0.5 mi (0.8 km) west of Arapahoe, and 1.2 mi (1.9 km) upstream from Popo Agie River.

DRAINAGE AREA.--660 mi² (1,709 km²).

PERIOD OF RECORD.--Chemical analyses: August 1966 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 12...	1500	319	6.6	67	39	79	1.6	162	0	340	9.2	.5
NOV. 01...	1445	295	6.7	63	37	72	2.3	129	13	320	1.8	.5
19...	1010	285	5.7	41	23	41	1.6	145	0	120	8.3	.4
JAN. 03...	1440	105	10	73	27	47	2.1	175	0	170	10	.4
FEB. 12...	1530	132	9.4	77	19	42	1.9	170	0	200	12	.4
MAR. 08...	1030	136	9.7	87	38	82	2.6	186	0	360	23	.4
28...	1420	108	6.9	110	59	150	3.3	226	0	620	17	.6
APR. 25...	1130	243	4.8	85	48	76	2.6	180	3	390	11	.5
MAY 23...	1525	81	3.1	100	34	89	3.0	165	12	400	18	.5
JUNE 27...	1615	865	4.8	34	6.1	18	1.2	76	0	79	1.8	.2
AUG. 01...	1425	62	4.7	76	39	84	3.0	180	3	370	9.1	.6
29...	1255	162	4.6	95	65	130	3.7	240	0	540	15	.6

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 12...	--	--	625	.85	538	330	200	1.9	8.3	935	7.0
NOV. 01...	.23	.02	585	.80	466	310	180	1.8	8.5	889	4.0
19...	.07	.01	314	.43	242	200	81	1.3	8.3	652	1.5
JAN. 03...	.23	.01	427	.58	121	290	150	1.2	8.3	728	.0
FEB. 12...	.34	.01	441	.60	157	270	130	1.1	8.0	693	.0
MAR. 08...	.41	.03	696	.95	256	370	220	1.8	8.1	1010	.5
28...	.34	.02	1080	1.47	315	520	340	2.9	8.3	1470	10.0
APR. 25...	.07	.00	709	.96	465	410	260	1.6	8.4	1010	16.0
MAY 23...	.16	.00	742	1.01	162	390	240	2.0	8.7	1020	21.0
JUNE 27...	.11	.00	183	.25	427	110	48	.7	7.9	305	19.0
AUG. 01...	.07	.00	678	.92	114	350	200	2.0	8.4	983	24.5
29...	.07	.00	973	1.32	426	500	300	2.5	8.3	1360	20.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 12...	1500	319	2	11.5	--
NOV. 01...	1445	295	1	11.2	55
19...	1010	285	1	10.9	89
JAN. 03...	1440	105	2	15.0	80
FEB. 12...	1530	132	4	8.5	21
MAR. 08...	1030	136	35	8.2	84
28...	1420	108	20	9.6	84
APR. 25...	1130	243	10	8.9	814
MAY 23...	1525	81	4	12.5	820
JUNE 27...	1615	865	20	8.6	150
AUG. 01...	1425	62	20	10.5	53
29...	1255	162	6	9.5	25

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

06235000 BEAVER CREEK NEAR ARAPAHOE, WYO.

LOCATION.--Lat 42°57'16", long 108°25'39", in NW¼NE¼ sec.29, T.1 S., R.4 E., Fremont County, Wind River Indian Reservation, at former gaging station, 1.0 mi (1.6 km) upstream from mouth, and 3.8 mi (6.1 km) east of Arapahoe.

DRAINAGE AREA.--354 mi² (917 km²).

PERIOD OF RECORD.--Chemical analyses: April 1951, October 1967 to September 1974.

Sediment records: April to September 1950 (monthly), October 1950 to September 1951 (daily), October 1951 to September 1952 (monthly), October 1952 to June 1953 (daily).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 03...	1540	12	16	130	48	150	8.1	232	0	550	76	.8
NOV. 05...	1100	7.3	18	170	40	180	7.4	265	0	600	100	1.1
28...	1405	8.8	26	190	42	190	8.4	297	0	670	100	1.1
JAN. 04...	1415	3.6	19	190	50	200	7.7	307	0	700	120	1.0
FEB. 06...	1130	7.9	17	180	39	180	7.7	275	0	640	100	.9
MAR. 04...	1050	8.4	16	140	32	140	5.8	171	0	550	75	.7
28...	1500	25	12	130	35	96	7.2	220	0	400	58	.6
APR. 25...	1605	96	16	68	16	56	5.1	160	0	200	23	.4
JUNE 07...	0905	20	17	120	26	92	6.5	204	6	340	56	.6
27...	1520	.94	17	170	37	200	12	226	0	670	120	.9
AUG. 02...		0										
SEP. 10...		0										

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 03...	.09	--	1090	1.48	35.3	530	340	2.9	8.2	1560	16.0
NOV. 05...	.05	.02	1250	1.70	24.6	590	370	3.2	8.2	1860	.0
28...	.18	.01	1380	1.88	32.8	650	410	3.3	8.0	1860	1.0
JAN. 04...	.14	.01	1450	1.97	14.1	690	440	3.3	7.7	1980	.0
FEB. 06...	.18	.02	1300	1.77	27.7	610	380	3.2	8.0	1790	.0
MAR. 04...	.09	.03	1040	1.41	23.6	480	340	2.8	8.0	1470	.0
28...	.00	.11	847	1.15	57.2	470	290	1.9	8.1	1150	13.0
APR. 25...	.14	.01	457	.62	119	240	110	1.6	8.0	691	10.5
JUNE 07...	.14	.01	765	1.04	41.3	400	220	2.0	8.4	1070	8.5
27...	.05	.00	1340	1.82	3.40	580	400	3.6	8.2	1850	17.0

YELLOWSTONE RIVER BASIN

37

06235500 LITTLE WIND RIVER NEAR RIVERTON, WYO.

LOCATION.--Lat 42°59'51", long 108°22'29", in NE&NW¼ sec.11, T.1 S., R.4 E., Fremont County, Wind River Indian Reservation, at gaging station, at bridge on county road, 1.8 mi (2.9 km) upstream from mouth, and 1.9 mi (3.1 km) southeast of Riverton.

DRAINAGE AREA.--1,904 mi² (4,931 km²).

PERIOD OF RECORD.--Chemical analyses: June to September 1953 (monthly), May to October 1954 (monthly), October 1965 to September 1974 (daily).

Water temperatures: March to September 1949, May to September 1953, October 1955 to September 1956, October 1965 to September 1974.

Sediment records: March 1949 to December 1953 (daily), October 1955 to September 1956 (daily), October 1956 to October 1958 (monthly), October 1959 to September 1964 (monthly).

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 1,790 micromhos Apr. 15; minimum daily, 227 micromhos June 16.

Water temperatures: Maximum, 26.5°C July 18; minimum, freezing point on many days during November to February.

Period of record:

Specific conductance (1965-74): Maximum daily, 2,160 micromhos Apr. 23, 1971; minimum daily, 109 micromhos Feb. 17, 1970.

Water temperatures: Maximum, 28.0°C Aug. 7, 1949, Aug. 4, 1969; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 09...	1420	616	6.1	62	29	41	2.1	153	0	210	6.1	.4
NOV. 05...	1600	455	9.0	65	31	55	2.1	171	3	230	9.2	.4
28...	1545	A390	8.4	77	29	53	2.1	183	0	240	9.5	.4
JAN. 04...	1700	A215	11	90	39	62	2.6	225	0	300	13	.4
FEB. 06...	1535	A315	10	80	32	56	2.6	197	0	270	12	.4
MAR. 04...	1245	A530	13	62	25	56	5.8	140	0	250	11	.4
28...	1610	302	7.6	100	49	100	3.3	229	0	470	20	.4
APR. 26...	1100	1180	11	62	22	35	2.8	160	0	170	7.6	.3
MAY 30...	1650	3760	6.4	25	6.3	10	1.2	76	0	45	1.8	.2
JUNE 26...	1205	2260	5.6	39	3.0	14	1.2	82	0	69	1.8	.2
AUG. 02...	1400	270	6.4	82	36	62	2.8	204	9	290	5.5	.5
29...	1525	190	5.9	87	47	81	3.0	230	0	370	7.3	.5

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT. 09...	.05	--	432	.59	719	280	150	1.1	8.3	673	3.5
NOV. 05...	.20	.04	485	.66	596	290	150	1.4	8.4	844	.0
28...	.14	.00	514	.70	686	310	160	1.3	8.3	797	.5
JAN. 04...	.36	.01	635	.86	369	390	210	1.4	8.1	928	.0
FEB. 06...	.41	.05	564	.77	480	330	170	1.3	7.8	821	.0
MAR. 04...	.75	.17	499	.68	714	260	150	1.5	7.7	752	.5
28...	.00	.11	872	1.19	711	460	270	2.0	8.2	1160	9.0
APR. 26...	.25	.01	391	.53	1250	240	110	1.0	7.9	602	14.5
MAY 30...	.07	.01	133	.18	1350	88	26	.5	8.1	223	12.0
JUNE 26...	.11	.00	174	.24	1060	110	43	.6	7.9	291	17.0
AUG. 02...	.07	.00	605	.82	441	350	170	1.4	8.5	875	22.0
29...	.07	.00	715	.97	367	410	220	1.7	8.3	1040	21.5

YELLOWSTONE RIVER BASIN

06235500 LITTLE WIND RIVER NEAR RIVERTON, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	592	939	699	822	854	882	981	627	275	384	869	1010
2	612	876	723	860	836	723	1020	589	265	409	879	1060
3	616	815	789	886	959	617	983	480	254	422	900	1050
4	612	813	800	933	950	791	1020	518	246	414	894	1030
5	603	847	802	898	924	881	985	539	251	420	890	1050
6	618	821	850	850	913	1010	981	492	265	581	891	1050
7	680	788	855	811	897	932	984	437	318	492	895	1040
8	648	952	734	568	907	1060	1030	374	353	522	906	1050
9	671	821	661	758	929	1120	969	301	399	512	923	958
10	690	775	736	698	912	1130	1040	272	293	522	931	1050
11	844	755	757	759	905	1110	973	299	426	519	1020	1050
12	927	758	742	768	887	1070	1270	328	363	532	928	1040
13	880	726	751	750	447	1060	1760	362	308	551	940	1020
14	835	693	775	707	914	1020	1500	373	249	590	945	1030
15	748	701	739	682	915	1000	1790	414	232	620	946	972
16	724	726	679	681	913	956	1630	435	227	645	948	952
17	722	729	753	538	907	998	1320	505	238	675	953	959
18	724	740	738	702	922	978	1170	519	234	692	906	976
19	726	747	735	770	927	960	1050	539	243	684	915	1000
20	716	722	733	796	938	858	971	481	248	679	960	987
21	718	735	828	872	950	963	1150	561	231	567	989	994
22	717	796	797	896	972	1020	1160	538	250	571	987	938
23	720	803	725	905	996	1060	1010	584	264	633	975	986
24	727	740	730	885	961	1100	914	615	268	659	975	984
25	717	773	752	856	902	1100	749	571	292	660	982	963
26	717	786	792	780	973	1020	594	465	290	730	991	889
27	717	791	831	831	959	1260	613	333	387	758	1000	973
28	736	786	858	857	881	1320	527	279	312	787	1020	997
29	745	736	856	846	---	1210	572	235	326	805	1060	1110
30	735	725	808	809	---	1140	643	235	353	817	1050	1070
31	855	---	794	838	---	1060	---	254	---	821	1040	---
MONTH	719	781	768	794	905	1010	1050	437	289	602	952	1010
YEAR	MAX	1790	MIN	227	MEAN	775						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENTS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	4.0	2.0	0.0	0.0	1.0	8.0	14.5	14.0	19.5	25.0	15.0
2	15.5	2.5	0.5	0.0	0.0	1.0	6.0	12.0	14.5	18.0	22.5	18.0
3	14.0	1.0	0.0	0.0	0.0	0.5	7.5	11.0	14.0	18.0	23.0	19.0
4	13.0	0.0	0.5	0.5	0.0	0.5	7.5	14.0	13.5	20.0	21.5	19.5
5	12.5	0.0	0.0	0.0	0.0	0.5	9.5	15.0	14.0	19.5	24.0	20.5
6	12.0	1.0	0.0	0.0	0.0	2.0	10.5	15.0	15.0	19.0	24.5	21.5
7	13.0	4.0	1.0	0.0	0.0	1.5	12.0	16.0	11.0	20.0	24.0	21.0
8	12.0	6.0	1.0	0.0	0.0	0.5	12.5	15.5	9.5	21.0	23.0	20.5
9	7.0	5.5	0.5	0.0	0.0	2.0	11.0	14.0	14.0	23.0	17.0	21.5
10	7.0	6.0	0.5	0.0	0.0	2.0	7.5	10.5	13.0	23.5	20.0	20.5
11	7.5	6.0	0.5	0.0	0.0	5.0	9.0	11.5	19.5	23.0	21.0	13.0
12	8.5	7.0	1.0	0.0	0.0	5.5	7.0	12.5	16.5	23.0	21.0	13.5
13	10.5	6.5	1.0	0.0	0.0	6.0	6.0	11.0	18.0	24.0	20.0	14.5
14	12.0	5.0	1.0	0.0	0.0	5.5	9.5	11.0	17.0	23.0	21.0	16.0
15	12.0	3.0	0.5	0.0	0.0	5.5	12.5	12.5	16.0	24.5	22.5	17.0
16	13.0	3.0	0.5	0.0	0.0	7.0	14.0	14.0	15.5	24.5	23.0	17.5
17	13.0	3.0	1.0	0.0	0.0	9.5	15.0	12.0	15.0	25.0	24.0	18.0
18	13.0	3.5	0.5	0.0	0.0	7.5	15.5	15.0	16.5	26.5	24.0	19.0
19	12.5	3.0	3.0	0.0	0.0	5.5	12.5	13.5	16.5	25.0	22.5	17.5
20	11.5	1.5	0.0	0.0	0.0	3.5	10.0	13.0	17.0	24.0	20.0	16.0
21	11.5	2.0	0.5	0.0	0.0	5.0	10.5	12.5	12.0	24.0	21.0	17.0
22	12.0	1.0	0.5	0.0	0.0	2.5	13.0	15.0	17.5	24.5	22.0	17.0
23	11.0	0.5	1.0	0.0	0.0	4.0	14.5	18.0	18.5	23.0	23.0	17.0
24	10.0	0.5	1.0	0.0	0.0	3.0	16.0	19.5	19.5	24.0	23.5	17.0
25	9.5	0.5	0.5	0.0	0.5	7.0	16.0	19.0	19.5	25.0	23.5	17.0
26	8.0	0.0	0.5	0.0	0.5	8.0	14.0	16.5	20.0	26.0	23.5	17.5
27	8.0	0.0	0.5	0.0	0.5	10.0	11.0	14.5	19.5	25.5	24.0	12.5
28	8.0	1.0	0.5	0.0	0.5	10.0	11.0	13.0	20.0	24.0	24.0	13.5
29	5.5	1.0	0.5	0.0	---	10.0	13.0	11.5	21.0	25.5	22.0	14.5
30	5.5	1.0	0.5	0.0	---	9.5	14.5	11.0	21.0	24.0	22.0	14.0
31	6.5	---	0.0	0.0	---	8.5	---	12.0	---	24.5	21.5	---
MONTH	10.5	2.5	0.5	0.0	0.0	5.0	11.0	13.5	16.5	23.0	22.5	17.0
YEAR	MAX	26.5	MIN	0.0	MEAN	10.5						

YELLOWSTONE RIVER BASIN

39

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WYO.

LOCATION.--Lat 43°07'43", long 108°13'28", in NW¼NE¼ sec.25, T.2 N., R.5 E., Fremont County, Wind River Indian Reservation, 4.0 mi (6.4 km) upstream from Muskrat Creek, 5.3 mi (8.5 km) upstream from high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m), and 9.4 mi (15.1 km) southwest of Shoshoni.

DRAINAGE AREA.--4,390 mi² (11,370 km²).

PERIOD OF RECORD.--Chemical analyses: January to September 1974.

CHEMICAL ANALYSES, JANUARY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 04...	1045	402	14	74	26	55	3.0	248	0	180	9.9	.4
FEB. 11...	1100	693	14	65	22	41	2.5	209	0	160	8.2	.3
MAR. 12...	1420	861	12	67	24	56	3.3	190	0	220	12	.5
27...	1500	753	12	71	26	56	3.5	214	0	210	9.8	.5
APR. 25...	1515	1590	11	48	18	33	2.7	157	0	130	5.9	.2
MAY 23...	1125	647	10	57	19	37	2.6	161	0	150	6.4	.1
JUNE 25...	1330	6500	9.6	22	5.6	10	1.4	78	0	40	1.7	.3
AUG. 01...	1630	774	10	49	18	41	2.5	165	2	130	5.2	.3
27...	1605	486	8.8	65	25	68	3.0	193	28	200	7.4	.4
SEP. 30...	1505	847	7.8	55	22	51	3.2	177	0	170	5.7	.3

DATE	DIS- SOLVED 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
JAN. 04...	.32	70	486	.66	528	290	88	1.4	8.0	777	.0
FEB. 11...	.32	80	418	.57	782	250	81	1.1	7.8	672	.0
MAR. 12...	.29	80	490	.67	1140	270	110	1.5	7.5	730	.0
27...	.28	80	496	.67	1010	280	110	1.4	8.2	764	10.0
APR. 25...	.14	70	327	.44	1400	190	65	1.0	7.8	520	15.5
MAY 23...	.04	60	362	.49	632	220	89	1.1	7.9	564	13.0
JUNE 25...	.18	40	130	.18	2280	78	14	.5	8.0	206	17.0
AUG. 01...	.00	70	339	.46	708	200	58	1.3	8.4	545	25.0
27...	.03	120	501	.68	657	270	60	1.8	8.6	768	22.5
SEP. 30...	.01	70	402	.55	919	230	83	1.5	--	642	12.5

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
JAN. 04...	1045	402	1	9.8	440
FEB. 11...	1100	693	4	8.2	1100
MAR. 12...	1420	861	190	8.4	380
27...	1500	753	30	9.5	34
APR. 25...	1515	1590	140	7.8	270
MAY 23...	1125	647	210	9.9	20
JUNE 25...	1330	6500	65	9.0	130
AUG. 01...	1630	774	20	8.6	140
27...	1605	486	7	10.2	80
SEP. 30...	1505	847	4	9.5	75

YELLOWSTONE RIVER BASIN

06244500 FIVEMILE CREEK ABOVE WYOMING CANAL, NEAR PAVILLION, WYO.

LOCATION (revised).--Lat 43°18'05", long 108°42'08", in SE4SW4SE4 sec.24, T.4 N., R.1 E., Fremont County, at gaging station, 1,700 ft (518 m) upstream from Wyoming Canal siphon, and 4.0 mi (6.4 km) north of Pavillion. Prior to Apr. 24, at site 300 ft (91 m) downstream.

DRAINAGE AREA.--118 mi² (306 km²).

PERIOD OF RECORD.--Chemical analyses: October 1950 to November 1951, May to September 1974.

Water temperatures: October 1950 to September 1951, April to September 1961, April 1965 to September 1966, April to September 1967, May to September 1968, May to September 1969, May to September 1970, May to September 1971, May to September 1972, May to September 1973.

Sediment records: October 1949 to September 1958 (daily), April 1961 to September 1964 (daily), April 1965 to September 1966 (daily), April to September 1967 (daily), May to September 1968 (daily), May to September 1969 (daily), May to September 1970 (daily), May to September 1971 (daily), May to September 1972 (daily), May to September 1973 (daily), May to September 1974 (monthly).

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
MAY												
01...	1445	3.8	8.9	690	49	320	10	211	0	2300	63	1.2
13...	1330	2.4	8.5	480	180	340	10	204	0	2400	65	1.2
JUNE												
07...	1045	1.6	6.0	580	81	410	9.5	192	0	2400	63	1.2
19...	1230	.59	6.6	570	100	450	9.8	189	0	2500	65	1.3
JULY												
02...	1100	.05	6.1	550	110	810	8.6	256	0	3200	81	1.3
16...	1235	.08	8.2	440	160	810	10	244	0	3100	82	1.3
31...	1300	.02	7.7	430	210	820	9.3	232	0	3400	86	1.3
AUG.												
13...	1000	.02	8.9	450	240	550	9.3	262	0	2900	79	1.3
29...	1015	.02	8.8	450	200	720	8.8	250	0	3100	82	1.2
SEP.												
18...	0950	.02	8.7	440	170	620	8.6	260	0	2700	80	1.2

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
MAY											
01...	.02	.00	3550	4.83	36.4	1900	1700	3.2	7.9	3180	18.5
13...	.02	.00	3590	4.88	23.3	2000	1800	3.4	7.8	3950	12.0
JUNE											
07...	.05	.00	3650	4.96	15.8	1800	1600	4.2	7.8	3700	12.5
19...	.05	.00	3800	5.17	6.05	1800	1600	4.6	8.0	4060	26.0
JULY											
02...	.07	.00	4890	6.65	.66	1800	1600	8.2	7.9	5080	20.0
16...	.18	.00	4780	6.50	1.03	1800	1600	8.4	7.7	4930	24.0
31...	.07	.00	5080	6.91	.27	2000	1800	8.1	8.1	5300	26.5
AUG.											
13...	.05	.00	4380	5.96	.24	2100	1900	5.2	7.7	4760	17.0
29...	.16	.00	4700	6.39	.25	1900	1700	7.1	7.7	3000	15.0
SEP.											
18...	.00	.00	4210	5.73	.23	1800	1600	6.4	7.7	5000	11.0

SUSPENDED SEDIMENT DISCHARGE MEASUREMENTS, MAY TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SED- MENT DIS- CHARGE (MG/L)	SUS- PENDE SED- MENT DIS- CHARGE (T/DAY)
MAY					
01...	1445	18.5	3.8	12	.12
13...	1330	12.0	2.4	49	.32
JUNE					
07...	1045	12.5	1.6	7	.03
19...	1230	26.0	.59	4	.01
JULY					
02...	1100	20.0	.05	5	.00
16...	1235	24.0	.08	34	.01
31...	1300	26.5	.02	10	.00
AUG.					
13...	1000	17.0	.02	8	.00
29...	1015	15.0	.02	16	.00
SEP.					
18...	0950	11.0	.02	30	.00

YELLOWSTONE RIVER BASIN

41

06253000 FIVEMILE CREEK NEAR SHOSHONI, WYO.

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼SW¼ sec.19, T.3 N., R.6 E., Fremont County, at gaging station, 1.2 mi (1.9 km) upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m), and 5.0 mi (8.0 km) west of Shoshoni.

DRAINAGE AREA.--418 mi² (1,083 km²), of which 133 mi² (344 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1948 (monthly), September 1949 to November 1951 (daily), April to September 1953 (monthly), July 1965 to September 1974 (monthly).

Water temperatures: December 1948 to September 1969, December 1971 to June 1972.

Sediment records: August 1948 to September 1969 (daily), December 1971 to June 1972 (daily), May to September 1974 (monthly).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
05...	1030	166	10	100	38	250	3.5	253	0	730	18	.8
NOV.												
07...	1110	99	11	130	71	360	4.0	299	0	1100	20	1.0
30...	1340	78	10	150	46	350	3.7	303	0	1000	27	1.0
JAN.												
09...	1215	A57	12	170	45	400	4.4	353	0	1100	29	1.0
FEB.												
05...	1640	A53	12	190	63	390	4.6	340	0	1200	35	1.0
MAR.												
05...	1150	30	11	190	60	410	4.9	306	0	1300	37	1.2
26...	1400	43	8.3	160	86	390	4.3	311	0	1200	34	1.0
MAY												
01...	0955	85	6.2	130	45	260	3.3	238	0	810	25	.8
13...	1115	212	8.3	70	11	99	2.8	168	0	270	9.0	.5
JUNE												
05...	1100	342	11	64	11	95	2.8	165	0	260	7.2	.4
19...	1100	426	12	71	4.8	100	3.0	171	0	260	7.2	.5
JULY												
02...	1520	378	11	72	11	120	3.0	174	0	330	9.0	.5
18...	1110	384	11	62	17	140	3.5	189	0	340	9.1	.5
30...	1100	426	11	58	18	120	3.0	180	0	320	7.3	.5
AUG.												
12...	1205	458	10	59	22	120	3.0	183	0	340	9.1	.5
28...	1155	353	10	64	23	150	3.3	201	0	390	9.1	.6
SEP.												
18...	1200	275	9.7	68	26	160	3.3	200	6	420	9.1	.6

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
05...	.09	--	1280	1.74	574	410	200	5.4	8.2	1800	8.0
NOV.											
07...	2.2	.03	1840	2.50	492	610	370	6.3	7.9	2400	1.5
30...	2.2	.01	1770	2.41	373	550	300	6.4	8.1	2370	1.0
JAN.											
09...	2.7	.04	1960	2.67	302	600	310	7.0	8.3	2530	.0
FEB.											
05...	2.7	.02	2070	2.82	296	730	450	6.3	8.2	2440	1.0
MAR.											
05...	2.9	.02	2180	2.96	177	730	480	6.6	8.2	2770	.0
26...	2.5	.01	2090	2.84	243	750	500	6.2	8.1	2670	6.5
MAY											
01...	1.7	.00	1410	1.92	324	500	310	5.0	8.3	1720	13.0
13...	.86	.00	556	.76	318	220	82	2.9	7.9	933	7.0
JUNE											
05...	.66	.02	536	.73	495	200	65	2.9	8.1	790	15.0
19...	.63	.05	546	.74	628	200	60	3.1	8.0	812	18.0
JULY											
02...	.68	.01	645	.88	658	220	77	3.5	8.2	949	14.0
18...	.61	.02	679	.92	704	220	65	4.1	8.1	994	21.5
30...	.68	.02	629	.86	723	220	72	3.5	7.9	949	20.0
AUG.											
12...	.52	.01	656	.89	811	240	90	3.4	8.1	989	13.0
28...	.59	.02	751	1.02	716	260	95	4.1	8.0	1100	19.0
SEP.											
18...	.07	.00	802	1.09	595	280	110	4.2	8.4	1200	14.0

YELLOWSTONE RIVER BASIN

06253000 FIVEMILE CREEK NEAR SHOSHONI, WYO.--Continued

SUSPENDED SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDEO SEDI- MENT (MG/L)	SUS- PENDEO SEDI- MENT (T/DAY)
MAY					
01...	0955	13.0	85	476	109
13...	1115	7.0	212	510	292
JUNE					
05...	1100	15.0	342	725	669
19...	1100	18.0	426	454	522
JULY					
02...	1520	14.0	378	304	310
18...	1110	21.5	384	415	430
30...	1100	20.0	426	392	451
AUG.					
12...	1205	13.0	458	280	346
28...	1155	19.0	353	183	174
SEP.					
18...	1200	14.0	275	67	50

06256900 DRY CREEK NEAR BONNEVILLE, WYO.

LOCATION.--Lat 43°16'52", long 107°54'45", in NW¼NW¼ sec.8, T.38 N., R.92 W., Fremont County, at gaging station, 0.4 mi (0.6 km) upstream from mouth, and 8.0 mi (12.9 km) east of Bonneville.

DRAINAGE AREA.--52.6 mi² (136 km²).

PERIOD OF RECORD.--Sediment record: September 1965 to September 1974.

EXTREMES.--1973-74:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days each year.

Sediment discharge: Maximum daily, 162 tons (147 tonnes) Apr. 26; minimum daily, 0 tons on many days during year.

Period of record:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days each year.

Sediment discharge: Maximum daily, 19,000 tons (17,200 tonnes) June 15, 1967; minimum daily, 0 tons on many days each year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT				CONCENTRATION (MG/L)	
			DISCHARGE (TONS)	MEAN	MAXIMUM	MINIMUM	WEIGHTED MEAN	MAXIMUM OBSERVED
OCTOBER 1973...	4.59	9.1	0.66	0.021	0.03	0		
NOVEMBER.....	2.82	5.6	.34	.011	.02	0		
DECEMBER.....	.16	.3	0	0	0	0		
JANUARY 1974...	0	0	0	0	0	0		
FEBRUARY.....	.06	.1	0	0	0	0		
MARCH.....	2.18	4.3	.21	.007	.03	0		
APRIL.....	183.62	364	483.5	16.1	162	0		
MAY.....	32.85	65	23.72	.77	7.8	0		
JUNE.....	0	0	0	0	0	0		
JULY.....	3.4	6.7	1.73	.056	1.3	0		
AUGUST.....	0	0	0	0	0	0		
SEPTEMBER.....	0	0	0	0	0	0		
WATER YEAR...	229.68	456	510.16	1.40	162	0		

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDEO SEDI- MENT (MG/L)	SJS- PENDEO SEDI- MENT (T/DAY)	SJS. SED. FALL DIAM. % FINE THAN .004 MM	SJS. SED. FALL DIAM. % FINE THAN .015 MM	SJS. SED. FALL DIAM. % FINE THAN .062 MM	SJS. SED. FALL DIAM. % FINE THAN .125 MM	SJS. SED. FALL DIAM. % FINE THAN .250 MM	SJS. SED. FALL DIAM. % FINE THAN .500 MM
APR.											
24...	1400	15.5	10	827	22	54	67	82	89	94	100

YELLOWSTONE RIVER BASIN

43

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WYO.

LOCATION.--Lat 43°25'30", long 108°10'42", in NW¼SW¼ sec.9, T.5 N., R.6 E., Fremont County, at tailrace of power-plant at Boysen Dam, 0.6 mi (1.0 km) upstream from gaging station, and 13 mi (21 km) north of Shoshoni.

DRAINAGE AREA.--7,701 mi² (19,946 km²), at gaging station.

PERIOD OF RECORD.--Chemical analyses: November 1953 to September 1954, December 1960 to September 1974.

Water temperatures: December 1953 to September 1954, December 1960 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 864 micromhos Mar. 22; minimum daily, 460 micromhos Aug. 3, 8.

Water temperatures: Maximum, 21.0°C July 30 to Aug. 2; minimum, 3.0°C Jan. 5, 10-14.

Period of record:

Specific conductance: Maximum daily, 1,380 micromhos June 18, 1954; minimum daily, 385 micromhos July 19, 1971.

Water temperatures: Maximum (1960-74), 22.0°C on several days in 1961, 1970, 1971; minimum, 1.0°C Dec. 17, 18, 1964.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
06...	1210	2110	9.5	62	13	55	2.6	151	0	200	8.2	.4
11...	1200	2100	9.2	54	18	59	2.1	149	0	200	6.1	.4
29...	1215	2100	8.6	57	17	59	2.6	160	0	200	8.9	.4
NOV.												
28...	1300	2010	9.2	53	20	59	2.6	157	0	200	6.7	.4
JAN.												
14...	1210	950	8.7	76	9.2	71	2.6	173	0	220	9.5	.4
FEB.												
13...	1600	1670	9.9	73	16	67	2.6	173	3	220	9.5	.4
MAR.												
27...	1230	2100	6.1	62	20	65	2.8	177	0	220	.0	.3
APR.												
22...	1300	2260	8.5	62	21	72	2.3	177	3	230	9.5	.4
MAY												
18...	1345	2290	8.4	66	24	62	2.3	232	0	160	25	.4
JUNE												
17...	1445	399	8.7	74	11	60	2.6	168	0	220	7.2	.4
JULY												
16...	1400	2370	8.4	41	16	40	2.6	134	0	140	3.7	.3
AUG.												
16...	1345	2220	8.4	39	14	36	1.2	128	0	120	3.7	.3
SEP.												
12...	1600	1260	9.0	41	16	43	2.3	140	0	140	3.7	.3

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
06...	.14	--	426	.58	2430	210	86	1.7	8.3	661	15.0
11...	.14	--	423	.58	2400	210	88	1.8	8.1	667	12.5
29...	.11	.00	430	.58	2440	210	79	1.8	8.1	740	11.0
NOV.											
28...	.11	.02	433	.59	2350	210	81	1.8	8.3	684	5.5
JAN.											
14...	.09	.01	484	.66	1240	230	88	2.0	8.3	721	4.0
FEB.											
13...	.09	.02	492	.67	2220	250	100	1.9	8.4	731	4.0
MAR.											
27...	.00	.05	468	.64	2650	230	85	1.8	8.0	701	5.0
APR.											
22...	.00	.00	497	.68	3030	240	90	2.0	8.4	748	7.0
MAY											
18...	.11	.00	463	.63	2860	260	70	1.7	8.3	872	8.5
JUNE											
17...	.14	.00	467	.64	503	230	92	1.7	8.2	678	16.0
JULY											
16...	.11	.00	319	.43	2040	170	60	1.3	8.2	514	13.0
AUG.											
16...	.07	.00	286	.39	1710	160	55	1.3	8.2	469	17.5
SEP.											
12...	.00	.00	327	.44	1110	170	55	1.4	8.3	530	16.0

YELLOWSTONE RIVER BASIN

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
11...	1200	2100	6	7.8	--
29...	1215	2100	5	8.6	R12
NOV.					
28...	1300	2010	3	9.5	B3
JAN.					
14...	1210	950	2	5.0	B3
FEB.					
13...	1600	1670	2	10.6	R13
MAR.					
27...	1230	2100	2	10.2	B10
APR.					
22...	1300	2260	1	10.8	B7
MAY					
18...	1345	2290	3	8.1	B3
JUNE					
17...	1445	399	4	9.3	B3
JULY					
16...	1400	2370	20	8.9	B1
AUG.					
16...	1345	2220	2	7.6	B1
SEP.					
12...	1600	1260	0	8.9	R2

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	657	674	685	685	743	772	781	811	771	583	475	557
2	661	668	687	713	752	777	791	805	767	544	614	518
3	662	670	685	717	749	776	787	805	747	644	460	494
4	645	668	686	713	749	771	787	724	702	502	478	532
5	650	670	660	719	749	771	776	815	742	518	488	534
6	651	665	686	715	747	771	779	807	747	593	478	516
7	650	665	686	692	760	788	766	807	753	545	525	509
8	652	665	685	717	768	775	786	802	714	512	460	509
9	657	665	684	723	763	781	778	800	751	495	572	514
10	655	665	687	717	772	774	790	803	725	503	468	495
11	654	665	689	731	771	776	788	807	752	523	481	519
12	656	670	687	734	774	765	737	753	725	494	473	531
13	656	670	690	686	772	766	783	803	720	497	476	530
14	656	671	691	732	763	766	778	793	712	512	518	528
15	666	674	663	729	767	743	784	803	724	510	474	522
16	665	676	696	732	770	735	782	799	724	510	465	526
17	666	676	666	737	773	723	781	797	687	505	468	529
18	666	674	698	727	774	851	781	791	682	499	470	528
19	666	683	691	730	776	800	779	784	654	511	476	558
20	665	676	698	733	770	840	787	794	709	470	504	547
21	669	687	698	736	770	794	783	774	705	482	482	549
22	669	684	699	735	771	864	786	769	671	465	482	549
23	669	684	700	737	773	825	778	774	655	484	480	544
24	669	635	699	737	770	786	786	768	625	479	486	549
25	669	668	696	734	750	795	784	735	628	494	485	552
26	669	684	695	703	755	777	805	770	608	463	477	550
27	669	690	697	742	775	778	809	767	629	464	485	554
28	668	685	696	743	777	742	734	769	582	472	529	549
29	668	682	702	751	---	782	805	767	637	480	516	553
30	665	680	702	752	---	779	808	771	552	511	499	553
31	670	---	699	744	---	785	---	768	---	478	499	---
MONTH	662	673	690	726	764	782	783	785	693	508	492	533
YEAR	MAX	864	MIN	460	MEAN	673						

YELLOWSTONE RIVER BASIN

45

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	11.0	8.0	4.0	4.0	5.0	6.0	10.0	12.0	18.0	21.0	17.0
2	15.0	11.0	7.0	4.0	4.0	5.0	6.0	9.0	12.0	17.0	21.0	17.0
3	16.0	11.0	7.0	4.0	4.0	5.0	6.0	10.0	14.0	15.0	20.0	17.0
4	14.0	11.0	7.0	4.0	4.0	5.0	5.0	10.0	15.0	18.0	19.0	17.0
5	15.0	11.0	6.0	3.0	4.0	5.0	6.0	10.0	15.0	17.0	19.0	17.0
6	15.0	11.0	6.0	4.0	4.0	5.0	6.0	11.0	14.0	16.0	18.0	18.0
7	15.0	10.0	6.0	4.0	4.5	5.0	6.0	10.0	14.0	17.0	19.0	18.0
8	15.0	9.0	6.0	4.0	5.0	5.0	6.0	12.0	14.0	18.0	16.0	18.0
9	13.0	11.0	6.0	4.0	5.0	5.0	7.0	10.0	14.0	19.0	19.0	18.0
10	14.0	10.0	6.0	3.0	6.0	6.0	7.0	9.0	14.0	19.0	19.0	18.0
11	14.0	9.5	6.0	3.0	5.0	6.0	7.0	9.0	13.0	19.0	19.0	17.0
12	14.0	9.5	6.0	3.0	5.0	6.0	6.0	10.0	15.0	18.0	19.0	16.0
13	14.0	9.0	6.0	3.0	5.0	5.0	6.0	10.0	15.0	18.0	18.0	16.0
14	14.0	9.0	5.0	3.0	5.0	7.0	6.0	10.0	16.0	19.0	18.0	16.0
15	14.0	9.0	4.0	5.0	5.0	7.0	7.0	11.0	14.0	19.0	19.0	16.0
16	14.0	9.0	4.0	5.5	5.0	7.0	7.0	11.0	14.0	19.0	19.0	16.0
17	14.0	9.0	5.0	5.0	6.0	7.0	7.0	11.0	16.0	18.0	19.0	16.0
18	14.0	9.0	5.0	5.0	6.0	7.0	7.0	11.0	16.0	18.0	19.0	16.0
19	14.0	8.0	5.0	5.0	5.0	7.0	8.0	11.0	15.0	19.0	19.0	16.0
20	14.0	8.0	5.0	4.0	5.0	5.0	8.0	11.0	16.0	10.0	19.0	16.0
21	13.0	8.0	5.0	4.0	5.0	5.0	8.0	11.0	16.0	10.0	19.0	15.0
22	13.0	8.0	5.0	5.0	5.0	6.0	8.0	11.0	16.0	19.0	19.0	15.0
23	13.0	8.0	5.0	5.0	5.0	5.0	9.0	12.0	16.0	18.0	19.0	15.0
24	14.0	8.0	5.0	5.0	5.0	5.0	9.0	13.0	16.0	19.0	19.0	15.0
25	14.0	8.0	5.0	5.0	5.0	5.0	9.0	12.0	16.0	20.0	19.0	16.0
26	14.0	8.0	4.5	5.0	5.0	5.0	9.5	12.0	17.0	20.0	19.0	16.0
27	13.0	7.0	5.0	5.0	7.0	5.0	10.0	13.0	17.0	20.0	19.0	15.0
28	13.0	8.0	5.0	5.0	5.0	15.0	10.0	13.0	18.0	20.0	17.0	14.0
29	13.0	13.0	5.0	5.0	---	6.0	10.0	12.0	15.0	20.0	18.0	14.0
30	13.0	13.0	4.0	4.0	---	6.0	10.0	12.0	18.0	21.0	18.0	14.0
31	12.0	---	4.0	4.0	---	6.0	---	12.0	---	21.0	18.0	---
MONTH	14.0	9.5	5.5	4.0	5.0	6.0	7.5	11.0	15.0	18.0	19.0	16.0
YEAR	MAX	21.0	MIN	3.0	MEAN	11.0						

YELLOWSTONE RIVER BASIN

06264700 BIGHORN RIVER AT LUCERNE, WYO.

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, at bridge on Black Mountain road, 0.7 mi (1.1 km) upstream from Kirby Creek, 0.8 mi (1.3 km) east of Lucerne, and 1.0 mi (1.6 km) downstream from Owl Creek.

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 20...	1415	2200	9.9	68	27	82	2.6	162	6	290	9.2	.5
DEC. 05...	1530	1030	9.5	64	25	71	3.0	173	5	260	12	.4
JAN. 16...	1800	1020	9.8	67	21	57	3.7	173	0	230	11	.4
FEB. 16...	1545	2020	9.5	69	18	69	2.8	185	0	230	11	.4
MAR. 26...	1835	2270	8.6	70	22	65	2.9	189	0	230	11	.5
MAY 04...	1640	2310	7.7	74	14	68	2.6	189	0	210	11	.4
JUNE 04...	1130	2350	8.4	83	12	61	3.0	183	0	230	9.0	.4
JULY 01...	1400	2810	8.9	71	2.4	45	2.3	146	0	160	5.4	.2
AUG. 16...	1730	2110	9.0	44	17	41	2.3	143	0	140	5.5	.3
SEP. 12...	1730	1260	9.5	54	19	48	2.8	140	9	170	9.1	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 20...	.05	--	575	.78	3420	280	140	2.1	8.5	875	13.0
DEC. 05...	.05	.01	532	.72	1480	270	120	1.9	8.5	816	4.5
JAN. 16...	.16	.06	487	.66	1340	260	120	1.6	7.9	749	5.0
FEB. 16...	.14	.02	499	.68	2720	250	98	1.9	8.2	760	5.0
MAR. 26...	.07	.01	506	.69	3100	260	110	1.7	8.3	757	6.5
MAY 04...	.07	.00	481	.65	3000	240	85	1.9	8.2	760	14.0
JUNE 04...	.05	.00	497	.68	3150	260	110	1.7	8.2	741	15.0
JULY 01...	.11	.01	368	.50	2790	190	70	1.4	8.2	563	20.0
AUG. 16...	.09	.00	330	.45	1880	180	63	1.3	8.3	528	19.5
SEP. 12...	.00	.00	388	.53	1320	210	80	1.4	8.7	608	14.0

06268600 BIGHORN RIVER AT WORLAND, WYO.

LOCATION.--Lat 44°00'53", long 107°58'08", in SW¼NE¼ sec.25, T.47 N., R.93 W., Washakie County, 40 ft (12 m) downstream from former gaging station, at bridge on U.S. Highway 20 at Worland, and 0.5 mi (0.8 km) downstream from Fifteen Mile Creek.

DRAINAGE AREA.--10,810 mi² (27,998 km²).

PERIOD OF RECORD.--Chemical analyses: December 1964 to April 1965 (monthly), July 1965 to September 1969 (daily), October 1969 to September 1974 (monthly).

Water temperatures: July 1965 to September 1969.

Sediment records: July 1965 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 22...	1830	2410	8.4	62	24	77	2.8	146	9	260	12	.5
DEC. 05...	1615	1230	8.9	71	26	85	3.7	186	4	290	16	.5
JAN. 17...	1730	1050	10	77	27	96	4.8	183	0	340	17	.5
FEB. 16...	1630	2040	10	79	18	81	3.5	195	0	270	15	.5
MAR. 27...	1700	2300	8.9	72	25	79	3.4	192	3	270	13	.5
MAY 07...	1915	1500	10	90	14	84	3.5	204	0	260	17	.5
JUNE 04...	1600	1340	8.5	96	9.2	81	3.3	180	9	270	13	.4
JULY 01...	1445	3880	9.3	63	9.2	48	2.6	153	0	170	5.4	.3
AUG. 16...	1845	1430	9.0	51	19	54	2.6	146	6	180	7.3	.3
SEP. 12...	1800	488	9.4	58	26	64	3.3	160	12	220	11	.5

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 22...	.05	--	528	.72	3440	260	130	2.1	8.5	820	13.5
DEC. 05...	.05	.01	595	.81	1980	280	120	2.2	8.4	906	1.5
JAN. 17...	.18	.06	664	.90	1880	300	150	2.4	7.6	981	.5
FEB. 16...	.09	.03	574	.78	3160	270	110	2.1	8.3	865	4.5
MAR. 27...	.05	.01	572	.78	3550	280	120	2.0	8.4	862	8.0
MAY 07...	.05	.00	579	.79	2350	280	110	2.2	8.1	857	16.5
JUNE 04...	.09	.01	579	.79	2090	280	120	2.1	8.5	842	18.5
JULY 01...	.18	.01	384	.52	4020	200	74	1.5	8.0	589	20.5
AUG. 16...	.16	.00	402	.55	1550	200	70	1.6	8.5	626	21.0
SEP. 12...	.02	.00	483	.66	636	250	99	1.8	8.7	745	11.5

YELLOWSTONE RIVER BASIN

06270000 NOWOOD RIVER NEAR TEN SLEEP, WYO.

LOCATION.--Lat 44°00'48", long 107°25'39", in SW¼NW¼ sec.27, T.47 N., R.88 W., Washakie County, at gaging station, 1.7 mi (2.7 km) southeast of Ten Sleep, and 4.3 mi (6.9 km) upstream from Tensleep Creek.

DRAINAGE AREA.--803 mi² (2,080 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1974.

Sediment records: October 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 04...	1045	94	10	110	34	19	1.9	187	0	300	3.7	.4
NOV. 02...	1020	106	9.9	100	36	16	1.9	195	0	270	.0	.4
DEC. 14...	1100	A85	13	110	33	16	1.9	226	0	260	3.1	.4
JAN. 14...	1000	A66	13	91	42	12	1.9	236	0	220	4.2	.3
FEB. 21...	1010	A83	13	120	23	18	2.1	222	0	250	1.9	.4
MAR. 25...	1230	90	12	120	27	17	1.9	229	0	25	1.9	.4
MAY 01...	1220	390	11	62	7.4	7.0	1.9	122	0	97	1.9	.2
JUNE 03...	1415	86	10	110	27	27	2.3	198	0	270	1.8	.3
JULY 03...	1055	47	12	160	49	50	3.5	268	0	480	1.8	.4
AUG. 13...	1045	37	12	160	51	43	3.5	265	0	460	1.8	.5
SEP. 14...	1020	61	11	140	46	28	2.6	240	0	390	.0	.4

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)
OCT. 04...	.09	--	572	.78	145	420	270	.4	8.3	823	8.5
NOV. 02...	.23	.04	530	.72	152	410	250	.3	8.1	792	1.0
DEC. 14...	.41	.00	545	.74	125	410	230	.3	8.3	795	.0
JAN. 14...	.52	.01	507	.69	90.3	400	210	.3	8.0	764	.0
FEB. 21...	.43	.01	545	.74	122	400	220	.4	8.2	785	.0
MAR. 25...	.38	.01	546	.74	133	420	230	.4	8.3	775	6.5
MAY 01...	.20	.00	249	.34	262	180	80	.2	8.1	439	11.0
JUNE 03...	.02	.00	546	.74	127	380	220	.6	8.3	783	19.5
JULY 03...	.02	.00	889	1.21	113	600	380	.9	8.0	1160	18.0
AUG. 13...	.05	.00	863	1.17	86.2	600	380	.8	8.2	1160	17.5
SEP. 14...	.00	.00	738	1.00	122	540	340	.5	8.0	1010	8.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DIS-CHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
OCT. 04...	1045	8.5	94	34	8.6	--	--	--	--	--	--
NOV. 02...	1020	1.0	106	72	21	--	--	--	--	--	--
DEC. 14...	1100	.0	A85	70	16	--	--	--	--	--	--
FEB. 21...	1010	.0	A83	72	16	--	--	--	--	--	--
MAR. 25...	1230	6.5	90	189	46	--	--	--	--	--	--
MAY 01...	1220	11.0	390	1740	1830	22	36	74	90	98	100
JUNE 03...	1415	19.5	86	108	25	--	--	--	--	--	--
JULY 03...	1055	18.0	47	112	14	--	--	--	--	--	--
AUG. 13...	1045	17.5	37	47	4.7	--	--	--	--	--	--
SEP. 14...	1020	8.0	61	40	6.6	--	--	--	--	--	--

A Daily mean discharge.

YELLOWSTONE RIVER BASIN

49

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WYO.

LOCATION.--Lat 44°12'20", long 107°42'54", in SW¼SE¼NW¼ sec.19, T.49 N., R.90 W., Big Horn County, at bridge on county road, 0.5 mi (0.8 km) south of State Secondary Highway 0201, 1.0 mi (1.6 km) upstream from mouth, and 6.4 mi (10.3 km) southwest of Hyattville.

DRAINAGE AREA.--376 mi² (974 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: January 1951 to September 1953, October 1967 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 11...	1825	68	14	120	37	36	1.4	207	0	330	1.5	.5
DEC. 05...	1500	70	12	100	28	31	1.9	206	0	260	4.3	.4
JAN. 14...	1145	40	13	97	26	25	1.9	215	0	220	3.1	.3
FEB. 21...	1130	40	12	97	33	33	1.6	220	0	260	3.8	.4
MAR. 25...	1430	32	11	91	25	29	1.6	204	0	220	1.9	.4
MAY 01...	1440	68	8.1	87	15	24	1.9	153	3	190	1.9	.3
JUNE 04...	1700	882	5.8	26	1.4	4.8	.9	61	0	30	.0	.1
JULY 01...	1600	382	5.3	28	6.2	7.0	.7	67	0	53	.0	.1
AUG. 08...	1035	46	13	130	35	46	2.6	250	0	350	1.8	.5
SEP. 14...	1220	39	13	150	44	59	3.0	270	0	440	1.8	.5

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 11...	.07	--	639	.87	118	450	280	.7	8.1	942	9.5
DEC. 05...	.14	.00	541	.74	102	370	200	.7	8.2	790	1.5
JAN. 14...	.29	.01	494	.67	53.4	350	170	.6	8.1	736	.0
FEB. 21...	.18	.01	547	.74	59.1	380	200	.7	8.3	789	.0
MAR. 25...	.14	.00	476	.65	41.1	330	160	.7	8.3	703	7.0
MAY 01...	.00	.00	409	.56	75.1	280	150	.6	8.4	616	14.0
JUNE 04...	.09	.01	99	.13	236	70	20	.2	7.8	168	11.0
JULY 01...	.02	.00	133	.18	137	95	40	.3	7.9	227	17.5
AUG. 08...	.00	.00	701	.95	87.1	470	270	.9	8.3	957	17.0
SEP. 14...	.00	.00	845	1.15	89.0	550	330	1.1	8.1	1130	10.5

YELLOWSTONE RIVER BASIN

06274220 NOWOOD RIVER AT MANDERSON, WYO.

LOCATION.--Lat 44°16'34", long 107°57'35", in NE¼SW¼ sec.30, T.50 N., R.92 W., Big Horn County, at bridge on State Secondary Highway 0201, and 0.5 mi (0.8 km) upstream from mouth near corporate limit of Manderson.

DRAINAGE AREA.--2,000 mi² (5,180 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.
Water temperatures: May 1973 to July 1974 (discontinued).

EXTREMES.--October 1973 to July 1974:
Water temperatures: Maximum, 26.5°C July 17; minimum, freezing point on many days November to March.

Period of record:
Water temperatures: Maximum, 26.5°C July 17, 1974; minimum, freezing point on many days during winter period.

REMARKS.--Thermograph record, furnished by Wyoming Game and Fish Commission, at site 6.4 mi (10.4 km) upstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 04...	1630	240	8.9	120	30	32	1.9	191	0	310	4.6	.4
DEC. 05...	1615	237	10	110	38	32	2.1	206	0	320	4.6	.4
JAN. 14...	1355	162	13	110	41	24	2.1	242	0	280	3.8	.4
FEB. 21...	1340	201	12	120	26	31	2.3	211	0	300	2.7	.4
MAR. 25...	1630	206	12	120	35	33	2.2	210	0	310	3.8	.5
MAY 01...	1600	465	9.7	74	6.6	14	2.3	134	0	120	1.9	.3
JUNE 04...	1750	1460	6.9	40	1.7	9.1	1.2	76	0	65	.0	.1
JULY 01...	1530	804	5.9	58	3.2	17	1.4	95	0	110	.0	.2
AUG. 08...	1210	97	5.9	130	46	77	3.5	220	0	500	3.7	.5
SEP. 14...	1255	124	9.1	140	52	70	3.0	230	0	510	3.7	.5

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 04...	.11	--	603	.82	391	420	260	.7	8.2	895	14.0
DEC. 05...	.27	.00	627	.85	401	440	270	.7	8.0	902	.0
JAN. 14...	.47	.00	592	.81	259	440	240	.5	8.0	867	.0
FEB. 21...	.41	.01	595	.81	323	410	240	.7	8.2	846	.0
MAR. 25...	.34	.01	621	.84	345	440	270	.7	8.2	874	6.5
MAY 01...	.02	.00	295	.40	370	210	100	.4	7.9	503	14.0
JUNE 04...	.11	.01	162	.22	639	110	48	.4	8.0	258	14.5
JULY 01...	.07	.01	243	.33	528	160	82	.6	8.1	389	22.0
AUG. 08...	.02	.00	875	1.19	229	520	340	1.5	8.2	1160	21.0
SEP. 14...	.05	.00	902	1.23	302	560	380	1.3	8.3	1190	11.0

51

TEMPERATURE (°C) OF WATER, OCTOBER 1973 TO JULY 1974
(CONTINUOUS THERMOGRAPH)

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	13.5	10.5	3.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	13.5	10.0	1.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	11.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	11.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	10.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	10.0	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5	
7	11.0	8.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	
8	10.0	7.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.5	
9	7.0	5.0	3.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.5	
10	6.0	4.5	4.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.0	
11	6.5	4.0	4.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	3.5	
12	6.5	4.0	5.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.0	
13	9.0	5.5	5.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.0	
14	10.0	7.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	3.0	
15	10.5	8.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.0	
16	10.5	8.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	3.5	
17	11.0	8.0	3.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.5	
18	11.0	8.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	5.5	
19	10.5	8.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	
20	9.5	7.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
21	10.0	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
22	9.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
23	10.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
24	9.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	
25	8.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	
26	7.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	4.0	
27	6.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	6.5	
28	6.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	10.0	6.0	
29	5.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	8.5	4.5	
30	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	9.0	5.5	
31	4.5	3.5	---	---	0.0	0.0	0.0	0.0	---	---	8.5	6.0	
MONTH	13.5	2.0	5.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	11.5	0.0	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	8.5	4.5	13.0	10.0	14.5	9.5	19.5	17.0	---	---	---	---	
2	8.0	5.5	12.0	9.5	15.5	11.5	18.5	15.5	---	---	---	---	
3	8.0	4.0	12.0	8.0	15.0	13.0	19.5	14.5	---	---	---	---	
4	9.5	4.5	14.0	8.0	14.5	11.5	21.0	15.5	---	---	---	---	
5	10.0	5.0	15.5	10.0	13.0	10.5	20.0	17.0	---	---	---	---	
6	10.5	7.0	15.5	11.5	13.0	9.0	21.0	16.5	---	---	---	---	
7	10.0	6.0	17.0	12.0	11.5	9.0	22.0	17.0	---	---	---	---	
8	11.5	6.0	16.0	13.0	13.0	8.0	23.5	18.5	---	---	---	---	
9	11.0	9.0	14.5	12.0	15.5	10.5	24.0	18.5	---	---	---	---	
10	10.5	8.0	13.5	9.5	17.0	12.0	23.5	20.0	---	---	---	---	
11	10.0	5.5	12.0	8.0	17.0	13.5	23.0	18.5	---	---	---	---	
12	9.0	5.0	14.0	9.0	16.5	13.0	23.5	17.0	---	---	---	---	
13	8.5	4.0	12.0	9.0	15.5	11.5	25.0	18.5	---	---	---	---	
14	8.0	5.0	13.5	8.0	15.0	10.5	25.0	20.5	---	---	---	---	
15	10.0	4.0	13.5	9.0	14.0	10.0	25.5	19.0	---	---	---	---	
16	11.5	6.5	14.5	8.5	14.0	11.0	24.5	21.5	---	---	---	---	
17	14.0	8.5	14.0	9.5	15.0	11.0	26.5	20.5	---	---	---	---	
18	15.0	10.0	16.0	10.5	15.0	12.0	25.5	22.0	---	---	---	---	
19	14.5	11.0	14.5	11.5	15.5	11.5	26.0	21.5	---	---	---	---	
20	12.0	9.5	13.0	9.5	16.5	13.0	26.0	21.0	---	---	---	---	
21	11.5	8.0	11.0	8.0	16.0	11.5	24.5	16.5	---	---	---	---	
22	14.5	8.5	14.0	8.0	16.5	13.0	24.5	19.5	---	---	---	---	
23	15.5	10.5	16.5	10.5	18.0	14.0	24.5	20.0	---	---	---	---	
24	17.0	11.5	18.0	13.0	19.0	15.0	---	---	---	---	---	---	
25	18.0	13.0	18.0	14.5	19.5	15.5	---	---	---	---	---	---	
26	15.5	12.0	17.0	14.0	19.0	15.5	---	---	---	---	---	---	
27	12.0	9.0	15.5	11.0	19.0	15.5	---	---	---	---	---	---	
28	10.0	7.0	12.0	9.0	20.0	16.0	---	---	---	---	---	---	
29	12.0	6.5	11.0	7.0	20.0	16.5	---	---	---	---	---	---	
30	13.5	8.0	9.0	6.0	20.5	16.5	---	---	---	---	---	---	
31	---	---	12.0	7.0	---	---	---	---	---	---	---	---	
MONTH	18.0	4.0	18.0	6.0	20.5	8.0	---	---	---	---	---	---	
YEAR	26.5	0.0											

YELLOWSTONE RIVER BASIN

06277500 GREYBULL RIVER NEAR BASIN, WYO.

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼NW¼SW¼ sec.8, T.51 N., R.94 W., Big Horn County, at former gaging station, at bridge on State Secondary Highway 0200, 3.0 mi (4.8 km) upstream from Dorsey Creek, and 8.0 mi (12.9 km) west of Basin.

DRAINAGE AREA.--1,115 mi² (2,888 km²).

PERIOD OF RECORD.--Chemical analyses: January 1951 to September 1953, July 1965 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 04...	1430	242	15	54	15	56	2.1	189	8	150	5.5	.4
DEC. 05...	1400	39	16	83	37	110	2.8	345	0	310	7.9	.4
JAN. 14...	1600	60	18	120	27	110	2.8	371	0	320	8.0	.4
FEB. 18...	1115	73	17	96	25	92	2.6	313	0	280	6.1	.4
MAR. 29...	1455	136	10	65	30	75	3.0	250	0	240	6.5	.2
APR. 24...	1610	693	15	60	27	69	3.0	210	0	220	5.7	.3
MAY 20...	1130	112	16	76	19	99	3.3	247	0	250	11	.5
JUNE 21...	1615	2210	12	26	3.2	17	1.9	98	0	33	.0	.3
JULY 22...	1200	150	16	53	18	84	4.0	223	0	200	5.5	.4
SEP. 03...	1340	46	18	72	39	120	4.2	330	3	310	9.1	.6
30...	1030	52	16	64	33	140	4.2	330	0	310	9.1	.6

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 04...	.11	--	400	.54	261	200	32	1.7	8.6	615	12.5
DEC. 05...	.29	.00	745	1.01	78.4	360	77	2.5	8.1	1120	.0
JAN. 14...	.56	.01	792	1.08	128	410	110	2.4	8.0	1140	.0
FEB. 18...	.41	.02	672	.91	132	340	83	2.2	8.2	974	.0
MAR. 29...	.00	.10	552	.75	203	290	85	1.9	8.2	788	7.5
APR. 24...	.41	.01	506	.69	947	260	88	1.9	8.2	747	17.5
MAY 20...	.72	.00	600	.82	181	270	67	2.6	7.9	873	7.5
JUNE 21...	.14	.02	142	.19	847	78	0	.8	8.0	228	19.0
JULY 22...	.54	.02	493	.67	200	200	17	2.5	7.6	760	22.5
SEP. 03...	.66	.00	741	1.01	92.0	340	64	2.8	8.4	1090	17.0
30...	.45	.01	741	1.01	104	300	29	3.5	8.1	1070	10.0

06279090 SHELL CREEK NEAR GREYBULL, WYO.

LOCATION.--Lat 44°30'34", long 108°02'52", in NW¼SW¼ sec.4, T.52 N., R.93 W., Big Horn County, at bridge on county road, 0.4 mi (0.6 km) upstream from mouth, and 1.5 mi (2.4 km) north of post office in Greybull.

DRAINAGE AREA.--560 mi² (1,450 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: January to September 1951, July 1965 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
01...	1000	71	8.9	140	42	110	2.3	232	0	550	4.6	.5
09...	1730	71	6.9	140	66	96	2.6	232	0	620	3.1	.5
30...	0730	97	11	120	37	64	2.1	232	0	360	3.4	.4
NOV.												
29...	0700	83	9.9	110	37	60	1.6	238	0	330	3.1	.4
JAN.												
15...	0900	76	10	92	31	42	1.4	226	0	260	3.4	.3
FEB.												
19...	1340	72	11	100	36	65	1.6	242	0	340	2.7	.4
MAR.												
19...	1645	72	8.6	120	25	65	1.6	232	0	330	5.7	.8
APR.												
22...	1815	31	8.0	139	55	109	2.6	240	0	590	5.7	.5
MAY												
20...	1345	157	8.6	88	27	48	2.1	183	0	280	1.8	.3
JUNE												
18...	1300	1560	5.0	32	5.5	9.1	1.2	88	0	48	.0	.2
JULY												
25...	0900	107	9.3	109	32	52	2.3	220	0	320	1.8	.4
AUG.												
19...	1200	28	8.4	190	61	150	3.7	256	0	830	1.8	.7
SEP.												
19...	1130	51	10	170	66	110	3.0	270	0	690	1.8	.6

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
01...	.29	--	977	1.33	187	530	340	2.1	8.1	1300	11.0
09...	.43	--	1050	1.43	201	630	440	1.7	8.1	1400	2.5
30...	.32	.00	713	.97	187	440	250	1.3	8.3	1050	3.0
NOV.											
29...	.50	.01	668	.91	150	430	240	1.3	8.2	988	.0
JAN.											
15...	.43	.00	550	.75	113	360	180	1.0	8.0	817	.0
FEB.											
19...	.47	.01	676	.92	131	400	200	1.4	8.1	962	.0
MAR.											
19...	.36	.00	663	.90	129	390	200	1.4	8.2	969	2.5
APR.											
22...	.18	.00	1026	1.40	85.9	580	380	2.0	8.1	1360	15.0
MAY											
20...	.27	.01	547	.74	232	330	180	1.1	8.0	813	10.0
JUNE											
18...	.29	.01	145	.20	611	100	28	.4	8.0	252	15.5
JULY											
25...	.18	.00	636	.87	184	400	220	1.1	8.1	900	19.0
AUG.											
19...	.52	.00	1370	1.86	104	730	520	2.4	8.0	1730	17.5
SEP.											
19...	.43	.00	1184	1.61	163	690	470	1.8	8.0	1490	13.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
09...	1730	71	4	11.2	--
30...	0730	97	7	11.5	72
NOV.					
29...	0700	83	6	11.7	120
JAN.					
15...	0900	76	8	11.3	90
FEB.					
19...	1340	72	25	11.2	94
MAR.					
19...	1645	72	10	11.7	819
APR.					
22...	1815	31	40	9.8	68
MAY					
20...	1345	157	170	8.8	1600
JUNE					
18...	1300	1560	85	9.7	1600
JULY					
25...	0900	107	30	8.4	220
AUG.					
19...	1200	28	2	10.0	76
SEP.					
19...	1130	51	2	10.4	88

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WYO.

LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼NE¼SW¼ sec.9, T.55 N., R.94 W., Big Horn County, sampled at Magcobar Corp. bridge 24.5 mi (39.4 km) upstream from gaging station.

DRAINAGE AREA.--15,765 mi² (40,831 km²), at gaging station.

PERIOD OF RECORD.--Chemical analyses: March to August 1947 (monthly), June 1948 to July 1949 (monthly), December 1949 to September 1953 (monthly), June to August 1955 (monthly), October 1955 to September 1957 (daily), December 1960 to September 1974 (daily).
Water temperatures: July to September 1949, October 1950 to September 1974 (at sampling site).
Sediment records: March 1946 to September 1964 (daily), December 1969 to September 1974 (monthly).

EXTREMES.--1973-74:

Specific conductance: Maximum daily observed, 1,080 micromhos Nov. 14, Mar. 21; minimum daily, 351 micromhos June 17.
Water temperatures: Maximum observed, 23.5°C July 18; minimum, freezing point on many days during January and February.

Period of record:

Specific conductance (1955-57, 1960-74): Maximum daily, 3,030 micromhos July 7, 1961; minimum daily, 351 micromhos June 17, 1974.
Water temperatures: Maximum, 29.0°C July 14, 30, 1953, July 12, 1954; minimum, freezing point on many days during winter periods.

REMARKS.--Temperature recorder at gaging station 24.5 mi (39.4 km) downstream from sampling site; discontinued September 1974. Recorded water temperatures: Maximum, 23.5°C on several days in July; minimum, freezing point on many days during December to February. No thermograph record due to clock stoppage Feb. 22 to Mar. 19; range in temperature 5.0°C to 0.0°C. No appreciable inflow between sampling point and gaging station except during periods of intense local precipitation. Stream frozen Dec. 4-13, Dec. 15 to Feb. 26.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.												
01...	1245	3430	10	71	23	75	3.5	191	0	260	12	.5
10...	1025	3150	10	74	28	79	3.3	195	0	290	11	.5
31...	1400	2960	11	72	26	81	3.3	174	0	290	14	.4
DEC.												
03...	1515	2750	9.3	75	25	78	3.5	196	0	290	11	.5
JAN.												
14...	1600	A1750	11	67	43	82	4.2	237	0	310	19	.5
FEB.												
19...	1500	A2600	10	87	16	79	3.5	201	0	260	14	.4
MAR.												
20...	0800	A2200	8.8	87	19	79	3.5	203	0	280	15	.7
APR.												
23...	0800	2780	9.7	74	29	87	3.3	210	0	300	15	.5
MAY												
20...	1145	2360	11	88	32	82	3.0	207	6	310	14	.4
JUNE												
20...	1630	7590	9.1	45	4.1	31	2.1	110	0	100	3.6	.3
JULY												
24...	1630	2470	10	66	23	70	3.0	186	0	240	9.1	.4
AUG.												
19...	1430	2110	9.0	67	26	74	3.0	190	0	260	9.1	.5
SEP.												
19...	1430	1430	7.6	81	33	89	3.3	210	3	330	11	.5

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (JTU)	FECAL COLIFORM (COL. PFR 100 ML)	TEMPERATURE (DEG C)
OCT.												
01...	--	.23	550	.75	5090	270	2.0	856	8.2	--	--	14.5
10...	.16	--	593	.81	5040	300	2.0	940	8.5	20	--	7.5
31...	.14	.08	587	.80	4690	290	2.1	920	8.5	15	70	7.0
DEC.												
03...	.09	.01	586	.80	4350	290	2.0	897	8.1	--	--	2.0
JAN.												
14...	.16	.00	656	.89	3100	350	1.9	992	8.0	2	100	.5
FEB.												
19...	.25	.05	572	.78	4020	280	2.0	888	7.9	75	120	.5
MAR.												
20...	.18	.02	595	.81	3530	300	2.0	892	8.2	25	813	1.0
APR.												
23...	.68	.01	629	.86	4720	300	2.2	918	8.1	250	370	10.0
MAY												
20...	.41	.00	650	.88	4140	350	1.9	978	8.4	65	390	11.0
JUNE												
20...	.18	.01	250	.34	5120	130	1.2	395	8.0	--	31000	19.5
JULY												
24...	.47	.01	515	.70	3430	260	1.9	788	8.2	90	420	23.0
AUG.												
19...	.41	.01	543	.74	3090	280	1.9	814	8.1	10	77	20.0
SEP.												
19...	.23	.00	663	.90	2560	340	2.1	954	8.4	1	820	13.5

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

55

06279500 BIGHORN RIVER AT KANE, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	838	865	708	---	---	951	956	858	715	645	804	845
2	836	876	800	---	---	922	981	952	795	595	833	853
3	864	863	892	---	---	940	897	892	725	642	810	845
4	875	882	857	---	---	960	946	880	665	652	793	871
5	875	881	967	---	---	953	948	881	572	696	837	914
6	875	880	1030	---	---	990	897	933	565	628	781	862
7	875	886	1030	---	---	983	934	932	651	626	807	1010
8	870	889	1020	---	---	995	938	915	737	649	870	1030
9	877	884	1030	---	---	1010	936	855	857	628	850	1040
10	850	909	1030	---	---	1020	937	807	867	664	870	1020
11	875	909	1040	---	---	1020	947	805	776	738	842	1000
12	893	912	1040	---	---	948	939	840	737	789	823	1020
13	883	915	1030	---	---	989	983	901	600	790	811	1010
14	883	1080	1050	---	---	1010	1020	945	507	798	816	1000
15	870	1070	1010	---	---	980	986	921	458	818	848	1020
16	858	1040	1020	---	---	952	1040	964	435	797	813	977
17	860	1040	1030	---	---	991	948	1000	351	809	831	992
18	876	1060	972	---	---	995	1020	1020	377	823	813	978
19	872	1060	1030	---	---	980	1020	1030	554	778	818	985
20	870	1050	1040	---	---	1040	1020	1020	488	825	823	981
21	873	1060	1050	---	---	1080	1010	917	467	846	816	971
22	874	1060	1020	---	---	1060	993	858	486	824	829	962
23	855	1060	1010	---	956	1040	971	911	627	743	840	958
24	872	987	1020	---	953	1020	916	959	600	761	816	964
25	867	1020	1010	---	929	995	990	971	600	774	826	960
26	862	1040	1020	---	940	991	953	898	558	758	830	955
27	863	1050	1040	---	956	1020	836	688	569	802	828	944
28	868	1040	1010	---	954	993	756	580	581	808	822	946
29	871	954	1050	---	---	997	735	519	585	805	828	946
30	870	900	994	---	---	1010	836	552	599	794	818	964
31	867	---	990	---	---	965	---	643	---	806	845	---
MONTH	868	971	995	---	---	994	943	865	603	746	826	961

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	6.0	4.5	---	---	5.0	8.0	12.0	12.0	20.0	19.5	17.0
2	15.5	4.5	4.0	---	---	4.5	8.0	10.5	14.0	19.0	19.0	18.0
3	12.5	3.5	3.0	---	---	4.0	7.5	10.0	14.5	17.0	18.0	17.0
4	12.5	5.5	3.0	---	---	4.0	7.5	10.5	14.5	17.5	19.0	16.5
5	12.5	6.0	2.0	---	---	4.0	6.0	11.0	14.0	18.5	18.0	16.0
6	12.0	6.0	0.5	---	---	4.0	8.0	13.0	12.0	19.5	20.0	16.0
7	11.5	5.5	0.5	---	---	4.0	7.0	13.0	13.0	19.5	20.0	16.5
8	11.5	5.5	1.0	---	---	4.0	7.0	14.0	11.0	20.0	18.5	17.0
9	9.0	7.0	1.5	---	---	5.0	7.0	14.0	12.0	21.0	18.0	17.0
10	9.5	6.5	1.0	---	---	6.0	9.0	13.0	14.5	22.0	17.0	17.0
11	9.5	7.0	1.5	---	---	7.5	7.0	11.0	15.0	21.0	17.5	14.0
12	9.5	7.5	2.0	---	---	7.5	8.0	11.0	16.0	19.5	18.0	10.0
13	13.0	8.5	3.0	---	---	6.5	5.0	11.0	16.0	20.0	17.0	10.0
14	12.5	6.0	2.0	---	---	5.0	6.5	9.5	16.0	21.5	18.0	11.0
15	12.5	6.0	2.0	---	---	7.0	7.5	10.5	15.0	21.0	17.0	12.0
16	12.0	6.0	2.0	---	---	8.5	8.0	10.0	16.5	22.0	16.0	13.0
17	14.5	7.0	1.5	---	---	9.0	9.0	12.0	15.0	21.5	18.0	14.0
18	15.0	5.5	1.0	---	---	7.0	10.0	11.0	16.0	23.5	19.0	14.5
19	14.0	4.0	0.5	---	---	4.5	11.0	13.5	16.0	22.0	19.0	14.5
20	12.0	3.5	0.5	---	---	4.0	10.0	12.0	17.0	22.0	18.0	14.0
21	13.5	3.5	0.5	---	---	3.5	8.0	10.0	17.0	20.5	18.0	13.0
22	13.5	3.5	0.5	---	---	4.0	8.0	10.0	16.0	20.5	17.0	13.0
23	13.5	3.0	0.5	---	1.0	5.0	10.0	12.0	18.0	21.0	18.0	12.0
24	12.0	1.0	0.5	---	1.0	6.0	11.0	14.0	18.0	20.5	17.0	12.0
25	10.5	2.0	0.5	---	5.5	7.0	12.0	15.0	19.0	21.0	18.0	13.0
26	10.0	3.5	0.5	---	5.0	9.0	13.5	16.0	20.0	20.5	19.0	13.0
27	9.5	0.5	0.5	---	4.5	10.5	12.0	16.0	19.5	20.0	17.0	13.0
28	8.5	2.5	0.5	---	5.0	8.0	10.0	13.5	19.0	22.0	17.0	10.0
29	8.0	2.0	0.5	---	---	8.0	8.0	13.0	19.0	21.0	17.0	11.0
30	8.0	3.0	0.5	---	---	7.0	11.0	10.0	19.5	21.0	18.0	11.0
31	7.5	---	0.5	---	---	8.5	---	10.0	---	20.0	17.0	---
MONTH	11.5	4.5	1.5	---	---	6.0	8.5	12.0	16.0	20.5	18.0	14.0

Q6279500 BIGHORN RIVER AT KANE, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	14.5	7.5	7.0	2.0	1.0	1.0	0.5	1.0	1.0	---	---
2	15.0	14.0	7.0	6.5	2.0	2.0	1.0	1.0	1.0	1.0	---	---
3	14.0	13.0	6.5	6.0	2.0	2.0	1.0	0.5	1.0	1.0	---	---
4	13.0	12.5	6.0	5.5	2.0	1.5	1.0	0.5	1.0	1.0	---	---
5	13.0	12.0	5.5	5.0	2.0	2.0	0.5	0.0	1.0	1.0	---	---
6	12.5	12.0	5.0	4.5	2.0	1.5	0.5	0.0	1.0	1.0	---	---
7	13.0	12.5	4.5	4.5	1.5	1.0	0.5	0.0	1.5	1.0	---	---
8	13.0	12.0	4.5	4.5	1.0	1.0	0.5	0.0	1.5	1.5	---	---
9	12.0	10.5	5.0	4.5	1.0	1.0	0.5	0.0	1.5	1.5	---	---
10	10.5	9.5	5.0	5.0	1.0	1.0	0.0	0.0	1.5	1.0	---	---
11	10.0	10.0	5.5	5.0	1.0	1.0	0.0	0.0	1.5	1.0	---	---
12	10.0	10.0	6.0	5.5	1.0	0.5	0.0	0.0	1.5	1.0	---	---
13	11.0	10.0	6.5	6.0	0.5	0.5	0.0	0.0	1.0	1.0	---	---
14	12.0	11.0	6.5	6.5	0.5	0.5	0.0	0.0	1.0	1.0	---	---
15	12.5	12.0	6.5	6.0	0.5	0.5	0.0	0.0	1.0	1.0	---	---
16	12.5	12.5	6.0	5.5	0.5	0.5	0.0	0.0	1.0	0.5	---	---
17	12.5	12.0	5.5	5.0	0.5	0.5	0.0	0.0	1.0	0.5	---	---
18	12.5	12.0	5.0	5.0	0.5	0.5	0.0	0.0	0.5	0.5	---	---
19	12.5	12.0	5.0	4.5	0.5	0.5	1.0	0.0	0.5	0.0	---	---
20	12.5	12.0	4.5	4.0	1.0	0.5	1.0	0.5	0.0	0.0	2.0	2.0
21	12.0	11.5	4.0	3.5	1.0	1.0	1.0	0.5	0.5	0.0	2.0	2.0
22	12.0	11.5	3.5	3.0	1.0	0.5	1.0	1.0	---	---	2.0	1.5
23	12.0	11.5	3.0	2.5	0.5	0.0	1.0	1.0	---	---	2.5	1.5
24	12.0	11.5	2.5	2.5	0.5	0.5	1.0	1.0	---	---	2.5	2.0
25	12.0	11.0	2.5	2.5	0.5	0.0	1.0	1.0	---	---	3.0	2.5
26	11.0	10.0	2.5	2.5	0.5	0.0	1.0	1.0	---	---	4.0	3.0
27	10.5	10.0	2.5	2.0	0.0	0.0	1.0	1.0	---	---	6.0	4.0
28	10.0	9.0	2.0	2.0	0.0	0.0	1.0	1.0	---	---	6.5	6.0
29	9.5	9.0	2.0	0.5	0.5	0.0	1.0	1.0	---	---	6.5	5.5
30	9.0	8.5	1.0	0.5	0.5	0.0	1.0	1.0	---	---	6.5	6.0
31	8.5	7.5	---	---	0.5	0.5	1.0	1.0	---	---	6.5	6.0
MONTH	15.0	7.5	7.5	0.5	2.0	0.0	1.0	0.0	---	---	---	---
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.0	6.0	12.0	12.0	14.5	12.5	21.5	21.5	23.0	22.5	18.5	16.5
2	6.0	6.0	12.0	11.5	16.0	14.5	21.5	20.5	23.0	22.0	16.5	15.5
3	6.0	5.5	12.0	11.0	16.5	16.0	20.5	20.0	22.5	21.5	16.5	15.5
4	6.0	5.5	12.5	11.5	16.5	16.0	20.5	20.0	22.5	22.5	17.0	16.0
5	6.5	5.5	14.0	12.0	16.0	15.0	20.5	20.5	23.0	22.0	18.0	17.0
6	7.0	6.5	13.5	13.5	15.0	14.5	20.5	20.5	23.0	22.5	18.5	17.5
7	7.0	7.0	14.0	13.5	14.5	14.0	21.5	20.5	23.0	22.0	18.5	17.0
8	7.5	7.0	14.5	14.0	14.0	13.0	22.5	21.5	22.5	22.0	18.5	17.5
9	8.0	7.5	14.5	14.0	14.0	13.0	22.5	22.0	22.0	21.0	18.5	17.5
10	8.0	7.5	14.0	12.5	15.5	14.0	22.5	22.0	22.0	21.0	18.5	17.0
11	7.5	6.5	12.5	11.5	16.0	15.0	22.0	21.5	22.5	21.0	17.0	13.0
12	7.0	7.0	12.5	11.5	17.5	16.0	21.5	20.5	22.5	21.0	13.0	12.0
13	7.0	6.0	12.5	11.5	18.0	17.5	21.0	21.0	22.5	21.0	12.5	12.0
14	6.5	6.0	11.5	10.5	18.0	17.5	21.5	21.0	22.0	21.5	13.0	12.0
15	7.0	6.0	11.5	11.0	18.0	17.5	21.5	21.5	21.5	20.5	13.5	12.5
16	8.0	7.0	11.5	11.0	18.0	17.5	22.0	21.5	22.0	20.5	14.0	13.0
17	9.5	8.0	11.5	11.5	17.5	17.0	22.5	22.0	23.0	21.5	14.5	13.5
18	10.5	9.5	12.5	11.5	17.5	17.5	22.5	22.0	23.0	21.5	15.0	14.0
19	11.0	10.5	12.5	12.5	18.0	17.5	23.5	22.5	23.0	22.0	15.0	13.5
20	11.0	10.0	12.5	11.0	18.0	17.5	23.5	23.0	22.0	20.0	14.5	13.5
21	10.0	9.5	11.0	10.5	18.0	18.0	23.5	23.0	21.0	19.0	14.0	13.5
22	10.5	9.5	12.0	10.5	18.0	18.0	23.5	23.5	20.5	19.5	14.0	13.5
23	12.0	10.5	14.5	12.0	19.0	18.0	23.5	23.0	21.5	20.0	14.0	13.5
24	13.0	12.0	16.0	14.0	20.0	19.0	23.0	22.5	22.0	21.0	13.5	13.0
25	14.0	13.0	17.0	15.5	21.5	20.0	23.0	23.0	22.5	21.5	14.0	13.0
26	14.0	13.5	17.5	16.5	21.5	21.5	23.0	23.0	22.5	21.0	14.0	13.5
27	13.5	13.0	17.5	16.5	21.5	21.0	23.0	23.0	21.5	20.0	14.0	12.5
28	13.0	12.0	16.5	15.0	21.5	21.0	23.5	23.0	21.0	20.0	12.5	11.5
29	12.0	11.0	15.0	13.0	21.0	21.0	23.5	23.0	21.0	20.0	11.5	11.0
30	12.0	11.0	13.0	11.0	21.5	21.0	23.5	23.0	21.0	19.0	11.5	11.0
31	---	---	12.5	11.5	---	---	23.0	22.5	19.5	18.5	---	---
MONTH	14.0	5.5	17.5	10.5	21.5	12.5	23.5	20.0	23.0	18.5	18.5	11.0
YEAR	23.5	0.0										

YELLOWSTONE RIVER BASIN

57

06279500 BIGHORN RIVER AT KANE, WYO.--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
DEC. 03...	1515	2.0	2750	210	1560	--	--	--	--	--	--
MAR. 29...	1050	6.0	2780	274	2060	--	--	--	--	--	--
JUNE 20...	1630	19.5	7590	2370	48600	18	33	70	90	98	100
JULY 24...	1630	23.0	2470	625	4170	45	64	80	92	100	--
AUG. 20...	1100	20.5	2120	181	1040	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	NUMBER OF SAM- PLING POINTS	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
APR. 23...	1040	10.5	2700	5	1	1	37
JULY 24...	1630	23.0	2470	5	1	1	23

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
APR. 23...	83	86	86	87	88	91	91
JULY 24...	34	37	38	38	41	56	65

YELLOWSTONE RIVER BASIN

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WYO.

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, at gaging station, 0.5 mi (0.8 km) downstream from Trail Creek, 1.0 mi (1.6 km) west of Cody city limits, and 5.5 mi (8.8 km) downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 mi² (3,983 km²).

PERIOD OF RECORD.--Chemical analyses: April 1947 to September 1949 (daily), October 1964 to September 1974 (monthly).

Water temperatures: April 1947 to September 1949.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
02...	1045	900	14	61	2.9	16	2.6	155	0	65	2.4	.4
10...	1530	652	15	56	15	16	3.0	183	0	79	3.1	.4
30...	1520	418	15	82	18	20	4.2	229	0	120	4.9	.5
NOV.												
29...	1330	486	15	72	13	20	3.7	214	0	93	2.4	.7
JAN.												
17...	1730	450	16	83	18	24	4.2	267	0	120	4.6	.5
FEB.												
20...	1530	577	16	72	16	25	3.7	237	0	100	4.2	.4
MAR.												
21...	0800	567	14	76	8.7	25	3.5	222	0	91	3.1	.8
APR.												
23...	1330	1220	15	44	5.9	53	2.6	174	0	98	3.8	.3
MAY												
21...	1715	1030	15	57	9.3	20	2.6	171	0	79	3.6	.4
JUNE												
19...	1030	9110	14	22	.8	9.6	1.4	73	0	19	.0	.2
JULY												
23...	1100	2550	14	21	5.1	9.6	1.2	79	0	26	1.8	.1
AUG.												
20...	1020	1120	14	32	10	7.5	2.1	120	0	40	.0	.3
SEP.												
17...	1300	839	14	42	12	11	2.6	150	0	57	1.8	.3

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
02...	.00	--	240	.33	583	170	43	.5	7.1	396	14.0
10...	.05	--	278	.38	489	200	50	.5	7.5	447	13.0
30...	.05	.03	373	.51	421	280	92	.5	7.4	609	11.5
NOV.											
29...	.05	.04	325	.44	426	240	64	.6	7.4	538	7.0
JAN.											
17...	.05	.03	398	.54	484	280	61	.6	7.0	633	7.0
FEB.											
20...	.02	.02	355	.48	553	240	46	.7	7.0	569	5.0
MAR.											
21...	.18	.01	332	.45	508	230	48	.7	7.4	539	5.0
APR.											
23...	.00	.00	308	.42	1010	140	0	2.0	7.4	474	10.0
MAY											
21...	.07	.00	271	.37	754	180	40	.6	7.5	425	9.5
JUNE											
19...	.23	.02	104	.14	2560	58	0	.5	7.6	165	12.0
JULY											
23...	.05	.01	118	.16	812	73	8	.5	7.1	183	17.5
AUG.											
20...	.07	.01	164	.22	496	120	22	.3	6.9	284	12.0
SEP.											
17...	.02	.00	213	.29	483	160	37	.4	7.2	400	16.5

YELLOWSTONE RIVER BASIN

59

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
10...	1530	652	10	9.4	--
30...	1520	418	3	9.0	84
NOV.					
29...	1330	486	4	9.9	83
JAN.					
17...	1730	A450	2	9.6	810
FEB.					
20...	1530	577	1	9.3	--
MAR.					
21...	0800	567	4	8.8	84
APR.					
23...	1330	1220	10	10.3	85
MAY					
21...	1715	1030	7	8.8	87
JUNE					
19...	1030	9110	65	10.0	64
JULY					
23...	1100	2550	20	8.7	811
AUG.					
20...	1020	1120	20	8.7	86
SEP.					
17...	1300	839	6	8.6	82

A Daily mean discharge.

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WYO.

LOCATION.--Lat 44°34'37", long 108°58'18", in SE¼NW¼ sec.13, T.53 N., R.101 W., Park County, at bridge on U.S. Highway 14A, 160 ft (49 m) downstream from Dry Gulch, 480 ft (146 m) upstream from Dry Creek, 0.4 mi (0.6 km) south of Trotters Station, and 5.5 mi (8.8 km) northeast of Cody.

PERIOD OF RECORD.--Chemical analyses: January to September 1974.

CHEMICAL ANALYSES, JANUARY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 17...	1030	527	16	95	22	48	4.6	257	0	190	6.4	.5
FEB. 20...	1315	626	15	80	18	34	4.2	240	0	150	5.2	.6
MAR. 20...	1420	645	15	74	18	40	4.0	224	0	140	5.5	.5
APR. 23...	1620	1270	15	51	13	39	3.0	171	0	120	4.0	.4
MAY 21...	1530	1150	15	48	12	30	2.4	161	0	92	3.8	.3
JUNE 19...	1200	9540	15	22	4.6	15	1.7	84	0	38	1.3	.3
JULY 23...	1300	2530	15	26	6.2	15	1.6	93	0	46	2.4	.2
AUG. 21...	1300	1140	16	46	12	24	2.5	143	0	84	2.3	.3
SEP. 17...	1420	843	17	53	13	28	3.5	169	--	110	2.4	.3

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
JAN. 17...	.19	150	510	.69	726	330	120	1.2	7.7	763	4.0
FEB. 20...	.11	150	426	.58	720	270	77	.9	8.2	640	4.0
MAR. 20...	.10	140	408	.55	711	260	75	1.1	8.2	642	6.5
APR. 23...	.02	110	330	.45	1130	180	41	1.3	7.6	519	14.0
MAY 21...	.15	100	284	.39	882	170	37	1.0	7.7	450	10.0
JUNE 19...	.51	40	142	.19	3660	74	5	.8	7.7	229	14.0
JULY 23...	.16	60	159	.22	1090	90	14	.7	7.5	260	18.0
AUG. 21...	.10	100	258	.35	794	160	47	.8	7.8	419	12.5
SEP. 17...	.02	110	311	.42	708	190	47	.9	--	498	17.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
JAN. 17...	1030	527	75	10.4	200
FEB. 20...	1315	626	--	10.6	--
MAR. 20...	1420	645	4	11.8	46
APR. 23...	1620	1270	--	11.3	32
MAY 21...	1530	1150	35	9.6	54
JUNE 19...	1200	9540	130	9.3	130
JULY 23...	1300	2530	20	8.5	44
AUG. 21...	1300	1140	20	9.8	58
SEP. 17...	1420	843	2	9.9	84

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

61

06284500 BITTER CREEK NEAR GARLAND, WYO.

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼SW¼SW¼ sec.7, T.55 N., R.97 W., Big Horn County, at bridge on county road, 100 ft (30 m) upstream from gaging station, 1.0 mi (1.6 km) upstream from mouth, 4.0 mi (6.4 km) southeast of Garland, and 5.0 mi (8.0 km) southwest of Byron.

DRAINAGE AREA.--80.5 mi² (208.5 km²).

PERIOD OF RECORD.--Chemical analyses: March 1951 to December 1953 (partial-record station), August 1958 to September 1961 (monthly), April 1969 to September 1974 (daily).
Water temperatures: July 1969 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 2,160 micromhos Mar. 22; minimum daily, 602 micromhos June 23.
Water temperatures: Maximum, 23.0°C July 12; minimum, freezing point on many days during November to March.

Period of record (July 1969 to September 1974):

Specific conductance: Maximum daily, 4,150 micromhos Dec. 12, 1972; minimum daily, 540 micromhos Apr. 18, 1972.

Water temperatures: Maximum, 24.0°C Aug. 17, 1973; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
02...	1400	240	--	--	--	--	--	--	--	--	--	--
10...	1345	220	16	62	20	79	2.8	201	12	220	4.6	.6
30...	1115	48	15	59	27	210	4.1	304	6	410	12	1.1
NOV.												
29...	1045	30	16	87	31	240	3.8	308	24	500	16	1.1
JAN.												
16...	1200	27	18	85	39	270	4.2	356	0	600	20	1.0
FEB.												
20...	0940	20	17	96	37	290	5.2	390	0	660	19	1.1
MAR.												
20...	1200	30	18	82	32	230	5.3	387	0	490	19	1.3
APR.												
24...	0915	210	15	59	17	71	3.6	203	0	190	6.0	.6
MAY												
21...	1215	414	16	53	17	79	3.2	211	0	170	7.2	.6
JUNE												
18...	1615	283	17	50	15	77	2.4	201	0	160	5.5	.7
JULY												
22...	1600	298	18	48	16	79	3.5	215	0	170	6.9	.7
AUG.												
21...	1645	331	18	56	18	78	3.3	228	0	180	5.6	.6
SEP.												
17...	1820	286	17	60	20	85	4.4	237	--	190	5.8	.7

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.												
02...	--	--	--	--	--	--	--	--	--	--	--	13.5
10...	--	--	10	10	522	.71	310	250	2.2	8.5	799	8.5
30...	3.8	.24	210	--	911	1.24	118	260	5.7	8.5	1360	6.5
NOV.												
29...	4.4	.37	210	60	1090	1.48	88.3	350	5.6	8.6	1580	3.0
JAN.												
16...	4.1	.51	200	60	1220	1.66	88.9	380	6.1	7.7	1710	.0
FEB.												
20...	4.1	.51	230	110	1340	1.82	72.4	390	6.4	8.0	1880	1.0
MAR.												
20...	5.0	1.8	220	60	1090	1.48	88.3	340	5.5	7.4	1600	1.5
APR.												
24...	.78	1.2	130	460	466	.63	264	220	2.1	7.5	752	10.5
MAY												
21...	1.9	--	130	50	459	.62	513	200	2.4	7.9	733	8.5
JUNE												
18...	2.1	--	130	140	436	.59	333	190	2.5	8.0	710	20.0
JULY												
22...	2.8	.01	130	60	461	.63	371	190	2.5	7.6	739	21.0
AUG.												
21...	2.2	.19	130	30	482	.66	431	210	2.3	8.2	752	17.5
SEP.												
17...	1.5	.28	150	30	507	.69	392	230	2.4	--	804	16.5

YELLOWSTONE RIVER BASIN

06284500 BITTER CREEK NEAR GARLAND, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
10...	1345	220	10	11.4	--
30...	1115	48	2	15.5	8200
NOV.					
29...	1045	30	3	12.2	65
JAN.					
16...	1200	27	15	11.8	440
FEB.					
20...	0940	20	4	12.0	--
MAR.					
20...	1200	30	--	11.4	20
APR.					
24...	0915	210	--	10.0	3000
MAY					
21...	1215	414	140	9.6	8770
JUNE					
18...	1615	283	90	8.1	640
JULY					
22...	1600	298	90	8.3	580
AUG.					
21...	1645	331	10	8.3	8120
SEP.					
17...	1820	286	10	8.8	570

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	769	1250	1630	1580	1580	1960	1810	846	731	679	766	787
2	760	1550	1580	1560	1710	1940	1930	805	723	684	753	794
3	772	1450	1570	1500	1680	1920	1790	811	892	685	715	768
4	770	1420	1690	1420	1790	2020	1840	805	741	640	692	800
5	775	1520	1630	1420	1770	1950	1840	781	809	632	743	822
6	781	1480	1580	1420	1700	1920	1750	882	830	656	743	804
7	769	1490	1470	1360	1690	1810	1830	885	877	638	723	777
8	799	1480	1600	1440	1630	1890	1740	809	815	632	749	776
9	772	1500	1580	1470	1660	2020	1780	830	773	735	722	773
10	803	1590	1580	1380	1680	1800	1900	852	733	682	710	764
11	814	1620	1610	1400	1740	1960	1900	797	732	650	689	744
12	839	1570	1650	1480	1750	1860	1920	842	731	735	685	775
13	800	1580	1640	1390	1710	1880	1840	784	767	737	739	773
14	805	1530	1660	1700	1760	1760	1830	834	798	730	757	775
15	837	1580	1620	1520	1780	1730	1730	788	741	720	750	794
16	813	1560	1620	1660	1820	1850	1770	763	723	742	741	790
17	830	1590	1650	1500	1830	2060	1690	743	736	723	741	806
18	828	1560	1720	1610	1870	1870	1720	762	759	690	724	780
19	849	1500	1690	1560	1850	1890	896	742	670	734	797	783
20	866	1490	1700	1610	1810	1650	1090	777	728	708	762	780
21	851	1610	1590	1680	1840	1910	957	805	704	684	752	765
22	874	1540	1630	1610	1820	2160	866	777	675	721	744	761
23	1360	1530	1680	1610	1730	1860	718	785	602	730	752	774
24	1200	1580	1670	1610	1780	1880	729	805	622	745	748	780
25	1230	1570	1670	1600	1640	1810	741	772	629	748	753	762
26	1300	1600	1540	1730	1740	1910	736	780	631	715	709	776
27	1330	1550	1670	1640	2000	1860	796	739	653	706	800	776
28	1380	1540	1610	1690	1860	1940	771	779	649	725	799	759
29	1380	1600	1690	1680	---	1920	826	752	630	706	793	750
30	1360	1630	1610	1720	---	1860	845	731	659	740	776	738
31	1410	---	1520	1720	---	1940	---	741	---	761	774	---
MONTH	959	1540	1620	1560	1760	1900	1420	794	725	704	745	777
YEAR	MAX	2160	MIN	602	MEAN	1200						

YELLOWSTONE RIVER BASIN

63

06284500 BITTER CREEK NEAR GARLAND, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.5	4.5	2.5	0.0	3.5	6.0	11.5	12.0	17.0	18.0	20.0	12.0
2	11.5	5.0	4.0	0.0	1.0	5.0	12.0	14.5	18.0	16.5	18.0	15.5
3	12.5	4.0	0.0	0.0	4.0	6.0	10.0	15.5	19.0	19.5	18.5	12.0
4	12.0	4.5	0.0	0.0	0.0	0.0	12.0	14.5	16.0	21.0	18.0	11.5
5	14.0	5.0	0.0	0.0	0.0	0.5	12.0	18.0	14.5	19.0	19.5	15.5
6	9.5	6.5	1.0	0.0	1.0	0.5	13.5	15.5	17.0	19.5	19.0	14.0
7	11.0	6.5	5.5	0.0	2.0	0.5	13.5	15.0	11.5	19.0	15.5	14.5
8	10.0	7.0	2.5	0.0	0.0	5.0	15.0	14.5	13.0	18.5	19.0	14.0
9	6.5	8.0	1.0	0.0	5.0	0.0	12.5	15.5	15.0	20.5	19.0	18.0
10	10.5	10.0	3.5	0.0	0.0	0.0	10.0	12.0	20.0	19.5	19.0	14.0
11	11.0	10.0	3.5	0.0	0.0	1.0	12.5	16.0	18.5	20.0	18.5	11.5
12	11.0	9.0	1.0	0.0	5.0	8.0	5.0	15.5	18.0	23.0	17.5	13.0
13	11.0	7.0	1.5	0.0	5.5	8.0	5.0	14.0	18.5	21.0	13.0	13.5
14	14.0	8.0	1.5	1.5	6.0	8.5	13.5	14.0	17.0	21.0	17.0	15.0
15	12.0	4.5	5.0	3.0	5.0	9.0	14.5	13.0	17.5	21.0	19.0	13.0
16	11.5	4.0	5.0	1.5	5.0	10.0	15.0	14.0	20.0	21.5	19.5	13.0
17	13.0	6.0	4.5	1.0	5.0	3.5	19.5	12.0	20.5	20.5	19.0	17.0
18	14.5	5.0	5.0	1.0	6.5	10.5	19.0	12.0	18.5	18.5	19.0	15.0
19	13.5	1.5	5.0	1.0	4.5	3.0	13.5	9.5	20.0	18.5	19.0	13.5
20	13.0	3.0	5.0	3.0	4.0	3.0	6.5	7.0	19.0	22.0	14.0	14.0
21	13.0	2.5	5.0	0.0	4.0	0.0	7.5	10.0	20.0	21.5	18.0	11.5
22	13.0	5.0	3.0	0.5	3.0	0.0	14.0	13.5	20.0	20.5	18.5	15.0
23	11.5	4.0	2.5	0.0	0.0	9.0	14.0	17.5	20.5	20.0	17.0	10.5
24	10.0	2.0	2.0	2.0	3.0	8.5	15.0	15.5	20.0	22.5	18.0	11.0
25	11.0	5.0	2.0	3.5	4.5	12.5	14.5	18.5	20.0	22.0	19.5	11.0
26	9.0	4.0	0.5	3.5	8.0	12.5	7.0	19.0	17.0	19.0	17.0	11.0
27	8.0	0.0	0.0	2.5	0.0	14.5	7.5	13.0	19.0	17.5	19.0	12.0
28	5.5	3.0	0.0	3.0	7.0	9.0	10.0	15.0	20.5	16.5	19.5	13.5
29	7.5	3.0	0.0	3.5	---	10.5	14.0	14.0	19.0	17.5	19.0	13.0
30	8.0	2.5	2.0	0.0	---	8.5	13.0	12.5	21.0	19.5	18.0	9.5
31	5.5	---	0.0	0.5	---	8.0	---	12.5	---	20.0	18.0	---
MONTH	11.0	5.0	2.5	1.0	3.5	6.0	12.0	14.0	18.0	20.0	18.0	13.5
YEAR	MAX	23.0	MIN	0.0	MEAN	10.5						

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WYO.

LOCATION.--Lat 44°43'21", long 108°34'16", in NW¼NW¼NE¼ sec.30, T.55 N., R.97 W., Big Horn County, at gaging station, 300 ft (91 m) upstream from Elk-Lovell Canal, 5.6 mi (9.0 km) southeast of Garland, and 6.3 mi (10.1 km) southwest of Byron.

DRAINAGE AREA.--101 mi² (262 km²).

PERIOD OF RECORD.--Chemical analyses: August 1958 to May 1960 (monthly), April 1969 to September 1974 (daily).
Water temperatures: July 1969 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 6,630 micromhos Jan. 28; minimum daily, 358 micromhos June 26.
Water temperatures: Maximum, 28.0°C June 25, July 17; minimum, freezing point on many days during November to March.

Period of record (July 1969 to September 1974):

Specific conductance: Maximum daily, 12,300 micromhos Jan. 10, 1970; minimum daily, 301 micromhos June 28, 1970, June 15, 1972.

Water temperatures: Maximum, 28.0°C July 17, 1970, June 25, July 17, 1974; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	1700	32	--	--	--	--	--	--	--	--	--	--
29...	1140	2.5	7.0	200	110	880	10	422	0	2400	50	.4
DEC.												
05...	1205	A1.2	9.5	250	130	1100	9.9	286	0	3000	95	.0
JAN.												
15...	1750	A.65	9.6	220	150	1100	13	443	0	3100	27	.5
FEB.												
19...	1705	A1.3	7.7	200	110	920	9.2	464	0	2400	52	.6
MAR.												
28...	1400	1.4	4.3	200	120	1100	9.6	420	0	2800	62	.5
APR.												
24...	1115	28	14	68	21	100	4.3	213	0	280	7.6	.4
MAY												
20...	1445	61	14	52	17	67	3.1	177	0	190	5.5	.3
JUNE												
19...	1945	59	15	38	12	72	2.9	131	0	180	5.2	.2
JULY												
25...	1400	38	15	43	14	67	3.2	142	0	200	5.1	.3
AUG.												
23...	1130	54	14	58	19	73	3.6	176	0	220	5.3	.3
SEP.												
18...	1200	57	14	63	21	69	4.5	186	--	220	4.9	.4

A Daily mean discharge.

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT.												
02...	--	--	--	--	--	--	--	--	--	--	--	13.5
29...	4.2	.18	230	--	3880	5.28	26.2	950	12	8.0	5130	4.5
DEC.												
05...	5.8	.02	250	30	4760	6.47	15.4	1200	14	8.1	5150	.0
JAN.												
15...	6.3	.08	260	80	4870	6.62	8.55	1200	14	8.0	5290	.0
FEB.												
19...	4.5	.08	200	40	3950	5.37	13.9	950	13	8.0	4880	.0
MAR.												
28...	3.1	.06	240	140	4520	6.15	17.5	990	15	8.1	5520	7.0
APR.												
24...	.32	.59	140	30	602	.82	46.0	260	2.7	7.9	883	11.0
MAY												
20...	.44	--	120	80	438	.60	72.1	200	2.1	7.5	697	8.0
JUNE												
19...	.35	--	90	60	392	.53	62.4	140	2.6	7.8	644	23.0
JULY												
25...	.66	.00	100	90	421	.57	43.3	170	2.3	8.0	635	25.0
AUG.												
23...	.18	.22	120	40	481	.65	70.1	220	2.1	8.2	740	17.0
SEP.												
18...	.33	.11	130	20	490	.67	75.4	240	1.9	--	744	14.5

YELLOWSTONE RIVER BASIN

65

06284800 WHISTLE CREEK NEAR GARLAND, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	831	4060	4700	5710	6350	4860	5890	773	654	465	808	616
2	817	4150	4460	5620	6170	4530	5770	758	656	395	839	616
3	847	3140	5160	5510	6320	4520	5920	664	682	524	510	602
4	887	4390	5500	5730	5760	5270	5850	659	655	372	496	621
5	912	5070	5610	5720	5740	5030	5880	708	664	377	505	614
6	859	4290	5460	5730	5890	5080	5980	685	665	365	512	652
7	878	4200	5230	5640	5900	5080	6050	635	718	388	665	626
8	865	2580	5160	5560	6030	5300	5820	626	753	416	542	625
9	929	2990	5170	5580	5970	5370	5870	717	884	420	511	623
10	938	3020	5220	4940	5980	4460	5460	702	745	425	500	612
11	866	3140	5280	4590	6020	4270	5420	657	679	422	482	654
12	918	1950	5220	4870	5680	4720	5460	727	577	485	488	706
13	941	2560	5210	5060	5620	6090	5370	601	699	482	488	742
14	955	2410	5200	5040	5580	6030	5190	595	673	552	520	651
15	957	3920	5220	6050	5330	6050	3480	714	585	521	501	671
16	974	3930	5300	1150	5020	4800	3800	612	384	462	559	665
17	1010	4660	4930	2940	5310	4790	4250	619	491	664	485	709
18	1010	4730	5630	3200	5220	5330	4340	584	478	657	512	704
19	1030	4910	5460	4390	5290	5260	1180	606	563	601	642	681
20	1760	5090	5500	4040	5040	5230	1120	700	510	606	658	675
21	3220	5020	5370	4390	4970	5320	740	689	429	577	644	675
22	3860	5490	5360	4520	5650	5340	667	683	400	701	773	674
23	4280	5380	5380	6400	5660	5450	834	662	400	615	608	670
24	4440	5430	5780	6540	5440	5250	709	732	479	688	596	704
25	4580	5110	5740	6120	5260	5430	619	699	500	665	638	698
26	4540	5110	5150	6130	4850	5220	623	725	358	562	716	702
27	4610	5100	5290	6350	5000	5560	658	690	483	537	758	708
28	4600	5100	5470	6630	4860	5460	637	657	555	540	673	688
29	4640	4840	5490	6220	---	5620	643	677	415	581	729	690
30	4210	4710	5420	6070	---	5760	613	682	479	761	642	682
31	4770	---	5420	6260	---	5660	---	669	---	825	638	---
MONTH	2160	4220	5310	5250	5570	5230	3490	674	574	537	601	665
YEAR	MAX	6630	MIN	358	MEAN	2840						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	5.0	1.5	0.0	0.0	0.0	2.0	12.0	12.0	20.0	16.0	14.0
2	12.0	4.0	2.0	0.0	0.0	0.0	4.0	13.0	21.0	16.0	23.0	14.0
3	11.0	4.0	0.5	0.0	0.0	0.0	3.0	10.0	20.0	22.0	23.0	18.0
4	11.0	3.0	0.0	0.0	0.0	0.0	8.0	16.0	17.0	19.0	16.0	18.0
5	13.0	3.0	0.0	0.0	0.0	0.0	3.0	18.0	15.0	24.0	17.0	18.0
6	9.0	3.0	0.5	0.0	0.0	1.0	14.0	18.0	17.0	22.0	17.0	20.0
7	15.0	3.0	0.0	0.0	0.0	0.0	15.0	17.0	16.0	22.0	18.0	20.0
8	9.0	3.0	1.0	0.0	0.0	0.0	12.0	19.0	7.0	23.0	20.0	20.0
9	7.0	3.0	1.0	0.0	0.0	0.0	8.0	19.0	15.0	19.0	18.0	16.0
10	8.0	3.0	0.0	0.0	0.0	2.0	6.0	13.0	20.0	25.0	19.0	17.0
11	8.0	4.0	0.0	0.0	1.0	3.0	7.0	16.0	20.0	24.0	18.0	10.0
12	9.0	5.0	0.0	0.0	0.0	2.0	6.0	17.0	15.0	19.0	18.0	12.0
13	12.0	5.0	0.0	0.0	0.0	3.0	8.0	16.0	24.0	25.0	20.0	14.0
14	10.0	4.0	0.0	0.0	1.0	2.0	9.0	14.0	16.0	25.0	17.0	18.0
15	13.0	4.0	0.0	0.0	0.0	0.0	6.0	9.0	21.0	25.0	19.0	13.0
16	11.0	4.0	0.0	3.0	1.0	7.0	16.0	8.0	23.0	25.0	20.0	18.0
17	14.0	8.0	0.0	3.0	0.0	8.0	16.0	8.0	15.0	28.0	20.0	13.0
18	15.0	5.0	0.0	1.0	0.0	7.0	11.0	9.0	24.0	27.0	22.0	17.0
19	15.0	3.0	0.0	2.0	0.0	3.0	15.0	9.0	21.0	24.0	19.0	11.0
20	12.0	3.0	0.0	2.0	0.0	0.0	14.0	5.0	24.0	25.0	15.0	11.0
21	14.0	3.0	0.0	1.0	0.0	3.0	9.0	5.0	23.0	25.0	22.0	12.0
22	7.0	2.0	0.0	1.0	0.0	0.0	10.0	15.0	22.0	24.0	23.0	10.0
23	7.0	2.0	0.0	1.0	0.0	3.0	15.0	19.0	15.0	24.0	22.0	10.0
24	8.0	2.0	0.0	0.0	0.0	5.0	11.0	20.0	27.0	27.0	23.0	10.0
25	7.0	1.0	0.0	0.0	0.0	7.0	14.0	20.0	28.0	25.0	20.0	10.0
26	4.0	0.0	0.0	0.0	0.0	5.0	16.0	22.0	25.0	25.0	20.0	10.0
27	9.0	0.0	0.0	0.0	0.0	8.0	12.0	17.0	26.0	25.0	22.0	11.0
28	12.0	1.0	0.0	0.0	0.0	7.0	11.0	18.0	18.0	24.0	20.0	14.0
29	7.0	1.0	0.0	0.0	---	5.0	15.0	14.0	26.0	25.0	20.0	15.0
30	8.0	2.0	0.0	0.0	---	7.0	17.0	16.0	26.0	22.0	18.0	10.0
31	6.0	---	0.0	0.0	---	9.0	---	18.0	---	16.0	16.0	---
MONTH	10.5	3.0	0.0	0.5	0.0	3.0	10.5	14.5	20.0	23.5	19.5	14.0
YEAR	MAX	28.0	MIN	0.0	MEAN	10.0						

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WYO.

LOCATION.--Lat 44°50'20", long 108°26'00", in NW¼NW¼ sec.16, T.56 N., R.96 W., Big Horn County, at gaging station, 30 ft (9 m) upstream from bridge on U.S. Highway 310, and 1.5 mi (2.4 km) west of Lovell.

DRAINAGE AREA.--2,350 mi² (6,090 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1974.

Water temperatures: October 1966 to September 1974.

Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 1,260 micromhos Jan. 3; minimum daily, 238 micromhos June 26.

Water temperatures: Maximum, 24.0°C June 14; minimum, freezing point on many days during November to January and March.

Period of record:

Specific conductance: Maximum daily, 1,360 micromhos July 21, 1968; minimum daily, 238 micromhos June 26, 1974.

Water temperatures: Maximum, 30.0°C June 6, 1969; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 30...	1000	590	14	85	30	110	4.8	267	0	320	13	.6
DEC. 04...	1220	738	15	97	29	78	4.7	263	0	270	11	.5
JAN. 16...	1010	8750	14	90	27	90	5.6	258	0	300	13	.5
FEB. 18...	1615	695	15	90	26	74	5.1	251	0	260	11	.7
MAR. 28...	0940	709	13	85	25	72	4.7	257	0	250	11	.5
APR. 24...	1025	618	14	66	20	67	3.8	208	0	210	11	.6
MAY 20...	2000	1100	15	56	19	69	3.2	205	0	190	8.5	.5
JUNE 20...	1940	11500	14	26	6.4	23	2.4	103	0	57	2.8	.3
JULY 16...	1700	2540	16	33	9.9	30	2.1	119	0	89	2.8	.3
AUG. 20...	1730	899	15	61	20	76	4.2	208	0	200	10	.5
SEP. 18...	1545	604	14	64	23	84	4.9	215	--	230	10	.6

A Daily mean discharge.

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	SPE- CIFIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 30...	.83	.19	713	.97	1140	340	120	2.6	1040	8.1	4.5
DEC. 04...	.75	.04	638	.87	1270	360	150	1.8	946	8.1	.0
JAN. 16...	1.0	.37	672	.91	1360	340	120	2.1	982	7.9	.5
FEB. 18...	.56	.11	608	.83	1140	330	130	1.8	895	8.2	4.5
MAR. 28...	.39	.20	590	.80	1130	320	100	1.8	880	8.1	7.0
APR. 24...	.48	.66	497	.64	829	250	77	1.9	762	7.8	10.5
MAY 20...	.42	--	467	.64	1390	220	50	2.0	734	7.3	7.5
JUNE 20...	.19	--	186	.25	5760	91	7	1.0	289	8.0	17.0
JULY 16...	.46	.00	244	.33	1670	120	26	1.2	386	7.6	23.5
AUG. 20...	.99	.06	494	.67	1200	230	64	2.2	765	7.6	15.5
SEP. 18...	.90	.23	541	.74	882	250	78	2.3	850	--	16.5

YELLOWSTONE RIVER BASIN

67

06285100 SHOSHONE RIVER NEAR LOVELL, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686	910	884	910	876	912	872	1000	803	249	710	795
2	687	941	954	931	885	902	905	974	782	271	696	759
3	705	984	947	1260	879	906	926	970	682	274	712	777
4	738	999	909	941	892	888	922	996	862	288	710	779
5	731	1010	885	919	899	898	904	947	878	296	678	786
6	711	1030	854	949	880	907	922	938	864	287	690	788
7	708	1040	919	923	887	881	932	935	886	296	708	829
8	752	1090	861	937	881	903	949	923	768	314	707	787
9	736	1040	852	987	886	886	918	950	813	313	699	838
10	747	1010	848	1000	814	902	957	881	738	321	676	820
11	774	1100	874	1060	902	894	997	831	728	315	656	824
12	764	1080	900	890	887	898	986	819	678	332	625	797
13	762	1080	888	919	914	912	994	822	686	361	677	787
14	784	1030	907	930	932	887	973	778	692	348	711	785
15	760	998	798	930	923	876	1010	782	559	372	711	776
16	750	1010	883	1030	912	894	914	800	528	389	717	781
17	747	1040	876	1060	921	899	890	813	480	398	705	807
18	771	1010	877	982	910	910	931	810	407	418	680	808
19	867	1010	870	927	910	930	835	759	371	407	708	806
20	822	1020	868	932	866	760	839	770	324	458	754	812
21	873	1020	877	900	905	867	855	783	299	450	727	856
22	855	953	812	901	848	880	813	823	282	472	749	824
23	855	952	874	831	907	874	777	814	260	511	749	809
24	879	946	860	875	869	888	806	815	262	511	783	818
25	920	954	887	902	857	895	797	839	252	532	803	826
26	923	947	869	895	893	878	809	785	238	564	823	864
27	919	946	853	897	894	899	798	824	250	591	823	876
28	913	958	873	885	891	922	1040	821	258	641	827	842
29	944	932	864	876	---	930	815	849	249	660	827	814
30	932	926	836	902	---	866	885	794	249	699	819	782
31	953	---	874	892	---	877	---	744	---	668	801	---
MONTH	805	999	875	941	890	891	899	851	538	420	731	808
YEAR	MAX	1260	MIN	238	MEAN	803						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	4.0	6.0	0.0	3.0	8.0	7.0	15.0	17.5	16.0	22.0	14.0
2	15.0	3.0	5.0	0.0	2.0	6.0	7.0	15.0	8.5	16.0	21.0	16.0
3	13.0	2.0	3.0	1.0	3.0	5.0	9.0	16.0	17.5	18.0	21.0	14.0
4	13.0	3.0	2.0	0.0	4.0	3.0	9.0	17.0	16.5	19.0	18.0	17.0
5	12.0	3.0	4.0	1.0	2.0	3.5	9.0	18.0	12.5	19.0	19.0	16.0
6	12.0	6.0	6.0	0.0	1.0	4.0	8.0	16.0	19.0	19.0	22.0	19.0
7	15.0	5.0	4.0	0.0	1.0	4.5	9.0	16.0	12.0	19.0	16.0	19.0
8	11.0	4.0	4.0	0.0	3.0	5.0	8.0	16.0	14.0	20.0	19.0	19.0
9	9.0	6.0	5.0	0.0	4.0	4.5	6.0	17.0	18.0	20.0	18.0	18.0
10	10.0	8.0	2.0	0.0	4.0	6.0	7.0	12.0	18.0	22.0	16.5	17.0
11	10.0	8.0	4.0	0.0	4.0	8.0	6.0	15.0	21.0	19.0	17.0	12.0
12	12.0	8.0	5.0	0.0	4.0	8.0	6.0	16.0	20.0	20.0	17.5	12.0
13	12.0	8.0	4.0	1.0	5.5	7.5	6.0	10.0	23.0	19.0	18.5	16.0
14	11.5	7.0	3.0	1.0	6.5	5.0	8.0	12.0	24.0	20.0	17.5	16.0
15	12.0	7.0	3.0	1.0	5.0	7.0	4.0	12.0	19.0	21.0	16.5	17.0
16	13.0	7.0	4.0	1.0	5.0	7.0	9.0	12.0	19.0	18.0	19.0	18.0
17	14.0	7.0	5.0	3.0	4.0	10.0	11.0	13.0	21.0	22.0	19.0	17.0
18	15.0	7.0	2.0	1.0	4.5	10.0	14.0	15.0	17.0	21.0	19.0	17.0
19	11.0	6.0	0.0	3.0	5.0	3.0	14.0	13.0	17.0	22.0	18.0	16.0
20	11.0	7.0	2.0	4.0	4.5	0.0	10.0	9.0	18.0	21.0	17.0	16.0
21	11.0	4.0	4.0	3.0	3.5	4.0	12.0	9.0	17.0	22.0	19.0	16.0
22	12.0	4.0	4.0	1.0	3.5	3.0	7.0	14.0	17.0	22.0	20.0	15.0
23	13.0	4.0	4.0	3.0	2.0	1.0	10.0	17.0	17.0	21.0	20.0	15.0
24	11.0	3.0	3.0	3.0	3.0	3.0	11.0	19.0	18.0	22.0	21.0	16.0
25	10.0	3.0	3.0	4.0	5.5	8.0	18.0	16.0	20.0	22.0	21.0	15.0
26	8.0	3.0	1.0	2.0	5.0	12.0	11.0	15.0	18.0	18.0	20.0	15.0
27	9.0	2.0	0.0	2.0	5.0	9.0	11.0	14.0	19.0	22.0	20.0	11.0
28	11.0	0.0	1.0	4.0	5.0	9.0	10.0	16.5	19.0	22.0	19.0	12.0
29	8.0	5.5	1.0	3.0	---	7.0	15.0	12.0	19.0	22.0	18.0	13.0
30	10.0	4.0	2.0	3.0	---	6.0	16.0	11.0	17.0	21.0	16.0	13.0
31	7.0	---	0.0	2.0	---	7.0	---	12.0	---	22.0	16.0	---
MONTH	11.5	5.0	3.0	1.5	4.0	6.0	9.5	14.0	18.0	20.0	19.0	15.5
YEAR	MAX	24.0	MIN	0.0	MEAN	10.5						

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WYO.--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (°F/°C)	INSTANTAN- EOUS DIS- CHARGE (CFS)	SUS- PENDED SEDIMENT (MG/L)	SUS- PENDED SEDIMENT (T/DAY)	SUS. SED. FALL DIAM. * FINER THAN .004 MM	SUS. SED. FALL DIAM. * FINER THAN .016 MM	SUS. SED. FALL DIAM. * FINER THAN .062 MM	SUS. SED. FALL DIAM. * FINER THAN .125 MM	SUS. SED. FALL DIAM. * FINER THAN .250 MM	SUS. SED. FALL DIAM. * FINER THAN .500 MM
OCT.											
02...	0850	12.0	1070	117	341	--	--	--	--	--	--
30...	1000	4.5	590	22	35	--	--	--	--	--	--
DEC.											
04...	1220	4.0	738	52	103	--	--	--	--	--	--
FEB.											
18...	1615	4.5	695	92	175	--	--	--	--	--	--
MAR.											
28...	0940	7.0	709	217	415	--	--	--	--	--	--
APR.											
24...	1025	10.5	618	512	854	--	--	--	--	--	--
MAY											
20...	2000	7.5	1100	919	2730	25	40	73	90	100	--
JUNE											
20...	1940	17.0	11500	2600	80700	34	53	78	91	99	100
JULY											
16...	1700	23.5	2540	139	953	--	--	--	--	--	--
AUG.											
20...	1730	15.5	899	160	388	--	--	--	--	--	--
SEP.											
18...	1545	16.5	604	30	49	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

69

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WYO.

LOCATION.--Lat 44°53'08", long 108°33'01", in NE¼NE¼NW¼ sec.34, T.57 N., R.97 W., Big Horn County, at gaging station, 300 ft (91 m) downstream from Polecat Creek, 800 ft (244 m) upstream from Sidon Canal crossing, and 2.4 mi (3.9 km) east of Deaver.

DRAINAGE AREA.--341 mi² (883 km²).

PERIOD OF RECORD.--Chemical analyses: August 1958 to May 1960 (monthly), April 1969 to September 1974 (daily).
Water temperatures: July 1969 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 4,050 micromhos Jan. 13; minimum daily, 1,080 micromhos Apr. 24.
Water temperatures: Maximum, 28.5°C July 17; minimum, freezing point on many days during December and January.

Period of record (July 1969 to September 1974):

Specific conductance: Maximum daily, 6,650 micromhos Apr. 26, 1973; minimum daily, 910 micromhos Apr. 16, 1972.

Water temperatures: Maximum, 28.5°C July 17, 1974; minimum, freezing point on many days during winter period in most years.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	1040	124	--	--	--	--	--	--	--	--	--	--
30...	1210	34	11	190	110	380	6.5	364	0	1300	21	.7
DEC.												
04...	1455	41	12	260	140	450	6.4	411	0	1800	29	.7
JAN.												
16...	1600	A34	11	220	150	540	9.7	344	0	1900	34	.9
FEB.												
20...	0925	A21	11	200	120	360	6.3	385	0	1400	25	.9
MAR.												
27...	1710	28	8.1	180	110	330	5.9	327	0	1300	23	.9
APR.												
24...	1410	100	13	92	38	110	3.9	237	0	400	10	.5
MAY												
21...	1130	122	13	120	56	170	4.2	235	0	680	15	.6
JUNE												
20...	0935	70	15	110	49	160	4.5	231	0	610	9.8	.4
JULY												
25...	1610	55	13	120	52	170	5.4	232	8	620	10	.5
AUG.												
23...	0920	152	15	110	45	130	4.6	232	0	510	10	.5
SEP.												
18...	1735	112	14	120	50	160	5.9	256	--	590	11	.6

A Daily mean discharge.

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
30...	1.7	.20	380	--	2210	3.01	203	930	5.4	7.9	2750	5.0
DEC.												
04...	2.3	.13	470	40	2910	3.96	322	1200	5.6	8.1	3340	.0
JAN.												
16...	2.7	.38	470	60	3050	4.15	280	1200	6.9	7.7	3540	.5
FEB.												
20...	2.2	.04	340	50	2320	3.16	132	990	5.0	8.0	2910	.0
MAR.												
27...	1.3	.41	350	40	2130	2.90	161	900	4.8	8.2	2690	7.5
APR.												
24...	.52	1.4	180	30	787	1.07	212	390	2.4	7.8	1140	15.5
MAY												
21...	.94	--	250	180	1180	1.60	389	530	3.2	7.8	1440	6.5
JUNE												
20...	.81	--	250	220	1080	1.47	207	480	3.2	7.9	1530	17.0
JULY												
25...	.76	.00	270	70	1120	1.52	166	510	3.3	8.4	1620	26.0
AUG.												
23...	.70	.30	240	50	943	1.28	387	460	2.6	8.0	1370	14.0
SEP.												
18...	.45	.22	270	50	1080	1.47	327	510	3.1	--	539	16.5

YELLOWSTONE RIVER BASIN

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEEVER, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	2940	3160	3500	3000	2990	2850	1690	1420	1340	1600	1550
2	1240	3000	3270	3500	2850	3120	2890	1920	1440	1530	1590	1490
3	1240	3070	3220	3570	2770	3140	2740	1830	1360	1630	1690	1430
4	1270	3000	3280	3950	2980	2940	2710	1740	1950	1500	1610	1440
5	1350	2870	3280	3950	2960	2700	2700	1680	1520	1360	1730	1560
6	1370	3200	3400	3510	3460	2720	2720	1820	1440	1360	1670	1640
7	1380	3200	3140	3690	2980	2720	2680	1730	1730	1490	1780	1590
8	1490	3040	3030	3820	3150	2880	2710	1820	1520	1480	1660	1570
9	1530	3220	3350	3810	2790	2930	2830	1740	1440	1570	1680	1570
10	1320	3430	3270	3840	2810	3220	2870	1870	1250	1500	1570	1520
11	1290	3780	3160	3860	3110	3070	2720	1910	1300	1530	1610	1580
12	1290	3440	3250	3920	2930	2880	2800	1740	1280	1470	1560	1420
13	1280	3200	3060	4050	3090	2900	3090	1650	1620	1500	1520	1390
14	1250	2740	3360	3900	3230	2710	2610	1630	1700	1500	1540	1320
15	1330	2790	3410	3610	2690	2840	2570	1800	1780	1480	1550	1340
16	1330	2860	3220	3800	3230	2990	2470	1670	1680	1560	1470	1410
17	1380	2870	3230	3620	3280	2500	2500	1730	1650	1540	1530	1470
18	1400	2880	3400	3590	3300	2670	2810	1700	1590	1550	1470	1550
19	1430	2880	3420	3310	3080	2880	3130	1690	1610	1540	1480	1470
20	1560	2820	3340	3370	3120	3110	1770	1760	1620	1550	1760	1510
21	1530	2800	3240	3310	3320	2520	2730	1720	1580	1680	1510	1560
22	1560	2950	3020	3270	3410	2550	1150	1640	1560	1730	1330	1580
23	1700	3000	3170	3210	3270	2530	1110	1520	1540	1730	1360	1640
24	2440	2910	3290	3100	3230	2310	1080	1600	1390	1720	1320	1570
25	2700	2860	3260	2920	3120	2670	1180	1580	1400	1760	1360	1580
26	2680	3180	3380	3010	2880	2680	1230	1630	1440	1710	1380	1580
27	2820	2980	3380	3310	2920	2810	1500	1530	1420	1750	1420	1570
28	2750	3020	3080	3250	3210	2840	1310	1500	1370	1650	1410	1570
29	2660	3120	3240	3140	---	2870	1320	1350	1440	1640	1580	1570
30	2640	3250	3420	3380	---	2960	1410	1430	1440	1560	1540	1490
31	2630	---	3520	3280	---	2840	---	1430	---	1630	1490	---
MONTH	1710	3040	3270	3530	3080	2820	2270	1680	1520	1570	1540	1520
YEAR	MAX	4050	MIN	1080	MEAN	2290						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	4.0	2.0	0.0	1.0	2.0	3.5	14.0	18.0	19.5	24.0	12.0
2	12.0	3.0	2.0	0.0	1.0	1.0	3.0	14.0	19.0	19.0	23.5	14.5
3	11.0	2.0	0.5	0.0	1.5	1.5	3.5	16.0	18.5	22.0	14.0	9.5
4	11.0	2.0	0.0	0.0	2.0	0.5	9.0	17.0	15.0	23.5	17.0	10.0
5	12.0	2.5	0.0	0.0	1.0	0.5	10.0	17.0	13.0	18.0	24.0	10.0
6	12.0	3.5	0.0	0.0	1.5	0.5	9.0	15.0	16.0	15.5	23.0	12.5
7	12.5	2.0	0.0	0.0	0.5	0.5	9.0	17.0	10.0	23.5	15.5	12.5
8	8.0	2.0	0.5	0.0	1.0	1.5	4.5	18.0	16.0	24.5	13.5	13.0
9	5.0	3.0	0.0	0.0	0.5	1.5	13.0	16.0	17.5	25.5	13.0	13.0
10	7.0	2.0	0.0	0.0	1.0	2.0	5.0	11.0	19.0	24.5	13.5	13.5
11	9.0	3.0	0.0	0.0	0.5	4.0	8.0	15.0	20.0	17.0	20.0	12.5
12	10.0	4.5	0.0	0.0	1.0	4.0	5.5	15.0	15.0	25.5	19.0	8.0
13	11.0	5.0	0.0	0.0	0.5	4.0	8.0	12.0	24.0	16.5	13.0	8.0
14	13.0	4.0	0.0	0.0	1.0	4.5	8.0	9.0	24.0	17.0	19.5	5.5
15	11.0	4.0	0.0	0.0	0.5	4.0	8.0	7.0	22.0	25.5	12.0	9.5
16	11.0	5.0	0.0	0.0	1.5	4.0	15.0	14.0	22.0	17.0	21.0	12.0
17	11.5	5.5	0.0	0.0	1.5	1.0	16.0	6.0	24.0	28.5	13.0	11.5
18	13.0	3.5	0.0	0.0	2.0	6.0	14.0	16.0	20.5	18.5	14.0	16.5
19	12.0	3.0	0.0	0.0	2.0	1.0	11.0	12.0	22.0	18.0	14.0	12.0
20	11.0	2.0	0.0	0.0	1.5	0.5	11.0	7.0	18.0	17.0	16.0	13.5
21	11.5	2.0	0.0	0.0	1.5	0.5	13.0	10.0	22.0	24.0	12.5	6.5
22	11.0	2.0	0.0	0.0	1.5	1.0	7.5	10.5	15.0	16.5	20.5	5.5
23	11.0	1.0	0.0	0.5	1.5	1.5	17.0	16.0	15.0	16.5	22.0	14.0
24	10.0	1.0	0.0	1.0	0.5	2.0	16.5	20.0	16.0	17.0	22.0	11.0
25	7.0	1.5	0.0	1.0	1.5	5.0	16.5	12.0	24.0	16.5	15.0	16.0
26	8.0	1.0	0.0	1.0	1.0	7.5	15.0	20.0	26.5	24.0	19.0	5.5
27	7.0	1.5	0.0	0.5	1.0	10.0	8.0	19.0	23.0	18.5	14.5	5.5
28	7.0	1.5	0.0	0.5	0.5	4.0	10.0	18.0	23.0	24.5	19.5	8.5
29	5.0	1.5	0.0	0.5	---	3.5	16.0	13.0	17.0	17.0	11.5	13.5
30	7.0	2.0	0.0	1.0	---	10.0	9.0	14.0	25.0	18.0	13.5	13.5
31	4.0	---	0.0	1.0	---	9.5	---	8.5	---	18.5	12.5	---
MONTH	10.0	2.5	0.0	0.0	1.0	3.0	10.0	14.0	19.5	20.0	17.0	11.0
YEAR	MAX	28.5	MIN	0.0	MEAN	9.0						

YELLOWSTONE RIVER BASIN

71

06286258 BIG COULEE NEAR LOVELL, WYO.

LOCATION.--Lat 44°58'04", long 108°17'24", in SE¼NW¼NE¼ sec.34, T.58 N., R.95 W., Big Horn County, at gaging station, 300 ft (91 m) downstream from county road, 0.6 mi (1.0 km) upstream from mouth, and 10 mi (16 km) northeast of Lovell.

DRAINAGE AREA.--30.1 mi² (78.0 km²). Area at site used Aug. 31, 1972 to Apr. 23, 1974, 28.8 mi² (74.6 km²).

PERIOD OF RECORD.--Sediment records: April 1970 to September 1974.

EXTREMES.--1973-74:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days during year.
Sediment discharge: Maximum daily, 6,690 tons (6,070 tonnes) July 20; minimum daily, 0 tons on many days during year.

Period of record:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days each year.
Sediment discharge: Maximum daily, 11,800 tons (10,700 tonnes) July 28, 1973; minimum daily, 0 tons on many days each year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT				CONCENTRATION (MG/L)	
			DISCHARGE (TONS)	DAILY DISCHARGE (TONS)			WEIGHTED MEAN	MAXIMUM OBSERVED
				MEAN	MAXIMUM	MINIMUM		
OCTOBER 1973...	0	0	0	0	0	0		
NOVEMBER.....	0	0	0	0	0	0		
DECEMBER.....	0	0	0	0	0	0		
JANUARY 1974...	0	0	0	0	0	0		
FEBRUARY.....	0	0	0	0	0	0		
MARCH.....	0	0	0	0	0	0		
APRIL.....	0	0	0	0	0	0		
MAY.....	0	0	0	0	0	0		
JUNE.....	.67	1.3	48	1.60	48	0		
JULY.....	22.31	44	6,782.01	219	6,690	0		
AUGUST.....	27.72	55	5,472.1	177	4,220	0		
SEPTEMBER.....	0	0	0	0	0	0		
WATER YEAR...	50.70	101	12,302.11	34	6,690	0		

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDIM- ENT (MG/L)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.
						% FINER THAN .004 MM	% FINER THAN .016 MM	% FINER THAN .062 MM	% FINER THAN .125 MM
JULY									
20...	1920	19.5	5.5	16000	238	62	97	100	--
30...	1745	21.5	38	31900	3270	48	87	99	100
AUG.									
20...	1045	12.0	370	59200	59100	28	60	96	100
20...	1250	13.5	31	27400	2290	46	89	99	100

YELLOWSTONE RIVER BASIN

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT.

LOCATION.--Lat 45°19'00", long 107°55'05", in NW¼NE¼ sec.16, T.6 S., R.31 E., Big Horn County, at gaging station, 800 ft (244 m) downstream from Yellowtail afterbay dam, 1,500 ft (460 m) downstream from Lime Kiln Creek, and 14 mi (23 km) southwest of St. Xavier.

DRAINAGE AREA.--19,667 mi² (50,938 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1974.
Water temperatures: December 1962 to September 1974.

EXTREMES.--1973-74:

Dissolved solids: Maximum, 635 mg/l Apr. 1-30; minimum, 330 mg/l Aug. 13-31.

Hardness: Maximum, 340 mg/l Apr. 1-30; minimum, 170 mg/l Aug. 13-31.

Specific conductance: Maximum daily, 981 micromhos Oct. 4; minimum daily, 498 micromhos Aug. 28, 29.

Water temperatures: Maximum, 18.5°C Sept. 7, 9; minimum, 1.5°C on several days during March.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 01-31	--	4380	--	12	10	78	25	89	4.2	205	0	290
NOV. 01-30	--	5070	--	11	0	76	25	81	4.0	200	0	280
DEC. 01-31	--	2780	--	11	10	77	26	82	4.2	206	0	290
JAN. 01-31	--	2830	--	10	20	75	26	78	3.9	200	0	270
FEB. 01-28	--	4000	--	10	10	77	26	78	3.6	204	0	280
MAR. 01-31	--	4800	--	11	10	82	28	81	3.8	215	0	300
APR. 01-30	--	5410	--	11	10	84	32	81	4.4	221	0	300
MAY 01-31	--	4300	--	10	10	81	28	82	4.5	223	0	300
JUNE 02-30	--	6320	--	9.1	20	80	27	80	4.6	215	0	280
JULY 01-15	--	8950	--	8.2	140	69	26	64	3.8	190	1	250
16-31	--	5430	--	9.1	20	57	20	50	3.3	163	--	190
AUG. 01-12	--	2550	--	8.9	10	50	15	48	3.3	147	--	160
13-31	--	3170	--	11	10	45	14	42	2.8	141	--	140
SEP. 01-09	--	3020	--	11	40	55	16	55	1.3	162	--	170
10-30	--	2900	--	11	10	63	17	70	1.6	178	--	230
WTD. AVG. TIME WTD.	--	--	--	10	23	74	25	75	3.9	201	0	268
AVG.	--	4400	--	10	17	73	25	75	3.8	198	0	264
TOT. LOAD (TONS)	--	--	--	44500	98	321000	110000	325000	16800	868000	362	1157000

ANALYSES OF ADDITIONAL SAMPLES

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
DEC. 05...	1315	2970	8.0	11	30	78	27	84	3.8	206	0	290
MAR. 12...	1330	4830	4.0	11	120	81	27	88	4.2	216	0	300
JUNE 06...	1045	6240	8.5	9.6	60	81	28	80	3.8	218	0	300

YELLOWSTONE RIVER BASIN

73

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT.--Continued

EXTREMES.--Continued

Period of record:

Dissolved solids: Maximum, 842 mg/l Jan. 1-31, 1967; minimum, 322 mg/l Aug. 1-31, 1971.

Hardness: Maximum, 394 mg/l Mar. 1-31, 1967; minimum, 160 mg/l Sept. 1-18, 1971.

Specific conductance: Maximum daily, 1,180 micromhos on several days during 1966-67; minimum daily, 492 micromhos Aug. 28, 1971.

Water temperatures: Maximum, 24.5°C on several days during 1963-65; minimum, freezing point on many days during winter periods most years prior to regulation, above freezing point during winter periods since.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality at this station. Thermograph records furnished by Montana Department of Fish and Game. Flow regulated since Nov. 3, 1965, by Bighorn Lake.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
01-31	11	.5	.41	.02	613	.83	7250	300	130	2.2	940	7.8
NOV.												
01-30	11	.4	.33	.01	589	.80	8060	290	130	2.1	891	8.1
DEC.												
01-31	12	.4	.31	.03	606	.82	4550	300	130	2.1	919	8.0
JAN.												
01-31	11	.5	.34	.00	575	.78	4390	290	130	2.0	900	8.2
FEB.												
01-28	10	.5	.26	.00	587	.80	6340	300	130	2.0	900	7.8
MAR.												
01-31	11	.5	.27	.01	625	.85	8100	320	140	2.0	941	8.0
APR.												
01-30	12	.4	.21	.00	635	.86	9280	340	160	1.9	957	8.1
MAY												
01-31	13	.4	.19	.00	630	.86	7310	320	130	2.0	954	7.9
JUNE												
02-30	13	.4	.24	.00	601	.82	10300	310	130	2.0	911	8.0
JULY												
01-15	10	.3	.31	.01	528	.72	12800	280	120	1.7	817	--
16-31	7.0	.3	.20	.01	418	.57	6130	220	91	1.5	670	--
AUG.												
01-12	6.3	.3	.26	.01	365	.50	2510	190	66	1.5	589	--
13-31	5.1	.3	.13	.01	330	.45	2820	170	54	1.4	526	--
SEP.												
01-09	5.8	.3	.17	.01	395	.54	3220	200	70	1.7	647	--
10-30	8.1	.4	.28	.00	490	.67	3840	230	81	2.0	765	--
WTD. AVG.	11	.4	.27	.01	568	.77	--	290	124	1.9	870	--
TIME WTD. AVG.	10	.4	.27	.01	561	.76	--	285	121	1.9	861	--
TOT. LOAD (TONS)	46100	1770	1170	32	2458000	--	--	--	--	--	--	--

ANALYSES OF ADDITIONAL SAMPLES

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
DEC.												
05...	12	.5	.37	.02	610	.83	4890	310	140	2.1	917	8.2
MAR.												
12...	13	.4	.43	.01	633	.86	8260	310	140	2.2	956	8.2
JUNE												
06...	13	.3	.30	.00	625	.85	10500	320	140	2.0	945	8.1

YELLOWSTONE RIVER BASIN

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS- SOL- VED PHOS- PHORUS (P) (MG/L)
OCT.			
02...	1415	5470	.03
NOV.			
06...	0950	7780	.02
DEC.			
05...	1315	2970	.02
JAN.			
21...	1545	2810	.04
FEB.			
12...	1430	3950	.03
MAR.			
12...	1330	4830	.02
APR.			
09...	1530	5550	.02
MAY			
07...	1330	3520	.04
JUNE			
06...	1045	6240	.07
JULY			
02...	1500	7930	.02
AUG.			
06...	1500	2040	.03
SEP.			
04...	1700	2450	.05

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	971	883	901	900	875	897	909	926	---	888	596	566
2	971	883	885	868	875	897	931	926	912	886	587	587
3	978	878	898	868	875	897	931	938	924	886	604	598
4	981	878	898	868	873	900	943	950	912	883	585	628
5	971	861	898	875	873	897	928	938	912	857	577	654
6	971	868	883	900	880	897	928	938	921	844	585	660
7	971	868	---	869	886	900	928	938	918	839	576	681
8	971	854	881	869	881	924	928	944	909	839	576	699
9	959	854	883	862	---	927	931	938	909	828	577	699
10	959	839	878	862	878	927	931	938	915	795	---	711
11	956	839	878	881	873	927	931	938	912	795	562	714
12	956	852	883	881	873	927	931	935	912	768	567	727
13	947	852	888	861	---	924	---	941	912	757	556	747
14	947	866	883	861	873	924	931	926	912	741	538	747
15	947	854	883	877	---	---	934	935	906	754	536	747
16	933	854	878	858	873	927	934	926	906	741	556	750
17	927	878	878	858	873	924	934	944	906	733	533	752
18	959	883	903	863	871	927	931	944	906	724	525	752
19	930	888	893	860	873	927	931	929	906	719	509	---
20	924	883	881	860	873	930	931	929	906	716	509	767
21	924	885	861	872	883	924	931	926	906	697	509	767
22	913	883	881	872	---	924	928	923	---	687	509	767
23	900	883	883	862	886	927	931	926	887	687	505	767
24	900	883	903	874	888	927	931	926	879	684	502	767
25	900	885	881	871	877	927	931	926	876	678	516	779
26	900	883	881	871	877	927	931	926	876	674	508	766
27	900	888	883	860	875	927	934	923	876	657	508	777
28	900	878	883	860	877	924	934	935	876	657	498	769
29	900	854	903	860	---	924	934	935	---	626	498	771
30	900	881	903	860	---	924	934	935	876	626	512	766
31	897	---	906	875	---	927	---	935	---	626	542	---
MONTH	938	871	887	869	877	919	931	933	903	751	542	720
YFAR	MAX	981	MIN	498	MEAN	844						

75

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

[illegible]

YELLOWSTONE RIVER BASIN

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MT.

LOCATION.--Lat 45°10'38", long 107°23'36", in W½SW¼ sec.35, T.7 S., R.35 E., Big Horn County, at gaging station, 3.5 mi (5.6 km) north of Wyola and 6 mi (9.7 km) downstream from Pass Creek.

DRAINAGE AREA.--428 mi² (1,109 km²).

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1974.

Water temperatures: October 1969 to September 1974.

Sediment records: October 1969 to September 1973.

EXTREMES.--1973-74:

Dissolved solids: Maximum, 476 mg/l Mar. 18-31; minimum, 205 mg/l June 13-21.

Hardness: Maximum, 320 mg/l Mar. 18-31; minimum, 180 mg/l June 13-21.

Specific conductance: Maximum daily, 828 micromhos Apr. 14; minimum daily, 331 micromhos May 29.

Water temperatures: Maximum, 22.5°C July 14; minimum, freezing point on many days during November to March.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.												
01-10	--	156	--	6.8	10	64	25	18	1.3	243	0	100
11-31	--	145	--	6.6	10	67	25	17	1.2	249	0	110
NOV.												
01-10	--	144	--	7.4	0	64	26	19	1.3	244	0	120
11-30	--	140	--	7.1	0	67	26	20	1.4	250	0	110
DEC.												
01-08	--	132	--	6.8	20	62	27	19	1.3	228	0	120
09-31	--	119	--	7.2	10	68	28	20	1.3	244	0	120
JAN.												
01-07	--	58	--	8.2	50	68	33	24	1.7	250	0	160
08-15	--	183	--	7.9	20	68	26	18	2.1	243	0	120
16-31	--	191	--	7.8	10	70	28	23	1.9	245	0	140
FEB.												
01-10	--	116	--	7.1	90	70	28	23	1.2	241	0	140
11-28	--	120	--	6.8	20	73	29	25	1.3	255	0	140
MAR.												
01-17	--	131	--	7.1	10	72	31	33	1.6	257	0	170
18-31	--	146	--	7.6	30	74	32	39	1.7	262	0	190
APR.												
01-10	--	139	--	6.6	20	72	32	31	1.7	253	0	160
11-20	--	300	--	11	10	68	32	46	3.1	243	0	180
21-30	--	427	--	8.4	10	61	20	15	1.5	231	0	72
MAY												
01-15	--	480	--	6.7	10	56	19	11	1.2	219	0	57
16-31	--	611	--	6.5	20	52	18	10	1.3	202	0	54
JUNE												
01-12	--	832	--	6.8	20	49	17	14	1.4	210	0	57
13-21	--	1060	--	6.1	20	46	15	5.9	1.0	196	0	33
22-30	--	570	--	6.3	20	53	18	7.1	.9	217	0	41
JULY												
01-10	--	387	--	6.8	20	53	22	14	1.6	226	--	59
11-31	--	220	--	7.1	20	53	23	14	1.3	226	1	65
AUG.												
01-09	--	140	--	7.9	10	61	24	13	2.0	246	--	93
10-31	--	120	--	7.9	10	63	27	22	1.9	260	--	110
SEP.												
01-30	--	134	--	7.2	10	66	26	22	.9	254	3	100
WTD. AVG.	--	--	--	7.1	17	58	22	16	1.4	227	0	85
TIME WTD.												
AVG.	--	252	--	7.2	16	64	25	20	1.5	240	0	109
TOT. LOAD (TONS)	--	--	--	1750	4	14500	5500	4090	346	56400	45	21000

ANALYSES OF ADDITIONAL SAMPLES

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
DEC.												
03...	1300	130	1.5	6.6	40	70	27	17	1.3	250	0	110
MAR.												
06...	1545	139	2.5	6.8	20	76	30	35	1.8	262	0	180
JUNE												
05...	1200	941	9.0	5.5	60	47	15	7.4	1.2	182	0	43

YELLOWSTONE RIVER BASIN

77

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MT.--Continued

EXTREMES.--Continued

Period of record:

Dissolved solids: Maximum, 476 mg/l Mar. 18-31, 1974; minimum, 193 mg/l June 1-15, 1972.

Hardness: Maximum, 320 mg/l Mar. 13-31, 1972, Mar. 18-31, 1974; minimum, 170 mg/l Feb. 11-15, June 1-30, 1971, June 1-15, 1972.

Specific conductance: Maximum daily, 828 micromhos Apr. 14, 1974; minimum daily, 322 micromhos June 8, 1972.

Water temperatures: Maximum, 22.5°C on several days during 1970-72, and 1974; minimum, freezing point on many days during winter periods.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality at this station. Flow affected by ice during most of winter months. Flow regulated by diversions for irrigation upstream from station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
01-10	1.0	.2	.02	.01	336	.46	142	260	63	.5	545	8.1
11-31	1.5	.2	.02	.02	351	.48	137	270	66	.5	564	8.2
NOV.												
01-10	1.2	.3	.01	.01	360	.49	140	270	67	.5	574	8.1
11-30	1.2	.2	.05	.01	356	.48	135	270	69	.5	588	8.1
DEC.												
01-08	1.2	.1	.05	.00	350	.48	125	270	79	.5	564	8.2
09-31	1.9	.1	.13	.00	367	.50	118	290	85	.5	597	8.1
JAN.												
01-07	1.9	.2	.12	.01	421	.57	65.9	310	100	.6	675	8.1
08-15	1.8	.3	.13	.02	365	.50	180	280	78	.5	603	8.1
16-31	1.9	.2	.06	.01	394	.54	203	290	89	.6	640	8.1
FEB.												
01-10	1.9	.3	.07	.00	391	.53	122	290	92	.6	623	8.2
11-28	1.4	.2	.02	.01	403	.55	131	300	93	.6	650	8.0
MAR.												
01-17	2.0	.2	.01	.00	444	.60	157	310	97	.8	704	8.0
18-31	1.9	.2	.07	.01	476	.65	188	320	100	1.0	746	8.0
APR.												
01-10	2.2	.2	.00	.00	430	.58	161	310	100	.8	693	8.2
11-20	2.2	.3	.01	.01	462	.63	374	300	100	1.2	748	7.8
21-30	1.7	.2	.02	.00	294	.40	339	230	45	.4	506	8.1
MAY												
01-15	1.7	.1	.00	.00	261	.36	338	220	38	.3	448	8.2
16-31	.7	.1	.00	.00	242	.33	399	200	38	.3	419	7.9
JUNE												
01-12	1.1	.2	.00	.00	250	.34	562	190	20	.4	424	8.1
13-21	.7	.1	.01	.00	205	.28	587	180	16	.2	358	8.0
22-30	.7	.2	.00	.00	234	.32	360	210	28	.2	407	8.0
JULY												
01-10	1.5	.1	.00	.00	269	.37	281	220	38	.4	456	--
11-31	1.5	.2	.00	.00	278	.38	165	230	40	.4	468	--
AUG.												
01-09	1.5	.2	.00	.01	324	.44	122	250	49	.4	547	--
10-31	1.5	.2	.00	.01	362	.49	117	270	55	.6	594	--
SEP.												
01-30	1.0	.2	.00	.00	352	.48	127	270	59	.6	589	--
WTD. AVG.	1.3	.2	.02	.00	304	.42	--	237	50	.4	507	--
TIME WTD. AVG.	1.5	.2	.03	.01	347	.47	--	264	66	.5	570	--
TOT. LOAD (TONS)	325	42	4.3	.79	75400	--	--	--	--	--	--	--

ANALYSES OF ADDITIONAL SAMPLES

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
DEC.												
03...	.6	.2	.09	.01	356	.48	128	290	81	.4	572	8.1
MAR.												
06...	1.6	.3	.12	.01	461	.63	164	310	98	.9	722	8.2
JUNE												
05...	1.1	.1	.19	.00	211	.29	536	180	30	.2	353	8.1

YELLOWSTONE RIVER BASIN

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MT.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANT- TANOMIC NTC- CHARGE (CFS)	DIS- SOL- VED- SOLIDS- PHOSPH- (P) (MG/L)
OCT.			
11...	1425	158	.01
NOV.			
07...	1400	148	.02
DEC.			
03...	1300	130	.01
JAN.			
10...	1420	96	.09
FEB.			
06...	1300	112	.00
MAR.			
06...	1545	139	.01
APR.			
02...	1315	136	.01
MAY			
02...	1100	507	.02
JUNE			
05...	1200	941	.05
JULY			
00...	1330	326	.04
AUG.			
12...	1530	117	.01
SEP.			
05...	1215	130	.03

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	552	547	683	629	652	665	491	432	423	499	594
2	541	565	580	693	621	712	684	438	408	425	519	619
3	525	583	550	655	618	694	657	509	385	470	557	612
4	525	576	523	717	618	695	685	500	333	461	557	596
5	523	576	548	665	598	730	666	487	346	461	530	587
6	549	586	550	670	585	695	666	452	377	442	530	591
7	549	545	583	674	624	680	718	421	408	457	524	590
8	542	556	557	622	614	680	672	402	504	457	557	582
9	534	556	572	634	627	680	655	384	504	457	539	582
10	531	556	594	634	622	699	678	386	479	457	559	588
11	560	598	603	624	637	715	740	421	448	474	574	591
12	550	608	574	612	647	727	764	443	408	462	582	595
13	558	608	584	609	637	727	772	448	370	469	604	568
14	536	595	568	580	638	699	828	475	365	469	586	588
15	541	595	553	552	638	675	808	485	341	469	594	573
16	555	575	574	602	638	675	760	461	358	473	594	582
17	549	575	584	616	638	683	721	486	350	473	576	585
18	560	571	575	639	624	767	686	504	345	478	576	573
19	541	564	584	639	637	745	653	477	354	479	573	567
20	542	573	593	646	624	727	625	468	354	478	568	577
21	---	586	575	646	624	763	609	495	363	460	559	555
22	542	564	609	646	624	725	629	495	372	453	570	546
23	542	575	596	636	613	697	629	485	388	471	570	537
24	552	585	605	651	613	695	540	478	392	472	576	571
25	561	575	603	642	640	708	465	434	392	462	586	601
26	551	575	594	642	657	750	407	390	404	402	588	581
27	568	565	594	642	680	750	420	339	404	475	596	578
28	568	575	594	642	655	730	458	344	414	481	582	602
29	560	583	602	642	---	727	501	331	423	498	596	602
30	560	575	606	632	---	712	501	365	423	498	596	608
31	551	---	618	632	---	712	---	419	---	498	596	---
MONTH	546	576	580	639	629	711	642	442	394	465	568	584
YEAR	MAX	828	MIN	331	MEAN	564						

YELLOWSTONE RIVER BASIN

79

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MT.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	1.0	3.0	0.0	0.5	2.0	2.5	12.0	9.0	17.0	19.0	13.5
2	11.5	3.0	3.5	0.0	1.0	3.5	5.0	9.5	15.5	14.0	18.5	11.5
3	10.0	0.0	3.5	0.0	3.5	2.0	5.5	9.5	13.5	15.0	16.5	12.0
4	8.0	0.5	3.0	0.0	4.5	3.0	5.0	9.5	11.5	16.5	16.0	17.0
5	10.5	1.0	1.5	0.0	0.0	3.5	7.0	9.0	10.0	17.0	21.5	15.0
6	9.0	1.0	0.5	0.0	0.0	2.5	8.5	12.0	9.5	15.5	18.0	16.5
7	10.0	0.0	2.5	0.0	0.0	1.0	7.0	11.0	9.0	16.5	17.0	15.0
8	9.5	0.0	3.0	0.0	1.5	3.0	10.5	11.0	8.0	19.0	15.0	14.0
9	7.5	3.0	2.0	0.0	0.5	0.5	9.0	9.0	9.5	17.5	17.5	17.5
10	8.5	3.5	2.0	0.0	1.0	2.0	8.5	8.5	12.5	18.5	14.5	15.5
11	6.5	5.0	3.0	0.0	4.0	6.0	5.0	7.0	11.0	17.5	15.0	11.5
12	9.5	8.0	4.5	0.0	3.0	4.0	6.0	7.5	13.0	21.0	18.0	9.5
13	8.5	6.5	2.0	0.5	4.5	4.5	3.5	8.0	12.0	17.0	16.0	12.5
14	9.5	5.0	2.5	2.5	1.5	2.0	4.0	7.0	16.5	22.5	15.5	11.0
15	9.5	3.0	1.5	2.0	4.5	2.0	8.5	8.5	12.5	21.0	13.5	11.0
16	8.0	5.5	3.0	1.0	2.0	3.0	8.5	8.0	16.0	18.0	17.0	15.0
17	10.0	5.0	5.0	1.5	3.0	7.0	10.0	7.5	14.0	20.0	16.5	13.0
18	10.0	4.5	0.0	0.5	1.0	6.5	9.5	8.0	14.0	18.0	15.5	15.0
19	10.5	3.0	0.0	1.0	2.5	2.5	12.5	10.0	15.0	19.5	18.5	13.5
20	9.0	0.0	0.0	2.0	2.5	2.0	10.0	8.5	14.5	17.0	16.5	13.0
21	---	3.0	1.0	2.0	0.0	2.0	10.0	6.5	15.0	18.0	16.5	10.0
22	11.0	0.0	0.5	0.0	2.5	1.0	9.0	10.0	13.5	20.0	15.5	10.0
23	11.0	1.5	3.5	2.5	0.0	0.0	10.5	9.5	15.5	18.0	19.0	12.5
24	11.0	0.0	3.0	1.0	0.0	0.0	13.0	13.5	18.0	20.0	17.5	11.0
25	7.5	0.0	1.0	4.0	3.0	5.0	11.0	12.5	16.0	18.0	16.5	13.0
26	7.0	2.0	1.5	2.5	3.0	4.5	9.5	11.0	20.0	18.5	20.0	12.0
27	5.5	1.0	0.0	0.5	4.0	9.5	7.5	12.0	15.0	18.0	16.5	11.0
28	6.5	3.0	0.0	2.5	1.5	8.0	7.0	9.5	17.5	18.0	18.0	9.5
29	7.0	4.0	0.0	2.5	---	7.5	9.0	9.0	15.0	19.5	16.0	10.5
30	6.0	4.0	0.0	0.5	---	7.0	9.5	7.5	14.5	17.5	15.0	11.0
31	6.0	---	0.0	0.5	---	2.0	---	10.0	---	21.5	13.5	---
MONTH	9.0	2.5	2.0	1.0	2.0	3.5	8.0	12.5	13.5	18.0	17.0	13.0
YEAR	MAX	22.5	MIN	0.0	MEAN	8.5						

YELLOWSTONE RIVER BASIN

06298000 TONGUE RIVER NEAR DAYTON, WYO.

LOCATION.--Lat 44°50'58", long 107°18'14", in NE¼NE¼NE¼ sec.11, T.56 N., R.87 W., Sheridan County, at gaging station, 0.5 mi (0.8 km) upstream from Crystal Draw, 0.6 mi (1.0 km) downstream from intake of Highline ditch, and 2.5 mi (4.0 km) southwest of Dayton.

DRAINAGE AREA.--204 mi² (528 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
16...	1300	89	6.5	31	12	1.1	.7	128	9	9.1	.0	.2
26...	1120	79	7.1	33	12	1.6	.7	150	3	6.6	2.1	.1
NOV.												
13...	1100	82	6.9	32	12	2.1	.9	148	0	8.2	.3	.1
DEC.												
04...	1245	65	8.7	33	12	1.6	.7	159	0	4.9	1.5	.1
JAN.												
08...	1130	AS0	7.6	36	14	1.6	.7	167	0	8.2	1.1	.2
FEB.												
12...	1100	54	7.8	34	13	2.1	.7	164	2	4.1	3.4	.2
MAR.												
12...	1200	49	8.0	37	11	2.1	.5	159	3	4.9	3.1	.1
APR.												
23...	1155	112	5.9	35	6.7	3.2	.9	134	3	5.8	1.9	.1
JUNE												
04...	0930	1120	5.5	23	.8	.5	.5	70	0	1.6	.0	.1
JULY												
09...	1030	227	6.9	32	6.7	2.1	.7	134	0	3.3	.0	.2
AUG.												
06...	0900	117	5.4	30	13	1.6	.9	153	0	4.9	.0	.1
SEP.												
03...	1645	89	6.7	32	12	1.1	1.2	150	3	8.2	.0	.1

A Daily mean discharge.

DATE	TOTAL NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SUS- PENDE SOLIDS (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
OCT.												
16...	--	--	--	--	--	--	130	10	--	133	.18	32.0
26...	--	--	--	--	--	.00	130	2	--	140	.19	29.9
NOV.												
13...	--	--	--	--	--	.01	130	9	--	136	.19	30.1
DEC.												
04...	--	--	--	--	--	.00	130	0	--	141	.19	24.7
JAN.												
08...	--	--	--	--	--	.00	150	13	--	153	.21	20.7
FEB.												
12...	--	--	--	--	--	.01	140	2	--	148	.20	21.6
MAR.												
12...	--	--	--	--	--	.03	140	5	--	148	.20	19.6
APR.												
23...	--	--	--	--	--	.00	115	0	--	128	.17	38.7
JUNE												
04...	1.0	.93	.04	.97	.07	.00	60	3	43	66	.09	200
JULY												
09...	--	--	--	--	--	.00	108	0	--	118	.16	72.3
AUG.												
06...	.26	.17	.07	.24	.02	.00	128	2	1	131	.18	41.4
SEP.												
03...	.39	.35	.00	.35	.04	.00	130	2	1	136	.19	32.7

YELLOWSTONE RIVER BASIN

81

06298000 TONGUE RIVER NEAR DAYTON, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)
OCT. 16...	1300	70	--	30	--	--	--	--	--
APR. 03...	1420	8	7	--	6	10	0	2	.0

FIELD DETERMINATIONS

DATE	TIME	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 26...	1120	1	12.4	--	8.5	268	81	4.0
NOV. 13...	1100	2	12.2	--	8.3	249	82	1.0
DEC. 04...	1245	8	11.8	--	8.3	255	80	1.0
JAN. 08...	1130	0	12.3	--	8.3	294	80	.0
FEB. 12...	1100	1	10.4	--	8.4	270	80	1.0
12...	1105	1	10.4	--	--	--	0	1.0
MAR. 12...	1200	3	11.4	--	8.4	260	80	2.5
APR. 03...	1420	--	7.3	1.2	8.4	240	--	3.0
23...	1155	2	9.3	--	8.4	223	80	6.0
MAY 01...	1730	--	10.0	2.0	8.2	175	--	7.5
JUNE 04...	0930	10	9.9	.7	7.9	121	84	6.5
JULY 09...	1030	20	9.4	3.3	7.4	215	820	14.5
AUG. 06...	0900	1	9.1	1.0	7.7	239	817	13.0
SEP. 03...	1645	.7	9.3	1.9	8.2	241	8440	10.5

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

06299980 TONGUE RIVER AT MONARCH, WYO.

LOCATION.--Lat 44°54'08", long 107°01'49", in NW¼SW¼NW¼ sec.20, T.57 N., R.84 W., Sheridan County, at bridge on county road at Monarch, 0.6 mi (1.0 km) upstream from South Dry Creek, and 1.0 mi (1.6 km) upstream from bridge on Interstate Highway 90.

PERIOD OF RECORD.--Chemical analyses: April to September 1974.

CHEMICAL ANALYSES, APRIL TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
APR. 03...	1630	87	6.3	54	26	20	2.2	231	2	80	2.6	.4
MAY 01...	1630	404	6.3	33	12	6.3	1.5	143	0	31	1.1	.6
JUNE 04...	1200	1510	6.7	21	6.0	2.7	.9	88	--	11	.9	.1
JULY 09...	1430	269	.8	38	16	8.0	1.2	85	--	34	.8	.1
AUG. 06...	1130	90	6.6	57	48	46	4.4	239	0	240	4.1	.2
SEP. 03...	1920	93	7.9	55	28	19	2.8	254	3	67	2.0	.2

DATE	TOTAL NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SUS- PENDE SOLIDS (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
APR. 03...	.36	.29	.05	.34	.02	.02	240	49	8	307	.42	72.1
MAY 01...	.36	.24	.10	.34	.02	.08	130	15	44	162	.22	177
JUNE 04...	--	--	--	--	--	--	77	5	--	93	.13	379
JULY 09...	.36	.30	.02	.32	.04	.01	160	90	2	141	.19	102
AUG. 06...	.76	.61	.10	.71	.05	.10	340	140	52	524	.71	127
SEP. 03...	.63	.55	.05	.60	.03	.05	250	39	11	310	.42	77.8

DATE	TIME	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (MG) (UG/L)
APR. 03...	1630	50	6	2	10	0	4	.0
JUNE 04...	1200	30	--	--	--	--	--	--
JULY 09...	1430	40	1	4	0	10	1	.0

FIELD DETERMINATIONS

DATE	TIME	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
APR. 03...	1630	--	1.9	7.6	515	6.0
MAY 01...	1630	9.5	1.8	8.2	270	10.0
JUNE 04...	1200	8.8	.8	7.5	170	11.0
JULY 09...	1430	9.4	2.7	7.6	335	20.5
AUG. 06...	1130	8.5	.5	7.8	432	19.0
SEP. 03...	1920	9.1	1.3	8.5	550	17.0

YELLOWSTONE RIVER BASIN

83

06305500 GOOSE CREEK BELOW SHERIDAN, WYO.

LOCATION.--Lat 44°49'25", long 106°57'40", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.15, T.56 N., R.84 W., Sheridan County, at gaging station, 700 ft (213 m) north of Sheridan city limits, and 0.2 mi (0.3 km) downstream from Soldier Creek.

DRAINAGE AREA.--392 mi² (1,015 km²).

PERIOD OF RECORD.--Chemical analyses: August 1959 to September 1960, August 1961 to October 1964, October 1967 to September 1974.

Sediment records: October 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
10...	1530	202	9.9	54	37	21	2.8	241	6	120	1.5	.4
26...	1230	122	9.4	53	34	22	2.1	243	0	110	3.4	.3
NOV.												
07...	1240	158	13	52	35	23	2.3	254	0	110	1.8	.4
13...	1330	158	8.8	62	41	27	3.0	288	0	140	4.6	.4
DEC.												
04...	1515	104	10	63	38	25	2.1	275	0	130	4.6	.3
19...	1215	61	11	66	44	30	2.8	303	0	150	6.5	.4
JAN.												
08...	1400	A84	13	63	38	24	2.3	263	0	130	5.0	.4
FEB.												
12...	1245	A92	11	85	34	30	2.6	308	0	160	6.5	.4
MAR.												
12...	1430	98	7.9	61	40	27	2.3	264	0	140	5.0	.3
APR.												
22...	1630	202	8.7	43	24	16	1.6	170	9	80	1.9	.2
MAY												
01...	1400	318	8.6	33	11	9.6	1.6	130	0	40	3.8	.2
JUNE												
04...	1530	490	9.0	33	4.3	10	1.2	92	0	44	1.8	.1
JULY												
10...	1000	64	7.6	63	41	27	3.0	275	0	150	1.8	.4
AUG.												
06...	1600	33	5.7	81	61	41	4.9	323	0	260	5.5	.5
SEP.												
04...	1255	99	7.5	68	47	29	3.5	310	0	170	3.7	.4

A Daily mean discharge.

DATE	TOTAL NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SUS- PENDED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
OCT.												
10...	--	--	--	--	--	--	290	82	--	368	.50	201
26...	--	--	--	--	--	.01	270	71	--	353	.48	116
NOV.												
07...	--	--	--	--	--	.26	270	62	--	369	.50	157
13...	--	--	--	--	--	.13	320	84	--	433	.59	185
DEC.												
04...	--	--	--	--	--	--	310	84	--	408	.55	115
19...	--	--	--	--	--	.35	350	100	--	467	.64	76.9
JAN.												
08...	--	--	--	--	--	.28	310	94	--	409	.56	92.8
FEB.												
12...	--	--	--	--	--	.24	350	97	--	483	.66	120
MAR.												
12...	--	--	--	--	--	.21	320	100	--	422	.57	112
APR.												
22...	--	--	--	--	--	.04	210	56	--	271	.37	148
MAY												
01...	1.5	.60	.80	1.4	.08	.06	130	23	33	169	.23	145
JUNE												
04...	1.3	1.0	.19	1.2	.06	.02	100	25	137	149	.20	197
JULY												
10...	--	--	--	--	--	.07	320	94	--	432	.59	74.7
AUG.												
06...	3.0	1.0	1.0	2.0	1.0	.12	450	190	27	622	.85	55.4
SEP.												
04...	1.7	.83	.77	1.6	.06	.04	370	120	93	479	.65	128

DATE	TIME	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (MG) (UG/L)
OCT.									
10...	1530	0	--	100	--	--	--	--	--
APR.									
04...	1500	110	10	--	6	20	0	2	.0

YELLOWSTONE RIVER BASIN

06305500 GOOSE CREEK BELOW SHERIDAN, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 26...	1230	2	10.4	--	8.5	610	16000	7.5
NOV. 13...	1330	3	13.5	--	8.3	704	54000	4.5
DEC. 04...	1515	.8	13.4	--	8.3	662	14000	1.5
JAN. 08...	1400	2	11.4	--	7.8	682	18000	.0
FEB. 12...	1245	7	10.6	--	8.0	751	7000	1.0
MAR. 12...	1430	5	13.4	--	8.0	676	1000	7.0
APR. 04...	1500	--	9.7	6.2	8.2	430	--	10.5
22...	1630	65	9.9	--	8.4	444	10000	12.5
MAY 01...	1400	--	9.8	2.2	7.8	285	--	11.0
JUNE 04...	1530	45	9.4	1.0	8.4	228	2600	13.0
JULY 10...	1000	--	8.9	4.0	7.9	720	29000	21.5
AUG. 06...	1600	30	8.7	4.8	8.0	980	15000	26.0
SEP. 04...	1255	50	8.6	3.0	8.2	750	62000	18.0

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 10...	1530	6.0	202	24	13
NOV. 07...	1240	1.0	158	29	12
DEC. 19...	1215	.0	61	4	.66
JAN. 23...	1240	.5	1110	7	2.1
FEB. 27...	1145	3.0	93	12	3.0
APR. 04...	1500	10.5	82	13	2.9
MAY 01...	1400	11.0	318	62	53
JUNE 04...	1530	13.0	490	78	103
JULY 10...	1000	21.5	64	22	3.8
AUG. 05...	1740	16.0	36	14	1.4
SEP. 04...	1255	18.0	99	306	82

A Daily mean discharge.

YELLOWSTONE RIVER BASIN

85

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.

LOCATION.--Lat 45°00'32", long 106°50'08", in NW¼NE¼ sec.33, T.9 S., R.40 E., Big Horn County, at bridge on county road, 1.8 mi (2.9 km) east of Decker, and 3.2 mi (5.1 km) downstream from gaging station.

DRAINAGE AREA.--1,477 mi² (3,825 km²), at gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1974.
Water temperatures: October 1965 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 1,160 micromhos Mar. 25; minimum daily, 206 micromhos May 30.

Water temperatures: Maximum, 25.0°C Aug. 5; minimum, freezing point on many days during November to March.

Period of record:

Specific conductance: Maximum daily, 1,490 micromhos Aug. 12, 1966, Jan. 11, 1972; minimum daily, 196 micromhos May 30, 1967, June 11, 1973.

Water temperatures: Maximum, 31.0°C July 16, 1966; minimum, freezing point on many days during winter period.

REMARKS.--During periods of backwater the site of sampling is moved upstream 0.5 mi (0.8 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
16...	0945	402	6.6	62	39	29	2.3	235	3	160	1.5
26...	0850	370	--	--	--	--	--	--	--	--	--
NOV.											
13...	0825	342	--	--	--	--	--	--	--	--	--
DEC.											
04...	0930	354	8.6	73	47	34	3.0	303	0	200	4.6
JAN.											
08...	0930	A180	12	84	50	38	3.5	315	0	220	5.7
FEB.											
12...	0900	A270	11	73	48	39	4.2	295	0	220	5.7
MAR.											
12...	0930	A270	9.1	110	46	53	3.7	314	0	300	5.7
APR.											
04...	1025	212	6.7	87	72	50	3.7	310	0	280	57
23...	0840	424	--	--	--	--	--	--	--	--	--
MAY											
01...	1020	672	--	--	--	--	--	--	--	--	--
JUNE											
03...	1620	1710	8.0	44	1.0	8.0	1.4	113	0	39	0.0
JULY											
09...	1700	500	5.9	55	26	20	2.3	204	6	107	1.8
AUG.											
06...	1245	121	5.7	82	53	46	4.4	314	0	256	1.8
SEP.											
04...	0930	229	5.6	76	54	38	4.0	330	0	220	1.8

A Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.											
16...	.4	.09	--	420	401	.57	320	120	.7	680	8.4
26...	--	--	--	--	--	--	--	--	--	590	8.4
NOV.											
13...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
04...	.3	.11	.01	518	495	.70	370	120	.8	797	8.3
JAN.											
08...	.4	.36	.08	566	275	.77	420	160	.8	890	8.1
FEB.											
12...	.4	.45	.13	544	397	.74	380	140	.9	828	8.2
MAR.											
12...	.4	.23	.07	683	498	.93	460	200	1.1	989	8.3
APR.											
04...	.6	.05	.01	710	406	.97	510	260	1.0	937	8.2
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	--	--	.13	--	--	--	--	--	--	485	8.1
JUNE											
03...	.1	.14	.01	157	725	.21	115	22	.3	282	7.7
JULY											
09...	.3	.05	.00	324	437	.44	245	68	.6	545	7.9
AUG.											
06...	.4	.09	.00	604	197	.82	420	160	1.0	920	7.7
SEP.											
04...	.4	.05	.01	563	348	.77	410	140	.8	860	8.4

YELLOWSTONE RIVER BASIN

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS-SOLVED MOLYB (M) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ALUM- INUM (AL) (UG/L)	DIS-SOLVED SILIC- NIUM (SE) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT. 16...	0945	70	--	--	--	--	--	--
APR. 04...	1025	90	6	4	10	0	2	.0
JULY 09...	1700	70	4	6	0	20	1	.0

DATE	TIME	BIO-CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJFL- DAHL- NITRO- GEN (N) (MG/L)	SUS- PENDED SOLIDS (MG/L)	TOTAL NITRO- GEN (NO3) (MG/L)
APR. 04...	1025	2.1	.51	.34	.14	.48	6	2.3
MAY 01...	1020	1.3	.74	.56	.12	.68	70	3.3
JUNE 03...	1620	.4	1.2	1.0	.07	1.1	121	5.4
JULY 09...	1700	4.3	.67	.58	.04	.62	11	3.0
AUG. 06...	1245	.5	.39	.28	.11	.39	10	1.7
SEP. 04...	0930	1.6	.73	.66	.04	.70	16	3.2

FIELD DETERMINATIONS

DATE	TIME	DIS-SOLVED OXYGEN (MG/L)	TUR- BID- ITY (JTU)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 26...	0850	11.0	20	83	5.0
NOV. 13...	0825	12.0	7	42	.0
DEC. 04...	0930	11.8	4	32	.5
JAN. 08...	0930	9.6	2	60	.0
FEB. 12...	0900	9.7	10	210	.0
MAR. 12...	0930	10.6	20	12	2.5
APR. 04...	1025	10.4	--	--	5.5
MAY 23...	0840	7.9	50	100	11.0
MAY 01...	1020	9.2	--	--	10.5
JUNE 03...	1620	8.3	30	800	16.5
JULY 09...	1700	11.2	--	23	25.5
AUG. 06...	1245	7.8	8	36	24.5
SEP. 04...	0930	8.4	10	50	15.0

YELLOWSTONE RIVER BASIN

87

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	603	715	815	928	904	1050	1010	479	269	386	752	848
2	612	718	782	983	870	1040	992	462	293	413	793	902
3	635	746	798	1020	889	991	1010	405	302	416	804	876
4	650	765	653	945	909	985	990	453	266	426	808	871
5	646	785	791	935	852	1110	988	461	260	461	896	889
6	661	853	819	933	885	1100	963	461	247	449	902	880
7	682	780	844	910	935	1030	996	387	260	489	887	887
8	697	796	791	888	889	1080	980	349	315	514	919	1030
9	697	760	841	866	942	1040	858	330	362	498	956	1090
10	693	756	839	849	909	1140	996	325	364	537	926	1100
11	683	752	815	860	877	1100	984	292	356	563	908	1080
12	694	759	822	814	875	1070	959	353	352	591	902	1080
13	683	757	806	819	940	1070	951	365	321	582	853	1070
14	683	780	762	870	912	1080	902	372	288	596	828	1070
15	683	781	825	658	934	1090	979	380	240	614	847	833
16	683	781	794	626	929	1080	1000	415	215	653	828	830
17	668	780	800	542	1010	1080	1040	444	216	646	775	805
18	667	762	787	634	1010	1080	1020	423	219	656	845	813
19	679	780	791	624	1050	999	987	405	220	630	850	825
20	678	753	830	765	1070	1010	917	352	238	668	860	828
21	681	804	874	724	1020	1070	813	330	236	671	861	827
22	676	786	825	791	1040	1140	710	365	248	632	818	840
23	687	876	798	802	976	1060	720	390	283	634	839	824
24	687	896	805	843	1030	1040	699	397	302	646	845	830
25	687	926	789	869	1070	1160	620	337	311	708	871	847
26	697	894	829	910	1060	984	452	303	331	713	888	852
27	697	916	920	885	1070	1030	326	277	358	753	897	827
28	728	918	877	804	996	1020	357	225	361	783	896	822
29	728	877	832	862	---	1020	402	211	360	798	914	840
30	741	815	839	885	---	982	446	205	372	926	980	880
31	736	---	824	887	---	1000	---	242	---	737	953	---
MONTH	681	802	813	830	959	1060	836	361	292	603	868	900
YEAR	MAX	1160	MIN	206	MEAN	749						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	4.0	0.0	0.0	0.0	0.0	7.0	11.0	7.0	20.0	20.0	15.0
2	15.0	2.0	2.0	0.0	1.0	1.0	7.0	11.0	11.0	20.0	17.0	13.0
3	11.5	5.0	2.0	0.0	1.0	0.0	6.0	10.0	14.0	15.0	20.0	14.0
4	11.0	2.5	1.0	0.0	2.0	1.0	5.0	10.0	14.0	17.0	18.0	14.5
5	9.0	0.0	1.0	0.0	2.0	2.0	6.0	11.0	13.0	20.0	25.0	17.0
6	10.5	0.0	1.0	0.0	0.0	0.0	8.0	15.0	10.0	21.0	24.0	15.0
7	15.0	0.0	0.0	0.0	1.0	1.0	9.0	12.0	10.0	22.0	20.0	16.0
8	10.5	2.0	2.0	0.0	1.0	3.0	9.0	12.0	10.0	21.0	16.0	16.0
9	11.0	2.0	0.0	0.0	2.0	1.0	9.0	11.0	11.0	22.0	17.0	17.0
10	8.0	2.0	2.0	0.0	2.0	1.0	10.0	10.0	10.0	24.0	15.5	17.0
11	8.0	1.0	0.0	0.0	0.0	3.0	6.0	8.0	12.0	21.0	17.0	14.0
12	9.0	1.0	2.0	0.0	2.0	3.0	6.0	10.0	15.0	21.0	17.0	11.0
13	8.0	4.0	0.0	0.0	1.5	4.5	5.0	9.0	16.0	21.0	17.0	10.0
14	9.5	4.0	0.0	0.0	2.0	4.0	5.0	7.0	17.0	23.0	16.0	11.0
15	10.5	4.0	1.0	1.0	2.0	4.0	5.0	9.0	15.0	22.0	15.0	11.0
16	10.0	4.0	0.0	1.0	2.0	4.0	6.0	9.0	15.0	23.0	16.0	14.0
17	9.0	4.0	2.0	1.0	1.0	5.0	9.0	10.0	15.0	23.0	17.0	14.0
18	10.0	4.5	0.0	0.0	2.0	5.5	10.0	10.0	17.0	23.0	17.5	14.0
19	10.0	2.0	2.0	0.0	1.0	5.0	9.0	10.0	18.0	24.0	18.0	14.5
20	10.0	0.0	2.0	2.0	1.0	0.0	8.0	10.0	17.0	23.5	17.0	14.0
21	10.0	0.0	3.0	0.0	0.0	2.0	10.0	7.0	17.0	23.0	15.0	9.0
22	10.0	0.0	2.0	0.0	0.0	0.0	10.0	9.0	16.5	22.0	16.0	11.0
23	10.0	0.0	2.0	2.0	0.0	0.0	11.5	10.0	15.0	22.0	17.0	12.0
24	10.0	0.0	1.0	1.0	0.0	0.0	12.0	5.0	18.0	22.0	17.0	12.0
25	8.0	0.0	1.0	0.0	0.0	4.0	15.0	14.0	18.0	21.0	18.0	12.0
26	7.0	0.0	1.0	0.0	0.0	4.0	14.0	15.0	19.0	20.0	18.0	12.0
27	7.0	0.0	0.0	0.0	3.0	7.0	10.0	14.0	19.0	21.0	17.0	13.0
28	6.0	0.0	0.0	0.0	0.0	6.0	7.0	13.0	20.0	23.0	19.0	10.0
29	7.0	0.0	0.0	0.0	---	5.0	7.0	11.0	20.0	21.0	17.5	10.0
30	5.0	2.0	0.0	1.5	---	5.0	10.0	10.0	20.0	22.0	15.5	10.0
31	6.0	---	0.0	0.0	---	7.5	---	10.0	---	20.0	15.0	---
MONTH	9.5	1.5	1.0	0.5	1.0	3.0	8.5	10.5	15.0	21.5	17.5	13.0
YEAR	MAX	25.0	MIN	0.0	MEAN	8.5						

YELLOWSTONE RIVER BASIN

06312500 POWDER RIVER NEAR KAYCEE, WYO.

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼NW¼SW¼ sec.13, T.43 N., R.81 W., Johnson County, at former gaging station at D Ranch, 600 ft (183 m) downstream from headgate of Sussex Irrigation Canal, 2.0 mi (3.2 km) downstream from confluence of North and Middle Forks, and 6.0 mi (9.7 km) east of Kaycee.

DRAINAGE AREA.--980 mi² (2,538 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: May to October 1946 (monthly), March to August 1947 (monthly), March 1949 to November 1950 (monthly), June 1951 (monthly), May 1952 to September 1954 (daily), May 1968 to September 1974 (monthly).

Water temperatures: March 1950 to September 1954.

Sediment records: March 1950 to September 1953.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 26...	1550	110	6.6	110	45	89	3.0	214	0	390	44	.5
NOV. 12...	1430	118	7.4	100	51	85	2.8	224	0	400	38	.4
DEC. 03...	1600	100	10	120	44	85	2.8	237	0	400	45	.4
JAN. 07...	1400	96	10	130	49	95	3.3	281	0	390	60	.5
FEB. 11...	1230	103	12	140	40	92	2.8	251	0	410	48	.5
MAR. 11...	1515	140	9.5	110	45	85	2.6	237	0	380	44	.5
APR. 04...	1230	122	7.1	110	39	73	2.6	229	0	340	40	.3
MAY 29...	1445	84	7.8	66	28	55	2.3	168	0	223	27	.3
JUNE 20...	1430	.68	7.4	155	55	163	4.2	262	0	632	76	.5
JULY 11...	1200	.80	7.9	151	57	190	4.4	259	0	672	96	.6
AUG. 28...	1515	1.4	4.2	130	66	160	4.0	230	0	610	88	.6
SEP. 19...	1600	2.2	3.7	130	60	120	3.0	220	0	540	79	.5

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 26...	.16	.00	792	1.08	235	460	280	1.8	8.3	1250	11.0
NOV. 12...	.50	.02	796	1.08	254	460	280	1.7	8.1	1190	6.0
DEC. 03...	.59	.01	825	1.12	223	480	290	1.7	8.1	1210	.5
JAN. 07...	.59	.01	878	1.19	228	530	300	1.8	8.0	1310	.0
FEB. 11...	1.2	.02	874	1.19	243	510	300	1.8	8.2	1230	.0
MAR. 11...	.47	.01	797	1.08	301	450	260	1.7	8.2	1130	6.0
APR. 04...	.29	.00	794	1.08	262	430	240	1.5	8.2	1057	3.0
MAY 29...	.00	.01	491	.67	111	280	140	1.4	8.3	742	17.0
JUNE 20...	.20	.00	1220	1.66	2.24	613	400	2.9	8.1	1710	25.5
JULY 11...	.05	.00	1306	1.78	2.82	611	400	3.3	8.0	1750	27.5
AUG. 28...	.07	.00	1180	1.60	4.46	600	410	2.9	8.0	1640	23.5
SEP. 19...	.00	.00	1041	1.42	6.18	570	390	2.2	8.1	1440	15.5

YELLOWSTONE RIVER BASIN

89

06312500 POWDER RIVER NEAR KAYCEE, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
26...	1550	110	7	11.2	85
NOV.					
12...	1430	118	20	11.8	30
DEC.					
03...	1600	100	25	12.4	810
JAN.					
07...	1400	96	20	10.0	85
FEB.					
11...	1230	103	25	10.2	87
MAR.					
11...	1515	140	60	10.2	88
APR.					
04...	1230	122	25	10.6	81
MAY					
29...	1445	84	--	7.3	--
JUNE					
20...	1430	.68	8	6.4	95
JULY					
11...	1200	.80	40	6.4	220
AUG.					
28...	1515	1.4	8	6.9	50
SEP.					
19...	1600	2.2	3	7.5	63

B Non-ideal counting conditions.

YELLOWSTONE RIVER BASIN

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WYO.

LOCATION.--Lat 43°37'10", long 106°34'36", in NE4SE4 sec.9, T.42 N., R.81 W., Johnson County, at former gaging station, 200 ft (61 m) upstream from bridge on old U.S. Highway 87, 0.6 mi (1.0 km) upstream from bridge on Interstate Highway 25, 1.2 mi (1.9 km) upstream from Murphy Creek, 6.6 mi (10.6 km) southeast of Kaycee, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--1,150 mi² (2,980 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: September 1949 and June 1951 (monthly), December 1951 to April 1952 (monthly), May 1952 to September 1953 (daily), June 1968 to September 1974 (monthly).
Water temperatures: April 1951 to September 1953.
Sediment records: May 1950 to September 1953.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
03...	1645	.25	4.3	370	140	880	14	200	0	2300	580	1.3
26...	1725	7.5	6.6	270	80	320	7.4	121	1	1400	120	1.2
NOV.												
12...	1245	21	8.1	290	93	430	7.4	190	0	1700	93	1.3
DEC.												
03...	1715	7.0	9.4	320	110	300	6.5	203	0	1500	85	1.2
JAN.												
07...	1630	.10	8.3	330	110	410	8.4	224	0	1700	160	1.3
FEB.												
11...	1530	16	9.6	290	63	260	5.4	190	0	1200	100	1.1
MAR.												
11...	1745	29	7.6	240	89	400	7.2	189	0	1500	89	1.3
APR.												
04...	1415	21	8.7	300	87	470	7.2	200	0	1800	110	1.0
MAY												
30...	1430	29	7.5	360	89	400	8.6	168	0	1800	88	1.0
JUNE												
20...	1335	3.2	8.7	350	91	440	9.8	180	0	1900	120	1.1
JULY												
11...		.00										
SEP.												
19...		.00										

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
03...	.07	.00	4390	5.97	2.96	1500	1300	9.9	8.0	5460	17.5
26...	.00	.00	2320	3.16	47.0	1000	900	4.4	8.4	2880	9.0
NOV.											
12...	.75	.18	2760	3.75	157	1100	950	5.6	8.1	3420	8.0
DEC.											
03...	.93	.00	2460	3.35	46.5	1300	1100	3.7	8.1	3000	.5
JAN.											
07...	.34	.01	2850	3.88	.77	1300	1100	5.0	7.9	3550	.0
FEB.											
11...	.84	.05	2040	2.77	88.1	990	830	3.6	8.0	2520	.0
MAR.											
11...	1.3	.02	2460	3.35	193	960	810	5.6	8.0	3000	11.0
APR.											
04...	1.2	.00	2890	3.93	166	1100	940	6.1	8.0	3370	10.0
MAY											
30...	.09	.02	2800	3.81	222	1300	1200	4.9	7.9	3410	18.0
JUNE											
20...	.23	.00	3010	4.09	26.0	1200	1100	5.4	8.2	3510	29.0

YELLOWSTONE RIVER BASIN

91

06313400 SALT CREEK NEAR SUSSEX, WYO.

LOCATION.--Lat 43°37'22", long 106°22'00", in NE4NE4SE4 sec.8, T.42 N., R.79 W., Johnson County, at bridge in West Sussex Dugout Oil Field, 6.3 mi (10.1 km) southwest of Sussex, and 12.6 mi (20.3 km) upstream from mouth.

DRAINAGE AREA.--765 mi² (1,981 km²).

PERIOD OF RECORD.--Chemical analyses: September 1949, May to June 1952, October 1967 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 29...	1150	24	19	59	56	1700	15	987	0	1100	1400	3.2
NOV. 20...	1300	5.9	21	64	56	1950	15	1180	0	1300	1600	3.1
DEC. 03...	1350	16	18	63	55	1600	13	1100	0	1200	1300	2.8
JAN. 07...	1230	12	26	87	52	2000	18	1410	0	1100	1600	3.4
FEB. 11...	1200	28	21	110	33	1500	14	1050	0	1100	1200	3.2
MAR. 11...	1335	31	16	98	65	1500	12	976	0	1400	1100	2.8
APR. 04...	1040	25	19	69	55	1700	13	1060	0	1100	1300	3.5
MAY 29...	1335	45	17	47	53	1700	13	1090	21	1100	1400	3.3
JUNE 20...	1730	27	23	72	44	1500	19	787	0	1200	1300	.4
JULY 11...	1030	23	24	47	47	1500	18	940	0	1100	1300	3.9
AUG. 28...	1330	27	22	30	44	1600	19	1100	0	930	1400	3.6
SEP. 20...	0915	27	22	25	54	1600	15	1100	0	940	1300	4.3

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 29...	.05	.00	4790	6.51	310	380	0	38	8.2	7080	7.5
NOV. 20...	.07	.01	5650	7.68	90.0	390	0	43	7.9	7820	.5
DEC. 03...	.05	.01	4660	6.34	201	380	0	36	8.1	7150	.5
JAN. 07...	.09	.02	5540	7.53	180	430	0	42	8.0	8100	.0
FEB. 11...	.16	.02	4550	6.19	344	400	0	32	8.3	6810	.0
MAR. 11...	.11	.01	4610	6.27	386	510	0	29	8.0	6320	9.5
APR. 04...	.18	.00	4830	6.57	326	400	0	37	8.0	6850	1.0
MAY 29...	.00	.00	4890	6.65	594	340	0	40	8.4	7000	15.0
JUNE 20...	.25	.00	4550	6.19	332	360	0	34	8.1	6800	25.5
JULY 11...	.09	.01	4470	6.08	278	310	0	37	8.1	6700	21.5
AUG. 28...	.16	.01	4630	6.30	338	260	0	44	8.3	6890	24.0
SEP. 20...	.02	.00	4490	6.11	327	280	0	41	8.3	6670	10.5

YELLOWSTONE RIVER BASIN

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WYO.

LOCATION.--Lat 44°29'15", long 106°10'25", in NW¼ sec.18, T.52 N., R.77 W., Johnson County, at former gaging station, 0.2 mi (0.3 km) upstream from unnamed tributary, 4.5 mi (7.2 km) upstream from mouth, and 11.5 mi (18.5 km) south of Arvada.

DRAINAGE AREA.--945 mi² (2,448 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: November 1966 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 11...	0815	11	3.6	130	82	91	4.0	211	0	650	6.1	.5
NOV. 06...	0935	20	9.3	110	78	92	3.3	229	0	590	6.4	.7
DEC. 18...	1055	26	11	130	67	96	2.6	242	0	570	9.5	.5
JAN. 22...	1045	17	12	200	40	94	5.1	240	0	640	9.5	.5
FEB. 26...	1515	30	8.4	130	71	100	2.8	234	0	630	11	.5
APR. 06...	1445	22	3.8	180	77	130	3.7	260	6	800	11	.6
30...	1140	99	7.3	58	8.7	27	3.0	120	0	130	3.8	.3
MAY 29...	1300	30	6.7	160	94	120	4.6	265	0	800	11	.5
JULY 11...	1845	4.5	2.5	220	75	150	5.1	268	0	920	9.1	.6
AUG. 07...	1100	.20	5.3	300	140	240	7.2	360	0	1500	13	.8
SEP. 05...	1435	4.0	1.4	200	120	180	6.7	250	0	1200	9.1	.7

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 11...	.09	--	1070	1.46	31.8	650	480	1.5	8.2	1440	4.5
NOV. 06...	.09	.11	1010	1.37	54.5	600	410	1.6	8.2	1380	.0
DEC. 18...	.05	.01	1000	1.36	70.2	600	400	1.7	8.3	1380	.0
JAN. 22...	.23	.05	1120	1.52	51.4	660	460	1.6	8.0	1440	.0
FEB. 26...	.09	.01	1080	1.47	87.5	630	440	1.8	8.2	1430	.0
APR. 06...	.07	.00	1340	1.82	79.6	770	540	2.0	8.4	1800	10.5
30...	.25	.00	300	.41	80.2	180	82	.9	7.7	508	12.0
MAY 29...	.02	.00	1330	1.81	108	790	570	1.9	8.3	1670	13.5
JULY 11...	.05	.00	1520	2.07	18.5	850	630	2.2	8.0	1790	26.5
AUG. 07...	.07	.00	2360	3.21	1.27	1300	1000	2.9	7.9	2670	20.0
SEP. 05...	.09	.00	1840	2.50	19.9	990	790	2.5	8.2	2100	20.0

YELLOWSTONE RIVER BASIN

93

06317000 POWDER RIVER AT ARVADA, WYO.

LOCATION.--Lat 44°38'45", long 106°08'00", in NE¼NW¼ sec.21, T.54 N., R.77 W., Sheridan County, at bridge on county road, 0.1 mi (0.2 km) south of Arvada, 0.3 mi (0.5 km) upstream from Wild Horse Creek, and 0.5 mi (0.8 km) downstream from gaging station.

DRAINAGE AREA.--6,050 mi² (15,670 km²), approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: May to October 1946 (monthly), July 1948 to September 1953 (monthly), July and August 1955 (monthly), April to August 1957 (monthly), October 1967 to September 1974 (daily).

Water temperatures: March 1949 to September 1957, October 1967 to September 1974.

Sediment records: April 1946 to September 1957 (daily), October 1967 to September 1971 (daily), October 1971 to September 1974 (monthly).

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 7,060 micromhos July 24; minimum daily, 1,360 micromhos Apr. 30.

Water temperatures: Maximum, 30.0°C June 19; minimum, freezing point on many days during November to March.

Period of record:

Specific conductance (1967-74): Maximum daily, 7,760 micromhos Sept. 12, 1969; minimum daily, 789 micromhos May 25, 1972.

Water temperatures: Maximum (1949-54, 1967-74), 32.0°C July 16, 1954; minimum (1949-57, 1967-74), freezing point on many days during winter period.

REMARKS.--No appreciable inflow between gaging station and sampling point except during periods of intense local rainfall.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
10...	1515	226	6.1	120	63	310	5.6	226	0	940	220	.7
25...	1620	356	10	120	55	370	5.8	278	0	740	260	.8
NOV.												
06...	1135	A80	8.0	130	80	400	5.4	301	0	850	260	.8
DEC.												
18...	1555	A280	9.5	150	64	370	5.4	343	0	790	260	.7
JAN.												
08...	1730	A140	13	210	93	680	7.9	620	0	1100	500	1.0
FEB.												
12...	1545	A250	11	190	26	410	5.6	414	0	720	310	.9
26...	1330	A170	9.7	130	58	350	4.9	342	0	690	250	.7
APR.												
23...	1530	A2050	6.6	202	84	315	7.2	150	0	1300	61	.9
JUNE												
06...	1200	154	8.5	133	44	325	5.6	244	0	750	191	.8
JULY												
11...	1710	14	7.3	167	100	788	12	299	0	1500	543	1.1
AUG.												
13...	1145	363	7.4	280	120	350	10	217	0	1500	210	.9
SEP.												
05...	1600	9.4	6.4	134	113	750	12	310	0	1400	540	1.1

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
10...	.09	--	1780	2.42	1090	550	370	5.7	8.3	2320	7.0
25...	.02	.02	1700	2.31	1630	540	310	7.0	8.4	2250	8.5
NOV.											
06...	.07	.01	1880	2.56	406	650	400	6.8	8.2	2700	.0
DEC.											
18...	.32	.01	1830	2.49	1380	640	360	6.4	8.1	2670	.0
JAN.											
08...	.36	.02	2950	4.01	1120	900	390	9.8	8.0	4120	.0
FEB.											
12...	.09	.03	1880	2.56	1270	590	250	7.4	7.8	2730	.0
26...	.29	.01	1660	2.26	762	560	280	6.4	8.1	2420	.0
APR.											
23...	1.4	.01	2060	2.80	11400	850	730	4.7	7.7	2580	13.0
JUNE											
06...	.11	.01	1580	2.15	657	510	310	6.2	8.2	2230	18.0
JULY											
11...	.11	.01	3270	4.45	124	830	590	12	8.0	4430	31.5
AUG.											
13...	.56	.01	2550	3.47	2500	1200	1000	4.4	7.5	3240	15.5
SEP.											
05...	.09	.02	3130	4.26	79.4	800	550	12	7.9	4190	22.5

YELLOWSTONE RIVER BASIN

06317000 POWDER RIVER AT ARVADA, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 25...	1620	356	200	10.8	1000
JAN. 08...	1730	A140	35	5.6	B0
FEB. 12...	1545	A250	90	7.4	B9
APR. 23...	1530	A2050	5000	7.5	1200
JULY 11...	1710	14	100	6.6	100

A Daily mean discharge.

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2660	2390	2300	2960	2800	2530	2850	1670	2450	3730	4900	5140
2	2660	2420	2560	2970	3010	2430	2600	1820	2110	3580	---	4870
3	2680	2480	2520	3270	3010	2360	2430	1690	2210	3230	---	5190
4	2710	2410	2650	3400	3090	2690	2630	1670	2280	3640	---	4600
5	2750	2650	2710	3670	2930	2890	2600	1660	2280	4300	---	4540
6	2720	2820	3070	3840	2920	2570	2640	1610	2490	3980	---	4670
7	2740	2770	3060	4200	2840	2510	2680	1830	2510	3760	---	5410
8	2810	2820	2940	4360	2960	2540	2700	2080	2400	3600	---	5460
9	2600	2790	3150	4220	2930	2310	2830	2120	2500	4150	4050	5530
10	2350	2820	3000	4230	2860	2670	2840	1790	2460	4590	3910	5580
11	2330	2480	2900	4530	2920	2740	2690	1760	2760	4740	6910	5270
12	2350	2540	2680	4430	2850	2920	2750	1650	2890	4680	4700	5110
13	2450	2440	2900	4130	2740	2780	2710	1670	3180	4950	2990	4980
14	2470	2540	2900	3960	2630	2770	2720	1580	3290	5000	3580	4760
15	2540	2560	3080	4030	2430	2740	2820	1770	3490	5570	3340	4520
16	2510	2600	2940	1940	2420	2770	3040	1510	3500	3460	3470	4580
17	2500	2490	2780	1930	2270	2720	2990	2080	3160	3400	3790	4980
18	2350	2440	2670	1860	2360	2820	3240	2160	3420	3500	3790	5250
19	2290	2450	2750	1720	2280	2830	3380	2140	3330	2840	3550	5160
20	2330	2740	2750	1800	2190	2880	1900	2260	3660	4790	3660	5030
21	2420	2880	2880	1970	2330	2890	2910	2790	3680	4340	3650	4870
22	2420	2850	2910	2260	2290	2880	2900	2520	3310	4910	3980	4670
23	2430	2890	2590	2420	2370	2600	2720	2770	2840	5500	4560	4530
24	2340	2860	2550	2620	2410	2540	2730	2500	3500	7060	4680	4550
25	2340	2840	2840	2630	2600	2560	3130	2540	3150	4260	4490	4540
26	2290	2680	2800	2710	2640	2700	3000	2600	3140	4040	4520	4720
27	2230	2660	2990	2820	2490	2600	2680	2760	5310	3980	5000	4750
28	2230	2510	3110	2760	2690	2750	2710	2800	4760	4130	5040	4890
29	2450	2380	3190	2790	---	2810	1460	2770	4870	4560	5040	4820
30	2540	2370	3250	2900	---	2560	1360	2740	4390	5010	5160	4680
31	2480	---	2950	2880	---	2840	---	2700	---	4750	5230	---
MONTH	2480	2620	2850	3100	2650	2680	2690	2130	3180	4320	---	4920
YEAR	MAX	7060	MIN	1360	MEAN	3140						

YELLOWSTONE RIVER BASIN

95

06317000 POWDER RIVER AT ARVADA, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	3.0	1.0	0.0	0.0	0.5	4.0	12.5	13.0	25.0	16.0	9.0
2	12.0	2.0	1.0	0.0	0.5	1.5	6.5	11.0	20.5	22.0	---	10.0
3	8.0	0.0	0.0	0.0	0.5	0.5	6.0	15.0	19.0	15.0	---	24.0
4	7.0	0.0	0.0	0.0	0.5	0.5	8.5	16.0	17.0	18.0	---	11.0
5	15.0	0.0	0.0	0.0	0.0	0.5	3.0	14.0	15.0	20.0	---	20.0
6	15.0	0.0	0.0	0.0	0.0	1.0	5.0	13.0	13.0	20.0	---	27.0
7	10.0	0.0	0.0	0.0	0.0	0.5	9.0	14.5	14.0	23.0	---	10.0
8	12.0	0.0	0.0	0.0	0.0	0.5	5.0	15.0	11.5	20.0	---	22.0
9	6.0	0.0	0.0	0.0	0.0	0.5	7.5	18.0	20.0	18.0	22.0	11.0
10	5.0	0.0	0.0	0.0	0.5	1.5	8.0	15.0	16.0	23.0	18.0	21.0
11	4.0	1.0	0.0	0.0	0.5	3.0	4.5	11.0	22.0	23.0	15.0	10.0
12	4.0	0.0	2.0	0.0	0.5	7.0	5.0	10.5	19.0	17.0	16.0	15.0
13	7.0	3.0	0.0	0.0	0.5	6.0	6.5	10.0	19.0	23.0	13.0	6.0
14	8.0	3.0	0.0	0.0	0.5	5.0	6.0	7.0	28.0	28.0	16.5	17.0
15	9.0	1.0	0.0	0.0	0.5	0.5	5.0	11.0	25.0	25.0	13.0	17.0
16	8.0	1.0	0.0	1.0	0.5	8.0	6.0	11.0	20.0	23.0	14.5	9.5
17	9.0	2.0	0.0	1.0	0.5	10.0	8.0	10.0	19.0	27.0	13.0	22.0
18	9.0	2.0	0.0	1.0	0.5	5.0	10.0	11.0	25.0	26.0	15.0	21.0
19	9.0	0.0	0.0	0.5	0.5	1.0	11.0	12.5	30.0	28.0	16.5	18.0
20	8.0	0.0	0.0	1.0	0.5	0.0	6.0	10.0	25.0	26.0	14.0	17.0
21	9.0	0.0	0.0	0.0	0.5	0.0	5.0	13.0	20.5	26.0	15.0	19.0
22	8.0	0.0	0.0	0.0	0.5	0.0	8.0	15.0	20.0	26.0	15.0	15.0
23	9.0	0.0	0.0	0.0	0.5	0.0	9.5	18.5	22.0	27.0	14.0	25.0
24	8.0	0.0	0.0	0.0	0.5	0.0	11.5	20.0	20.0	23.0	15.0	25.0
25	7.0	0.0	0.0	0.0	0.5	0.0	14.0	17.0	20.0	24.0	15.0	21.0
26	5.0	0.0	0.0	0.0	0.5	2.0	14.0	20.5	24.0	25.0	15.0	20.0
27	4.5	0.0	0.0	0.5	0.5	5.5	15.0	18.0	21.0	22.0	24.5	15.0
28	6.0	0.0	0.0	0.5	0.5	7.0	10.0	19.0	22.5	20.0	22.0	25.0
29	7.0	0.0	0.0	0.5	---	5.0	10.0	18.0	21.0	20.0	14.0	25.0
30	4.0	1.0	0.0	0.5	---	6.5	11.0	10.0	23.0	22.0	12.0	20.0
31	4.0	---	0.0	0.0	---	6.0	---	15.0	---	17.0	11.0	---
MONTH	8.0	0.5	0.0	0.0	0.5	2.5	8.0	14.0	20.0	22.5	---	17.5
YEAR	MAX	30.0	MIN	0.0	MEAN	9.0						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT (T/DAY)	SJS. SED. FALL DIAM. * FINEST THAN .004 MM	SJS. SED. FALL DIAM. * FINEST THAN .015 MM	SJS. SED. FALL DIAM. * FINEST THAN .062 MM	SJS. SED. FALL DIAM. * FINEST THAN .125 MM	SJS. SED. FALL DIAM. * FINEST THAN .250 MM	SJS. SED. FALL DIAM. * FINEST THAN .500 MM
OCT.											
10...	1515	7.0	225	5620	3430	27	45	70	91	99	100
NOV.											
06...	1135	.0	A80	1500	298	--	--	--	--	--	--
JAN.											
22...	1310	.0	A250	292	197	--	--	--	--	--	--
FEB.											
26...	1330	.0	A170	795	365	--	--	--	--	--	--
APR.											
06...	1300	11.5	226	3070	1870	24	35	53	80	95	100
30...	1645	11.5	894	12800	30900	32	44	77	96	100	--
JUNE											
05...	1200	18.0	154	1650	586	--	--	--	--	--	--
JULY											
11...	1710	31.5	14	348	13	--	--	--	--	--	--
AUG.											
13...	1145	15.5	363	33600	32900	58	82	93	98	100	--
SEP.											
05...	1600	22.5	9.4	323	8.2	--	--	--	--	--	--

A Daily mean discharge.

YELLOWSTONE RIVER BASIN

06324000 CLEAR CREEK NEAR ARVADA, WYO.

LOCATION.--Lat 44°52'18", long 106°04'56", in SE¼ sec.36, T.57 N., R.77 W., Sheridan County, at gaging station, 600 ft (183 m) downstream from Cabin Creek, 1.8 mi (2.9 km) upstream from mouth, and 16 mi (26 km) north of Arvada.

DRAINAGE AREA.--1,110 mi² (2,875 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: September 1949 to June 1954 (monthly), October 1966 to September 1974 (monthly).

Water temperatures: March 1950 to September 1953.

Sediment records: March 1950 to September 1953 (daily).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 10...	1115	116	5.0	110	62	65	4.0	229	6	430	3.1	.5
NOV. 06...	1340	75	8.8	110	61	66	3.7	255	0	420	2.4	.3
DEC. 18...	1500	A125	9.0	96	44	55	3.3	226	4	330	3.8	.3
JAN. 22...	1620	A130	13	100	35	54	7.9	211	0	340	5.7	.4
FEB. 26...	1100	A100	11	110	51	68	4.0	265	0	400	4.2	.3
APR. 05...	1100	120	5.6	110	45	65	4.0	250	0	390	3.8	.3
30...	1700	368	9.0	46	12	20	2.1	110	0	110	1.9	.2
JUNE 05...	1500	340	6.4	69	9.1	27	2.3	128	0	160	1.8	.2
JULY 11...	1400	48	3.4	100	54	70	4.9	250	0	420	1.8	.4
AUG. 07...	1730	58	2.0	100	58	81	5.6	247	0	454	3.7	.4
SEP. 05...	1515	192	4.1	99	47	68	5.4	240	0	370	1.8	.4

A Daily mean discharge.

DATE	TOTAL NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL KJEL-DAHL NITROGEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SUSPENDED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT. 10...	--	--	--	--	--	--	530	330	--	802	1.09	251
NOV. 06...	--	--	--	--	--	.01	520	310	--	797	1.08	161
DEC. 18...	--	--	--	--	--	.00	420	230	--	657	.89	222
JAN. 22...	--	--	--	--	--	.17	400	230	--	660	.90	232
FEB. 26...	--	--	--	--	--	.01	490	270	--	780	1.06	211
APR. 05...	.56	.41	.11	.52	.04	.00	460	260	7	747	1.02	242
30...	.92	.78	.10	.88	.04	.00	160	70	152	258	.35	256
JUNE 05...	1.7	1.5	.11	1.6	.06	.00	210	110	41	339	.46	311
JULY 11...	.68	.61	.07	.68	.00	.04	470	270	0	778	1.06	101
AUG. 07...	.62	.54	.08	.62	.00	.03	490	290	8	826	1.12	129
SEP. 05...	1.0	.94	.06	1.0	.02	.18	440	240	11	720	.98	373

YELLOWSTONE RIVER BASIN

97

06324000 CLEAR CREEK NEAR ARVADA, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)
OCT. 10...	1115	40	--	50	--	--	--	--	--
APR. 05...	1100	80	5	--	3	10	0	2	.0
JULY 11...	1400	130	1	--	1	20	10	1	.4

FIELD DETERMINATIONS

DATE	TIME	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 10...	1115	--	--	8.4	1100	5.0
NOV. 06...	1340	--	--	8.3	1110	.5
DEC. 18...	1500	--	--	8.4	956	.0
JAN. 22...	1620	--	--	7.7	946	.0
FEB. 26...	1100	--	--	8.1	1120	.0
APR. 05...	1100	--	1.8	7.9	1090	5.0
30...	1700	9.1	1.6	8.3	460	9.5
JUNE 05...	1500	8.6	5.8	7.8	510	17.5
JULY 11...	1400	8.3	2.0	7.8	1200	26.0
AUG. 07...	1730	8.0	.5	7.6	1150	20.5
SEP. 05...	1515	9.5	1.1	8.4	1090	19.5

LOCATION.--Lat 44°57'56", long 105°55'40", in SW¼NW¼SW¼ sec.31, T.58 N., R.75 W., Campbell County, Wyo., temperature recorder 900 ft (274 m) downstream from Fence Creek, 3.6 mi (5.8 km) upstream from Wyoming-Montana State line, and 6.2 mi (10.0 km) southwest of Moorhead.

EXTREMES. - - June to October 1974:

REMARKS.--No record July 15-19 when water surface dropped below the thermograph sensor. Record furnished by the Wyoming Game and Fish Commission.

[illegible]

YELLOWSTONE RIVER BASIN

99

06324500 POWDER RIVER AT MOORHEAD, MT.

LOCATION.--Lat 45°04'10", long 105°52'00", in NW¼ sec.8, T.9 S., R.48 E., Powder River County, sampled at bridge on county road, 0.7 mi (1.1 km) southwest of Moorhead, 1.1 mi (1.8 km) upstream from former gaging station, and 7.3 mi (11.7 km) upstream from Buffalo Creek.

DRAINAGE AREA.--8,088 mi² (20,948 km²), at gaging station.

PERIOD OF RECORD.--Chemical analyses: February 1951 to September 1953 (daily), October 1955 to September 1957 (daily), July 1969 to July 1972 (monthly), April to September 1974 (monthly).
Water temperatures: February 1951 to September 1953, October 1955 to September 1957.

CHEMICAL ANALYSES, APRIL TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
APR.												
05...	1630	339	6.4	120	55	260	5.7	284	0	640	150	.7
30...	1330	1560	7.0	83	28	120	4.7	134	0	400	36	.5
JUNE												
05...	1200	492	7.8	80	34	160	4.2	188	0	390	97	.4
JULY												
11...	1100	81	4.8	130	68	220	9.2	243	5	680	98	.3
AUG.												
07...	1430	80	3.8	100	55	89	7.9	237	--	470	6.8	.7
SEP.												
05...	1245	195	3.9	94	48	88	6.1	244	1	370	16	.3

DATE	TIME	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	PH (UNITS)	TEMPER- ATURE (DEG C)
APR.											
05...	1380	1.88	1260	530	290	4.9	2050	--	2.8	8.3	10.5
30...	745	1.01	3140	320	210	2.9	1230	8.7	.9	7.9	14.0
JUNE											
05...	866	1.18	1150	340	190	3.8	1330	8.5	3.0	8.0	17.0
JULY											
11...	1340	1.82	293	600	400	3.9	1860	7.9	2.0	7.9	24.0
AUG.											
07...	850	1.10	185	480	280	1.8	1250	7.6	.4	7.6	24.5
SEP.											
05...	748	1.02	394	430	230	1.8	1170	8.8	.6	8.2	23.0

DATE	TIME	TOTAL NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	SUS- PENDE SOLIDS (MG/L)	TOTAL NITRO- GEN (NO ₃) (MG/L)
APR.									
05...	1630	2.0	1.5	.24	1.7	.28	.80	1160	8.8
30...	1330	8.3	7.8	.15	7.9	.38	3.9	9500	37
JUNE									
05...	1200	2.0	1.9	.05	1.9	.13	--	923	9.0
JULY									
11...	1100	.77	.73	.03	.76	.01	.07	51	3.4
AUG.									
07...	1430	.78	.59	.11	.70	.08	.05	26	3.5
SEP.									
05...	1245	1.1	1.1	.04	1.1	.01	.12	70	4.9

DATE	TIME	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED SILIC- IUM (SE) (UG/L)	DIS- SOLVED MERCURY (MG) (UG/L)
APR.								
05...	1630	280	12	6	20	0	4	.0
JULY								
11...	1100	270	3	1	20	100	0	.4

CHEYENNE RIVER BASIN

06386500 CHEYENNE RIVER NEAR SPENCER, WYO.

LOCATION.--Lat 43°25', long 104°08', in N½ sec.25, T.40 N., R.61 W., Niobrara County, at gaging station, at old highway bridge, 1.8 mi (2.9 km) downstream from Robbers Roost Creek, 7.5 mi (12.1 km) northeast of Spencer, and 30 mi (48 km) south of Newcastle.

DRAINAGE AREA.--5,270 mi² (13,650 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: May 1969 to June 1970.

Sediment records: June 1951 to August 1954, November 1971 to September 1974 (discontinued).
Prior to October 1951, published as South Fork Cheyenne River near Spencer.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 22...	1450	18.0	7.5	49	.99
NOV. 15...	1600	5.5	29	172	13
DEC. 07...	1525	.0	5.5	9	.13
FEB. 15...	1640	.0	36	321	31
MAR. 26...	1235	6.5	18	163	7.9
APR. 17...	1310	18.5	43	268	31
MAY 10...	1210	15.0	13	114	4.0
JUNE 07...	1310	20.0	2.2	64	.38

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	NUMBER OF SAM- PLING POINTS	RED MAT. FALL DIAM. % FINER THAN .052 MM	RED MAT. FALL DIAM. % FINER THAN .125 MM	RED MAT. FALL DIAM. % FINER THAN .250 MM	RED MAT. FALL DIAM. % FINER THAN .500 MM	RED MAT. FALL DIAM. % FINER THAN 1.00 MM	RED MAT. FALL DIAM. % FINER THAN 2.00 MM	RED MAT. FALL DIAM. % FINER THAN 4.00 MM	RED MAT. FALL DIAM. % FINER THAN 8.00 MM	RED MAT. FALL DIAM. % FINER THAN 15.0 MM
JULY 05...	1430	.00	5	1	2	13	37	58	76	88	95	100

CHEYENNE RIVER BASIN

101

06394000 BEAVER CREEK NEAR NEWCASTLE, WYO.

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, at gaging station, at highway bridge, 2.2 mi (3.5 km) downstream from Sheep Creek, and 23 mi (37 km) south of Newcastle.

DRAINAGE AREA.--1,320 mi² (3,420 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: November 1945, June 1946 to August 1947 (monthly), December 1949 to August 1953 (monthly), October 1967 to September 1974 (monthly).
Sediment records: September 1949 (monthly), March 1950 to September 1957 (daily).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 23...	0840	16	9.0	470	95	300	4.4	149	0	1500	390	.9
NOV. 16...	1230	26	6.3	380	120	410	5.8	200	0	1600	450	1.1
DEC. 07...	1325	9.0	11	500	140	390	5.1	217	0	1800	490	.9
JAN. 12...	1130	3.8	15	610	140	220	5.4	333	0	1900	260	1.2
FEB. 15...	1400	140	9.6	100	17	96	5.1	128	0	320	73	.4
MAR. 15...	1210	29	8.1	330	140	430	6.5	227	0	1400	550	1.0
APR. 17...	1030	2.6	3.4	340	210	610	7.7	250	0	2000	540	1.1
MAY 10...	1015	.95	2.3	500	240	950	9.5	241	0	2800	900	1.0
JUNE 07...	1015	.21	.7	720	320	1300	10	259	0	3600	1400	1.3
JULY 05...	1230	7.1	1.6	820	83	810	7.7	101	0	2700	880	1.1
AUG. 09...	1200	.09	1.7	500	240	550	7.9	134	0	2600	470	1.2
SEP. 13...	1100	.02	1.1	200	84	420	6.5	190	0	1400	160	1.0

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 23...	.11	--	2840	3.86	123	1600	1500	3.3	8.2	3600	9.0
NOV. 16...	.00	.08	3040	4.13	213	1500	1300	4.7	8.1	3900	2.5
DEC. 07...	.09	.00	3430	4.66	83.3	1800	1600	4.0	7.9	4310	.5
JAN. 12...	.32	.00	3340	4.54	34.3	2100	1800	2.1	7.7	3810	.0
FEB. 15...	.16	.13	681	.93	257	320	220	2.3	7.5	1060	.0
MAR. 15...	.20	.01	2960	4.03	232	1400	1200	5.0	8.0	3840	2.0
APR. 17...	.20	.00	3840	5.22	27.5	1700	1500	6.4	7.9	4770	12.0
MAY 10...	.05	.00	5520	7.51	14.2	2200	2000	8.1	7.8	6980	14.0
JUNE 07...	.05	.01	7480	10.2	4.24	3100	2900	10	8.0	7910	17.5
JULY 05...	.09	.01	5330	7.25	103	2400	2300	7.3	7.7	6090	24.5
AUG. 09...	.07	.00	4400	5.99	1.07	2200	2100	5.1	8.0	5140	19.0
SEP. 13...	.00	.00	2340	3.18	.13	850	690	6.3	8.1	2850	14.0

CHEYENNE RIVER BASIN

06395000 CHEYENNE RIVER AT EDMONT, S. DAK.

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼SE¼SE¼ sec.36, T.8 S., R.2 E., Fall River County, at gaging station, at downstream side of bridge on U.S. Highway 18 at Edgemont, 300 ft (91 m) downstream from Burlington Northern Railroad bridge, and 600 ft (183 m) upstream from Cottonwood Creek.

DRAINAGE AREA.--7,143 mi² (18,500 km²).

PERIOD OF RECORD.--Chemical analyses: July 1969 to June 1974 (discontinued).

REMARKS.--Miscellaneous samples for chemical data published for water year 1970.

CHEMICAL ANALYSES, OCTOBER 1973 TO JUNE 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 29...	1100	77	6.5	140	47	200	7.6	162	0	670
NOV. 28...	1335	19	8.9	400	120	440	9.0	272	0	1700
DEC. 11...	1115	14	8.3	450	140	490	8.3	294	0	1800
JAN. 16...	1045	2.4	--	--	--	--	--	303	--	--
28...	1315	32	10	170	50	200	9.3	210	0	710
FEB. 25...	1115	54	8.6	140	43	200	8.2	162	0	620
MAR. 25...	1335	58	8.3	310	110	440	9.8	272	0	1400
APR. 23...	1150	413	12	200	81	460	1.2	286	0	1300
MAY 22...	1030	9.3	9.1	290	120	620	13	271	--	1900
JUNE 19...	1145	.46	11	430	180	890	20	303	0	2600

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS. PHOSUR (P) (MG/L)	TOTAL PHOSPHORUS (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT. 29...	120	.6	.10	.03	.05	1270	1.73	264	540	410
NOV. 28...	360	.2	.06	.04	.06	3170	4.31	163	1500	1300
DEC. 11...	450	.4	.04	.01	.05	3490	4.75	132	1700	1500
JAN. 16...	--	--	--	--	.02	--	--	--	--	--
28...	98	.4	.33	.05	.12	1350	1.84	117	630	460
FEB. 25...	130	.5	.08	.04	.13	1230	1.67	179	530	390
MAR. 25...	330	.6	.17	.03	.17	2740	3.73	429	1200	1000
APR. 23...	170	.6	.01	.03	.08	2370	3.22	2640	830	600
MAY 22...	270	.6	.01	.02	.02	3360	4.57	84.4	1200	1000
JUNE 19...	510	.6	.00	.03	.03	4790	6.51	5.95	1800	1600

DATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)
OCT. 29...	3.7	2250	8.0	.10	.00	.64	.08	2.4	2.5	3.1
NOV. 28...	5.0	5500	7.9	.04	.02	.08	.05	.32	.37	.45
DEC. 11...	5.2	5700	7.8	.03	.01	.06	.05	.30	.35	.41
JAN. 16...	--	5800	7.2	--	--	.18	--	--	.67	.85
28...	3.5	2150	8.0	.32	.01	.29	.09	.80	.89	1.2
FEB. 25...	3.8	1800	8.0	.08	.00	.13	.22	.58	.80	.93
MAR. 25...	5.5	4100	8.0	.17	.00	.16	.13	.60	.73	.89
APR. 23...	6.9	3500	7.9	.01	.00	.02	.07	.43	.50	.52
MAY 22...	7.7	5000	8.3	.00	.01	.02	.01	.58	.59	.61
JUNE 19...	9.1	6060	7.9	.00	.01	.03	.10	.52	.62	.65

CHEYENNE RIVER BASIN

103

0639500 CHEYENNE RIVER AT EDGEMONT, S. DAK.--Continued

CHEMICAL ANALYSES, OCTOBER 1973 TO JUNE 1974

FIELD DETERMINATIONS

DATE	TIME	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.						
16...	1310	14.0	9.8	--	--	--
29...	1100	7.5	10.3	2.0	1900	1800
NOV.						
12...	1115	3.5	12.5	--	--	--
28...	1335	.5	12.0	1.0	<2	<0
DEC.						
11...	1115	.0	12.6	1.0	<5	<2
27...	1345	.0	11.6	--	--	--
JAN.						
16...	1045	.0	13.1	1.5	5000	50
28...	1315	.0	11.9	1.0	100	<0
FEB.						
13...	1150	.0	--	--	--	--
25...	1115	2.0	12.5	1.0	50	<1
MAR.						
13...	1245	5.0	9.4	--	--	--
25...	1335	7.5	10.6	2.5	--	--
APR.						
10...	0930	9.0	10.3	--	--	--
23...	1150	14.5	9.4	3.0	550	20
MAY						
06...	1315	24.5	11.0	--	--	--
22...	1030	13.5	9.1	2.0	10	50
JUNE						
10...	1330	27.5	--	--	--	--
19...	1145	28.0	8.1	2.5	--	--

CHEYENNE RIVER BASIN

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WYO.

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼SE¼SE¼ sec.7, T.53 N., R.65 W., Crook County, at bridge 0.2 mi (0.3 km) west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 24...	1330	15	5.6	190	69	98	6.7	207	0	750	4.6	.6
NOV. 14...	1530	14	7.8	190	77	79	6.0	215	0	720	6.4	.6
DEC. 06...	1030	10	11	200	82	92	6.7	284	0	750	6.1	.6
JAN. 10...	1400	4.6	11	260	78	100	7.4	365	0	900	8.0	.7
FEB. 14...	1200	29	10	220	43	87	9.3	271	0	690	7.3	.6
MAR. 14...	1000	65	9.0	170	51	40	7.4	224	0	530	6.9	.4
APR. 25...	0945	57	6.1	180	51	46	6.4	246	--	540	4.9	--
MAY 08...	1230	30	11	210	57	62	5.8	244	0	650	5.7	.5
JUNE 05...	1215	16	4.7	200	65	95	7.0	223	0	760	3.6	.6
JULY 03...	1400	132	1.6	73	14	85	6.3	186	0	260	5.4	.5
AUG. 08...	0830	135	.7	53	26	82	6.7	189	0	250	7.3	.5
SEP. 11...	1500	7.6	2.0	100	46	100	7.9	220	0	470	5.5	.6
DATE	TOTAL NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SUS- PENDE SOLIDS (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
OCT. 24...	--	--	--	--	--	--	750	580	--	1230	1.67	49.8
NOV. 14...	--	--	--	--	--	.02	780	600	--	1190	1.62	45.0
DEC. 06...	--	--	--	--	--	.02	830	600	--	1290	1.75	34.8
JAN. 10...	--	--	--	--	--	.01	980	680	--	1550	2.11	19.3
FEB. 14...	--	--	--	--	--	.04	730	510	--	1200	1.63	94.0
MAR. 14...	--	--	--	--	--	.01	640	460	--	927	1.26	163
APR. 25...	--	--	--	--	--	.00	660	460	--	956	1.30	149
MAY 08...	.35	.33	.01	.34	.01	.00	750	550	41	1120	1.52	90.7
JUNE 05...	.96	.92	.02	.94	.02	.00	750	570	30	1250	1.70	55.7
JULY 03...	--	--	--	--	--	.01	240	87	--	537	.73	191
AUG. 08...	1.2	1.2	.04	1.2	.00	.00	240	85	116	520	.71	190
SEP. 11...	.28	.13	.12	.25	.03	.01	450	270	5	850	1.16	17.4

CHEYENNE RIVER BASIN

105

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (MG) (UG/L)
OCT. 24...	1330	90	--	90	--	--	--	--	--
JULY 03...	1400	110	6	--	5	10	20	1	.0

FIELD DETERMINATIONS

DATE	TIME	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 24...	1330	--	--	--	8.0	1560	--	9.5
NOV. 14...	1530	5	12.0	--	8.1	1530	B7	2.5
DEC. 06...	1030	4	11.6	--	7.9	1630	B1	.0
JAN. 10...	1400	4	8.6	--	7.8	1910	B1	.0
FEB. 14...	1200	10	8.3	--	7.8	1540	B17	.0
MAR. 14...	1140	35	10.4	--	7.9	1220	B5	2.0
APR. 25...	0945	15	7.9	--	6.8	1300	85	13.5
MAY 08...	1230	--	7.5	--	8.3	1500	60	17.5
JUNE 05...	1215	20	6.9	--	8.1	1600	60	19.5
JULY 03...	1400	--	7.2	--	8.2	830	B400	17.5
AUG. 08...	0830	--	6.8	.9	8.3	828	B700	18.0
SEP. 11...	1500	--	8.4	1.1	8.3	1250	B12	14.0

B Non-ideal counting conditions.

CHEYENNE RIVER BASIN

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE¼NW¼ sec.18, T.9 N., R.1 E., Butte County, S. Dak., at county bridge, 4.0 mi (6.4 km) northwest of Belle Fourche, S. Dak., and 8.0 mi (12.9 km) downstream from gaging station.

DRAINAGE AREA.--3,280 mi² (8,500 km²), approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1974.

Water temperatures: October 1965 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily observed, 2,620 micromhos Jan. 14; minimum daily, 726 micromhos Mar. 6.
Water temperatures: Maximum, 31.0°C June 19; minimum, freezing point on many days during November to March.

Period of record:

Specific conductance: Maximum daily, 2,840 micromhos Jan. 17, 1970; minimum daily, 461 micromhos Apr. 12, 1971.

Water temperatures: Maximum, 31.0°C June 19, 1974; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 24...	0800	34	7.0	230	75	92	7.7	174	0	910	4.6	.7
NOV. 15...	0800	53	9.8	220	66	70	6.7	203	0	790	5.5	.7
DEC. 06...	1410	A35	11	260	93	96	7.4	235	0	1000	7.6	.7
JAN. 10...	1700	A8.0	13	370	110	140	9.5	378	0	1300	9.2	.8
FEB. 14...	1710	A80	11	250	38	79	7.7	215	0	770	5.3	.6
MAR. 14...	1315	122	8.6	170	47	50	8.6	185	0	570	6.1	.5
APR. 25...	1715	229	10	130	38	50	6.7	170	0	440	3.8	.6
MAY 08...	1815	106	15	190	57	68	6.3	207	0	660	3.8	.6
JUNE 06...	1000	67	8.0	215	74	100	8.6	183	0	900	3.6	.7
JULY 04...	0900	133	6.3	130	29	100	6.7	122	0	550	5.4	.7
AUG. 08...	1415	106	5.3	99	34	98	7.4	189	0	430	7.3	.6
SEP. 12...	0900	33	4.5	170	63	110	8.4	210	0	740	7.3	.7

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)
OCT. 24...	.05	--	1410	1.92	129	890	750	1.3	8.2	1750	10.5
NOV. 15...	.11	.02	1270	1.73	182	830	660	1.1	8.2	1610	1.0
DEC. 06...	.05	.01	1610	2.19	152	1000	810	1.3	8.1	1940	.5
JAN. 10...	.11	.02	2160	2.94	46.7	1400	1100	1.6	7.9	2470	.0
FEB. 14...	.18	.04	1260	1.71	272	780	600	1.2	8.0	1570	.0
MAR. 14...	.36	.01	956	1.30	315	630	480	.9	7.9	1260	6.0
APR. 25...	.18	.02	760	1.03	470	480	340	1.0	8.0	1020	16.0
MAY 08...	.07	.01	1100	1.50	315	710	540	1.1	8.3	1300	17.0
JUNE 06...	.05	.01	1400	1.90	253	840	690	1.5	8.2	1730	15.5
JULY 04...	.38	.02	890	1.21	320	440	340	2.1	7.7	1220	17.5
AUG. 08...	.07	.01	775	1.05	222	380	230	2.2	8.2	1100	23.5
SEP. 12...	.00	.00	1200	1.63	107	680	510	1.8	8.2	1510	10.0

FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 24...	0800	34	9	9.5	110
JAN. 10...	1700	A8.0	3	9.5	B10
APR. 25...	1715	229	170	7.5	145
JULY 04...	0900	133	90	7.2	2700

A Daily mean discharge.

B Non-ideal counting conditions.

CHEYENNE RIVER BASIN

107

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	1650	1900	2050	1280	1320	1700	1260	1880	1450	1130	1350
2	1670	1630	1840	2150	1370	1500	1730	1330	1740	1840	1120	1340
3	1650	1610	1760	2210	1360	1590	1700	1370	1640	1690	1120	1350
4	1670	1590	1950	2230	1330	1600	1730	1440	1620	1120	1110	1330
5	1700	1680	1850	2260	1410	1140	1720	1430	1540	1120	1100	1350
6	1740	1630	1790	2320	1460	726	1680	1440	1740	1090	1000	1370
7	1780	1700	1990	2360	1530	870	1620	1450	1740	1120	975	1380
8	1800	1710	1890	2310	1600	847	1720	1450	1760	1100	956	1420
9	1700	1630	1980	2480	1640	872	1700	1510	1860	1110	1020	1470
10	1640	1680	1780	2500	1680	983	1700	1470	1840	1110	1010	1520
11	1570	1680	1730	2520	1580	1120	1660	1510	1820	1120	985	1570
12	1460	1740	1940	2600	1660	1190	1550	1550	1830	1140	1070	1590
13	1640	1620	1910	2590	1600	1240	1600	1560	1800	1130	1060	1620
14	1680	1630	1890	2620	1550	1260	1700	1570	1780	1130	1050	1660
15	1710	1590	1920	1560	1590	1380	1730	1620	1820	1130	1040	1660
16	1700	1700	1940	1180	1490	1400	1720	1640	1870	1130	1070	1710
17	1740	1700	1950	1200	1470	1420	1700	1650	1940	1120	1090	1780
18	1730	1680	1960	1200	1500	1470	1620	1730	1940	1120	1140	1820
19	1720	1680	1970	1410	1480	1520	1620	1680	1840	1020	1150	1870
20	1720	1760	1980	993	1440	1600	1450	1660	1880	980	1190	1900
21	1720	1820	1980	1110	1390	1680	1380	1670	1670	920	1240	1950
22	1750	1900	1840	1060	1100	1670	1510	1660	1820	750	1220	1990
23	1760	2030	1980	895	1200	1610	995	1680	1850	850	1220	1980
24	1750	2020	1910	1020	1120	1650	1030	1830	1970	990	1210	2000
25	1780	2020	1850	922	1160	1720	994	1670	1890	1080	1210	2030
26	1780	2000	1890	926	1090	1640	1200	1680	2000	1110	1240	2040
27	1790	1960	1800	1000	1100	1640	1260	1700	1980	1140	1280	2060
28	1750	1970	1960	1020	1300	1620	1530	1650	1890	1110	1320	2060
29	1640	1940	1960	1130	---	1670	1240	1740	2050	1120	1290	2080
30	1580	1960	1980	1230	---	1750	1210	1750	1980	1120	1360	2060
31	1750	---	2000	1250	---	1710	---	1760	---	1130	1480	---
MONTH	1700	1760	1910	1690	1410	1400	1520	1580	1830	1130	1140	1710
YEAR	MAX	2620	MIN	726	MEAN	1570						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	4.0	3.0	0.0	0.0	0.5	10.0	18.0	19.0	26.0	22.0	14.0
2	15.0	3.5	0.5	0.0	0.0	8.0	7.0	12.0	21.0	21.0	22.0	16.5
3	13.0	2.5	0.0	0.0	0.0	6.0	5.5	13.0	22.0	21.5	23.0	17.5
4	14.0	1.0	0.0	0.0	0.0	8.5	7.0	15.0	22.0	24.0	23.0	19.0
5	14.0	0.5	0.0	0.0	0.0	4.0	8.0	18.0	18.0	25.0	24.0	18.0
6	15.0	0.5	0.0	0.0	0.0	1.0	8.0	18.0	20.5	24.5	22.0	22.0
7	15.5	0.0	0.0	0.0	0.0	3.0	8.0	18.0	16.5	27.0	20.0	21.0
8	13.0	0.0	0.0	0.0	0.0	0.5	10.0	19.0	20.0	25.0	20.0	17.0
9	12.0	0.0	0.0	0.0	0.0	3.0	12.0	19.0	18.0	28.0	20.5	14.0
10	5.0	0.5	0.0	0.0	0.0	3.0	8.0	18.0	21.0	25.0	20.5	14.0
11	5.0	2.0	0.0	0.0	0.0	1.0	3.0	16.0	22.0	25.0	20.0	14.0
12	7.0	5.0	0.0	0.0	0.0	0.0	3.5	14.0	25.0	25.0	22.5	14.0
13	12.0	6.5	0.0	0.0	0.0	1.0	5.0	12.0	26.0	29.5	20.0	16.5
14	11.0	5.0	0.0	0.0	0.0	1.0	6.0	11.0	27.0	27.0	20.0	18.0
15	10.5	4.5	0.0	0.0	0.0	4.0	8.0	12.0	27.0	27.0	22.0	20.0
16	14.0	4.0	0.0	0.0	0.0	2.5	8.0	14.0	27.0	27.0	22.0	20.0
17	12.0	6.0	0.0	0.0	0.0	7.0	11.0	10.0	26.0	27.0	24.5	19.0
18	13.0	2.0	0.0	0.0	0.0	7.0	15.0	12.0	30.0	27.0	24.0	21.0
19	14.0	0.5	0.0	0.5	0.0	1.0	15.0	15.5	31.0	29.0	24.0	18.0
20	14.0	0.5	0.0	0.5	0.0	0.5	7.0	17.0	30.0	28.5	25.0	25.5
21	14.5	0.0	0.0	0.0	0.0	0.5	10.0	16.0	30.0	29.0	24.0	16.0
22	14.5	0.0	0.0	0.5	0.0	0.5	12.5	17.0	22.0	27.0	23.0	17.0
23	12.0	0.0	0.0	0.0	0.0	0.5	11.0	17.0	27.0	27.0	23.0	17.0
24	12.0	0.0	0.0	0.0	0.0	1.0	15.0	16.0	27.0	27.0	23.5	17.5
25	11.0	0.0	0.0	0.5	0.0	2.0	15.0	21.0	27.0	25.0	25.5	15.0
26	9.0	0.0	0.0	0.0	0.0	4.0	16.0	23.0	27.0	25.0	24.5	15.0
27	9.0	0.0	0.0	0.0	0.0	6.0	14.0	20.0	27.0	26.0	23.0	13.0
28	7.0	0.5	0.0	0.0	0.0	8.0	13.0	22.0	28.0	25.0	21.0	14.0
29	7.0	0.5	0.0	0.0	---	11.0	14.0	14.0	28.0	24.0	19.0	15.0
30	7.0	0.0	0.0	0.0	---	11.0	17.0	15.0	28.0	24.0	16.0	14.0
31	6.5	---	0.0	0.0	---	8.0	---	17.0	---	23.0	16.5	---
MONTH	11.5	1.5	0.0	0.0	0.0	3.5	10.0	16.0	24.5	26.0	22.0	17.0
YEAR	MAX	31.0	MIN	0.0	MEAN	11.0						

CHEYENNE RIVER BASIN

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'26", long 104°02'54", in NW¼NW¼ sec.18, T.7 N., R.1 E., Butte County, S. Dak., at gaging station, 800 ft (224 m) downstream from State line, 5.7 mi (9.2 km) upstream from Crow Creek, and 12 mi (19 km) southwest of Belle Fourche, S. Dak.

DRAINAGE AREA.--471 mi² (1,219 km²).

PERIOD OF RECORD.--Chemical analyses: May 1969 to June 1970.
Sediment records: October 1971 to September 1974.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
OCT. 23...	1610	10.5	45	60	7.3	--	--	--
NOV. 15...	0930	6.0	48	23	3.0	--	--	--
DEC. 06...	1530	4.0	47	24	3.0	--	--	--
JAN. 11...	0845	.0	45	34	4.1	--	--	--
FEB. 14...	1500	7.0	43	58	6.7	--	--	--
MAR. 14...	1610	8.0	42	64	7.3	--	--	--
APR. 26...	0830	12.0	75	309	63	--	--	--
MAY 09...	0800	11.5	56	134	20	--	--	--
JUNE 06...	1200	14.0	60	1900	308	75	90	100
JULY 04...	1230	16.0	39	105	11	--	--	--
AUG. 08...	1515	18.0	30	365	30	--	--	--
SEP. 12...	1145	9.5	34	34	3.1	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
JULY 04...	1230	16.0	39	1	2	3	6
DATE				BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. FALL DIAM. % FINER THAN 2.00 MM	BED MAT. FALL DIAM. % FINER THAN 4.00 MM	BED MAT. FALL DIAM. % FINER THAN 8.00 MM
JULY 04...		10	16	21	29	42	65

PLATTE RIVER BASIN

109

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, 350 ft (110 m) downstream from bridge on State Highway 125, 0.8 mi (1.3 km) upstream from Camp Creek, 4.2 mi (6.8 km) northwest of Northgate, and 4.4 mi (7.1 km) south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi² (3,706 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to October 1966 (daily), November 1966 to September 1974 (monthly).

Water temperatures: October 1965 to September 1966, June 1971 to November 1972.

Sediment records: October 1971 to September 1974 (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 30...	1045	133	11	34	5.6	14	1.6	138	0	22	3.1	.5
NOV. 27...	1130	A110	14	34	8.6	17	2.1	146	0	30	3.1	.5
DEC. 17...	1340	A110	13	32	9.0	14	2.1	139	0	28	4.6	.4
JAN. 21...	1310	A110	14	32	7.8	14	2.1	131	0	25	4.2	.5
FEB. 21...	1500	A100	15	30	6.9	14	1.6	137	0	21	1.9	.4
MAR. 27...	1540	A400	8.5	29	9.7	20	4.9	137	0	39	5.7	.3
APR. 29...	1550	2000	21	27	5.0	9.1	2.1	116	0	9.1	1.9	.2
MAY 28...	1400	1010	10	27	5.0	11	1.9	107	0	18	3.6	.4
JUNE 24...	1145	1510	11	37	3.0	12	1.4	140	0	12	1.8	.4
JULY 23...	1240	840	9.1	27	9.9	12	1.4	134	0	21	1.8	.4
AUG. 26...	1345	130	5.8	24	9.3	11	1.6	130	0	16	.0	.5

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)
OCT. 30...	.02	.00	160	.22	57.5	110	0	.6	8.2	276	1.5
NOV. 27...	.02	.02	181	.25	53.8	120	0	.7	8.2	311	.0
DEC. 17...	.00	.01	171	.23	50.8	120	6	.6	7.9	294	.0
JAN. 21...	.14	.02	164	.22	48.7	110	3	.6	7.7	278	.0
FEB. 21...	.07	.01	158	.21	42.7	100	0	.6	7.5	271	.0
MAR. 27...	.00	.11	184	.25	199	110	0	.8	7.8	306	.0
APR. 29...	.07	.01	133	.18	718	88	0	.4	8.0	212	7.5
MAY 28...	.09	.00	129	.18	352	88	0	.5	8.1	222	14.5
JUNE 24...	.25	.01	149	.20	607	100	0	.5	7.9	253	17.5
JULY 23...	.07	.00	149	.20	338	110	0	.5	8.2	253	17.5
AUG. 26...	.07	.01	130	.18	45.6	98	0	.5	8.3	236	17.5

PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 30...	1045	133	3	9.8	86
NOV. 27...	1130	A110	4	10.0	87
DEC. 17...	1340	A110	4	9.8	84
JAN. 21...	1310	A110	3	7.2	25
FEB. 21...	1500	A100	2	6.7	26
MAR. 27...	1540	A400	4	8.5	83
APR. 29...	1550	2000	20	9.1	821
MAY 28...	1400	1010	20	7.8	160
JUNE 24...	1145	1510	7	7.2	60
JULY 23...	1240	840	10	8.4	8370
AUG. 26...	1345	130	2	8.5	817

A Daily mean discharge.

B Non-ideal counting conditions.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PEN- DED SED- IMENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 30...	1045	1.5	133	4	1.3
DEC. 17...	1340	.0	A110	6	1.7
JAN. 21...	1300	.0	A110	4	1.2
FEB. 21...	1500	.0	A100	5	1.3
MAR. 27...	1530	.0	A400	18	19
APR. 29...	1550	7.5	2000	114	616
MAY 28...	1400	14.5	1010	81	221
JULY 23...	1240	17.5	840	40	91
AUG. 26...	1345	17.5	130	10	3.5

A Daily mean discharge.

PLATTE RIVER BASIN

111

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WYO.
(Hydrologic bench-mark station)

LOCATION.--Lat 41°01'25", long 106°49'27", in NE&SW¼ sec.10, T.12 N., R.84 W., Carbon County, Medicine Bow National Forest, at gaging station, 0.6 mi (1.0 km) upstream from Hog Park Creek, and 13 mi (21 km) south of Encampment.

DRAINAGE AREA.--72.7 mi² (188.3 km²).

PERIOD OF RECORD.--Chemical analyses: May 1967 to September 1974.

Sediment records: October 1970 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 30...	1415	25	11	8.9	1.8	2.9	1.0	42	0	10	.6
NOV. 28...	1100	A16	12	8.5	1.9	3.2	1.2	37	0	3.0	.7
FEB. 04...	1240	A15	13	8.9	1.7	2.9	1.1	37	0	2.5	.3
26...	1200	A17	13	8.8	1.8	3.0	5.2	35	0	3.3	3.3
APR. 09...	1015	22	13	8.2	1.6	2.9	.8	34	0	4.1	1.0
MAY 14...	1200	301	8.6	5.0	.8	1.6	.3	20	--	4.1	.7
JUNE 14...	1400	830	8.1	3.8	.8	1.3	.6	18	--	3.7	.5
JULY 19...	1530	118	9.5	6.2	1.0	2.0	.7	29	--	3.5	.6
AUG. 23...	1315	34	11	7.9	1.5	2.5	.8	36	--	3.2	.5
SEP. 27...	1100	21	12	8.8	1.2	2.9	.8	38	--	4.1	1.7

A Daily mean discharge.

		DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL 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
DATE											
OCT. 30...		.0	.01	.03	.15	57	.08	3.54	30	0	.2
NOV. 28...		.1	.00	.06	.16	49	.07	2.12	29	0	.3
FEB. 04...		.3	.01	.07	.05	49	.07	1.98	29	0	.2
26...		.1	.00	.07	.02	56	.08	2.57	29	1	.2
APR. 09...		.1	.00	.18	.12	48	.07	2.85	27	0	.2
MAY 14...		.1	--	--	--	31	.04	25.2	16	0	.2
JUNE 14...		.0	--	--	--	28	.04	62.7	13	0	.2
JULY 19...		.1	.00	.05	.02	38	.05	12.1	20	0	.2
AUG. 23...		.1	.00	.03	.03	45	.06	4.13	26	0	.2
SEP. 27...		.1	.00	.01	.02	50	.07	2.84	27	0	.2

DATE	TIME	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 30...	1415	44	5	1.0	0	0	<10	0	<10	40	<50	0

DATE	TIME	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L)
OCT. 30...	<10	20	6	.0	2.1	1.6	.03	.29	1.2	.4	1.7	1.5	

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSIT (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSIT (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSIT (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSIT (UG/KG)	ODE (UG/L)
OCT. 30...	1415	.00	.0	.00	.0	.0	0	.00	.0	.00
DATE	TIME	DDT (UG/L)	DDT IN BOTTOM DE- POSIT (UG/KG)	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSIT (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 30...	.0	.00	3.3	.00	.0	.00	.0	.00	.0	.00
DATE	TIME	PCB (UG/L)	PCB IN BOTTOM DE- POSIT (UG/KG)	MALA- THION (UG/L)	PARA- THION (UG/L)	DI- AZINON (UG/L)	METHYL PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 30...	.0	.0	0	.00	.00	.00	.00	.00	.00	.00

FIELD DETERMINATIONS

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 30...	1415	5.5	74	9.0	8.2	86	80	86
NOV. 28...	1100	.5	78	10.4	8.0	84	80	81
FEB. 04...	1240	1.0	81	9.8	6.4	80	80	80
FEB. 26...	1200	.0	86	10.3	6.6	80	80	80
APR. 09...	1015	.5	87	10.4	6.6	11	80	--
MAY 14...	1200	2.5	43	9.3	8.0	27	80	81
JUNE 14...	1400	8.0	42	9.2	6.7	819	11	83
JULY 19...	1530	19.0	51	8.5	6.2	36	20	826
AUG. 23...	1315	13.5	58	8.0	6.1	40	80	81
SEP. 27...	1100	3.0	62	10.1	6.9	85	81	84

B Non-ideal counting conditions.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 30...	1415	5.5	25	8	.50
NOV. 28...	1100	.5	A16	5	.22
FEB. 04...	1240	1.0	A15	4	.17
FEB. 26...	1200	.0	A17	3	.21
APR. 09...	1015	.5	22	5	.30
APR. 23...	1010	6.0	A30	9	.73
MAY 14...	1200	2.5	301	20	16
JUNE 14...	1400	8.0	830	35	78
JULY 19...	1530	19.0	118	6	1.9
AUG. 23...	1315	13.5	34	6	.55
SEP. 27...	1100	3.0	21	6	.34

A Daily mean discharge.

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WYO.

LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼NW¼ sec.3, T.15 N., R.83 W., Carbon County, at gaging station, 0.5 mi (0.8 km) upstream from mouth, and 8.0 mi (12.9 km) northeast of Encampment.

DRAINAGE AREA.--265 mi² (686 km²).

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 31...	0815	64	27	51	6.5	21	3.3	153	0	57	13	.4
NOV. 27...	1410	A88	27	62	8.6	24	3.7	141	0	100	15	.4
DEC. 17...	1615	A71	24	44	4.3	18	2.8	123	0	51	10	.3
JAN. 21...	1640	A57	26	43	3.5	18	2.1	118	0	49	9.9	.3
FEB. 26...	1600	A71	25	40	3.8	18	2.6	113	0	49	9.5	.3
MAR. 21...	1540	55	26	47	7.2	23	3.7	132	4	61	16	.7
APR. 29...	1825	290	17	35	3.0	14	2.1	67	0	60	9.5	.2
MAY 28...	1530	1910	8.5	6.7	.2	2.7	.2	21	0	3.3	1.8	.2
JUNE 24...	1330	1430	8.1	9.3	.1	1.1	.2	27	0	.0	1.8	.2
JULY 23...	1405	190	16	20	5.1	8.0	1.4	85	0	15	1.8	.3
AUG. 26...	1510	42	34	58	12	22	3.7	190	0	69	9.1	.5

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 31...	.02	.00	254	.35	43.9	150	24	.7	8.1	398	3.0
NOV. 27...	.11	.04	313	.43	74.4	190	74	.8	8.0	477	.0
DEC. 17...	.07	.02	215	.29	41.2	130	29	.7	8.3	335	.5
JAN. 21...	.16	.02	332	.45	51.1	120	23	.7	8.1	332	.0
FEB. 26...	.18	.02	205	.28	39.3	120	27	.7	8.1	321	.0
MAR. 21...	.41	.03	260	.35	38.6	150	35	.8	8.4	398	2.0
APR. 29...	.14	.00	174	.24	136	100	45	.6	7.9	271	7.5
MAY 28...	.05	.00	34	.05	175	18	1	.3	7.5	43	9.0
JUNE 24...	.09	.00	34	.05	131	24	2	.1	7.5	59	11.0
JULY 23...	.07	.00	110	.15	56.4	70	0	.4	8.0	178	16.5
AUG. 26...	.11	.01	303	.41	34.4	200	44	.7	8.3	467	17.5

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 31...	0815	64	2	9.2	813
NOV. 27...	1410	A88	3	9.0	86
DEC. 17...	1615	A71	2	11.8	87
JAN. 21...	1640	A57	2	11.4	83
FEB. 26...	1600	A71	2	10.7	80
MAR. 21...	1540	55	2	10.8	80
APR. 29...	1825	290	5	10.0	65
MAY 28...	1530	1910	4	9.1	160
JUNE 24...	1330	1430	2	8.8	825
JULY 23...	1405	190	2	8.2	45
AUG. 26...	1510	42	2	9.8	55

A Daily mean discharge.

B Non-ideal counting conditions.

06628550 NORTH PLATTE RIVER NEAR SARATOGA, WYO.

LOCATION.--Lat 41°32'22", long 106°52'52", in NW¼NW¼NW¼ sec.17, T.18 N., R.84 W., Carbon County, temperature recorder on right bank, at upstream side of Pick Bridge, 0.8 mi (1.3 km) downstream from Cottonwood Draw, and 7 mi (11 km) northwest of Saratoga.

PERIOD OF RECORD.--Water temperatures: October 1971 to September 1974 (discontinued).

EXTREMES. - -1973-74:

Water temperatures: Maximum, 23.0°C July 13, 20; minimum, freezing point on many days during December to March.

Period of record:

Water temperatures: Maximum 24.5°C Aug. 13, 1972; minimum, freezing point on many days during winter periods each year.

REMARKS.--Periods of no record due to clock stoppage and ranges in temperature are:

Nov. 5-12 4.5°C to 0.5°C

Feb. 6-20 0.5°C to 0.0°C

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	12.0	8.5	4.0	3.0	1.0	0.5	0.0	0.0	0.5	0.5	0.0	0.0	
2	12.0	9.0	3.0	1.0	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.0	
3	12.0	9.0	1.0	1.0	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.0	
4	11.0	7.5	1.0	1.0	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	
5	11.0	7.0	---	---	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	
6	11.0	8.0	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
7	10.0	8.0	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
8	10.0	7.0	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
9	9.5	7.0	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
10	8.0	5.5	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
11	6.5	5.5	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
12	6.0	4.0	---	---	0.5	0.5	0.0	0.0	---	---	0.0	0.0	
13	8.0	4.5	4.5	4.0	0.5	0.5	0.0	0.0	---	---	1.0	0.0	
14	9.5	6.0	4.5	2.0	0.5	0.5	0.0	0.0	---	---	1.5	0.5	
15	10.0	7.0	2.0	1.0	0.5	0.5	0.0	0.0	---	---	2.0	0.5	
16	10.5	7.5	2.0	0.5	0.5	0.5	0.0	0.0	---	---	3.0	1.0	
17	10.5	7.5	2.0	1.0	0.5	0.5	0.0	0.0	---	---	4.5	2.0	
18	10.0	7.0	3.0	1.0	0.5	0.5	0.0	0.0	---	---	4.5	2.0	
19	10.0	7.0	3.0	1.0	0.5	0.5	0.0	0.0	---	---	4.0	0.5	
20	9.0	7.0	1.0	0.5	0.5	0.0	0.0	0.0	---	---	3.0	1.0	
21	9.0	6.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
22	9.0	6.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	
23	8.5	6.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	
24	7.5	5.0	0.5	0.5	0.0	0.0	0.5	0.0	0.5	0.0	0.5	0.5	
25	6.0	4.0	0.5	0.5	0.0	0.0	0.5	0.0	0.5	0.0	4.0	0.5	
26	7.0	5.0	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.0	5.0	3.0	
27	5.5	3.0	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.0	6.0	3.5	
28	6.5	3.5	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.0	5.0	2.5	
29	6.0	4.5	0.5	0.5	0.0	0.0	0.5	0.5	---	---	3.5	1.0	
30	5.5	4.0	1.0	0.5	0.0	0.0	0.5	0.5	---	---	4.5	2.5	
31	4.0	3.0	---	---	0.0	0.0	0.5	0.5	---	---	4.5	3.0	
MONTH	12.0	3.0	---	---	1.0	0.0	0.5	0.0	---	---	6.0	0.0	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	3.5	1.5	10.0	8.0	12.0	10.0	19.0	17.0	21.0	17.0	17.0	14.0	
2	2.5	1.0	10.0	7.5	12.0	10.5	18.5	15.5	21.0	17.0	17.0	11.5	
3	3.5	0.5	7.5	6.0	12.5	11.0	19.0	16.0	21.0	16.0	16.5	11.5	
4	5.0	1.5	10.5	7.5	12.0	11.0	19.0	15.0	20.0	17.0	17.5	12.0	
5	5.5	2.0	11.0	9.0	11.5	9.0	18.5	15.5	21.0	16.0	18.0	14.0	
6	4.5	3.0	11.0	9.0	9.0	8.0	20.0	16.0	21.5	16.0	18.5	13.0	
7	4.5	1.5	10.5	9.0	9.5	7.5	19.0	17.0	20.0	18.0	18.0	12.5	
8	5.0	2.5	10.5	9.0	9.5	6.0	18.0	15.0	18.0	16.0	17.5	13.0	
9	6.0	4.0	11.0	9.0	9.5	6.0	20.0	16.0	16.5	15.0	19.0	14.0	
10	7.0	4.5	11.0	8.0	11.5	8.0	20.5	17.5	16.0	12.5	18.5	14.5	
11	5.0	2.0	8.5	6.5	14.0	10.5	21.0	17.0	17.5	13.0	16.5	10.5	
12	3.5	1.0	9.5	7.0	14.5	12.5	22.5	17.0	17.0	14.0	13.0	9.0	
13	4.5	2.5	9.5	8.0	15.0	13.0	23.0	18.5	18.5	14.5	13.5	8.5	
14	5.0	2.5	8.0	6.0	15.0	13.0	21.5	19.0	19.0	15.0	13.5	9.0	
15	7.5	3.0	9.0	6.5	15.0	13.5	21.0	17.5	19.0	15.0	15.5	11.0	
16	8.0	4.5	10.0	7.5	15.0	13.0	20.0	18.5	19.5	14.5	16.0	11.0	
17	9.5	5.5	10.0	9.0	14.5	13.0	21.0	18.0	19.5	15.0	16.0	11.0	
18	10.5	6.5	11.0	8.5	15.0	13.0	20.0	17.0	20.5	15.0	17.0	11.5	
19	9.0	6.5	11.0	9.0	15.5	14.0	22.5	17.5	19.0	16.0	16.0	12.0	
20	6.5	4.5	11.0	8.5	16.0	14.0	23.0	19.0	18.5	15.0	15.0	11.5	
21	5.0	3.5	8.5	6.5	16.0	14.0	21.0	19.0	19.0	13.0	15.0	10.0	
22	7.5	4.0	9.0	6.5	16.5	14.0	21.0	18.0	19.5	13.5	15.5	10.0	
23	7.5	6.5	10.0	8.5	16.5	15.0	20.0	17.0	20.0	14.0	15.0	10.5	
24	10.0	7.0	11.0	9.0	17.5	15.0	18.5	17.0	20.5	15.0	15.5	11.0	
25	11.0	9.5	11.0	10.0	17.5	15.0	20.0	16.0	20.5	15.0	15.5	10.5	
26	11.0	10.0	11.5	9.5	18.0	16.0	21.0	17.0	21.0	15.0	15.0	11.0	
27	10.0	8.0	11.5	10.0	18.0	16.0	22.5	18.0	21.5	16.0	12.5	9.0	
28	9.0	6.5	11.0	10.0	18.0	16.0	21.0	18.5	21.5	16.0	11.0	7.0	
29	9.0	7.0	11.5	10.0	19.0	16.0	21.5	17.0	21.0	16.0	12.0	8.5	
30	10.0	7.0	12.0	9.5	19.5	16.5	19.5	18.0	20.5	15.5	12.0	8.0	
31	---	---	12.0	9.5	---	---	20.5	16.0	19.0	15.0	---	---	
MONTH	11.0	0.5	12.0	6.0	19.5	6.0	23.0	15.0	21.5	12.5	19.0	7.0	
YEAR	23.0	0.0											

PLATTE RIVER BASIN

115

06628800 SAGE CREEK NEAR SARATOGA, WYO.

LOCATION.--Lat 41°34'53", long 106°59'17", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.32, T.19 N., R.85 W., Carbon County, at gaging station, 300 ft (91 m) upstream from private farm bridge, 1.1 mi (1.8 km) downstream from Little Sage Creek, 3.6 mi (5.8 km) upstream from mouth, and 13 mi (21 km) northwest of Saratoga.

DRAINAGE AREA.--263 mi² (681 km²).

PERIOD OF RECORD.--Chemical analyses: October 1972 to September 1974 (no winter records).
Sediment records: October 1972 to September 1974 (no winter records).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
APR. 23...	1515	56	9.4	110	60	110	4.4	232	0	540	17	.4
MAY 22...	1535	65	16	78	27	37	3.0	186	0	220	7.2	.4
JUNE 13...	0915	46	17	85	32	45	4.0	214	0	250	5.4	.4
JULY 16...	1730	6.9	18	77	39	49	4.2	195	0	290	5.5	.4
AUG. 26...	1545	2.0	13	120	79	100	4.9	230	0	620	9.1	.5
SEP. 26...	1550	2.0	9.9	120	73	120	5.1	240	0	640	11	.5

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
APR. 23...	.07	.00	966	1.31	146	530	340	2.1	8.3	1300	9.0
MAY 22...	.07	.00	481	.65	84.4	300	150	.9	8.2	683	11.0
JUNE 13...	.09	.01	547	.74	67.9	340	160	1.1	8.2	806	13.0
JULY 16...	.00	.01	579	.79	10.8	360	200	1.1	8.2	837	20.0
AUG. 26...	.02	.00	1070	1.46	5.78	630	440	1.7	8.3	1410	19.0
SEP. 26...	.05	.02	1090	1.48	5.89	610	410	2.1	8.1	1440	12.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SJS- PENVED SEDI- MENT (MG/L)	SJS- PENVED SEDI- MENT (T/DAY)	SJS. SED. FALL DIAM. % FINE THAN .004 MM	SJS. SED. FALL DIAM. % FINE THAN .015 MM	SJS. SED. FALL DIAM. % FINE THAN .062 MM	SJS. SED. FALL DIAM. % FINE THAN .125 MM
APR. 23...	1515	9.0	56	1300	197	39	60	91	99
MAY 22...	1535	11.0	65	374	66	--	--	--	--
JUNE 13...	0915	13.0	46	383	48	--	--	--	--
JULY 16...	1730	20.0	6.9	94	1.8	--	--	--	--
AUG. 26...	1545	19.0	2.0	104	.56	--	--	--	--
SEP. 26...	1550	12.5	2.0	127	.59	--	--	--	--

PLATTE RIVER BASIN

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WYO.

LOCATION.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., Carbon County, at gaging station, 6.5 mi (10.5 km) northeast of Sinclair, and 14 mi (22.5 km) upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft (1,938 m).

DRAINAGE AREA.--8,134 mi² (21,067 km²), of which 4,073 mi² (10,549 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1960 to March 1967 (daily), January 1968 to September 1969 (daily), October 1969 to September 1974 (monthly).

Water temperatures: December 1960 to March 1967, January 1968 to September 1969, October 1971 to September 1974 (discontinued).

EXTREMES.--1973-74:

Water temperatures: Maximum, 23.0°C July 13; minimum, freezing point on many days during November to March.

Period of record:

Water temperatures: Maximum (1960-66, 1969, 1973-74), 24.0°C Aug. 7, 1964; minimum, freezing point on many days during winter periods in most years.

REMARKS.--No thermograph record Aug. 27 to Sept. 3; pen inoperative.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
23...	1530	374	16	57	18	32	2.8	153	9	130	9.2	.6
NOV.												
14...	0800	759	17	54	16	30	3.5	159	0	120	7.9	.5
DEC.												
18...	1000	A310	18	67	17	35	2.8	182	0	140	14	.4
JAN.												
23...	1825	A350	19	63	17	34	3.0	173	0	140	16	.5
FEB.												
20...	1800	A360	18	56	17	32	2.8	167	0	120	14	.4
MAR.												
19...	1755	1340	14	57	14	32	4.2	150	0	130	9.5	.7
APR.												
30...	0845	3570	12	33	6.1	14	3.0	107	0	43	3.8	.3
MAY												
29...	0745	5950	9.6	20	2.7	8.0	1.4	64	0	21	1.8	.2
JUNE												
25...	0805	4590	11	33	3.1	7.5	1.4	104	0	21	1.8	.3
JULY												
24...	0800	1260	9.1	38	13	21	2.3	153	0	66	5.5	.4
AUG.												
27...	0900	264	9.2	43	16	29	2.8	150	0	97	9.1	.5

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
23...	.07	--	350	.48	353	220	79	.9	8.6	564	9.0
NOV.											
14...	.07	.03	330	.45	676	200	70	.9	8.2	521	3.5
DEC.											
18...	.00	.01	389	.53	326	240	91	1.0	8.2	601	.0
JAN.											
23...	.09	.01	376	.51	355	230	88	1.0	8.1	581	.0
FEB.											
20...	.02	.02	345	.47	335	210	73	1.0	8.2	540	.0
MAR.											
19...	.27	.04	342	.47	1240	200	77	1.0	7.9	539	2.5
APR.											
30...	.07	.01	168	.23	1620	110	22	.6	7.9	274	7.0
MAY											
29...	.07	.00	96	.13	1540	60	7	.4	7.6	160	9.5
JUNE											
25...	.11	.00	131	.18	1620	95	10	.3	7.7	236	16.0
JULY											
24...	.07	.00	231	.31	786	150	24	.8	8.3	375	18.0
AUG.											
27...	.07	.00	282	.38	201	170	47	1.0	8.2	465	16.0

PLATTE RIVER BASIN

117

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
31...	1105	367	5	10.1	82
NOV.					
14...	0800	759	10	9.6	85
DEC.					
18...	1000	A310	1	10.2	8500
JAN.					
23...	1825	A350	4	10.4	8120
FEB.					
20...	1800	A360	5	12.9	82
MAR.					
19...	1755	1340	180	10.5	82
APR.					
30...	0845	3570	40	9.7	815
MAY					
29...	0745	5950	15	10.0	867
JUNE					
25...	0805	4590	3	7.5	200
JULY					
24...	0800	1260	10	6.7	60
AUG.					
27...	0900	264	10	6.4	86

A Daily mean discharge.

B Non-ideal counting conditions.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
AUG.					
20...	1630	18.0	342	14	13

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	10.0	4.0	2.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
2	12.5	10.0	2.5	1.0	0.0	0.0	1.0	0.5	0.0	0.0	0.0	0.0
3	12.0	10.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0
4	11.5	9.0	1.0	1.0	0.0	0.0	1.0	0.5	0.0	0.0	0.0	0.0
5	11.5	9.0	1.0	0.5	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
6	12.0	9.0	1.0	0.5	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
7	11.0	9.5	1.0	0.5	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
8	10.5	9.0	3.5	1.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
9	10.0	6.0	5.0	3.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
10	6.5	5.5	5.0	4.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
11	6.0	5.0	5.0	4.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
12	5.5	4.5	5.0	4.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
13	8.0	5.0	5.0	3.5	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
14	9.5	7.0	4.5	3.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
15	10.5	8.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
16	11.0	8.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5
17	11.0	9.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.5
18	11.0	8.5	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.5
19	10.5	8.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.5
20	10.0	8.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.0
21	10.0	8.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5
22	10.0	8.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
23	9.5	8.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5
24	8.0	5.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5
25	6.5	5.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.5
26	6.5	4.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.0
27	6.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.5
28	7.0	4.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.5
29	6.5	5.5	0.5	0.0	0.0	0.0	0.0	0.0	---	---	4.0	2.5
30	5.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	5.0	3.5
31	4.5	3.0	---	---	0.0	0.0	0.0	0.0	---	---	5.5	4.5
MONTH	13.0	3.0	5.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	5.5	0.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.5	3.0	10.5	8.5	13.5	10.0	19.5	17.5	20.5	17.5	---	---
2	3.5	2.5	10.0	9.0	14.0	11.0	19.0	17.0	20.0	17.5	---	---
3	3.0	2.0	9.0	7.0	13.5	11.0	18.5	16.0	20.5	16.5	15.5	---
4	5.0	2.0	10.0	6.5	13.0	11.0	19.0	16.0	20.0	17.5	16.5	12.0
5	5.5	2.5	11.5	9.0	12.0	11.0	18.5	16.5	21.0	17.0	17.0	14.0
6	5.5	4.0	12.0	10.0	11.0	9.0	19.5	16.5	22.0	18.0	17.5	13.5
7	6.0	3.0	12.0	10.0	9.0	8.0	19.0	17.5	21.0	19.0	17.5	14.0
8	6.0	3.0	11.5	10.0	9.0	7.5	19.0	16.5	20.0	17.5	17.0	14.5
9	6.0	4.5	12.0	10.0	8.0	6.5	20.5	17.0	18.5	15.5	18.5	15.0
10	6.0	5.0	11.0	9.0	11.0	8.0	20.0	18.0	16.0	14.0	18.0	15.0
11	5.5	5.0	9.0	7.0	13.5	10.5	20.5	18.0	18.0	14.5	16.0	8.5
12	5.0	4.0	9.0	8.0	15.0	13.0	22.0	18.0	18.0	15.0	11.5	7.5
13	4.5	3.0	9.0	8.0	16.0	14.0	23.0	19.5	18.0	15.0	13.0	9.0
14	5.5	3.5	8.0	7.0	16.5	14.5	22.5	20.0	18.0	15.0	13.5	10.0
15	7.0	3.5	8.0	6.0	16.5	14.0	22.5	19.0	19.0	15.0	15.5	12.0
16	8.5	5.5	10.0	7.5	16.0	14.0	21.0	19.0	19.5	15.5	16.0	12.5
17	10.0	6.5	10.0	9.0	15.0	13.5	20.5	18.5	19.5	16.5	16.5	13.0
18	11.0	8.0	11.0	8.5	15.5	13.5	21.0	19.0	19.5	16.0	17.0	13.0
19	11.0	9.0	12.0	10.0	15.5	14.0	21.5	18.5	19.0	16.5	16.0	13.0
20	9.0	6.0	11.5	9.5	16.5	14.5	22.5	20.0	18.0	15.0	15.0	12.5
21	6.5	5.0	9.5	7.5	17.0	14.5	21.5	20.0	18.0	14.0	15.0	11.5
22	8.0	4.5	9.0	7.0	17.5	14.5	22.0	19.0	19.5	15.0	15.0	11.5
23	9.0	4.5	10.5	8.0	17.5	15.5	22.0	19.5	20.0	15.5	15.0	12.0
24	11.0	8.0	12.0	9.0	18.5	15.5	21.0	18.0	20.5	16.0	15.0	12.0
25	12.5	10.0	12.5	10.0	19.0	16.0	20.5	17.0	20.0	16.5	15.0	11.5
26	12.5	11.0	12.5	10.5	19.0	16.5	20.5	18.0	19.0	16.5	14.5	12.0
27	11.0	9.0	12.5	11.0	19.0	16.5	22.0	18.0	---	---	13.0	9.5
28	9.0	7.0	12.5	10.5	19.0	16.5	21.5	19.0	---	---	11.0	8.0
29	9.5	7.0	13.0	10.0	19.5	17.0	21.0	18.5	---	---	11.0	8.0
30	10.0	7.5	13.0	10.5	20.0	17.0	20.5	18.0	---	---	12.0	8.5
31	---	---	12.5	10.0	---	---	20.0	17.5	---	---	---	---
MONTH	12.5	2.0	13.0	6.0	20.0	6.5	23.0	16.0	22.0	14.0	18.5	7.5
YEAR	23.0	0.0										

PLATTE RIVER BASIN

119

06634030 LITTLE MEDICINE BOW RIVER AT HEWARD RANCH, NEAR SHIRLEY BASIN, WYO.

LOCATION.--Lat 42°22'10", long 106°06'17", in NE¼NE¼SE¼ sec.30, T.28 N., R.77 W., Carbon County, sampled at bridge at Heward Ranch on county road, 3.4 mi (5.5 km) upstream from Spring Creek, 3.4 mi (5.5 km) downstream from South Fork, 7.0 mi (11.3 km) northeast of Shirley Basin, and 36 mi (58 km) northeast of Medicine Bow.

PERIOD OF RECORD.--Chemical analyses: December 1972 to July 1973, November and December 1973 (discontinued).

CHEMICAL ANALYSES, NOVEMBER AND DECEMBER 1973

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
NOV. 13...	1215	11	2.0	293	10.1	8.2
DEC. 19...	1025	5.0	.0	320	8.6	7.7

06634100 LITTLE MEDICINE BOW RIVER NEAR SHIRLEY BASIN, WYO.

LOCATION.--Lat 42°15'14", long 106°07'36", in NW¼NE¼SE¼ sec.1, T.26 N., R.78 W., Carbon County, at bridge on county road, 4.1 mi (6.6 km) downstream from Sand Creek, 4.9 mi (7.9 km) southeast of Shirley Basin, and 23 mi (37 km) northeast of Medicine Bow.

PERIOD OF RECORD.--Chemical analyses: December 1972 to July 1973, November and December 1973 (discontinued).

CHEMICAL ANALYSES, NOVEMBER AND DECEMBER 1973

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
NOV. 13...	1100	20	1.5	580	9.6	8.1
DEC. 19...	0910	9.2	.0	780	9.2	8.0

PLATTE RIVER BASIN

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WYO.

LOCATION (revised).--Lat 41°57'12", long 106°09'38", in NW¼SW¼NE¼ sec.22, T.23 N., R.78 W., Carbon County, at gaging station, 1.6 mi (2.6 km) upstream from Highway 487, 3.2 mi (5.1 km) downstream from Muddy Creek, and 4.3 mi (6.9 km) northeast of Medicine Bow.

DRAINAGE AREA.--963 mi² (2,494 km²), of which 54 mi² (140 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.

Sediment records: October 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.												
31...	1615	22	15	72	20	61	3.5	171	4	240	8.3	.3
NOV.												
13...	1635	37	14	82	38	69	4.4	202	0	310	8.6	.4
DEC.												
19...	1230	A8.0	16	96	25	74	4.0	229	0	300	11	.4
JAN.												
24...	1500	A1.1	15	140	25	96	3.7	244	0	430	18	.5
FEB.												
20...	1045	A7.2	20	96	26	92	4.6	247	0	330	13	.4
MAR.												
19...	1030	339	9.5	46	6.4	20	4.4	117	0	79	4.6	.4
APR.												
22...	1500	240	11	56	25	41	3.3	131	0	210	7.6	.3
MAY												
20...	1655	161	14	54	7.0	20	2.3	128	0	90	5.4	.3
JUNE												
25...	1300	11	13	96	22	70	4.4	207	0	300	9.0	.4
JULY												
18...	1630	42	12	83	23	62	5.6	162	0	290	7.3	.4
AUG.												
19...	1730	6.0	13	84	26	91	5.1	200	0	340	9.1	.5
SEP.												
23...	1525	8.4	10	77	28	98	4.9	190	0	350	11	.5

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
OCT.											
31...	.07	.22	504	.69	29.9	260	110	1.6	8.5	766	3.0
NOV.											
13...	.09	.12	630	.86	62.9	360	190	1.6	8.3	921	5.0
DEC.											
19...	.02	.00	640	.87	13.8	340	150	1.7	8.1	941	.0
JAN.											
24...	.18	.01	849	1.15	2.52	460	260	2.0	8.1	1170	.0
FEB.											
20...	.07	.01	704	.96	13.7	350	150	2.2	8.1	1000	.0
MAR.											
19...	.23	.09	228	.31	209	140	44	.7	7.9	378	.0
APR.											
22...	.05	.01	418	.57	271	240	130	1.1	8.2	628	9.5
MAY											
20...	.14	.00	257	.35	112	160	55	.7	8.2	391	12.0
JUNE											
25...	.05	.00	617	.84	18.3	330	160	1.7	8.3	889	25.5
JULY											
18...	.11	.01	564	.77	64.0	300	170	1.6	7.7	800	22.0
AUG.											
19...	.02	.00	662	.90	10.7	320	160	2.2	8.3	957	18.0
SEP.											
23...	.02	.01	671	.91	15.2	310	150	2.4	8.3	962	19.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER-ATURE (DEG C)	INSTANTANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT (T/DAY)	SJS. SED. FALL DIAM. & FINER THAN .004 MM	SJS. SED. FALL DIAM. & FINER THAN .016 MM	SJS. SED. FALL DIAM. & FINER THAN .052 MM	SJS. SED. FALL DIAM. & FINER THAN .125 MM	SJS. SED. FALL DIAM. & FINER THAN .250 MM	SJS. SED. FALL DIAM. & FINER THAN .500 MM	SJS. SED. FALL DIAM. & FINER THAN 1.00 MM
OCT.												
31...	1615	3.0	22	113	3.7	--	--	--	--	--	--	--
NOV.												
13...	1635	5.0	37	108	11	--	--	--	--	--	--	--
DEC.												
19...	1230	.0	A8.0	9	.19	--	--	--	--	--	--	--
FEB.												
20...	1045	.0	A7.2	48	.93	--	--	--	--	--	--	--
MAR.												
19...	1030	.0	339	1010	924	48	55	80	90	97	99	100
APR.												
22...	1500	9.5	240	731	474	50	70	89	96	99	100	--
MAY												
20...	1655	12.0	161	232	101	--	--	--	--	--	--	--
JUNE												
25...	1300	25.5	11	18	.53	--	--	--	--	--	--	--
JULY												
18...	1630	22.0	42	3150	358	--	--	--	--	--	--	--
AUG.												
19...	1730	18.0	6.0	34	.55	--	--	--	--	--	--	--
SEP.												
23...	1525	19.0	8.4	41	.93	--	--	--	--	--	--	--

A Daily mean discharge.

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WYO.

LOCATION.--Lat 42°00'35", long 106°30'45", in SE4NW4 sec.34, T.24 N., R.81 W., Carbon County, at gaging station, 15 ft (5 m) downstream from bridge on county road, 2.0 mi (3.2 km) upstream from Troublesome Creek, 9.0 mi (14.5 km) upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft (1,938 m), and 10 mi (16 km) north of Hanna.

DRAINAGE AREA.--2,338 mi² (6,055 km²), of which 396 mi² (1,026 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.

Sediment records: October 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV. 13...	1615	158	9.0	120	67	130	4.0	192	5	650	24	.5
DEC. 18...	1600	A66	7.3	160	59	120	3.0	228	0	670	33	.5
JAN. 23...	1415	A49	9.2	140	53	110	2.6	210	0	540	36	.5
FEB. 20...	1445	A70	7.6	120	56	100	2.6	198	0	540	30	.5
MAR. 19...	1330	568	7.4	68	37	77	4.2	140	0	350	15	.4
APR. 22...	1800	547	8.5	76	42	87	3.3	165	0	380	15	.4
MAY 21...	1440	860	8.4	54	7.6	23	1.6	104	0	120	7.2	.3
JUNE 25...	1515	836	6.9	50	16	30	1.6	131	0	140	5.4	.3
JULY 16...	1400	109	5.4	110	59	130	2.8	232	0	560	27	.6
SEP. 24...	1115	30	3.5	150	79	150	4.2	190	0	790	42	.6

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
NOV. 13...	2.5	.20	1120	1.52	478	580	410	2.4	8.4	1660	4.5
DEC. 18...	.68	.01	1170	1.59	209	630	440	2.1	8.3	1570	.0
JAN. 23...	.52	.01	999	1.36	132	560	390	2.0	8.2	1420	.0
FEB. 20...	.38	.00	960	1.31	181	540	380	1.9	8.3	1320	.0
MAR. 19...	.59	.03	629	.86	965	320	210	1.9	7.9	921	2.0
APR. 22...	.18	.01	698	.95	1030	360	230	2.0	8.2	994	9.5
MAY 21...	.20	.00	274	.37	636	160	75	.8	8.0	422	8.5
JUNE 25...	.09	.00	315	.43	711	190	83	.9	7.9	492	21.0
JULY 16...	.02	.00	1010	1.37	297	530	340	2.5	8.3	1350	21.0
SEP. 24...	.02	.01	1320	1.80	107	700	540	2.5	8.2	1710	12.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDIM- ENT (MG/L)	SUS- PENDED SEDIM- ENT (T/DAY)	SJS. SED. FALL DIAM. % FINER THAN .004 MM	SJS. SED. FALL DIAM. % FINER THAN .016 MM	SJS. SED. FALL DIAM. % FINER THAN .052 MM	SJS. SED. FALL DIAM. % FINER THAN .125 MM	SJS. SED. FALL DIAM. % FINER THAN .250 MM
OCT. 24...	1730	6.0	73	46	9.1	--	--	--	--	--
NOV. 13...	1615	4.5	158	154	7.5	--	--	--	--	--
DEC. 18...	1600	.0	A66	13	2.3	--	--	--	--	--
JAN. 23...	1415	.0	A49	22	2.9	--	--	--	--	--
FEB. 20...	1445	.0	A70	50	11	--	--	--	--	--
MAR. 19...	1330	2.0	568	1400	2150	47	65	86	95	100
APR. 22...	1800	9.5	547	927	1370	44	64	84	95	100
MAY 21...	1440	8.5	850	710	1650	--	--	--	--	--
JUNE 25...	1515	21.0	836	221	499	--	--	--	--	--
JULY 16...	1400	21.0	109	54	19	--	--	--	--	--
AUG. 20...	1045	13.0	32	49	4.2	--	--	--	--	--
SEP. 24...	1115	12.0	30	38	3.1	--	--	--	--	--

A Daily mean discharge.

PLATTE RIVER BASIN

06635500 SEMINOE RESERVOIR NEAR LEO, WYO.

LOCATION.--Lat 42°09'21", long 106°54'29", in NW¼NE¼ sec.8, T.25 N., R.84 W., Carbon County, near dam on North Platte River, 6.0 mi (9.7 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850.1 ft (1,783.11 m), and 9.0 mi (14.5 km) southwest of Leo. Sampled at sites listed below.

DRAINAGE AREA.--11,189 mi² (28,980 km²), of which 4,548 mi² (11,779 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August to November 1972, May to September 1973, May to September 1974.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at all sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total contents at 2400 hours.

SAMPLE SITE 1.--Lat 42°08'38", long 106°52'57", in NE¼NE¼ sec.16, T.25 N., R.84 W., 1.6 mi (2.6 km) upstream from dam.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
29...	764,100	82	SURFACE	11.5	10.1	.06	.15	.02	334
			20	10.5	10.0				
			30	10.0	10.0				
			50	9.0	9.7				
			70	8.0	9.4	.07	.18	.06	356
			80	8.0	9.4				
			100	7.5	9.5				
			120	7.5	9.5				
			130	7.5	9.7				
			140	7.5	10.4				
			145	8.0	10.8	.07	.17	.06	356
JUNE									
25...	977,800	83	SURFACE	19.5	7.7	.13	.08	.05	247
			5	16.5	7.7				
			20	15.5	7.5				
			40	13.5	7.7				
			60	12.5	7.6				
			80	11.5	7.6				
			90	--	--	.16	.14	.07	291
			100	10.5	7.6				
			120	10.5	7.5				
			140	10.0	7.3				
			158	10.0	7.3	.14	.21	.08	306
JULY									
24...	656,900	91	SURFACE	21.0	9.6	.29	.01	.03	225
			10	20.5	9.5				
			20	20.0	8.6				
			30	17.5	7.5				
			40	17.0	6.8				
			50	15.5	6.8				
			60	13.0	7.1				
			80	12.0	7.1	.02	.15	.04	264
			100	11.0	6.7				
			120	10.5	6.5				
			140	10.5	6.3				
			160	11.0	6.1	.04	.17	.06	269
AUG.									
27...	912,900	112	SURFACE	18.0	6.9	.07	.01	.04	236
			10	17.5	6.8				
			15	17.5	6.7				
			20	17.5	6.2				
			30	17.0	6.0				
			40	17.0	6.0				
			50	16.5	5.8				
			70	14.5	4.8	.06	.18	.05	250
			100	12.5	4.7				
			120	12.0	4.2				
			150	11.5	3.6				
			165	11.5	3.2	.12	.23	.13	253
SEP.									
25...	859,900	47	SURFACE	14.5	6.2	.01	.08	.03	236
			20	14.0	6.2				
			50	14.0	6.1				
			70	14.0	6.0				
			80	14.0	5.8	.01	.05	.04	249
			100	14.0	5.7				
			110	14.0	4.9				
			120	13.5	4.0				
			130	13.0	3.1				
			140	13.0	2.2				
			150	12.5	1.9				
			160	12.5	1.8	.07	.25	.16	254

PLATTE RIVER BASIN

123

06635500 SEMINOE RESERVOIR NEAR LEO, WYO.--Continued

SAMPLE SITE 2.--Lat 42°00'34", long 106°50'23", in NE&SW&NW¼ sec.35, T.24 N., R.84 W., about 13 mi (21 km) upstream from dam in the North Platte River arm of reservoir.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	TOTAL NITRITE DIS- SOLVED OXYGEN (MG/L)	PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	DIS- SOLVED TOTAL PHOS- PHORUS (P) (MG/L)	SOLIDS (RESI- DUE AT 180 °C) (MG/L)
MAY, 1974									
29...	764,100	27	SURFACE	12.5	8.8	.15	.03	.04	119
			10	12.0	8.6				
			20	10.5	8.3				
			25	10.0	8.2				
			30	9.5	8.3	.19	.06	.03	142
			35	9.5	8.2				
			40	9.0	8.2				
			50	8.5	8.2				
			60	8.5	8.2				
			70	8.5	8.1	.09	.07	.01	186
JUNE									
25...	977,800	68	SURFACE	19.0	7.7	.12	.02	.05	158
			5	17.0	7.4				
			10	16.5	7.0				
			20	15.5	6.8				
			30	15.0	6.8	.12	.01	.07	182
			40	13.5	6.8				
			50	12.0	6.9				
			70	10.0	6.6				
			77	10.0	6.6	.17	.04	.09	184
JULY									
24...	656,900	91	SURFACE	19.5	7.6	.08	.01	.03	215
			20	19.0	7.4				
			30	17.5	6.9				
			40	17.0	6.8				
			50	16.0	6.5	.04	.07	.05	210
			60	14.0	5.6				
			78	12.0	5.1	.02	.12	.09	204
AUG.									
27...	912,900	70	SURFACE	20.5	8.6	.14	.01	.03	233
			10	18.0	8.0				
			20	17.0	7.3				
			30	17.0	6.6				
			40	16.5	5.9	.08	.04	.03	226
			50	16.5	5.2				
			60	16.0	4.8				
			70	15.5	3.3				
			76	15.0	1.8	.09	.29	.31	226
SEP.									
25...	859,900	42	SURFACE	15.0	8.0	.08	.03	.04	243
			10	14.0	7.8				
			20	14.0	7.8				
			30	14.0	7.6				
			40	14.0	7.1	.04	.08	.04	247
			50	14.0	7.2				
			60	14.0	6.5				
			70	14.0	5.5				
			76	14.0	4.2	.41	.03	.13	253

PLATTE RIVER BASIN

06635500 SEMINOE RESERVOIR NEAR LEO, WYO.--Continued

SAMPLE SITE 3.--Lat 42°02'38", long 106°49'27", in SE¼SW¼SW¼ sec.13, T.24 N., R.83 W., about 10 mi (16 km) upstream from dam in the Medicine Bow River arm of reservoir.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
29...	764,100	16	SURFACE	12.0	8.9	.23	.09	.07	220
			10	10.5	8.5				
			20	10.5	8.4				
			30	10.5	8.4				
			35	--	--	.11	.09	.07	242
			40	10.0	8.4				
			50	10.0	8.4				
			60	9.5	8.4				
			70	9.0	8.4				
			75	9.0	8.3	.15	.14	.10	310
JUNE									
25...	977,800	50	SURFACE	19.5	8.0	.03	.00	.04	189
			5	17.5	8.0				
			10	16.0	7.3				
			20	15.5	7.2				
			30	15.0	7.2				
			40	14.0	7.1	.03	.07	.06	217
			50	12.0	6.9				
			60	11.5	6.8				
			70	11.0	6.6				
			77	10.5	6.4	.02	.12	.11	242
JULY									
24...	656,900	90	SURFACE	19.5	8.3	.29	.01	.04	225
			20	19.5	8.1				
			30	19.0	7.8				
			40	17.5	6.9				
			50	15.0	6.4				
			60	13.5	5.7	.00	.13	.07	258
			70	12.0	5.5				
			85	11.5	5.4	.08	.03	.07	237
AUG.									
27...	912,900	104	SURFACE	20.0	7.3	.08	.27	.17	254
			10	17.5	6.8				
			20	17.5	6.8				
			30	17.0	6.3				
			40	17.0	5.9				
			50	16.5	5.9				
			55	16.0	5.3				
			70	15.5	4.7	.08	.14	.11	237
			82	13.5	2.6	.09	.01	.02	232
SEP.									
25...	859,900	42	SURFACE	14.5	7.7	.08	.01	.02	247
			10	14.0	7.6				
			20	14.0	7.5				
			30	14.0	7.4				
			40	14.0	7.4	.01	.03	.05	252
			50	14.0	7.1				
			60	14.0	6.7				
			70	14.0	6.3				
			80	14.0	5.9	.16	.01	.17	279

PLATTE RIVER BASIN

125

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WYO.

LOCATION.--Lat 42°10'42", long 106°52'33", in NW¼NE¼SW¼ sec.34, T.26 N., R.84 W., Carbon County, at Bureau of Reclamation gaging station, 1,800 ft (549 m) downstream from Kortes Dam, 1.2 mi (1.9 km) upstream from Lost Creek, 5.0 mi (8.0 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft (1,783 m), and 6.0 mi (9.6 km) southwest of Leo.

DRAINAGE AREA.--11,200 mi² (29,008 km²), of which 4,548 mi² (11,779 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1974.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
OCT.							
01...	1100	720	11.0	10	450	6.7	7.4
NOV.							
05...	1130	1210	7.0	9	420	9.2	7.9
DEC.							
11...	1155	850	2.0	7	480	10.0	7.6
JAN.							
03...	1140	2640	2.0	7	520	10.0	8.4
FEB.							
01...	1130	2400	1.5	5	560	10.8	8.2
MAR.							
04...	1205	2100	1.5	4	550	8.5	7.8
APR.							
01...	1125	2650	2.5	6	560	9.1	8.2
MAY							
06...	1100	2630	5.5	4	580	9.7	8.5
JUNE							
03...	1200	4400	10.5	6	560	7.8	8.2
JULY							
08...	1335	2040	11.5	7	460	6.1	8.0
AUG.							
13...	1115	1260	12.0	10	420	5.1	7.5
SEP.							
04...	1145	1570	12.5	10	420	4.0	7.6

PLATTE RIVER BASIN

06637910 ROCK CREEK AT ATLANTIC CITY, WYO.

LOCATION.--Lat 42°30'47", long 108°44'46", in NW¼SE¼ sec.2, T.29 N., R.100 W., Fremont County, at gaging station, 500 ft (152 m) downstream from Slate Creek, and 1.4 mi (2.3 km) northwest of Atlantic City.

DRAINAGE AREA.--21.3 mi² (55.2 km²).

PERIOD OF RECORD.--Chemical analyses: April to June 1957, November 1957 to September 1958, October 1969 to September 1970.

Water temperatures: June to September 1957, May to September 1958, May to September 1959, April 1960 to September 1974.

Sediment records: June 1957 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 20.0°C June 25, July 21; minimum, freezing point Dec. 28, Jan. 3, 11.

Sediment concentrations: Maximum daily, 452 mg/l May 27; minimum daily, 3 mg/l Sept. 15.

Sediment discharge: Maximum daily, 152 tons (138 tonnes) May 28; minimum daily, 0.04 ton (0.04 tonne) Sept. 15.

Period of record:

Water temperatures: Maximum, 23.0°C July 29, 1961; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 7,400 mg/l June 10, 1965; minimum daily, not determined.

Sediment discharge: Maximum daily, 2,900 tons (2,630 tonnes) June 16, 1963; minimum daily, 0.01 ton (0.01 tonne) Jan. 13, 1969.

REMARKS.--Flow affected by ice Jan. 9, 10, Feb. 5.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.5	3.0	---	1.5	2.0	2.5	4.5	9.5	16.5	17.0	---
2	5.5	1.0	2.0	0.5	2.0	3.5	3.5	5.0	12.5	17.0	17.5	---
3	7.0	1.5	2.0	0.0	1.5	1.0	3.0	6.0	11.5	17.5	17.0	---
4	5.5	2.5	1.5	0.5	1.0	2.0	3.5	8.0	11.5	18.0	14.5	---
5	6.0	1.5	2.0	---	1.0	2.0	4.5	7.5	10.0	17.5	17.5	13.0
6	9.0	2.5	2.0	---	---	0.5	5.5	7.0	12.0	17.5	13.5	---
7	7.0	3.5	2.5	1.5	---	1.5	2.0	8.5	7.0	16.5	17.0	---
8	8.5	4.0	3.0	---	---	1.0	5.0	8.5	10.0	15.0	17.0	---
9	7.0	3.5	2.5	0.5	0.5	2.0	2.0	8.5	12.5	15.5	11.0	---
10	6.0	3.0	2.0	0.5	1.0	1.5	2.5	6.5	13.5	16.0	11.5	6.0
11	5.0	3.5	2.0	0.0	1.5	4.0	3.5	6.0	14.0	15.0	12.0	6.0
12	5.5	3.0	2.0	0.5	1.5	3.5	---	7.5	16.0	15.5	12.0	7.0
13	6.0	2.0	2.0	1.0	2.5	3.0	4.5	6.0	16.5	16.0	12.5	8.0
14	8.5	2.5	2.0	1.5	2.5	4.0	4.0	6.5	14.0	19.0	12.0	8.5
15	9.0	2.0	2.0	1.5	2.0	5.5	3.5	7.0	14.5	18.5	11.5	5.5
16	9.5	2.5	3.0	2.5	2.0	5.0	2.5	8.5	13.5	16.0	13.0	8.0
17	4.0	2.0	2.0	1.5	---	4.5	---	8.5	15.0	14.0	12.5	9.0
18	4.0	2.5	1.5	1.0	2.0	---	2.5	9.0	11.0	18.0	13.5	11.5
19	5.0	1.5	1.5	1.0	---	---	4.5	4.5	15.0	17.0	13.0	12.5
20	3.5	1.0	1.0	---	1.5	3.0	2.5	5.0	15.5	16.5	8.5	11.5
21	6.0	1.0	1.5	1.5	2.0	4.0	2.0	5.0	14.5	20.0	10.0	12.5
22	4.0	1.5	1.5	---	2.5	4.5	4.0	8.5	15.0	19.5	9.0	12.5
23	5.5	1.0	2.0	2.0	1.0	3.5	4.0	4.5	18.0	18.5	9.5	12.5
24	4.5	2.0	1.5	1.5	3.0	4.0	4.5	9.5	19.5	16.0	10.0	10.0
25	5.5	0.5	---	1.0	1.0	3.5	4.0	9.0	20.0	15.5	7.5	12.0
26	3.0	2.5	1.0	2.0	2.0	---	4.5	10.0	19.5	13.5	---	12.0
27	3.5	2.5	1.0	1.5	2.5	2.5	4.5	8.5	19.0	13.0	---	8.5
28	4.0	2.5	0.0	---	3.0	3.0	4.0	8.0	16.0	13.0	---	4.5
29	4.5	3.0	0.5	1.0	---	3.5	3.5	7.0	16.5	15.0	---	11.0
30	3.5	3.0	0.5	1.0	---	2.0	4.0	7.5	19.0	14.0	---	11.0
31	3.0	---	---	---	---	3.0	---	8.0	---	16.5	---	---
MONTH	5.5	2.5	2.0	---	2.0	3.0	3.5	7.5	14.5	16.5	13.0	---
YEAR	MAX	20.0	MIN	0.0	MEAN	7.0						

PLATTE RIVER BASIN

127

06637910 ROCK CREEK AT ATLANTIC CITY, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5.9	45	.72	13	32	1.1	8.2	13	.29
2	5.8	68	1.1	11	43	1.3	8.5	23	.53
3	6.0	149	2.4	10	40	1.1	9.1	45	1.1
4	6.0	31	.50	9.9	41	1.1	8.9	43	1.0
5	8.3	51	1.1	8.5	60	1.4	6.4	90	1.6
6	9.8	103	2.7	9.4	52	1.3	7.0	120	2.3
7	9.6	103	2.7	9.3	63	1.6	5.1	17	.23
8	9.5	107	2.7	9.9	48	1.3	9.2	36	.89
9	10	53	1.4	8.4	127	2.9	9.7	22	.58
10	6.7	51	.92	4.7	48	.61	9.9	47	1.3
11	7.4	51	1.0	4.7	34	.43	9.7	43	1.1
12	7.8	42	.88	5.4	48	.70	9.2	44	1.1
13	8.0	48	1.0	5.5	68	1.0	4.9	20	.26
14	8.9	42	1.0	4.0	19	.21	4.9	82	1.1
15	10	64	2.0	3.5	38	.36	6.1	88	1.4
16	9.5	229	5.9	4.3	42	.49	6.4	48	.83
17	6.2	313	4.8	7.5	21	.43	8.2	53	1.2
18	3.6	80	.78	7.5	52	1.1	11	51	1.5
19	3.5	24	.23	5.5	76	1.1	8.6	43	1.0
20	3.4	40	.37	3.2	32	.28	5.0	98	1.3
21	3.4	10	.09	3.4	53	.49	5.4	28	.41
22	3.4	16	.15	5.7	61	.94	9.1	23	.57
23	6.0	85	1.5	4.1	67	.74	8.8	37	.88
24	6.3	53	.90	7.0	29	.55	9.2	25	.62
25	5.4	32	.47	6.3	76	1.3	8.7	17	.40
26	5.7	39	.44	7.4	87	1.7	8.5	19	.44
27	3.8	72	.74	6.3	32	.54	8.4	62	1.4
28	4.3	15	.17	7.4	25	.50	10	92	2.5
29	5.7	71	1.1	7.7	38	.79	11	78	2.3
30	9.9	60	1.6	7.7	28	.58	11	93	2.8
31	13	27	.95	--	--	--	8.3	84	1.9
TOTAL	212.8	--	42.31	208.2	--	27.94	254.4	--	34.83
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.0	76	1.4	11	25	.74	9.7	13	.34
2	6.2	77	1.3	11	27	.80	7.8	9	.19
3	5.7	50	.77	10	20	.54	7.0	33	.62
4	6.1	32	.53	10	21	.57	9.0	58	1.4
5	6.9	12	.22	9.6	12	.31	6.2	96	1.6
6	7.1	12	.23	9.2	11	.27	6.7	45	.81
7	6.4	11	.19	7.7	13	.27	9.4	30	.76
8	6.0	12	.19	6.7	14	.25	10	18	.49
9	3.7	15	.15	5.7	18	.28	17	104	4.8
10	4.0	20	.22	6.4	20	.35	19	67	3.4
11	4.5	42	.51	7.3	22	.43	15	40	1.6
12	11	116	3.4	10	15	.41	13	28	.98
13	13	188	6.6	10	20	.54	14	17	.64
14	11	110	3.3	9.3	17	.43	19	20	1.0
15	5.6	78	1.2	9.1	20	.49	20	41	2.2
16	6.7	79	1.4	9.2	22	.55	16	61	2.6
17	6.3	95	1.6	11	17	.50	20	58	3.1
18	4.9	95	1.3	10	49	1.3	20	24	1.3
19	6.1	114	1.9	8.5	55	1.3	16	26	1.1
20	6.4	67	1.2	7.6	49	1.0	11	117	3.5
21	7.7	57	1.2	8.1	25	.55	9.4	78	2.0
22	10	8	.22	8.6	16	.37	12	62	2.0
23	9.2	74	1.8	9.1	6	.15	12	54	1.7
24	7.0	79	1.5	9.5	8	.21	9.0	33	.80
25	7.1	47	.90	9.8	30	.79	9.9	18	.48
26	7.0	101	1.9	10	78	2.1	13	23	.81
27	7.5	138	2.8	11	40	1.2	11	23	.68
28	8.3	58	1.3	11	13	.39	8.5	16	.37
29	9.0	33	.80	--	--	--	11	35	1.0
30	10	13	.35	--	--	--	8.1	43	.94
31	10	8	.22	--	--	--	6.7	32	.58
TOTAL	227.4	--	40.60	256.4	--	17.09	376.4	--	43.79

PLATTE RIVER BASIN

06637910 ROCK CREEK AT ATLANTIC CITY, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

APRIL				MAY				JUNE			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	8.5	19	.44	32	119	10	88	69	16		
2	14	69	2.6	42	139	16	86	57	13		
3	9.0	34	.83	35	58	5.5	89	67	16		
4	11	43	1.3	25	80	5.4	91	51	13		
5	5.1	18	.25	28	124	9.4	89	26	6.2		
6	7.4	23	.46	36	100	9.7	83	28	6.3		
7	14	27	1.0	45	109	13	77	30	6.2		
8	14	28	1.1	54	150	22	80	43	9.3		
9	9.0	32	.78	58	157	25	75	33	6.7		
10	9.0	41	1.0	52	145	20	60	28	4.5		
11	7.7	68	1.4	46	140	17	56	23	3.5		
12	9.4	16	.41	32	136	12	53	19	2.7		
13	9.4	145	3.7	27	100	7.3	51	23	3.2		
14	15	360	15	26	41	2.9	50	18	2.4		
15	14	195	7.4	28	28	2.1	48	12	1.6		
16	11	157	4.7	24	19	1.2	48	13	1.7		
17	14	210	7.9	20	20	1.1	43	18	2.1		
18	22	242	14	22	18	1.1	41	17	1.9		
19	22	160	9.5	28	20	1.5	37	10	1.0		
20	18	159	7.7	29	19	1.5	32	12	1.0		
21	11	184	5.5	27	27	2.0	28	13	.98		
22	16	85	3.7	50	115	16	27	9	.66		
23	22	68	4.0	67	67	12	25	8	.54		
24	26	72	5.1	72	155	30	22	8	.48		
25	33	250	22	78	188	40	22	14	.83		
26	41	286	32	94	246	62	21	16	.91		
27	31	76	6.4	113	452	138	17	11	.50		
28	29	58	4.5	131	430	152	16	69	3.0		
29	26	63	4.4	134	260	94	16	25	1.1		
30	27	110	8.0	112	93	28	16	40	1.7		
31	--	--	--	92	77	19	--	--	--		
TOTAL	505.5	--	177.07	1659	--	776.7	1487	--	129.00		
JULY				AUGUST				SEPTEMBER			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	16	20	.86	5.7	22	.34	3.8	24	.25		
2	14	35	1.3	6.8	47	.86	3.9	25	.26		
3	16	36	1.6	8.3	64	1.4	4.8	26	.34		
4	11	22	.65	7.6	38	.78	7.5	28	.57		
5	13	25	.88	7.0	51	.96	8.6	29	.67		
6	16	19	.82	7.0	52	.98	8.8	28	.67		
7	11	18	.53	7.1	29	.56	7.1	22	.42		
8	9.8	16	.42	6.6	98	1.7	5.7	18	.28		
9	9.0	14	.34	7.1	58	1.1	3.4	16	.15		
10	8.4	7	.16	8.5	62	1.4	3.3	17	.15		
11	7.1	19	.36	7.6	38	.78	3.4	11	.10		
12	6.4	13	.22	7.2	42	.82	3.7	40	.40		
13	6.8	13	.24	7.7	40	.83	3.8	62	.64		
14	8.0	13	.28	7.5	35	.71	3.9	11	.12		
15	7.7	11	.23	6.2	60	1.0	4.9	3	.04		
16	7.8	10	.21	6.1	25	.41	4.7	7	.09		
17	7.2	19	.37	5.8	41	.64	5.1	9	.12		
18	8.0	6	.13	6.4	26	.45	6.4	16	.28		
19	15	9	.36	8.0	18	.39	6.9	18	.34		
20	14	13	.49	6.3	38	.65	6.3	54	.92		
21	11	36	1.1	4.0	21	.23	5.4	54	.79		
22	10	49	1.3	4.0	25	.27	5.5	40	.59		
23	8.7	66	1.6	4.0	34	.37	6.0	10	.16		
24	6.6	18	.32	3.8	7	.07	5.3	6	.09		
25	4.3	9	.10	3.4	12	.11	5.1	26	.36		
26	3.8	12	.12	3.3	15	.13	4.4	34	.40		
27	3.6	7	.07	3.4	17	.16	4.8	22	.29		
28	3.4	12	.11	3.5	18	.17	6.0	48	.78		
29	4.1	7	.08	3.5	20	.19	5.7	27	.42		
30	5.0	12	.16	3.6	21	.20	4.2	40	.45		
31	4.8	18	.23	3.7	23	.23	--	--	--		
TOTAL	277.5	--	15.64	180.7	--	18.89	158.4	--	11.14		
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									5803.7		
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									1335.0		

PLATTE RIVER BASIN

129

06639000 SWEETWATER RIVER NEAR ALCOVA, WYO.

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼NE¼ sec.25, T.29 N., R.87 W., Natrona County, at gaging station, at Dumbell Ranch, 1.0 mi (1.6 km) downstream from Schounmaker ditch diversion dam, 13 mi (21 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft (1,783 m), and 25 mi (40 km) southwest of Alcovia.

DRAINAGE AREA.--2,327 mi² (6,027 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 24...	1325	190	20	41	6.0	33	4.6	149	0	61	14	.3
NOV. 06...	1430	121	26	44	10	36	4.9	162	0	67	18	.3
DEC. 17...	1800	83	25	54	9.1	38	5.1	183	0	77	21	.3
JAN. 24...	1420	62	29	55	5.8	39	5.6	183	0	72	21	.3
FEB. 26...	1530	68	25	43	8.1	34	5.1	165	0	63	19	.3
MAR. 21...	1545	348	11	29	4.6	27	5.8	118	0	44	8.0	.6
APR. 08...	1200	204	17	34	3.7	25	4.9	120	0	40	11	.3
MAY 31...	1430	554	17	29	3.1	14	3.5	110	0	21	5.4	.3
JUNE 17...	1200	421	17	29	3.1	17	3.3	113	0	22	5.4	.3
JULY 24...	1400	120	19	36	9.1	36	5.4	159	0	60	16	.3
AUG. 22...	1300	49	21	41	12	39	5.4	170	0	73	18	.4
SEP. 17...	1210	27	25	42	14	46	6.0	180	0	84	24	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 24...	.09	--	254	.35	130	130	8	1.3	8.3	437	6.5
NOV. 06...	.09	.29	287	.39	93.8	150	17	1.3	8.1	463	.0
DEC. 17...	.00	.01	320	.44	71.7	170	20	1.3	8.2	518	.0
JAN. 24...	.05	.00	318	.43	53.2	160	10	1.3	8.1	490	.0
FEB. 26...	.14	.01	279	.38	51.2	140	5	1.2	8.1	440	.0
MAR. 21...	.27	.23	189	.26	178	91	0	1.2	7.9	319	2.0
APR. 08...	.38	.01	197	.27	109	100	2	1.1	8.0	335	6.0
MAY 31...	.09	.01	148	.20	221	85	0	.7	8.0	235	16.0
JUNE 17...	.09	.01	153	.21	174	85	0	.8	7.8	247	19.5
JULY 24...	.05	.00	260	.35	84.2	128	0	1.4	8.2	428	23.5
AUG. 22...	.02	.00	295	.40	39.0	150	11	1.4	8.3	484	18.0
SEP. 17...	.00	.00	331	.45	24.1	170	22	1.6	8.2	520	13.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
NOV. 06...	1430	121	30	12.4	22
DEC. 17...	1800	83	5	11.5	58
JAN. 22...	1125	48	2	9.6	24
JAN. 24...	1420	62	2	11.0	82
FEB. 26...	1530	68	4	10.6	80
MAR. 21...	1545	348	110	9.6	814
APR. 08...	1200	204	10	10.7	87
MAY 31...	1430	554	15	6.3	120
JUNE 17...	1200	421	7	6.4	48
JULY 24...	1400	120	10	7.3	130
AUG. 22...	1300	49	2	7.4	818
SEP. 17...	1210	27	2	7.5	816

B Non-ideal counting conditions.

PLATTE RIVER BASIN

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WYO.

LOCATION.--Lat 42°28'06", long 106°51'12", in NW¼SW¼ sec.24, T.29 N., R.84 W., Natrona County, near dam on North Platte River, and 9.0 mi (14.5 km) southwest of Alcovia. Sampled at sites listed below.

DRAINAGE AREA.--14,670 mi² (37,995 km²), of which 4,659 mi² (12,067 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August to November 1972, May to September 1973, May to September 1974.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at all sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total storage at 2400 hours.

SAMPLE SITE 1.--Lat 42°28'05", long 106°51'16", in NE¼NE¼SE¼ sec.23, T.29 N., R.84 W., about 200 ft (61 m) upstream from dam.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
30...	928,900	95	SURFACE	10.0	8.2	.25	.03	.03	285
			10	10.0	8.1				
			30	10.0	8.4				
			50	9.5	8.3				
			70	9.0	8.1	.07	.06	.03	329
			90	8.5	8.1				
			120	8.5	8.1				
			148	8.0	8.0	.19	.05	.02	315
JULY									
3...	886,200	--	SURFACE	19.0	7.3	--	.01	--	326
			10	19.0	7.2				
			20	19.0	7.4				
			40	16.5	7.0				
			60	12.5	6.9	--	.01	--	325
			80	11.0	6.6				
			100	11.0	6.4				
			110	10.5	6.0				
			120	10.5	5.8				
			124	--	--	--	.03	--	327
JULY									
25...	794,200	124	SURFACE	20.5	7.8	.16	.04	.03	328
			20	20.5	7.7				
			40	20.5	7.8				
			50	20.0	7.7				
			70	16.0	6.0				
			80	14.0	5.7	.12	.16	.06	327
			90	13.0	5.4				
			100	12.5	5.1				
			130	12.5	4.7	.09	.03	.06	317
AUG.									
28...	719,500	--	SURFACE	18.0	6.9	.09	.04	.07	322
			20	17.5	6.2				
			30	17.5	6.1				
			50	17.0	5.8				
			70	17.0	5.3	.10	.06	.05	317
			90	16.5	4.8				
			110	16.0	3.3				
			130	15.5	.6	.10	.06	.07	319
SEP.									
24...	688,900	49	SURFACE	14.5	5.7	.07	.13	.04	325
			10	14.5	5.2				
			20	14.5	5.1				
			30	14.5	5.1				
			40	14.5	5.0				
			50	14.5	4.9				
			60	14.0	4.8	.04	.05	.05	329
			70	14.0	4.5				
			80	14.0	4.2				
			90	14.0	3.9				
			100	14.0	3.0				
			110	14.0	1.9				
			120	13.5	1.4				
			131	13.5	1.2	.19	.18	.12	321

PLATTE RIVER BASIN

131

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WYO.--Continued

SAMPLE SITE 2.--Lat 42°20'58", long 106°54'38", in NW¼SW¼SE¼ sec.32, T.28 N., R.84 W., about 9 mi (14 km) upstream from dam in the North Platte River arm of reservoir.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
30...	928,900	61	SURFACE	13.5	8.8	.05	.11	.01	370
			10	12.0	8.8				
			30	11.5	8.6				
			35	-	-	.05	.12	.02	374
			50	10.5	8.3				
			70	10.0	8.0	.25	.13	.11	373
JULY									
3...	886,200	121	SURFACE	18.5	7.3	--	.03	--	321
			10	18.0	7.1				
			20	17.5	7.0				
			40	15.5	6.9	--	.01	--	325
			60	12.5	6.7				
			80	11.5	6.4				
			88	12.0	5.8	--	.06	--	333
JULY									
25...	794,200	78	SURFACE	19.0	--	.17	.06	.04	312
			10	18.5	7.6				
			20	18.0	7.6				
			30	17.0	7.5				
			40	16.5	7.3	.77	.11	.08	294
			50	15.0	6.9				
			60	14.5	6.6				
			72	14.0	5.9	.09	.22	.17	280
AUG.									
28...	719,500	54	SURFACE	19.5	--	.20	.00	.06	322
			10	19.0	9.9				
			20	18.0	8.2				
			25	18.0	8.2				
			30	18.0	7.8				
			35	17.5	6.9				
			40	17.0	6.6				
			50	16.5	6.6	.12	.03	.06	306
			60	15.0	6.2				
			72	15.0	5.9	.18	.06	.10	281
SEP.									
24...	688,900	61	SURFACE	14.5	6.3	.08	.08	.05	331
			10	14.5	6.2				
			20	14.5	6.2				
			30	14.5	6.0				
			40	14.5	5.7	.03	.10	.04	328
			50	14.5	5.6				
			60	14.5	5.7				
			70	14.0	5.7				
			80	14.0	5.6				
			84	14.0	5.5	.08	.32	.06	331

PLATTE RIVER BASIN

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WYO.--Continued

SAMPLE SITE 3.--Lat 42°28'23", long 106°54'50", in SW¼NE¼ sec.20, T.29 N., R.84 W., about 4 mi (6 km) upstream from dam in the Sweetwater River arm of reservoir.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
30...	928,900	64	SURFACE	12.0	8.1	.05	.03	.03	319
			5	11.5	8.1				
			10	10.5	8.3				
			15	9.0	8.2				
			20	8.5	8.1	.25	.14	.02	328
			40	8.5	8.1				
			60	8.5	8.2				
			75	8.5	8.4	.07	.05	.03	335
JULY									
3...	886,200	136	SURFACE	18.0	7.5	--	.04	--	341
			10	18.0	7.5				
			20	17.5	7.6				
			30	17.0	7.6				
			40	15.5	7.5	--	.04	--	341
			50	13.0	6.9				
			60	12.0	7.0				
			64	--	--	--	.11	--	334
JULY									
25...	794,200	134	SURFACE	20.0	8.0	.11	.01	.03	314
			20	20.0	7.9				
			40	19.5	7.3				
			50	18.0	5.8	.12	.13	.08	311
			60	16.5	4.9				
			70	14.5	5.0				
			80	13.5	5.4				
			85	13.0	5.3				
			90	12.5	4.8				
			99	12.0	4.8	.03	.14	.05	326
AUG.									
28...	719,500	54	SURFACE	18.5	8.0	.13	.01	.05	316
			10	18.5	8.0				
			20	18.0	7.6				
			30	17.5	6.3				
			40	17.0	6.1	.12	.03	.06	314
			50	17.0	4.9				
			60	16.5	4.3				
			70	16.5	3.4				
			80	16.5	3.2				
			90	16.5	3.2	.10	.14	.11	312
SEP.									
24...	688,900	56	SURFACE	15.0	7.6	.10	.01	.03	323
			10	15.0	7.6				
			20	14.5	7.3				
			30	14.5	7.4	.13	.03	.04	319
			40	14.5	6.9				
			50	13.5	6.4				
			60	13.0	6.1				
			68	13.0	6.1	.19	.33	.13	285

PLATTE RIVER BASIN

133

06641500 ALCOVA RESERVOIR AT ALCOVA, WYO.

LOCATION.--Lat 42°32'52", long 106°43'08", in SEkSEk sec.24, T.30 N., R.83 W., Natrona County, near dam on North Platte River, and 0.2 mi (0.3 km) southwest of Alcovia. Sampled at sites listed below.

DRAINAGE AREA.--14,735 mi² (38,164 km²), of which 4,659 mi² (12,067 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August to November 1972, May to September 1973, May to September 1974.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at both sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total contents at 2400 hours.

SAMPLE SITE 1.--Lat 42°30'12", long 106°43'26", in SEkNWkNEk sec.25, T.30 N., R.83 W., about 1,600 ft (490 m) upstream from dam.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 °C) (MG/L)
MAY, 1974									
29...	177,300	95	SURFACE	10.0	10.2	.07	.02	.01	307
			10	9.5	10.1				
			20	8.5	9.6				
			50	8.5	9.6				
			70	8.0	9.5				
			80	--	--	.06	.03	.05	302
			90	8.0	9.6				
			110	8.0	9.6				
			140	8.0	9.6				
			150	8.0	10.0				
			160	8.0	10.2	.13	.05	.09	316
JUNE									
25...	179,100	241	SURFACE	20.5	8.0	.11	.02	.03	334
			5	20.0	8.1				
			10	18.5	8.1				
			15	17.0	8.2				
			20	16.0	8.1				
			25	13.5	7.7	.04	.03	.03	318
			30	12.5	7.7				
			35	12.0	7.7				
			40	11.5	7.9				
			60	11.0	7.9				
			80	11.0	7.9				
			100	10.5	7.9				
			120	10.0	7.8				
			140	10.0	7.7				
			160	10.0	7.7	.05	.13	.14	320
JULY									
25...	180,600	190	SURFACE	21.5	8.5	.42	.08	.02	343
			10	20.5	8.2				
			15	20.0	8.2				
			20	19.5	8.3				
			25	15.5	7.4	.16	.09	.04	336
			30	13.5	7.5				
			40	13.5	7.6				
			60	13.0	7.6				
			80	13.0	7.5				
			100	12.5	7.3				
			120	12.5	7.2				
			140	12.0	6.7				
			157	12.0	6.2	.06	.22	.15	340
AUG.									
28...	179,600	119	SURFACE	18.5	8.3	.06	.08	.08	341
			10	17.5	7.9				
			20	16.5	6.2	.06	.07	.05	333
			25	16.5	5.3				
			30	16.0	5.2				
			40	15.5	4.6				
			70	15.0	3.7				
			100	14.5	3.4				
			130	14.0	3.1				
			160	14.0	2.5	.06	.04	.11	328
SEP.									
24...	178,500	54	SURFACE	15.5	6.5	.04	.09	.02	333
			10	15.0	6.2				
			20	15.0	5.7				
			30	15.0	5.4				
			40	15.0	5.4				
			50	15.0	5.3				
			60	15.0	5.3				
			70	15.0	5.5	.02	.12	.03	329
			80	15.0	5.5				
			90	15.0	5.1				
			100	15.0	4.9				
			110	15.0	4.7				
			120	15.0	4.4				
			130	14.5	4.1				
			140	14.5	3.8				
			150	14.5	3.5				
			156	14.5	3.3	.11	.17	.09	320

PLATTE RIVER BASIN

06641500 ALCOVA RESERVOIR AT ALCOVA, WYO.--Continued

SAMPLE SITE 2.--Lat 42°30'57", long 106°46'16", in SE¼NW¼NW¼ sec.3, T.29 N., R.83 W., about 3.5 mi (5.6 km) upstream from dam.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
29...	177,300	95	SURFACE	12.5	10.5	.07	.03	.01	312
			20	12.0	10.3				
			30	--	--	.12	.02	.02	310
			50	9.0	10.3				
			70	8.5	10.0				
			100	8.0	10.0				
			126	8.0	9.7	.09	.03	.03	311
JUNE									
25...	179,100	--	SURFACE	19.5	8.4	.07	.03	.02	322
			5	17.5	8.5				
			10	16.0	8.5				
			15	14.5	8.2				
			20	13.5	8.1				
			25	12.5	8.2	.07	.03	.05	341
			30	11.5	8.2				
			40	11.0	8.1				
			60	11.0	8.0				
			80	10.5	7.9				
			100	10.5	7.7				
			120	10.0	7.3				
			125	10.0	7.0	.08	.12	.15	326
JULY									
25...	180,600	188	SURFACE	19.5	8.3	.14	.09	.03	338
			10	18.0	8.4				
			20	17.0	7.7				
			25	14.5	7.6	.15	.17	.05	335
			30	13.0	7.3				
			50	13.0	7.3				
			70	13.0	7.7				
			90	12.5	7.7				
			110	12.5	7.7				
			126	12.5	7.8	.05	.18	.14	338
AUG.									
28...	179,600	142	SURFACE	19.5	8.0	.06	.12	.02	341
			10	19.0	8.1				
			20	17.0	6.6	.04	.23	.04	338
			25	16.5	4.8				
			30	15.5	3.1				
			40	15.5	2.6				
			60	15.0	2.6				
			80	15.0	2.8				
			100	14.5	2.9				
			125	14.0	2.8	.05	.05	.09	--
SEP.									
24...	178,500	71	SURFACE	16.0	7.0	.13	.05	.03	328
			10	15.5	7.0				
			20	15.5	6.8				
			30	15.0	6.5				
			40	15.0	6.3				
			50	15.0	6.2	.03	.08	.02	333
			60	15.0	6.0				
			70	15.0	5.7				
			80	15.0	5.3				
			90	15.0	4.9				
			100	15.0	5.0	.03	.09	.04	321

PLATTE RIVER BASIN

135

06642000 NORTH PLATTE RIVER AT ALCOVA, WYO.
(Irrigation network station)

LOCATION.--Lat 42°34'27", long 106°41'31", in NW¼NE¼NW¼ sec.17, T.30 N., R.82 W., Natrona County, at gaging station, 0.5 mi (0.8 km) downstream from Hogback Draw, 0.8 mi (1.3 km) downstream from Gray Reef Dam, 1.9 mi (3.1 km) northeast of Alcova, and 3.8 mi (6.1 km) downstream from Alcova Dam.

DRAINAGE AREA.--14,771 mi² (38,257 km²), of which 4,659 mi² (12,067 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1969 (daily), October 1969 to September 1974 (monthly).

Water temperatures: October 1965 to September 1969, October 1971 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 19.5°C Sept. 17, 18; minimum, 1.5°C on several days in December and January.

Period of record:

Water temperatures: Maximum, 23.0°C Sept. 21, 1966; minimum, freezing point Dec. 26, 1967, Jan. 5, 1968, and on several days during 1969.

REMARKS.--Temperature recorder at gaging station; records furnished by Pacific Power and Light Company and Bureau of Reclamation.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
24...	1130	1540	11	47	16	30	3.3	140	0	120	6.1	.4
NOV.												
06...	1745	910	13	50	17	32	3.0	134	3	130	9.2	.4
DEC.												
17...	1530	850	13	48	18	30	3.5	148	0	120	9.9	.4
JAN.												
24...	1130	868	15	60	12	32	3.7	153	0	120	13	.4
FEB.												
26...	1225	675	15	52	16	32	3.5	156	0	120	11	.4
MAR.												
21...	1300	2010	12	66	6.1	32	3.5	153	0	120	7.6	.5
APR.												
08...	1600	3360	12	58	9.9	29	3.3	150	3	110	9.5	.4
MAY												
17...	1640	3940	9.0	50	13	30	2.6	140	6	95	11	.4
31...	0930	4120	11	62	8.6	30	3.0	146	3	120	7.2	.4
JUNE												
17...	1430	3690	11	66	6.7	31	2.8	153	0	120	7.2	.4
JULY												
24...	1200	2780	12	47	22	31	3.0	153	0	140	7.3	.4
AUG.												
22...	1600	2030	10	50	18	31	3.0	150	0	130	5.5	.4
SEP.												
17...	1540	842	11	49	19	32	3.0	150	0	130	9.1	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
24...	.14	--	303	.41	1260	190	75	1.0	8.3	498	12.0
NOV.											
06...	.14	.01	321	.44	789	200	85	1.0	8.4	513	7.0
DEC.											
17...	.18	.01	320	.44	734	190	69	.9	8.3	510	3.0
JAN.											
24...	.32	.03	336	.46	787	200	74	1.0	8.1	512	.5
FEB.											
26...	.25	.03	331	.45	603	200	72	1.0	8.3	522	2.0
MAR.											
21...	.16	.01	324	.44	1760	190	64	1.0	8.3	499	3.0
APR.											
08...	.14	.01	306	.42	2780	190	62	.9	8.4	499	5.0
MAY											
17...	.07	.00	286	.39	3040	180	55	1.0	8.5	501	8.0
31...	.02	.00	317	.43	3530	190	65	.9	8.4	504	9.0
JUNE											
17...	.09	.00	321	.44	3200	190	64	1.0	8.3	506	12.5
JULY											
24...	.11	.01	339	.46	2540	210	84	.9	8.3	510	14.0
AUG.											
22...	.14	.00	322	.44	1760	200	77	1.0	8.1	517	16.5
SEP.											
17...	.18	.00	331	.45	753	200	77	1.0	8.1	530	17.5

06642000 NORTH PLATTE RIVER AT ALCOVA, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	15.0	11.5	10.5	7.0	6.0	3.0	2.0	4.0	2.0	5.5	3.5
2	17.0	15.0	11.0	9.5	6.0	5.5	2.0	2.0	3.5	2.0	5.5	4.0
3	17.0	14.5	10.5	9.5	6.0	5.0	2.0	1.5	4.0	2.0	4.5	3.5
4	17.0	15.0	11.5	9.5	6.0	5.0	2.0	1.5	4.0	2.0	4.5	2.0
5	16.5	14.5	11.0	9.5	5.5	4.5	2.0	1.5	3.0	2.0	4.5	3.0
6	16.5	15.0	11.0	9.5	5.5	4.0	3.0	1.5	3.5	2.0	4.5	3.5
7	16.0	15.0	11.0	9.5	5.5	4.5	3.0	2.0	4.0	3.0	4.5	3.5
8	16.0	14.5	10.5	9.5	5.5	4.5	3.0	2.0	4.0	2.0	4.5	3.5
9	14.5	14.0	11.0	9.5	5.0	4.0	2.0	2.0	4.0	2.0	4.5	3.5
10	15.0	14.0	10.5	9.5	5.0	4.0	2.0	1.5	4.0	2.0	4.5	3.5
11	15.0	14.0	10.5	9.5	5.0	4.0	2.0	1.5	4.5	3.0	5.0	3.5
12	14.5	13.5	11.0	9.0	4.5	4.0	3.0	2.0	4.5	3.0	5.0	3.5
13	15.0	13.5	10.0	8.5	4.5	3.5	3.0	2.0	4.5	3.0	5.0	4.0
14	15.5	13.5	9.5	8.5	4.0	3.5	3.0	2.0	4.5	3.0	5.0	3.5
15	15.5	13.5	8.5	7.0	4.0	3.0	3.5	2.0	4.5	3.0	5.0	4.0
16	15.5	13.5	8.5	6.5	4.5	4.0	3.5	2.0	5.0	3.0	5.0	4.0
17	14.5	13.0	8.5	7.0	5.0	4.0	3.5	2.0	4.5	3.5	5.0	4.0
18	14.5	13.0	8.5	8.0	4.5	3.5	3.5	2.0	4.5	3.5	5.0	4.5
19	14.5	12.0	8.5	6.5	4.0	3.5	3.5	2.0	4.5	3.5	4.5	3.5
20	14.0	12.0	7.0	6.5	3.5	2.0	4.0	2.0	4.5	3.5	5.0	3.5
21	14.5	12.0	7.0	6.0	4.0	2.0	3.5	3.0	4.5	3.0	5.0	3.5
22	14.0	12.0	6.5	5.5	4.0	3.0	3.5	2.0	4.0	3.0	4.5	3.5
23	13.5	12.0	6.5	5.5	4.0	3.5	4.0	2.0	3.5	2.0	5.0	3.5
24	14.0	12.0	6.5	5.0	4.0	3.0	4.0	2.0	4.5	2.0	4.5	3.5
25	13.5	11.5	6.5	5.0	3.5	3.0	4.0	2.0	5.0	2.0	5.0	4.0
26	13.5	11.5	6.5	5.0	3.5	2.0	4.0	3.0	5.0	3.5	5.0	4.0
27	13.5	11.5	6.5	5.5	3.0	1.5	4.0	3.0	5.0	3.5	5.0	4.0
28	13.5	11.5	6.5	5.0	3.0	1.5	4.0	2.0	5.0	3.5	4.5	3.5
29	11.5	11.0	6.5	5.5	3.0	1.5	3.5	2.0	---	---	5.0	3.5
30	13.0	11.0	6.5	5.5	3.0	2.0	3.5	2.0	---	---	5.0	4.0
31	13.0	10.5	---	---	2.0	2.0	3.5	2.0	---	---	5.0	4.0
MONTH	18.0	10.5	11.5	5.0	7.0	1.5	4.0	1.5	5.0	2.0	5.5	2.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.0	4.0	8.5	6.5	11.5	10.0	14.0	13.0	16.0	14.5	---	---
2	4.5	4.0	7.0	6.5	11.5	10.0	14.0	13.0	16.0	14.5	16.5	15.0
3	4.5	4.0	7.0	6.5	11.0	10.0	14.5	13.0	16.5	14.5	17.0	15.0
4	4.5	4.0	8.5	6.5	11.0	10.5	14.5	13.0	16.0	14.5	17.0	15.0
5	5.0	4.0	8.5	6.5	11.0	10.0	14.0	13.0	16.5	14.5	17.0	15.5
6	4.5	4.0	8.5	7.0	10.5	10.0	14.5	13.5	16.5	14.5	17.0	15.5
7	5.0	4.0	8.5	7.0	11.5	10.0	14.5	13.5	16.5	14.5	17.0	15.5
8	5.5	4.0	8.5	7.0	10.5	10.0	15.0	13.5	16.5	14.5	18.0	15.5
9	5.0	4.5	9.0	7.0	11.5	10.5	15.0	13.5	15.0	14.5	18.0	15.5
10	4.5	4.0	9.0	7.0	12.0	10.5	14.5	13.5	16.0	14.5	18.0	15.5
11	4.0	4.0	9.0	8.0	12.0	10.5	15.0	13.5	16.5	14.5	16.0	15.0
12	5.5	4.0	9.0	8.0	12.0	10.5	15.0	13.5	17.0	14.5	17.0	15.0
13	4.5	4.5	10.0	8.5	12.0	11.0	15.0	13.5	16.5	15.0	18.0	15.5
14	5.0	4.5	10.0	9.0	12.0	11.0	14.5	13.5	16.0	14.5	18.0	15.5
15	6.0	4.5	10.5	9.0	13.0	11.0	15.5	14.0	16.5	14.5	18.5	15.5
16	6.5	5.0	10.5	9.5	12.0	11.0	15.0	14.0	17.0	14.5	18.5	16.0
17	6.5	5.5	9.5	9.5	13.0	11.0	15.0	14.0	16.5	14.5	19.5	16.0
18	6.5	5.5	11.0	9.5	13.0	11.0	15.5	14.0	17.0	15.0	19.5	15.5
19	6.5	5.5	10.5	9.5	13.5	11.5	15.5	14.0	17.0	15.0	18.0	14.5
20	6.5	6.0	11.0	9.5	14.0	12.0	15.5	14.0	16.5	15.0	17.0	15.5
21	7.0	6.0	10.5	10.0	13.5	12.0	15.5	14.0	17.0	14.5	18.5	15.5
22	8.5	6.0	11.0	9.5	14.0	12.0	15.5	14.5	17.0	15.0	18.5	15.0
23	8.5	6.5	11.0	10.0	14.0	12.0	15.5	14.5	17.0	15.0	18.0	15.0
24	8.5	6.5	11.0	10.0	14.0	12.0	15.5	14.5	17.0	15.0	17.0	15.0
25	8.5	6.5	11.0	10.0	14.0	12.0	16.0	14.0	17.0	15.0	18.0	15.0
26	7.0	6.0	11.0	10.0	14.0	12.0	16.5	14.0	17.0	15.0	17.0	14.5
27	8.5	6.0	11.0	10.0	14.0	12.0	16.5	14.5	18.0	15.0	15.0	14.0
28	8.5	7.0	11.0	10.0	14.0	12.0	16.0	14.5	17.0	15.5	17.0	14.5
29	8.0	6.5	11.5	10.0	14.0	12.0	16.5	14.5	17.0	15.0	18.0	15.0
30	8.5	6.5	11.0	10.0	14.5	13.0	16.0	14.5	17.0	15.5	17.0	15.0
31	---	---	11.5	10.0	---	---	16.0	14.5	---	---	---	---
MONTH	8.5	4.0	11.5	6.5	14.5	10.0	16.5	13.0	18.0	14.5	19.5	14.0
YEAR	19.5	1.5										

PLATTE RIVER BASIN

137

06642000 NORTH PLATTE RIVER AT ALCOVA, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
NOV.					
06...	1745	910	15	11.2	B4
DEC.					
17...	1530	850	9	12.3	B1
JAN.					
24...	1130	868	8	12.9	B1
FEB.					
26...	1225	675	7	11.8	B0
MAR.					
21...	1300	2010	7	11.0	B0
APR.					
08...	1600	3360	4	13.0	B0
MAY					
31...	0930	4120	3	8.3	B2
JUNE					
17...	1430	3690	4	9.1	B1
JULY					
24...	1200	2780	10	8.8	B1
AUG.					
22...	1600	2030	10	7.5	B1
SEP.					
17...	1540	842	20	7.4	B0

B Non-ideal counting conditions.

06643000 BATES CREEK NEAR ALCOVA, WYO.

LOCATION.--Lat 42°40'34", long 106°36'09", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.1, T.31 N., R.82 W., Natrona County, at former gaging station, 2.8 mi (4.5 km) upstream from mouth, and 10.5 mi (16.9 km) northeast of Alcovia.

DRAINAGE AREA.--393 mi² (1,018 km²).

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1974.

Water temperatures: November 1957 to June 1958.

Sediment records: October 1956 to September 1958.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
OCT.							
01...	1310	16	10.5	9	1640	12.0	8.0
NOV.							
05...	1400	29	2.0	15	1320	12.5	8.0
DEC.							
11...	1340	26	.5	4	1360	11.6	8.1
JAN.							
03...	1350	20	.0	15	1500	14.2	8.3
FEB.							
01...	1320	34	1.5	6	1300	10.4	8.2
MAR.							
04...	1335	26	.0	210	1200	9.6	8.0
APR.							
01...	1355	30	7.5	100	850	9.2	8.2
MAY							
06...	1330	164	12.0	130	430	9.0	8.3
JUNE							
03...	1430	2.8	17.0	3	1400	7.2	8.3
JULY							
08...	1045	.28	19.5	1	230	8.0	8.0
AUG.							
13...	1230	2.6	20.5	70	1500	8.6	8.3
SEP.							
04...	0930	2.2	10.0	10	1800	8.7	8.0

PLATTE RIVER BASIN

06644085 NORTH PLATTE RIVER AT MILLS, WYO.

LOCATION.--Lat 47°50'31", long 106°21'33", in NW¼NE¼SE¼ sec.7, T.33 N., R.79 W., Natrona County, at railroad bridge, 700 ft (213 m) upstream from Casper Creek, 900 ft (274 m) east of Mills city limits, and 0.2 mi (0.3 km) upstream from bridge on U.S. Highways 20 and 26.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1974.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL NITROGEN (MG/L)	TOTAL ORGANIC NITROGEN (MG/L)	AMMONIA NITROGEN (MG/L)	TOTAL KJELDAHL NITROGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (MG/L)	TOTAL PHOSPHORUS (MG/L)	TOTAL ORGANIC CARBON (MG/L)	SUSPENDED SOLIDS (MG/L)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
MAR.											
05...	1500	1500	.91	.42	.15	.57	.34	.16	7.8	206	11
18...	1545	2120	1.1	.33	.39	.72	.38	.09	6.8	91	16
APR.											
02...	1240	3400	--	.47	.21	.68	--	.05	5.8	60	4
15...	1030	3400	3.0	.56	.09	.65	2.3	.10	6.8	51	17
29...	1100	3500	.87	.53	.23	.76	.11	.14	8.4	106	20
MAY											
13...	1200	4130	.61	.55	.05	.60	.01	.08	7.8	34	15
28...	1030	4080	.74	.42	.11	.53	.21	.03	5.5	31	14
JUNE											
10...	1430	3970	.84	.72	.12	.84	.00	.11	5.2	32	44
24...	0900	3950	.58	.51	.07	.58	.00	.05	5.9	7	14
JULY											
09...	1300	4010	.74	.55	.04	.59	.15	.00	--	18	8
22...	1200	3900	.72	.45	.09	.54	.18	.07	--	37	15
AUG.											
05...	1000	1900	.78	.50	.09	.59	.19	.04	4.9	28	17
19...	1100	2150	.46	.36	.09	.45	.01	.07	5.9	23	9
SEP.											
03...	1200	1770	.61	.56	.04	.60	.01	.04	7.1	15	17
16...	1200	1750	.84	.44	.10	.54	.30	.06	4.7	19	18
27...	1350	1200	.85	.51	.05	.56	.29	.04	7.8	22	16

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
MAR.									
05...	1500	12	55	17	37	4.2	157	0	140
JUNE									
10...	1430	12	52	17	34	3.5	151	1	130
JULY									
09...	1300	10	61	14	38	3.3	159	0	150
AUG.									
05...	1000	11	54	19	40	3.2	161	0	160
SEP.									
03...	1200	11	52	23	39	3.4	156	2	150

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
MAR.								
05...	11	--	354	.53	1580	210	79	1.1
JUNE								
10...	8.5	--	332	.45	3750	200	74	1.0
JULY								
09...	7.2	.4	362	.49	3720	210	80	1.1
AUG.								
05...	11	--	378	.51	1980	210	81	1.2
SEP.								
03...	11	--	368	.50	1890	220	93	1.1

PLATTE RIVER BASIN

139

06644085 NORTH PLATTE RIVER AT MILLS, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)
MAR.									
01...	1400	7	30	280	14	180	170	4	.0
05...	1500	11	6	170	2	40	60	4	.0
APR.									
02...	1240	9	5	170	3	10	60	5	.0
MAY									
13...	1200	4	25	50	2	0	30	5	.0

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)
JULY								
09...	1300	3	<10	790	50	20	3	.1

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.									
01...	1350	1500	14.0	25	630	9.8	8.0	--	--
09...	1040	1440	8.0	20	780	9.5	8.1	--	--
15...	1540	1430	11.5	25	630	10.4	8.2	--	--
23...	1410	1540	9.5	30	620	10.2	8.0	--	--
29...	1540	1200	6.0	20	620	11.2	8.3	--	--
NOV.									
05...	1700	1000	1.5	25	680	12.5	8.2	--	--
DEC.									
11...	1440	940	.0	10	670	12.3	8.2	--	--
JAN.									
03...	1630	890	.0	20	700	10.0	7.8	--	--
FEB.									
01...	1435	1040	.0	10	660	10.0	8.1	--	--
MAR.									
05...	1500	1500	.5	50	600	10.4	8.2	150	47
18...	1545	2120	5.0	40	569	9.4	8.2	120	B16
APR.									
02...	1240	3400	4.0	20	580	10.0	8.3	220	B10
15...	1030	3400	4.0	20	550	11.4	8.1	B130	B10
29...	1100	3500	7.0	30	545	9.6	8.1	610	B30
MAY									
06...	1430	3750	9.5	15	535	10.6	8.4	--	--
13...	1200	4130	7.5	20	535	8.7	8.8	520	B10
20...	1130	4000	8.0	10	445	8.4	8.8	--	--
28...	1030	4080	10.5	10	525	8.0	8.2	B960	15
JUNE									
03...	1530	3980	12.5	10	475	7.9	8.7	--	--
10...	1430	3970	12.5	8	580	8.0	8.5	B310	B17
18...	0930	4030	14.0	10	570	7.8	8.6	--	--
24...	0900	3950	13.5	10	560	7.4	8.6	1000	B13
JULY									
01...	1100	4030	15.0	10	410	7.3	8.6	--	--
09...	1300	4010	15.5	10	555	7.6	8.4	610	B11
15...	0915	4030	14.5	10	420	7.3	8.4	--	--
22...	1200	3900	15.5	20	550	7.5	8.4	460	25
29...	1420	2070	18.5	9	580	7.5	8.8	--	--
AUG.									
05...	1000	1900	15.0	20	580	7.1	8.5	600	25
13...	1715	2140	17.5	20	580	7.5	8.7	--	--
19...	1100	2150	16.5	20	605	6.4	8.5	110	24
26...	1430	2180	17.5	20	600	7.2	8.6	--	--
SEP.									
03...	1200	1770	14.0	20	600	7.2	8.5	370	23
09...	1045	1750	16.0	20	600	6.5	8.3	--	--
16...	1200	1750	16.0	20	600	6.8	8.4	42	16
23...	1115	1400	13.0	10	520	7.2	8.2	--	--
27...	1350	1200	10.0	10	520	7.7	8.7	790	33

B Non-ideal counting conditions.

PLATTE RIVER BASIN

06644120 MIDDLE FORK CASPER CREEK NEAR BUCKNUM, WYO.

LOCATION.--Lat 43°01'10", long 106°36'30", in NE¼ sec.12, T.35 N., R.82 W., Natrona County, at culvert on county road, 0.6 mi (1.0 km) east of Bucknum, and 10 mi (16 km) east of Natrona.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1974.

REMARKS.--No flow was observed Jan. 3 and Feb. 1.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
APR. 01...	1645	.12	130	100	640	9.1	463	0	1600	
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)
APR. 01...	33		.8	.07	740	360	10	2830	.92	3.85

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
OCT. 01...	1515	.40	16.0	35	380	8.5	8.1
NOV. 05...	1515	.47	.0	15	3730	10.0	7.9
DEC. 11...	1540	.60	.0	25	4600	9.0	7.9
MAR. 04...	1635	1.2	.5	15	2280	9.2	8.6
APR. 01...	1645	.12	4.0	30	2500	9.5	8.7
MAY 06...	1515	10	18.0	25	3200	9.0	8.3
JUNE 03...	1615	.60	20.0	20	4200	7.4	8.4
JULY 08...	1615	.25	23.0	7	5500	6.8	9.6
AUG. 13...	1545	.08	20.5	20	5400	6.5	8.9
SEP. 04...	1550	.01	17.0	10	9000	6.5	8.9

PLATTE RIVER BASIN

141

06644500 CASPER CREEK AT CASPER, WYO.

LOCATION.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., Natrona County, at Bureau of Reclamation gaging station, 700 ft (213 m) upstream from bridge on U.S. Highways 20 and 26, 0.4 mi (0.6 km) upstream from mouth, and 2.0 mi (3.2 km) west of city hall in Casper.

DRAINAGE AREA.--668 mi² (1,730 km²), of which 98 mi² (254 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAY 20...	1100	12	280	190	820	9.8	394	2700	130

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)
MAY 20...	.9	10	1500	1200	9.3	3930	127	5.34	

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
OCT.							
01...	1430	12	19.0	--	4700	10.4	8.4
09...	1010	8.0	4.0	2	4570	11.0	8.3
15...	1510	8.0	15.0	3	4700	11.2	8.3
23...	1340	8.0	10.5	5	4800	12.7	8.4
29...	1445	11	5.0	5	5400	12.2	8.3
NOV.							
05...	1630	19	1.0	15	4850	11.6	8.1
DEC.							
11...	1655	10	.5	6	5900	11.0	8.2
JAN.							
03...	1555	8.0	.0	5	5500	7.3	7.9
FEB.							
01...	1515	14	2.0	15	5000	9.3	8.4
MAR.							
04...	1520	22	4.0	50	4250	8.8	8.8
APR.							
01...	1530	9.4	11.5	2	5200	8.3	8.2
MAY							
06...	1630	19	19.0	10	4700	7.3	8.3
13...	1435	16	15.0	5	5200	7.2	8.6
20...	1100	12	9.5	4	5400	7.9	8.3
28...	1400	14	20.5	9	5500	6.8	8.4
JUNE							
03...	1720	16	21.0	7	4200	6.5	8.5
10...	1330	32	21.5	15	4400	6.6	8.4
18...	1030	31	20.0	3	3400	7.5	8.4
24...	1310	27	26.5	10	3300	6.7	8.5
JULY							
01...	0930	22	18.5	10	2800	6.7	8.3
08...	1525	20	24.5	3	4000	6.2	8.7
15...	1100	14	22.0	6	3400	7.1	8.4
23...	1030	16	21.5	190	3300	6.1	8.2
29...	1510	17	28.5	4	2900	6.5	8.5
AUG.							
05...	1430	17	26.0	6	2900	7.9	8.6
13...	1445	19	21.0	10	4200	7.2	8.5
19...	0945	13	14.5	5	3800	7.3	8.3
26...	1345	14	24.0	4	3600	7.8	8.6
SEP.							
04...	1410	16	21.0	10	4000	7.6	8.4
09...	1145	21	20.0	30	3800	7.3	8.3
16...	1230	11	18.0	4	4500	8.1	8.4
23...	1215	21	15.0	6	5000	9.0	8.3
27...	1315	11	7.5	2	5000	8.5	9.2

06644550 NORTH PLATTE RIVER AT CASPER, WYO.

LOCATION.--Lat 42°51'26", long 106°19'09", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.4, T.33 N., R.79 W., Natrona County, at bridge on service road, 800 ft (244 m) west of Center Street exit from Interstate Highway 25, and 0.6 mi (1.0 km) northwest of Casper Post Office.

PERIOD OF RECORD.--Chemical analyses: October 1971 to September 1974.

Water temperatures: October 1971 to May 1973, October 1973 to September 1974.

Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 21.5°C July 27; minimum, 0.5°C on several days during December and January.

Period of record:

Water temperatures: Maximum, 22.0°C Aug. 16, 17, 28, 1972; minimum, freezing point Oct. 28 to Nov. 1, 1971.

REMARKS.--Temperature recorder in Bureau of Reclamation gaging station 0.3 mi (0.5 km) upstream from sampling site; records furnished by Pacific Power and Light Company and Bureau of Reclamation. No thermograph record Oct. 1, 2 due to mud covering the sensing probe.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
OCT.							
01...	1610	1510	15.0	20	650	10.0	8.2
09...	0920	1450	8.0	25	680	9.8	8.1
15...	1425	1440	11.0	25	670	10.4	8.1
23...	1300	1550	8.5	35	730	10.4	8.1
29...	1440	1210	7.0	20	710	11.0	8.1
NOV.							
05...	1730	1020	1.0	20	770	12.4	8.2
DEC.							
11...	1740	950	.0	7	750	12.0	8.1
JAN.							
03...	1710	900	.0	10	750	15.0	8.3
FEB.							
01...	1700	1050	1.0	15	670	10.4	8.2
MAR.							
04...	1750	1200	1.5	110	770	10.0	8.5
APR.							
01...	1620	3400	4.5	30	570	10.0	8.4
MAY							
06...	1730	3800	9.5	15	580	10.6	8.5
13...	1345	4150	7.5	20	580	10.6	8.5
20...	1015	4020	9.0	15	500	8.2	8.6
28...	1230	4100	11.5	10	575	8.2	8.7
JUNE							
03...	1745	4000	13.5	7	570	7.7	8.6
10...	1200	4000	12.5	15	630	7.6	8.5
18...	1100	4060	14.0	10	570	7.6	8.6

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.0	5.5	6.0	4.5	1.5	1.0	1.5	1.0	6.0	3.5
2	---	---	5.5	3.5	5.5	3.5	1.5	1.0	1.5	1.0	7.0	5.0
3	15.0	13.5	3.5	1.5	3.5	1.5	1.5	1.0	1.5	1.0	6.0	4.5
4	15.0	11.5	4.0	1.5	3.0	1.0	1.5	1.0	1.5	1.0	4.5	2.0
5	15.0	11.5	5.0	3.0	1.5	0.5	1.0	0.5	1.5	1.0	3.0	1.5
6	15.0	12.0	7.0	5.0	1.0	0.5	1.5	0.5	1.5	1.0	4.0	2.0
7	15.0	13.0	7.0	6.0	3.0	0.5	1.5	1.0	1.5	1.5	6.5	3.5
8	14.0	12.0	8.0	6.5	3.0	1.5	1.5	1.0	1.5	1.0	6.0	4.5
9	12.0	8.5	9.5	6.5	2.0	0.5	1.5	1.0	1.5	1.5	5.0	4.0
10	10.5	8.0	9.5	8.0	2.0	1.0	1.0	0.5	1.5	1.5	5.5	4.0
11	11.5	10.0	9.0	8.0	3.0	1.5	1.0	0.5	1.5	1.5	6.5	4.5
12	11.5	9.5	9.5	8.0	3.5	1.5	1.0	1.0	2.0	1.5	6.0	4.5
13	13.0	9.5	8.5	6.5	3.5	1.5	1.0	1.0	2.0	1.5	6.5	4.5
14	14.5	11.5	8.0	6.0	2.0	1.0	1.0	1.0	2.0	1.5	5.5	4.0
15	15.0	12.0	6.0	4.0	1.5	1.0	1.5	1.0	1.5	1.5	5.5	3.0
16	15.0	12.0	5.0	3.5	3.0	1.0	1.5	1.5	2.0	1.5	6.5	4.5
17	14.5	12.0	5.5	4.5	3.5	2.0	1.5	1.5	1.5	1.5	8.0	5.5
18	14.0	11.5	6.0	4.5	3.5	1.0	1.5	1.0	2.0	1.5	7.0	5.5
19	14.0	11.0	6.0	3.5	1.5	1.0	1.5	1.5	2.0	1.5	5.5	2.0
20	13.0	10.5	4.0	2.0	1.0	1.0	1.5	1.0	1.5	1.5	4.0	1.5
21	13.5	10.5	4.0	2.0	1.5	1.0	1.5	1.0	1.5	1.0	5.5	2.0
22	13.5	11.0	2.0	1.5	1.5	1.0	1.5	1.0	1.5	1.0	5.0	3.0
23	13.0	11.0	3.0	1.5	2.0	1.0	1.5	1.5	1.5	1.0	5.0	1.5
24	11.0	9.5	1.5	1.0	2.0	1.0	1.5	1.5	1.5	1.0	5.0	3.0
25	10.5	8.5	1.5	1.0	1.0	1.0	1.5	1.0	2.0	1.5	8.0	4.0
26	11.0	9.0	1.0	1.0	1.5	1.0	1.5	1.0	2.0	1.5	8.5	6.5
27	10.0	9.0	1.5	1.0	1.5	1.0	1.5	1.0	2.0	1.5	8.0	6.0
28	11.5	9.0	2.0	1.0	1.0	1.0	1.5	1.0	4.0	1.5	7.0	5.5
29	11.0	9.5	3.5	1.5	1.0	1.0	1.5	1.5	---	---	5.5	4.5
30	9.5	8.0	5.0	3.0	1.0	1.0	1.5	1.5	---	---	6.5	5.5
31	9.0	8.0	---	---	1.0	1.0	1.5	1.0	---	---	6.0	6.0
MONTH	15.0	8.0	9.5	1.0	6.0	0.5	1.5	0.5	4.0	1.0	8.5	1.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (JEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/10)	SUS- PENDED MENT CHARGE (T/DAY)	SUS.	SUS.	SUS.	SUS.	SUS.
						SED. FALL DIAM. * FINER THAN .004 MM	SED. FALL DIAM. * FINER THAN .016 MM	SED. FALL DIAM. * FINER THAN .052 MM	SED. FALL DIAM. * FINER THAN .125 MM	SED. FALL DIAM. * FINER THAN .250 MM
OCT.										
05...	1610	13.0	1500	112	434	--	--	--	--	--
31...	1400	--	1090	54	157	--	--	--	--	--
DEC.										
10...	1340	1.0	550	24	36	--	--	--	--	--
JAN.										
31...	1500	--	1050	48	136	--	--	--	--	--
FEB.										
27...	1400	.5	800	80	173	--	--	--	--	--
MAR.										
08...	1130	2.0	1200	207	671	--	--	--	--	--
APR.										
24...	0840	7.5	4200	1530	17400	57	84	95	95	99
MAY										
06...	1730	9.5	3800	114	1170	--	--	--	--	--
29...	0840	10.5	4020	57	727	--	--	--	--	--
JULY										
01...	1300	18.5	4030	48	522	--	--	--	--	--
AUG.										
01...	1300	16.5	2000	52	335	--	--	--	--	--
SEP.										
05...	1030	20.5	1770	38	182	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	NUMBER OF SAMPLING POINTS	BED MAT.	BED MAT.	BED MAT.
					FALL DIAM. * FINE THAN	FALL DIAM. * FINE THAN	FALL DIAM. * FINE THAN
DEC. 10...	1340	1.0	550	5	1	2	4
					BED MAT. FALL DIAM. * FINE THAN	BED MAT. FALL DIAM. * FINE THAN	BED MAT. FALL DIAM. * FINE THAN
DATE	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM
DEC. 10...	19	37	46	56	54	74	84

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

[illegible]

PLATTE RIVER BASIN

06645000 NORTH PLATTE RIVER BELOW CASPER, WYO.

LOCATION.--Lat 42°51'45", long 106°13'00", in NW¼NW¼ sec.4, T.33 N., R.78 W., Natrona County, at Mystery Bridge, 0.3 mi (0.5 km) upstream from Claude Creek, 0.5 mi (0.8 km) north of U.S. Highway 20 and 87, 5.5 mi (8.8 km) east of city hall in Casper, and 9.5 mi (15.3 km) downstream from Casper Creek.

DRAINAGE AREA.--16,533 mi² (42,820 km²), of which 4,790 mi² (12,406 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: June to August 1949 (monthly), October 1950 to August 1952 (monthly), August 1957 to September 1959 (daily), October 1967 to September 1974 (monthly).
Water temperatures: June 1949 to September 1952, August 1957 to September 1959.
Sediment records: April 1947 to September 1952 (daily).

REMARKS.--Discharge records furnished by Bureau of Reclamation.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV.									
01...	0845	1000	12	67	22	60	3.5	145	4
DEC.									
18...	1210	950	12	63	23	57	4.0	170	0
JAN.									
22...	1440	1100	12	62	22	52	3.5	172	0
FEB.									
27...	1100	800	13	67	26	57	3.7	175	0
MAR.									
05...	1000	1400	13	60	20	50	4.4	170	0
APR.									
03...	0930	3400	13	54	17	36	3.5	160	0
MAY									
13...	1000	4150	11	56	11	35	2.8	153	0
JUNE									
10...	1900	4000	11	81	2.8	43	3.3	159	0
AUG.									
05...	1030	1920	9.2	55	23	42	3.3	162	0
SEP.									
03...	1400	1790	11	57	19	49	3.7	160	3
27...	1040	1220	7.4	58	26	54	3.7	170	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
NOV.									
01...	240	15	.4	496	134	.67	260	130	1.6
DEC.									
18...	220	16	.4	482	1240	.66	250	110	1.6
JAN.									
22...	190	15	.4	446	1320	.61	250	110	1.4
FEB.									
27...	230	15	.4	497	1070	.68	270	130	1.5
MAR.									
05...	180	12	.4	426	1610	.58	230	93	1.4
APR.									
03...	140	7.6	.2	353	3240	.48	210	79	1.1
MAY									
13...	120	9.0	.4	322	3610	.44	180	54	1.1
JUNE									
10...	160	9.0	.4	390	4210	.53	210	80	1.3
AUG.									
05...	170	9.1	.4	393	2040	.53	230	97	1.2
SEP.									
03...	180	13	.4	416	2010	.57	220	84	1.4
27...	210	11	.4	458	1510	.62	250	110	1.5

PLATTE RIVER BASIN

145

06645000 NORTH PLATTE RIVER BELOW CASPER, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL NITRO- GEN (MG/L)	TOTAL ORGANIC NITRO- GEN (MG/L)	AMMONIA NITRO- GEN (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (MG/L)	TOTAL NITRITE PLUS NITRATE (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SOLIDS (MG/L)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
MAR.											
05...	1000	1400	1.3	.58	.12	.70	.56	.12	6.4	60	15
19...	1000	2120	1.3	.10	.68	.78	.48	.14	9.2	116	19
APR.											
03...	0930	3400	.98	.55	.11	.66	.32	.01	7.1	63	4
15...	1400	3500	1.2	.65	.14	.79	.38	.14	8.6	50	17
29...	1300	3600	1.2	.84	.15	.99	.17	.16	12	113	20
MAY											
13...	1000	4150	.66	.43	.23	.66	.00	.01	6.6	55	13
28...	1300	4200	.52	.49	.03	.52	.00	.04	--	22	15
JUNE											
10...	1900	4000	.98	.86	.12	.98	.00	.01	6.6	43	19
24...	1030	4000	.71	.63	.08	.71	.00	.06	6.9	26	14
JULY											
09...	1200	4060	.98	.71	.07	.78	.20	.06	5.1	9	15
22...	1445	3900	.44	.41	.17	.58	.26	.12	5.5	27	16
AUG.											
05...	1030	1920	.69	.53	.16	.69	.00	.01	6.2	34	13
19...	1315	2170	.77	.58	.19	.77	.00	.10	6.2	49	16
SEP.											
03...	1400	1790	.97	.55	.15	.70	.27	.09	7.0	14	16
16...	1430	1770	.98	.72	.24	.96	.02	.16	8.4	34	16
27...	1040	1220	1.2	.61	.12	.73	.42	.04	7.1	13	15

DATE	TIME	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (MG)
MAR.									
05...	1000	8	6	50	2	30	90	7	.0
APR.									
03...	0930	4	3	30	0	30	60	5	.0
MAY									
13...	1000	5	5	230	1	30	60	5	.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)
NOV.									
01...	0845	1000	5.0	15	750	9.0	8.3	110000	11000
DEC.									
18...	1210	950	.0	1	737	11.5	8.1	19000	6000
JAN.									
22...	1440	1100	.0	7	706	11.2	8.0	--	1200
FEB.									
27...	1100	800	.5	15	753	10.0	8.0	--	2660
MAR.									
05...	1000	1400	.0	30	680	10.4	7.9	31500	4300
19...	1000	2120	2.5	50	626	9.4	8.4	16000	2700
APR.									
03...	0930	3400	3.0	30	550	9.7	8.2	100000	81200
15...	1400	3500	5.5	20	620	11.2	8.0	83800	1500
29...	1300	3600	8.5	40	600	9.4	7.4	62000	6200
MAY									
13...	1000	4150	7.5	20	580	8.4	8.7	520	80
28...	1300	4200	11.5	10	580	8.2	8.7	81000	20
JUNE									
10...	1900	4000	13.5	20	600	7.7	8.7	15000	820
24...	1030	4000	14.5	10	560	7.4	8.7	38000	1400
JULY									
09...	1200	4060	15.5	20	540	7.4	8.4	2000	440
22...	1445	3900	17.5	30	590	7.7	8.4	460	31
AUG.									
05...	1030	1920	15.5	20	640	7.4	8.5	1900	140
19...	1315	2170	19.0	20	650	6.5	8.5	--	--
SEP.									
03...	1400	1790	15.0	10	670	7.6	8.6	--	--
16...	1430	1770	17.0	20	730	6.9	8.4	320	140
27...	1040	1220	10.5	10	740	7.5	8.4	5200	310

B Non-ideal counting conditions.

PLATTE RIVER BASIN

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WYO.

LOCATION.--Lat 42°51'50", long 105°51'56", in NW¼NW¼ sec.4, T.33 N., R.75 W., Converse County, at gaging station, in Glenrock, 900 ft (274 m) downstream from bridge on U.S. Highways 20 and 87, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--213 mi² (552 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1974.

Water temperatures: October 1967 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 1,380 micromhos Sept. 1; minimum daily, 132 micromhos Apr. 27.

Water temperatures: Maximum, 23.0°C July 27, 28; minimum, 1.0°C on several days during December to March.

Period of record:

Specific conductance: Maximum daily, 2,080 micromhos Sept. 9, 1969; minimum daily, 132 micromhos Apr. 27, 1974.

Water temperatures: Maximum, 28.0°C Aug. 15, 1969; minimum, freezing point on many days during winter period most years.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
19...	1520	33	12	77	45	38	1.9	275	0	210	3.1	.4
NOV.												
14...	1330	34	12	72	38	33	2.1	256	0	190	3.1	.4
DEC.												
05...	1240	42	14	91	37	35	2.1	301	0	200	3.1	.4
JAN.												
10...	1200	A29	14	83	45	34	1.9	314	0	190	5.7	.4
FEB.												
11...	1500	36	13	90	27	30	1.4	281	0	160	3.8	.4
MAR.												
13...	1200	46	12	59	30	20	1.6	239	0	110	4.6	.3
APR.												
24...	1430	500	9.5	21	8.1	4.3	1.6	92	0	16	1.9	.2
30...	1330	460	11	21	5.7	4.8	1.6	76	0	22	1.9	.2
MAY.												
07...	1200	744	15	26	2.6	4.8	.9	67	0	26	1.9	.2
20...	1010	276	12	26	8.7	8.6	.7	98	0	35	1.8	.2
30...	1520	120	13	42	20	20	1.6	162	0	94	1.8	.3
JUNE												
14...	1130	45	14	81	28	30	2.1	259	0	160	1.8	.4
19...	1230	17	15	120	31	52	2.6	349	0	240	5.4	.5
JULY												
02...	1600	2.0	14	130	43	95	2.8	418	0	330	14	.5
AUG.												
07...	1410	1.4	13	100	57	95	3.3	400	0	340	9.1	.5
SEP.												
24...	1515	12	14	96	66	70	2.8	360	0	360	5.5	.5

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
19...	.05	--	523	.71	46.6	380	150	.9	8.3	817	13.5
NOV.											
14...	.05	.03	477	.65	43.8	330	120	.8	8.3	740	7.5
DEC.											
05...	.11	.00	531	.72	60.2	380	130	.8	8.1	811	1.5
JAN.											
10...	.20	.01	526	.72	41.2	390	130	.7	8.1	807	.0
FEB.											
11...	.20	.01	470	.64	45.7	340	110	.7	8.3	711	1.5
MAR.											
13...	.20	.01	359	.49	44.6	270	74	.5	8.3	581	6.5
APR.											
24...	.09	.01	108	.15	146	85	10	.2	8.2	183	10.0
30...	.14	.01	106	.14	132	75	13	.2	8.1	164	8.5
MAY											
07...	.16	.01	111	.15	223	75	20	.2	8.1	160	11.0
20...	.09	.00	141	.19	105	100	20	.4	8.0	240	10.5
30...	.00	.00	272	.37	88.1	190	57	.6	8.2	428	17.0
JUNE											
14...	.09	.00	445	.61	54.3	320	110	.7	8.3	692	18.5
19...	.09	.00	639	.87	29.3	420	130	1.1	8.3	930	23.5
JULY											
02...	.05	.00	835	1.14	4.69	500	160	1.8	8.1	1200	21.0
AUG.											
07...	.07	.00	815	1.11	3.08	490	160	1.9	8.2	1170	21.5
SEP.											
24...	.05	.00	792	1.08	25.7	510	220	1.3	8.0	1120	17.0

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	814	824	816	869	743	684	274	157	486	1180	1170	1380
2	813	808	755	867	797	747	332	145	514	1140	1170	1240
3	832	835	815	845	733	645	365	167	532	1140	1170	1260
4	833	832	826	844	779	698	474	184	654	1170	1170	1260
5	820	811	874	853	752	637	405	182	699	1140	1230	1250
6	832	807	858	802	815	613	402	174	825	1180	1220	1250
7	837	758	781	807	761	653	401	153	771	1140	1230	1250
8	832	764	790	807	781	655	390	160	757	1180	1230	1270
9	822	738	782	820	765	649	410	155	529	1180	1240	1240
10	824	738	755	808	737	657	414	161	571	1180	1160	1260
11	815	731	799	773	747	624	414	183	614	1170	1150	1210
12	801	748	799	798	758	614	423	179	614	1190	1200	1210
13	793	759	806	793	745	601	415	210	671	1200	1220	1260
14	792	759	806	803	744	598	378	230	728	1190	1140	1260
15	796	820	747	746	750	550	419	237	820	1210	1220	1250
16	793	820	809	674	734	492	400	255	801	1210	1230	1200
17	809	824	814	714	737	490	403	280	867	1200	1230	1210
18	820	793	896	715	757	448	270	275	974	1120	1220	1170
19	814	801	841	726	756	309	273	271	987	1130	1190	1220
20	808	793	921	732	743	353	228	261	965	1130	1230	1220
21	819	788	798	738	838	484	219	261	998	1180	1240	1220
22	830	792	769	821	801	438	261	304	1010	1150	1240	1220
23	827	869	791	802	781	517	241	303	985	1160	1250	1190
24	823	842	784	719	816	504	195	313	1020	1160	1250	1120
25	830	900	809	757	749	530	161	334	1040	1140	1240	1170
26	844	870	804	784	745	509	148	342	1080	1180	1230	1180
27	857	849	852	787	740	472	132	383	1110	1170	1260	1170
28	856	825	809	789	776	485	159	369	1110	1170	1260	1160
29	851	836	786	763	---	283	155	423	1120	1150	1260	1150
30	840	834	830	772	---	284	164	420	1130	1160	1260	1140
31	830	---	785	748	---	282	---	456	---	1160	1370	---
MONTH	823	806	810	783	764	532	311	256	833	1170	1220	1220
YEAR	MAX	1380	MIN	132	MEAN	794						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	4.0	5.0	2.0	3.0	6.0	7.0	12.0	14.0	20.0	18.0	14.0
2	12.0	4.0	5.0	2.0	3.0	6.0	5.0	10.0	14.0	20.0	18.0	14.0
3	11.0	4.0	3.0	2.0	5.0	5.0	4.0	6.0	15.0	20.0	19.0	12.0
4	9.0	3.0	4.0	2.0	4.0	2.0	4.0	7.0	17.0	19.0	17.0	15.0
5	14.0	4.0	5.0	3.0	4.0	3.0	5.0	7.0	15.0	19.0	18.0	14.0
6	14.0	4.0	5.0	3.0	2.0	3.0	5.0	12.0	14.0	19.0	17.0	14.0
7	12.0	5.0	5.0	3.0	2.0	9.0	6.0	12.0	12.0	19.0	17.0	13.0
8	9.0	5.0	4.0	2.0	1.0	7.0	4.0	12.0	12.0	19.0	18.0	14.0
9	8.0	5.0	3.0	2.0	3.0	8.0	7.0	12.0	11.0	22.0	17.0	14.0
10	6.0	5.0	4.0	2.0	4.0	8.0	7.0	11.0	13.0	21.0	15.0	14.0
11	6.0	4.0	5.0	1.0	4.0	6.0	7.0	10.0	13.0	19.0	15.0	14.0
12	6.0	7.0	6.0	1.0	6.0	9.0	8.0	10.0	14.0	16.0	17.0	9.0
13	7.0	8.0	5.0	2.0	5.0	9.0	7.0	8.0	15.0	19.0	17.0	9.0
14	6.0	9.0	6.0	4.0	2.0	4.0	5.0	8.0	16.0	19.0	15.0	10.0
15	15.0	4.0	6.0	4.0	6.0	4.0	9.0	10.0	17.0	21.0	16.0	12.0
16	11.0	5.0	6.0	5.0	5.0	6.0	9.0	8.0	17.0	22.0	16.0	11.0
17	11.0	5.0	6.0	6.0	4.0	6.0	9.0	8.0	18.0	20.0	16.0	11.0
18	11.0	5.0	4.0	6.0	1.0	6.0	10.0	11.0	20.0	22.0	16.0	11.0
19	8.0	5.0	1.0	5.0	4.0	6.0	10.0	11.0	19.0	22.0	17.0	12.0
20	8.0	4.0	5.0	2.0	4.0	1.0	7.0	12.0	20.0	22.0	17.0	12.0
21	9.0	4.0	4.0	4.0	3.0	3.0	6.0	8.0	20.0	21.0	17.0	12.0
22	10.0	4.0	4.0	3.0	3.0	3.0	8.0	12.0	16.0	20.0	16.0	12.0
23	14.0	4.0	4.0	3.0	2.0	2.0	8.0	12.0	18.0	20.0	16.0	12.0
24	7.0	4.0	4.0	4.0	2.0	2.0	4.0	13.0	18.0	21.0	15.0	14.0
25	7.0	3.0	3.0	4.0	4.0	9.0	9.0	13.0	18.0	22.0	15.0	14.0
26	10.0	3.0	4.0	4.0	4.0	9.0	9.0	14.0	18.0	22.0	16.0	14.0
27	7.0	5.0	3.0	2.0	5.0	7.0	10.0	15.0	17.0	23.0	16.0	14.0
28	8.0	4.0	3.0	2.0	5.0	7.0	7.0	15.0	17.0	23.0	17.0	10.0
29	9.0	4.0	5.0	1.0	---	5.0	4.0	14.0	18.0	18.0	16.0	10.0
30	6.0	4.0	4.0	2.0	---	7.0	4.0	15.0	20.0	19.0	16.0	11.0
31	6.0	---	3.0	3.0	---	5.0	---	12.0	---	18.0	15.0	---
MONTH	9.5	4.5	4.5	3.0	3.5	5.5	7.5	11.0	16.0	20.0	16.5	12.5
YEAR	MAX	23.0	MIN	1.0	MEAN	9.5						

PLATTE RIVER BASIN

06646610 NORTH PLATTE RIVER BELOW DEER CREEK, NEAR GLENROCK, WYO.

LOCATION.--Lat 42°52'20", long 105°50'42", in NE¼NW¼SW¼ sec.34, T.34 N., R.75 W., Converse County, temperature recorder 1.2 mi (1.9 km) downstream from Deer Creek, and 1.4 mi (2.3 km) northeast of Glenrock.

PERIOD OF RECORD.--Water temperatures: January 1969 to September 1974.

EXTREMES. - -1973-74:

Water temperatures: Maximum, 24.5°C July 27; minimum, freezing point on many days during November to March.

Period of record:

Water temperatures: Maximum, 27.0°C July 4, 1970; minimum, freezing point on many days during winter period each year.

REMARKS.--Records furnished by the Wyoming Game and Fish Commission and Pacific Power and Light Company.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	18.0	15.0	7.0	6.0	6.5	4.5	4.0	1.0	4.0	1.5	6.5	1.5	
2	17.0	15.0	6.0	4.0	6.5	5.0	3.0	1.5	4.0	1.0	8.5	5.0	
3	16.5	14.5	4.0	1.5	5.0	3.5	3.0	1.5	3.5	0.5	8.0	5.0	
4	15.0	13.0	3.5	1.0	4.0	1.5	3.5	1.0	3.5	0.5	5.0	1.5	
5	14.0	12.0	2.0	0.5	2.0	1.0	3.0	1.5	2.0	1.0	2.0	0.0	
6	15.0	12.0	4.5	1.5	3.0	0.0	3.5	1.0	4.0	0.0	5.0	1.5	
7	14.5	13.0	6.0	3.5	3.0	0.5	4.5	1.5	2.0	1.0	5.5	3.5	
8	13.5	11.5	5.5	5.0	1.5	0.0	3.5	1.0	2.0	0.0	6.5	5.0	
9	13.0	10.0	7.0	5.5	2.0	0.5	2.0	1.0	3.5	0.0	6.5	5.0	
10	10.0	8.0	8.5	6.5	1.5	0.5	3.0	0.5	3.5	0.0	6.0	3.5	
11	9.0	7.0	8.5	7.0	3.0	1.0	2.0	0.5	4.0	0.0	7.0	4.5	
12	10.5	8.5	9.0	8.0	2.0	1.0	3.5	1.0	4.0	0.0	6.5	5.0	
13	12.0	9.0	8.0	6.0	3.5	0.5	4.0	2.0	4.0	0.5	7.0	5.0	
14	13.5	10.5	8.0	6.0	3.5	2.0	3.5	1.5	5.0	0.5	6.0	4.5	
15	14.0	12.0	6.0	4.0	2.0	1.0	4.5	2.0	4.5	1.0	5.5	3.5	
16	14.5	11.5	5.5	4.5	3.5	1.0	4.5	2.0	5.5	1.5	6.0	4.0	
17	14.5	12.0	5.5	4.0	5.0	3.5	4.0	1.5	4.5	2.0	8.0	5.5	
18	14.0	12.0	6.0	4.5	5.0	1.5	3.5	1.5	5.0	1.5	7.0	6.0	
19	14.0	12.0	5.5	4.0	1.5	0.0	4.5	1.5	4.0	1.5	6.5	3.5	
20	13.5	11.5	5.5	3.0	1.0	0.0	4.0	1.5	3.5	1.5	3.5	1.0	
21	14.0	11.5	4.5	2.0	2.0	0.0	3.0	1.0	4.5	1.0	3.5	0.5	
22	14.0	11.5	3.5	1.0	3.0	0.5	3.5	1.0	4.5	1.0	4.0	2.0	
23	13.5	11.5	4.0	2.0	3.0	1.5	4.0	1.0	3.5	1.0	3.5	1.5	
24	11.5	8.0	2.0	0.5	2.0	1.0	3.5	1.0	4.0	0.5	3.5	1.0	
25	10.0	8.0	2.0	0.0	1.5	0.5	3.5	1.5	6.0	1.0	6.0	2.0	
26	9.5	8.0	1.5	0.0	2.0	0.0	3.0	1.0	5.0	1.0	8.5	5.5	
27	9.5	8.0	1.0	0.0	2.0	0.0	3.5	0.5	4.5	1.0	9.0	6.5	
28	10.5	8.5	3.0	0.0	3.0	1.0	3.5	0.5	5.5	1.5	8.0	6.0	
29	10.0	9.0	4.0	1.5	3.0	1.0	3.0	1.0	---	---	6.0	4.0	
30	9.0	8.0	5.0	3.5	3.0	1.5	3.5	0.0	---	---	6.5	4.5	
31	8.5	7.0	---	---	3.0	1.0	3.0	0.5	---	---	6.0	5.0	
MONTH	18.0	7.0	9.0	0.0	6.5	0.0	4.5	0.0	6.0	0.0	9.0	0.0	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	6.0	4.0	11.5	9.0	14.5	11.5	19.0	16.5	22.0	19.0	18.0	14.0	
2	5.5	4.0	11.5	8.5	15.5	11.5	18.5	15.5	21.0	19.0	16.0	13.0	
3	4.5	3.5	8.5	6.5	16.0	12.0	18.0	15.5	20.5	16.5	16.5	13.5	
4	4.5	3.0	10.5	6.5	15.0	12.0	19.0	15.0	20.5	17.0	18.5	15.0	
5	6.0	2.0	13.0	8.5	14.5	12.0	18.5	15.5	22.0	18.0	20.0	15.5	
6	7.0	4.5	13.5	10.0	13.0	11.0	18.0	15.5	22.0	18.5	20.5	17.0	
7	6.5	4.5	13.5	10.5	14.0	11.0	18.0	15.5	21.0	19.0	20.0	17.0	
8	7.0	4.0	13.5	11.0	13.5	10.5	17.0	15.5	20.5	18.0	19.5	17.0	
9	7.0	5.0	13.5	10.5	12.0	9.0	19.0	15.0	19.5	16.0	20.5	16.5	
10	7.0	5.0	12.0	10.5	15.0	11.5	19.0	16.5	16.5	14.0	20.0	18.0	
11	5.0	3.5	10.5	8.0	16.5	13.5	19.5	15.5	18.0	14.5	18.0	13.5	
12	4.0	2.0	10.5	8.5	17.0	14.0	20.0	16.5	19.5	16.0	15.5	11.0	
13	4.5	3.5	10.0	8.0	18.0	14.5	20.5	16.5	19.5	17.0	15.0	11.5	
14	4.5	3.5	10.0	7.0	19.0	15.0	20.0	17.0	20.0	16.5	15.5	12.0	
15	8.0	3.5	10.5	8.0	19.0	15.5	20.0	16.0	20.0	16.5	18.0	13.5	
16	8.5	5.0	10.5	9.0	18.5	15.5	20.0	18.0	20.5	16.0	18.5	15.0	
17	9.0	6.0	10.5	9.0	19.0	15.5	20.5	18.0	21.0	17.0	19.0	15.5	
18	10.5	6.5	12.0	9.0	18.5	15.0	20.0	18.0	20.5	17.0	19.5	15.5	
19	10.0	8.5	11.5	10.5	19.0	15.5	20.5	18.0	20.0	18.0	19.0	16.0	
20	9.0	5.0	11.5	9.5	19.0	15.5	21.5	18.5	19.5	17.0	16.0	14.5	
21	5.0	3.5	10.5	8.5	19.0	15.5	21.0	19.0	19.0	15.5	16.5	13.0	
22	9.5	11.5	11.5	8.0	19.0	15.5	21.0	18.0	19.5	16.0	16.5	13.5	
23	10.0	6.5	14.0	10.0	19.0	16.0	20.5	18.5	21.0	17.0	17.0	14.0	
24	11.0	8.5	15.5	11.0	19.5	16.0	21.0	18.5	21.0	17.0	18.0	15.0	
25	11.5	9.0	15.0	11.5	20.0	16.5	21.5	18.0	21.0	18.0	17.0	15.0	
26	11.5	9.5	15.5	13.0	20.0	16.5	22.0	19.0	21.0	18.5	16.5	15.0	
27	11.0	8.0	15.5	12.0	20.0	16.5	24.5	20.0	21.0	18.0	15.5	11.5	
28	9.0	6.0	15.0	12.0	20.0	16.5	23.5	21.0	21.0	18.5	14.0	11.0	
29	10.5	7.0	15.5	11.5	20.0	16.0	23.5	19.5	20.0	18.0	14.5	11.5	
30	11.0	8.0	14.5	11.5	20.0	16.5	21.0	19.5	19.5	18.0	14.0	11.5	
31	---	---	14.5	11.0	---	---	22.0	19.0	19.0	15.5	---	---	
MONTH	11.5	2.0	15.5	6.5	20.0	9.0	24.5	15.0	22.0	14.0	20.5	11.0	
YEAR	24.5	0.0											

PLATTE RIVER BASIN

149

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WYO.

LOCATION.--Lat 42°50'10", long 105°45'30", in NW¼NE¼ sec.17, T.33 N., R.74 W., Converse County, at bridge on county road, 0.9 mi (1.4 km) downstream from gaging station, 1.7 mi (2.7 km) downstream from Sand Creek, 1.9 mi (3.1 km) downstream from Dave Johnston powerplant, and 6.5 mi (10.5 km) east of Glenrock city limits.

DRAINAGE AREA.--17,497 mi² (45,317 km²), of which 5,132 mi² (13,292 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1960 to September 1974.

Water temperatures: December 1960 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 892 micromhos Nov. 8; minimum daily, 506 micromhos May 10.

Water temperatures: Maximum, 22.0°C Aug. 1; minimum, 1.0°C Jan. 9-11.

Period of record:

Specific conductance: Maximum daily, 1,670 micromhos June 17, 1967; minimum daily 302 micromhos Jan. 26, 1972.

Water temperatures: Maximum, 34.0°C July 2, 1970; minimum, freezing point on several days during winter periods in 1960-64.

REMARKS.--No appreciable inflow between sampling point and gaging station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
25...	1315	1720	11	58	23	46	3.7	162	0	190	11	.4
NOV.												
14...	1300	1100	9.1	69	27	61	3.7	171	2	250	14	.5
DEC.												
05...	1530	1070	10	69	25	60	3.7	172	2	240	17	.4
JAN.												
15...	1245	1240	12	63	25	47	3.7	170	0	200	18	.5
FEB.												
11...	1300	1120	12	75	18	53	3.7	163	0	220	14	.5
MAR.												
13...	1630	2160	12	56	23	42	3.5	168	0	170	11	.4
APR.												
23...	1300	4640	11	64	24	80	3.7	162	0	270	13	.4
MAY												
24...	1400	4240	11	60	15	36	3.3	156	0	140	11	.4
JUNE												
14...	1230	3810	11	58	15	40	3.0	159	0	150	9.0	.6
JULY												
02...	1030	3960	10	61	14	39	3.0	162	0	150	9.0	.4
AUG.												
09...	1040	2040	7.8	57	23	47	3.5	168	0	180	11	.5
SEP.												
24...	1330	1410	5.9	61	26	53	3.0	170	0	210	13	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
25...	.38	--	425	.58	1970	240	110	1.3	8.2	665	10.5
NOV.											
14...	.50	.05	527	.72	1570	280	140	1.6	8.4	799	9.0
DEC.											
05...	.47	.05	513	.70	1480	280	140	1.6	8.4	789	2.5
JAN.											
15...	.41	.06	455	.62	1520	260	120	1.3	8.1	703	--
FEB.											
11...	.52	.05	480	.65	1450	260	130	1.4	8.2	735	6.0
MAR.											
13...	.50	.08	404	.55	2360	240	100	1.2	8.0	630	8.0
APR.											
23...	.79	.01	551	.75	6900	260	130	2.2	8.1	815	14.0
MAY											
24...	.20	.00	354	.48	4050	210	82	1.1	8.3	544	15.5
JUNE											
14...	.23	.01	366	.50	3770	210	80	1.2	8.2	579	17.0
JULY											
02...	.14	.01	367	.50	3920	210	77	1.2	8.2	570	16.5
AUG.											
09...	.23	.00	414	.56	2280	240	100	1.3	8.3	655	17.5
SEP.											
24...	.20	.01	458	.62	1740	260	120	1.4	8.3	727	14.5

PLATTE RIVER BASIN

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	696	778	796	811	775	818	592	790	564	571	629	665
2	693	770	796	787	745	817	590	614	588	572	658	667
3	674	767	794	782	743	804	588	597	589	573	655	665
4	675	776	796	787	745	734	567	555	601	572	640	665
5	675	720	796	796	741	795	584	555	594	570	639	658
6	677	876	772	779	734	771	583	620	599	572	627	661
7	675	880	777	792	734	680	581	719	598	573	640	649
8	674	892	748	778	734	688	587	510	597	559	640	664
9	715	834	748	717	739	752	567	541	600	572	633	649
10	712	846	756	735	746	715	557	506	629	573	647	666
11	717	887	757	733	746	699	558	564	630	527	650	655
12	712	811	742	710	745	668	562	529	627	573	649	648
13	715	811	702	696	746	730	556	533	628	571	651	650
14	675	811	731	657	695	658	558	560	598	571	645	645
15	671	811	742	685	754	653	531	559	600	571	639	645
16	672	819	667	677	752	661	574	562	603	570	633	643
17	678	778	737	678	752	647	575	566	608	569	636	812
18	716	773	733	685	748	647	577	561	600	545	636	818
19	668	762	724	680	754	673	574	573	612	590	618	817
20	660	764	753	773	752	678	572	523	617	593	632	821
21	657	764	747	751	718	692	569	571	551	596	632	818
22	660	753	748	735	758	659	533	574	600	596	630	707
23	666	806	730	746	775	645	619	574	592	598	629	722
24	664	762	754	757	773	657	722	586	590	593	641	711
25	697	793	752	770	775	655	800	585	590	606	613	751
26	723	786	771	776	780	664	607	588	560	610	630	725
27	722	789	816	757	773	638	594	552	600	611	628	741
28	724	793	816	755	757	595	777	588	597	613	631	761
29	699	793	820	757	---	597	799	590	582	630	629	757
30	710	798	794	750	---	599	602	588	599	669	628	747
31	782	---	819	756	---	601	---	590	---	689	642	---
MONTH	692	800	762	743	750	687	602	578	598	587	636	707
YEAR	MAX	892	MIN	506	MEAN	678						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	5.5	6.0	2.5	3.0	4.5	5.0	11.0	13.5	18.5	22.0	18.5
2	17.0	5.0	4.0	2.0	3.0	5.0	5.0	9.5	13.5	18.0	21.5	18.0
3	16.0	4.0	5.0	2.0	2.5	4.0	5.5	8.5	12.0	17.0	20.0	18.0
4	16.5	4.0	4.0	2.0	2.5	4.0	5.5	9.5	13.0	18.0	19.5	18.0
5	17.0	4.5	3.5	2.5	2.5	4.0	5.0	10.0	11.5	18.5	19.0	18.0
6	16.5	6.0	4.5	2.5	2.0	4.0	5.5	10.5	13.0	18.0	19.5	18.5
7	16.0	6.0	3.0	3.5	2.0	4.0	5.0	10.5	12.0	18.0	19.0	18.0
8	16.0	7.0	2.0	2.0	2.5	4.0	5.5	12.0	11.0	18.5	19.5	18.0
9	14.0	6.5	2.0	1.0	3.0	4.5	5.0	12.0	12.0	18.5	19.0	18.0
10	13.5	7.0	2.5	1.0	3.0	4.5	5.0	11.0	14.0	18.5	18.5	17.5
11	12.0	7.5	3.0	1.0	3.0	4.0	4.5	11.0	14.0	18.0	19.0	16.0
12	13.0	8.0	3.0	2.0	3.0	4.5	4.0	10.5	14.5	18.5	18.0	14.0
13	14.0	8.0	3.5	3.0	3.5	4.0	4.0	10.0	14.5	18.0	18.0	14.5
14	14.5	8.0	4.0	3.5	3.5	4.0	4.0	10.0	14.5	18.5	18.5	15.0
15	14.0	9.0	4.0	3.5	3.0	4.5	4.0	10.0	16.0	18.5	20.0	16.0
16	14.0	8.5	5.0	3.0	3.5	4.0	5.5	10.5	15.5	19.0	21.0	16.0
17	14.0	8.0	5.0	3.5	3.5	4.5	5.5	9.5	15.5	19.0	20.5	16.0
18	14.0	7.5	5.5	3.5	3.0	4.0	6.0	10.0	16.0	18.5	20.5	16.0
19	14.5	7.0	4.0	3.5	3.0	4.0	6.0	11.0	16.0	19.5	20.0	16.5
20	14.0	5.0	3.0	3.0	3.5	4.0	6.0	11.0	17.0	20.0	19.5	17.0
21	12.0	5.5	3.0	2.5	3.0	3.5	5.5	11.0	17.0	19.5	20.0	15.5
22	11.5	4.0	3.5	2.5	3.0	3.5	6.0	11.0	17.0	19.0	20.0	16.0
23	12.0	3.0	3.5	2.5	3.5	3.5	6.0	11.5	17.5	19.0	19.5	15.5
24	11.0	2.0	4.0	3.0	3.0	3.0	8.5	11.0	17.5	19.0	20.0	15.0
25	10.5	3.0	3.0	3.0	3.0	3.5	8.0	12.0	17.5	19.5	20.0	15.5
26	10.0	4.5	3.0	2.5	3.5	3.5	10.0	12.5	18.0	19.0	20.0	16.0
27	10.5	4.0	3.5	2.5	3.5	4.0	9.5	12.5	18.0	19.0	20.5	12.0
28	10.0	5.5	3.0	2.0	3.5	5.0	10.0	12.0	18.5	19.5	20.0	13.0
29	10.0	6.0	3.5	2.5	---	5.5	10.0	11.5	18.5	21.0	20.0	13.5
30	10.5	6.0	3.0	2.5	---	5.5	11.0	12.0	18.5	20.5	19.5	13.0
31	9.0	---	3.0	2.5	---	5.0	---	13.0	---	19.0	19.0	---
MONTH	13.5	6.0	3.5	2.5	3.0	4.0	6.0	11.0	15.0	19.0	19.5	16.0
YEAR	MAX	22.0	MIN	1.0	MEAN	10.0						

151

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	11.0	4.5	3.5	4.5	2.0	0.0	0.0	0.0	0.0	4.5	0.5
2	14.5	11.5	3.5	1.5	4.0	2.0	0.0	0.0	0.0	0.0	8.0	3.5
3	13.5	11.0	1.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	6.0	3.5
4	13.0	9.0	1.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	4.0	0.5
5	12.0	8.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
6	13.0	9.5	4.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.5
7	11.5	10.0	5.5	4.0	1.0	0.0	0.0	0.0	0.0	0.0	5.5	1.5
8	11.5	9.5	4.5	4.0	1.5	0.5	0.0	0.0	0.0	0.0	5.5	3.5
9	10.5	7.0	6.5	4.0	0.5	0.0	0.0	0.0	0.0	0.0	5.5	3.5
10	7.0	5.5	7.0	4.5	1.0	0.0	0.0	0.0	0.0	0.0	4.5	2.0
11	8.5	5.5	6.5	5.0	1.5	0.5	0.0	0.0	0.0	0.0	6.0	3.5
12	9.0	6.5	8.0	5.5	1.5	0.5	0.0	0.0	0.0	0.0	5.5	3.0
13	10.5	6.5	6.5	4.5	1.5	0.0	0.0	0.0	0.0	0.0	6.5	3.5
14	12.0	8.5	6.0	4.5	1.5	0.0	0.0	0.0	0.0	0.0	5.0	3.0
15	12.0	9.5	4.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.0
16	13.0	9.5	4.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	5.5	2.0
17	13.0	10.0	4.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	6.5	4.0
18	13.0	9.5	3.5	2.0	2.0	0.0	0.0	0.0	0.0	0.0	6.5	4.5
19	12.0	9.5	3.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	1.0
20	11.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
21	11.5	9.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
22	11.5	9.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	3.5	1.0
23	11.0	9.5	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	3.0	0.0
24	10.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
25	9.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.0
26	9.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	4.0
27	8.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	8.0	5.0
28	9.0	5.5	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	7.0	5.0
29	8.5	6.5	2.0	0.0	0.0	0.0	0.0	0.0	---	---	5.5	3.0
30	7.0	5.5	3.0	0.5	0.0	0.0	0.0	0.0	---	---	6.0	3.5
31	6.0	4.5	---	---	0.0	0.0	0.0	0.0	---	---	5.5	4.5
MONTH	15.0	4.5	8.0	0.0	4.5	0.0	0.0	0.0	0.5	0.0	8.0	0.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.5	3.0	11.0	7.0	14.0	10.0	17.0	15.0	20.0	16.0	15.5	12.0
2	4.5	3.5	10.0	6.5	15.5	10.5	16.5	14.0	19.0	16.5	14.5	11.0
3	3.5	2.0	8.0	5.0	15.0	11.0	---	14.0	19.0	14.5	15.5	11.0
4	4.0	2.0	10.5									

06649520 NORTH PLATTE RIVER AT ORPHA., WYO.

LOCATION.--Lat 42°51'08", long 105°29'27", in NE¼NW¼ sec.10, T.33 N., R.72 W., Converse County, Fort Fetterman Reservation, temperature recorder at bridge on Ross Road, 0.2 mi (0.3 km) downstream from Fetterman Creek, 0.4 mi (0.6 km) downstream from La Prele Creek, and 0.7 mi (1.1 km) east of Orpha.

PERIOD OF RECORD.--Water temperatures: November 1969 to September 1974.

EXTREMES. -- 1973-74:

Water temperatures: Maximum, 24.0°C July 27; minimum, freezing point on many days during November to March.

Period of record:

Water temperatures: Maximum, 29.5°C July 4, 1970; minimum, freezing point on many days during winter period each year.

REMARKS.--Records furnished by Wyoming Game and Fish Commission and Pacific Power and Light Company. Periods of no record due to clock stoppages and ranges in temperature are:

Jan. 1-3	0.5°C to 0.0°C
Jan. 9-15	3.5°C to 0.0°C

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	16.5	13.5	6.5	5.0	6.0	3.5	---	---	3.5	1.0	6.0	1.5	
2	16.0	14.0	5.5	3.5	5.5	4.5	---	---	2.0	0.5	8.5	4.5	
3	15.5	13.5	3.5	1.0	4.5	3.5	---	0.0	3.0	0.0	7.0	4.5	
4	14.5	11.5	3.0	0.5	3.5	1.5	0.5	0.0	2.0	0.0	4.5	2.0	
5	14.0	11.0	1.5	0.0	1.5	0.5	0.0	0.0	2.0	0.0	3.0	0.0	
6	14.5	11.0	4.5	1.0	1.0	0.0	1.5	0.0	1.5	0.0	5.0	1.0	
7	13.5	12.0	5.5	3.5	2.0	0.0	2.0	0.0	1.5	0.0	5.5	3.0	
8	13.0	11.0	5.5	4.5	1.5	0.0	1.0	0.0	1.0	0.0	6.0	4.0	
9	11.5	9.0	7.0	4.5	2.0	0.0	---	---	2.0	0.0	6.0	3.5	
10	9.0	7.0	8.0	6.0	3.0	0.0	---	---	3.0	0.0	4.5	3.5	
11	8.0	6.0	8.5	6.5	3.0	0.5	---	---	3.5	0.0	6.5	4.0	
12	9.5	6.5	9.0	7.0	2.0	1.0	---	---	3.0	0.0	6.5	4.0	
13	11.0	8.0	8.0	6.0	3.0	0.5	---	---	3.5	0.0	7.0	4.5	
14	13.5	10.0	8.0	6.0	3.0	1.0	---	---	3.5	0.0	5.5	4.0	
15	13.5	11.0	6.0	4.5	1.5	0.0	4.5	---	3.5	1.0	5.5	3.5	
16	13.5	10.5	6.0	4.5	3.0	0.5	5.0	2.0	4.5	0.0	6.0	4.0	
17	14.5	11.5	5.5	4.5	4.0	2.0	4.0	2.0	3.5	1.0	8.0	5.0	
18	14.0	11.0	5.5	4.5	4.0	1.0	3.5	1.5	3.5	0.5	7.0	5.5	
19	14.5	11.5	5.5	3.5	1.5	0.0	4.0	2.0	3.0	0.0	5.5	2.0	
20	13.5	11.0	4.5	2.0	1.0	0.0	3.5	1.5	2.0	0.5	2.0	0.5	
21	13.5	11.0	4.0	2.0	2.0	0.0	3.5	1.0	3.0	0.0	3.0	0.0	
22	13.5	11.0	3.0	1.5	3.0	1.0	1.5	0.0	3.0	0.0	3.0	1.0	
23	12.0	11.0	3.5	1.0	3.0	2.0	3.0	0.0	2.0	0.0	3.0	1.0	
24	11.0	8.0	1.5	0.5	2.0	1.0	2.0	0.0	2.0	0.0	2.0	0.5	
25	10.0	8.0	1.5	0.0	2.0	0.5	2.0	1.0	4.5	0.0	5.5	1.5	
26	9.5	8.0	1.5	0.0	0.5	0.0	1.5	0.0	4.5	1.5	8.0	4.5	
27	9.0	7.0	1.5	0.0	0.5	0.0	1.5	0.0	4.0	1.0	9.5	6.5	
28	10.5	8.0	3.0	0.0	2.0	0.5	2.0	0.0	5.0	0.0	8.5	6.0	
29	9.5	8.0	4.0	1.5	1.0	0.0	1.5	0.0	---	---	5.5	4.5	
30	4.0	7.0	4.5	3.5	1.5	0.0	2.0	0.0	---	---	6.0	4.5	
31	8.0	6.5	---	---	0.5	0.0	2.0	0.0	---	---	6.0	5.0	
MONTH	16.5	6.0	9.0	0.0	6.0	0.0	---	---	5.0	0.0	9.5	0.0	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	6.0	4.0	11.0	9.0	15.0	12.0	19.5	18.0	21.0	18.5	18.0	14.0	
2	5.0	3.5	11.0	8.0	16.0	13.0	18.5	16.5	20.0	19.0	16.0	13.5	
3	3.5	3.5	8.0	6.5	16.0	14.0	18.0	15.5	20.5	17.0	17.0	13.5	
4	4.5	2.0	10.0	6.5	15.5	14.0	19.0	15.5	20.0	16.5	19.0	14.5	
5	6.0	3.5	12.0	8.5	14.5	13.0	18.0	15.5	21.0	17.0	19.5	16.0	
6	8.0	5.5	13.0	10.5	13.0	12.0	18.0	16.0	21.5	18.0	20.5	16.5	
7	7.0	5.0	13.5	11.0	14.0	11.0	18.0	15.5	20.0	18.5	20.5	17.0	
8	7.0	4.5	13.5	11.0	13.0	10.5	18.0	16.0	20.0	18.0	20.0	17.0	
9	8.0	5.5	13.5	11.0	12.0	9.5	19.0	15.5	19.0	16.0	20.5	16.5	
10	7.0	5.0	13.0	10.5	14.5	11.0	18.5	17.0	16.0	14.5	20.0	16.5	
11	5.0	3.5	10.5	9.0	16.5	13.5	19.0	16.5	18.0	14.5	17.0	13.0	
12	4.0	3.5	10.5	9.0	16.5	14.5	19.5	16.5	19.0	15.5	14.5	11.0	
13	4.5	4.0	10.5	9.0	18.0	14.5	20.0	17.0	19.5	16.5	14.5	11.5	
14	5.0	4.0	10.0	8.0	19.0	15.5	19.5	18.0	19.5	16.5	15.5	12.0	
15	8.0	3.5	10.0	8.5	19.0	16.5	19.5	16.5	20.0	16.5	17.0	14.0	
16	9.0	6.0	11.0	9.0	18.5	16.5	20.0	18.0	20.0	16.5	18.0	14.5	
17	9.5	8.0	11.0	9.5	19.0	16.5	20.0	18.0	20.5	17.0	18.5	15.5	
18	10.5	8.0	12.0	10.0	18.5	15.5	19.0	18.0	21.0	18.0	19.0	15.5	
19	10.0	9.0	12.0	11.0	19.0	16.0	20.5	18.0	20.0	18.0	18.5	15.5	
20	9.0	5.0	11.5	10.5	19.0	16.0	21.0	18.5	19.0	17.0	15.5	13.5	
21	5.0	3.5	11.0	9.0	19.0	16.5	21.0	19.0	19.0	15.5	16.5	12.0	
22	9.0	4.0	11.5	8.5	19.0	16.5	20.5	18.0	20.0	15.5	16.5	13.0	
23	10.0	6.5	14.0	10.5	19.0	16.5	20.0	18.0	21.5	18.0	17.0	13.0	
24	11.0	8.5	15.5	12.0	19.5	16.5	20.0	18.0	21.5	18.0	18.0	14.0	
25	11.0	9.5	15.5	13.5	20.0	17.0	21.0	18.0	22.0	19.0	18.0	14.0	
26	11.0	10.0	16.0	13.5	20.0	18.0	21.0	18.5	22.0	19.0	17.0	13.5	
27	10.5	8.0	15.5	14.0	20.0	18.0	24.0	19.0	21.0	18.5	14.5	10.5	
28	8.5	6.5	15.5	13.5	20.0	17.0	23.0	21.0	22.0	19.0	14.0	9.5	
29	10.0	7.0	15.5	12.0	20.0	17.0	23.5	19.0	21.0	18.5	14.5	11.0	
30	11.0	8.0	15.0	13.0	20.0	17.0	21.0	19.0	19.5	18.0	14.0	10.5	
31	---	---	15.5	12.0	---	---	21.0	19.0	19.5	16.0	---	---	
MONTH	11.0	2.0	16.0	6.5	20.0	9.5	24.0	15.5	22.0	14.5	20.5	9.5	
YEAR	24.0	0.0											

PLATTE RIVER BASIN

153

06652000 NORTH PLATTE RIVER AT ORIN, WYO.

LOCATION.--Lat 42°39'02", long 105°09'46", in SW¼SW¼ sec.17, T.31 N., R.69 W., Converse County, at bridge on U.S. Highway 87, 630 ft (192 m) upstream from gaging station, 0.3 mi (0.5 km) upstream from Shawnee Creek, and 1.5 mi (2.4 km) east of Orin.

DRAINAGE AREA.--18,847 mi² (48,814 km²), of which 5,152 mi² (13,344 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1974.
Sediment records: November 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 25...	1555	1790	12	62	23	52	3.7	159	6	200	11	.5
NOV. 23...	1300	1200	9.9	73	25	72	4.2	171	8	250	15	.5
DEC. 12...	1340	1100	9.8	83	18	65	4.0	196	0	240	15	.4
JAN. 23...	1300	1100	12	85	22	61	4.0	192	0	250	17	.5
FEB. 25...	1330	1010	13	71	25	61	4.0	192	0	230	15	.4
MAR. 25...	1500	2230	12	60	20	45	3.7	171	0	170	9.5	.5
APR. 18...	1820	4060	11	51	16	37	2.8	150	0	140	7.6	.4
MAY 24...	1020	4300	11	61	15	35	3.3	159	0	140	11	.4
JUNE 12...	1745	4040	11	78	5.3	42	3.0	168	0	160	9.0	.4
JULY 18...	0830	3910	9.8	52	21	40	3.0	162	0	160	9.1	.4
AUG. 15...	1430	2020	9.2	65	21	49	3.0	174	0	200	9.1	.4
SEP. 24...	1300	1500	5.2	59	28	57	3.7	170	0	230	11	.4

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA+MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 25...	--	--	449	.61	2170	250	110	1.4	8.5	703	9.5
NOV. 23...	.32	.05	547	.74	1770	290	140	1.9	8.6	808	1.5
DEC. 12...	.36	.01	531	.72	1580	280	120	1.7	8.3	814	1.5
JAN. 23...	.63	.05	545	.74	1620	300	140	1.5	8.2	815	.0
FEB. 25...	.61	.06	516	.70	1410	280	120	1.6	8.3	777	.5
MAR. 25...	.34	.02	407	.55	2450	230	90	1.3	8.2	627	4.0
APR. 18...	.47	.01	339	.46	3720	190	67	1.2	8.0	536	12.0
MAY 24...	.20	.00	356	.48	4130	220	90	1.0	8.3	542	13.0
JUNE 12...	.09	.01	392	.53	4280	220	82	1.2	7.9	597	19.5
JULY 18...	.16	.00	376	.51	3970	220	87	1.2	8.2	569	19.0
AUG. 15...	.25	.01	444	.60	2420	250	110	1.4	8.3	674	20.5
SEP. 24...	.14	.01	476	.65	1930	260	120	1.5	8.3	715	15.0

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					
25...	1555	1790	8	12.8	81
NOV.					
23...	1300	1200	8	12.8	81
DEC.					
12...	1340	1100	6	11.8	810
JAN.					
23...	1300	1100	9	11.4	45
FEB.					
25...	1330	1010	8	11.2	81
MAR.					
25...	1500	2230	25	10.6	22
APR.					
18...	1820	4060	35	9.3	160
MAY					
24...	1020	4300	25	6.9	88
JUNE					
12...	1745	4040	20	6.6	23
JULY					
18...	0830	3910	20	6.3	690
AUG.					
15...	1430	2020	20	6.4	810
SEP.					
24...	1300	1500	2	8.3	22

A Daily mean discharge.

B Non-ideal counting conditions.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE D SED- IMENT (MG/L)	SUS- PENDE D SED- IMENT DIS- CHARGE (T/DAY)
OCT.					
12...	1605	9.0	1740	80	376
NOV.					
23...	1300	1.5	1200	18	58
DEC.					
12...	1340	1.5	1100	24	71
JAN.					
23...	1300	.0	1100	22	65
FEB.					
16...	1520	3.5	1280	43	149
MAR.					
25...	1500	4.0	2230	116	698
APR.					
19...	1150	14.5	4280	368	4250
MAY					
24...	1020	13.0	4300	180	2090
JUNE					
12...	1745	19.5	4040	144	1570
JULY					
18...	0830	19.0	3910	131	1380
AUG.					
15...	1430	20.5	2020	111	605
SEP.					
24...	1300	15.0	1500	23	93

A Daily mean discharge.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DIS- CHARGE (CFS)	NUMBER OF SAM- PLING POINTS	BED	BED	BED
					MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN
					.052 MM	.125 MM	.250 MM
UCT.							
12...	1605	9.0	1740	3	0	0	2
26...	1400	--	1400	2	0	1	3

DATE	TIME	RED	RED	RED	BED	BED	BED
		MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN	MAT. FALL DIAM. % FINDER THAN
		.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	15.0 MM
UCT.							
12...	24		51	72	88	99	100
26...	28		59	84	97	100	--

PLATTE RIVER BASIN

155

06652700 GLENDO RESERVOIR NEAR GLENDO, WYO.

LOCATION.--Lat 42°28'21", long 104°57'28", in SW¼NE¼ sec.24, T.29 N., R.68 W., Platte County, near dam on North Platte River, 5.0 mi (8.0 km) southeast of Glendo. Sampled at sites listed below.

DRAINAGE AREA.--19,504 mi² (50,515 km²), of which 5,174 mi² (13,401 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August and September 1972, May to September 1973, May to September 1974.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at both sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom.

SAMPLE SITE 1.--Lat 42°28'49", long 104°57'07", in NW¼SE¼SE¼ sec.13, T.29 N., R.68 W., 150 ft (46 m) upstream from dam.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
31...	479,300	198	SURFACE	15.0	9.8	.08	.24	.02	373
			10	15.0	8.8				
			30	14.5	8.7				
			50	13.5	8.5	.11	.30	.03	367
			70	12.5	8.5				
			90	11.5	8.2				
			100	11.0	7.9				
			105	11.0	7.8	.19	.30	.06	375
JULY									
2...	368,000	95	SURFACE	24.0	9.1	--	.06	--	386
			10	22.0	9.4				
			20	21.0	7.9				
			40	19.5	6.8				
			60	15.0	5.9				
			70	--	--	--	.06	--	385
			80	14.0	5.5				
			90	14.0	5.3				
			95	14.0	5.4	--	.27	--	382
JULY									
25...	325,900	--	SURFACE	25.0	9.3	.22	.01	.04	379
			10	24.5	9.3				
			20	23.0	8.0				
			30	23.0	6.8				
			40	22.5	6.1				
			50	22.5	5.4	.11	.07	.04	379
			60	22.0	4.4				
			70	22.0	3.5				
			83	21.0	1.3	.15	.23	.18	383
AUG.									
29...	134,200	77	SURFACE	19.5	6.2	.19	.18	.03	419
			10	19.5	6.1				
			20	19.5	6.1				
			30	19.5	6.0				
			40	19.5	5.9	.07	.23	.03	416
			50	19.5	5.8				
			60	19.0	4.3				
			65	19.0	3.1				
			70	18.5	.8				
			76	17.5	.1	.04	.43	.11	420
SEP.									
23...	62,720	68	SURFACE	16.5	8.5	.07	.13	.04	445
			10	15.0	8.2				
			20	14.5	6.9				
			30	14.0	4.2	.70	.23	.06	446
			40	13.5	3.4				
			50	13.5	1.8				
			58	13.5	1.6	.04	.29	.05	445

PLATTE RIVER BASIN

06652700 GLENDO RESERVOIR NEAR GLENDO, WYO.--Continued

SAMPLE SITE 2.--Lat 42°30'00", long 104°57'15", in SW¼SE¼NE¼ sec.12, T.29 N., R.68 W., approximately 2.8 mi (4.5 km) upstream from dam.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1974

DATE	RESER- VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS- SOLVED OXYGEN (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA TOTAL (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)
MAY, 1974									
31...	479,300	151	SURFACE	15.0	9.2	.17	.37	.02	380
			10	15.0	8.9				
			20	14.0	8.9				
			30	14.0	8.8				
			40	13.5	8.8				
			50	13.0	8.7	.10	.21	.03	365
			60	12.0	8.3				
			70	11.5	8.0				
			80	11.5	7.9				
			100	11.0	7.8	.14	.22	.05	381
JULY									
2...	368,000	--	SURFACE	22.5	8.7	--	.05	--	389
			10	22.0	8.7				
			20	21.5	8.2				
			40	19.5	6.2	--	.05	--	390
			60	17.0	5.8				
			70	15.5	5.7	--	.10	--	387
JULY									
25...	325,900	109	SURFACE	23.5	8.7	.03	.00	.04	378
			10	22.5	8.8				
			20	22.0	8.2				
			25	21.5	7.1				
			30	21.5	6.2				
			40	21.5	5.8				
			50	21.0	5.2	.06	.04	.04	381
			60	20.5	4.5				
			70	20.0	3.6				
			75	20.0	3.1				
			80	19.5	2.5				
			85	18.5	1.1				
			90	18.0	1.2				
			100	17.0	.5				
			102	--	--	.07	.31	.13	382
AUG.									
29...	134,200	49	SURFACE	19.5	--	.22	.31	.03	424
			10	19.5	5.8				
			20	19.5	5.7				
			30	19.5	5.7	.03	.29	.03	425
			40	19.0	4.0				
			50	19.0	2.6				
			60	19.0	1.2	.03	.38	.15	424
SEP.									
23...	62,720	56	SURFACE	16.0	10.2	.12	.10	.05	445
			10	14.5	8.1				
			20	14.0	6.7	.08	.22	.05	457
			30	14.0	5.9				
			38	14.0	4.9	.33	.06	.07	450

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WYO.

LOCATION.--Lat 42°27'25", long 104°56'50", in SW¼SW¼NW¼ sec.30, T.29 N., R.67 W., Platte County, at gaging station, opposite Sand Draw, 1.3 mi (2.1 km) upstream from Horseshoe Creek, 3.1 mi (5.0 km) downstream from Glendo Dam, and 5.2 mi (8.4 km) southeast of Glendo.

DRAINAGE AREA.--19,507 mi² (50,523 km²), of which 5,174 mi² (13,401 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 26...	1310	2.3	8.7	59	32	64	4.9	198	0	230	12	.5
NOV. 23...	1515	2.3	13	66	34	62	5.6	201	0	240	17	.5
DEC. 13...	0940	2.2	8.3	79	26	66	5.1	234	0	240	15	.4
JAN. 23...	1500	2.6	11	92	23	64	4.9	250	0	240	16	.5
FEB. 25...	1600	1540	13	72	25	62	4.2	201	0	230	15	.4
MAR. 25...	1700	3970	9.0	71	24	57	4.2	183	3	220	13	.5
APR. 18...	1630	4120	9.1	67	23	53	3.5	180	0	200	13	.4
MAY 23...	1640	4400	10	61	16	43	3.5	159	0	170	11	.4
JUNE 12...	1130	5650	10	70	7.3	41	3.0	156	0	150	9.0	.4
JULY 18...	1510	2030	8.4	52	21	39	3.7	165	0	150	9.1	.4
AUG. 16...	1010	4490	8.1	54	22	45	3.0	168	0	170	11	.4
SEP. 24...	1455	2590	8.1	60	25	50	3.7	180	0	200	11	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 26...	.07	--	509	.69	3.16	280	120	1.7	8.3	797	8.0
NOV. 23...	.05	.02	536	.73	3.33	310	150	1.5	8.3	854	2.5
DEC. 13...	.02	.00	554	.75	3.29	310	120	1.6	8.1	851	.5
JAN. 23...	.16	.01	570	.78	4.00	320	120	1.5	8.2	886	.0
FEB. 25...	.45	.03	527	.72	2190	290	130	1.6	8.1	799	3.5
MAR. 25...	.23	.01	495	.67	5310	280	130	1.5	8.4	749	3.5
APR. 18...	.66	.01	465	.63	5170	260	110	1.4	8.3	706	6.5
MAY 23...	.29	.00	395	.54	4690	220	90	1.3	8.3	596	12.0
JUNE 12...	.18	.01	368	.50	5610	200	72	1.2	8.2	574	14.0
JULY 18...	.07	.00	365	.50	2000	220	85	1.2	8.3	581	20.5
AUG. 16...	.07	.01	397	.54	4810	220	82	1.3	8.3	606	20.5
SEP. 24...	.16	.00	448	.61	3130	250	100	1.4	8.3	700	16.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLT- FORM (COL. PER 100 ML)
NOV. 23...	1515	2.3	1	12.8	82
DEC. 13...	0940	2.2	--	11.8	82
JAN. 23...	1500	2.6	.7	12.0	80
FEB. 25...	1600	1540	2	8.9	80
MAR. 25...	1700	3970	1	11.7	80
APR. 18...	1630	4120	1	--	80
MAY 23...	1640	4400	3	7.4	80
JUNE 12...	1130	5650	4	7.9	81
JULY 18...	1510	2030	8	7.2	81
AUG. 16...	1010	4490	10	5.3	81
SEP. 24...	1455	2590	4	8.7	81

B Non-ideal counting conditions.

PLATTE RIVER BASIN

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WYO.

LOCATION.--Lat 42°16'50", long 104°45'15", in SE4SE4 sec.27, T.27 N., R.66 W., Platte County, at gaging station, 1.0 mi (1.6 km) northwest of Guernsey, and 1.1 mi (1.8 km) downstream from Guernsey Dam.

DRAINAGE AREA.--20,196 mi² (52,308 km²), of which 5,175 mi² (13,403 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1950 to September 1953 (daily), October 1953 to April 1954 (monthly), May 1954 to September 1958 (daily), October 1965 to September 1968 (daily), October 1968 to September 1974 (monthly).

Water temperatures: October 1951, April to September 1952, March to September 1953, May 1954 to September 1958, October 1965 to September 1966, April 1967 to September 1968.

Sediment records: April 1947 to June 1953 (daily).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANFOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 26...	0955	72	20	81	23	41	5.1	250	0	170	7.6	.5
NOV. 15...	1520	2.2	19	81	25	43	4.9	263	0	170	11	.5
DEC. 04...	1130	2.1	17	77	23	45	4.9	246	0	170	7.6	.4
JAN. 08...	1145	3.0	18	80	20	50	5.4	272	0	160	9.9	.4
FEB. 04...	1230	2.5	16	75	24	46	4.6	260	0	160	13	.4
MAR. 06...	1200	3780	11	89	19	59	4.4	200	0	230	15	.4
APR. 18...	1050	4030	9.1	66	23	55	3.5	180	3	210	13	.4
MAY 23...	1200	4610	11	62	15	42	3.5	162	0	160	11	.4
JUNE 11...	1700	5450	10	74	4.8	43	3.0	159	0	160	9.0	.4
JULY 19...	0805	3520	8.1	53	21	42	3.5	165	0	160	9.1	.4
AUG. 16...	1520	4510	8.1	56	23	41	3.0	168	0	170	9.1	.4
SEP. 25...	0915	2550	8.3	59	25	52	3.7	180	0	190	13	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 26...	.61	--	474	.64	92.1	300	95	1.0	8.1	739	5.0
NOV. 15...	.61	.04	481	.65	2.86	300	84	1.1	8.3	740	7.0
DEC. 04...	.20	.02	464	.63	2.63	280	78	1.2	8.3	723	3.0
JAN. 08...	.25	.02	483	.66	3.91	280	57	1.3	8.2	752	1.0
FEB. 04...	.23	.01	465	.63	3.14	290	77	1.2	8.2	699	3.0
MAR. 06...	.41	.02	528	.72	5390	300	140	1.5	8.3	788	13.0
APR. 18...	.54	.01	473	.64	5150	260	110	1.5	8.4	710	7.0
MAY 23...	.27	.00	386	.53	4800	220	87	1.2	8.3	601	13.0
JUNE 11...	.18	.01	383	.52	5640	200	70	1.3	8.2	578	14.5
JULY 19...	.18	.01	380	.52	3610	220	85	1.2	8.2	575	21.5
AUG. 16...	.07	.00	394	.54	4800	235	97	1.2	8.3	607	20.0
SEP. 25...	.11	.00	446	.61	3070	250	100	1.4	8.3	692	14.5

PLATTE RIVER BASIN

159

06657000 NORTH PLATTE RIVER AT RECORDER STATION, BELOW WHALEN, WYO.

LOCATION.--Lat 42°14'20", long 104°36'29", in NE¼SW¼ sec.12, T.26 N., R.65 W., Goshen County, at gaging station, 0.2 mi (0.3 km) downstream from Cottonwood Draw, 2.5 mi (4.0 km) downstream from Whalen Dam, and 4.8 mi (7.7 km) northwest of Fort Laramie.

DRAINAGE AREA.--20,384 mi² (52,795 km²), of which 5,178 mi² (13,411 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1973, July to September 1974.

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)
JULY								
12...	1515	1630	19.0	34.0	95	645	9.5	7.2
19...	1245	1510	18.0	26.0	70	640	11.2	7.6
26...	1300	1440	21.0	31.0	25	545	12.3	8.1
AUG.								
02...	1245	1400	18.0	17.0	10	545	11.9	8.1
09...	1345	1280	18.0	21.0	35	655	10.4	7.6
12...	0845	1140	17.0	19.0	50	--	8.3	7.7
16...	1230	1060	18.0	26.0	20	630	11.3	7.9
23...	1245	1040	18.0	27.0	20	785	11.5	7.7
30...	0915	870	18.0	12.0	25	638	11.1	7.4
SEP.								
06...	0930	408	17.0	14.0	30	730	10.0	7.8
13...	0930	222	15.0	3.0	20	780	9.6	7.7
20...	0930	173	14.0	11.0	20	680	9.4	7.6
27...	0930	202	13.0	6.0	15	690	9.9	7.7

PLATTE RIVER BASIN

06660100 LARAMIE RIVER AT HOWELL, WYO.

LOCATION.--Lat 41°24'50", long 105°36'56", in NE4SE4SE4 sec.30, T.17 N., R.73 W., Albany County, at bridge on Howell road, 100 ft (30 m) downstream from bridge on Union Pacific Railroad, 0.2 mi (0.3 km) south of Howell, and 7.3 mi (11.7 km) north of Laramie.

PERIOD OF RECORD.--Chemical analyses: January to September 1974.

CHEMICAL ANALYSES, JANUARY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 25...	1200	58	13	63	30	39	3.5	161	0	210	16	.7
FEB. 19...	1500	59	11	62	29	37	2.8	149	0	200	16	.5
APR. 29...	1245	181	11	39	20	22	2.3	105	0	130	9.0	.4
MAY 28...	0945	489	12	38	16	21	1.8	95	0	120	5.2	.3
JUNE 24...	0940	526	10	44	18	27	1.8	114	0	140	5.9	.3
JULY 23...	0845	149	11	77	43	54	3.1	178	0	300	16	.4
AUG. 26...	0950	19	6.7	130	82	100	5.9	258	0	580	44	.7

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
JAN. 25...	.18	100	455	71.3	.62	280	150	1.0	7.5	725	.0
FEB. 19...	.19	100	433	69.0	.59	270	150	1.0	7.4	699	.0
APR. 29...	.31	60	287	140	.39	180	94	.7	8.0	464	9.5
MAY 28...	.14	70	262	346	.36	160	83	.7	7.7	419	13.5
JUNE 24...	.03	90	303	430	.41	180	90	.9	7.7	484	16.0
JULY 23...	.16	170	593	239	.81	370	220	1.2	7.9	890	17.5
AUG. 26...	.33	280	1080	55.4	1.47	660	450	1.7	7.9	1510	14.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
JAN. 25...	1200	58	2	7.4	1500
FEB. 19...	1500	59	1	7.7	84
MAR. 18...	1410	114	6	9.3	85
APR. 29...	1245	181	20	8.1	32
MAY 28...	0945	489	6	7.1	75
JUNE 24...	0940	526	7	7.1	53
JULY 23...	0845	149	6	6.4	190
AUG. 26...	0950	19	6	7.1	74

B Non-ideal counting conditions.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, JANUARY TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
MAR. 18...	1410	4.0	114	24	7.4

PLATTE RIVER BASIN

161

06660500 LARAMIE RIVER AT TWO RIVERS, WYO.

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼NE¼SW¼ sec.5, T.17 N., R.74 W., Albany County, at former gaging station, at old Two Rivers Post Office, 0.6 mi (1.0 km) upstream from Little Laramie River, and 14 mi (23 km) northwest of Laramie.

DRAINAGE AREA.--1,224 mi² (3,170 km²), of which 188 mi² (487 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: June 1966 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 26...	1100	39	4.2	86	46	68	3.0	165	0	370	22	.5
NOV. 19...	1030	85	12	77	40	54	2.8	157	0	310	20	.5
JAN. 25...	1030	58	14	90	15	35	2.3	165	0	200	15	.5
FEB. 19...	1245	59	12	67	24	37	2.3	149	0	190	15	.4
MAR. 18...	1230	131	11	83	28	46	2.6	153	0	260	17	.9
APR. 29...	1020	181	11	44	20	23	2.1	110	0	130	9.5	.4
MAY 28...	1140	489	12	49	13	22	1.9	104	0	120	7.2	.4
JUNE 24...	0920	526	11	60	14	29	1.9	128	0	150	5.4	.4
JULY 23...	0930	149	8.6	76	38	52	2.8	177	0	290	13	.5
AUG. 26...	1045	20	1.6	130	72	98	4.0	230	0	580	35	.7

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL 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	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 26...	.14	1.3	684	.93	72.0	400	270	1.5	8.3	1010	3.5
NOV. 19...	.77	.39	601	.82	138	360	230	1.2	8.0	892	.5
JAN. 25...	.29	.41	457	.62	71.6	290	160	.9	7.8	687	.0
FEB. 19...	.95	.41	428	.58	68.2	270	150	1.0	7.5	680	.0
MAR. 18...	.61	.17	527	.72	186	320	190	1.1	7.8	769	.5
APR. 29...	.18	.00	299	.41	146	200	110	.7	8.0	465	7.0
MAY 28...	.09	.01	277	.38	366	180	95	.7	8.0	430	15.0
JUNE 24...	.23	.01	336	.46	477	200	95	.9	7.9	530	16.0
JULY 23...	.07	.02	568	.77	229	340	200	1.2	8.1	817	18.0
AUG. 26...	.07	.03	1030	1.40	55.6	630	440	1.7	8.1	1400	17.0

PLATTE RIVER BASIN

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WYO.

LOCATION.--Lat 41°28'07", long 105°43'56", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.6, T.17 N., R.74 W., Albany County, at former gaging station, at old Two Rivers Post Office, 0.5 mi (0.8 km) upstream from mouth, and 14 mi (23 km) northwest of Laramie.

DRAINAGE AREA.--376 mi² (974 km²), of which 58 mi² (150 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 26...	1030	11	9.6	46	19	28	1.9	167	3	92	7.9	.3
NOV. 19...	1010	12	9.8	50	21	29	1.9	176	0	110	8.6	.4
JAN. 25...	1045	7.8	15	79	17	38	6.7	228	0	150	16	.5
FEB. 19...	1300	14	10	46	14	23	1.6	165	0	79	5.7	.3
MAR. 18...	1200	71	8.9	43	11	20	1.6	142	0	66	6.1	.5
APR. 29...	1130	45	7.2	59	19	32	1.9	190	0	120	9.5	.4
MAY 28...	1045	94	13	54	14	26	1.9	186	0	78	7.2	.5
JUNE 24...	0900	2.0	11	54	12	26	1.6	204	0	66	3.6	.4
JULY 23...	1000	18	7.2	33	14	16	1.2	156	0	44	1.8	.3
AUG. 26...	1120	4.5	.6	32	16	22	1.4	150	0	61	3.7	.4

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)
OCT. 26...	.02	.00	290	.39	8.61	190	48	.9	8.5	477	3.0
NOV. 19...	.02	.03	316	.43	10.2	210	66	.9	8.3	513	.5
JAN. 25...	.16	.03	432	.59	9.10	270	83	1.0	7.6	674	.0
FEB. 19...	.07	.01	261	.36	9.87	170	35	.8	7.7	434	.0
MAR. 18...	.23	.01	228	.31	43.7	160	44	.7	8.2	393	.5
APR. 29...	.14	.02	343	.47	41.7	220	64	.9	8.2	544	9.0
MAY 28...	.09	.00	286	.39	72.6	190	37	.8	8.1	477	14.0
JUNE 24...	.29	.00	276	.38	1.49	180	13	.8	8.0	453	16.0
JULY 23...	.07	.00	194	.26	9.43	140	12	.6	8.1	330	18.0
AUG. 26...	.07	.00	210	.29	2.55	140	17	.8	8.1	374	16.5

PLATTE RIVER BASIN

163

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WYO.

LOCATION.--Lat 42°11'57", long 104°35'28", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.25, T.26 N., R.65 W., Goshen County, at gaging station, 5 ft (1.5 m) downstream from Fort Laramie Canal Siphon, 10 ft (3 m) east of county road, 1.1 mi (1.8 km) downstream from Gering-Fort Laramie Canal diversion, 1.7 mi (2.7 km) southwest of Old Fort Laramie, 3.0 mi (4.8 km) upstream from Deer Creek, 4.0 mi (6.4 km) southwest of Fort Laramie, and 5.1 mi (8.2 km) upstream from mouth.

DRAINAGE AREA.--4,495 mi² (11,642 km²), of which 631 mi² (1,634 km²) is probably noncontributing. Drainage area at mouth, 4,565 mi² (11,823 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1974.

Water temperatures: October 1965 to September 1974.

Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 932 micromhos Sept. 16; minimum daily, 540 micromhos Apr. 29.

Water temperatures: Maximum, 27.0°C July 13; minimum, freezing point Nov. 4, Dec. 6, 8.

Period of record:

Specific conductance: Maximum daily, 1,220 micromhos Jan. 12, 1973; minimum daily, 309 micromhos May 21, 1970.

Water temperatures: Maximum, 27.0°C July 12, 1969, June 30, Aug. 1, 1973, July 13, 1974; minimum, freezing point on many days during winter period most years.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 03...	1100	239	26	85	27	55	4.9	292	0	180	17	.6
NOV. 14...	1430	291	24	66	32	45	4.6	267	0	160	14	.6
29...	1300	231	26	84	29	53	4.4	278	0	180	17	.6
DEC. 14...	1025	223	27	83	28	50	4.2	290	0	170	15	.6
JAN. 16...	1030	A226	28	80	20	92	7.7	295	0	210	24	.5
MAR. 06...	1400	213	26	93	18	45	4.0	277	6	150	15	.5
APR. 02...	1245	337	21	74	18	33	3.3	241	0	110	12	.6
MAY 01...	1510	362	21	62	18	28	3.5	217	0	95	9.5	.4
31...	1100	47	23	100	15	55	4.9	284	0	180	16	.5
JULY 02...	1050	31	27	100	16	57	5.1	290	0	180	16	.5
26...	0930	24	26	87	23	55	5.1	281	0	180	16	.5
AUG. 29...	1230	12	28	84	24	54	5.1	280	0	180	13	.5

A Daily mean discharge.

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT. 03...	.50	--	544	.74	351	330	90	1.3	8.3	822	11.5
NOV. 14...	.38	.02	477	.65	375	300	81	1.1	8.2	753	7.0
29...	.43	.02	528	.72	329	330	100	1.3	8.2	804	3.5
DEC. 14...	.52	.01	520	.71	313	320	82	1.2	8.3	781	2.0
JAN. 16...	1.7	.03	612	.83	373	280	38	2.4	7.9	924	.0
MAR. 06...	.56	.04	492	.67	283	310	73	1.1	8.4	737	5.0
APR. 02...	.36	.02	393	.53	358	260	62	.9	8.1	605	8.5
MAY 01...	.43	.01	345	.47	337	230	52	.8	8.2	529	15.5
31...	.02	.00	435	.59	55.2	62	0	3.0	8.2	812	16.0
JULY 02...	.11	.00	545	.74	45.6	320	78	1.4	8.0	818	18.5
26...	.18	.00	532	.72	34.5	310	79	1.4	8.1	781	16.0
AUG. 29...	.18	.00	527	.72	17.1	310	80	1.3	8.2	796	16.5

PLATTE RIVER BASIN

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WYO.--Continued
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
NOV.					
14...	1430	291	7	11.4	22
29...	1300	231	8	12.1	815
DEC.					
14...	1025	223	7	12.5	815
JAN.					
16...	1030	226	15	11.7	64
MAR.					
06...	1400	A213	35	10.8	44
APR.					
02...	1245	337	55	9.7	140
MAY					
01...	1510	362	110	8.7	260
31...	1100	47	3	12.5	85
JULY					
02...	1050	31	4	10.5	100
26...	0930	24	10	8.6	130
AUG.					
29...	1230	12	7	9.2	37

A Daily mean discharge.

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	733	802	792	863	836	783	602	565	813	798	781	734
2	747	794	795	907	815	796	606	575	822	781	784	749
3	768	766	720	897	811	767	597	621	839	807	796	761
4	763	761	774	913	817	785	652	632	809	811	782	782
5	771	751	785	863	818	762	708	638	815	814	764	792
6	766	819	796	907	824	765	734	631	827	838	784	793
7	772	835	805	847	798	799	734	664	812	825	782	805
8	770	857	815	843	845	713	655	636	829	815	775	809
9	771	814	786	846	856	754	694	707	893	812	785	793
10	781	788	766	835	811	770	698	714	913	790	787	809
11	798	752	766	826	813	708	703	705	895	853	791	822
12	793	743	777	822	795	677	732	685	834	588	780	814
13	774	744	778	822	817	670	741	630	872	771	782	827
14	781	762	779	803	812	662	730	632	865	821	779	844
15	781	756	809	786	800	661	697	685	887	811	782	851
16	764	764	772	771	796	645	700	692	890	802	783	932
17	776	756	798	746	798	696	692	741	855	805	785	916
18	793	763	779	699	813	666	710	705	815	802	783	892
19	808	742	773	699	801	700	720	743	846	794	788	883
20	807	746	806	734	763	580	708	747	867	790	784	889
21	802	748	827	747	839	642	673	789	869	788	784	883
22	811	768	802	777	793	695	564	771	884	797	777	880
23	794	818	793	845	812	738	646	799	867	808	783	894
24	816	798	806	821	841	731	621	781	806	811	777	867
25	826	792	785	832	856	743	620	771	774	786	771	865
26	817	798	796	802	854	767	627	821	807	794	782	872
27	822	784	806	801	870	741	606	817	816	794	781	874
28	813	810	816	765	817	739	553	807	809	799	808	874
29	809	813	837	814	---	712	540	842	815	783	776	861
30	807	810	845	822	---	713	557	844	804	783	774	870
31	815	---	836	821	---	664	---	849	---	749	776	---
MONTH	789	782	794	815	819	718	661	718	842	794	782	841
YEAR	MAX	932	MIN	540	MEAN	779						

PLATTE RIVER BASIN

165

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	7.5	4.0	1.0	5.5	8.0	11.5	17.5	21.0	23.0	21.5	17.0
2	16.0	6.0	4.0	0.5	4.0	11.5	9.0	14.5	22.0	24.0	20.0	19.0
3	14.0	3.0	3.5	0.5	4.5	9.0	8.5	13.0	22.0	21.5	22.5	19.0
4	14.0	0.0	3.0	1.0	4.0	6.0	8.5	16.0	21.0	22.5	22.0	20.0
5	14.0	2.0	2.5	0.5	2.0	6.0	11.0	18.0	16.5	23.5	23.0	20.0
6	14.5	4.0	0.0	1.0	3.0	7.5	13.0	19.5	17.0	22.0	22.5	21.5
7	14.0	6.0	2.0	1.0	2.5	8.5	11.0	20.0	19.5	21.0	18.5	21.5
8	13.0	6.0	0.0	1.0	2.0	10.0	13.0	20.5	13.0	23.0	22.0	22.0
9	10.5	7.0	0.5	1.0	4.0	9.5	12.5	20.5	14.5	24.5	18.0	22.0
10	8.0	7.0	0.5	0.5	3.0	6.0	11.0	16.0	18.0	21.0	20.0	22.0
11	8.0	10.0	2.0	1.0	3.0	6.0	7.0	17.5	20.0	24.5	19.5	14.0
12	10.0	8.0	4.0	1.0	5.0	7.0	9.0	17.5	22.0	25.5	20.0	13.0
13	11.5	8.5	1.0	1.0	5.5	9.0	8.0	15.0	24.0	27.0	20.0	16.5
14	13.0	7.0	1.0	1.5	5.5	7.0	9.0	14.5	25.0	25.0	22.0	17.0
15	13.0	6.5	3.0	2.5	6.0	8.0	11.5	16.0	25.0	24.5	22.5	18.0
16	13.0	6.0	4.0	2.5	5.5	8.5	14.0	19.0	23.5	24.5	23.5	17.5
17	14.0	6.0	4.5	1.5	5.0	10.0	15.0	13.5	25.0	23.5	21.5	18.0
18	13.0	7.0	2.0	2.5	6.0	8.5	17.0	20.0	23.0	24.5	22.5	19.0
19	13.0	4.5	1.0	2.0	6.0	7.0	15.0	17.5	24.0	25.0	20.0	17.0
20	14.0	4.0	1.5	2.0	4.5	6.0	14.5	19.0	24.0	25.5	22.5	15.0
21	14.0	3.5	1.5	2.0	4.0	5.5	12.0	17.0	24.0	25.5	22.0	17.0
22	15.0	3.0	2.0	2.5	4.5	4.0	14.5	18.5	24.0	24.5	22.0	17.0
23	14.0	3.0	2.0	1.5	3.0	5.0	15.0	20.5	24.5	24.0	22.5	17.0
24	11.0	3.0	3.5	2.0	4.0	4.5	17.0	22.5	24.0	23.0	23.0	17.0
25	13.0	3.0	3.0	2.0	4.5	9.0	18.5	21.0	24.0	24.0	22.5	17.5
26	12.0	2.0	2.0	3.5	6.0	9.5	19.5	22.0	24.5	24.0	23.0	17.0
27	11.0	3.0	2.0	3.0	7.5	13.0	17.0	22.0	24.5	23.5	22.0	13.0
28	12.0	3.0	2.0	3.0	6.0	11.0	16.0	22.0	24.5	21.5	18.0	14.5
29	10.5	4.5	1.0	3.5	---	12.0	15.5	17.5	24.0	23.0	19.0	15.5
30	10.0	4.5	1.5	4.0	---	10.0	17.0	19.5	24.5	20.5	21.0	16.0
31	9.0	---	1.0	2.0	---	10.0	---	19.0	---	22.0	21.0	---
MONTH	12.5	5.0	2.0	2.0	4.5	8.0	13.0	18.5	22.0	23.5	21.5	17.5
YEAR	MAX	27.0	MIN	0.0	MEAN	12.5						

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)
OCT.					
03...	1100	11.5	239	62	40
NOV.					
29...	1300	3.5	231	20	12
DEC.					
14...	1025	2.0	223	24	14
JAN.					
09...	1015	.0	A139	26	9.8
FEB.					
13...	1515	3.5	231	73	46
MAR.					
06...	1400	5.0	213	126	72
APR.					
03...	1710	7.5	329	142	126
MAY					
07...	1110	15.5	235	150	95
JUNE					
03...	1630	22.0	37	22	2.2
JULY					
12...	1015	18.0	68	191	35
AUG.					
06...	1715	23.5	15	48	1.9
SEP.					
09...	1600	22.0	A11	74	2.2

A Daily mean discharge.

PLATTE RIVER BASIN

06670900 NORTH PLATTE RIVER NEAR LINGLE, WYO.
(Main channel)

LOCATION.--Lat 42°06'13", long 104°21'02", in SW&SE¼ sec.30, T.25 N., R.62 W., Goshen County, at gaging station, at bridge over main channel on State Highway 0805, 1.8 mi (2.9 km) upstream from mouth on Rawhide Creek, and 2.1 mi (3.4 km) south of Lingle.

DRAINAGE AREA.--25,095 mi² (64,996 km²), of which 5,809 mi² (15,045 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1974.
Sediment records: July 1969 to September 1974.

REMARKS.--Chemical and sediment records, and indicated discharges, are for main channel.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
03...	1430	718	21	78	22	56	5.1	243	0	170	14	.5
DEC.												
05...	0920	330	25	86	23	55	4.9	280	0	170	15	.6
JAN.												
09...	1415	A212	30	93	24	57	5.2	294	0	180	17	.5
FEB.												
11...	1430	254	28	91	23	54	5.5	286	0	170	16	.1
MAR.												
07...	1145	4010	11	73	23	61	5.0	203	0	230	15	.5
APR.												
04...	1420	4030	10	69	22	57	4.6	196	0	190	14	.7
MAY												
08...	1145	1970	11	62	20	46	4.3	185	0	160	11	.7
JUNE												
04...	1030	1260	12	58	19	45	3.9	175	0	160	11	.1
JULY												
11...	1215	1810	11	64	17	42	4.4	177	0	160	9.0	.4
26...	1020	1640	10	60	19	42	4.1	181	0	160	11	.3
AUG.												
07...	1115	1400	11	58	19	44	4.7	183	--	160	11	.3
29...	1320	924	11	63	20	50	4.6	190	0	160	12	.4
SEP.												
10...	0930	432	17	76	20	54	5.0	218	--	170	14	.5
26...	1000	348	20	74	22	55	5.3	231	--	190	15	.4

A Daily mean discharge.

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.											
03...	.44	--	100	40	488	946	.66	290	1.4	8.1	14.0
DEC.											
05...	.86	--	110	60	522	465	.71	310	1.4	8.2	2.0
JAN.											
09...	1.2	--	90	70	557	319	.76	330	1.4	8.1	1.0
FEB.											
11...	1.2	--	110	30	534	366	.73	320	1.3	8.1	5.0
MAR.											
07...	.52	--	100	60	521	5640	.71	280	1.6	8.2	4.5
APR.											
04...	.40	--	100	50	466	5070	.63	260	1.5	8.3	6.5
MAY											
08...	.30	--	100	30	408	2170	.55	240	1.3	8.2	14.0
JUNE											
04...	.23	--	70	120	396	1350	.54	220	1.3	8.3	17.0
JULY											
11...	--	.00	--	--	400	1950	.54	230	1.2	8.0	23.0
26...	.14	--	100	20	396	1750	.54	230	1.2	8.1	20.5
AUG.											
07...	.36	--	80	70	400	1510	.54	220	1.3	--	20.0
29...	.28	--	90	20	416	1040	.57	240	1.4	8.1	19.0
SEP.											
10...	.75	--	100	50	467	545	.64	270	1.4	--	16.0
26...	.64	--	140	50	499	469	.68	280	1.4	--	13.5

PLATTE RIVER BASIN

167

06670900 LARAMIE RIVER NEAR LINGLE, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
OCT.					
03...	1430	14.0	718	22	43
NOV.					
07...	1240	5.5	468	18	23
DEC.					
05...	0920	2.0	330	12	11
JAN.					
09...	1415	1.0	212	18	10
APR.					
04...	1420	6.5	4030	78	849
JULY					
11...	1215	23.0	1810	89	435

A Daily mean discharge.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .052 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 15.0 MM
NOV.												
07...	1240	5.5	468	1	1	1	12	41	51	81	95	100

PLATTE RIVER BASIN

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW¼NE¼SE¼ sec.4, T.23 N., R.58 W., Scottsbluff County, Nebraska, at bridge on Nebr. State Highway 86, 650 ft (198 m) downstream from gaging station, 0.3 mi (0.5 km) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, Nebr.

DRAINAGE AREA.--26,177 mi² (67,798 km²), of which 5,888 mi² (15,250 km²), including 3,959 mi² (10,254 km²) in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1974.

Water temperatures: October 1965 to September 1974.

Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 1,030 micromhos Jan. 25; minimum daily, 613 micromhos July 1.

Water temperatures: Maximum, 21.5 °C July 19, 21; minimum, freezing point on several days during December, January, and February.

Period of record:

Specific conductance: Maximum daily, 1,030 micromhos Jan. 25, 1974; minimum daily, 243 micromhos Dec. 2, 1967.

Water temperatures: Maximum, 27.0°C July 4, 25, 1967; minimum, freezing point on many days during winter period most years.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
23...	1000	653	24	78	21	74	6.3	262	0	200	14	.6
NOV.												
29...	1100	485	27	85	25	87	6.7	305	0	210	23	.6
DEC.												
14...	0840	446	27	97	14	82	6.5	301	0	200	20	.5
JAN.												
16...	0915	490	25	82	26	46	4.2	276	0	150	17	.5
MAR.												
07...	1615	3970	13	76	25	61	4.6	212	0	230	16	.5
APR.												
02...	1110	4760	10	77	20	57	4.2	204	0	210	13	.4
MAY												
01...	1650	3310	11	72	15	50	4.4	200	0	170	11	.4
31...	1500	1260	14	70	15	55	4.4	195	0	180	13	.4
JULY												
02...	0930	2760	12	64	15	48	4.0	183	0	160	9.0	.4
26...	1140	1340	12	60	20	53	4.6	195	0	170	13	.4
AUG.												
29...	1415	972	14	62	26	61	5.4	220	0	190	13	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.											
23...	.63	--	550	.75	970	280	65	1.9	8.1	870	11.5
NOV.											
29...	1.2	.12	617	.84	808	320	70	2.1	8.3	929	6.5
DEC.											
14...	1.4	.12	603	.82	726	300	53	2.1	8.0	908	3.0
JAN.											
16...	.75	.25	494	.67	654	310	84	1.1	8.2	755	.0
MAR.											
07...	.56	.05	533	.72	5710	290	120	1.6	8.3	802	7.0
APR.											
02...	.23	.01	496	.67	6370	280	110	1.5	8.2	749	8.0
MAY											
01...	.38	.00	428	.58	3830	240	76	1.4	8.3	679	14.5
31...	.43	.00	450	.61	1530	240	80	1.6	8.1	691	17.5
JULY											
02...	.23	.01	403	.55	3000	220	70	1.4	8.0	631	19.0
26...	.41	.01	431	.59	1560	230	70	1.5	8.1	662	22.0
AUG.											
29...	.41	.00	482	.66	1270	260	80	1.6	7.9	743	19.5

PLATTE RIVER BASIN

169

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 23...	1000	653	5	9.4	410
NOV. 29...	1100	485	4	10.1	790
DEC. 14...	0840	446	4	10.6	8160
JAN. 16...	0915	490	20	9.8	21000
MAR. 07...	1615	3970	35	10.9	80
APR. 02...	1110	4760	9	9.9	815
MAY 01...	1650	3310	20	9.1	48
31...	1500	1260	15	8.5	200
JULY 02...	0930	2760	15	7.1	250
26...	1140	1340	30	7.8	8000
AUG. 29...	1415	972	40	8.1	250

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	844	870	901	936	834	805	705	713	613	685	750
2	---	844	862	893	940	832	802	715	724	635	685	759
3	---	834	866	945	926	831	788	715	726	627	687	767
4	---	834	868	945	927	831	791	685	733	643	684	783
5	---	843	870	955	919	829	763	705	734	652	687	781
6	---	849	875	945	869	836	811	705	731	676	702	799
7	---	851	879	920	926	842	811	715	745	672	690	767
8	---	860	879	936	928	848	802	720	736	669	696	801
9	---	904	878	927	930	849	793	717	702	668	703	809
10	---	891	875	942	936	849	792	721	679	675	698	807
11	---	867	784	916	940	839	797	757	698	659	704	826
12	---	843	882	933	932	842	797	744	694	682	712	791
13	---	847	875	899	923	842	789	760	637	578	714	818
14	---	829	880	846	925	839	773	787	663	649	710	813
15	---	838	874	858	918	838	782	757	663	688	714	818
16	833	838	850	920	908	828	777	775	664	695	715	818
17	834	847	878	858	905	773	777	744	648	692	719	826
18	821	843	863	866	886	809	765	743	657	690	699	832
19	833	846	861	862	882	813	772	730	653	687	720	842
20	839	843	881	829	921	781	765	740	655	683	729	844
21	834	861	875	922	909	801	758	768	651	691	730	821
22	838	858	884	847	929	807	696	775	649	667	736	848
23	837	870	866	889	923	802	699	707	645	676	736	848
24	836	862	827	931	909	812	744	735	651	670	729	854
25	843	881	870	1030	934	815	737	729	624	619	733	848
26	843	870	876	928	938	810	727	725	614	667	733	851
27	852	880	876	848	937	813	723	724	626	676	724	863
28	845	893	888	903	888	811	724	718	622	676	743	832
29	849	895	874	940	---	813	721	688	629	676	741	795
30	849	880	877	934	---	813	715	725	625	678	746	799
31	843	---	885	915	---	805	---	718	---	678	749	---
MONTH	---	858	869	909	919	822	765	731	673	668	715	814
YEAR	MAX	1030	MIN	613	MEAN	796						

PLATTE RIVER BASIN

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.5	5.0	0.5	3.0	4.5	6.5	12.0	14.5	20.0	20.0	16.0
2	---	6.0	5.5	0.0	3.0	5.5	7.0	12.0	15.5	19.5	19.5	13.0
3	---	3.5	4.0	0.0	2.0	5.5	4.0	8.5	16.0	19.0	17.0	13.0
4	---	3.5	4.5	0.0	2.5	3.0	5.0	10.0	16.5	18.0	18.0	14.0
5	---	2.5	3.0	0.0	3.0	2.0	5.5	12.0	16.5	18.5	18.0	15.5
6	---	4.5	2.5	0.0	0.0	4.0	7.0	13.0	14.0	19.0	19.0	16.0
7	---	6.0	3.5	0.0	0.5	5.0	7.0	14.0	13.5	19.0	18.5	16.0
8	---	5.5	5.5	0.0	0.5	4.0	6.0	14.0	14.5	19.5	18.5	16.5
9	---	6.0	3.0	0.5	1.5	4.5	8.0	14.0	12.0	19.0	18.5	16.0
10	---	7.0	2.5	0.0	2.5	4.0	7.5	14.0	15.0	20.5	18.0	16.0
11	---	6.5	3.5	0.0	3.5	3.0	7.0	11.0	16.0	19.0	17.0	15.0
12	---	8.5	4.0	0.5	3.5	5.5	5.0	11.5	16.5	20.0	18.0	9.0
13	---	7.0	3.5	1.0	4.0	4.5	8.0	12.0	17.5	20.0	17.5	9.5
14	---	7.5	3.5	1.5	4.0	4.5	5.5	9.0	18.5	21.0	19.0	12.0
15	---	5.5	3.5	2.5	4.5	4.5	6.0	11.0	18.5	21.0	18.5	14.0
16	12.5	6.0	4.0	5.0	4.5	4.5	6.5	12.0	18.0	20.0	19.0	14.0
17	11.0	5.5	5.0	4.5	4.5	5.0	8.0	13.0	18.0	21.0	19.0	14.0
18	11.5	6.0	4.0	4.5	4.5	6.0	8.5	12.0	19.0	21.0	19.0	14.0
19	11.0	6.0	0.5	4.0	4.0	5.0	10.0	15.5	18.5	21.5	20.0	14.5
20	11.0	2.0	0.0	4.0	5.0	3.0	9.0	13.5	19.0	21.0	18.5	14.0
21	11.5	3.5	2.0	4.0	1.5	2.5	9.0	12.0	19.0	21.5	17.5	11.0
22	11.0	4.0	4.0	0.5	1.5	3.5	8.0	11.5	19.0	19.0	17.5	12.0
23	11.5	3.0	3.5	1.5	3.0	2.0	10.0	12.5	18.5	20.5	17.5	13.0
24	10.0	3.0	3.0	1.5	0.5	2.0	10.5	14.5	19.5	21.0	18.0	13.0
25	8.0	4.0	2.0	3.0	1.5	3.0	12.0	15.5	19.5	19.5	18.5	12.5
26	8.0	3.0	2.5	3.0	4.0	5.0	12.0	16.0	20.0	21.0	18.5	12.5
27	7.5	3.5	1.0	2.5	5.0	5.0	12.0	15.5	20.5	20.5	17.5	13.0
28	8.0	3.0	3.0	2.0	3.0	6.5	11.0	17.0	20.0	20.5	17.5	9.0
29	8.5	5.0	1.0	2.0	---	5.5	11.5	16.0	20.0	19.5	18.0	11.0
30	7.5	5.5	1.5	3.0	---	6.5	11.0	15.0	20.0	20.0	17.0	10.5
31	8.0	---	0.5	1.5	---	7.0	---	14.5	---	20.0	16.5	---
MONTH	---	5.0	3.0	1.5	3.0	4.5	8.0	13.0	17.5	20.0	18.0	13.5
YEAR	MAX	21.5	MIN	0.0	MEAN	10.0						

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
OCT.					
03...	1915	13.5	1040	36	101
DEC.					
14...	0840	3.0	446	47	57
JAN.					
10...	1040	.0	A290	13	10
FEB.					
11...	1755	5.5	423	54	62
MAR.					
07...	1615	7.0	3970	404	4330
APR.					
05...	1145	7.5	4840	197	2570
MAY					
06...	1700	18.0	2470	118	787
JUNE					
04...	1535	20.5	1100	128	380
JULY					
10...	1800	24.0	1490	116	467
AUG.					
07...	1345	22.5	1240	170	569
SEP.					
10...	1645	20.0	561	81	123

A Daily mean discharge.

PLATTE RIVER BASIN

171

06756000 CROW CREEK NEAR CHEYENNE, WYO.

LOCATION.--Lat 41°07'09", long 104°45'33", in NW¼SW¼SE¼ sec.3, T.13 N., R.66 W., Laramie County, 400 ft (120 m) downstream from outlet of Cheyenne Sewage Disposal Plant, 1.3 mi (2.1 km) upstream from Wyoming Hereford Ranch Reservoir No. 1, and 3.4 mi (5.5 km) southeast of State Capitol Building in Cheyenne.

DRAINAGE AREA.--297 mi² (769 km²).

PERIOD OF RECORD.--July 1972 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
DATE	TIME								
MAR. 01...	1400	28	18	68	12	60	9.2	269	--
MAY 20...	1340	20	21	76	13	72	9.1	295	0
AUG. 30...	1035	16	25	60	11	82	.3	123	--

		DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
DATE	TIME								
MAR. 01...	70	62		432	32.7	.59	220	0	1.8
MAY 20...	79	70		486	26.2	.66	240	1	2.0
AUG. 30...	110	110		459	19.8	.62	200	94	2.6

		INSTAN- TANEOUS DIS- CHARGE (CFS)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	OIL AND GREASE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
DATE	TIME									
MAR. 01...	1400	28	110	8	2.5	2.0	13	15	18	4.1
15...	1330	28	190	--	.02	15	3.0	18	18	4.2
29...	1330	18	91	--	.73	9.1	.70	9.8	11	3.8
APR. 15...	0900	37	30	8	.00	--	--	6.2	6.2	1.7
25...	1430	28	90	20	.12	5.5	2.9	8.4	8.5	1.9
MAY 20...	1340	20	140	14	.04	15	2.0	17	17	12
JUNE 07...	0910	12	160	15	2.1	9.2	7.8	17	19	--
21...	1125	21	110	--	.60	1.5	8.5	10	11	4.9
JULY 08...	1415	14	190	26	4.7	20	2.0	22	27	8.0
22...	0945	16	--	13	.02	15	1.0	16	16	5.2
AUG. 13...	1330	13	120	11	.03	18	.00	18	18	5.4
SEP. 12...	1325	18	170	17	.13	8.4	11	19	19	5.1

PLATTE RIVER BASIN

06756000 CROW CREEK NEAR CHEYENNE, WYO.--Continued
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)
MAR. 29...	1330	18	8	--	30	--	--	380	13
APR. 15...	0900	37	8	--	30	--	--	340	2
MAY 20...	1340	20	10	--	22	--	--	120	4
JUNE 21...	1125	21	--	5	--	60	440	--	--
JULY 22...	0945	16	--	7	--	50	980	--	--

DATE	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SELE- NIUM (SF) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)
MAR. 29...	--	--	200	100	--	2	--	.1	--
APR. 15...	--	--	200	50	--	2	--	.0	--
MAY 20...	--	--	180	50	--	2	--	.1	--
JUNE 21...	<100	140	--	--	110	--	3	--	.2
JULY 22...	<100	120	--	--	100	--	2	--	.1

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)
NOV. 02...	0935	12	11.5	--	--	1.0	--	2900000	910000
30...	1000	20	11.5	100	940	2.2	7.5	2000000	640000
DEC. 13...	1400	23	11.0	--	990	2.0	7.3	120000	8100000
MAR. 01...	1400	28	9.5	20	787	3.0	--	1300000	891000
15...	1330	28	8.5	40	810	2.6	7.3	3000000	450000
29...	1330	18	9.0	8	750	3.6	7.8	16000000	8270000
APR. 15...	0900	37	5.0	20	660	8.0	7.2	920000	96000
25...	1430	28	16.0	20	720	4.5	7.0	130000	24000
MAY 20...	1340	20	14.0	10	860	1.9	7.6	2500000	400000
JUNE 07...	0910	12	14.5	10	1000	2.5	7.2	3900000	440000
21...	1125	21	19.0	20	940	2.2	7.3	9500000	920000
JULY 08...	1415	14	19.5	30	939	2.1	7.3	30000000	4200000
22...	0945	16	18.0	--	840	1.7	7.0	6200000	1000000
AUG. 13...	1330	13	19.0	--	950	2.2	7.6	3300000	1400000
30...	1035	16	18.0	--	1050	.8	7.4	12000000	1000000
SEP. 12...	1325	18	15.0	40	940	2.2	7.4	6600000	1300000

B Non-ideal counting conditions.

GREEN RIVER BASIN

09188500 GREEN RIVER AT WARREN BRIDGE, NEAR DANIEL, WYO.

LOCATION.--Lat 43°01'08", long 110°07'03", in SE4SE4NE4 sec.8, T.35 N., R.111 W., Sublette County, at bridge on U.S. Highways 187 and 189, 100 ft (30 m) downstream from gaging station, 3.4 mi (5.5 km) upstream from Beaver Creek, and 12 mi (19 km) north of Daniel.

DRAINAGE AREA.--468 mi² (1,212 km²).

PERIOD OF RECORD.--Chemical analyses: May 1962 to September 1964 (daily), October 1967 to December 1972 (monthly), January to September 1974 (monthly).
Water temperatures: May 1962 to September 1964.

CHEMICAL ANALYSES, JANUARY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED TAS- SODIUM (NA) (MG/L)	DIS- SOLVED PO- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 08...	1200	A114	7.4	82	18	4.0	1.1	153	0	160	2.1
FEB. 05...	1230	A125	7.9	89	20	4.8	1.3	160	0	160	.8
28...	1730	A108	7.9	90	20	4.0	1.4	160	0	180	1.4
APR. 02...	1100	A122	7.4	83	19	4.8	1.3	154	0	160	1.0
30...	1100	526	6.9	60	14	4.5	1.5	160	0	81	1.3
MAY 29...	1530	3240	4.9	30	7.7	1.9	.9	104	0	25	1.1
JULY 09...	1100	1460	2.9	21	5.0	1.5	.6	58	0	33	.6
AUG. 06...	1130	604	2.8	32	7.0	1.5	.6	70	0	50	.7
SEP. 04...	1130	280	1.9	44	10	2.8	.8	86	--	77	1.6

A Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)
JAN. 08...	.3	.03	10	350	108	.48	280	150	.1	7.8
FEB. 05...	.5	.08	20	364	123	.50	300	170	.1	7.7
28...	.4	.08	50	384	112	.52	310	180	.1	7.9
APR. 02...	.5	.02	20	353	116	.48	290	160	.1	7.8
30...	1.4	.02	30	250	355	.34	210	76	.1	8.1
MAY 29...	.2	.13	20	124	1080	.17	110	21	.1	7.9
JULY 09...	.1	.00	10	93	367	.13	73	25	.1	8.0
AUG. 06...	.1	.01	20	129	210	.18	110	51	.1	8.1
SEP. 04...	.2	.00	10	181	137	.25	150	81	.1	--

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
JAN. 08...	1200	A114	0	6.7	86	.0
FEB. 05...	1230	A125	0	8.8	81	.0
28...	1730	A108	1	9.0	81	.0
APR. 02...	1100	A122	1	8.4	83	.0
30...	1100	526	9	12.0	87	4.5
MAY 29...	1530	3240	35	8.7	180	7.5
JULY 09...	1100	1460	1	7.0	812	17.5
AUG. 06...	1130	604	1	11.2	815	15.5
SEP. 04...	1130	280	0	10.5	81	12.5

A Daily mean discharge.

B Non-ideal counting conditions.

GREEN RIVER BASIN

09192600 GREEN RIVER NEAR BIG PINEY, WYO.

LOCATION.--Lat 42°34'14", long 109°56'58", in NE¼NE¼NE¼ sec.21, T.30 N., R.110 W., Sublette County, at bridge on State Secondary Highway 1801, 1.9 mi (3.1 km) upstream from New Fork River, 8.4 mi (13.5 km) northeast of Big Piney, and 16.2 mi (26.1 km) southwest of Boulder.

DRAINAGE AREA.--1,260 mi² (3,260 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT. 04...	1100	330	5.1	54	14	7.0	1.4	139	4	79	3.1	.3
NOV. 06...	1110	450	8.7	71	21	9.6	1.4	205	0	100	4.6	.3
27...	1645	370	7.5	81	20	9.6	1.9	223	0	110	2.4	.3
JAN. 09...	0940	150	8.1	81	18	6.4	1.6	209	0	120	1.5	.3
FEB. 06...	0940	185	7.6	92	11	6.4	1.2	217	0	110	3.4	.3
MAR. 05...	1700	212	8.1	76	23	7.0	1.6	212	0	120	1.9	.2
APR. 02...	1005	670	6.4	61	18	12	2.6	201	0	77	1.9	.2
MAY 01...	0915	2220	8.0	64	12	7.5	2.1	214	0	44	1.9	.2
31...	0640	6640	7.2	47	10	7.0	2.3	168	0	35	1.8	.2
JULY 11...	0935	1300	4.5	46	4.7	5.4	.9	137	0	34	.0	.2
26...	0730	800	3.3	35	12	3.7	.9	137	0	31	.0	.1
SEP. 06...	0815	300	2.7	47	13	4.3	.9	120	0	78	.0	.2

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT. 04...	.05	--	237	211	.32	190	69	.2	400	8.5	5.0
NOV. 06...	.00	.02	320	389	.44	260	92	.3	515	8.3	.5
27...	.00	.01	343	343	.47	290	110	.2	562	8.2	.0
JAN. 09...	.07	.00	337	136	.46	280	110	.2	547	8.1	.0
FEB. 06...	.16	.01	338	169	.46	280	100	.2	534	8.0	.0
MAR. 05...	.07	.01	337	193	.46	280	110	.2	539	8.1	.0
APR. 02...	.09	.01	279	505	.38	230	65	.3	458	8.0	.0
MAY 01...	.07	.00	245	1470	.33	210	34	.2	404	8.2	7.0
31...	.11	.01	194	3480	.26	160	22	.2	334	7.7	8.0
JULY 11...	.02	.00	163	572	.22	140	28	.2	275	8.1	16.0
26...	.02	.00	153	330	.21	140	28	.1	277	8.1	16.0
SEP. 06...	.00	.00	206	167	.28	170	72	.1	350	8.2	--

GREEN RIVER BASIN

175

09205000 NEW FORK RIVER NEAR BIG PINEY, WYO.

LOCATION.--Lat 42°34'02", long 109°55'46", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.22, T.30 N., R.110 W., Sublette County, at gaging station, 35 ft (11 m) downstream from old highway bridge, 3.4 mi (5.5 km) upstream from mouth, and 9.5 mi (15.3 km) northeast of Big Piney.

DRAINAGE AREA.--1,230 mi² (3,190 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1969 (daily), October 1969 to September 1974 (monthly).

Water temperatures: October 1965 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANFOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 04...	1250	417	9.0	28	1.9	8.6	1.6	103	0	9.1	3.4	.2
NOV. 06...	1025	452	11	27	5.1	9.6	1.9	104	3	13	3.1	.2
27...	1545	A380	8.7	24	5.2	8.0	1.6	101	0	9.9	1.8	.1
JAN. 09...	1040	A275	8.9	22	3.5	7.5	1.4	90	0	9.9	1.9	.2
FEB. 06...	1100	A280	10	25	3.1	8.0	1.4	99	0	9.1	2.3	.2
MAR. 05...	1515	A230	10	23	4.5	8.6	1.6	102	0	11	1.9	.1
APR. 02...	0945	A440	7.6	29	4.4	9.1	3.7	119	0	8.2	3.8	.1
MAY 01...	0845	548	7.2	24	4.4	7.0	1.4	101	0	8.2	1.9	.0
31...	1445	3500	4.2	8.3	.0	2.1	.9	24	0	4.1	.0	.1
JULY 11...	1120	1160	8.2	26	2.6	7.0	1.4	98	0	9.9	.0	.2
26...	0840	947	8.2	21	6.9	7.5	1.4	107	0	6.6	1.8	.1
SEP. 06...	0930	294	6.1	33	3.1	8.0	1.6	130	0	8.2	1.8	.2

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.05	--	113	127	.15	78	0	.4	202	8.3	5.0
NOV. 06...	.00	.08	125	153	.17	88	0	.4	215	8.5	.5
27...	.00	.01	109	112	.15	80	0	.4	200	8.0	.0
JAN. 09...	.09	.02	100	74.3	.14	69	0	.4	174	7.8	.0
FEB. 06...	.16	.01	109	82.4	.15	75	0	.4	187	7.7	.0
MAR. 05...	.18	.01	112	69.6	.15	77	0	.4	194	7.8	.0
APR. 02...	.11	.02	124	147	.17	90	0	.4	210	7.6	1.5
MAY 01...	.05	.00	103	152	.14	78	0	.3	182	8.1	8.5
31...	.07	.00	32	302	.04	20	0	.2	55	7.2	10.0
JULY 11...	.02	.00	103	323	.14	75	0	.4	170	8.2	--
26...	.05	.00	106	271	.14	80	0	.4	183	8.0	16.0
SEP. 06...	.02	.00	123	97.6	.17	95	0	.4	235	8.2	--

GREEN RIVER BASIN

09209400 GREEN RIVER NEAR LA BARGE, WYO.

LOCATION.--Lat 42°11'34", long 110°09'45", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.33, T.26 N., R.112 W., Lincoln County, at bridge 0.7 mi (1.1 km) north of La Barge, 6.5 mi (10.5 km) upstream from gaging station, and 9.5 mi (15.3 km) upstream from Muddy Creek.

DRAINAGE AREA.--3,910 mi² (10,130 km²), approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1974.

Water temperatures: October 1963 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 476 micromhos Apr. 12; minimum daily, 208 micromhos June 27.

Water temperatures: Maximum, 22.0°C Aug. 1; minimum, freezing point on many days during November to April.

Period of record:

Specific conductance: Maximum daily, 734 micromhos Jan. 22, 1968; minimum daily, 145 micromhos May 30, 1969.

Water temperatures: Maximum, 24.0°C Aug. 7, 1970; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 05...	1035	889	6.7	44	6.1	14	1.4	135	3	44	3.4
NOV. 09...	1500	1070	8.0	45	15	19	1.6	171	0	66	2.1
DEC. 06...	0920	A417	8.8	53	15	15	1.6	184	0	64	4.9
JAN. 09...	1500	A490	8.8	52	13	12	1.4	170	0	63	2.7
FEB. 06...	1600	A540	8.4	53	13	12	1.4	175	0	59	5.7
MAR. 06...	1030	A500	8.7	56	17	14	1.6	187	0	78	4.2
APR. 03...	1000	912	7.9	47	13	16	3.0	170	0	55	3.8
MAY 01...	1330	2250	8.1	56	10	8.6	1.6	195	0	35	1.9
30...	1100	7080	6.9	36	5.4	5.9	1.6	122	0	23	1.8
JULY 10...	0930	3020	7.7	40	8.4	8.6	1.4	153	0	26	1.8
AUG. 06...	0805	1750	3.3	36	15	11	1.6	156	0	42	1.8
SEP. 05...	1030	720	4.9	40	14	14	1.2	160	0	54	1.8

A Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 05...	.2	.05	--	190	450	.26	140	24	.5	350	8.5
NOV. 09...	.2	.00	.02	241	696	.33	170	30	.6	430	8.3
DEC. 06...	.2	.05	.01	253	285	.34	190	39	.5	420	8.2
JAN. 09...	.3	.09	.00	238	315	.32	180	41	.4	395	8.0
FEB. 06...	.2	.16	.02	239	348	.33	180	36	.4	396	7.9
MAR. 06...	.2	.07	.01	272	367	.37	210	57	.4	443	8.0
APR. 03...	.2	.09	.01	231	569	.31	170	31	.5	392	8.0
MAY 01...	.2	.07	.00	218	1320	.30	180	20	.3	370	8.3
30...	.2	.11	.01	141	2700	.19	110	10	.2	246	7.8
JULY 10...	.2	.05	.00	169	1380	.23	140	14	.3	291	7.9
AUG. 06...	.2	.02	.00	187	884	.25	150	22	.4	321	8.2
SEP. 05...	.3	.00	.00	208	404	.28	160	29	.5	364	8.3

GREEN RIVER BASIN

177

09209400 GREEN RIVER NEAR LA BARGE, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT.						
05...	1035	889	1	9.2	--	6.5
NOV.						
09...	1500	1070	3	10.5	30	4.0
DEC.						
06...	0920	A417	1	10.3	87	.0
JAN.						
09...	1500	A490	2	7.4	83	.0
FEB.						
06...	1600	A540	2	8.2	85	.0
MAR.						
06...	1030	A500	3	8.4	83	.0
APR.						
03...	1000	912	20	8.6	810	.5
MAY						
01...	1330	2250	15	9.0	86	11.0
30...	1100	7080	60	8.8	240	8.5
JULY						
10...	0930	3020	3	7.6	40	18.0
AUG.						
06...	0805	1750	3	9.2	27	17.5
SEP.						
05...	1030	720	0	10.2	84	17.0

A Daily mean discharge.

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	389	354	384	361	415	381	393	251	233	307	333
2	317	405	370	385	379	416	400	383	236	242	304	343
3	318	400	385	387	383	417	414	372	236	265	291	345
4	323	393	405	389	385	418	436	363	230	288	349	348
5	328	387	400	390	386	419	439	363	225	268	348	347
6	330	392	373	391	392	421	424	362	235	286	335	341
7	334	389	400	416	389	422	439	345	256	282	322	344
8	332	413	370	410	399	440	408	337	261	271	318	345
9	336	402	366	400	395	456	409	337	302	286	316	353
10	347	407	362	390	379	424	416	332	280	285	320	348
11	355	394	384	382	388	463	420	315	283	283	304	351
12	360	401	384	396	392	462	476	315	270	286	311	359
13	349	401	360	369	397	453	450	324	250	283	316	355
14	350	391	377	365	396	450	427	320	235	282	365	359
15	352	392	385	362	397	462	448	319	230	293	312	359
16	353	403	387	359	398	365	452	332	236	311	313	357
17	351	401	377	364	376	438	432	315	256	317	315	356
18	354	392	368	368	405	426	407	352	256	320	318	356
19	354	399	366	379	405	415	388	359	244	323	326	357
20	355	379	367	380	394	403	381	356	246	323	331	358
21	356	374	380	378	406	414	365	349	242	288	335	359
22	356	378	379	373	406	425	381	349	225	313	324	360
23	360	399	376	372	414	435	400	357	234	311	331	361
24	361	389	378	370	416	425	408	345	228	308	330	360
25	359	384	382	373	403	407	408	320	229	301	341	360
26	367	396	383	369	414	431	402	300	224	296	352	363
27	368	405	399	357	415	420	390	280	208	286	345	365
28	382	413	395	380	414	394	375	267	221	289	351	360
29	379	374	358	382	---	379	368	241	220	296	344	363
30	376	376	384	386	---	383	393	240	225	299	350	367
31	391	---	347	376	---	388	---	251	---	303	349	---
MONTH	350	394	377	380	396	422	411	329	242	291	328	354
YEAR	MAX	476	MIN	208	MEAN	356						

GREEN RIVER BASIN

09209400 GREEN RIVER NEAR LA BARGE, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	4.0	0.5	0.0	0.0	0.0	0.0	11.0	13.0	17.0	22.0	16.0
2	10.0	1.0	0.0	0.0	0.0	0.0	1.0	11.0	14.0	15.0	21.0	14.0
3	13.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	14.5	16.0	17.0	15.0
4	11.0	0.0	0.0	0.0	0.0	0.0	3.0	11.0	12.0	18.0	18.0	17.0
5	11.0	0.0	0.0	0.0	0.0	0.0	4.0	12.0	12.0	19.0	17.0	17.0
6	10.0	1.0	0.0	0.0	0.0	2.0	5.0	13.0	12.0	18.0	19.0	17.0
7	10.0	3.0	1.0	0.0	0.0	4.0	5.5	13.0	8.0	18.0	19.0	12.0
8	10.0	4.0	0.0	0.0	0.0	3.0	6.0	14.0	9.0	18.0	18.0	12.0
9	7.0	5.0	0.0	0.0	0.0	4.0	6.0	14.0	12.0	19.0	17.0	13.0
10	5.5	4.0	0.0	0.0	0.0	3.0	3.5	11.0	14.0	19.0	16.0	13.0
11	7.0	4.0	0.0	0.0	0.0	2.5	6.0	10.0	16.0	19.0	17.0	12.0
12	6.0	5.0	0.0	0.0	0.0	4.0	5.0	9.0	16.0	19.0	18.0	9.0
13	10.5	4.0	0.0	0.0	0.0	3.0	5.0	7.0	17.0	17.0	17.0	7.0
14	10.0	2.0	0.0	0.0	0.0	2.0	7.0	5.0	18.0	19.0	17.0	12.0
15	11.0	1.0	0.0	0.0	0.0	3.0	7.0	9.0	18.0	19.0	17.0	13.0
16	11.0	1.5	0.0	0.5	0.0	2.0	7.0	10.0	18.0	19.0	18.0	11.0
17	11.0	2.0	0.0	0.0	0.0	3.0	10.0	12.0	18.0	20.0	18.0	16.0
18	10.0	1.5	0.0	0.0	0.0	1.5	9.0	12.0	18.0	20.5	15.0	16.0
19	9.0	1.5	0.0	0.0	0.0	2.0	7.5	12.0	18.0	21.0	18.0	16.0
20	8.0	0.0	0.0	0.0	0.0	1.0	7.5	8.0	18.0	19.0	15.0	15.0
21	7.0	0.0	0.0	0.0	0.0	1.5	8.5	9.0	18.0	18.0	18.0	15.0
22	7.5	0.0	0.0	0.0	0.0	1.0	10.0	11.0	18.0	20.0	17.0	15.0
23	5.0	0.0	0.0	0.0	0.0	1.0	11.0	13.0	19.0	19.0	18.0	15.0
24	13.0	0.0	0.0	0.0	0.0	2.0	11.0	15.0	18.0	18.0	18.0	15.0
25	3.0	0.0	0.0	0.0	0.0	0.0	12.0	15.0	18.0	20.0	14.0	16.0
26	6.0	0.0	0.0	0.0	0.0	0.5	10.0	14.0	18.0	20.0	14.0	14.0
27	6.0	0.0	0.0	0.0	0.0	0.0	7.0	13.0	18.0	19.5	14.0	11.5
28	7.0	0.0	0.0	0.0	0.0	0.0	6.5	13.0	18.0	20.0	14.0	8.5
29	4.0	1.0	0.0	0.0	---	2.0	8.0	12.0	18.0	20.5	14.0	9.0
30	3.5	0.5	0.0	0.0	---	1.0	6.0	12.0	19.0	20.0	13.0	11.0
31	4.0	---	0.0	0.0	---	3.0	---	12.0	---	20.5	15.0	---
MONTH	8.5	1.5	0.0	0.0	0.0	1.5	6.5	11.5	16.0	19.0	17.0	13.5
YEAR	MAX	22.0	MIN	0.0	MEAN	8.0						

GREEN RIVER BASIN

179

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WYO.

LOCATION.--Lat 42°01'16", long 110°02'57", in NW¼NW¼NE¼ sec.31, T.24 N., R.111 W., Sweetwater County, at bridge 1.0 mi (1.6 km) east of Fontenelle, 3.6 mi (5.8 km) downstream from gaging station, and 4.6 mi (7.4 km) downstream from Fontenelle Dam.

DRAINAGE AREA.--4,280 mi² (11,090 km²), approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1974.

Water temperatures: October 1967 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 515 micromhos Apr. 16; minimum daily, 260 micromhos July 6, 13.
Water temperatures: Maximum, 20.0°C on several days during July and August; minimum, 1.0°C on many days during December to February.

Period of record:

Specific conductance: Maximum daily, 701 micromhos Dec. 23, 1967; minimum daily, 242 micromhos June 24, 1973.

Water temperatures: Maximum, 20.5°C Aug. 12, 13, 1972; minimum, freezing point Nov. 27, Dec. 21, 1967, Feb. 1, 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS OIS- CHARGE (CFS)	OIS- SOLVED SILICA (SI02) (MG/L)	OIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	OIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
04...	1915	1610	6.9	50	3.1	14	1.4	135	2	49	3.7
NOV.											
09...	1315	980	6.1	37	14	18	1.4	135	6	63	1.8
DEC.											
03...	1445	724	6.5	42	12	19	1.4	139	7	66	1.8
JAN.											
09...	1630	803	7.3	48	14	20	1.9	161	5	72	3.8
FEB.											
06...	1720	1810	6.9	60	5.3	18	1.6	169	3	63	3.8
MAR.											
06...	1330	1650	9.7	54	14	19	1.6	177	0	76	5.7
APR.											
03...	1400	1630	7.7	59	14	24	1.9	180	0	110	5.7
MAY											
01...	1630	2200	6.7	61	9.9	20	2.3	180	0	78	5.7
30...	1600	4110	5.6	57	6.9	13	1.6	177	0	53	1.8
JULY											
10...	1200	2430	6.2	43	6.5	5.4	1.9	131	3	34	.0
AUG.											
07...	1445	1790	6.5	39	14	16	1.4	146	0	64	1.8
SEP.											
05...	1200	776	6.4	41	19	16	1.4	140	6	81	1.8

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	OIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.											
04...	.2	.05	--	197	856	.27	140	26	.5	335	8.5
NOV.											
09...	.2	.00	.02	214	566	.29	150	29	.6	360	8.5
DEC.											
03...	.2	.05	.01	224	438	.30	160	34	.7	386	8.6
JAN.											
09...	.3	.05	.00	252	546	.34	180	40	.7	415	8.5
FEB.											
06...	.2	.07	.01	245	1200	.33	170	26	.6	404	8.4
MAR.											
06...	.2	.11	.01	268	1190	.36	190	45	.6	435	8.3
APR.											
03...	.3	.07	.00	305	1340	.41	210	62	.7	493	8.0
MAY											
01...	.2	.09	.00	271	1610	.37	190	42	.6	446	8.1
30...	.2	.02	.00	226	2510	.31	170	25	.4	383	8.2
JULY											
10...	.2	.05	.00	164	1080	.22	140	28	.2	279	8.4
AUG.											
07...	.2	.05	.01	215	1040	.29	160	40	.6	358	8.3
SEP.											
05...	.2	.07	.00	243	509	.33	180	55	.5	415	8.5

GREEN RIVER BASIN

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
UCT. 04...	1915	1610	1	8.6	--	12.0
NOV. 09...	1315	980	1	12.2	H4	8.5
DEC. 03...	1445	724	.4	12.2	H0	6.0
JAN. 09...	1630	803	2	10.8	H0	2.0
FEB. 06...	1720	1810	0	10.7	H0	2.0
MAR. 06...	1330	1650	1	10.6	H0	3.0
APR. 03...	1400	1630	1	11.5	H1	4.5
MAY 01...	1630	2200	9	10.5	H0	8.0
30...	1600	4110	2	9.5	H2	8.5
JULY 10...	1200	2430	1	8.0	360	21.0
AUG. 07...	1445	1790	1	9.4	H1	18.0
SEP. 05...	1200	776	0	9.2	H1	17.0

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	354	380	411	411	447	481	433	369	276	294	339
2	328	353	379	398	424	457	480	432	337	278	304	337
3	326	352	382	397	419	435	478	435	343	279	295	341
4	325	357	383	399	421	448	476	435	343	275	295	343
5	333	353	382	417	416	465	483	433	349	279	291	344
6	332	353	383	414	420	466	481	431	341	260	303	341
7	333	353	383	424	397	471	478	422	328	279	302	342
8	349	358	382	426	421	471	487	429	340	278	311	346
9	351	353	364	424	419	474	484	423	334	282	310	342
10	350	353	361	420	417	472	448	383	335	285	306	339
11	349	352	385	433	418	467	508	412	335	280	305	344
12	350	358	387	431	420	499	506	395	332	280	318	333
13	350	361	383	410	420	500	507	408	306	260	312	311
14	350	361	378	428	427	483	504	407	297	277	314	309
15	344	361	380	428	427	504	510	415	312	287	317	317
16	349	362	382	429	424	500	515	405	314	287	318	349
17	347	362	374	416	391	501	510	387	306	285	321	348
18	358	362	392	417	433	479	498	406	311	286	320	354
19	355	383	383	420	440	490	441	405	303	286	328	351
20	365	375	387	381	435	482	448	410	314	278	321	366
21	357	381	390	394	442	483	441	409	313	286	323	366
22	361	369	391	406	442	488	427	407	305	282	318	376
23	354	370	405	405	427	486	433	397	301	283	334	356
24	352	367	410	403	443	479	437	374	280	283	330	357
25	351	372	425	405	450	478	434	395	282	283	330	356
26	354	374	423	406	448	489	436	395	302	286	319	356
27	351	375	424	406	447	480	423	398	283	287	333	355
28	351	380	424	397	446	481	437	384	274	288	333	358
29	352	380	422	410	---	490	419	386	282	281	317	353
30	352	383	398	417	---	483	436	388	278	284	314	340
31	354	---	403	413	---	479	---	385	---	286	313	---
MONTH	348	364	391	412	427	478	468	407	315	281	314	346
YEAR	MAX	515	MIN	260	MEAN	379						

GREEN RIVER BASIN

181

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	9.5	4.5	1.0	2.0	4.0	3.0	4.0	13.0	17.0	19.0	18.0
2	13.0	9.0	4.0	1.0	2.5	3.5	3.0	7.0	14.0	17.0	19.0	15.0
3	12.5	9.0	4.0	1.0	2.5	3.5	4.0	7.0	15.0	17.0	19.0	15.0
4	12.0	9.0	3.5	1.0	2.5	2.5	4.0	4.0	15.0	17.0	20.0	15.5
5	12.5	9.0	3.5	1.0	2.0	2.0	4.5	9.0	14.0	17.0	20.0	16.5
6	13.0	9.0	2.5	2.0	2.0	3.0	4.0	9.0	13.0	18.0	19.0	17.0
7	14.0	9.0	2.5	2.5	2.0	5.0	4.0	10.0	13.0	18.0	19.0	17.5
8	12.5	9.0	2.5	2.5	1.0	3.0	4.0	11.0	13.0	18.0	19.0	17.5
9	12.0	9.0	2.0	1.5	1.0	5.0	4.0	11.0	13.0	18.0	19.0	15.0
10	11.0	9.0	2.0	1.5	1.0	5.0	4.0	10.0	14.0	18.0	19.0	15.0
11	11.0	9.0	2.0	2.0	1.0	5.0	3.5	10.0	14.0	19.0	19.0	15.0
12	12.0	8.5	1.0	2.5	2.0	5.0	3.5	9.0	12.0	19.0	19.0	15.0
13	12.0	8.0	1.0	2.5	2.5	4.5	4.0	9.0	14.0	19.0	19.0	15.5
14	12.0	7.0	1.5	2.5	2.5	3.0	4.0	9.0	14.0	19.0	19.0	14.5
15	12.5	7.0	1.5	2.5	2.5	2.5	4.5	9.5	14.0	19.0	19.0	14.5
16	12.5	6.0	2.0	3.0	2.5	2.5	5.0	10.0	15.0	19.0	19.0	14.5
17	12.5	6.0	2.0	3.0	3.0	5.0	5.0	10.0	14.0	19.0	19.0	15.0
18	12.5	5.0	2.0	3.0	3.0	2.5	5.0	10.0	15.0	19.0	19.0	16.0
19	12.5	4.0	1.5	3.0	2.5	2.5	5.0	10.0	15.0	19.0	19.0	16.0
20	10.5	4.0	1.5	2.5	2.5	2.5	5.0	10.0	15.0	19.0	19.0	16.0
21	11.5	4.0	2.0	2.0	2.0	4.0	7.0	10.0	17.0	19.0	19.0	16.0
22	11.5	4.0	2.0	2.0	2.0	4.0	7.0	11.0	17.0	19.0	19.0	16.0
23	10.0	4.0	1.0	2.0	1.5	4.0	9.0	11.0	17.0	19.0	20.0	16.0
24	10.0	4.0	1.0	2.0	2.0	3.0	9.0	11.0	19.0	19.0	20.0	15.0
25	10.0	4.0	1.0	2.0	2.5	4.0	6.0	12.0	19.0	19.0	20.0	15.0
26	10.0	4.0	1.0	2.0	2.5	4.5	6.0	12.0	19.0	20.0	19.0	14.5
27	10.0	4.0	1.0	2.0	2.5	4.0	6.0	11.5	18.0	19.0	19.0	14.5
28	10.0	4.0	1.0	2.0	3.0	4.0	6.0	11.5	18.0	19.0	19.0	14.5
29	10.0	4.0	1.0	2.0	---	4.0	8.0	11.5	18.0	20.0	19.0	14.5
30	10.0	4.5	1.0	2.0	---	3.5	8.0	11.5	17.0	20.0	19.0	15.0
31	9.5	---	1.0	2.0	---	3.5	---	10.0	---	20.0	19.0	---
MONTH	11.5	6.5	2.0	2.0	2.0	3.5	5.0	10.0	15.5	18.5	19.0	15.5
YEAR	MAX	20.0	MIN	1.0	MEAN	9.5						

LOCATION.--Lat 42°19'01", long 109°29'06", in NW¼SE¼NW¼ sec.17, T.27 N., R.106 W., Sublette County, at gaging station, at Eden Canal diversion, about 1.0 mi (1.6 km) upstream from high-water line of Big Sandy Reservoir, 14.5 mi (23.3 km) north of Farson, and 24.5 mi (39.4 km) upstream from Little Sandy Creek.

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1964.
Sediment records: October 1971 to September 1974.

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS OIS- CHARGE (CFS)	SJS- PENDEO SEQUI- MENT (MG/L)	SJS- PENDEO SEQUI- MENT (T/DAY)	SJS.	SJS.	SJS.	SJS.	SJS.	SJS.
						SED. FALL DIAM. % FINE THAN	SED. FALL DIAM. % FINE THAN	SED. FALL DIAM. % FINE THAN	SED. FALL DIAM. % FINE THAN	SED. FALL DIAM. % FINE THAN	SED. FALL DIAM. % FINE THAN
OCT.											
10...	1630	6.5	59	38	6.1	--	--	--	--	--	--
NOV.											
08...	1240	1.0	92	122	30	--	--	--	--	--	--
APR.											
01...	1600	.0	A44	119	14	--	--	--	--	--	--
29...	1335	9.0	75	272	55	--	--	--	--	--	--
MAY											
03...	1125	7.0	153	320	132	--	--	--	--	--	--
22...	1450	11.0	244	158	104	--	--	--	--	--	--
29...	1300	11.0	822	576	1500	--	--	--	--	--	--
JUNE											
04...	1615	13.0	685	366	577	38	50	85	98	100	--
17...	1640	10.0	642	226	392	--	--	--	--	--	--
26...	1330	18.0	388	244	756	--	--	--	--	--	--
JULY											
11...	1400	21.0	131	290	103	--	--	81	83	90	100
AUG.											
08...	1210	17.0	66	126	22	--	--	--	--	--	--
SEP.											
06...	1000	11.0	12	28	.91	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

GREEN RIVER BASIN

183

09216000 BIG SANDY RIVER BELOW EDEN, WYO.

LOCATION.--Lat 42°00'37", long 109°34'57", in NE4SE4SW4 sec.31, T.24 N., R.107 W., Sweetwater County, at gaging station, 0.1 mi (0.2 km) downstream from Simpson Gulch, 8.0 mi (12.9 km) southwest of Eden, and 12.5 mi (20.1 km) downstream from Little Sandy Creek.

DRAINAGE AREA.--1,610 mi² (4,170 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1964, October 1967 to September 1974.
Sediment records: October 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 11...	1000	60	11	230	100	330	3.7	262	0	1400	46	.9
NOV. 05...	1530	A52	15	260	110	400	3.7	269	0	1600	56	1.0
29...	1530	A43	14	220	93	310	3.0	264	0	1300	48	1.0
JAN. 11...	1440	A28	14	250	100	310	3.0	264	0	1400	44	1.0
FEB. 08...	1710	A33	13	210	110	330	3.0	256	0	1400	48	.9
27...	1500	A25	14	230	100	320	3.0	259	0	1400	50	.9
APR. 03...	1315	133	9.1	78	24	130	2.1	159	0	410	17	.5
29...	1540	45	12	180	70	290	3.7	256	0	1000	46	.8
MAY 30...	1120	45	11	160	90	290	3.7	265	0	1100	51	.9
JULY 11...	1130	79	10	160	45	210	3.0	226	0	780	31	.7
AUG. 08...	1015	90	11	170	62	200	3.0	235	0	860	31	.7
SEP. 05...	1550	65	10	210	97	260	3.5	250	0	1200	44	.9

A Daily mean discharge.

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- SODIUM RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 11...	.72	--	2250	365	3.06	1000	790	4.6	2790	8.1	5.0
NOV. 05...	.95	.03	2600	365	3.54	1100	880	5.2	3200	8.0	2.0
29...	.77	.02	2110	245	2.87	930	710	4.4	2640	8.1	2.5
JAN. 11...	.93	.01	2270	172	3.09	1000	780	4.2	2790	7.9	.0
FEB. 08...	.70	.02	2260	201	3.07	970	760	4.6	2730	8.0	2.0
27...	.68	.01	2270	153	3.09	1000	790	4.4	2780	8.0	4.0
APR. 03...	.16	.03	750	269	1.02	290	160	3.3	1080	7.9	4.0
29...	.05	.01	1730	210	2.35	730	520	4.6	2010	8.1	12.5
MAY 30...	.11	.00	1660	226	2.53	810	590	4.4	2410	8.3	10.5
JULY 11...	.34	.00	1350	288	1.84	580	400	3.8	1720	8.2	17.5
AUG. 08...	.45	.00	1460	355	1.99	680	490	3.3	1860	8.1	13.5
SEP. 05...	.56	.00	1930	339	2.62	930	730	3.7	2430	8.2	17.0

GREEN RIVER BASIN

09216000 BIG SANDY RIVER BELOW EDEN, WYO.--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS- SED. FALL DIAM. % FINER THAN .004 MM	SUS- SED. FALL DIAM. % FINER THAN .016 MM	SUS- SED. FALL DIAM. % FINER THAN .062 MM
OCT.								
11...	1000	5.0	60	112	18	--	--	--
NOV.								
05...	1530	2.0	A52	93	13	--	--	--
29...	1530	2.5	A43	125	15	--	--	--
JAN.								
11...	1440	.0	A28	65	4.9	--	--	--
FEB.								
08...	1710	2.0	A33	22	2.0	--	--	--
27...	1500	4.0	A25	21	1.4	--	--	--
APR.								
03...	1315	4.0	133	592	213	80	94	100
29...	1540	12.5	45	194	24	--	--	--
MAY								
22...	1410	10.5	56	123	19	--	--	--
30...	1120	10.5	45	30	3.6	--	--	--
JUNE								
24...	1215	19.0	253	90	61	--	--	--
JULY								
11...	1130	17.5	79	19	4.1	--	--	--
AUG.								
08...	1015	13.5	90	42	10	--	--	--
SEP.								
05...	1550	17.0	65	16	2.8	--	--	--

A Daily mean discharge.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	NUMBER OF SAM- PLING POINTS	RED MAT. FALL DIAM.	RED MAT. FALL DIAM.	RED MAT. FALL DIAM.
					% FINE THAN .062 MM	% FINE THAN .125 MM	% FINE THAN .250 MM
AUG. 08...	1015	13.5	90	20	0	1	2
					RED MAT. FALL DIAM. % FINE THAN .500 MM	RED MAT. FALL DIAM. % FINE THAN 1.00 MM	RED MAT. FALL DIAM. % FINE THAN 2.00 MM
AUG. 08...	21	51	71	83	91	95	99
					RED MAT. FALL DIAM. % FINE THAN 8.00 MM	RED MAT. FALL DIAM. % FINE THAN 15.0 MM	RED MAT. FALL DIAM. % FINE THAN 32.0 MM

09216300 GREEN RIVER AT BIG ISLAND, NEAR GREEN RIVER, WYO.

LOCATION.--Lat 41°45'52", long 109°44'05", in SW¼Sec. 26, T.21 N., R.109 W., Sweetwater County, at Big Island bridge, 6.3 mi (10.1 km) downstream from Dry Creek, 9.5 mi (15.3 km) downstream from Big Sandy River, and 21 mi (34 km) northwest of the town of Green River.

DRAINAGE AREA.--7,300 mi² (18,900 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: August 1966 to September 1974.

REMARKS.--Water discharge computed by adding the discharge of Big Sandy River below Eden to that of Green River below Fontenelle Reservoir.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
04...	1400	1660	6.7	58	8.5	35	1.6	146	0	130	7.6
NOV.											
09...	1110	1060	7.2	52	23	53	1.6	152	3	200	5.2
DEC.											
03...	1700	767	6.1	57	21	53	1.6	150	5	200	7.0
JAN.											
09...	1820	870	7.9	62	20	47	1.9	184	0	180	6.1
FEB.											
06...	1840	1870	7.8	59	16	33	1.6	181	0	130	6.9
MAR.											
06...	1500	1680	8.6	63	17	32	1.6	181	0	130	8.4
APR.											
03...	1600	1730	6.4	58	18	38	1.6	180	0	150	7.6
MAY											
02...	0900	2510	7.1	58	9.9	31	1.9	180	0	92	5.7
30...	1300	3720	6.0	52	15	23	1.6	180	0	85	5.4
JULY											
10...	1400	2590	5.9	44	4.1	8.0	1.4	128	3	34	.0
AUG.											
07...	1600	1880	5.6	41	18	29	1.6	140	6	110	3.7
SEP.											
05...	1430	842	4.1	52	23	50	1.6	150	9	190	5.5

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.											
04...	.3	.09	--	320	1430	.44	180	60	1.1	509	8.3
NOV.											
09...	.3	.02	.03	418	1200	.57	230	100	1.5	643	8.4
DEC.											
03...	.4	.05	.01	427	884	.58	230	99	1.5	676	8.5
JAN.											
09...	.3	.07	.01	413	970	.56	240	89	1.3	650	8.3
FEB.											
06...	.3	.09	.01	342	1730	.47	210	62	1.0	545	8.1
MAR.											
06...	.3	.11	.02	353	1600	.48	230	82	.9	551	8.1
APR.											
03...	.2	.09	.01	364	1700	.50	220	72	1.1	579	8.1
MAY											
02...	.3	.29	.00	295	2000	.40	180	32	1.0	519	8.3
30...	.2	.00	.00	276	2770	.38	190	42	.7	448	8.3
JULY											
10...	.2	.05	.00	164	1150	.22	130	20	.3	277	8.6
AUG.											
07...	.3	.02	.00	284	1440	.39	180	55	1.0	451	8.5
SEP.											
05...	.3	.05	.00	407	925	.55	230	92	1.5	629	8.6

FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT.						
04...	1400	1660	9	9.6	--	11.5
NOV.						
09...	1110	1060	5	10.3	812	6.5
DEC.						
03...	1700	767	.6	11.8	80	1.0
JAN.						
09...	1820	870	1	9.6	83	.0
FEB.						
06...	1840	1870	3	10.2	81	.0
MAR.						
06...	1500	1680	2	9.8	80	3.0
APR.						
03...	1600	1730	30	11.2	81	6.0
MAY						
02...	0900	2510	15	9.6	86	7.0
30...	1300	3720	7	8.8	23	9.0
JULY						
10...	1400	2590	1	7.0	430	20.5
AUG.						
07...	1600	1880	2	8.6	89	19.0
SEP.						
05...	1430	842	0	9.8	86	17.0

B Non-ideal counting conditions.

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.

LOCATION.--Lat 41°30'59", long 109°26'54", in NW¼NE¼NE¼ sec.26, T.18 N., R.107 W., Sweetwater County, at bridge on State Highway 530 in town of Green River, 0.8 mi (1.3 km) upstream from Bitter Creek, 1.0 mi (1.6 km) upstream from gaging station, and 5.0 mi (8.0 km) upstream from high-water line of Flaming Gorge Reservoir.

DRAINAGE AREA.--10,000 mi² (25,900 km²), approximately (at gaging station), of which 300 mi² (777 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1951 to September 1974.

Water temperatures: May 1951 to September 1974.

Sediment records: May 1951 to September 1974.

EXTREMES.--1973-74

Specific conductance: Maximum daily, 876 micromhos Nov. 29; minimum daily, 303 micromhos June 27.

Water temperatures: Maximum, 22.5°C June 13; minimum, freezing point on many days during November to March.

Sediment concentrations: Maximum daily, 696 mg/l Mar. 19; minimum daily, 1 mg/l Sept. 17.

Sediment discharge: Maximum daily, 3,850 tons (3,490 tonnes) Mar. 19; minimum daily, 2.3 tons (2.1 tonnes) Sept. 17.

Period of record:

Specific conductance: Maximum daily, 1,270 micromhos Nov. 26, 1968; minimum daily, 219 micromhos May 22, 1954.

Water temperatures: Maximum, 26.0°C July 8, 22, 1961, July 24, 1962; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 15,000 mg/l Aug. 11, 1963; minimum daily, 0 mg/l Sept. 18, 1962.

Sediment discharge: Maximum daily, 110,000 tons (99,800 tonnes) Mar. 28, 1962; minimum daily, 0 tons Sept. 18, 1962.

REMARKS.--Flow affected by ice Nov. 22 to Dec. 15, Jan. 12 to Mar. 12. Temperature recorder at gaging station 1.0 mi (1.6 km) downstream from sampling site; discontinued September 1974. Maximum temperature recorded, 23.0°C July 22. No thermograph record Nov. 22 to Apr. 3, Sept. 23-30; recorder inoperative.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT.											
03...	1130	1130	4.4	53	21	56	1.7	159	1	190	8.0
NOV.											
08...	1045	1160	4.9	54	21	56	1.8	154	8	190	8.5
DEC.											
04...	1330	A870	5.3	62	25	72	2.3	182	0	240	13
JAN.											
11...	1145	A880	8.2	61	22	49	1.8	186	0	180	7.6
FEB.											
08...	1130	A1920	7.6	54	19	33	1.9	181	0	130	5.8
MAR.											
08...	1400	A1850	6.1	48	16	40	2.2	157	0	140	8.1
APR.											
04...	1300	1790	7.1	57	20	43	2.1	182	0	160	7.4
MAY											
02...	1645	2430	6.3	52	17	33	2.2	181	0	120	6.1
31...	1655	4140	5.7	48	15	20	1.9	174	0	79	4.5
JULY											
11...	1600	2620	5.4	40	14	24	1.7	135	4	78	3.8
AUG.											
08...	1540	1920	5.7	45	15	31	1.7	148	2	110	4.4
SEP.											
06...	1400	866	3.1	52	21	55	1.7	161	5	180	8.8

A Daily mean discharge.

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE PLUS NITRITE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	PH (UNITS)
OCT.											
03...	.2	.01	70	10	414	1260	.56	220	87	1.6	8.6
NOV.											
08...	.2	.02	60	40	421	1320	.57	220	82	1.6	8.5
DEC.											
04...	.2	.05	80	30	510	1200	.69	260	110	2.0	8.0
JAN.											
11...	.3	.12	30	20	422	1000	.57	240	90	1.4	8.1
FEB.											
08...	.3	.11	60	30	341	1770	.46	210	65	1.0	8.1
MAR.											
08...	.4	.13	40	60	339	1690	.46	190	57	1.3	7.4
APR.											
04...	.7	.06	50	40	387	1870	.53	220	75	1.2	8.2
MAY											
02...	.2	.05	40	150	326	2140	.44	200	51	1.0	8.1
31...	.3	.01	50	40	260	2910	.35	180	39	.6	8.3
JULY											
11...	.1	.00	50	30	238	1680	.32	160	43	.8	8.6
AUG.											
08...	.2	.00	60	0	288	1490	.39	170	49	1.0	--
SEP.											
06...	.2	.00	60	20	406	949	.55	220	80	1.6	8.7

GREEN RIVER BASIN

187

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
 FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT.						
03...	1130	1130	15	9.5	--	11.0
NOV.						
08...	1045	1160	5	10.9	850	6.0
DEC.						
04...	1330	A870	0	12.2	340	.0
JAN.						
11...	1145	A880	2	9.8	58	.0
FEB.						
08...	1130	A1920	3	10.0	B2	.0
MAR.						
08...	1400	A1850	120	9.0	360	.0
APR.						
04...	1300	1790	30	10.7	250	2.5
MAY						
02...	1645	2430	20	9.6	40	11.0
31...	1655	4140	15	8.8	230	15.0
JULY						
11...	1600	2620	2	8.0	58	20.5
AUG.						
08...	1540	1920	7	9.0	98	20.0
SEP.						
06...	1400	866	0	9.3	A12	16.5

A Daily mean discharge.

B Non-ideal counting conditions.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT CHARGE (T/DAY)	SJS. SED. FALL J14M. % FINE R THAN .004 MM	SJS. SED. FALL J14M. % FINE R THAN .016 MM	SJS. SED. FALL J14M. % FINE R THAN .052 MM
JULY								
19...	2135	21.0	2860	2420	19700	33	73	100

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	797	633	648	747	554	573	629	537	439	318	389	553
2	609	632	734	716	549	573	706	563	412	326	403	553
3	639	619	750	743	555	601	614	543	412	313	412	562
4	644	618	605	763	555	598	571	548	398	330	448	548
5	574	599	602	777	530	601	618	533	394	325	440	594
6	570	599	659	779	550	612	611	525	405	336	457	640
7	503	652	671	750	546	579	606	509	394	336	445	718
8	667	726	704	770	550	581	638	508	396	383	477	704
9	669	669	711	691	553	570	661	488	377	367	462	653
10	667	685	745	685	570	545	659	493	380	386	483	654
11	661	687	739	654	567	616	642	494	389	396	465	806
12	701	686	646	668	571	616	628	461	399	393	470	767
13	702	622	683	690	566	685	625	477	410	394	480	685
14	657	645	689	686	543	755	659	479	399	378	486	674
15	648	646	699	691	537	788	648	476	397	383	500	754
16	642	650	685	641	544	771	673	471	400	391	488	662
17	644	651	684	686	543	714	700	458	394	384	485	751
18	642	673	673	684	524	688	709	476	387	392	485	667
19	651	664	683	672	533	649	681	473	370	383	494	659
20	651	802	716	672	572	599	771	471	362	386	506	642
21	653	817	716	596	557	614	779	473	333	384	535	671
22	653	804	713	590	538	649	656	468	354	392	519	660
23	651	790	711	562	553	640	640	481	306	378	537	658
24	662	710	715	566	547	654	610	492	323	377	551	662
25	653	753	713	547	559	677	631	544	322	384	545	664
26	649	777	713	548	562	678	651	533	318	389	548	743
27	607	771	713	527	566	686	624	517	303	386	529	768
28	613	870	699	548	575	666	609	517	319	401	563	769
29	612	876	718	560	---	718	581	489	320	399	548	759
30	614	656	701	555	---	599	596	450	318	393	556	755
31	659	---	656	547	---	595	---	449	---	417	551	---
MONTH	644	699	693	655	552	642	648	497	371	374	492	678
YEAR	MAX	876	MIN	303	MEAN	579						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.0	1.0	0.0	0.0	0.0	1.5	2.5	10.0	10.0	18.0	19.0	17.0
2	9.0	3.0	0.0	0.0	0.0	1.5	2.5	7.0	10.0	17.0	20.0	15.0
3	7.0	3.0	0.0	0.0	0.0	0.0	2.5	7.5	10.0	19.0	21.0	15.0
4	7.0	2.0	0.0	0.0	0.0	0.0	2.0	7.5	10.0	18.0	21.0	15.0
5	7.0	1.0	0.0	0.0	0.0	0.0	2.5	9.0	8.0	18.0	22.0	17.0
6	6.0	1.0	0.0	0.0	0.0	0.5	5.0	9.0	8.0	19.0	21.0	16.0
7	6.0	1.0	0.0	0.0	0.0	1.0	6.0	9.5	8.0	19.0	21.0	18.0
8	6.0	1.0	0.0	0.0	0.0	1.0	6.0	11.5	7.0	19.0	18.0	20.0
9	5.0	1.0	0.0	0.0	0.0	1.0	6.0	11.5	8.0	19.0	16.5	19.0
10	4.0	3.0	0.0	0.0	0.0	1.0	2.5	8.0	9.0	19.0	16.0	18.0
11	4.0	3.0	0.0	0.0	0.0	1.0	3.0	8.0	13.0	19.0	18.0	16.0
12	4.0	3.0	0.0	0.0	0.0	2.5	2.5	8.0	10.0	19.0	17.0	14.5
13	6.0	3.0	0.0	0.0	0.0	2.5	3.5	8.5	22.5	21.0	18.0	11.0
14	6.0	3.0	0.0	0.0	0.0	3.0	3.5	7.5	22.0	20.0	19.0	14.0
15	6.0	3.0	0.0	0.5	0.0	6.0	8.0	7.5	19.5	21.0	19.0	15.0
16	6.0	2.0	0.0	0.5	0.0	6.0	8.0	7.0	18.0	18.0	19.0	14.0
17	6.0	3.0	0.0	1.0	0.0	4.5	8.5	8.0	19.5	18.0	19.0	15.0
18	9.5	2.0	0.0	0.5	0.0	3.5	9.0	11.0	13.0	19.0	22.0	14.5
19	9.0	0.5	0.0	1.0	0.0	3.5	9.0	10.0	13.0	18.0	16.5	15.0
20	8.5	0.0	0.0	0.5	0.5	2.5	4.5	9.0	12.0	18.0	15.0	15.0
21	9.0	0.0	0.0	0.5	0.5	2.0	4.0	9.0	12.0	19.0	18.0	15.0
22	8.0	0.0	0.0	0.0	0.0	2.0	4.0	9.0	14.0	21.0	20.0	15.0
23	6.0	0.0	0.0	0.5	0.0	1.5	4.0	11.0	15.0	20.0	20.0	15.0
24	5.0	0.0	0.0	0.0	0.0	2.5	9.0	13.0	15.0	20.0	19.0	14.0
25	4.0	0.0	0.0	0.0	0.0	5.0	9.0	15.0	16.0	19.0	19.0	14.0
26	3.0	0.0	0.0	0.0	1.0	6.0	9.0	15.0	15.5	18.5	19.0	14.0
27	3.0	0.0	0.0	0.0	1.0	6.0	5.0	15.0	18.0	21.0	19.0	13.0
28	6.0	0.0	0.0	0.0	1.0	5.0	8.0	14.0	18.0	21.0	19.0	12.0
29	3.0	0.0	0.0	0.0	---	3.5	10.0	14.0	18.0	21.0	19.0	12.0
30	1.0	0.0	0.0	0.0	---	4.0	10.0	15.0	19.0	21.0	19.0	12.0
31	3.0	---	0.0	0.0	---	4.0	---	15.0	---	19.0	18.0	---
MONTH	6.0	1.5	0.0	0.0	0.0	2.5	5.5	10.5	13.5	19.0	19.0	15.0
YEAR	MAX	22.5	MIN	0.0	MEAN	8.0						

GREEN RIVER BASIN

189

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	12.0	5.5	3.5	---	---	---	---	---	---	---	---
2	14.5	12.5	4.0	2.5	---	---	---	---	---	---	---	---
3	13.0	9.0	2.5	2.5	---	---	---	---	---	---	---	---
4	11.5	9.0	2.5	2.0	---	---	---	---	---	---	---	---
5	11.5	9.5	3.0	2.0	---	---	---	---	---	---	---	---
6	11.5	9.5	3.5	2.0	---	---	---	---	---	---	---	---
7	12.0	10.0	5.0	3.5	---	---	---	---	---	---	---	---
8	12.0	10.5	7.5	5.0	---	---	---	---	---	---	---	---
9	10.5	8.0	7.0	5.5	---	---	---	---	---	---	---	---
10	8.0	7.0	7.0	6.0	---	---	---	---	---	---	---	---
11	8.0	7.0	6.5	5.5	---	---	---	---	---	---	---	---
12	7.5	7.0	6.0	5.0	---	---	---	---	---	---	---	---
13	9.0	6.0	5.0	4.0	---	---	---	---	---	---	---	---
14	10.5	8.0	5.0	4.0	---	---	---	---	---	---	---	---
15	12.0	9.5	4.0	3.0	---	---	---	---	---	---	---	---
16	12.5	10.0	3.5	3.0	---	---	---	---	---	---	---	---
17	12.0	10.0	4.5	3.5	---	---	---	---	---	---	---	---
18	11.5	9.5	4.5	3.5	---	---	---	---	---	---	---	---
19	11.5	9.0	4.0	3.5	---	---	---	---	---	---	---	---
20	11.0	9.0	3.5	3.0	---	---	---	---	---	---	---	---
21	10.5	8.5	3.0	2.0	---	---	---	---	---	---	---	---
22	10.0	8.5	---	---	---	---	---	---	---	---	---	---
23	9.5	7.5	---	---	---	---	---	---	---	---	---	---
24	7.5	6.0	---	---	---	---	---	---	---	---	---	---
25	6.5	5.0	---	---	---	---	---	---	---	---	---	---
26	6.0	4.5	---	---	---	---	---	---	---	---	---	---
27	6.5	4.5	---	---	---	---	---	---	---	---	---	---
28	7.5	5.5	---	---	---	---	---	---	---	---	---	---
29	7.5	6.0	---	---	---	---	---	---	---	---	---	---
30	6.0	4.5	---	---	---	---	---	---	---	---	---	---
31	5.5	4.0	---	---	---	---	---	---	---	---	---	---
MONTH	15.0	4.0	---	---	---	---	---	---	---	---	---	---

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	12.5	9.0	15.5	13.5	19.0	18.5	21.5	17.5	17.5	14.0
2	---	---	11.5	10.0	16.0	14.0	18.5	17.5	20.5	17.5	15.5	11.5
3	---	---	10.5	8.5	15.5	14.0	18.5	16.5	21.0	17.5	17.0	13.5
4	4.0	1.5	12.0	7.5	15.0	13.5	19.0	17.5	21.5	18.5	18.0	15.0
5	5.5	2.5	13.5	9.5	15.0	13.5	19.0	18.0	22.5	18.5	18.0	16.0
6	5.5	3.5	13.5	10.0	14.0	13.0	18.5	18.0	22.0	18.5	17.5	14.5
7	5.0	2.5	14.0	10.5	14.0	12.5	19.0	17.5	21.5	18.0	17.5	14.0
8	6.0	2.5	14.0	11.5	14.0	12.5	19.5	18.0	20.0	17.5	17.5	15.5
9	6.0	4.0	14.0	12.0	15.0	13.5	21.0	18.0	19.5	16.5	18.5	15.5
10	6.0	4.5	13.0	12.0	15.5	14.0	22.0	18.5	18.0	14.5	19.0	17.5
11	5.0	4.0	12.0	9.5	16.5	15.0	21.0	18.0	18.5	15.5	17.5	12.5
12	6.0	4.0	12.0	10.0	17.5	15.0	21.5	17.0	18.0	16.0	15.0	10.5
13	6.0	3.5	11.0	9.0	18.5	15.0	22.5	18.0	18.5	15.5	16.0	12.0
14	6.0	3.5	10.5	8.5	18.5	15.5	22.0	18.5	18.5	16.0	18.0	13.0
15	8.5	4.5	11.5	9.0	18.0	15.5	20.5	18.0	19.0	15.5	19.5	15.0
16	8.5	6.5	11.5	10.0	17.0	15.0	20.0	18.0	19.5	15.5	20.0	15.5
17	9.5	6.5	11.5	10.0	17.0	14.0	21.5	18.5	20.0	17.0	21.0	16.5
18	9.5	7.5	12.5	10.5	17.5	14.5	22.0	18.0	20.5	16.5	22.0	17.0
19	9.0	7.5	12.0	11.0	16.5	16.0	22.0	19.0	20.0	17.5	22.0	17.5
20	8.0	5.5	11.5	8.5	17.0	16.0	22.5	19.0	17.5	15.0	21.0	17.0
21	7.0	4.5	11.0	8.0	16.5	15.0	22.0	18.5	18.0	14.0	20.5	15.5
22	10.0	5.5	12.5	9.5	17.5	16.0	23.0	19.0	19.0	15.0	22.5	16.5
23	10.0	8.0	13.5	10.5	18.0	16.5	22.5	19.5	20.0	16.5	---	---
24	10.5	7.5	15.0	11.0	19.0	17.5	20.5	18.0	19.5	16.5	---	---
25	12.5	9.0	15.5	12.0	19.0	17.5	21.5	17.5	19.5	17.0	---	---
26	12.0	10.0	17.0	13.0	18.5	17.5	22.0	18.0	20.0	16.5	---	---
27	10.0	7.5	17.0	14.5	18.5	17.0	22.0	18.5	21.0	17.5	---	---
28	8.5	6.0	16.0	13.5	18.5	17.5	22.0	18.5	20.0	17.5	---	---
29	10.5	6.5	16.0	13.5	19.0	18.0	22.5	18.5	19.5	16.5	---	---
30	12.5	8.5	15.5	12.0	19.5	18.0	22.0	19.0	19.0	16.5	---	---
31	---	---	16.0	12.5	---	---	21.5	18.0	18.5	16.0	---	---
MONTH	12.5	1.5	17.0	7.5	19.5	12.5	23.0	16.5	22.5	14.0	---	---

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	426	32	37	1130	16	49	740	64	128
2	816	104	229	1120	12	36	760	50	103
3	1170	50	158	1130	16	49	820	32	71
4	1510	52	212	1120	13	39	870	42	99
5	1680	25	113	1110	10	30	870	36	85
6	1690	16	73	1080	8	23	880	48	114
7	1620	56	245	1130	14	43	885	44	105
8	1260	20	68	1160	18	56	890	27	65
9	1040	8	22	1140	42	129	870	25	59
10	1050	5	14	1130	20	61	830	14	31
11	1030	5	14	1130	10	31	820	15	33
12	1010	10	27	1120	12	36	870	12	28
13	1010	10	27	1120	20	60	860	10	23
14	1000	11	30	1120	10	30	830	15	34
15	997	13	35	1110	6	18	830	17	38
16	998	12	32	1110	6	18	810	25	55
17	989	13	35	1110	8	24	850	26	60
18	984	14	37	1120	9	27	870	18	42
19	981	16	42	1120	11	33	880	14	33
20	979	22	58	1020	12	33	890	18	43
21	979	19	50	798	10	22	880	26	62
22	990	19	51	820	10	22	850	14	32
23	987	25	67	850	8	18	890	19	46
24	982	26	69	860	9	21	870	10	23
25	985	17	45	870	11	26	850	26	60
26	1040	16	45	880	32	76	840	21	48
27	1120	24	73	870	12	28	810	9	20
28	1110	61	183	900	36	87	850	5	11
29	1120	36	109	870	57	134	890	33	79
30	1120	26	79	860	27	63	870	18	42
31	1110	15	45	--	--	--	910	8	20
TOTAL	33783	--	2324	30908	--	1322	26435	--	1692
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	950	6	15	2000	5	27	2000	34	184
2	970	14	37	2010	10	54	1900	38	195
3	980	8	21	2000	8	43	1810	36	176
4	980	7	19	1990	6	32	1780	34	163
5	960	8	21	2000	6	32	1720	22	102
6	950	8	21	1980	6	32	1760	22	105
7	920	9	22	1950	6	32	1800	120	583
8	930	10	25	1920	5	26	1850	200	999
9	940	9	23	1950	4	21	1970	200	1060
10	920	6	15	1990	14	75	2080	295	1660
11	880	8	19	2000	14	76	2160	297	1730
12	830	4	9.0	2000	6	32	2200	229	1360
13	830	4	9.0	2000	8	43	1860	75	377
14	860	4	9.3	2000	9	49	1650	41	183
15	810	6	13	2000	10	54	1680	50	227
16	790	6	13	1990	12	64	1810	105	513
17	780	7	15	1980	11	59	1820	273	1340
18	770	6	12	1980	29	155	2040	402	2210
19	960	10	26	1980	18	96	2050	696	3850
20	1290	16	56	1980	18	96	2060	617	3430
21	1480	14	56	1980	25	134	1830	111	548
22	1750	12	57	1980	16	86	1760	94	447
23	1900	12	62	1980	22	118	1700	77	353
24	2000	12	65	1950	12	63	1680	60	272
25	2010	14	76	1900	4	21	1650	30	134
26	2000	14	76	1970	8	43	1650	34	151
27	1990	10	54	1980	36	192	1670	36	162
28	1980	9	48	1990	30	161	1680	55	249
29	1980	15	80	--	--	--	1880	289	1470
30	2000	19	103	--	--	--	2090	586	3310
31	2010	7	38	--	--	--	1820	250	1230
TOTAL	39400	--	1115.3	55430	--	1916	57410	--	28773

191

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

APRIL				MAY				JUNE			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	1800	160	778	2380	76	488	4790	104	1350		
2	1850	186	929	2400	100	648	5020	66	895		
3	1780	170	817	2740	241	1780	5070	102	1400		
4	1770	79	378	2930	160	1270	5360	120	1740		
5	1770	51	244	2960	110	879	5860	100	1580		
6	1740	38	179	2960	128	1020	5890	110	1750		
7	1730	35	163	3100	156	1310	6130	180	2980		
8	1740	26	122	3040	122	1000	6270	140	2370		
9	1740	81	381	3660	270	2670	6250	80	1350		
10	1640	95	421	3780	224	2290	6200	78	1310		
11	1650	106	472	3800	120	1230	5240	46	651		
12	1650	160	713	3820	208	2150	4350	80	940		
13	1530	111	459	3800	141	1450	3460	136	1270		
14	1460	60	237	4280	104	1200	3200	65	562		
15	1440	68	264	4400	76	903	3190	30	258		
16	1400	32	121	4400	134	1590	3220	42	365		
17	1390	25	94	4420	70	835	3310	47	420		
18	1360	31	114	4420	50	597	4080	63	694		
19	1550	35	146	4410	228	2710	5020	75	1020		
20	1940	429	2250	4410	67	798	6060	76	1240		
21	2010	500	2710	3990	52	560	6150	50	830		
22	1910	126	650	3860	50	521	6370	58	998		
23	1870	88	444	3470	37	347	7370	101	2010		
24	1860	75	377	3290	40	355	8460	96	2190		
25	1880	51	259	2560	15	104	9020	91	2220		
26	1950	45	237	1900	11	56	9000	95	2310		
27	1920	54	280	1880	22	112	8660	102	2380		
28	1900	32	164	1880	60	305	7740	55	1150		
29	1910	25	129	2310	55	343	7010	52	984		
30	2220	60	360	3070	45	373	6750	40	729		
31	--	--	--	3960	79	845	--	--	--		
TOTAL	52360	--	14892	104280	--	30739	174500	--	39946		
JULY				AUGUST				SEPTEMBER			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	6490	105	1840	2690	12	87	1290	9	31		
2	5890	76	1210	2290	18	111	1290	8	28		
3	5240	27	382	1930	16	83	1320	5	18		
4	5260	26	369	1900	8	41	1240	4	13		
5	5380	22	320	1930	6	31	981	4	11		
6	4860	14	184	1950	12	63	866	5	12		
7	4570	18	222	1940	10	52	857	26	60		
8	4310	18	209	1910	9	46	866	19	44		
9	3620	18	176	1850	11	55	866	6	14		
10	2910	11	86	1810	6	29	848	2	4.6		
11	2600	8	56	1770	6	29	824	13	29		
12	2680	2	14	1730	7	33	840	7	16		
13	2720	4	29	1700	8	37	857	8	19		
14	2710	10	73	1680	8	36	891	4	9.6		
15	2690	11	80	1680	6	27	891	4	9.6		
16	2700	30	219	1510	7	29	874	2	4.7		
17	2720	14	103	1680	7	32	857	1	2.3		
18	2760	20	149	1710	8	37	840	4	9.1		
19	2810	406	3080	1710	4	18	800	3	6.5		
20	2850	158	1220	1520	6	25	874	2	4.7		
21	2950	56	446	1380	8	30	857	4	9.3		
22	2910	38	299	1400	6	23	857	23	53		
23	2900	22	172	1390	5	19	874	11	26		
24	2900	17	133	1370	14	52	874	2	4.7		
25	2840	53	406	1360	10	37	824	2	4.4		
26	2770	25	187	1340	5	18	752	2	4.1		
27	2690	15	109	1320	6	21	692	2	3.7		
28	2590	14	98	1320	6	21	692	2	3.7		
29	2500	14	95	1310	6	21	700	2	3.8		
30	2400	16	104	1290	26	91	700	8	15		
31	2700	11	80	1290	16	56	--	--	--		
TOTAL	105920	--	12150	51660	--	1290	26794	--	473.8		
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									758880		
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									136633.		

GREEN RIVER BASIN

09217010 GREEN RIVER BELOW GREEN RIVER, WYO.

LOCATION.--Lat 41°29'46", long 109°26'17", in SW¼SE¼NW¼ sec.36, T.18 N., R.107 W., Sweetwater County, at bridge on county road, 1.7 mi (2.7 km) downstream from Bitter Creek, 2.7 mi (4.3 km) southeast of town of Green River, and 3.3 mi (5.3 km) upstream from Logan Draw.

PERIOD OF RECORD.--Chemical analyses: January to September 1974.

CHEMICAL ANALYSES, JANUARY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 11...	1315	A880	8.7	61	22	49	1.9	189	0	180	7.8
FEB. 08...	1345	A1920	7.5	54	18	33	1.9	178	0	130	5.7
MAR. 08...	1030	A1850	6.5	53	18	45	2.3	167	0	150	10
APR. 04...	1445	1790	7.1	57	22	49	2.0	184	0	170	11
MAY 02...	1800	2430	6.5	55	19	38	2.2	184	0	120	8.0
31...	1815	4140	5.6	51	15	21	1.8	175	0	80	4.9
JULY 11...	1715	2620	5.4	40	14	24	1.7	134	4	80	3.9
AUG. 08...	1650	1920	5.8	44	15	31	1.7	149	1	100	4.4
SEP. 06...	1510	866	3.0	39	25	58	1.7	146	7	180	9.2

A Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRIE 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 DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)
JAN. 11...	.3	.13	4	424	1010	.58	240	88	1.4	8.1
FEB. 08...	.2	.13	50	339	1760	.46	210	63	1.0	8.0
MAR. 08...	.3	.13	70	368	1840	.50	210	69	1.4	7.6
APR. 04...	.4	.07	60	410	1980	.56	230	82	1.4	8.2
MAY 02...	.6	.02	60	340	2230	.46	220	65	1.1	8.2
31...	.2	.01	50	266	2970	.36	190	46	.7	8.2
JULY 11...	.1	.00	40	239	1690	.33	160	41	.8	8.7
AUG. 08...	.2	.00	70	277	1440	.38	170	48	1.0	--
SEP. 06...	.2	.00	60	395	924	.54	200	69	1.8	--

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
JAN. 11...	1315	A880	2	9.8	180	.0
FEB. 08...	1345	A1920	4	102	180	.0
MAR. 08...	1030	A1850	120	9.2	710	.0
APR. 04...	1445	1790	65	10.7	2300	3.5
MAY 02...	1800	2430	35	9.2	1000	11.0
31...	1815	4140	--	8.8	230	15.5
JULY 11...	1715	2620	1	8.1	1300	21.0
AUG. 08...	1650	1920	2	9.3	860	20.0
SEP. 06...	1510	866	0	9.6	270	17.5

A Daily mean discharge.

GREEN RIVER BASIN

193

09221650 SMITHS FORK NEAR LYMAN, WYO.

LOCATION.--Lat 41°22'31", long 110°12'14", in SWSEKSEK sec.12, T.16 N., R.114 W., Uinta County, at bridge on U.S. Highway 30S, 1.5 mi (2.4 km) downstream from Cottonwood Creek, 1.6 mi (2.6 km) upstream from bridge on Interstate Highway 80, 2.4 mi (3.9 km) upstream from mouth, and 5.7 mi (9.2 km) northeast of Lyman.

PERIOD OF RECORD.--Chemical analyses: January to September 1974.

CHEMICAL ANALYSES, JANUARY TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIU2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 10...	1330	11	17	60	14	64	2.4	250	0	69	45
FEB. 07...	1240	29	16	61	14	64	2.8	250	0	81	52
MAR. 07...	1220	175	12	31	7.6	100	3.8	173	0	100	61
APR. 03...	1130	71	14	61	16	110	3.7	260	0	120	89
MAY 01...	1230	199	2.2	49	12	59	3.5	228	0	67	39
30...	1135	818	13	31	8.3	33	2.5	152	0	39	19
JULY 10...	1210	18	6.4	52	21	250	4.2	330	4	310	110
AUG. 07...	1210	15	11	49	20	240	3.4	320	6	280	130
SEP. 05...	1215	1.5	8.8	40	21	370	3.3	351	6	460	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)
JAN. 10...	.3	.16	130	396	11.8	.54	210	2	1.9	7.8
FEB. 07...	.6	.13	130	415	32.5	.56	210	5	1.9	7.7
MAR. 07...	.4	.07	150	402	190	.55	110	0	4.2	7.8
APR. 03...	.5	.04	140	543	104	.74	220	5	3.2	8.2
MAY 01...	.3	.08	120	345	185	.47	170	0	2.0	8.2
30...	.3	.01	130	221	488	.30	110	0	1.4	7.7
JULY 10...	.8	.00	540	922	44.8	1.25	220	0	7.4	8.4
AUG. 07...	.8	.01	530	899	36.4	1.22	200	0	7.3	8.5
SEP. 05...	1.3	.00	680	1220	4.94	1.66	190	0	12	--

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
JAN. 10...	1330	11	8	8.6	810	.0
FEB. 07...	1240	29	8	9.8	26	.0
MAR. 07...	1220	175	360	10.1	55	.0
APR. 03...	1130	71	100	10.3	100	2.0
MAY 01...	1230	199	170	8.8	80	12.5
30...	1135	818	50	8.2	250	10.5
JULY 10...	1210	18	5	9.9	210	23.0
AUG. 07...	1210	15	10	8.9	28	20.0
SEP. 05...	1215	1.5	10	8.4	110	15.0

B Non-ideal counting conditions.

GREEN RIVER BASIN

09222000 BLACKS FORK NEAR LYMAN, WYO.

LOCATION.--Lat 41°27'08", long 110°10'20", in SW¼NW¼SW¼ sec.15, T.17 N., R.113 W., Uinta County, at gaging station, 200 ft (61 m) downstream from bridge on old U.S. Highway 30S, 8.5 mi (13.7 km) downstream from Smiths Fork, and 11 mi (18 km) northeast of Lyman.

DRAINAGE AREA.--821 mi² (2,126 km²).

PERIOD OF RECORD.--Chemical analyses: March and April 1962 (monthly), May 1962 to September 1974 (daily).

Water temperatures: May 1962 to September 1974.

Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 3,510 micromhos Aug. 26; minimum daily, 382 micromhos May 12, 19.

Water temperatures: Maximum, 25.0°C July 22; minimum, freezing point on many days during November to March.

Period of record:

Specific conductance: Maximum daily, 5,140 micromhos Jan. 26, 1963; minimum daily, 352 micromhos May 22, 1973.

Water temperatures: Maximum, 28.0°C July 20, 1970; minimum, freezing point on many days during winter periods.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
02...	1030	78	7.4	140	48	190	3.5	221	0	630	64
NOV.											
07...	1500	188	11	100	37	180	3.0	237	0	480	71
DEC.											
05...	0910	A108	12	110	33	100	2.4	244	0	380	39
JAN.											
10...	1050	A50	13	99	30	87	2.1	228	0	320	33
FEB.											
07...	1015	A99	13	87	26	87	2.2	229	0	260	38
MAR.											
07...	1415	A320	10	56	18	100	3.3	178	0	230	45
APR.											
03...	1520	137	13	87	29	120	3.4	262	0	280	62
MAY											
01...	1725	292	4.6	70	21	80	3.3	238	0	180	41
30...	1640	1660	11	42	12	32	2.4	138	0	96	13
JULY											
10...	1600	62	7.3	200	74	290	5.6	271	0	1100	88
AUG.											
07...	1525	42	11	170	66	290	4.1	245	0	960	89
SEP.											
05...	1500	17	7.3	260	100	380	4.8	194	--	1500	89

A Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED SUM OF CONSTI- TUENTS (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	PH (UNITS)
OCT.											
02...	.6	.02	250	10	1190	251	1.62	550	370	3.5	8.2
NOV.											
07...	.5	.11	230	100	1000	508	1.36	400	210	3.9	8.2
DEC.											
05...	.4	.08	170	30	798	233	1.09	410	210	2.1	8.1
JAN.											
10...	.4	.33	140	40	699	94.4	.95	370	180	2.0	7.7
FEB.											
07...	.4	.18	140	40	627	168	.85	320	140	2.1	7.8
MAR.											
07...	.4	.15	160	470	552	477	.75	210	68	3.0	7.8
APR.											
03...	.5	.08	150	60	725	268	.99	340	120	2.8	8.2
MAY											
01...	.4	.10	140	60	518	408	.70	260	66	2.2	8.3
30...	.2	.01	110	130	277	1240	.38	150	41	1.1	7.6
JULY											
10...	.9	.00	540	50	1900	318	2.58	800	580	4.5	8.2
AUG.											
07...	.9	.13	510	20	1710	194	2.33	700	500	4.8	8.3
SEP.											
05...	1.1	.01	550	30	2440	112	3.32	1100	900	5.1	--

GREEN RIVER BASIN

195

09222000 BLACKS FORK NEAR LYMAN, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	1510	1150	1170	934	984	1080	902	495	1790	1860	3130
2	1670	1770	1100	1200	943	1210	1100	767	537	1790	2040	2800
3	1720	1510	1100	1250	987	1100	1160	672	620	1850	2160	2550
4	1690	1460	1160	1220	1020	1350	1380	751	654	1880	2270	2460
5	1730	1450	1140	1210	1040	1160	1340	768	724	1900	2440	2950
6	1420	1420	1080	1140	999	1080	1240	665	951	2170	2390	2900
7	1270	1570	1020	1120	1000	874	1380	603	800	2380	2390	2810
8	1300	1500	1030	1080	1050	1150	1290	532	910	2440	2480	3140
9	1310	1390	1060	1060	1030	1210	1210	519	937	2380	2480	3060
10	1540	1400	1200	1050	1040	1160	1090	468	1060	2460	2370	3280
11	1430	1420	1120	994	1040	1060	1130	408	1160	2510	2440	3270
12	1350	1570	1080	985	1010	1140	1100	382	1320	2590	2430	3150
13	1460	1570	1090	973	983	1100	1150	387	1380	2620	2490	3100
14	1740	1580	1040	981	989	1050	1210	404	1400	2530	2380	2990
15	1740	1580	1040	927	1020	948	1130	395	1340	2460	2430	3200
16	1390	1700	1050	948	993	870	1110	418	1290	2340	2370	3240
17	1370	1420	1040	1030	1040	869	1110	403	1220	2260	2500	3210
18	1400	1440	960	1040	1020	847	972	615	1190	2140	2500	2700
19	1420	1390	1020	1140	1020	882	943	382	1260	2090	2800	2640
20	1410	1490	1080	1070	980	1010	1010	417	1300	1920	2930	2650
21	1640	1470	1160	1080	1020	995	1440	443	1320	1920	2990	2550
22	1520	1500	1070	1060	1030	1060	1020	488	1440	1680	3100	2670
23	1520	1560	1050	1060	1070	1060	961	406	1440	1740	3180	2690
24	1520	1570	1100	1080	1040	1060	945	662	1560	1770	3200	2500
25	1500	1530	1100	1010	1060	1240	872	751	1720	1750	3180	2490
26	1480	1520	1110	1010	1030	1160	813	734	1840	1910	3510	2520
27	1500	1490	1150	1000	921	1140	725	671	1820	1880	3170	2540
28	1540	1380	1130	971	982	1150	821	585	1780	1980	3150	2540
29	1620	1190	1120	948	---	1180	884	521	1750	1900	3240	2840
30	1610	1170	1070	942	---	1260	929	483	1940	1950	3080	2950
31	1590	---	1070	940	---	1120	---	462	---	2030	3040	---
MONTH	1520	1480	1090	1050	1010	1080	1080	557	1240	2090	2680	2850
YEAR	MAX	3510	MIN	382	MEAN	1480						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	2.0	0.0	0.0	0.0	0.0	5.0	11.0	11.0	22.0	14.0	12.0
2	9.0	0.0	0.0	0.0	0.0	1.0	5.0	10.0	11.0	21.0	15.0	7.0
3	6.0	0.0	0.0	0.0	0.0	0.5	7.0	8.0	13.0	22.0	15.0	7.0
4	4.0	0.0	0.0	0.0	0.0	0.0	1.0	7.0	12.0	22.0	18.0	8.0
5	5.0	0.0	0.0	0.0	0.0	0.0	1.0	13.0	11.0	20.0	16.0	11.0
6	6.0	0.0	0.0	0.0	0.0	0.0	3.0	10.0	9.0	15.0	17.0	8.0
7	6.0	1.0	0.0	0.0	0.0	0.5	2.0	10.0	10.0	18.0	15.0	8.0
8	8.0	5.0	0.0	0.0	0.0	0.0	2.0	12.0	8.0	13.0	15.0	9.0
9	5.0	3.0	0.0	0.0	0.0	0.0	6.0	15.0	10.0	13.0	15.0	9.0
10	4.0	6.0	0.0	0.0	0.0	0.0	3.0	11.0	12.0	15.0	19.0	10.0
11	4.0	5.0	0.0	0.0	0.0	1.0	3.0	7.0	19.0	13.0	20.0	9.0
12	4.5	5.0	0.0	0.0	0.0	0.0	3.0	8.0	18.0	12.0	18.0	4.0
13	5.0	4.0	0.0	0.0	0.0	0.0	5.0	7.0	20.0	15.0	21.0	5.0
14	12.0	3.0	0.0	0.0	0.0	0.0	8.0	7.0	21.0	15.0	19.0	6.0
15	11.0	0.0	0.0	0.0	0.0	0.5	9.0	8.0	19.0	17.0	14.0	9.0
16	12.0	0.0	0.0	0.0	0.0	0.0	5.0	8.0	15.0	17.0	10.0	8.0
17	8.0	2.0	0.0	0.0	0.0	1.0	4.0	10.0	14.0	18.0	9.0	7.0
18	7.0	1.0	0.0	0.0	0.0	2.0	6.0	10.0	13.0	18.0	10.0	12.0
19	8.0	1.0	0.0	0.0	0.0	0.5	9.0	11.0	14.0	19.0	11.0	18.0
20	10.0	0.0	0.0	0.0	0.0	0.0	6.0	6.0	13.0	17.0	9.0	18.0
21	13.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0	14.0	21.0	7.0	18.0
22	12.0	0.0	0.0	0.0	0.0	0.0	3.0	8.0	14.0	25.0	9.0	17.0
23	9.0	0.0	0.0	0.0	0.0	2.0	8.0	13.0	17.0	23.0	10.0	17.0
24	8.0	0.0	0.0	0.0	0.0	4.0	8.0	14.0	17.0	20.0	11.0	8.0
25	2.0	0.0	0.0	0.0	0.0	6.0	8.0	15.0	17.0	18.0	10.0	10.0
26	1.0	0.0	0.0	0.0	0.0	8.0	10.0	12.0	18.0	17.0	11.0	7.0
27	2.0	0.0	0.0	0.0	0.0	7.0	5.0	13.0	15.0	17.0	10.0	5.0
28	4.0	0.0	0.0	0.0	0.0	4.0	4.0	13.0	15.0	15.0	12.0	2.0
29	2.0	0.0	0.0	0.0	---	1.0	5.0	10.0	17.0	13.0	11.0	15.0
30	1.0	0.0	0.0	0.0	---	8.0	8.0	10.0	19.0	15.0	10.0	8.0
31	4.0	---	0.0	0.0	---	7.0	---	10.0	---	14.0	13.0	---
MONTH	6.5	1.5	0.0	0.0	0.0	1.5	5.0	10.0	14.5	17.5	13.5	9.5
YEAR	MAX	25.0	MIN	0.0	MEAN	6.5						

GREEN RIVER BASIN

09222000 BLACKS FORK NEAR LYMAN, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 02...	1030	78	5	9.1	--	11.0
NOV. 07...	1500	188	180	10.5	50	4.5
DEC. 05...	0910	A108	7	10.2	810	.0
JAN. 10...	1050	A50	5	8.0	20	.0
FEB. 07...	1015	A99	5	8.5	812	.0
MAR. 07...	1415	A320	250	9.4	50	.5
APR. 03...	1520	137	50	9.3	33	6.0
MAY 01...	1725	292	340	8.3	20	13.0
30...	1640	1660	100	--	390	13.0
JULY 10...	1600	62	4	6.6	21	27.0
AUG. 07...	1525	42	2	7.1	819	22.5
SEP. 05...	1500	17	1	7.4	22	20.5

A Daily mean discharge.

B Non-ideal counting conditions.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
OCT. 02...	1030	11.0	78	30	6.3	--	--	--	--	--	--	--
NOV. 07...	1500	4.5	188	783	397	--	--	--	--	--	--	--
DEC. 05...	0910	.0	A108	45	13	--	--	--	--	--	--	--
JAN. 10...	1050	.0	A50	18	2.4	--	--	--	--	--	--	--
FEB. 07...	1015	.0	A99	24	6.4	--	--	--	--	--	--	--
MAR. 07...	1415	.5	A320	1030	890	--	--	--	--	--	--	--
APR. 03...	1520	6.0	137	298	110	--	--	--	--	--	--	--
MAY 01...	1725	13.0	292	3630	2860	20	26	36	42	60	94	100
22...	0855	8.5	539	420	611	--	--	--	--	--	--	--
30...	1640	13.0	1660	1260	5650	16	22	46	71	93	100	--
JULY 10...	1600	27.0	62	32	5.4	--	--	--	--	--	--	--
AUG. 07...	1525	22.5	42	16	1.8	--	--	--	--	--	--	--
SEP. 05...	1500	20.5	17	4	.18	--	--	--	--	--	--	--

A Daily mean discharge.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	NUMBER OF SAMP- PLING POINTS	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
AUG. 07...	1525	22.5	42	20	2	3	44
					BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. FALL DIAM. % FINER THAN 2.00 MM
					BED MAT. FALL DIAM. % FINER THAN 4.00 MM	BED MAT. FALL DIAM. % FINER THAN 8.00 MM	BED MAT. FALL DIAM. % FINER THAN 16.0 MM
AUG. 07...					90	95	97
					97	99	100

09224450 HAMS FORK NEAR GRANGER, WYO.

LOCATION.--Lat 41°35'56", long 109°59'28", in center of sec.30, T.19 N., R.111 W., Sweetwater County, at railroad bridge, 1.2 mi (1.9 km) northwest of Granger, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--670 mi² (1,740 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.
Sediment records: October 1971 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	0700	42	2.2	70	15	31	1.4	182	0	130	18	.3
NOV.												
08...	1250	32	2.4	77	25	54	1.6	220	0	200	23	.4
28...	0945	24	2.8	100	34	78	2.3	283	0	280	38	.4
JAN.												
09...	1750	6.0	5.4	120	38	99	2.3	330	0	340	44	.5
FEB.												
07...	1800	17	4.9	110	28	66	2.1	285	0	240	39	.4
MAR.												
07...	0900	34	3.2	81	24	47	1.9	225	0	180	27	.4
APR.												
03...	1815	87	3.0	74	25	48	2.3	211	0	170	25	.4
MAY												
01...	1855	960	8.1	60	12	9.6	1.9	204	0	42	5.7	.2
30...	1745	515	6.0	62	16	19	1.6	232	0	64	7.2	.3
JULY												
10...	1815	182	5.5	74	16	29	1.6	241	0	100	9.0	.3
AUG.												
06...	1830	107	5.3	55	22	32	1.6	201	0	120	11	.4
SEP.												
04...	0730	11	4.1	56	25	39	1.4	200	0	140	13	.4

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT.											
02...	.09	--	358	40.6	.49	240	91	.9	581	8.2	3.5
NOV.											
08...	.00	.08	490	42.3	.67	300	120	1.4	771	8.3	4.5
28...	.00	.01	681	44.1	.93	400	170	1.7	1050	8.2	.0
JAN.											
09...	.02	.03	818	13.3	1.11	470	200	2.0	1210	8.0	.0
FEB.											
07...	.18	.03	632	29.0	.86	380	150	1.5	970	7.9	.0
MAR.											
07...	.05	.02	471	43.2	.64	300	120	1.2	745	8.1	.0
APR.											
03...	.07	.01	454	107	.62	290	120	1.2	712	8.3	4.5
MAY											
01...	.25	.01	241	625	.33	200	33	.3	408	8.2	11.5
30...	.00	.00	290	403	.39	220	30	.6	486	8.3	17.0
JULY											
10...	.02	.00	354	174	.48	250	52	.8	570	8.2	23.0
AUG.											
06...	.02	.00	346	100	.47	230	65	.9	549	8.3	22.5
SEP.											
04...	.05	.00	377	11.2	.51	240	76	1.1	605	8.0	11.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DIS-CHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
OCT.										
02...	0700	3.5	42	46	5.2	--	--	--	--	--
NOV.										
08...	1250	4.5	32	92	7.9	--	--	--	--	--
28...	0945	.0	24	97	6.3	--	--	--	--	--
JAN.										
09...	1750	.0	6.0	80	1.3	--	--	--	--	--
FEB.										
07...	1800	.0	17	17	.78	--	--	--	--	--
MAR.										
07...	0900	.0	34	14	1.3	--	--	--	--	--
APR.										
03...	1815	4.5	87	24	5.6	--	--	--	--	--
MAY										
01...	1855	11.5	960	769	1990	42	64	92	99	100
21...	1255	9.0	515	148	206	--	--	--	--	--
30...	1745	17.0	515	176	245	--	--	--	--	--
JULY										
10...	1815	23.0	182	13	6.4	--	--	--	--	--
AUG.										
06...	1830	22.5	107	9	2.6	--	--	--	--	--
SEP.										
04...	0730	11.0	11	24	.71	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

09224700 BLACKS FORK NEAR LITTLE AMERICA, WYO.

DRAINAGE AREA.--3,100 mi² (8,030 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: March 1951 to September 1974.

Water temperatures: March 1951 to September 1963, December 1964 to September 1974.

Sediment records: October 1967 to September 1971 (daily), October 1971 to September 1974 (monthly).

Published as "near Green River" prior to October 1953 and as "near Marston" October 1953 to September 1964.

EXTREMES. - - 1973-74:

Specific conductance: Maximum daily observed, 2,350 micromhos Aug. 30; minimum daily, 447 micromhos May 16.

Water temperatures: Maximum observed, 26.0°C Aug. 12, 14; minimum, freezing point on many days during

November to M

Period of record:

Specific conductance: Maximum

specific conductance: Maximum daily (1951-54, 1965-74), 6,010 micromhos Oct. 1, 1955, minimum daily, 411 micromhos May 13, 1969.

Water temperatures (1951-62, 1966-74): Maximum, 29.0°C July 15, 16, 1955; minimum, freezing point on many

water temperatures (1951-52, 1966-74). Maximum, 29.0 C July 19, 10, 1955; minimum, freezing point on many days during winter period most years.

CHEMICAL ANALYSES. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

A Daily mean discharge.

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (P) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA, MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD-SORP- TION RATIO	PH (UNITS)
OCT. 04...	.5	.00	300	40	1040	345	1.41	460	270	3.5	8.7
NOV. 09...	.4	.12	280	60	1110	809	1.51	430	230	4.2	8.3
DEC. 04...	.4	.03	270	20	920	415	1.25	440	210	2.7	8.2
JAN. 10...	.5	.23	300	30	988	213	1.34	520	250	2.5	7.8
FEB. 07...	.5	.14	220	30	739	253	1.01	380	160	2.2	7.9
25...	.5	.20	220	80	818	216	1.11	380	140	2.9	8.2
APR. 04...	.6	.07	190	70	701	672	.95	350	120	2.5	8.3
MAY 02...	.2	.13	80	80	360	1190	.49	230	44	1.0	8.0
31...	.4	.01	110	60	289	1820	.39	170	33	1.1	7.8
JULY 11...	.4	.00	270	50	825	437	1.12	420	210	2.5	8.3
AUG. 08...	.5	.01	340	10	915	225	1.24	400	220	3.3	--
SEP. 06...	.6	.00	550	20	1500	72.9	2.04	650	500	4.5	--

GREEN RIVER BASIN

199

09224700 BLACKS FORK NEAR LITTLE AMERICA, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT.						
04...	1010	123	15	9.0	--	7.0
NOV.						
09...	0800	A270	310	11.1	100	.0
DEC.						
04...	1630	A167	30	11.8	812	.0
JAN.						
10...	1545	A80	8	8.6	72	.0
FEB.						
07...	1745	A127	6	11.4	40	.0
25...	1730	A98	9	11.8	87	.0
APR.						
04...	0850	355	120	11.0	57	.0
MAY						
02...	1130	1220	220	8.8	140	9.5
31...	1030	2330	--	8.2	520	13.0
JULY						
11...	1030	196	15	7.3	39	18.0
AUG.						
08...	1015	91	10	8.1	814	16.0
SEP.						
06...	0845	18	1	6.9	810	11.0

A Daily mean discharge.

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	1820	1440	1500	---	966	1300	---	566	1300	1580	2220
2	1600	1490	1750	1550	1170	958	1280	---	512	1220	1440	2320
3	1550	1500	1300	1570	1170	1060	1550	---	557	1300	1450	---
4	1400	1500	1350	1340	1100	976	1600	---	516	1280	1280	---
5	1300	1490	1440	1570	1180	965	1620	---	552	1290	1270	---
6	1320	1500	1360	1550	1190	960	1510	---	725	1140	1490	---
7	1300	1670	1690	1560	1250	876	1350	---	728	1230	1480	---
8	1320	1460	1760	1570	1250	812	1450	---	664	1300	1550	---
9	1330	1630	1410	1620	1250	822	1370	---	684	1480	1460	---
10	1560	1680	1760	1360	1180	767	1370	---	685	1480	1450	---
11	1560	1600	1260	1210	1190	822	1380	---	675	1330	1600	---
12	1330	1550	1280	1230	1210	874	1380	---	795	1530	1600	---
13	1570	1500	1310	1300	1260	869	1290	---	662	1740	1580	---
14	1600	1470	1260	1430	1250	886	1320	---	817	1480	1600	---
15	1400	1480	1340	1470	1230	868	1290	555	875	1730	1600	---
16	1410	1480	1220	1160	1240	927	1330	447	975	1590	1740	2100
17	1590	1490	1220	1160	1240	922	1190	472	863	---	2270	2040
18	1460	1990	1260	1170	1330	864	---	467	918	---	---	2090
19	1480	1490	1170	1160	1200	911	---	464	906	---	---	2050
20	1410	1950	1230	1330	1130	946	---	552	863	---	---	2110
21	1560	1980	1240	1310	1250	1020	---	460	900	---	---	2130
22	1400	1990	1230	1300	1240	1160	---	540	848	---	---	2190
23	1500	---	1230	1190	1310	818	1150	651	1060	---	---	2300
24	1550	---	1220	1270	1320	881	833	630	872	---	---	2200
25	1520	---	1310	1240	1300	1020	833	620	1030	---	2210	2090
26	1820	---	1250	1260	1180	1120	617	619	1290	---	2220	2140
27	1840	---	1260	1300	1080	1160	675	610	1200	---	1970	2040
28	1850	---	1290	---	1280	1200	610	629	1220	---	2290	2070
29	1820	---	1380	---	---	1280	610	470	1130	---	2290	2150
30	1830	---	1330	---	---	1160	609	484	1280	---	2350	2230
31	1570	---	1440	---	---	1270	---	540	---	---	2150	---
MONTH	1520	---	1350	1360	1220	972	1180	---	846	---	---	---

09224700 BLACKS FORK NEAR LITTLE AMERICA, WYO.--Continued
TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	1.0	0.0	0.0	0.0	0.0	6.0	---	14.5	23.0	25.0	14.0
2	12.0	0.0	0.0	0.0	0.0	1.0	6.0	---	14.5	23.5	25.5	14.5
3	12.0	0.0	0.0	0.0	0.0	0.5	6.5	---	15.0	23.0	24.5	---
4	12.0	0.0	0.0	0.0	0.0	0.0	6.0	---	14.5	24.0	24.0	---
5	12.0	0.0	0.0	0.0	0.0	0.0	6.0	---	16.0	23.5	25.0	---
6	11.0	0.0	0.0	0.0	0.0	0.0	5.0	---	13.5	24.0	25.0	---
7	10.0	2.0	0.0	0.0	0.0	0.0	5.0	---	13.0	24.5	24.0	---
8	10.0	5.0	0.0	0.0	0.0	0.0	6.0	---	15.0	25.0	25.0	---
9	9.5	4.5	0.0	0.0	0.0	0.0	5.5	---	16.0	25.0	25.0	---
10	9.0	4.0	0.0	0.0	0.0	0.0	6.0	---	16.5	24.5	25.5	---
11	7.0	3.0	0.0	0.0	0.0	0.0	6.0	---	16.5	24.0	25.0	---
12	9.0	3.0	0.0	0.0	0.0	0.0	6.0	---	18.0	24.5	26.0	---
13	7.0	2.0	0.0	0.0	0.0	0.0	6.5	---	18.5	25.0	25.5	---
14	6.0	3.0	0.0	0.0	0.0	0.0	6.5	---	20.0	25.0	26.0	---
15	7.0	0.0	0.0	0.0	0.0	0.5	6.0	9.0	18.0	24.5	25.0	---
16	7.0	0.0	0.0	0.0	0.0	0.0	6.0	9.5	18.5	25.0	24.0	11.5
17	6.5	2.0	0.0	0.0	0.0	1.0	6.5	10.0	19.0	---	16.0	11.5
18	6.0	1.0	0.0	0.0	0.0	0.0	6.5	11.0	18.5	---	---	12.0
19	6.5	1.0	0.0	0.0	0.0	0.0	6.5	12.0	19.5	---	---	14.5
20	6.0	0.0	0.0	0.0	0.0	0.0	6.5	12.0	20.0	---	---	14.5
21	5.5	0.0	0.0	0.0	0.0	0.0	6.5	13.0	20.0	---	---	13.0
22	5.5	0.0	0.0	0.0	0.0	0.0	6.5	14.0	21.0	---	---	10.5
23	5.5	0.0	0.0	0.0	0.0	2.0	6.5	15.0	21.5	---	---	11.0
24	5.5	0.0	0.0	0.0	0.0	4.0	7.5	14.0	22.0	---	---	14.0
25	5.5	0.0	0.0	0.0	0.0	4.0	7.0	13.0	22.0	---	22.0	13.5
26	3.0	0.0	0.0	0.0	0.0	5.0	7.5	12.0	22.0	---	21.0	14.0
27	2.0	0.0	0.0	0.0	0.0	6.0	8.0	12.5	22.5	---	19.0	7.0
28	1.0	0.0	0.0	0.0	0.0	6.0	8.5	13.0	22.5	---	16.5	9.5
29	1.0	0.0	0.0	0.0	---	6.0	10.0	13.0	22.0	---	15.5	9.0
30	2.0	0.0	0.0	0.0	---	6.0	10.5	14.0	23.0	---	13.0	10.0
31	2.0	---	0.0	0.0	---	5.5	---	13.0	---	---	13.5	---
MONTH	7.0	1.0	0.0	0.0	0.0	1.5	6.5	---	18.5	---	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (17/24Y)	SUS. SED. FALL DIAM. * FINER THAN .004 MM	SUS. SED. FALL DIAM. * FINER THAN .015 MM	SUS. SED. FALL DIAM. * FINER THAN .052 MM	SUS. SED. FALL DIAM. * FINER THAN .125 MM	SUS. SED. FALL DIAM. * FINER THAN .250 MM
OCT.										
04...	1010	7.0	123	48	16	--	--	--	--	--
NOV.										
08...	1530	3.0	310	620	519	--	--	--	--	--
09...	0800	.0	A270	1240	933	--	--	--	--	--
DEC.										
04...	1630	.0	A157	119	55	--	--	--	--	--
JAN.										
10...	1545	.0	A80	88	19	--	--	--	--	--
FEB.										
07...	1745	.0	A127	12	4.3	--	--	--	--	--
25...	1730	.0	A98	43	11	--	--	--	--	--
APR.										
04...	0850	.0	355	359	351	--	--	--	--	--
MAY										
02...	1130	9.5	1220	1250	4130	37	59	92	100	--
22...	1145	8.0	1390	772	2900	--	--	--	--	--
31...	1030	13.0	2330	3050	19200	24	32	74	93	100
JULY										
11...	1030	18.0	196	78	41	--	--	--	--	--
AUG.										
08...	1015	16.0	91	22	5.4	--	--	--	--	--
SEP.										
06...	0845	11.0	18	5	.29	--	--	--	--	--

A Daily mean discharge.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	NUMBER OF SAM- PLING POINTS	RED	RED	RED	RED	RED
					MAT. FALL DIAM. % FINER THAN .062 MM	MAT. FALL DIAM. % FINER THAN .125 MM	MAT. FALL DIAM. % FINER THAN .250 MM	MAT. FALL DIAM. % FINER THAN .500 MM	MAT. FALL DIAM. % FINER THAN 1.00 MM
AUG. 08...	1015	16.0	91	20	16	46	92	99	100

09229500 HENRYS FORK NEAR MANILA, UTAH

LOCATION.--Lat 41°00'45", long 109°40'20", in NW¼NW¼ sec.23, T.12 N., R.109 W., Sweetwater County, Wyoming, at gaging station, 0.8 mi (1.3 km) north of Wyoming-Utah State line, 1.3 mi (2.1 km) upstream from normal high-water line of Flaming Gorge Reservoir, and 3.0 mi (4.8 km) northeast of Manila, Utah.

DRAINAGE AREA.--520 mi² (1,350 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: March 1951 to September 1974.

Water temperatures: March 1951 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 2,680 micromhos Aug. 13, 31; minimum daily, 385 micromhos May 12.

Water temperatures: Maximum, 24.0°C June 25, 27; minimum, freezing point Jan. 2, 3, 5.

Period of record:

Specific conductance: Maximum daily, 3,750 micromhos Oct. 15, 1961; minimum daily, 385 micromhos June 16, 1968, May 12, 1974.

Water temperatures: Maximum, 29.0°C July 29, 1968; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	
OCT. 03...	1645	13.5	101	17	120	61	39	8.0	
NOV. 08...	1600	6.5	125	17	110	50	35	7.0	
DEC. 04...	0930	.0	A57	18	130	59	39	7.6	
JAN. 10...	1730	.0	A55	19	120	51	36	6.2	
FEB. 08...	1010	.0	A51	17	120	50	35	6.6	
26...	1150	.0	A44	17	120	54	40	7.1	
APR. 03...	1930	4.5	69	13	91	44	32	5.3	
MAY 02...	1420	7.0	85	15	92	41	34	6.2	
29...	1510	15.0	748	12	41	13	11	4.2	
JULY 10...	1630	27.0	2.0	21	230	150	110	15	
AUG. 07...	1125	17.5	2.8	22	230	140	100	14	
SEP. 05...	1040	14.5	3.0	17	240	140	120	15	
A Daily mean discharge.									
DATE	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (MG/L)	DIS- SOLVED IRON (FE) (MG/L)	
OCT. 03...	232	0	400	15	.5	.01	200	20	
NOV. 08...	259	3	310	15	.3	.04	140	50	
DEC. 04...	284	0	410	18	.4	.06	170	30	
JAN. 10...	260	0	340	16	.4	.21	130	20	
FEB. 08...	259	0	340	16	.4	.18	150	30	
26...	266	0	370	18	.4	.20	150	60	
APR. 03...	218	0	280	13	.7	.08	110	80	
MAY 02...	251	0	240	15	.4	.16	130	0	
29...	135	0	74	4.4	.3	.06	80	260	
JULY 10...	310	0	1000	59	.6	8.1	430	80	
AUG. 07...	320	0	930	51	.6	7.5	430	50	
SEP. 05...	293	--	1000	58	.5	11	440	70	
DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED OXYGEN (MG/L)
OCT. 03...	775	211	1.05	550	360	.7	1140	8.5	9.2
NOV. 08...	675	228	.92	480	260	.7	1010	8.4	9.8
DEC. 04...	822	127	1.12	570	330	.7	1150	8.2	--
JAN. 10...	718	107	.98	510	300	.7	1050	7.9	--
FEB. 08...	714	98.3	.97	510	290	.7	1010	8.0	--
26...	759	90.2	1.03	520	300	.8	1080	8.0	--
APR. 03...	587	109	.80	410	230	.7	869	8.2	--
MAY 02...	568	130	.77	400	190	.7	856	8.2	--
29...	227	458	.31	160	45	.4	366	7.8	--
JULY 10...	1770	9.56	2.41	1200	--	--	2280	8.1	--
AUG. 07...	1680	12.7	2.28	1200	--	--	2200	8.1	--
SEP. 05...	1780	14.4	2.42	1200	940	1.5	2360	--	--

GREEN RIVER BASIN

09229500 HENRYS FORK NEAR MANILA, UTAH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	1100	1190	1180	1020	1170	785	858	542	1210	1630	2120
2	1120	1120	1070	1200	1040	1010	753	870	530	1220	1690	2180
3	1100	1160	1090	1200	988	1060	749	767	584	2010	1710	2500
4	1120	1130	1120	1160	1060	1060	740	771	574	2060	1910	2080
5	1120	1240	1090	1100	1020	1110	817	763	633	1980	2050	2220
6	1110	973	1170	1070	1030	1080	804	664	700	2110	2130	1430
7	1100	976	1010	1070	1060	995	765	582	695	2090	2260	1940
8	1120	996	1030	1070	1360	904	858	561	855	2030	2190	2170
9	1150	996	1070	1050	1030	994	830	495	871	2170	2500	2170
10	1090	1040	1050	1040	971	817	882	462	859	2260	2480	1940
11	1140	1040	1010	1040	1050	826	866	409	898	2320	2470	2160
12	1070	1040	1010	1040	1340	1360	888	385	891	2220	2390	1860
13	1060	1030	1030	1050	1050	1340	902	369	890	2130	2680	1410
14	1080	1100	1030	1040	1110	836	871	415	876	2170	2250	1850
15	1100	1040	1300	1020	1320	785	860	450	882	1380	2090	1840
16	1060	1330	1310	1010	1120	758	831	499	888	1300	2020	1960
17	1080	1100	1030	1020	1050	967	808	473	1260	1230	2000	1880
18	1100	1110	1000	1010	1050	989	809	453	930	1530	2090	1870
19	1100	1030	935	1000	1030	931	826	509	910	1410	2370	1890
20	1100	1110	1040	981	1060	957	832	500	966	1060	2360	1910
21	1080	1090	1100	1040	1040	1050	932	493	1010	1070	2390	1800
22	1080	1280	1020	1030	1060	1050	904	597	1090	1070	2180	1800
23	1090	1230	1040	1030	1030	1050	850	594	1120	1200	2400	1810
24	1130	1220	1040	1030	1060	994	823	544	1070	1250	2330	1840
25	1180	1290	1040	1040	1050	989	829	545	1270	1230	2330	1860
26	1180	1250	943	1010	1050	934	762	508	1280	1250	2360	1840
27	1100	1330	1060	1020	1050	913	873	410	1270	1250	2430	1950
28	1160	1030	1070	982	1120	926	830	428	1300	1400	2340	2010
29	1130	1160	1070	1340	---	885	865	407	1270	1870	2530	1870
30	1100	1350	1060	1060	---	888	865	435	1310	1980	2470	1810
31	1140	---	1070	1040	---	766	---	434	---	1400	2680	---
MONTH	1110	1130	1070	1060	1080	980	834	533	941	1640	2250	1930
YEAR	MAX	2680	MIN	385	MEAN	1210						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	4.0	2.5	0.5	2.0	1.0	6.0	13.0	16.0	19.5	19.0	15.5
2	12.0	3.5	2.0	0.0	1.0	1.5	5.0	14.0	15.0	20.0	18.0	17.0
3	11.5	1.5	1.0	0.0	2.5	1.0	7.0	9.5	15.0	19.0	11.0	15.5
4	12.5	2.5	1.5	1.0	3.0	2.5	8.0	14.0	15.0	19.0	19.0	19.0
5	12.0	1.5	2.0	0.0	1.0	1.5	9.0	14.0	14.5	19.0	21.0	20.0
6	12.0	1.0	2.5	1.5	1.5	3.5	8.0	16.0	12.0	19.0	20.0	21.5
7	11.5	1.0	2.0	2.0	1.5	3.0	9.0	17.0	14.0	14.0	21.5	21.0
8	12.0	4.0	2.5	2.0	3.0	3.5	9.0	17.5	16.0	19.0	20.0	20.5
9	7.5	6.5	3.0	1.5	2.5	4.0	9.5	15.0	16.5	12.0	12.0	21.0
10	8.5	8.0	3.0	0.5	4.0	4.5	7.5	11.0	18.0	19.0	12.5	21.0
11	7.5	7.0	2.0	4.5	4.0	4.0	9.0	12.5	18.0	19.0	13.5	10.0
12	7.0	7.5	2.0	3.0	3.5	5.0	7.0	12.0	20.0	23.0	15.0	10.0
13	10.5	7.0	3.5	3.5	4.0	3.5	9.0	9.0	20.0	23.0	17.5	12.5
14	13.0	6.5	2.5	2.0	4.5	4.0	10.0	10.0	18.0	22.0	18.0	14.0
15	13.5	5.0	1.0	2.5	5.0	4.5	11.0	12.0	18.0	22.0	19.0	15.0
16	12.5	4.5	2.0	2.5	5.0	4.5	8.5	14.0	18.0	20.0	19.0	16.0
17	13.0	4.0	2.0	2.0	2.0	6.0	10.0	14.5	19.0	14.0	19.0	16.0
18	12.5	3.0	1.5	2.0	1.5	5.5	11.0	15.0	19.0	19.0	18.0	16.0
19	13.0	3.0	1.0	1.0	2.0	6.0	9.0	12.0	19.0	18.0	17.0	12.0
20	12.5	1.0	1.5	2.0	2.0	6.0	7.5	8.0	19.0	19.0	17.0	8.0
21	14.0	2.0	1.0	2.0	2.5	5.5	9.0	9.0	19.0	17.0	18.0	15.0
22	13.0	1.0	1.0	1.5	4.0	7.0	13.0	11.0	19.5	23.0	20.0	16.0
23	12.0	1.0	1.5	1.5	2.5	3.0	12.5	13.0	20.0	19.0	19.0	17.5
24	11.5	1.0	1.5	2.0	4.0	2.5	14.0	15.0	23.0	20.5	18.5	18.0
25	7.5	2.5	1.5	2.0	3.5	5.0	14.5	15.5	24.0	23.0	18.0	15.5
26	6.5	2.0	1.5	2.0	3.0	4.0	12.5	14.0	22.0	21.0	18.5	14.0
27	9.5	2.5	1.0	2.0	3.0	8.5	12.0	15.0	24.0	22.0	19.5	14.0
28	7.0	2.0	1.0	2.5	2.5	8.0	12.0	15.0	20.0	14.0	18.0	8.0
29	10.0	1.5	0.5	2.0	---	7.5	12.5	15.5	20.0	20.0	19.0	13.5
30	5.0	1.0	1.0	2.0	---	10.0	12.0	15.0	18.0	21.0	15.0	11.0
31	2.0	---	2.0	2.5	---	7.0	---	15.0	---	22.5	15.0	---
MONTH	10.5	3.5	2.0	2.0	3.0	4.5	10.0	13.5	18.5	19.5	17.5	15.5
YEAR	MAX	24.0	MIN	0.0	MEAN	10.0						

GREEN RIVER BASIN

203

09234500 GREEN RIVER NEAR GREENDALE, UTAH
(Irrigation network station)

LOCATION.--Lat 40°54'30", long 109°25'20", in NW¼SE¼ sec.15, T.2 N., R.22 E., Daggett County, Ashley National Forest, at gaging station, 0.5 mi (0.8 km) downstream from Flaming Gorge Dam, 2 mi (3 km) south of Dutch John, 4 mi (6 km) northeast of Greendale, and 407.0 mi (654.9 km) from mouth.

DRAINAGE AREA.--15,100 mi² (39,100 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1974.

Water temperatures: October 1956 to September 1959, October 1963 to September 1974.

Sediment records: October 1956 to September 1959.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 895 micromhos Apr. 10; minimum daily, 670 micromhos Dec. 4, 5, 14.

Water temperatures: Maximum, 8.5°C on many days during November and December; minimum, 4.5°C on many days during February to May.

Period of record (See REMARKS below):

Specific conductance (1956-58, 1959-62): Maximum daily, 1,340 micromhos Aug. 30, 1961; minimum daily, 325 micromhos June 2, 1961.

Specific conductance (1964-74): Maximum observed, 1,060 micromhos Nov. 9, 1971; minimum daily, 606 micromhos Nov. 14, 22, 1963, Feb. 10-19, 1964.

Water temperatures (1956-59): Maximum, 24.0°C July 24, 25, 1959; minimum, freezing point on many days during winter period each year.

Water temperatures (1964-74): Maximum, 14.0°C Nov. 11, 1963; minimum, 2.0°C on several days in 1964.

REMARKS.--Storage in Flaming Gorge Reservoir began on Nov. 1, 1962. Extremes are given above for two separate periods--1956-62, and 1964-74. Extremes for the 1963 water year (October 1962 to September 1963) are not included.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPERATURE (DEG C)	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE- SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 02...	1400	7.0	2440	6.4	68	25	52	2.7	190	0	200	15
NOV. 13...	1430	7.0	2020	6.3	69	25	56	3.1	187	0	200	15
DEC. 05...	1515	7.0	4090	5.4	64	24	52	8.5	175	0	200	19
JAN. 22...	1500	4.5	877	5.2	66	25	55	2.8	177	0	210	18
FEB. 28...	1000	3.5	816	5.4	70	26	56	3.3	184	0	230	18
MAR. 13...	1430	4.0	782	5.7	71	27	61	3.0	182	0	250	20
APR. 23...	0920	--	862	5.4	70	27	62	2.8	187	0	240	20
MAY 15...	1430	5.0	2530	5.2	72	27	59	2.8	184	--	230	19
JUNE 06...	1245	5.0	3380	5.2	68	26	56	2.6	180	0	210	17
JULY 09...	1230	6.0	795	4.8	69	25	54	3.0	181	--	210	17
AUG. 14...	1100	5.5	1290	4.7	66	26	59	3.0	182	--	210	18
SEP. 11...	0900	7.5	3870	4.6	65	26	58	2.6	183	--	210	18

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO PHOS- PHATE (PO4) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 02...	.1	1.1	.00	80	468	.64	3090	270	120	1.4	721	8.0
NOV. 13...	.2	1.1	.09	80	472	.64	2570	280	120	1.5	749	7.8
DEC. 05...	.2	1.9	.03	100	468	.64	5170	260	120	1.4	682	7.9
JAN. 22...	.3	.75	.00	110	473	.64	1120	270	120	1.5	721	8.3
FEB. 28...	.3	.91	.18	130	504	.69	1110	280	130	1.5	779	8.2
MAR. 13...	.4	.91	.03	110	532	.72	1120	290	140	1.6	795	8.1
APR. 23...	.4	1.1	.06	100	525	.71	1220	290	130	1.6	822	8.2
MAY 15...	.2	1.0	.03	110	510	.69	3480	290	140	1.5	790	7.2
JUNE 06...	1.3	.87	.03	100	479	.65	4370	280	130	1.5	767	8.2
JULY 09...	.2	.83	.03	100	476	.65	1020	280	130	1.4	750	7.6
AUG. 14...	.3	.91	.00	110	481	.65	1680	270	120	1.6	750	7.4
SEP. 11...	.3	1.0	.03	100	479	.65	5010	270	120	1.5	700	7.8

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UTAH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	752	750	760	710	750	790	775	815	778	775	779	788
2	753	754	770	720	752	795	809	811	791	769	790	788
3	754	753	730	720	750	790	771	818	778	780	781	791
4	755	765	670	720	761	805	760	822	770	774	786	789
5	754	757	670	730	761	792	798	820	772	774	790	785
6	755	758	690	700	749	795	830	828	770	772	786	789
7	753	759	710	710	753	808	778	828	774	780	789	789
8	754	778	730	730	754	808	788	828	780	775	791	787
9	753	758	700	720	750	794	830	828	780	772	790	791
10	755	757	720	720	754	800	895	828	772	770	790	792
11	753	765	720	720	768	820	837	820	770	773	790	789
12	753	760	720	720	760	818	790	811	772	778	789	789
13	750	753	710	720	760	818	815	820	773	779	789	789
14	761	749	670	720	769	813	819	801	772	778	790	789
15	772	748	680	730	777	812	840	810	772	770	795	792
16	773	766	700	740	778	820	855	805	770	772	795	791
17	768	768	710	730	778	818	840	815	771	780	799	791
18	762	770	710	740	778	820	840	809	769	779	798	799
19	759	750	730	740	772	811	848	818	769	779	795	798
20	751	768	720	740	761	811	839	819	770	779	800	809
21	762	758	740	740	752	816	835	806	770	788	800	808
22	763	759	750	730	761	812	815	792	779	781	800	805
23	765	761	750	730	767	792	838	800	769	779	803	792
24	764	758	700	740	767	810	850	796	769	780	803	801
25	762	757	730	750	750	820	838	790	769	780	803	799
26	763	767	700	750	762	818	838	790	769	780	800	799
27	771	768	700	720	768	822	829	798	772	781	795	798
28	764	768	730	760	770	822	822	790	770	781	782	791
29	770	766	700	730	---	799	820	799	778	780	790	781
30	770	766	700	750	---	800	831	790	770	780	791	778
31	764	---	700	750	---	820	---	788	---	779	791	---
MONTH	761	761	713	730	767	809	822	809	773	777	793	793
YEAR	MAX	895	MIN	670	MEAN	776						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	7.5	8.5	6.0	5.0	4.5	4.5	4.5	5.0	5.0	6.5	7.5
2	7.3	6.5	8.5	6.0	5.0	4.5	4.5	4.5	5.0	5.0	6.5	7.5
3	7.0	6.0	8.5	6.0	4.5	4.5	4.5	4.5	5.0	5.0	6.5	7.5
4	7.0	6.0	8.5	6.0	4.5	4.5	4.5	4.5	5.0	5.0	6.5	7.5
5	7.0	6.0	8.5	6.0	5.0	4.5	5.0	4.5	5.0	5.5	6.5	7.5
6	7.3	6.0	8.0	6.0	5.0	4.5	5.0	4.5	5.0	5.5	6.5	7.5
7	7.3	6.0	8.0	6.5	4.5	4.5	5.0	4.5	5.0	5.5	6.5	7.5
8	7.0	6.0	8.0	6.5	4.5	4.5	5.0	4.5	5.0	5.5	6.5	7.5
9	7.0	6.0	8.0	6.5	5.0	4.5	5.0	4.5	5.0	5.5	6.5	7.5
10	7.0	6.0	8.0	6.5	5.0	4.5	5.0	4.5	5.0	5.5	6.5	7.5
11	7.0	6.0	8.0	6.5	5.0	4.5	5.0	4.5	5.0	6.0	6.5	7.5
12	7.0	6.0	8.0	6.5	5.0	4.5	5.0	4.5	5.0	6.0	6.5	8.0
13	7.5	6.0	8.0	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	8.0
14	7.5	6.0	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	8.0
15	7.5	6.0	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	8.0
16	7.5	6.0	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	8.0
17	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	8.0
18	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	7.5
19	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	7.5
20	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	7.5
21	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.5	6.5	7.5
22	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.5	7.0	7.5
23	7.5	6.5	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.5	7.0	8.0
24	7.5	6.5	7.5	6.5	4.5	4.5	4.5	5.0	5.5	6.5	7.0	8.0
25	7.5	6.5	7.0	6.5	4.5	4.5	4.5	5.0	5.5	6.5	7.0	8.0
26	7.5	6.5	7.0	6.5	4.5	4.5	4.5	5.0	5.5	6.5	7.0	8.0
27	7.5	6.5	7.0	6.5	4.5	4.5	4.5	5.0	5.5	6.5	7.0	8.0
28	7.5	6.5	7.0	6.5	4.5	4.5	4.5	5.0	5.0	6.5	7.0	8.0
29	7.5	6.5	7.0	6.0	---	4.5	4.5	5.0	5.0	6.5	7.0	8.0
30	7.5	6.5	7.0	6.0	---	4.5	4.5	5.0	5.0	6.5	7.0	8.0
31	7.5	---	6.0	6.0	---	4.5	---	5.0	---	6.5	7.5	---
MONTH	7.5	6.0	7.5	6.5	4.5	4.5	4.5	4.5	5.0	6.0	6.5	7.5
YEAR	MAX	6.5	MIN	4.5	MEAN	6.0						

GREEN RIVER BASIN

205

09257000 LITTLE SNAKE RIVER NEAR DIXON, WYO.

LOCATION.--Lat 41°01'42", long 107°32'55", in SE¼NW¼ sec.8, T.12 N., R.90 W., Carbon County, at gaging station, 200 ft (61 m) upstream from highway bridge, 1,000 ft (305 m) upstream from Willow Creek, and 0.8 mi (1.3 km) west of Dixon.

DRAINAGE AREA.--988 mi² (2,559 km²).

PERIOD OF RECORD.--Sediment records: October 1971 to September 1974.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PEN- DED SEDIM- ENT (MG/L)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY)
OCT. 02...	1530	--	22	12	.71
MAR. 20...	1415	2.5	269	68	49
MAY 13...	1045	--	4970	516	6920
JUNE 28...	1615	17.0	A918	44	109
JULY 17...	1015	19.0	132	22	7.8
29...	1445	--	A64	43	7.4
AUG. 22...	1445	21.0	1.1	8	.02

A Daily mean discharge.

09259700 LITTLE SNAKE RIVER NEAR BAGGS, WYO.

LOCATION.--Lat 41°00'17", long 107°54'59", in SW¼ sec.18, T.12 N., R.94 W., Carbon County, at former gaging station, 600 ft (183 m) upstream from Wyoming-Colorado State line, 0.5 mi (0.8 km) upstream from Scandinavian Wash, and 15 mi (24 km) west of Baggs.

DRAINAGE AREA.--3,020 mi² (7,820 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971 (monthly), October 1971 to September 1974 (quarterly).

REMARKS.--Water discharge obtained from rating table for outside gage at sampling site defined by discharge measurements made at Little Snake River near Dixon, 9.2 mi (14.8 km) upstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
MAR. 20...	1500	269	15	55	9.7	38	2.8	176	0	110	7.6	.6
MAY 21...	0915	3070	13	20	.3	4.8	.7	61	0	7.4	1.8	.2
JULY 17...	1100	113	14	31	13	19	2.6	156	0	39	3.7	.2
AUG. 22...	1600	1.1	6.7	53	26	60	2.6	310	0	100	13	.5

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAR. 20...	.20	.06	325	236	.44	180	36	1.2	499	8.2	2.0
MAY 21...	.18	.00	79	655	.11	50	0	.3	129	7.8	5.5
JULY 17...	.02	.01	199	60.7	.27	130	2	.7	324	7.8	20.0
AUG. 22...	.05	.00	416	1.24	.57	240	0	1.7	682	8.2	21.0

PART 10. THE GREAT BASIN

GREAT SALT LAKE BASIN

BEAR RIVER BASIN

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UTAH

LOCATION.--Lat 41°26'04", long 111°01'01", in NW¼NW¼ sec.29, T.17 N., R.120 W., Uinta County, Wyoming, at gaging station, 9.3 mi (15.0 km) upstream from Woodruff Narrows Dam, and 10 mi (16 km) southeast of Woodruff.

DRAINAGE AREA.--752 mi² (1,748 km²), revised.

PERIOD OF RECORD.--Chemical analyses: October 1968 to May 1974.

CHEMICAL ANALYSES, OCTOBER 1973 TO MAY 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 03...	0945	120	4.2	42	16	9.6	1.6	208	0	13	9.5	.2
NOV. 09...	1020	239	9.1	50	25	15	2.6	254	0	42	13	.2
DEC. 12...	1430	142	8.6	56	25	15	1.9	273	3	25	16	.2
MAR. 06...	1230	123	11	66	23	18	2.6	303	0	26	18	.2
APR. 03...	1630	268	11	66	26	18	2.6	300	6	24	23	.2
26...	1500	1560	9.2	47	21	9.1	3.5	232	0	17	13	.2
MAY 08...	1130	1530	7.9	60	2.6	7.0	1.6	183	0	16	7.6	.1
31...	1300	1950	5.6	27	8.6	4.3	1.2	122	0	8.2	3.6	.2

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 03...	.05	--	198	64.2	.27	170	0	.3	375	8.2	9.0
NOV. 09...	.02	.04	282	182	.38	230	22	.4	478	8.1	4.5
DEC. 12...	.05	.04	285	109	.39	240	11	.4	500	8.4	.0
MAR. 06...	.20	.06	315	105	.43	260	11	.5	550	8.0	.5
APR. 03...	.11	.01	324	234	.44	270	14	.5	574	8.4	5.5
26...	.02	.01	234	986	.32	200	14	.3	422	8.2	--
MAY 08...	.20	.01	194	801	.26	160	10	.2	326	8.3	10.0
31...	.07	.01	119	627	.16	100	0	.2	209	8.1	11.0

BEAR RIVER BASIN

207

10039500 BEAR RIVER AT BORDER, WYO.

LOCATION.--Lat 42°12'40", long 111°03'11", in NE&NE& sec.15, T.14 S., R.46 E., Bear Lake County, Idaho, at gaging station, 0.2 mi (0.3 km) west of Wyoming-Idaho State line, 0.5 mi (0.8 km) west of Border, and 2.1 mi (3.4 km) upstream from Thomas Fork.

DRAINAGE AREA.--2,486 mi² (6,439 km²), revised.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1974.

Water temperatures: October 1965 to September 1974.

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 833 micromhos Apr. 1; minimum daily, 438 micromhos June 1.

Water temperatures: Maximum, 23.0°C July 24, 25; minimum, freezing point on several days during November to March.

Period of record:

Specific conductance: Maximum daily, 883 micromhos July 21, 1966; minimum daily, 312 micromhos Apr. 3, 1969.

Water temperatures: Maximum, 23.0°C Aug. 7, 1970, Aug. 9, 1972, July 7, 1973, July 24, 25, 1974; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.											
02...	1200	270	6.5	68	19	24	2.3	259	0	59	23
NOV.											
06...	1450	259	7.4	56	28	25	1.9	256	0	63	20
DEC.											
05...	1415	A330	6.2	63	23	23	2.1	260	0	56	18
JAN.											
08...	1800	A300	8.5	64	22	21	2.3	269	0	47	24
FEB.											
05...	1800	A330	8.7	69	18	20	1.9	261	0	47	21
MAR.											
05...	1615	A360	8.3	62	21	20	2.1	259	0	44	22
APR.											
02...	1630	666	9.1	64	31	43	3.3	284	0	91	40
30...	1645	1540	6.4	71	16	18	2.6	270	0	40	17
MAY											
29...	1720	1580	9.9	60	15	16	2.3	241	0	30	16
JULY											
09...	1845	609	8.6	67	24	28	2.8	302	0	45	25
AUG.											
06...	1815	296	7.7	62	31	26	2.1	293	0	57	26
SEP.											
04...	1735	141	6.5	58	26	21	1.4	250	0	66	20

A Daily mean discharge.

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHURUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.											
02...	.2	.09	--	329	24.6	.46	250	38	.7	578	8.1
NOV.											
06...	.2	.05	.07	355	248	.48	260	50	.7	586	8.1
DEC.											
05...	.2	.09	.01	320	285	.44	250	37	.6	570	8.2
JAN.											
08...	.2	.11	.02	322	261	.44	250	29	.6	556	8.2
FEB.											
05...	.2	.11	.01	314	280	.43	250	36	.6	528	8.2
MAR.											
05...	.2	.20	.02	308	299	.42	240	28	.6	540	8.0
APR.											
02...	.5	.16	.26	422	759	.57	290	57	1.1	692	8.0
30...	.2	.14	.01	304	1260	.41	240	19	.5	520	8.1
MAY											
29...	.3	.09	.00	268	1140	.36	210	12	.5	457	8.2
JULY											
09...	.3	.07	.00	349	574	.47	270	22	.7	601	8.2
AUG.											
06...	.3	.07	.00	356	285	.48	280	40	.7	614	8.3
SEP.											
04...	.2	.02	.00	320	122	.44	250	45	.6	556	8.3

BEAR RIVER BASIN

10039500 BEAR RIVER AT BORDER, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 02...	1200	270	15	9.9	--	12.0
NOV. 06...	1450	259	10	10.8	25	1.0
DEC. 05...	1415	A330	5	11.6	83	.0
JAN. 08...	1800	A300	4	9.3	160	.0
FEB. 04...	1620	145	4	9.1	816	.0
05...	1800	A330	10	8.9	82	.0
MAR. 05...	1615	A360	8	9.5	82	.0
APR. 02...	1630	666	140	9.3	200	4.5
30...	1645	1540	100	9.0	54	9.5
MAY 29...	1720	1580	65	8.7	120	14.5
JULY 09...	1845	609	20	8.0	210	20.5
AUG. 06...	1815	296	15	8.5	120	20.0
SEP. 04...	1735	141	4	9.0	20	17.0

A Daily mean discharge.

B Non-ideal counting conditions.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	559	550	540	510	568	833	540	438	605	622	576
2	563	557	560	563	532	571	749	531	456	604	637	575
3	563	555	547	575	548	565	735	515	452	600	634	573
4	562	558	548	587	562	568	727	498	488	564	620	498
5	557	564	570	582	561	592	721	489	491	592	642	559
6	562	564	544	574	563	569	701	498	491	589	623	567
7	561	566	565	555	574	551	726	499	483	595	619	566
8	563	548	605	558	582	530	727	488	499	594	617	545
9	564	566	607	552	590	521	730	485	537	615	612	546
10	556	569	598	550	568	518	679	479	537	612	631	529
11	562	566	572	542	557	507	728	505	556	607	594	543
12	565	566	562	531	588	523	726	503	521	599	603	552
13	565	565	542	531	584	555	725	530	570	582	603	561
14	562	562	545	533	587	568	713	530	571	598	607	554
15	555	585	526	535	587	557	757	558	508	621	587	564
16	559	574	563	533	573	573	755	555	529	622	602	556
17	566	574	563	532	560	592	747	543	511	624	602	541
18	553	585	549	531	576	588	730	518	502	596	590	601
19	562	542	551	529	564	681	634	510	490	622	583	607
20	565	542	557	528	574	690	649	509	488	621	582	607
21	565	542	535	527	576	724	635	505	451	632	595	593
22	565	538	527	525	581	729	591	511	500	636	582	602
23	562	534	529	524	576	762	623	510	505	635	582	609
24	569	497	518	523	579	772	526	513	502	560	581	608
25	570	567	519	521	592	790	510	521	514	637	582	614
26	541	546	512	531	587	750	528	500	511	632	580	611
27	563	563	548	550	594	793	548	520	519	622	572	601
28	571	564	529	533	578	803	542	499	521	652	576	583
29	571	561	517	543	---	811	542	457	522	652	570	590
30	568	566	542	524	---	819	538	455	525	654	569	597
31	555	---	550	543	---	804	---	441	---	564	576	---
MONTH	562	558	551	542	572	643	670	507	506	617	599	574
YEAR	MAX	833	MIN	438	MEAN	575						

BEAR RIVER BASIN

209

10039500 BEAR RIVER AT BORDER, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	8.0	0.0	0.0	0.0	0.0	6.0	10.0	15.0	17.0	20.0	18.5
2	14.5	8.0	0.0	0.0	0.0	0.0	6.5	10.5	15.5	17.0	20.0	17.0
3	11.0	3.0	1.0	0.0	0.0	0.0	6.0	10.5	16.0	17.0	20.5	17.0
4	11.0	4.0	0.0	0.0	1.0	0.0	7.0	10.5	14.5	20.0	20.5	17.0
5	11.5	4.0	1.0	0.0	1.0	1.0	7.5	11.5	14.0	20.0	20.0	17.0
6	12.0	5.0	1.0	0.0	0.0	1.0	8.5	14.0	14.0	20.0	20.0	13.0
7	10.0	5.5	1.0	1.5	0.0	0.5	8.5	14.0	12.5	19.0	19.0	13.0
8	11.0	6.5	0.5	0.0	0.0	0.5	9.0	13.5	12.0	19.0	20.0	18.0
9	9.5	6.5	0.0	0.0	0.0	0.5	9.0	10.0	16.5	20.0	16.5	18.0
10	9.5	6.0	0.0	0.0	0.0	1.0	7.0	9.5	17.0	20.5	15.0	14.0
11	9.5	6.0	1.0	0.0	0.0	1.0	7.0	11.5	17.5	19.0	19.5	14.0
12	9.5	4.0	1.0	0.0	0.0	0.5	7.5	11.5	17.5	21.0	19.5	9.0
13	9.5	4.0	0.0	2.0	0.0	0.0	8.0	10.0	19.0	21.0	19.5	15.0
14	11.0	4.0	0.0	1.0	0.0	0.5	8.0	10.0	19.0	20.0	19.0	14.5
15	10.5	3.0	0.5	0.5	0.0	0.5	9.0	11.5	18.0	22.0	19.5	14.5
16	12.0	3.5	0.5	0.0	0.0	1.0	9.0	12.0	18.5	22.0	19.0	15.0
17	11.5	4.0	1.0	0.0	0.0	0.5	10.0	12.5	16.5	22.0	17.5	16.0
18	12.0	5.0	0.0	0.0	0.0	1.0	10.5	12.5	20.0	22.0	17.0	16.0
19	11.5	3.0	1.0	0.0	0.5	4.5	10.5	8.0	18.0	22.0	17.0	16.0
20	10.5	3.0	0.0	0.0	0.0	4.5	10.0	8.0	18.0	21.5	17.0	11.5
21	11.0	1.0	0.0	0.0	1.0	4.5	10.0	9.0	18.5	21.5	17.0	16.0
22	11.0	0.0	0.0	0.0	1.0	3.5	10.0	12.0	18.0	22.5	18.0	16.0
23	11.5	0.0	0.0	0.0	1.0	4.0	10.0	12.5	21.0	21.0	18.0	15.0
24	11.5	0.0	0.0	0.0	0.5	4.0	10.0	14.5	17.0	23.0	18.0	14.5
25	11.5	0.0	0.0	0.5	2.0	6.5	10.0	15.5	17.0	23.0	18.5	14.5
26	11.5	0.0	0.0	0.5	2.0	7.0	10.5	15.0	17.0	22.0	18.5	14.5
27	9.0	0.0	0.5	0.5	2.0	7.0	8.0	14.5	16.5	21.5	19.0	14.0
28	11.0	0.0	0.0	0.0	2.5	6.0	8.5	14.5	16.5	18.0	18.0	14.0
29	8.0	0.0	0.0	0.0	---	6.0	8.5	14.0	17.0	18.5	19.0	14.0
30	8.5	0.0	0.0	1.0	---	7.5	10.0	14.0	16.5	21.5	19.0	12.5
31	8.0	---	0.0	1.0	---	5.5	---	14.0	---	18.5	19.0	---
MONTH	11.0	3.0	0.5	0.5	0.5	2.5	8.5	12.0	17.0	20.5	18.5	15.0
YEAR	MAX	23.0	MIN	0.0	MEAN	9.0						

PART 13. SNAKE RIVER BASIN

FLAT CREEK BASIN

13018300 CACHE CREEK NEAR JACKSON, WYO.
(Hydrologic bench-mark station)

LOCATION.--Lat 43°27'08", long 110°42'12", in SW¼SW¼SE¼ sec.1, T.40 N., R.116 W., Teton County, Teton National Forest, at gaging station, 0.7 mi (1.1 km) upstream from Salt Lick Draw, 2.4 mi (3.9 km) southeast of Jackson, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--10 mi² (26 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1974.

Sediment records: June 1968 to September 1974.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (Mg) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	HICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
01...	1530	5.4	5.0	46	14	2.2	.6	205	1	6.2	1.1
NOV.											
05...	1540	A5.3	5.7	47	16	3.0	.7	220	0	12	1.5
26...	1500	A5.1	5.5	53	16	2.8	.6	224	0	12	1.0
JAN.											
07...	1530	A4.4	5.6	47	15	3.7	.6	218	0	9.5	1.3
FEB.											
04...	1530	4.3	5.3	47	15	2.6	.7	214	0	6.2	.4
MAR.											
04...	1500	A3.7	5.3	47	15	2.3	.6	217	0	5.6	.4
APR.											
01...	1400	3.7	.1	47	15	2.8	.6	219	0	6.5	1.0
29...	1515	13	5.9	56	15	4.4	.8	236	0	8.1	1.4
MAY											
28...	1615	72	4.7	47	11	2.7	.7	206	0	5.9	1.3
JULY											
08...	1730	39	4.1	42	13	1.2	.5	193	1	4.8	.8
AUG.											
05...	1700	20	4.5	45	14	1.6	.6	202	0	3.5	.5
SEP.											
03...	1800	11	4.7	44	14	1.7	.5	199	3	4.4	.9

A Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT.										
01...	.1	177	2.58	.24	170	3	.1	--	--	--
NOV.										
05...	.0	194	2.78	.26	180	3	.1	.01	.03	.00
26...	.1	201	2.77	.27	200	14	.1	.00	.06	.01
JAN.										
07...	.2	190	2.26	.26	180	0	.1	.00	.11	.02
FEB.										
04...	.1	183	2.12	.25	180	4	.1	.00	.12	.04
MAR.										
04...	.0	183	1.83	.25	180	1	.1	.00	.09	.03
APR.										
01...	.1	181	1.81	.25	180	0	.1	.00	.06	.00
29...	.5	208	7.30	.28	200	8	.1	.01	.06	.05
MAY										
28...	.1	175	34.0	.24	160	0	.1	.00	.08	--
JULY										
08...	.1	163	17.2	.22	160	0	.0	--	--	--
AUG.										
05...	.1	169	9.13	.23	170	4	.1	--	--	.02
SEP.										
03...	.1	171	5.08	.23	170	0	.1	.00	.01	.01

DATE	TIME	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	MALA- THION (UG/L)	PARA- THION (UG/L)	DI- AZINON (UG/L)	METHYL PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 05...	1540	.0	0	.00	.00	.00	.00	.00	.00	.00

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)
NOV. 05...	1540	.00	.0	.00	.0	.0	0	.00	.0	.00	.0

DATE	TIME	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE IN ROT- TOM DE- POSITS (UG/KG)
NOV. 05...		.00	.0	.00	.0	.00	.0	.00	.0	.00

FLAT CREEK BASIN

211

13018300 CACHE CREEK NEAR JACKSON, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TOTAL FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MANG- NESE (MN) (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED PA-226 (RADON METHOD) (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L)
NOV. 05...	1540	180	60	0	1.3	<.4	.06	.46	2.5	<.4	1.0	<.4
SEP. 03...	1800	180	--	--	3.0	<.4	.04	.32	2.4	ND	2.4	<.4

FIELD DETERMINATIONS

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 01...	1530	6.0	350	10.4	8.4	37	--	--
NOV. 05...	1540	.0	378	11.3	8.4	83	85	--
26...	1500	.0	395	10.8	8.4	87	815	85
JAN. 07...	1530	.5	380	10.4	8.2	82	82	83
FEB. 04...	1530	.0	330	9.8	8.2	57	819	81
MAR. 04...	1500	.0	400	9.8	8.3	83	76	82
APR. 01...	1400	1.0	450	11.0	8.3	819	819	84
29...	1515	4.0	405	9.1	8.3	814	84	84
MAY 28...	1615	6.0	350	5.0	8.3	814	24	25
JULY 08...	1730	10.0	312	8.6	8.3	20	86	59
AUG. 05...	1700	10.0	320	8.4	8.2	150	84	180
SEP. 03...	1800	8.0	300	9.2	8.2	58	44	130

B Non-ideal counting conditions.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CF5)	SUS- PENDED SEDIM- ENT (MG/L)	SJS- PENDED SEDIM- ENT CHARGE (T/DAY)	SJS. SED. FALL DIAM. % FINE THAN .004 MM	SJS. SED. FALL DIAM. % FINE THAN .015 MM	SJS. SED. FALL DIAM. % FINE THAN .062 MM	SJS. SED. FALL DIAM. % FINE THAN .125 MM	SJS. SED. FALL DIAM. % FINE THAN .250 MM	SJS. SED. FALL DIAM. % FINE THAN .500 MM
OCT. 01...	1530	6.0	5.4	18	.26	--	--	--	--	--	--
NOV. 05...	1540	.0	5.3	26	.37	--	--	--	--	--	--
26...	1500	.0	A5.1	8	.11	--	--	--	--	--	--
JAN. 07...	1530	.5	A4.4	2	.02	--	--	--	--	--	--
FEB. 04...	1350	.0	4.3	5	.06	--	--	--	--	--	--
MAR. 04...	1500	.0	A3.7	9	.09	--	--	--	--	--	--
APR. 01...	1400	1.0	3.7	21	.21	--	--	--	--	--	--
29...	1515	4.0	13	33	1.2	--	--	--	--	--	--
MAY 28...	1615	6.0	72	377	73	23	45	77	91	99	100
JULY 08...	1730	10.0	39	18	1.9	--	--	--	--	--	--
AUG. 05...	1700	10.0	20	10	.54	--	--	--	--	--	--
SEP. 03...	1800	8.0	11	4	.12	--	--	--	--	--	--

A Daily mean discharge.

SNAKE RIVER MAIN STEM

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WYO.
(National stream-quality accounting network station)

LOCATION.--Lat 43°11'47", long 110°53'18", Lincoln County, sampling at bridge at Astoria Springs, Teton County, 3.0 mi (4.8 km) downstream from Hoback River, 13 mi (21 km) upstream from gaging station, and 15 mi (24 km) northeast of Alpine.

DRAINAGE AREA.--3,465 mi² (8,974 km²), at gaging station.

PERIOD OF RECORD.--Chemical analyses: April and August 1965 (monthly), October 1965 to September 1966 (daily), October 1966 to December 1973 (monthly), January to September 1974 (daily).
Water temperatures: October 1965 to September 1966, January to September 1974.
Sediment records: January to September 1974.

EXTREMES.--January to September 1974:

Specific conductance: Maximum daily, 378 micromhos Jan. 2; minimum daily, 188 micromhos June 21, 26.
Water temperatures: Maximum, 16.5°C Aug. 2, 29, 30, Sept. 8; minimum, freezing point Jan. 3, 6, 9, 10, 14.

Period of record:

Specific conductance: Maximum daily, 411 micromhos Apr. 19, 1966; minimum daily, 188 micromhos June 21, 26, 1974.
Water temperatures: Maximum, 16.5°C Aug. 2, 29, 30, Sept. 8, 1974; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.									
02...	0800	2430	11	47	9.5	7.5	2.1	136	0
NOV.									
06...	0900	1940	15	49	9.5	11	2.6	149	0
27...	0845	1840	14	47	12	9.6	2.1	148	0
JAN.									
08...	1015	11830	14	48	11	11	2.3	143	0
FEB.									
05...	0945	11600	14	48	10	11	2.3	150	0
MAR.									
05...	0905	1720	14	47	10	8.6	1.9	148	0
APR.									
02...	0845	2830	10	36	9.8	8.6	2.1	130	0
30...	0850	10400	13	33	7.9	9.6	1.9	125	0
MAY									
29...	1000	22400	9.0	34	4.9	5.4	1.4	104	0
JULY									
09...	1135	13300	11	33	1.8	5.4	1.4	98	0
AUG.									
06...	1045	6570	12	29	7.4	5.9	1.4	107	0
SEP.									
04...	1050	5850	13	25	9.3	7.0	1.6	100	0

A Daily mean discharge.

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.									
02...	55	3.4	.5	203	1310	.28	160	48	.3
NOV.									
06...	53	7.0	.5	221	1160	.30	160	38	.4
27...	53	5.5	.5	217	1080	.30	170	49	.3
JAN.									
08...	60	8.4	.5	226	1120	.31	170	53	.4
FEB.									
05...	55	7.3	.4	222	959	.30	160	37	.4
MAR.									
05...	49	5.7	.4	210	975	.29	160	39	.3
APR.									
02...	37	5.0	.4	173	1320	.24	130	23	.3
30...	25	5.7	.6	158	4440	.21	120	17	.4
MAY									
29...	18	9.0	.4	134	8100	.18	100	15	.2
JULY									
09...	19	1.8	.3	122	4380	.17	90	10	.2
AUG.									
06...	25	1.8	.4	135	2390	.18	100	12	.3
SEP.									
04...	26	3.7	.5	135	2130	.18	100	18	.3

CHEMICAL ANALYSES. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN IN FILT. FRAC. (UG/L)	DI- ELDRIN IN SUSP. FRAC. (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN FILT. FRAC. (UG/L)	ENDRIN IN SUSP. FRAC. (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN FILT. FRAC. (UG/L)
NOV. 27...	0845	--	.00	.00	.00	.00	.00	.00	--	.00	.00
FEB. 05...	0945	.0	.00	.00	.00	.00	.00	.00	.0	.00	.00
APR. 02...	0845	--	.00	.00	.00	.00	.00	.00	--	.00	.00

DATE	TIME	DIS- SOLVED ARSENIC (AS) (UG/L)	SUS- PENDE D ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	SUS- PENDE D CAD- MIUM (CD) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	SUS- PENDE D CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CORALT (CO) (UG/L)	SUS- PENDE D CORALT (CO) (UG/L)
JAN. 08...	1015	3	0	3	1	9	<10	0	0	0	2	48
APR. 02...	0845	3	1	4	0	<10	<10	0	0	0	0	100
JULY 09...	1135	5	0	5	1	<9	<10	0	0	0	0	<50

DATE	TOTAL COALHT (CO) (UG/L)	DIS- SOLVED CUPPER (CU) (UG/L)	SUS- PENDFD COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PH) (UG/L)	SUS- PENDFD LEAD (PR) (UG/L)	TOTAL LEAD (PR) (UG/L)	SUS- PENDFD MAN- GANESE (MN) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
JAN. 08...	<50	4	6	<10	50	10	14	86	<100	0	0
APR. 02...	100	4	<6	<10	210	10	7	<93	<100	10	10
JULY 09...	<50	1	<9	<10	60	80	3	<97	<100	0	20

DATE	TIME	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	SUS- PENDE D ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	SUS- PENDE D SELE- NIUM (SE) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	SUS- PENDE D MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)
JAN. 08...	1015	0	10	10	20	0	0	0	.0	.0	.0
APR. 02...	0845	0	30	20	50	2	0	1	.0	.0	.0
JULY 09...	1135	20	0	10	10	0	0	0	.0	.0	.0

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIFS PFR 100 ML)
OCT. 02...	0800	2430	8.5	.5	342	9.3	8.1	--	--	--
NOV. 06...	0900	1940	2.0	1	365	--	8.1	--	110	--
NOV. 27...	0845	1840	.0	1	365	11.2	8.1	--	35	--
JAN. 08...	1015	A1830	.5	.7	410	10.4	8.4	--	88	22
FEB. 05...	0945	A1600	.0	1	405	11.3	8.4	B18	20	89
FEB. 26...	1645	1720	.5	--	337	--	--	--	--	--
MAR. 05...	0905	1720	.0	1	372	10.2	8.7	22	B16	88
APR. 02...	0845	2830	2.0	2	320	9.8	8.6	--	20	B12
APR. 02...	1620	2850	1.5	--	223	--	--	--	--	--
APR. 30...	0850	10400	3.0	20	252	10.3	9.0	--	22	B16
MAY 29...	1000	22400	6.5	40	227	9.4	8.8	--	190	190
JULY 09...	1135	13300	12.0	7	197	8.4	8.7	--	38	37
AUG. 06...	1045	6570	13.5	4	247	8.5	8.5	--	29	49
SEP. 04...	1050	5850	12.0	2	235	8.8	8.1	--	23	22

A Daily mean discharge.

B Non-ideal counting conditions.

SNAKE RIVER MAIN STEM

215

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SED- IMENT DIS- CHARGE (MG/L)	SUS- PENDE SED- IMENT DIS- CHARGE (T/DAY)
JAN.					
08...	1015	.5	A1830	4	20
FEB.					
05...	0945	.0	A1600	2	8.6
MAR.					
05...	0905	.0	1720	4	19
APR.					
02...	0845	2.0	2830	12	92
30...	0850	3.0	10400	100	2810
MAY					
29...	1000	6.5	22400	973	58800
JULY					
09...	1135	12.0	13300	131	4700
AUG.					
06...	1045	13.5	6570	12	213
SEP.					
04...	1050	12.0	5850	7	111

A Daily mean discharge.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	352	353	368	321	272	237	196	258	229
2	---	---	---	378	354	361	311	275	230	198	233	222
3	---	---	---	359	339	354	304	284	223	203	236	227
4	---	---	---	374	347	371	297	285	221	201	242	228
5	---	---	---	362	345	369	292	285	221	201	238	229
6	---	---	---	355	362	362	288	271	223	195	243	226
7	---	---	---	348	361	345	280	259	224	200	240	227
8	---	---	---	345	362	369	278	251	232	190	237	229
9	---	---	---	357	363	367	275	257	229	239	237	226
10	---	---	---	360	351	362	265	252	234	206	237	238
11	---	---	---	360	358	363	257	258	227	199	241	249
12	---	---	---	354	344	373	258	255	214	204	241	263
13	---	---	---	346	353	371	258	251	224	204	242	269
14	---	---	---	349	356	369	255	258	220	228	237	278
15	---	---	---	342	362	364	255	253	217	206	241	280
16	---	---	---	334	360	353	260	261	213	207	235	279
17	---	---	---	330	362	348	256	246	210	249	232	282
18	---	---	---	344	360	345	260	256	206	230	235	292
19	---	---	---	347	360	350	266	253	206	225	234	301
20	---	---	---	350	360	364	266	251	203	218	233	309
21	---	---	---	331	362	364	271	249	188	215	237	318
22	---	---	---	353	366	370	270	257	193	230	238	325
23	---	---	---	356	370	358	272	261	197	221	237	331
24	---	---	---	356	349	365	267	263	196	223	230	339
25	---	---	---	345	376	355	257	257	198	225	238	341
26	---	---	---	355	372	365	271	255	188	224	239	340
27	---	---	---	355	371	355	264	247	192	225	234	331
28	---	---	---	361	370	344	269	241	191	229	238	339
29	---	---	---	358	---	336	264	223	195	230	230	343
30	---	---	---	361	---	323	248	238	203	232	232	343
31	---	---	---	361	---	323	---	239	---	233	230	---
MONTH	---	---	---	353	359	358	272	257	212	216	237	281

SNAKE RIVER MAIN STEM

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.5	1.5	3.5	3.5	7.0	7.5	13.0	16.0	15.0
2	---	---	---	0.5	1.0	3.0	4.5	6.0	9.5	13.0	16.5	14.0
3	---	---	---	0.0	0.5	2.5	4.0	5.5	9.0	12.5	14.0	13.0
4	---	---	---	0.5	0.5	1.0	4.0	6.5	9.0	13.0	14.0	14.0
5	---	---	---	1.0	2.0	2.0	4.0	11.0	9.0	12.5	15.5	14.0
6	---	---	---	0.0	1.0	2.5	5.5	7.5	8.0	15.5	15.0	14.0
7	---	---	---	1.5	1.0	3.5	7.0	7.0	8.5	14.0	15.0	14.0
8	---	---	---	1.0	0.5	4.5	4.0	7.0	8.0	13.5	14.5	16.5
9	---	---	---	0.0	1.5	3.0	5.0	7.5	9.5	13.0	13.5	15.0
10	---	---	---	0.0	2.0	4.0	6.0	5.5	10.0	13.0	15.0	15.0
11	---	---	---	1.0	0.5	3.0	4.0	6.0	11.0	13.5	14.5	11.0
12	---	---	---	1.0	1.5	3.0	5.5	6.5	11.0	14.0	15.0	11.0
13	---	---	---	1.5	0.5	4.0	4.0	5.0	11.0	14.5	14.0	10.5
14	---	---	---	0.0	1.0	2.0	6.5	5.0	11.0	14.5	14.0	11.5
15	---	---	---	3.0	2.0	3.5	3.0	5.0	12.0	15.5	13.5	11.0
16	---	---	---	1.0	1.5	5.0	4.5	5.0	11.5	14.0	13.5	11.0
17	---	---	---	1.0	2.5	6.5	5.5	7.0	12.0	15.0	14.5	13.0
18	---	---	---	1.0	1.5	6.0	5.0	7.0	11.5	15.0	14.5	11.5
19	---	---	---	1.0	1.0	4.0	5.0	8.0	12.5	15.0	15.5	12.5
20	---	---	---	2.0	1.5	0.5	5.5	5.0	13.0	14.5	13.0	11.5
21	---	---	---	2.5	1.0	1.0	4.5	5.0	12.0	16.0	13.0	13.5
22	---	---	---	1.0	2.0	2.5	5.5	7.5	11.5	15.0	13.5	11.5
23	---	---	---	1.0	1.0	2.0	9.0	8.0	13.5	15.5	14.5	11.0
24	---	---	---	2.0	1.0	1.0	6.0	8.5	13.0	15.5	14.5	12.5
25	---	---	---	2.5	0.5	3.0	8.5	8.5	13.5	14.0	16.0	11.0
26	---	---	---	2.0	1.0	5.5	6.5	8.5	13.5	15.5	15.0	11.0
27	---	---	---	2.0	2.0	5.5	4.5	10.0	13.0	15.5	15.5	9.5
28	---	---	---	1.5	3.0	6.0	6.5	8.5	14.0	15.5	15.0	9.5
29	---	---	---	1.5	---	4.0	6.0	8.0	13.0	15.5	16.5	9.5
30	---	---	---	2.0	---	4.5	5.0	7.0	14.0	16.0	16.5	10.5
31	---	---	---	2.0	---	5.0	---	7.5	---	16.0	15.5	---
MONTH	---	---	---	1.0	1.5	3.5	5.5	7.0	11.0	14.5	14.5	12.5

SALT RIVER BASIN

217

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WYO.

LOCATION.--Lat 43°04'47", long 111°02'12", in SW¼NE¼ sec.28, T.36 N., R.119 W., Lincoln County, temperature recorder at gaging station, 3.4 mi (5.5 km) northwest of Etna, and at mile 8.0 (12.9 km).

DRAINAGE AREA.--829 mi² (2,147 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1966 (daily), October 1966 to September 1974 (monthly).

Water temperatures: October 1965 to September 1966, October 1971 to September 1974 (discontinued).

EXTREMES.--1973-74:

Water temperatures: Maximum, 17.0°C about July 14; minimum, freezing point Dec. 27, 28, Jan. 11.

Period of record:

Water temperatures: Maximum, 17.5°C July 12, 29, 1972; minimum, freezing point on many days during winter period most years.

REMARKS.--Periods of no thermograph record due to clock stoppages and ranges in temperature are:

Nov. 29 to Dec. 9	4.0°C to 1.0°C
Jan. 3-8	3.0°C to .5°C
May 31 to June 5	12.5°C to 7.5°C
July 11-23	17.0°C to 10.5°C
Aug. 8-28	14.5°C to 8.0°C

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
02...	0930	619	7.5	70	15	8.6	1.4	258	0	27	7.6
NOV.											
06...	1200	619	8.3	62	19	14	1.2	238	0	33	17
27...	1230	591	7.6	60	18	17	1.2	234	0	35	20
JAN.											
08...	1430	403	8.5	61	18	14	1.2	228	0	36	17
FEB.											
05...	1350	435	9.5	65	18	16	1.2	243	0	35	20
MAR.											
05...	1215	429	9.0	63	17	17	1.2	244	0	36	22
APR.											
02...	1300	701	5.2	63	18	23	1.9	247	0	35	33
30...	1320	2190	7.4	73	5.4	12	1.6	230	0	19	13
MAY											
29...	1350	2530	6.7	55	12	8.0	.9	207	0	18	11
JULY											
09...	1515	1050	5.9	61	18	8.6	1.4	244	0	30	9.0
AUG.											
06...	1415	678	5.4	60	21	9.6	1.2	250	0	27	11
SEP.											
04...	1430	640	6.7	60	21	8.6	.9	250	0	31	9.1

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.											
02...	.1	1.3	--	270	444	.37	240	28	.2	485	8.1
NOV.											
06...	.2	.56	.03	274	458	.37	230	35	.4	494	8.2
27...	.2	.47	.03	276	440	.38	230	38	.5	494	8.2
JAN.											
08...	.2	.66	.01	271	295	.37	230	43	.4	491	8.2
FEB.											
05...	.2	.68	.01	288	338	.39	240	41	.5	489	8.2
MAR.											
05...	.1	.72	.02	289	335	.39	230	30	.5	505	8.2
APR.											
02...	.1	.80	.08	300	568	.41	230	27	.7	523	8.2
30...	.2	.47	.01	248	1470	.34	200	16	.4	435	8.1
MAY											
29...	.2	.34	.00	215	1440	.29	180	15	.3	377	8.2
JULY											
09...	.2	.59	.00	257	729	.35	230	30	.2	455	8.1
AUG.											
06...	.2	.79	.00	262	480	.36	240	35	.3	468	8.2
SEP.											
04...	.2	.75	.00	264	456	.36	240	35	.2	473	8.2

SALT RIVER BASIN

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WYO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DISE- CHANGE (CFS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TEMPER- ATURE (DEG C)
OCT. 02...	0930	619	2	9.3	--	8.0
NOV. 06...	1200	619	2	10.3	100	4.0
27...	1230	591	2	11.9	813	2.0
JAN. 08...	1430	403	3	10.3	84	.5
FEB. 05...	1350	435	2	10.7	80	2.0
MAR. 05...	1215	429	4	9.9	21	2.0
APR. 02...	1300	701	10	9.3	30	5.0
30...	1320	2190	40	9.6	24	7.0
MAY 29...	1050	2530	50	8.7	430	9.0
JULY 09...	1515	1050	1	10.1	810	15.5
AUG. 06...	1415	678	2	9.3	78	13.0
SEP. 04...	1430	640	2	10.4	42	12.5

B Non-ideal counting conditions.

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS THERMOGRAPH)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	8.0	6.0	4.5	---	---	2.5	1.0	3.0	2.0	5.5	3.5
2	11.0	8.0	4.5	3.5	---	---	3.0	2.0	2.5	1.5	5.0	3.0
3	9.5	6.5	4.5	2.5	---	---	3.0	---	3.0	1.0	4.0	2.0
4	9.0	5.5	4.5	3.0	---	---	---	---	2.5	1.0	3.0	1.5
5	9.0	5.5	4.0	3.0	---	---	---	---	2.5	1.5	2.5	1.5
6	8.0	6.0	4.5	3.5	---	---	---	---	2.0	1.0	4.0	2.0
7	8.0	6.5	5.5	4.5	---	---	---	---	2.0	0.5	6.5	2.5
8	7.5	7.0	6.0	5.5	---	---	---	0.5	2.0	0.5	6.0	4.5
9	7.0	6.0	7.0	5.0	---	---	1.0	0.5	3.5	1.5	6.5	3.5
10	6.0	5.5	7.0	5.0	2.0	1.0	1.0	0.5	3.0	1.0	5.5	3.0
11	7.0	5.5	6.5	5.5	1.5	1.0	1.5	0.0	2.5	1.0	5.5	2.5
12	6.0	5.5	6.5	5.0	2.5	1.0	1.5	0.5	3.0	1.0	4.5	2.5
13	8.5	5.5	5.0	4.5	2.5	2.0	1.0	1.0	3.5	1.0	4.5	3.0
14	9.5	6.5	4.5	3.5	2.5	2.0	1.5	1.0	3.0	1.0	4.5	2.5
15	9.5	6.5	5.0	4.0	3.0	2.0	2.0	1.0	4.0	2.0	6.5	3.0
16	9.5	6.5	5.0	4.0	3.0	2.0	2.5	1.0	3.0	1.5	8.0	5.0
17	9.5	6.5	5.5	5.0	3.0	2.5	3.0	1.5	4.0	2.0	7.0	5.5
18	9.0	6.5	5.5	5.0	3.0	2.0	2.5	1.0	3.5	2.0	7.5	4.5
19	9.0	6.5	5.5	4.0	2.5	1.5	3.0	1.5	3.0	1.5	5.0	3.5
20	8.5	7.0	4.5	3.5	1.5	1.0	2.5	2.0	3.5	1.5	5.0	1.0
21	9.0	7.0	4.0	3.5	2.0	1.0	2.5	1.0	2.5	1.5	5.0	1.5
22	8.5	6.5	3.5	2.5	3.0	2.0	1.5	0.5	2.5	1.5	4.5	3.0
23	8.0	6.5	3.5	2.0	3.5	2.5	2.5	0.5	3.0	1.0	6.5	2.0
24	6.5	6.0	3.5	2.5	3.0	2.0	3.0	2.0	2.5	1.0	5.0	2.5
25	7.0	5.5	3.0	2.0	2.0	0.5	3.0	2.0	3.0	1.0	7.0	2.5
26	7.0	4.5	3.5	2.0	1.5	0.5	3.0	2.0	3.5	1.0	7.5	5.5
27	7.0	4.5	2.5	2.0	0.5	0.0	3.0	1.5	3.5	1.0	7.5	5.5
28	7.5	5.0	4.0	2.5	1.5	0.0	2.0	1.0	5.5	2.5	6.5	5.0
29	7.0	5.5	---	---	1.5	1.0	3.0	2.0	---	---	6.0	4.0
30	6.0	5.0	---	---	1.5	0.5	3.0	1.5	---	---	6.0	4.5
31	6.0	5.5	---	---	1.5	0.5	2.5	2.0	---	---	6.5	4.0
MONTH	11.0	4.5	7.0	2.0	---	---	3.0	0.0	5.5	0.5	8.0	1.0

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

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)								
YELLOWSTONE RIVER BASIN												
06222700		CROW CREEK NEAR TIPPERARY, WYO. (LAT 43 34 20 LONG 109 15 40)										
AUG. 29...	1440	6.8	17.0	80								
06224000		BULL LAKE CREEK ABOVE BULL LAKE, WYO. (LAT 43 10 37 LONG 109 12 08)										
AUG. 30...	1215	277	14.5	<50								
06260000		SOUTH FORK OWL CREEK NEAR ANCHOR, WYO. (LAT 43 39 53 LONG 108 52 02)										
SEP. 17...	1350	8.8	9.0	150								
06260400		SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WYO. (LAT 43 39 57 LONG 108 47 34)										
SEP. 17...	1125	5.6	11.0	155								
06284400		SHOSHONE RIVER NEAR GARLAND, WYO. (LAT 44 44 20 LONG 108 35 38)										
SEP. 18...	1010	177	12.5	780								
DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
06313950		NORTH FORK CRAZY WOMAN CREEK BELOW POLE CREEK, NEAR BUFFALO, WYO. (LAT 41 11 11 LONG 106 51 12)										
OCT., 1973 16...	1215	17	5.5	14	--	9.3	1.7	2.7	.9	40	0	1.6
06314000		NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WYO. (LAT 44 11 16 LONG 106 49 48)										
OCT., 1973 16...	1000	18	5.5	14	--	11	2.5	3.2	.9	50	0	1.6
06314510		LITTLE NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WYO. (LAT 44 13 43 LONG 106 49 49)										
OCT., 1973 17...	1005	2.0	4.0	21	--	16	2.4	4.8	1.4	69	0	4.1
06314520		LITTLE NORTH FORK CRAZY WOMAN CREEK AT MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 13 34 LONG 106 49 00)										
OCT., 1973 17...	1325	2.6	6.5	20	--	30	2.9	4.8	1.4	108	0	4.1
06314890		MUDDY CREEK ABOVE MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 09 36 LONG 106 52 24)										
OCT., 1973 16...	1200	1.3	6.0	16	--	14	1.9	3.7	1.2	55	0	2.5
06314900		MUDDY CREEK AT MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 09 45 LONG 106 49 10)										
OCT., 1973 16...	1500	1.4	7.5	13	--	41	8.2	4.3	1.4	169	0	3.3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

221

YELLOWSTONE RIVER BASIN--Continued

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC- CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
06313950	NORTH FORK CRAZY WOMAN CREEK BELOW POLE CREEK, NEAR BUFFALO, WYO. (LAT 41 11 11 LONG 106 51 12)											
OCT., 1973 16...	1.5	.1	.2	20	51	2.34	.07	30	--	--	76	7.9
06314000	NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WYO. (LAT 44 11 16 LONG 106 49 48)											
OCT., 1973 16...	1.8	.1	.2	20	60	2.92	.08	37	--	--	94	8.0
06314510	LITTLE NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WYO. (LAT 44 13 43 LONG 106 49 49)											
OCT., 1973 17...	1.8	.2	.2	20	86	.46	.12	50	--	--	125	8.2
06314520	LITTLE NORTH FORK CRAZY WOMAN CREEK AT MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 13 34 LONG 106 49 00)											
OCT., 1973 17...	1.5	.2	.1	30	118	.83	.16	86	--	--	198	8.1
06314890	MUDDY CREEK ABOVE MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 09 36 LONG 106 52 24)											
OCT., 1973 16...	1.8	.2	.3	20	69	.24	.09	44	--	--	104	7.5
06314900	MUDDY CREEK AT MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 09 45 LONG 106 49 10)											
OCT., 1973 16...	2.4	.2	.1	30	157	.59	.21	140	--	--	271	8.2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
YELLOWSTONE RIVER BASIN--Continued												
06314920	BILLY CREEK BELOW BILLY CREEK SPRINGS, NEAR BUFFALO, WYO. (LAT 44 07 44 LONG 106 50 35)											
OCT., 1973	16... 0930	1.2	5.0	19	--	44	16	4.8	1.9	206	3	5.8
06314930	BILLY CREEK AT MOUTH OF CANYON, NEAR BUFFALO, WYO. (LAT 44 08 05 LONG 106 48 54)											
OCT., 1973	16... 1645	1.3	6.5	18	--	66	5.5	3.7	1.6	226	0	4.1
CHEYENNE RIVER BASIN												
BEAVER CREEK ABOVE MALLO CAMP, NEAR FOUR CORNERS, WYO. (LAT 44 04 15 LONG 104 01 40)												
SEP., 1974	06... 0930	--	7.0	12	--	63	23	1.1	.7	308	--	2.1
06392900	BEAVER CREEK AT MALLO CAMP, NEAR FOUR CORNERS, WYO. (LAT 44 05 04 LONG 104 03 41)											
SEP., 1974	06... 1030	1.8	7.5	14	--	56	23	1.3	.9	275	--	3.1
STOCKADE BEAVER CREEK SPRINGS NO. 2 NEAR NEWCASTLE, WYO. (LAT 43 53 25 LONG 104 05 40)												
SEP., 1974	06... 1100	--	12.5	13	--	150	37	3.3	1.8	293	--	260
STOCKADE BEAVER CREEK SPRINGS NO. 1 NEAR NEWCASTLE, WYO. (LAT 43 52 25 LONG 104 05 45)												
SEP., 1974	06... 1130	--	12.5	12	--	430	50	3.6	1.9	233	--	1000
06392950	STOCKADE BEAVER CREEK NEAR NEWCASTLE, WYO. (LAT 43 51 30 LONG 104 06 23)											
SEP., 1974	06... 1230	10	12.5	13	--	410	60	3.7	2.2	222	--	1000
06427700	INYAN KARA CREEK NEAR UPTON, WYO. (LAT 44 13 45 LONG 104 26 45)											
SEP., 1974	05... 1230	1.1	16.5	12	--	510	69	33	4.8	133	--	1500
COLD CREEK ABOVE COLD SPRINGS CREEK, NEAR FOUR CORNERS, WYO. (LAT 44 08 20 LONG 104 00 40)												
SEP., 1974	05... 1400	--	7.0	14	--	72	21	1.2	.6	316	--	3.1
06429500	COLD SPRINGS CREEK NEAR BUCKHORN, WYO. (LAT 44 09 14 LONG 104 04 39)											
SEP., 1974	05... 1330	3.8	11.5	13	--	55	20	1.2	.7	262	--	3.5
06429900	SAND CREEK AT RANCH A, NEAR BEULAH, WYO. (LAT 44 29 42 LONG 104 06 34)											
SEP., 1974	05... 1030	27	12.5	12	--	120	29	3.0	1.4	276	--	190

223

223

A Nitrite plus nitrate as N (MG/L)

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
GREEN RIVER BASIN				
09217900	BLACKS FORK NEAR ROBERTSON, WYO. (LAT 40 57 53 LONG 110 34 38)			
OCT., 1973				
01...	1130	93	7.0	195
NOV.				
12...	1200	61	3.0	150
MAR., 1974				
27...	1300	28	1.0	210
MAY				
24...	1200	420	4.0	120
JUNE				
05...	1400	980	5.0	70
JULY				
10...	0955	198	12.0	85
AUG.				
15...	0915	60	8.0	130
SEP.				
19...	1230	38	9.0	150

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
------	------	-------------------------	-----------------------------	--	--	--	---	--	--	--------------------------------------	-----------------------------------	--

SNAKE RIVER BASIN

13010060	SHEFFIELD CREEK AT FLAGG RANCH, WYO. (LAT 44 05 53 LONG 110 39 53)											
SEP., 1973												
27...	1630	3.2	8.0	15	0	9.7	1.8	3.2	.7	38	0	1.6
13010170	POLECAT CREEK NEAR FLAGG RANCH, WYO. (LAT 44 06 31 LONG 110 41 00)											
SEP., 1973												
27...	1500	59	20.0	56	10	6.2	.6	34	4.6	67	2	3.3
13011000	SNAKE RIVER NEAR MORAN, WYO. (LAT 43 51 31 LONG 110 35 09)											
NOV., 1973												
08...	1335	452	6.0	--	--	--	--	--	--	--	--	--
DEC.												
11...	1030	442	1.0	--	--	--	--	--	--	--	--	--
FEB., 1974												
27...	1420	478	2.0	--	--	--	--	--	--	--	--	--
APR.												
03...	1030	1740	3.0	--	--	--	--	--	--	--	--	--
MAY												
15...	0910	5740	4.0	--	--	--	--	--	--	--	--	--
JUNE												
17...	1800	3660	15.0	14	--	18	.9	10	1.9	67	0	9.1

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
13011500	PACIFIC CREEK AT MORAN, WYO. (LAT 43 51 04 LONG 110 30 59)			
NOV., 1973				
08...	1340	63	6.0	227
DEC.				
11...	1145	49	.0	247
JAN., 1974				
16...	1230	76	.0	227
FEB.				
27...	1225	58	.0	227
APR.				
03...	1125	68	.5	233
MAY				
15...	1330	556	5.5	176

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

225

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF TUENTS (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC- CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
SNAKE RIVER BASIN--Continued												
13010060	SHEFFIELD CREEK AT FLAGG RANCH, WYO. (LAT 44 05 53 LONG 110 39 53)											
SEP., 1973												
27...	3.1	.2	.1	40	54	.47	.07	32	--	--	70	7.8
13010170	POLECAT CREEK NEAR FLAGG RANCH, WYO. (LAT 44 06 31 LONG 110 41 00)											
SEP., 1973												
27...	21	3.4	.1	100	164	26.1	.22	18	--	--	195	8.5
13011000	SNAKE RIVER NEAR MORAN, WYO. (LAT 43 51 31 LONG 110 35 09)											
NOV., 1973												
08...	--	--	--	--	--	--	--	--	--	--	160	--
DEC.												
11...	--	--	--	--	--	--	--	--	--	--	160	--
FEB., 1974												
27...	--	--	--	--	--	--	--	--	--	--	186	--
APR.												
03...	--	--	--	--	--	--	--	--	--	--	159	--
MAY												
15...	--	--	--	--	--	--	--	--	--	--	149	--
JUNE												
17...	3.6	.7	1.0	--	92	909	.13	48	0	.6	157	7.9

[illegible]

[illegible]

DATE	TIME	DIS-CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE- SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS- SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
SNAKE RIVER BASIN--Continued												
OCT., 1973	24... 1445	62	7.5	7.8	--	35	9.3	1.6	1.2	153	2	.8
13016450 FISH CREEK AT WILSON, WYO. (LAT 43 30 03 LONG 110 52 15)												
OCT., 1973	28... 0800	15	3.5	16	--	71	15	7.5	2.3	226	0	70
13017450 SPRING CREEK NEAR JACKSON, WYO. (LAT 43 28 49 LONG 110 47 48)												
OCT., 1973	26... 1330	1520	7.5	14	--	34	6.3	8.0	1.9	129	1	16
13017800 SNAKE RIVER ABOVE FLAT CREEK, NEAR JACKSON, WYO. (LAT 43 23 04 LONG 110 04 41)												
OCT., 1973	02... 1030	18	7.0	4.4	0	31	12	1.1	.0	143	3	3.3
13018000 FLAT CREEK AT FOREST BOUNDARY, NEAR JACKSON, WYO. (LAT 43 33 28 LONG 110 37 30)												
OCT., 1973	02... 1500	76	11.5	8.5	0	36	18	3.7	.7	183	0	16
13018350 FLAT CREEK BELOW CACHE CREEK, NEAR JACKSON, WYO. (LAT 43 27 43 LONG 110 47 32)												
OCT., 1973	02... 1300	116	11.5	9.2	0	55	20	4.8	.7	223	0	40
13018550 FLAT CREEK ABOVE MOUTH, NEAR JACKSON, WYO. (LAT 43 23 11 LONG 110 44 35)												
SEP., 1973	28... 1035	16	7.0	5.0	0	130	15	5.9	1.2	171	0	240
13019180 HOBACK RIVER ABOVE FISHERMAN CREEK, NEAR BONDURANT, WYO. (LAT 43 09 37 LONG 110 21 52)												
SEP., 1973	28... 1230	77	11.5	4.8	0	83	9.1	4.8	1.4	204	0	89
13019435 HOBACK RIVER ABOVE CLIFF CREEK, NEAR BONDURANT, WYO. (LAT 43 14 38 LONG 110 28 43)												
SEP., 1973	28... 1520	58	10.5	4.3	0	32	8.3	3.7	.5	131	2	7.4
13019435 GRANITE CREEK AT CAMPGROUND, NEAR BONDURANT, WYO. (LAT 43 21 31 LONG 110 26 35)												
NOV., 1973	07... 1420	377	4.0	390								
DEC.	10... 1310	201	.0	356								
JAN., 1974	16... 1535	290	.0	368								
AUG.	28... 1300	523	4.0	284								
13023000 GREYS RIVER ABOVE RESERVOIR, NEAR ALPINE, WYO. (LAT 43 08 35 LONG 110 58 34)												

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

229

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC- CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
SNAKE RIVER BASIN--Continued												
13016450	FISH CREEK AT WILSON, WYO. (LAT 43 30 03 LONG 110 52 15)											
OCT., 1973 24...	3.1	.1	.0	--	136	27.8	.18	130	--	--	210	8.5
13017450	SPRING CREEK NEAR JACKSON, WYO. (LAT 43 28 49 LONG 110 47 48)											
OCT., 1973 28...	2.4	.2	.6	--	296	12.0	.40	240	--	--	460	8.2
13017800	SNAKE RIVER ABOVE FLAT CREEK, NEAR JACKSON, WYO. (LAT 43 23 04 LONG 110 04 41)											
OCT., 1973 26...	3.7	.4	.0	--	148	607	.20	110	--	--	245	8.4
13018000	FLAT CREEK AT FOREST BOUNDARY, NEAR JACKSON, WYO. (LAT 43 33 28 LONG 110 37 30)											
OCT., 1973 02...	5.3	.1	.5	40	131	6.37	.18	130	--	--	230	8.4
13018350	FLAT CREEK BELOW CACHE CREEK, NEAR JACKSON, WYO. (LAT 43 27 43 LONG 110 47 32)											
OCT., 1973 02...	1.8	.2	.3	10	175	35.9	.24	170	--	--	325	8.2
13018550	FLAT CREEK ABOVE MOUTH, NEAR JACKSON, WYO. (LAT 43 23 11 LONG 110 44 35)											
OCT., 1973 02...	1.8	.3	.3	30	241	75.5	.33	220	--	--	420	8.3
13019180	HOBACK RIVER ABOVE FISHERMAN CREEK, NEAR BONDURANT, WYO. (LAT 43 09 37 LONG 110 21 52)											
SEP., 1973 28...	2.4	.3	.1	70	486	21.0	.66	380	--	--	720	8.0
	HOBACK RIVER ABOVE CLIFF CREEK, NEAR BONDURANT, WYO. (LAT 43 14 38 LONG 110 28 43)											
SEP., 1973 28...	1.5	.3	.1	20	294	61.1	.40	250	--	--	505	8.1
13019435	GRANITE CREEK AT CAMPGROUND, NEAR BONDURANT, WYO. (LAT 43 21 31 LONG 110 26 35)											
SEP., 1973 28...	3.1	.2	.2	30	127	19.9	.17	110	--	--	235	8.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
SNAKE RIVER BASIN--Continued												
13050750 TRAIL CREEK AT WYOMING-IDAHO STATE LINE (LAT 43 32 31 LONG 111 02 37)												
OCT., 1973 01...	1515	18	6.5	6.7	0	58	11	1.6	.9	201	1	21
13051300 DARBY CREEK AT WYOMING-IDAHO STATE LINE (LAT 43 40 27 LONG 111 01 20)												
OCT., 1973 01...	1300	24	6.0	3.4	20	38	8.4	.5	.2	157	0	1.6
13051500 TETON CREEK NEAR ALTA, WYO. (LAT 43 45 19 LONG 110 58 02)												
OCT., 1973 01...	1030	67	5.5	2.9	0	33	1.7	.5	.5	104	0	2.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

231

DATE	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE-CIFIC- CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
------	---	--	--	--------------------------------------	--	--	--	------------------------------------	---	---	---	---------------

SNAKE RIVER BASIN--Continued

13050750 TRAIL CREEK AT WYOMING-IDAHO STATE LINE (LAT 43 32 31 LONG 111 02 37)												
OCT., 1973												
01...	1.8	.2	.3	10	202	9.82	.27	190	--	--	360	8.5
13051300 DARBY CREEK AT WYOMING-IDAHO STATE LINE (LAT 43 40 27 LONG 111 01 20)												
OCT., 1973												
01...	1.5	.1	.5	30	131	8.49	.18	130	--	--	250	8.2
13051500 TETON CREEK NEAR ALTA, WYO. (LAT 43 45 19 LONG 110 58 02)												
OCT., 1973												
01...	1.5	.1	.3	20	94	17.0	.13	90	--	--	170	8.2

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING,
EXCLUDING YELLOWSTONE NATIONAL PARK
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

MISSOURI RIVER BASIN

Converse County

WELL NUMBER	GEOLOGIC SOURCE 1/	WELL DEPTH (FT)	DATE OF COLLEC- TION	WATER TEMPER- ATURE (°C)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)
33-73-32CD	331MDSN	6654	4-18-74	59.5	32	2600	160	32	140	20
WELL NUMBER	DATE OF SAMPLE	DIS- SOLVED BARIUM (BA) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BISMUTH (BI) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
33-73-32DC	4-18-74	80	<5	<20	<9	<10	<20	14	20	450
WELL NUMBER	DATE OF SAMPLE	DIS- SOLVED GER- MANIUM (GE) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED TI- TANIUM (TI) (UG/L)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L)	DIS- SOLVED GROSS BETA AS CA-137 (PC/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED BETA AS SR90 /Y90 (PC/L)		
33-73-32DC	4-18-74	<20	160	25	<30	51	<20	41		
WELL NUMBER	GEOLOGIC SOURCE	WELL DEPTH (FT)	DATE OF COLLEC- TION	WATER TEMPER- ATURE (°C)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)

Johnson County

49-83-27BDC	331MDSN	SPRING	10-16-73	5.5	13	--	11	4.1	2.1	.5
49-83-27DBA	331MDSN	1636	3-30-74	11.0	12	--	31	17	2.4	1.2
51-82-32DB	124WSTC	390	10-15-73	--	8.9	--	39	4.0	330	.9

Niobrara County

36-62-28AB1	331MDSN	3269	4-26-74	46.0	20	--	110	35	36	6.1
36-62-28AB3	331MDSN	3118	5-24-74	54.0	23	--	98	35	28	6.1
41-68-28DB	125FRUN	99	9-17-74	10.0	7.5	790	180	87	290	16

Weston County

41-67-26AA	111ALVL	26	9-18-74	11.0	22	3600	240	120	610	24
42-68-26DD	125FRUN	180	9-18-74	12.5	7.4	530	87	35	290	9.6
43-60-30DC	217INKR	--	9-19-74	12.5	4.0	60	78	49	25	8.2
45-61-2BC	317MNLS	720	9-17-74	14.5	9.5	140	500	150	31	5.9
45-67-8CC	125FRUN	248	9-18-74	11.0	8.7	2900	100	80	450	9.4
45-67-14DC	211LNCE	400	9-18-74	11.0	8.1	170	39	21	440	6.6
46-60-30AD	237SPRF	160	8-13-74	10.0	17	340	240	73	14	2.1
46-60-31BA	331MDSN	1178	8-15-74	15.5	13	20	59	28	3.1	1.8
46-61-10BA1	217INKR	SPRING	6-27-74	6.0	15	20	42	12	2.6	2.8
46-62-18BD	331MDSN	2677	8-15-74	14.0	12	90	60	28	1.1	1.1
46-62-27DC	217INKR	300	8-15-74	10.5	10	9100	410	240	130	20
46-67-9AD	125FRUN	130	6-26-74	10.5	15	1800	210	97	18	5.4
46-67-29BB	125FRUN	238	6-26-74	11.0	18	1800	200	110	98	8.7
46-68-26DD	--	--	9-18-74	12.0	4.6	240	6.7	.8	160	4.5
47-60-4AA	331MDSN	360	8-14-74	8.0	12	20	59	24	.4	.7
47-62-2BA1	211LNCE	160	6-05-74	10.0	7.9	--	14	5.2	450	2.3
47-62-24AD	237SPRF	180	9-17-74	14.0	14	50	45	22	6.8	5.5
47-64-12CCCC1	217MNLS	1560	6-27-74	12.0	8.6	100	11	2.8	410	2.7
47-64-31BB1	217INKR	3850	6-04-74	21.0	14	--	1.7	.5	400	1.4
47-65-13DD1	217NCSL	638	6-04-74	13.0	8.9	--	1.4	.1	330	.9
47-65-17CB1	211FXHL	116	6-04-74	9.0	12	--	69	34	410	4.8
47-66-22C1	211LNCE	180	6-05-74	10.5	11	--	12	4.1	270	3.0
47-66-30DA	211LNCE	200	6-28-74	10.5	12	210	87	38	150	5.4
47-67-3CA	211LNCE	240	6-05-74	10.0	2.1	--	13	24	430	4.8
48-60-8CC	317MNLS	SPRING	9-16-74	5.5	8.5	20	76	8.0	1.0	.5
48-61-7AD	317MNKT	85	8-14-74	11.0	8.6	10	63	21	3.5	1.4
48-62-20AD	237SPRF	170	8-14-74	11.5	9.7	350	390	88	17	8.9
48-66-2DD	217NCSL	920	8-08-74	14.0	10	140	.5	.8	240	.8
48-67-5DB1	111ALVL	40	5-22-74	8.0	8.5	--	40	17	310	3.6
48-67-25DB1	211LNCE	160	5-21-74	10.0	9.2	--	21	7.9	210	2.5

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING,
EXCLUDING YELLOWSTONE NATIONAL PARK

233

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

MISSOURI RIVER BASIN

Converse County--Continued

BICAR BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPECI- FIC- COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
154	0	590	100	2.3	.09	230	1160	530	1610	7.2
DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED GALLIUM (GA) (UG/L)		
9	20	<2	2300	<9.0	60	<20	760	<7		

BICAR BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPECI- FIC- COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
-------------------------------------	-----------------------------------	--	---	--	---	--	--	-------------------------------------	--	-------------------

Johnson County--Continued

52	0	5.8	1.5	0.2	0.20	20	65	44	99	--
178	0	4.6	1.0	.2	.46	3	159	150	284	7.9
102	2	720	14	.5	--	50	1170	120	1740	8.5

Niobrara County--Continued

242	0	120	130	3.6	.98	70	584	420	1030	7.0
219	--	110	110	3.0	1.1	60	526	390	930	7.0
288	--	1100	4.0	.2	2.9	70	1840	810	2100	7.5

Weston County--Continued

767	--	1700	32	.7	.27	130	3130	1100	4020	7.1
574	--	510	13	.6	1.7	40	1240	360	810	7.7
171	--	280	12	.5	.05	110	541	400	855	8.0
141	--	1700	11	1.1	.50	300	2480	1900	2740	--
565	--	990	13	.3	.47	110	1940	580	2750	--
774	--	510	7.7	.1	.03	90	1410	180	2200	7.4
209	--	650	55	.3	9.8	170	1200	900	1580	6.9
306	--	13	1.4	.3	.40	20	272	260	472	7.6
167	0	20	1.7	.2	.39	30	180	150	309	8.6
299	--	23	1.5	.3	.24	20	276	270	488	7.5
392	--	1800	26	.2	.03	460	2840	2000	3380	7.2
787	--	290	1.7	.2	.11	100	1030	920	1560	7.2
586	--	630	3.9	.1	.14	230	1360	950	1870	7.5
433	0	5.9	7.5	1.4	1.8	50	413	20	690	8.6
297	--	3.5	1.7	.1	.25	20	249	250	446	7.8
453	1	650	4.2	.0	.25	180	1360	56	2060	8.6
172	--	63	2.7	.1	1.6	50	251	200	413	--
166	--	760	5.5	.1	.03	110	1280	39	2010	8.1
240	0	640	16	.2	.03	60	1190	5	1870	8.4
379	21	330	39	.7	.82	220	923	4	1450	8.9
446	--	810	8.6	.1	.33	480	1570	310	2270	7.6
636	--	130	3.6	.0	.11	100	748	47	1230	8.0
439	--	300	17	.1	1.8	130	834	370	1280	7.6
473	3	650	4.2	.0	1.2	170	1370	130	2120	8.9
272	--	4.4	2.0	.1	.41	20	236	220	422	--
265	--	22	1.6	.2	4.6	10	272	240	476	7.9
354	--	1000	4.5	.2	.04	160	1690	1300	2110	7.3
436	5	120	39	1.4	.28	230	634	5	1030	8.5
532	--	420	4.9	.4	.05	140	1070	170	1600	7.9
487	--	140	2.4	.3	.32	150	635	85	1010	8.1

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING,
EXCLUDING YELLOWSTONE NATIONAL PARK

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

WELL NUMBER	GEOLOGIC SOURCE 1/	WELL DEPTH (FT)	DATE OF COLLEC- TION	WATER TEMPER- ATURE (°C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)
SNAKE RIVER BASIN										
Sublette County										
38-113-19ACC	111ALVL	50	10-01-73	11.0	7.4	0	100	6.0	5.9	1.4
38-113-23BDA	111ALVL	5	10-01-73	10.0	6.6	0	83	13	2.7	2.8
38-113-35DAA	111ALVL	SPRING	10-01-73	6.5	5.8	0	71	9.9	2.1	.7
Teton County										
39-113-20CDB	111ALVL	SPRING	10-01-73	6.0	6.9	10	77	20	3.2	1.2
40-116-8CDB	331MDSN	SPRING	10-31-73	11.0	9.8	--	120	44	3.2	1.6
41-116-2DCA	327DRWN	SPRING	10-29-73	26.5	17	--	37	18	47	5.1
41-116-11BBA1	112BSLT	285	10-29-73	17.5	62	--	62	16	10	4.7
41-116-11BBA2	112BSLT	143	10-29-73	12.5	45	--	60	19	9.6	4.4
41-116-18BCB	327DRWN	180	10-04-73	10.0	18	0	52	21	25	1.6
41-116-22BBD	111ALVL	87	10-04-73	12.5	21	0	34	13	2.7	2.3
41-116-27DDC	111ALVL	200	10-30-73	11.0	9.1	--	54	21	3.2	1.2
41-116-33CBA	111ALVL	56	10-24-73	11.5	11	--	73	20	4.3	1.6
41-117-21CAA	112GLCL	345	10-31-73	8.0	19	--	72	25	4.3	.9
41-117-24DBD	112BSLT	120	10-04-73	10.0	25	0	68	18	9.1	1.9
41-117-36CAA	(a)	SPRING	10-31-73	11.0	23	--	140	37	19	5.8
42-116-36CBD	111ALVL	SPRING	10-29-73	7.5	14	--	39	13	2.1	1.4
45-112-14BCD	111ALVL	96	10-30-73	5.5	6.5	--	2.1	1.2	150	.7
45-112-21BDB	111ALVL	83	10-30-73	7.5	8.9	--	44	7.5	10	1.6
45-113-21DAA	111ALVL	50	10-30-73	12.0	20	--	73	20	14	2.3
48-115-20BAA	112YLSN	SPRING	10-02-73	60.5	110	20	11	.4	200	8.6
48-115-20BCA	112YLSN	SPRING	10-02-73	43.0	120	0	10	1.0	200	7.7

a 111ALVL and 371GLTN

1/ GEOLOGIC SOURCE

111 ALVL	alluvial deposits	217 INKR	Inyan Kara Group
112 BSLT	Basalt flows	217 NCSL	Newcastle Sandstone
112 GLCL	glacial deposits	237 SPRF	Spearfish Formation
112 YLSN	Yellowstone Group	317 MNKT	Minnekahta Limestone
124 WSTC	Wasatch Formation	317 MNLS	Minnelusa Formation
125 FRUN	Fort Union Formation	327 DRWN	Darwin Sandstone member of Amsden Formation
211 FXHL	Fox Hills Sandstone	331 MDSN	Madison Limestone
211 LNCE	Lance Formation	371 GLTN	Gallatin Limestone Formation

ANALYSES OF SAMPLES OF GROUND WATER IN YELLOWSTONE NATIONAL PARK, WYOMING

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

WELL NUMBER	DATE OF COLLECTION	TEMPER- ATURE (°C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
MADISON RIVER BASIN										
Teton County										
442720110504101	08-27-74	19.0	58	80	4.0	1.1	25	6.6	6	0
442723110504601	09-18-74	17.5	44	4,600	29	1.8	32	14	141	0
442723110505201	09-18-74	15.0	59	2,100	11	2.2	50	13	131	0
442724110504801	08-27-74	18.0	44	90	8.0	2.6	28	6.4	65	0
443842110522101	09-16-74	14.0	33	160	3.4	2.2	39	6.4	101	0
443843110522101	08-28-74	14.5	80	190	3.8	1.9	28	5.1	56	0
443844110521901	08-28-74	13.5	58	50	9.9	1.8	38	6.9	64	0
443844110522501	09-16-74	12.0	79	90	3.3	1.0	37	6.8	97	0
YELLOWSTONE RIVER BASIN										
Park County										
443431110215001	09-17-74	8.5	44	20	5.9	3.4	3.4	2.4	44	0
443432110214001	08-29-74	7.5	32	60	8.0	2.4	3.5	1.8	37	0
443437110214601	08-26-74	8.5	47	20	6.2	3.8	3.5	3.0	48	0
443440110215201	09-17-74	7.0	43	200	7.3	3.7	3.8	3.1	42	0
443446110214801	08-29-74	7.5	35	50	13	1.7	2.7	1.6	31	0
443447110213901	09-17-74	6.0	31	50	4.9	1.3	3.4	2.2	24	0
Teton County										
442316110320901	08-23-74	7.5	38	20	14	3.5	3.5	3.3	63	0
442317110321601	09-19-74	5.5	40	50	11	4.2	5.3	4.4	67	0
442321110321901	09-19-74	8.5	40	80	4.8	1.2	4.6	3.2	29	0
442323110321101	08-26-74	8.0	36	80	6.9	2.3	3.8	4.0	37	0

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING,
EXCLUDING YELLOWSTONE NATIONAL PARK

235

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

BICAR BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPECI- FIC COND- DUCTANCE (MICRO- MHOS)	PH (UNITS)
-------------------------------------	-----------------------------------	--	---	--	--	--	---	------------------------------------	--	-------------------

SNAKE RIVER BASIN

Sublette County--Continued

245	0	88	2.4	0.1	0.3	20	334	280	550	7.8
279	0	37	2.4	.2	.6	10	285	260	490	7.8
175	0	73	1.5	.3	.1	10	250	220	415	8.3

Teton County--Continued

334	0	4.1	.9	.1	.2	30	278	270	520	7.8
209	0	300	2.4	1.3	.3	--	588	480	850	7.8
226	0	61	21	.6	.0	--	318	170	525	8.1
279	0	12	1.5	.2	1.0	--	306	220	475	7.9
287	0	13	1.5	.3	1.7	--	296	230	490	7.8
229	0	55	18	.5	.3	230	304	220	530	7.8
174	0	3.3	.0	.2	.7	70	162	140	275	8.1
206	0	55	.0	.3	2.4	--	247	220	415	7.9
284	0	30	2.4	.1	1.4	--	283	260	490	8.0
356	0	3.3	.0	.2	1.2	--	301	280	540	7.9
293	0	9.9	5.3	.3	6.5	60	288	250	490	7.7
211	0	350	7.6	.9	1.0	--	691	500	980	7.8
177	0	4.9	5.5	.2	.2	--	168	150	280	8.2
338	11	35	.0	.7	.1	--	376	10	650	8.8
183	0	12	.0	.1	.5	--	175	140	310	7.9
340	0	6.6	.0	.3	.7	--	304	260	525	7.9
360	0	9.9	92	8.7	.0	460	613	30	950	7.4
360	0	9.9	100	8.1	.3	520	629	30	930	7.4

ANALYSES OF SAMPLES OF GROUND WATER IN YELLOWSTONE NATIONAL PARK, WYOMING

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORGANIC CARBON (C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
--	---	--	---	--	---	--	---	------------------------------------	--	-------------------

MADISON RIVER BASIN--Continued

Teton County--Continued

20	5.8	3.0	8.5	--	1.0	7.0	164	15	180	5.6
13	21	3.9	.03	20	8.0	4.3	233	80	400	6.9
4.9	27	3.7	.06	10	9.9	10	238	37	420	6.9
7.0	27	1.5	.23	--	7.4	9.7	158	31	250	6.5
3.0	2.4	3.5	.09	.64	.07	3.0	141	9	200	6.9
4.0	3.0	11	.19	.69	.06	5.0	165	17	150	7.2
5.8	7.2	4.5	6.2	1.4	.11	8.6	191	32	225	6.9
3.2	2.4	7.4	.10	.69	.07	2.3	188	12	200	6.8

YELLOWSTONE RIVER BASIN--Continued

Park County--Continued

3.9	1.9	.1	.17	.57	.13	2.5	87	29	80	7.8
5.4	2.3	.1	.03	.76	.11	37	74	30	70	7.9
4.8	1.8	.1	.24	1.0	.26	4.8	95	31	85	7.5
5.4	4.4	.1	.41	.61	.36	4.0	94	33	155	7.8
6.4	1.8	.1	.14	.63	.68	7.4	78	39	60	7.9
7.3	2.2	.2	.25	.94	.22	5.0	65	18	60	8.0

Teton County--Continued

4.4	3.2	.1	.01	1.6	.27	6.6	101	49	85	6.9
4.0	1.5	.2	.19	.53	.62	9.9	105	45	110	7.8
4.1	4.5	.2	.23	.67	.51	7.1	78	17	60	7.9
3.0	3.1	.3	.10	.76	.63	5.1	78	27	60	6.8

	Page		Page
Acre-foot (AC-FT, ac-ft), definition of.....	2	Collection and examination of data.....	11
Alcova, Alcova Reservoir near.....	133-134	Colorado River basin, surface-water quality records in.....	173-205
Bates Creek near.....	137	Cold Creek above Cold Springs Creek, near Four Corners.....	222-223
North Platte River at.....	135-137	Cold Springs Creek near Buckhorn.....	222-223
Pathfinder Reservoir near.....	130-132	Converse County, ground-water quality records in.....	232-233
Sweetwater River near.....	129	Continuing record station, definition of.....	3
Alcova Reservoir near Alcova.....	133-134	Conversion factors, tables of.....	5
Alkali Creek near Kelly.....	226-227	Cooperation.....	2
Alpine, Snake River above reservoir, near.....	212-216	Corwin Springs, Mt., Yellowstone River at.....	19
Aquifer, definition of.....	2	Crazy Woman Creek, at upper station, near Arvada.....	92
Arapahoe, Beaver Creek near.....	36	Little North Fork, at mouth of canyon, near Buffalo.....	220-221
Little Wind River above.....	35	near Buffalo.....	220-221
Arvada, Clear Creek near.....	96-97	North Fork, below Pole Creek, near Buffalo.....	220-221
Crazy Woman Creek at upper station, near.....	92	near Buffalo.....	220-221
Powder River at.....	93-95	Crow Creek (Platte River basin) near Cheyenne.....	171-172
Atlantic City, Rock Creek at.....	126-128	Crow Creek (Yellowstone River basin) near Tipperary.....	220
Bacteria, definition of.....	2	Crowheart, Wind River near.....	31
Badger Basin, Big Sand Coulee above State ditch, near.....	21-23	Crystal Creek at mouth of canyon, near Kelly.....	226-227
Baggs, Little Snake River near.....	205	Cubic foot per second (cfs, CFS), definition of.....	4
Basin, Greybull River near.....	52	Daniel, Green River at Warren Bridge, near.....	173
Bates Creek near Alcova.....	137	Darby Creek at Wyoming-Idaho State line.....	230-231
Bear River, above reservoir, near Woodruff, Ut. at Border.....	206	Dayton, Tongue River near.....	80-81
Bear River basin, surface-water quality records in.....	206-209	Deaver, Sage Creek at Sidon Canal, near.....	69-70
Beaver Creek (tributary to Cheyenne River) near Newcastle.....	101	Decker, Mt., Tongue River at State line, near.....	85-87
Beaver Creek (tributary to Little Wind River) near Arapahoe.....	36	Deer Creek below Millar wasteway, at Glenrock.....	146-147
Beaver Creek (tributary to Stockade Beaver Creek) above Mallo Camp, near Four Corners.....	222-223	Definition of terms.....	2
at Mallo Camp, near Four Corners.....	222-223	Devils Tower, Belle Fourche River at.....	104-105
Bed material, definition of.....	3	Discharge, definition of.....	4
Belfry, Mt., Clarks Fork Yellowstone River near.....	20	Dixon, Little Snake River near.....	205
Silver Tip Creek near.....	27-29	Downstream order and station number.....	10
Belle Fourche River, at Devils Tower.....	104-105	Drainage area, definition of.....	4
at Wyoming-South Dakota State line.....	106-107	Drainage basin, definition of.....	4
Big Coulee near Lovell.....	71	Dry Creek near Bonneville.....	42
Big Piney, Green River near.....	174	Dubois, Wind River near.....	30
New Fork River near.....	175	Eden, Big Sandy River below.....	183-184
Big Sand Coulee, above State ditch, near Badger Basin.....	21-23	Edgemont, S. Dak., Cheyenne River at.....	102-103
at Wyoming-Montana State line.....	24-26	Encampment River, above Hog Park Creek, near Encampment.....	111-112
Big Sandy River, below Eden.....	183-184	at mouth, near Encampment.....	113
near Farson.....	182	Etna, Salt River above reservoir, near.....	217-219
Bighorn River, at Kane.....	54-57	Factors for converting English units to International System (SI) units.....	18
at Lucerne.....	46	Farson, Big Sandy River near.....	182
at Worland.....	47	Fish Creek at Wilson.....	228-229
near St. Xavier, Mt.....	72-75	Fivemile Creek, above Wyoming Canal, near Pavillion.....	40
Billy Creek, at mouth of canyon, near Buffalo.....	222-223	near Shoshoni.....	41-42
below Billy Creek Springs, near Buffalo.....	222-223	Flat Creek, above mouth, near Jackson.....	228-229
Biochemical oxygen demand (BOD), definition of.....	3	at forest boundary, near Jackson.....	228-229
Bitter Creek near Garland.....	61-63	below Cache Creek, near Jackson.....	228-229
Blacks Fork, near Little America.....	198-200	Fontenelle Reservoir, Green River below.....	179-181
near Lyman.....	194-196	Fort Laramie, Laramie River near.....	163-165
near Robertson.....	224	Gaging station, definition of.....	4
Bonneville, Dry Creek near.....	42	Garland, Bitter Creek near.....	61-63
Border, Bear River at.....	207-209	Whistle Creek near.....	64-65
Boysen Reservoir, Wind River below.....	43-45	Glendo, Glendo Reservoir near.....	155-156
Bucknum, Middle Fork Casper Creek near.....	140	Glendo Reservoir, near Glendo.....	155-156
Buffalo Bill Reservoir, Shoshone River below.....	58-59	North Platte River below.....	157
Buffalo Fork above Lava Creek, near Moran.....	226	Glenrock, Deer Creek below Millar wasteway, at.....	146-147
Bull Lake Creek above Bull Lake.....	220	North Platte River below Deer Creek, near.....	148
Cache Creek near Jackson.....	210-211	North Platte River near.....	149-150
Careyhurst, North Platte River near.....	151	Goose Creek below Sheridan.....	83-84
Casper, Casper Creek at.....	141	Granger, Hams Fork near.....	197-198
North Platte River at.....	142-143	Granite Creek at campground, near Bondurant.....	228-229
North Platte River below.....	144-145	Great Salt Lake basin, surface-water quality records in.....	206-209
Casper Creek, at Casper.....	141	Green River, Green River at Big Island, near.....	185
Middle Fork, near Bucknum.....	140	Green River below.....	192
Cfs-day, definition of.....	3	Green River near.....	186-191
Cheyenne, Crow Creek near.....	171-172	Green River, at Big Island, near Green River.....	185
Cheyenne River, at Edgemont, S. Dak.....	102-103	at Warren Bridge, near Daniel.....	173
near Spencer.....	100	below Fontenelle Reservoir.....	179-181
Cheyenne River basin, surface-water quality records in.....	100-108	below Green River.....	186-191
Clarks Fork Yellowstone River near Belfry, Mt.....	20	near Big Piney.....	174
Clear Creek near Arvada.....	96-97	near Green River.....	192
Cody, Shoshone River above Dry Creek, near.....	60	near Greendale, Ut.....	203-204
Coliform bacteria, fecal, definition of.....	3	near La Barge.....	176-178
fecal streptococcal, definition of.....	3		
total, definition of.....	3		

	Page		Page
Green River basin, surface-water quality records in.....	173-205	Mills, North Platte River at.....	138-139
Greendale, Ut., Green River near.....	203-204	Miscellaneous analyses of streams in Wyoming...	220-231
Greybull, Shell Creek near.....	53	Missouri River basin, ground-water quality records in.....	232-233
Greybull River near Basin.....	52	surface-water quality records in.....	19-172
Greys River above reservoir, near Alpine.....	228	Monarch, Tongue River at.....	82
Gros Ventre River, above mouth, near Jackson...	226-227	Moorhead, Mt., Powder River at.....	99
above Upper Slide Lake, near Kelly.....	226-227	Powder River below Fence Creek, near.....	98
Ground Water, quality records by basin and county:		Muddy Creek, above mouth of canyon, near Buffalo.....	220-221
Madison River basin		at mouth of canyon, near Buffalo.....	220-221
Teton County.....	234-235	National stream-quality accounting network, definition of.....	8
Missouri River basin		New Fork River near Big Piney.....	175
Converse County.....	232-233	Newcastle, Beaver Creek near.....	101
Johnson County.....	232-233	Niobrara County, ground-water quality records in.....	232-233
Niobrara County.....	232-233	Northgate, Colo., North Platte River near.....	109-110
Weston County.....	232-233	North Platte River, above Pathfinder Reservoir.....	125
Snake River basin		above Seminoe Reservoir, near Sinclair.....	116-118
Sublette County.....	234-235	at Alcova.....	135-137
Teton County.....	234-235	at Casper.....	142-143
Yellowstone River basin		at Mills.....	138-139
Park County.....	234-235	at Orin.....	153-154
Teton County.....	234-235	at Orpha.....	152
Guernsey Reservoir, North Platte River below...	158	at recorder station, below Whalen.....	159
Hams Fork near Granger.....	197-198	at Wyoming-Nebraska State line.....	168-170
Hanna, Medicine Bow River above Seminoe Reservoir, near.....	121	below Casper.....	144-145
Hardness, definition of.....	4	below Deer Creek, near Glenrock.....	148
Henrys Fork near Manila, Ut.....	201-202	below Glendo Reservoir.....	157
Hoback River, above Cliff Creek, near Bondurant.....	228-229	below Guernsey Reservoir.....	158
above Fisherman Creek, near Bondurant.....	228-229	near Careyhurst.....	151
Howell, Laramie River at.....	160	near Glenrock.....	149-150
Hyattville, Paint Rock Creek near mouth, below...	49	near Lingle.....	166-167
Hydrologic bench-mark station, definition of...	8	near Northgate, Colo.....	109-110
Instantaneous discharge, definition of.....	4	near Saratoga.....	114
Inyan Kara Creek near Upton.....	222-223	Nowood River, at Manderson.....	50-51
Introduction.....	1	near Ten Sleep.....	48
Jackson, Cache Creek near.....	210-211	Orin, North Platte River at.....	153-154
Johnson County, ground-water quality records in.....	232-233	Orpha, North Platte River at.....	152
Kane, Bighorn River at.....	54-55	Owl Creek, South Fork, below Anchor Reservoir..	220
Kaycee, Powder River near.....	88-89	near Anchor.....	220
South Fork Powder River near.....	90	Pacific Creek near Moran.....	224
La Barge, Green River near.....	176-178	Paint Rock Creek near mouth, below Hyattville..	49
Laramie River, at Howell.....	160	Park County, ground-water quality records in...	234-235
at Two Rivers.....	161	Particle size, definition of.....	6
near Fort Laramie.....	163-165	Particle-size classification, definition of....	6
Lenore, Wyoming Canal near.....	31	Pathfinder Reservoir, near Alcova.....	130-132
Leo, Seminoe Reservoir near.....	122-124	North Platte River above.....	125
Lingle, North Platte River near.....	166-167	Pavillion, Fivemile Creek above Wyoming Canal, near.....	40
Little America, Blacks Fork near.....	198-200	Pesticide program, definition of.....	9
Little Bighorn River below Pass Creek, near Wyola, Mt.....	76-79	pH, definition of.....	6
Little Laramie River at Two Rivers.....	162	Platte River basin, surface-water quality records in.....	109-172
Little Medicine Bow River, at Heward Ranch, near Shirley Basin.....	119	Polecat Creek near Flagg Ranch.....	224-225
near Medicine Bow.....	120	Powder River, at Arvada.....	93-95
near Shirley Basin.....	119	at Moorhead, Mt.....	99
Little Snake River, near Baggs.....	205	below Fence Creek, near Moorhead, Mt.....	98
near Dixon.....	205	near Kaycee.....	88-89
Little Wind River, above Arapahoe.....	35	South Fork, near Kaycee.....	90
near Riverton.....	37-38	Radiochemical program, definition of.....	9
Lovell, Big Coulee near.....	71	Redwater Creek at Wyoming-South Dakota State line.....	108
Shoshone River near.....	66-68	Riverton, Little Wind River near.....	37-38
Lucerne, Bighorn River at.....	46	Wind River at.....	32-34
Lyman, Blacks Fork near.....	194-196	Rock Creek at Atlantic City.....	126-128
Smiths Fork near.....	193	Sage Creek (Platte River basin) near Saratoga..	115
Madison River basin, ground-water quality records in.....	234-235	Sage Creek (Yellowstone River basin) at Sidon Canal, near Deaver.....	69-70
Manderson, Nowood River at.....	50-51	St. Xavier, Mt., Bighorn River near.....	72-75
Manila, Ut., Henrys Fork near.....	201-202	Salt Creek near Sussex.....	91
Map of Wyoming, ground-water quality sites....	243	Salt River above reservoir, near Etna.....	217-219
surface-water quality sites.....	241	Sand Creek at Ranch A, near Reulah.....	222-223
Mean concentration, definition of.....	7	Saratoga, North Platte River near.....	114
Mean discharge, definition of.....	4	Sage Creek near.....	115
Medicine Bow, Little Medicine Bow River near...	120	Sediment, collection and examination of data... definition of.....	14
Medicine Bow River above Seminoe Reservoir, near Hanna.....	121	Selected references.....	15
Micrograms per litre (ug/l, UG/L), definition of.....	4	Seminoe Reservoir near Leo.....	122-124
Milligrams per litre (mg/l, MG/L), definition of.....	4	Sheffield Creek at Flagg Ranch.....	224-225
		Shell Creek near Greybull.....	53
		Sheridan, Goose Creek below.....	83-84

	Page		Page
Shirley Basin, Little Medicine Bow River at		Ten Sleep, Nowood River near.....	48
Heward Ranch, near.....	119	Teton County (Madison River basin), ground-	
Little Medicine Bow River near.....	119	water quality records in.....	234-235
Shoshone River, above Dry Creek, near Cody.....	60	Teton County (Snake River basin), ground-	
below Buffalo Bill Reservoir.....	58-59	water quality records in.....	234-235
near Garland.....	220	Teton County (Yellowstone River basin),	
near Lovell.....	66-68	ground-water quality records in.....	234-235
Shoshoni, Fivemile Creek near.....	41-42	Teton Creek near Alta.....	230-231
Wind River above Boysen Reservoir, near.....	39	Thermograph, definition of.....	7
Silver Tip Creek near Belfry, Mt.....	27-29	Time-weighted average, definition of.....	8
Sinclair, North Platte River above Seminole		Tongue River, at Monarch.....	82
Reservoir, near.....	116-118	at State line, near Decker, Mt.....	85-87
Smiths Fork near Lyman.....	193	near Dayton.....	80-81
Snake River, above Cottonwood Creek,		Tons per acre-foot, definition of.....	8
near Moose.....	226-227	Tons per day, definition of.....	8
above Flat Creek, near Jackson.....	228-229	Total sediment discharge or total sediment	
above reservoir, near Alpine.....	212-216	load, definition of.....	7
above Spread Creek, near Moran.....	226-227	Trail Creek at Wyoming-Idaho State line.....	230-231
at Moose.....	226-227	Two Rivers, Laramie River at.....	161
near Moran.....	224-225	Little Laramie River at.....	162
near Wilson.....	226-227	Water-quality records.....	19-235
Snake River Basin, ground-water quality		Water-Supply papers.....	14
records in.....	234-235	Weighted average, definition of.....	8
surface-water quality records in.....	210-219	Well number.....	10
Sodium adsorption ratio, definition of.....	7	Weston County, ground-water quality	
Solute, definition of.....	7	records in.....	232-233
Solutes, collection and examination of data....	13	Whalen, North Platte River at recorder	
Special networks and programs.....	8	station, below.....	159
Specific conductance, definition of.....	7	Whistle Creek near Garland.....	64-65
Spencer, Cheyenne River near.....	100	Wind River, above Boysen Reservoir,	
Spread Creek above Skull Creek, near Moran....	226-227	near Shoshoni.....	39
Spring Creek near Jackson.....	228-229	at Riverton.....	32-34
Stockade Beaver Creek, near Newcastle.....	222-223	below Boysen Reservoir.....	43-45
Springs No. 1 near Newcastle.....	222-223	near Crowheart.....	31
Springs No. 2 near Newcastle.....	222-223	near Dubois.....	30
Streamflow, definition of.....	7	Woodruff, Ut., Bear River above	
Sublette County (Snake River basin), ground-		reservoir, near.....	206
water quality records in.....	234-235	Worland, Bighorn River at.....	47
Suspended sediment, definition of.....	6	Wyola, Mt., Little Bighorn River below	
Suspended-sediment concentration,		Pass Creek, near.....	76-79
definition of.....	7	Wyoming Canal near Lenore.....	31
Sussex, Salt Creek near.....	91	Yellowstone National Park, ground-water	
Sweetwater River near Alcova.....	129	quality records in.....	234-235
Tables of conversion factors.....	5	Yellowstone River at Corwin Springs, Mt.....	19
Temperature, collection and examination		Yellowstone River basin, ground-water	
of data.....	13	quality records in.....	234-235
Conversion table.....	12	surface-water quality records in.....	19-99

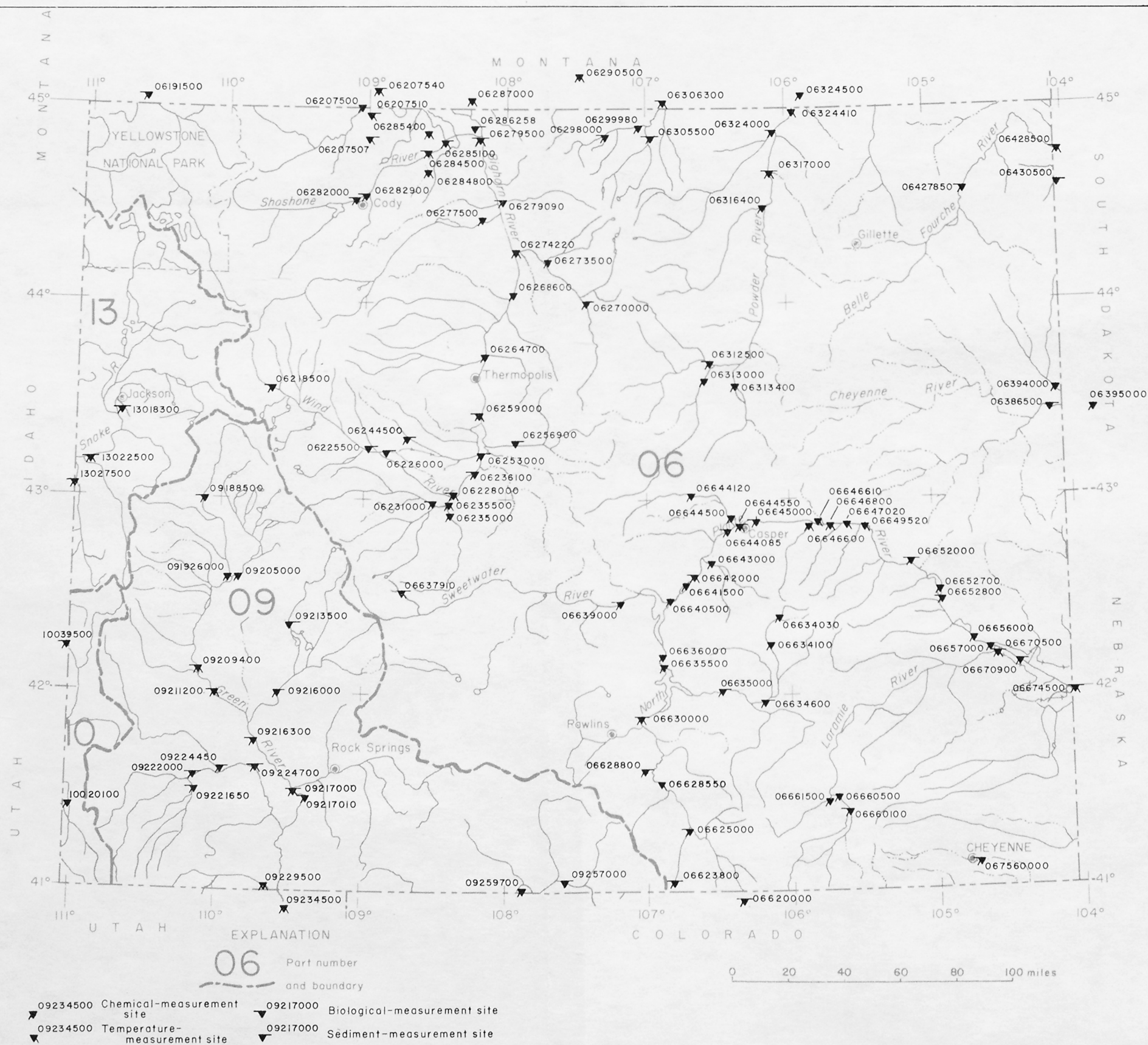


Figure 1.—Map of Wyoming showing locations of sites where data were obtained on the quality of surface water.

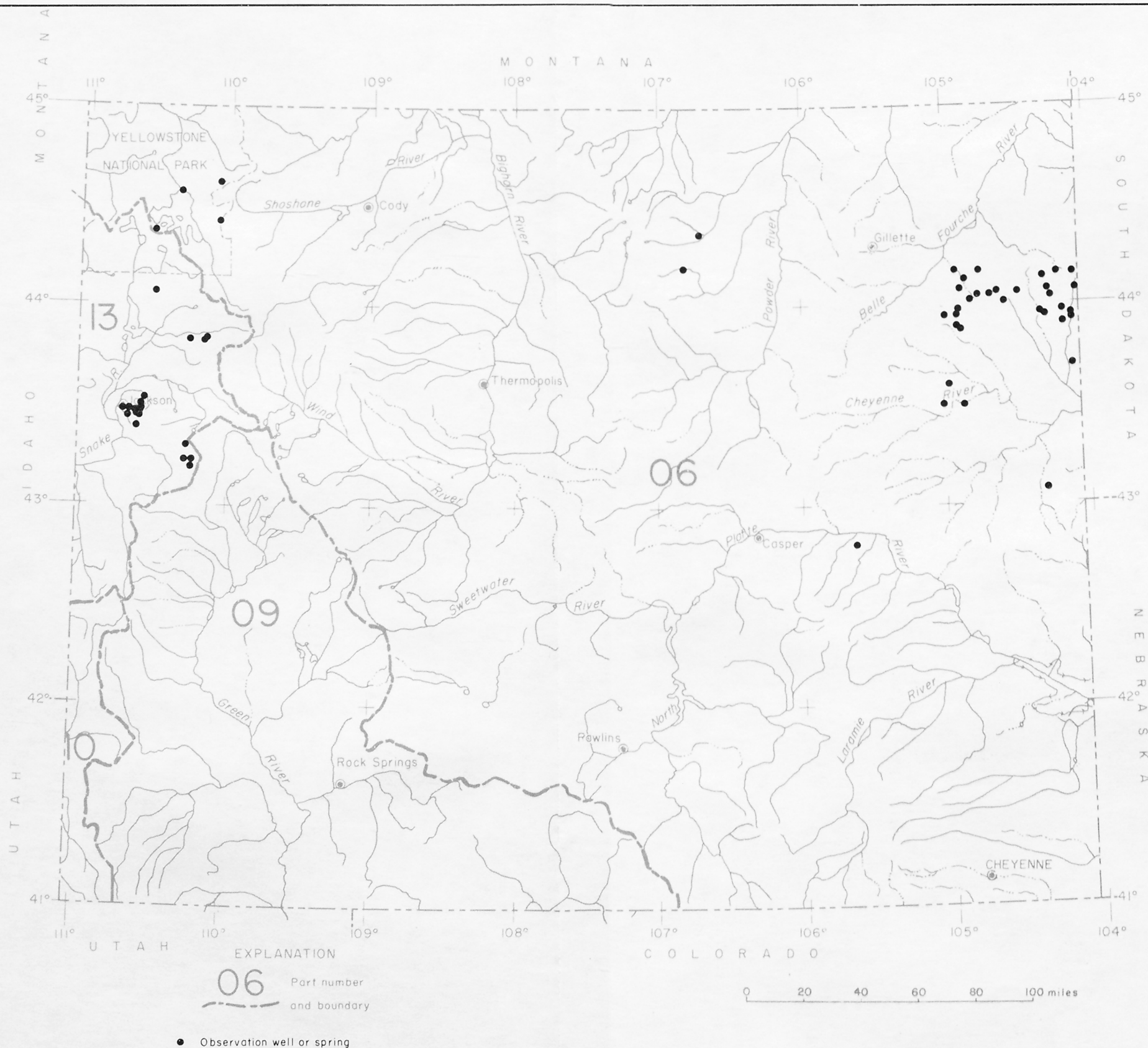


Figure 2.-Map of Wyoming showing locations of sites where data were obtained on the quality of ground water.

U. S. DEPARTMENT OF THE INTERIOR

Geological Survey

4015 Warren Avenue

P. O. Box 2087

Cheyenne, Wyoming 82001

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413

