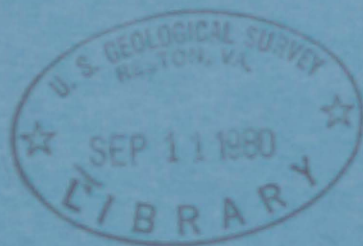


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Water Resources Data for Wyoming

Volume 1. Missouri River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-79-1
WATER YEAR 1979

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

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^6	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons



Water Resources Data for Wyoming

Volume 1. Missouri River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-79-1

WATER YEAR 1979

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

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Wyoming write to
District Chief, Water Resources Division
U.S. Geological Survey
2120 Capitol Avenue
P.O. Box 1125
Cheyenne, Wyoming 82001

1980

PREFACE

This report was prepared by personnel of the Wyoming district of the Water Resources Division of the U.S. Geological Survey under the supervision of William W. Dudley, Jr., District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Wyoming and with other agencies.

This report is one of a series issued by State. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Wyoming are in two volumes as follows:

- Volume 1. Missouri River Basin
- Volume 2. Green River, Bear River, and Snake River Basins

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Letter after station name designates type of data: [(d) discharge, (e) elevation, gage height, or contents, (c) chemical, (b) biological, (m) microbiological, (p) pesticides, (t) water temperature, (s) sediment]

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WATER RESOURCES DATA FOR WYOMING, 1979

VOLUME 1: MISSOURI RIVER BASIN VOLUME 2: GREEN RIVER, BEAR RIVER, AND SNAKE RIVER BASINS

INTRODUCTION

Water resources data for the 1979 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contains discharge records for 166 gaging stations; stage only records for 1 lake; stage and contents for 11 lakes and reservoirs, water quality for 116 gaging stations, 101 ungaged stations, and 70 wells and springs; and water levels for 36 observation wells. Also included are 75 crest-stage partial-record stations. In Volume 1 (Missouri River basin) locations of gaging stations and peak-flow partial-record stations are shown in figures 4-6, and locations of observation wells and sites where water-quality data were collected from wells are shown in figures 7-9. In Volume 2 (Green River, Bear River, and Snake River basins) locations of gaging stations and peak-flow partial-record stations are shown in figures 4 and 5, and locations of observation wells and sites where water-quality data were collected from wells are shown in figures 6 and 7. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report WY-79-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Some records have been collected and computed by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Wyoming State Engineer, George L. Christopoulos

Wyoming Department of Agriculture, Larry J. Bourret, Commissioner of Agriculture

Wyoming Highway Department, Leno H. Menghini, Superintendent and Chief Engineer

Wyoming Department of Environmental Quality, Robert E. Sundin, Director

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

Wyoming Game and Fish Department, Earl M. Thomas, Director

Wyoming Water Resources Research Institute, Paul A. Rechar, Director

City of Cheyenne, Board of Public Utilities, Ray L. Sherard, Director

Assistance in the form of funds and services was given by the Bureau of Land Management, U.S. Department of the Interior, in collecting records for 13 gaging stations, 16 water-quality stations, and 16 sediment stations; by the Environmental Protection Agency for 14 water-quality stations; by the Water and Power Resources Service, U.S. Department of the Interior for 10 gaging stations, 1 water-quality station, and 2 sediment stations; and by the Corps of Engineers for 2 gaging stations, published in this report.

Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

Streamflow at the beginning of the 1979 water year was near normal at the four index stations. The index stations are Tongue River near Dayton, North Platte River above Seminole Reservoir near Sinclair, Green River at Warren Bridge near Daniel, and Bear River at Border. Monthly and annual means are compared with the median flows for the index sites in figure 3. The median is computed from the flows for the period 1941-70. The normal trend continued through the first half of the water year. Through the months of May, June, and July the runoff was deficient for the Tongue River, Green River, and Bear River. This was indicative of the below normal snowpacks in the respective watersheds. The snowpack in the Upper North Platte River watershed was above normal and this is reflected in the above normal runoff for the months of May, June, and July. The precipitation in August was above normal in most watersheds which is indicated by the above or near normal runoff at the index sites.

Reservoir storage in the Yellowstone River basin decreased 317,600 acre-feet (392 hm^3) during the year. This includes the Anchor, Bull Lake, Boysen, Buffalo Bill, and Bighorn reservoirs. Storage in Keyhole Reservoir decreased 11,000 acre-feet (13.6 hm^3) with a maximum storage of 171,600 acre-feet (212 hm^3) on April 22. In the North Platte River basin, storage in the major reservoirs increased 131,100 acre-feet (162 hm^3). In the Green River basin, the storage contents decreased 31,800 acre-feet (39.2 hm^3) in the Fontenelle Reservoir and decreased 254,000 acre-feet (313 hm^3) in the Flaming Gorge Reservoir during the water year.

DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the 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 meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

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.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, 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 the organisms which produce colonies within 24 hours when incubated at $35^\circ\text{C} \pm 1.0^\circ\text{C}$ 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 intestines or feces of warm blooded 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 $44.5^\circ\text{C} \pm 0.2^\circ\text{C}$ 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 intestines of warm-blooded 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 $35^\circ\text{C} \pm 1.0^\circ\text{C}$ 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 unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s , ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

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

Dissolved that material in a representative water sample which passes through a 0.45 μ m membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a 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. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

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 a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a 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).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

Milligrams per liter (mg/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L , and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either 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:

Classification	Size (mm)	Method of analysis
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.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

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).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactivity carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

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

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a $0.45 \mu\text{m}$ membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

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 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 liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) 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 volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a $0.45 \mu\text{m}$ membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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 reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

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" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 year.

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

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

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1979, is called the "1979 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

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.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indentation in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station 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 partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of 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 06630000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "630000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

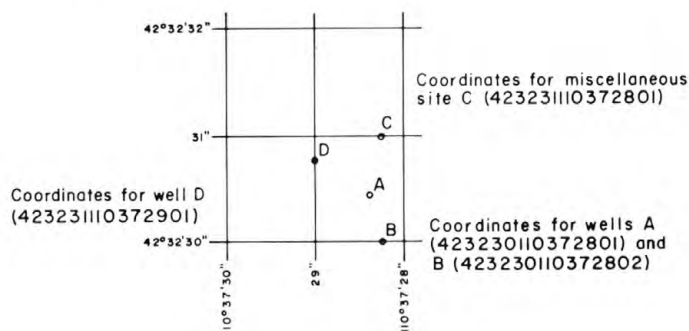


Figure 1.—System for numbering wells and miscellaneous sites (latitude and longitude).

In order to compare data for wells in other publications, such as the county ground-water studies, the wells in this report are also numbered according to a system based on the location in the public land classification of the U.S. Bureau of Land Management. The system is illustrated in figure 2. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters A, B, C, and D designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10-acre or 4-hectare tract). For example, well 26N-063W-32CDA is in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.32, T.26 N., R.63 W. Consecutive terminal numbers are added if more than one well is recorded within a 10-acre tract.

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 in the preceding paragraph.

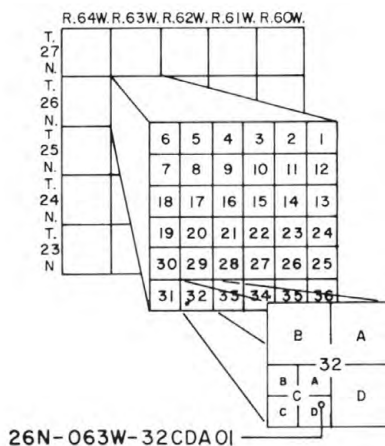


Figure 2.—System for numbering wells and miscellaneous sites (township and range).

SPECIAL NETWORKS AND PROGRAMS

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 (NASQAN) is a data collection 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 into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) 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 streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum, and condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS".

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on the following page.

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.

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 possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a 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.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For

stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily 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 recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

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

Seepage Study

Base-flow discharge and chemical-quality measurements were made at selected sites on streams during October-November 1977, August-September 1978, and October 1978. The purpose of the study is to provide data on the interaction between surface-water and ground-water systems in the Northern Great Plains area of Montana and Wyoming.

The data and its interpretation will be released in a U.S. Geological Survey open-file report describing measurements of discharge, gain or loss in flow, and chemical quality of streams in the Northern Great Plains area of Montana and Wyoming, 1977-78, by Stanley A. Druse and Kent A. Dodge.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figures 1 and 2.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 or land-surface datum (lsd). National Geodetic Vertical Datum of 1929 is explained in the Definition of Terms paragraph. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greason, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

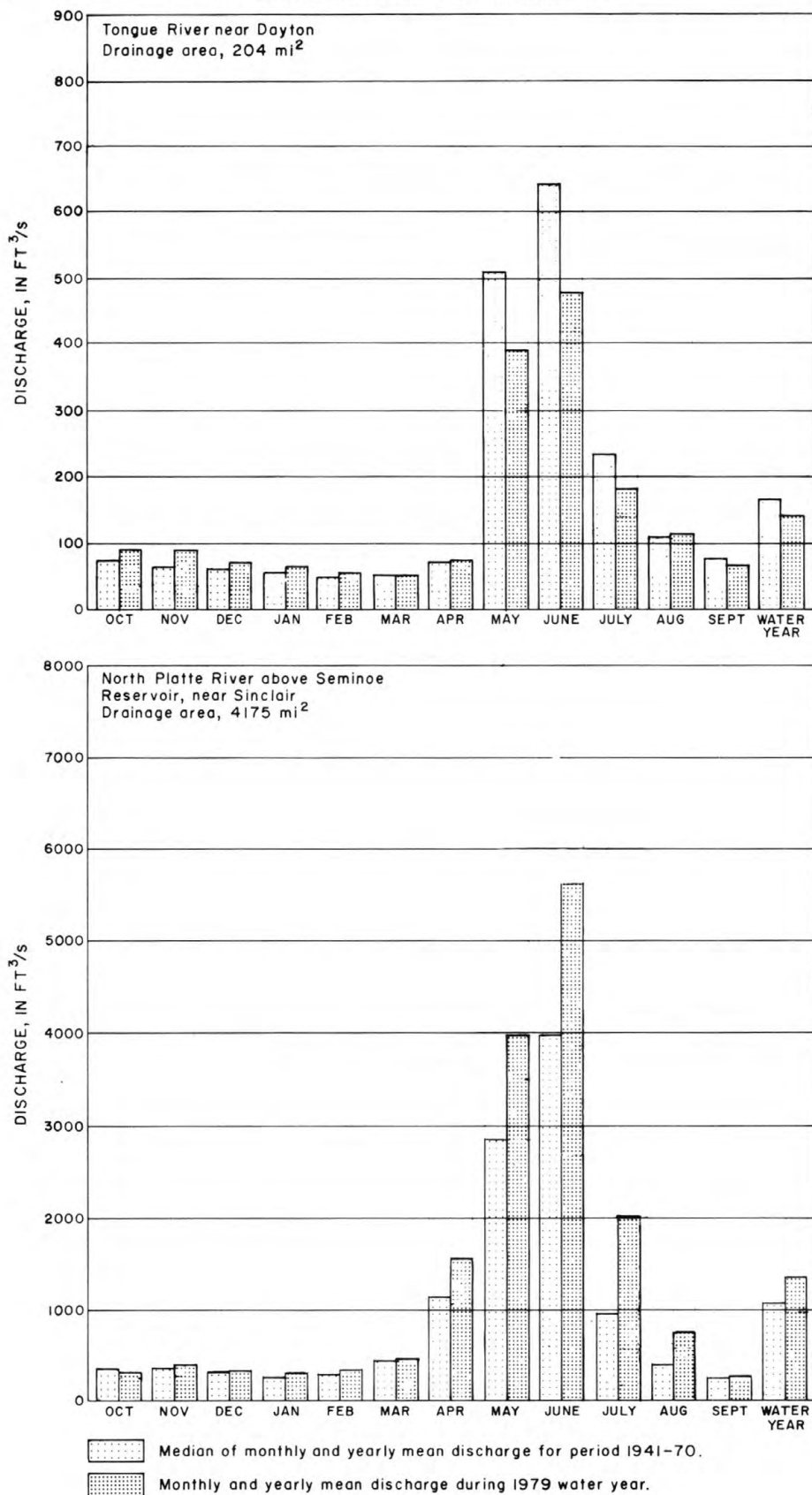
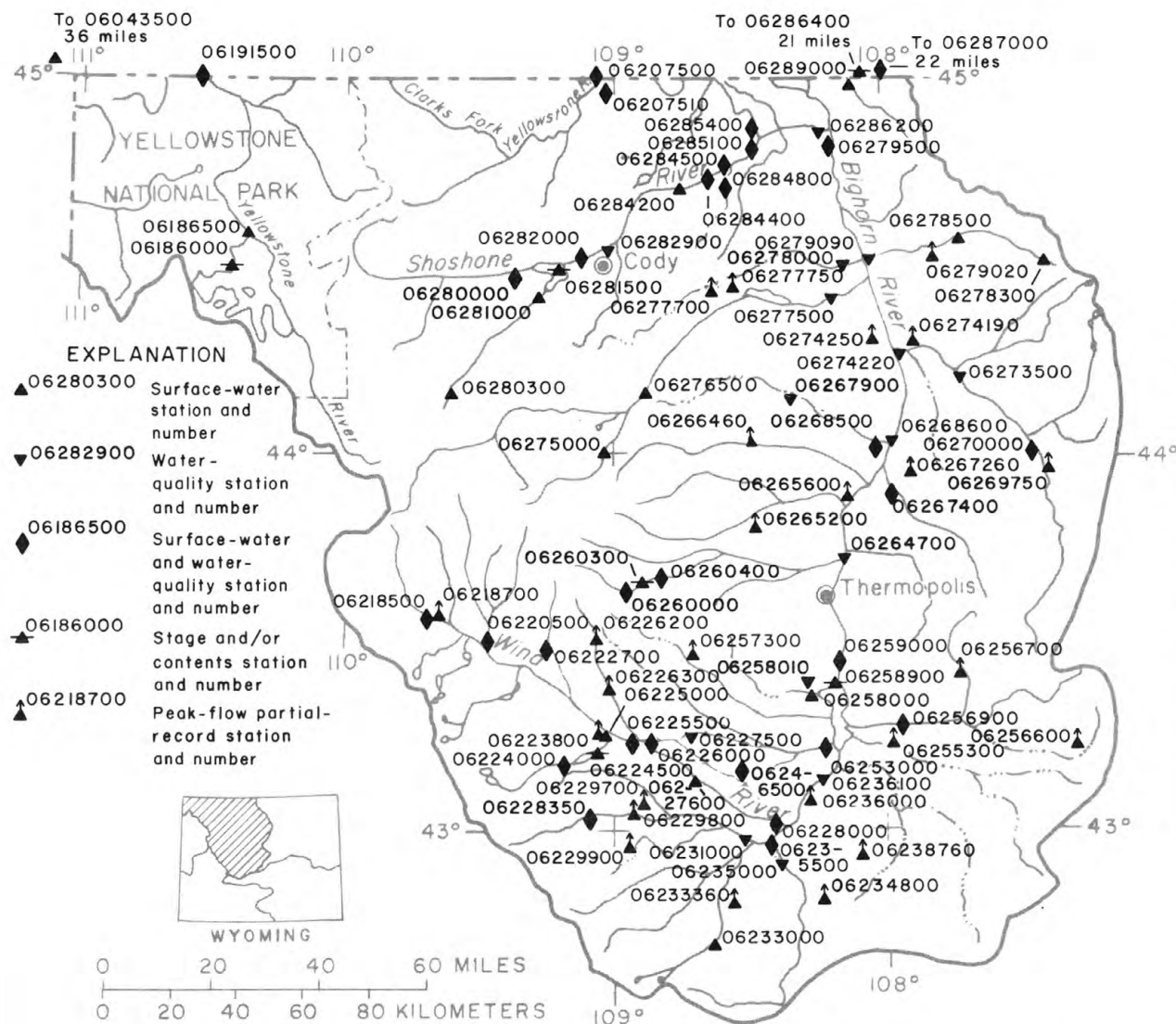


Figure 3.—Discharge during 1979 water year compared with median discharge for period 1941-70 for two representative gaging stations.



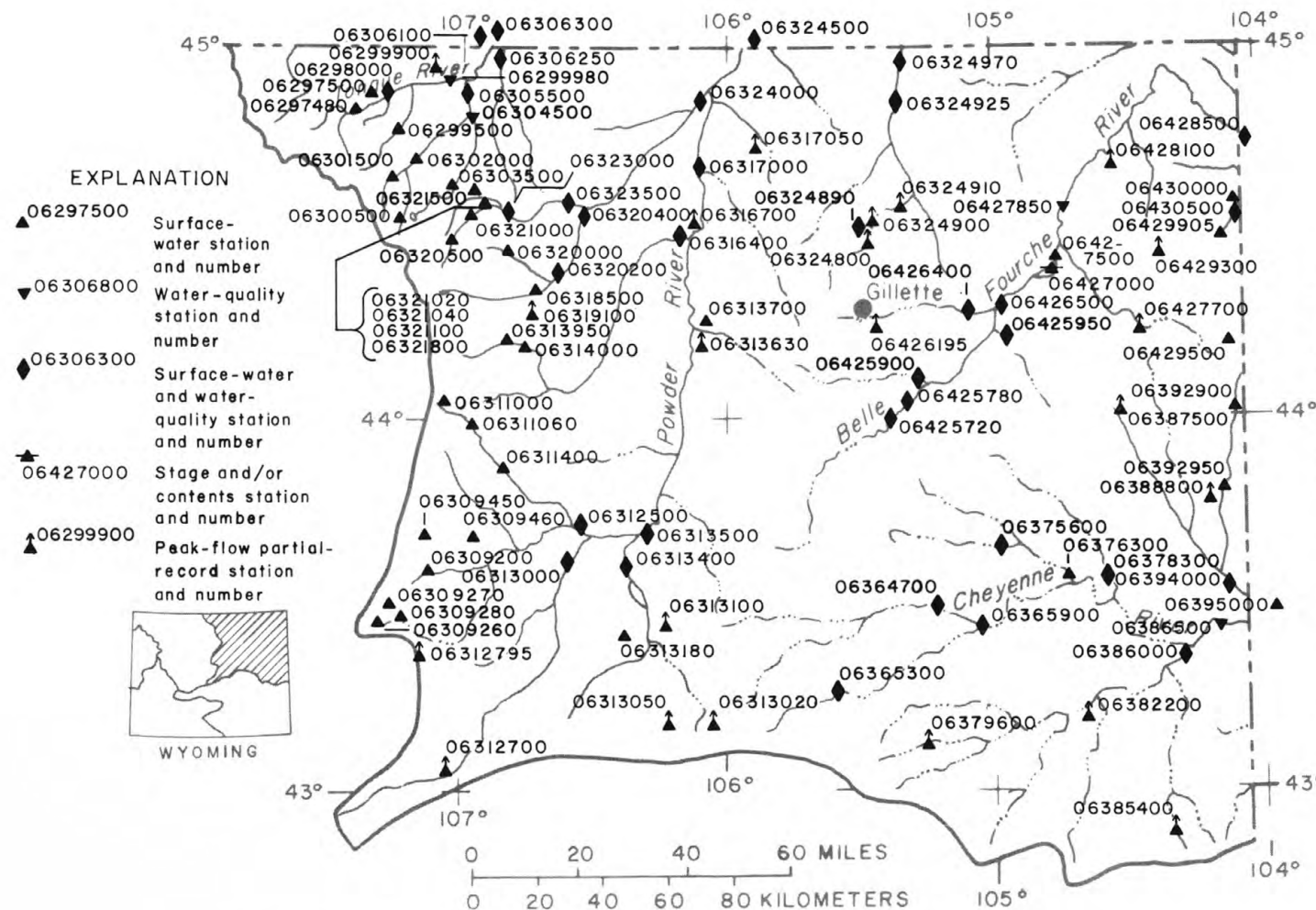
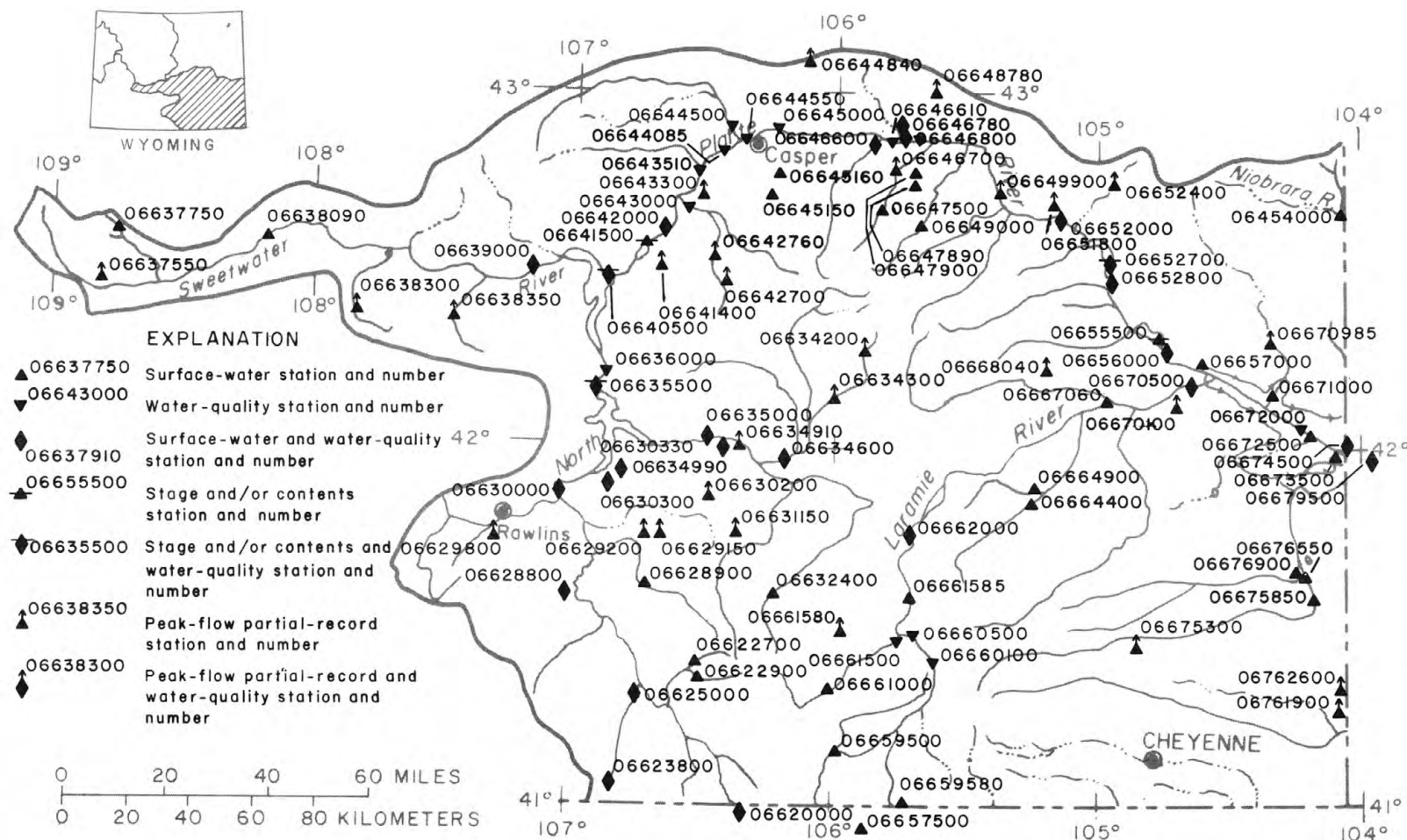


Figure 5.—Location of gaging stations and peak-flow partial-record stations in the Tongue River, Powder River, Belle Fourche River, and Cheyenne River basins.



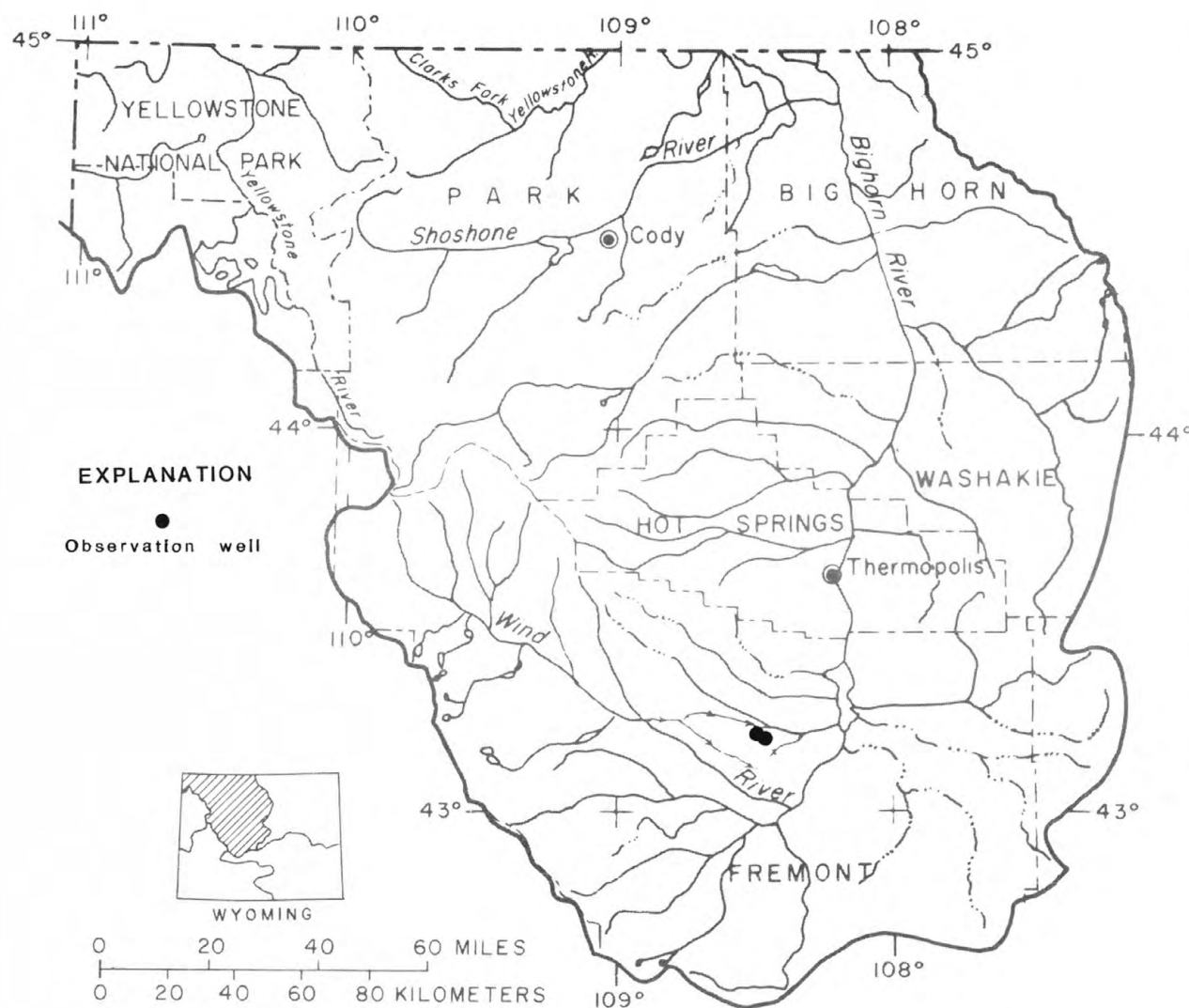


Figure 7.— Location of selected observation wells in the Yellowstone River, Clarks Fork Yellowstone River, and Bighorn River basins.

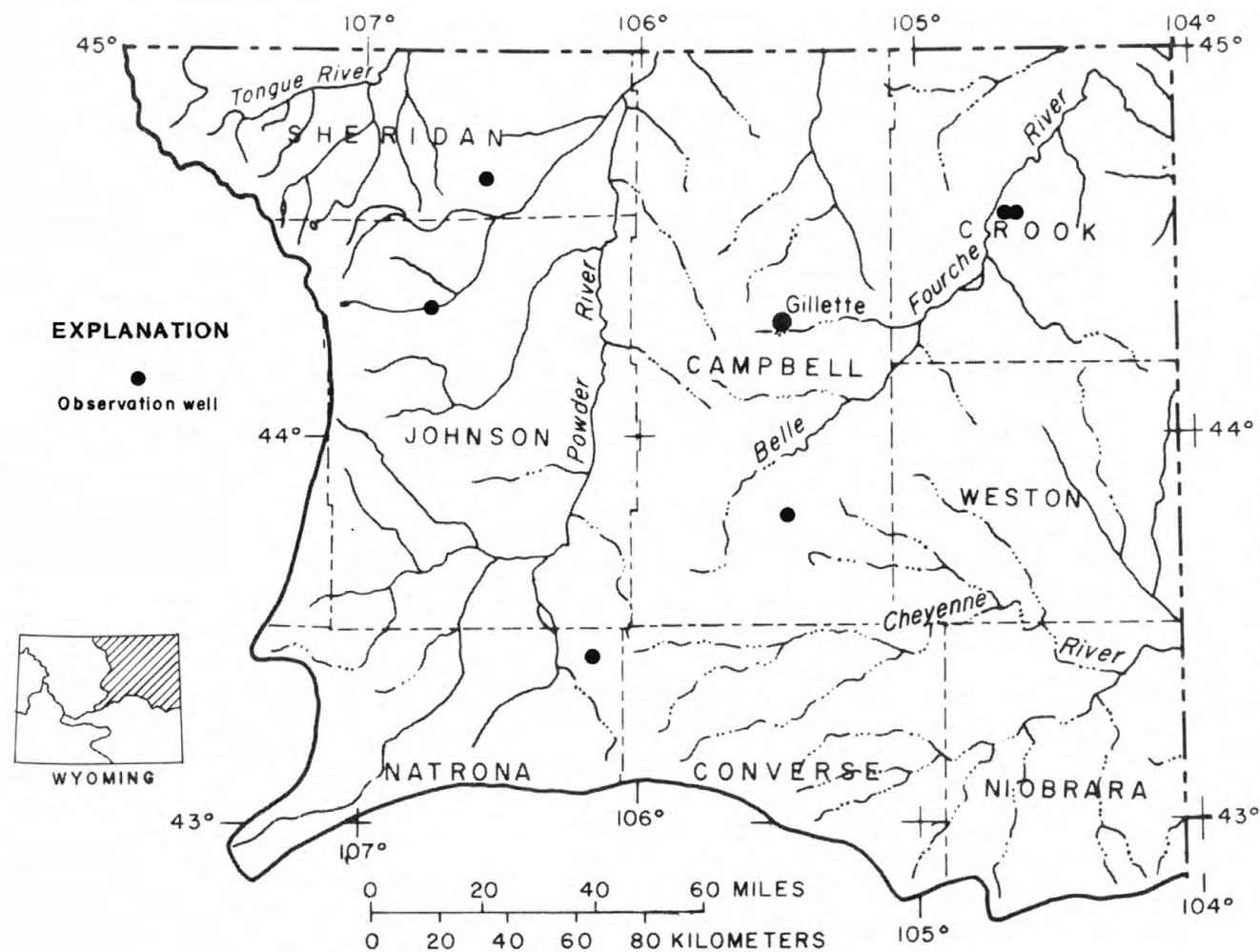


Figure 8.—Location of selected observation wells in the Tongue River, Powder River, Belle Fourche River, and Cheyenne River basins.

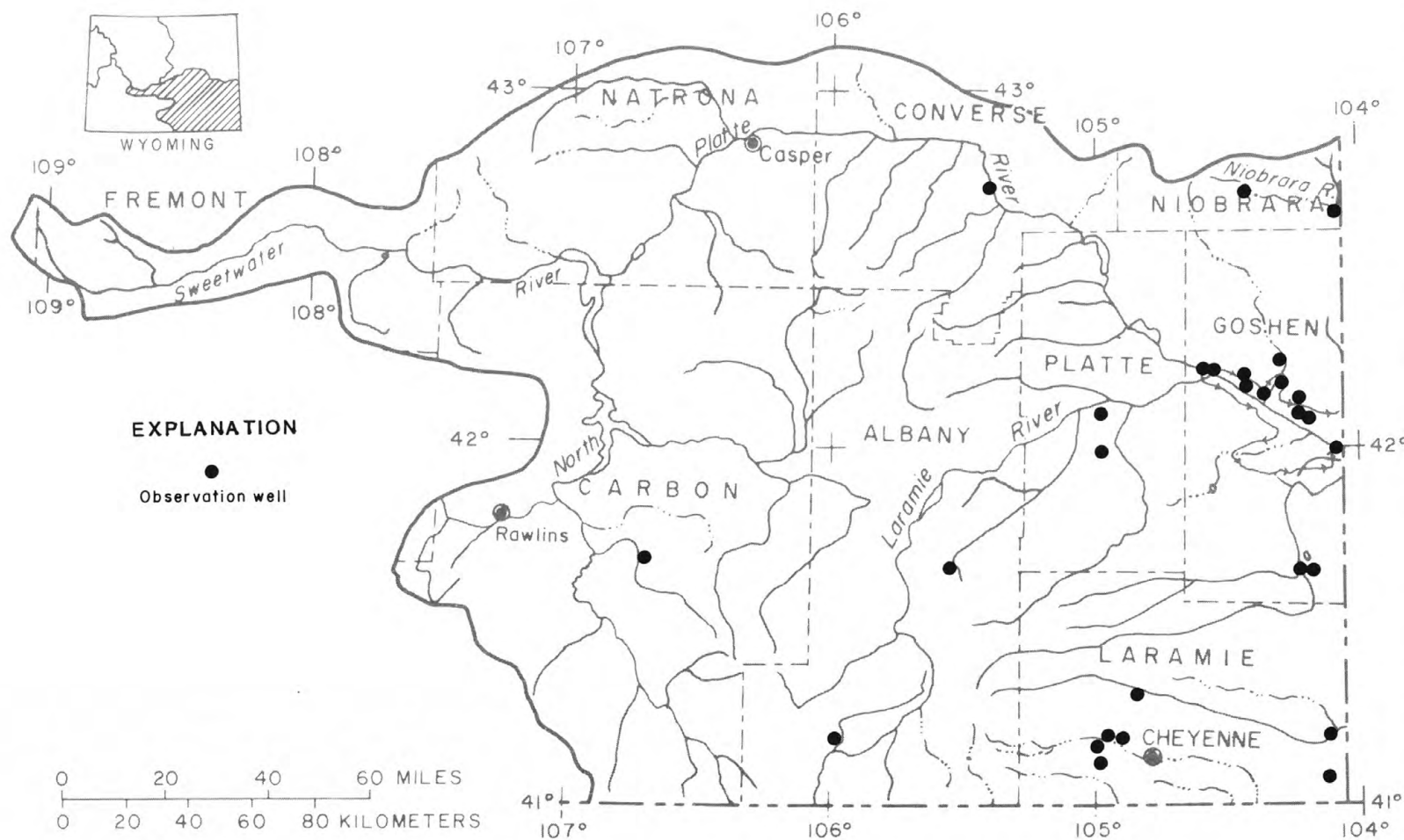


Figure 9.—Location of selected observation wells in the Niobrara River and Platte River basins.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615	448	385	290	312	298	289	703	1960	2040	631	490
2	594	458	354	310	314	288	280	705	1870	1830	613	468
3	575	453	319	320	307	267	290	744	2020	1680	599	451
4	571	457	338	310	303	267	295	822	2570	1590	585	441
5	553	426	352	300	312	263	301	917	3090	1500	570	439
6	545	388	310	300	325	281	316	970	3430	1410	560	428
7	539	416	278	300	330	302	342	836	2870	1350	559	421
8	533	443	277	310	312	309	319	774	2340	1280	572	414
9	523	469	309	330	320	292	339	704	2070	1220	589	408
10	516	329	328	350	315	274	339	648	2070	1150	560	407
11	508	301	343	370	309	274	325	639	2370	1110	545	412
12	503	371	350	334	307	291	311	626	2780	1070	547	412
13	482	406	312	335	316	300	318	651	3500	1070	638	412
14	492	334	322	332	310	303	309	744	3680	1010	720	405
15	492	309	334	355	287	304	335	887	3060	958	610	400
16	489	357	313	342	293	321	357	1190	2750	926	571	396
17	493	364	331	307	303	334	427	1460	2680	893	566	401
18	508	373	345	325	299	319	476	1580	2560	863	555	400
19	487	345	345	324	301	313	444	1730	2890	840	586	396
20	480	326	339	319	305	304	394	1840	2750	831	627	396
21	475	337	331	324	294	309	394	2060	2800	816	607	394
22	469	395	336	319	298	307	409	2380	2810	849	577	389
23	450	402	339	304	290	296	453	2650	2630	1030	544	386
24	468	371	340	299	292	304	480	3060	2570	839	550	385
25	450	349	337	308	292	316	448	3100	2610	795	563	385
26	450	364	321	302	290	309	435	3380	2630	774	537	391
27	447	365	329	298	291	309	449	3840	2530	751	550	395
28	458	365	317	299	298	312	556	4250	2410	733	540	387
29	465	338	280	280	---	310	611	3210	2260	726	513	382
30	393	370	280	289	---	304	656	2550	2180	682	491	379
31	380	---	270	296	---	295	---	2220	---	654	484	---
TOTAL	15403	11429	10064	9781	8525	9275	11697	51870	78740	33270	17759	12270
MEAN	497	381	325	316	304	299	390	1673	2625	1073	573	409
MAX	615	469	385	370	330	334	656	4250	3680	2040	720	490
MIN	380	301	270	280	287	263	280	626	1870	654	484	379
AC-FT	30550	22670	19960	19400	16910	18400	23200	102900	156200	65990	35220	24340
CAL YR 1978	TOTAL	336614	MEAN	922	MAX	4920	MIN	256	AC-FT	667700		
WTR YR 1979	TOTAL	270083	MEAN	740	MAX	4250	MIN	263	AC-FT	535700		

YELLOWSTONE RIVER BASIN

06186000 YELLOWSTONE LAKE AT BRIDGE BAY, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°32'00", long 110°26'20", Yellowstone National Park, Hydrologic Unit 10070001, at marina at Bridge Bay, 3.7 mi (6.0 km) southwest of lake outlet.

DRAINAGE AREA.--1,006 mi² (2,606 km²).

PERIOD OF RECORD.--October 1921 to current year (gage heights only). Prior to October 1966, published as Yellowstone Lake at Lake Hotel.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Nonrecording gage usually read once daily except during winter months, when it is read occasionally. Datum of gage is 7,729.45 ft (2,355.936 m) above mean sea level. Prior to Oct. 1, 1966, nonrecording gages at Lake Hotel dock at same datum.

REMARKS.--No regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 7.34 ft (2.237 m) June 28, 30, 1974; minimum observed, -0.1 ft (-0.03 m) Dec. 7, 8, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 4.78 ft (1.457 m) July 2; minimum observed, 1.28 ft (0.390 m) Jan. 3.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

[illegible]

06186500 YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°34'03", long 110°22'48", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 450 ft (137 m) downstream from Fishing Bridge, 0.2 mi (0.3 km) downstream from outlet of Yellowstone Lake, and at mile 594.8 (957.0 km).

DRAINAGE AREA.--1,006 mi² (2,606 km²).

PERIOD OF RECORD.--December 1922 to current year (prior to October 1926, gage heights only). Monthly discharge only for winter periods in water years 1927-30, 1932-33, 1935-38, 1940, 1942-46, published in WSP 1309; figures of daily discharge for these months published in WSP 646, 666, 686, 701, 731, 746, 786, 806, 826, 856, 896, 956, 976, 1006, 1036, and 1056 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1309: See PERIOD OF RECORD. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,727.77 ft (2,355.424 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 2, 1928, nonrecording gage at site 450 ft (137 m) upstream at datum 1.07 ft (0.326 m) higher.

REMARKS.--Records good except those for winter period, which are poor. No artificial regulation.

AVERAGE DISCHARGE.--53 years (water years 1927-79), 1,326 ft³/s (37.55 m³/s), 17.90 in/yr (455 mm/yr), 960,700 acre-ft/yr (1.18 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft³/s (260 m³/s) June 28, 1974, gage height, 8.20 ft (2.499 m); minimum daily, 130 ft³/s (3.68 m³/s) Mar. 1-31, 1935, but may have been less during periods of ice effect; minimum gage height, 1.45 ft (0.442 m) Dec. 17, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,720 ft³/s (105 m³/s) June 30, gage height, 5.74 ft (1.750 m); maximum gage height, 5.88 ft (1.792 m) June 27 (owing to sieche); minimum daily discharge, 280 ft³/s (7.93 m³/s) Feb. 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	822	605	370	390	290	540	650	2130	3710	2170	1320
2	1200	816	605	360	390	290	560	655	2160	3710	2130	1290
3	1180	810	605	350	380	290	570	660	2180	3690	2070	1260
4	1180	816	605	350	380	290	580	665	2220	3640	2030	1250
5	1150	780	595	360	370	290	600	670	2310	3600	1970	1220
6	1140	775	590	370	370	300	620	697	2430	3550	1930	1200
7	1130	753	580	380	370	300	640	709	2550	3500	1890	1180
8	1120	747	580	380	360	310	650	714	2640	3460	1860	1160
9	1100	747	570	390	360	310	660	720	2680	3410	1840	1150
10	1100	736	566	390	350	320	680	720	2710	3350	1810	1110
11	1100	736	557	400	350	320	700	725	2730	3310	1750	1080
12	1050	736	550	410	340	330	710	725	2810	3230	1720	1060
13	1030	725	550	420	340	340	720	725	2920	3170	1720	1040
14	1020	709	550	430	330	340	710	725	3080	3100	1740	1020
15	1010	703	550	430	300	350	710	725	3200	3040	1720	1010
16	998	697	540	430	300	360	720	747	3320	2980	1690	984
17	991	697	540	440	310	360	710	780	3380	2910	1660	970
18	984	692	540	440	310	360	700	822	3470	2850	1630	956
19	977	670	540	440	310	360	700	864	3580	2810	1610	935
20	977	670	540	440	310	370	700	914	3580	2740	1590	921
21	963	665	530	440	300	370	690	984	3580	2680	1580	907
22	949	665	530	430	290	380	680	1040	3580	2630	1570	894
23	942	660	520	430	290	390	680	1140	3580	2610	1530	882
24	921	645	510	420	280	400	680	1220	3600	2600	1510	864
25	900	630	500	420	280	410	680	1330	3630	2540	1490	852
26	900	625	480	420	280	420	670	1460	3630	2460	1460	858
27	882	620	470	410	290	440	650	1610	3670	2400	1440	852
28	870	615	450	410	300	450	655	1790	3670	2370	1420	834
29	870	605	420	400	---	470	645	1940	3690	2320	1390	822
30	852	605	390	400	---	480	650	2040	3710	2250	1370	804
31	834	---	380	400	---	500	---	2110	---	2220	1360	---
TOTAL	31550	21172	16538	12560	9230	11190	19860	31276	92420	92840	52650	30685
MEAN	1018	706	533	405	330	361	662	1009	3081	2995	1698	1023
MAX	1230	822	605	440	390	500	720	2110	3710	3710	2170	1320
MIN	834	605	380	350	280	290	540	650	2130	2220	1360	804
AC-FT	62580	41990	32800	24910	18310	22200	39390	62040	183300	184100	104400	60860
CAL YR 1978	TOTAL	525088	MEAN	1439	MAX	5400	MIN	220	AC-FT	1042000		
WTR YR 1979	TOTAL	421971	MEAN	1156	MAX	3710	MIN	280	AC-FT	837000		

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, Hydrologic Unit 10070002, on left bank 20 ft (6 m) downstream from 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1889 to November 1893 (published as "at Horr"), September 1910 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912. WSP 1509: 1889-94, 1911, 1913, 1916-18, 1920-21, 1925, 1927. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,079.09 ft (1,548.107 m), National Geodetic Vertical Datum of 1929. Aug. 12, 1889, to Nov. 4, 1893, nonrecording gages at site 2 mi (3 km) upstream at different datums. Sept. 2, 1910, to Apr. 19, 1935, nonrecording gages on bridge at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres (3.89 km²) of which 40 acres (162,000 m²) are below station.

AVERAGE DISCHARGE.--73 years, 3,118 ft³/s (88.30 m³/s), 16.14 in/yr (410 mm/yr), 2,259,000 acre-ft/yr (2.79 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,000 ft³/s (906 m³/s) June 14, 15, 1918, gage height, 11.5 ft (3.51 m), from rating curve extended above 18,000 ft³/s (510 m³/s); minimum observed, 389 ft³/s (11.0 m³/s) Feb. 23, Mar. 5, 9, 1937, gage height, 0.05 ft (0.015 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft³/s (340 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 28	0500	15,800 447	7.47 2.277	June 14	0400	*17,400 493	7.85 2.393
June 6	0700	14,100 399	7.02 2.140				

Minimum discharge, 551 ft³/s (15.6 m³/s) Mar. 3, 4, gage height, 0.47 ft (0.143 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1950	1400	1210	780	710	645	1070	1840	6820	9810	3250	2000
2	1930	1410	1150	800	710	639	1040	1890	6490	8870	3150	1940
3	1890	1410	1090	800	700	576	1100	1940	6840	8410	3070	1890
4	1880	1410	1200	790	700	576	1120	2140	8900	7880	3010	1860
5	1830	1400	1160	760	700	626	1140	2380	11200	7550	2940	1830
6	1800	1310	1000	740	700	620	1160	2720	13400	7180	2860	1790
7	1780	1300	970	730	695	645	1260	2360	11300	6970	2800	1760
8	1760	1340	880	750	680	658	1180	2130	9110	6640	2770	1740
9	1740	1360	930	790	671	626	1250	1950	8020	6340	2820	1710
10	1720	1200	960	840	671	613	1240	1830	7880	6050	2730	1680
11	1710	1200	980	880	671	645	1220	1870	9200	5860	2650	1640
12	1690	1200	1000	880	665	658	1200	1880	11000	5650	2600	1620
13	1640	1200	1050	860	671	678	1200	2000	14100	5420	2740	1610
14	1620	1200	1050	900	671	685	1200	2310	15900	5270	3040	1580
15	1610	1200	1050	900	639	698	1220	2800	14000	5050	2920	1570
16	1600	1280	1100	870	613	731	1250	3780	11800	4920	2690	1540
17	1600	1200	1120	850	639	738	1300	4400	11500	4810	2560	1520
18	1600	1200	1050	830	633	745	1410	5200	11200	4650	2520	1500
19	1590	1150	1050	800	646	738	1410	5720	10900	4520	2510	1490
20	1580	1100	1000	780	646	745	1320	6150	10400	4400	2460	1460
21	1570	1100	980	740	633	772	1300	6740	10600	4320	2470	1430
22	1540	1150	960	720	646	800	1330	8210	10300	4260	2440	1440
23	1500	1150	950	720	639	807	1410	9110	10200	4420	2350	1430
24	1500	1200	920	720	626	864	1450	10200	10300	4160	2290	1400
25	1490	1200	910	700	613	945	1440	10500	11000	3930	2300	1380
26	1460	1200	900	700	607	975	1410	12000	11300	3840	2230	1400
27	1450	1150	880	700	607	1030	1410	13200	11200	3740	2140	1440
28	1450	1200	860	700	620	1050	1540	14800	10700	3650	2160	1410
29	1450	1160	800	700	---	1080	1670	11800	10700	3550	2100	1370
30	1420	1210	740	680	---	1110	1770	8810	10300	3400	2040	1360
31	1340	---	760	700	---	1110	---	7660	---	3330	2000	---
TOTAL	50690	37190	30660	24110	18422	23828	39020	170320	316560	168850	80610	47790
MEAN	1635	1240	989	778	658	769	1301	5494	10550	5447	2600	1593
MAX	1950	1410	1210	900	710	1110	1770	14800	15900	9810	3250	2000
MIN	1340	1100	740	680	607	576	1040	1830	6490	3330	2000	1360
AC-FT	100500	73770	60810	47820	36540	47260	77400	337800	627900	334900	159900	94790
CAL YR 1978 TOTAL	1285708			3522	MAX 18700	MIN 633	AC-FT 2550000					
WTR YR 1979 TOTAL	1008050			2762	MAX 15900	MIN 576	AC-FT 1999000					

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-74, 1977 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1977 to current year.

INSTRUMENTATION.--Temperature recorder since June 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 21.5°C July 22, 23, 1977; minimum recorded, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.5°C Aug. 9, 10; minimum, 0.0°C on many days during November to March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	10.5	5.5	3.0	3.0	.5	.0	.0	.0	.0	3.5	1.5
2	13.0	10.0	6.0	4.5	1.5	.0	.0	.0	.0	.0	4.0	.5
3	10.5	7.5	6.5	5.0	.0	.0	.0	.0	.0	.0	3.0	.5
4	12.0	8.5	7.5	6.5	.5	.0	.0	.0	.0	.0	2.0	.0
5	12.0	8.0	7.0	5.5	.5	.0	.0	.0	.0	.0	4.0	1.0
6	12.0	7.5	5.5	4.0	.0	.0	.0	.0	.0	.0	6.0	3.0
7	12.0	8.5	5.0	3.0	.0	.0	.0	.0	1.0	.0	7.5	5.0
8	12.5	9.5	5.0	4.0	.0	.0	.0	.0	1.0	.0	7.5	5.0
9	12.5	9.0	5.5	2.5	.0	.0	.0	.0	2.5	1.0	6.0	3.0
10	12.0	9.5	2.5	.0	.0	.0	.0	.0	4.0	2.0	4.5	1.5
11	12.5	9.0	.0	.0	.0	.0	---	---	5.0	3.5	5.5	1.5
12	11.0	8.5	.0	.0	.5	.0	---	---	5.0	4.0	6.0	2.5
13	10.5	7.0	.5	.0	.0	.0	---	---	5.5	4.0	6.5	3.0
14	10.5	6.0	.5	.0	.0	.0	---	---	5.5	.5	6.5	3.0
15	11.0	7.0	.0	.0	.5	.0	---	---	1.5	.0	6.5	3.0
16	11.5	7.5	.5	.0	.0	.0	---	---	3.0	.0	6.5	4.0
17	11.0	8.5	1.0	.0	.0	.0	---	---	4.5	2.0	5.5	4.5
18	12.0	9.0	1.5	.5	.5	.0	---	---	4.0	2.5	7.0	5.0
19	11.5	7.5	.5	.0	1.0	.0	---	---	5.5	3.5	7.0	5.0
20	11.0	8.5	.0	.0	1.0	.0	---	---	5.5	3.5	6.5	4.5
21	11.0	8.5	1.5	.0	1.0	.0	---	---	4.5	2.5	7.0	3.5
22	10.5	7.0	3.0	1.5	1.5	.5	---	---	4.0	1.0	7.0	4.0
23	10.0	6.0	3.5	2.5	1.5	1.0	---	---	3.0	1.0	7.0	3.5
24	7.5	6.5	3.0	2.0	2.0	1.0	---	---	4.0	1.0	7.5	3.5
25	7.5	5.5	2.5	1.0	1.5	1.0	.0	.0	5.0	2.5	6.0	3.5
26	7.0	4.5	2.0	1.0	1.0	.0	.5	.0	5.5	2.5	6.5	3.5
27	6.5	5.0	2.0	1.0	.5	.0	.0	.0	6.0	3.5	---	4.5
28	7.5	5.5	2.0	1.0	.0	.0	.0	.0	5.0	3.5	---	---
29	7.0	6.0	2.0	1.0	.0	.0	.0	.0	---	---	---	---
30	6.0	4.0	3.0	1.5	.0	.0	.0	.0	---	---	---	---
31	4.0	2.5	---	---	.0	.0	.0	.0	---	---	---	---
MONTH	13.5	2.5	7.5	.0	3.0	.0	.5	.0	6.0	.0	7.5	.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT

LOCATION.--Lat 45°00'37", long 109°03'53", in NW¼SW¼NW¼ sec.32, T.9 S., R.22 E., Carbon County, Hydrologic Unit 10070006, on left bank 0.4 mi (0.6 km) upstream from county road bridge and Big 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 78.5 (126.3 km).

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1921 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Clarks Fork at Chance prior to October 1956 and as Clarks Fork Yellowstone River at Chance October 1956 to September 1968.

REVISED RECORDS.--WSP 1309: 1922(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,986.24 ft (1,215.006 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 15, 1934, nonrecording gage, and Nov. 15, 1934, to July 26, 1951, water-stage recorder at bridge 0.4 mi (0.6 km) downstream at different datum. July 27, 1951, to Sept. 30, 1953, water-stage recorder at present site at datum 0.98 ft (0.299 m) higher.

REMARKS.--Water-discharge records good except those for winter period and July 4-22, which are poor. Diversions for irrigation of about 11,100 acres (44.9 km²) above station.

AVERAGE DISCHARGE.--58 years, 953 ft³/s (26.99 m³/s), 690,400 acre-ft/yr (851 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s (360 m³/s) July 6, 1975, gage height, 8.77 ft (2.673 m); minimum observed, 32 ft³/s (0.91 m³/s) Apr. 26, 1961, result of discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft³/s (153 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 28	0700	7,140 202	6.55 1.996	June 15	0345	*8,100 229	6.98 2.128
June 6	1300	5,900 167	5.95 1.814				

Minimum discharge, 136 ft³/s (3.85 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	173	313	180	220	258	240	494	2230	4680	620	445
2	304	187	300	200	240	247	236	456	1900	4120	560	417
3	292	183	254	220	250	236	229	376	1930	3640	524	385
4	277	183	277	200	270	236	229	417	2570	3200	483	354
5	266	187	292	180	290	243	229	542	3810	2950	450	327
6	251	187	266	190	310	262	232	739	5540	2700	423	309
7	240	177	269	200	320	300	254	596	5010	2600	417	300
8	237	197	269	220	310	336	269	450	3490	2400	417	288
9	229	240	362	230	300	269	277	390	2640	2200	412	281
10	225	285	281	240	310	236	309	345	2230	2100	401	266
11	225	243	269	230	310	262	309	327	2580	2000	395	262
12	221	229	284	220	320	266	288	304	3750	1850	390	266
13	221	262	273	230	330	269	269	304	5790	1750	512	266
14	207	262	292	240	340	258	273	390	7580	1650	830	247
15	204	254	281	250	290	258	266	566	7230	1600	1090	232
16	204	262	281	260	260	266	296	916	5480	1550	964	225
17	200	296	296	270	270	277	304	1230	4920	1450	837	200
18	197	318	277	270	290	266	456	1610	5030	1400	780	180
19	204	296	281	280	320	254	494	1790	4520	1300	780	177
20	204	288	277	280	350	240	423	1980	3670	1250	830	177
21	187	273	269	290	320	236	381	2180	3230	1200	900	177
22	167	304	273	290	290	225	381	2720	3060	1150	879	173
23	160	327	277	280	270	221	417	3190	3020	1100	753	170
24	151	327	277	280	250	221	434	3830	3220	1100	683	163
25	167	327	292	290	280	236	428	4170	3700	1100	690	157
26	154	309	273	280	270	236	395	4940	4150	1020	655	154
27	151	318	260	260	269	232	376	5750	4400	948	614	154
28	148	309	230	240	269	236	376	6510	4350	865	590	157
29	145	309	210	220	---	243	456	5730	4370	809	584	151
30	151	313	190	230	---	251	494	3940	4470	739	518	145
31	167	---	160	230	---	247	---	2850	---	683	461	---
TOTAL	6456	7825	8405	7480	8118	7823	10020	60032	119870	57104	19442	7205
MEAN	208	261	271	241	290	252	334	1937	3996	1842	627	240
MAX	304	327	362	290	350	336	494	6510	7580	4680	1090	445
MIN	145	173	160	180	220	221	229	304	1900	683	390	145
AC-FT	12810	15520	16670	14840	16100	15520	19870	119100	237800	113300	38560	14290
CAL YR 1978	TOTAL	392798	MEAN	1076	MAX	7760	MIN	130	AC-FT	779100		
WTR YR 1979	TOTAL	319780	MEAN	876	MAX	7580	MIN	145	AC-FT	634300		

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 0.4 mi (0.6 km) downstream from discharge 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).

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT												
02...	1710	--	304	--	12.5	120	13	34	9.6	11	.4	1.2
31...	1030	--	177	--	6.0	160	21	46	11	12	.4	1.4
DEC												
05...	1400	--	281	--	--	140	17	39	11	8.7	.3	1.0
JAN												
17...	0900	270	--	--	--	180	49	49	14	12	.4	1.9
FEB												
12...	1200	320	--	--	--	150	35	40	12	15	.5	1.5
MAR												
02...	1100	--	247	--	2.0	130	23	38	8.8	11	.4	1.1
APR												
05...	1230	--	229	--	8.5	140	10	38	12	14	.5	1.4
MAY												
18...	1345	--	1770	--	15.0	59	0	14	5.8	6.0	.3	.3
JUN												
12...	1340	--	3920	8.1	14.0	33	0	9.0	2.6	4.0	.3	.6
JUL												
03...	0930	--	3890	7.2	14.0	32	2	9.0	2.3	3.3	.3	.0
AUG												
01...	1500	--	634	8.8	14.5	90	8	26	6.0	6.7	.3	1.0
29...	1130	--	560	--	14.5	100	13	29	7.3	6.7	.3	1.5

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT												
02...	130	0	110	38	2.9	.0	7.3	235	.32	193	.27	.07
31...	170	0	140	54	2.9	.3	6.9	217	.30	104	.02	.10
DEC												
05...	150	0	120	36	1.5	.2	6.9	178	.24	135	.09	.02
JAN												
17...	160	0	130	63	.7	.3	11	234	.32	171	.14	.00
FEB												
12...	140	0	120	56	8.4	.2	7.0	212	.29	183	.38	.11
MAR												
02...	130	0	110	37	6.6	.2	8.1	177	.24	118	.11	.03
APR												
05...	150	4	130	43	2.0	.2	7.2	200	.27	124	.00	.02
MAY												
18...	74	0	61	9.9	1.0	.1	8.4	82	.11	392	.00	.60
JUN												
12...	40	0	33	8.2	2.6	.1	7.7	54	.07	572	.00	.14
JUL												
03...	36	0	30	9.1	.5	.0	6.4	49	.07	515	.07	.07
AUG												
01...	90	5	82	16	3.4	.1	5.9	115	.16	197	.09	.01
29...	100	3	87	21	.5	.1	6.2	130	.18	197	.07	.01

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE

LOCATION.--Lat 45°00'17", long 109°03'29", in SE&NE&SW& sec.32, T.9 S., R.22 E., Carbon County, MT., Hydrologic Unit 10070006, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (1,219 m), from topographic map.

REMARKS.--Records good, except those for October and July, which are poor. Natural flow of stream affected by transbasin diversions and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 382 ft³/s (10.8 m³/s) May 2, 1978, gage height, 4.81 ft (1.466 m), from rating curve extended above 170 ft³/s (4.81 m³/s) on basis of slope-area measurement at gage height 4.75 ft (1.448 m); minimum daily during periods of operation, 1.2 ft³/s (0.034 m³/s) Apr. 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 243 ft³/s (6.88 m³/s) Mar. 8, gage height, 4.30 ft (1.311 m); minimum daily during period of operation, 2.4 ft³/s (0.068 m³/s) Apr. 7-9, 19-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112					3.5	2.5	51	49	73	52	94
2	118					3.4	2.5	52	50	61	47	106
3	120					3.1	2.5	48	55	66	50	104
4	118					2.9	2.5	45	51	60	54	94
5	114					3.1	2.5	52	54	55	64	84
6	112					3.2	2.5	70	54	50	64	84
7	112					6.6	2.4	73	64	49	66	86
8	114					55	2.4	85	56	49	78	84
9	108					32	2.4	96	55	48	71	82
10	110					15	2.5	77	60	48	71	80
11	108					12	2.8	69	64	47	70	78
12	104					18	3.2	64	61	48	78	80
13	104					15	2.9	58	70	47	106	78
14	93					9.3	2.8	63	82	47	133	85
15	93					11	2.6	55	81	46	130	75
16	94					13	2.5	40	67	47	138	72
17	95					12	2.5	42	69	47	124	60
18	98					8.2	2.5	54	73	46	125	51
19	94					4.5	2.4	51	85	46	129	50
20	88					3.6	2.4	54	89	46	124	50
21	87					3.6	2.4	50	85	45	125	51
22	86					3.6	2.4	41	93	49	129	50
23	79					3.1	7.0	40	90	47	122	55
24	75					2.9	18	35	89	50	119	62
25	77					3.4	18	51	80	54	114	60
26	77					2.8	18	53	71	70	113	57
27	75					2.5	19	46	69	120	114	51
28	73					2.5	17	48	81	110	121	53
29	73					2.5	19	44	71	90	97	72
30	68					2.5	29	48	69	80	84	72
31	63					2.5	---	50	---	64	86	---
TOTAL	2942					266.3	201.1	1705	2087	1805	2998	2160
MEAN	94.9					8.59	6.70	55.0	69.6	58.2	96.7	72.0
MAX	120					55	29	96	93	120	138	106
MIN	63					2.5	2.4	35	49	45	47	50
AC-FT	5840					528	399	3380	4140	3580	5950	4280

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1973 to current year (no winter records).

SUSPENDED SEDIMENT DISCHARGE: May 1973 to current year (no winter records).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.0°C July 5, 6, 11, 1973, July 19, 1974, June 27, July 21, Aug. 3, Sept. 7, 1977; minimum, 1.5°C Mar. 19, 1978.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 37,200 mg/L May 8, 1975; minimum daily mean, 1 mg/L Mar. 27, 1977.

SEDIMENT LOADS: Maximum daily, 11,600 tons (10,500 tonnes) Oct. 31, 1974; minimum daily, 0.01 ton (0.01 tonne) Mar. 3, 7, 1976, Mar. 27, Apr. 1, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C June 30, July 20, Aug. 1, 5; minimum, 4.0°C Mar. 8.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,810 mg/L Mar. 16; minimum daily mean, 4.0 mg/L Mar. 1, Apr. 4, 5.

SEDIMENT LOADS: Maximum daily, 339 tons (308 tonnes) May 12; minimum daily, 0.03 ton (0.03 tonne) Apr. 4, 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
MAR 02...	1230	3.5	810	--	11.0	260	120	74	19	88	2.4
APR 04...	1145	2.5	910	--	13.5	280	43	78	21	80	2.1
JUN 12...	1200	57	250	7.8	16.0	59	0	17	4.1	18	1.0
JUL 03...	0830	71	200	7.3	12.0	59	0	18	3.5	12	.7
AUG 29...	0900	116	245	8.1	14.5	83	5	23	6.1	13	.6

DATE	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
MAR 02...	--	4.5	180	--	150	160	7.0	.3	11	462	.63
APR 04...	--	3.7	290	--	240	170	8.2	.3	12	528	.72
JUN 12...	20	1.9	75	--	62	33	1.5	.2	7.5	121	.16
JUL 03...	13	1.4	73	0	60	24	1.4	.1	6.4	104	.14
AUG 29...	14	1.1	95	0	78	31	1.0	.2	7.3	130	.18

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
MAR 02...	4.37	2.2	2.2	--	--	.37	2.6	11	.05	--	--
APR 04...	3.56	2.7	2.6	--	--	.18	2.9	13	.01	.03	.03
JUN 12...	18.6	.26	.24	.00	.00	--	--	--	.10	.31	.31
JUL 03...	19.9	--	.22	.00	.00	--	--	--	.11	.34	.34
AUG 29...	40.7	--	.11	.00	.00	--	--	--	.02	--	.06

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAR 02...	1230	2	11.0	3.5	10	16	22
AUG 01...	1400	2	14.0	63	5	13	25

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
MAR 02...	32	39	45	56	74	86	100
AUG 01...	40	49	54	65	80	87	100

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5					---	8.5	10.5	13.0	17.5	21.5	15.5
2	13.0					7.0	10.0	7.0	18.5	15.5	19.0	16.5
3	10.5					10.0	11.0	10.0	17.0	21.0	18.0	18.5
4	13.5					10.5	10.0	13.0	16.0	19.0	21.0	18.0
5	11.0					9.0	10.5	15.5	15.5	20.0	21.5	18.5
6	11.5					13.0	15.5	11.0	13.0	19.0	21.0	20.5
7	10.0					9.5	15.0	9.0	10.0	21.0	21.0	16.5
8	13.0					4.0	16.0	7.0	10.0	19.0	20.0	18.5
9	12.0					5.5	16.0	8.0	10.5	19.0	16.5	19.0
10	13.5					5.0	15.5	10.0	15.5	18.5	21.0	18.0
11	13.5					7.0	9.0	10.5	18.5	18.0	21.0	18.5
12	10.0					5.0	10.0	13.0	15.5	18.0	17.5	19.0
13	7.0					7.0	10.0	13.0	19.0	18.5	11.0	18.5
14	10.5					6.5	15.5	15.5	15.5	15.5	15.5	15.5
15	10.0					8.0	14.5	16.5	16.0	17.5	15.5	15.5
16	10.5					8.0	10.0	19.0	18.0	16.5	19.5	19.0
17	10.0					5.0	9.5	16.5	16.5	18.5	21.0	18.5
18	10.5					5.5	14.0	15.0	15.5	20.0	16.0	19.0
19	10.5					7.0	15.0	16.0	10.0	21.0	15.5	18.0
20	13.0					6.5	9.0	14.5	15.0	21.5	16.0	19.0
21	11.0					7.0	10.0	15.5	15.5	21.0	18.5	17.0
22	10.0					10.5	10.0	14.0	16.0	21.0	15.5	16.5
23	10.0					9.5	10.5	18.0	15.5	21.0	18.5	18.5
24	9.5					13.0	10.0	18.5	16.0	20.5	18.5	17.0
25	9.0					6.5	10.5	16.5	15.5	18.5	16.5	18.0
26	8.0					6.5	13.0	15.5	19.0	17.5	18.0	15.5
27	5.0					6.0	15.5	19.5	16.5	15.5	20.5	15.5
28	8.5					11.0	13.5	10.0	19.0	16.0	18.5	16.0
29	10.0					14.5	15.0	7.5	19.0	15.5	20.0	15.0
30	8.0					9.5	15.5	10.0	21.5	15.5	16.5	18.5
31	8.5					12.0	---	13.0	---	21.0	16.5	---
MEAN	10.5					8.0	12.5	13.0	15.5	18.5	18.5	17.5
MAX	15.5					14.5	16.0	19.5	21.5	21.5	21.5	20.5
MIN	5.0					4.0	8.5	7.0	10.0	15.5	11.0	15.0
WTR YR 1979	MEAN	14.5	MAX	21.5	MIN	4.0						

YELLOWSTONE RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	112	48	15						
2	118	49	16						
3	120	60	19						
4	118	58	18						
5	114	63	19						
6	112	53	16						
7	112	44	13						
8	114	48	15						
9	108	47	14						
10	110	45	13						
11	108	38	11						
12	104	46	13						
13	104	42	12						
14	93	55	14						
15	93	50	13						
16	94	46	12						
17	95	27	6.9						
18	98	26	6.9						
19	94	29	7.4						
20	88	48	11						
21	87	64	15						
22	86	70	16						
23	79	86	18						
24	75	67	14						
25	77	35	7.3						
26	77	25	5.2						
27	75	24	4.9						
28	73	15	3.0						
29	73	16	3.2						
30	68	18	3.3						
31	63	15	2.6						
TOTAL	2942	---	357.7						

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1						3.5	4	.04	
2						3.4	5	.05	
3						3.1	15	.13	
4						2.9	18	.14	
5						3.1	16	.13	
6						3.2	9	.08	
7						6.6	280	7.2	
8						55	560	94	
9						32	295	27	
10						15	303	14	
11						12	323	11	
12						18	420	23	
13						15	622	28	
14						9.3	579	16	
15						11	756	25	
16						13	3810	150	
17						12	2370	84	
18						8.2	2110	47	
19						4.5	630	7.7	
20						3.6	244	2.4	
21						3.6	241	2.3	
22						3.6	200	1.9	
23						3.1	196	1.6	
24						2.9	158	1.2	
25						3.4	120	1.1	
26						2.8	100	.76	
27						2.5	96	.65	
28						2.5	36	.24	
29						2.5	26	.18	
30						2.5	31	.21	
31						2.5	24	.16	
TOTAL						266.3	---	547.17	

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

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2.5	18	.12	51	248	34	49	770	102
2	2.5	10	.07	52	134	19	50	162	22
3	2.5	6	.04	48	103	13	55	135	20
4	2.5	4	.03	45	103	13	51	142	20
5	2.5	4	.03	52	150	25	54	144	21
6	2.5	10	.07	70	210	40	54	124	18
7	2.4	15	.10	73	160	32	64	100	17
8	2.4	15	.10	85	221	51	56	79	12
9	2.4	16	.10	96	300	78	55	69	10
10	2.5	16	.11	77	780	162	60	111	18
11	2.8	50	.38	69	1700	317	64	135	23
12	3.2	58	.50	64	1960	339	61	112	18
13	2.9	28	.22	58	305	48	70	185	35
14	2.8	18	.14	63	172	29	82	175	39
15	2.6	18	.13	55	162	24	81	137	30
16	2.5	19	.13	40	159	17	67	84	15
17	2.5	29	.20	42	144	16	69	86	16
18	2.5	24	.16	54	170	25	73	85	17
19	2.4	47	.30	51	122	17	85	80	18
20	2.4	18	.12	54	132	19	89	386	93
21	2.4	17	.11	50	100	13	85	128	29
22	2.4	65	.42	41	88	9.7	93	102	26
23	7.0	77	1.5	40	82	8.9	90	176	43
24	18	72	3.5	35	119	11	89	182	44
25	18	71	3.5	51	131	18	80	128	28
26	18	61	3.0	53	138	20	71	142	27
27	19	56	2.9	46	166	21	69	120	22
28	17	35	1.6	48	146	19	81	100	22
29	19	37	1.9	44	131	16	71	80	15
30	29	137	16	48	300	39	69	62	12
31	---	---	---	50	1010	136	---	---	---
TOTAL	201.1	---	37.48	1705	---	1629.6	2087	---	832

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	73	62	12	52	30	4.2	94	45	11
2	61	49	8.1	47	43	5.5	106	48	14
3	66	60	11	50	43	5.8	104	40	11
4	60	44	7.1	54	45	6.6	94	39	9.9
5	55	28	4.2	64	48	8.3	84	30	6.8
6	50	43	5.8	64	62	11	84	24	5.4
7	49	42	5.6	66	70	12	86	26	6.0
8	49	51	6.7	78	88	19	84	24	5.4
9	48	58	7.5	71	73	14	82	27	6.0
10	48	50	6.5	71	54	10	80	35	7.6
11	47	38	4.8	70	60	11	78	34	7.2
12	48	54	7.0	78	54	11	80	33	7.1
13	47	60	7.6	106	170	49	78	45	9.5
14	47	64	8.1	133	304	109	85	34	7.8
15	46	40	5.0	130	190	67	75	30	6.1
16	47	98	12	138	265	99	72	29	5.6
17	47	84	11	124	117	39	60	28	4.5
18	46	56	7.0	125	200	67	51	35	4.8
19	46	43	5.3	129	262	91	50	53	7.2
20	46	38	4.7	124	248	83	50	42	5.7
21	45	34	4.1	125	298	101	51	39	5.4
22	49	35	4.6	129	240	84	50	29	3.9
23	47	36	4.6	122	140	46	55	24	3.6
24	50	42	5.7	119	82	26	62	20	3.3
25	54	50	7.3	114	72	22	60	32	5.2
26	70	47	8.9	113	56	17	57	29	4.5
27	120	210	68	114	49	15	51	20	2.8
28	110	302	90	121	54	18	53	23	3.3
29	90	287	70	97	84	22	72	44	8.6
30	80	272	59	84	66	15	72	26	5.1
31	64	80	14	86	50	12	---	---	---
TOTAL	1805	---	483.2	2998	---	1100.4	2160	---	194.3
YEAR	14164.4		5181.85						

YELLOWSTONE RIVER BASIN

06218500 WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼NE¼ sec.25, T.42 N., R.108 W., Fremont County, Hydrologic Unit 10080001, on left bank 2.5 mi (4.0 km) upstream from Warm Springs Creek and 6.7 mi (10.8 km) northwest of Dubois.

DRAINAGE AREA.--232 mi² (601 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,188.71 ft (2,191.119 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 2,300 acres (9.31 km²).

AVERAGE DISCHARGE.--34 years, 178 ft³/s (5,041 m³/s), 129,000 acre-ft/yr (159 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s (54.9 m³/s) June 8, 1972, gage height, 5.48 ft (1.670 m); maximum gage height, 5.66 ft (1.725 m) June 2, 1956; minimum daily discharge, 30 ft³/s (0.85 m³/s) Dec. 12, 1949, Jan. 5, 1950, Nov. 20, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 850 ft³/s (24.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 25	0930	(a)	*4.62 1.408
May 27	0200	*1,090 30.9	4.58 1.396

a-Backwater from ice.

Minimum daily discharge, 47 ft³/s (1.33 m³/s) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	66	66	56	56	58	100	136	385	376	129	108
2	102	74	68	58	57	58	80	152	380	343	123	103
3	98	82	73	59	59	59	74	131	425	317	118	98
4	99	82	76	58	60	62	67	149	527	296	112	94
5	95	74	74	57	62	66	69	169	648	287	108	92
6	95	63	70	56	64	66	72	211	741	286	107	89
7	95	70	68	56	64	70	83	172	691	272	107	87
8	95	76	68	56	64	66	83	160	522	261	112	86
9	93	70	68	57	64	64	98	141	441	246	118	85
10	92	51	71	59	64	62	91	136	395	235	121	84
11	92	50	74	59	65	64	80	136	430	229	116	82
12	91	49	78	58	65	68	76	123	516	218	109	79
13	83	49	78	57	65	66	78	123	643	211	168	78
14	88	48	76	56	64	66	78	133	761	207	191	81
15	89	47	72	56	64	68	89	166	697	190	173	80
16	88	50	66	58	62	74	104	235	578	184	148	78
17	91	54	66	59	62	76	118	296	533	183	131	76
18	96	60	66	60	64	71	126	348	544	181	132	76
19	93	66	66	61	64	72	100	405	462	175	141	76
20	92	70	68	62	62	68	85	456	400	168	184	75
21	90	70	70	62	62	71	93	516	366	164	152	73
22	89	70	72	62	60	71	100	631	390	164	137	72
23	81	70	73	60	59	72	109	703	395	183	131	71
24	88	68	72	58	56	78	104	747	395	198	122	71
25	84	67	72	58	56	72	95	801	425	185	124	69
26	79	68	70	56	56	76	95	923	441	171	122	72
27	80	68	67	56	56	76	104	961	430	161	117	83
28	86	68	65	56	56	74	121	923	430	155	121	80
29	82	65	62	55	---	80	126	829	420	149	127	76
30	71	63	57	55	---	78	133	578	415	143	118	75
31	67	---	55	55	---	93	---	462	---	136	110	---
TOTAL	2768	1928	2147	1791	1712	2165	2831	12052	14826	6674	4029	2449
MEAN	89.3	64.3	69.3	57.8	61.1	69.8	94.4	389	494	215	130	81.6
MAX	104	82	78	62	65	93	133	961	761	376	191	108
MIN	67	47	55	55	56	58	67	123	366	136	107	69
AC=FT	5490	3820	4260	3550	3400	4290	5620	23910	29410	13240	7990	4860
CAL YR 1978	TOTAL	71239	MEAN 195	MAX	1190	MIN 39	AC=FT	141300				
WTR YR 1979	TOTAL	55372	MEAN 152	MAX	961	MIN 47	AC=FT	109800				

YELLOWSTONE RIVER BASIN
06218500 WIND RIVER NEAR DUBOIS, WY--Continued
WATER-QUALITY RECORDS
PERIOD OF RECORD.--Water years 1947-48, 1950-51, 1953, 1965 to current year.
WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT									
04...	1600	--	98	8.3	8.5	--	9.5	29	67
NOV									
01...	1250	66	--	8.6	3.5	2	10.1	5	84
29...	1055	65	--	8.0	.0	1	10.2	2	70
JAN									
10...	1015	59	--	7.4	.0	2	10.2	29	76
FEB									
06...	1140	64	--	7.7	.0	3	10.2	7	84
28...	1015	56	--	7.7	.0	3	9.4	5	66
MAR									
28...	1040	--	78	8.0	7.5	3	9.4	6	86
MAY									
01...	1000	--	133	8.1	8.5	6	9.4	21	79
29...	1230	--	801	7.5	6.0	20	9.0	61	26
JUL									
05...	1020	--	304	7.9	14.0	6	8.4	110	44
AUG									
06...	1000	--	107	7.6	12.0	2	8.0	59	68
SEP									
05...	0955	--	91	7.8	10.0	2	8.4	--	70

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)
OCT									
04...	0	20	4.2	7.4	.4	1.9	87	0	71
NOV									
01...	2	25	5.0	7.0	.3	1.6	100	0	82
29...	0	21	4.4	9.0	.5	.2	98	0	80
JAN									
10...	0	21	5.8	11	.5	1.9	110	0	90
FEB									
06...	0	24	5.8	9.4	.4	1.7	110	0	90
28...	0	20	3.7	9.6	.5	1.9	98	0	80
MAR									
28...	0	23	6.9	13	.6	2.3	130	0	107
MAY									
01...	0	23	5.3	11	.5	2.0	100	0	82
29...	0	6.8	2.1	4.0	.3	1.0	37	0	30
JUL									
05...	0	13	3.5	4.0	.3	1.5	61	0	50
AUG									
06...	0	19	4.9	7.3	.4	2.2	96	0	79
SEP									
05...	0	20	4.8	8.0	.4	1.3	100	0	82

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT									
04...	11	2.6	.0	23	157	.21	41.5	.00	.07
NOV									
01...	14	1.5	.3	23	127	.17	22.6	.02	.07
29...	8.2	1.1	.2	24	118	.16	20.7	.43	.07
JAN									
10...	15	1.8	.0	40	149	.20	23.7	.05	.09
FEB									
06...	11	2.7	.3	23	128	.17	22.1	.09	.09
28...	3.3	1.7	.2	23	112	.15	16.9	.02	.08
MAR									
28...	12	1.0	.2	22	142	.19	29.9	.00	.10
MAY									
01...	21	2.0	.3	19	133	.18	47.8	.00	.08
29...	4.9	.5	.2	13	50	.07	109	.00	.23
JUL									
05...	4.9	2.0	.1	21	80	.11	65.7	.00	.09
AUG									
06...	6.6	2.1	.1	25	114	.16	32.9	.00	.07
SEP									
05...	5.8	.0	.2	26	116	.16	28.5	.00	.08

YELLOWSTONE RIVER BASIN
06218500 WIND RIVER NEAR DUBOIS, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)
NOV 01...	1250	.0	0	.00	.00	.0	.0	0	.00	.0	.00
JUL 05...	1020	.0	0	--	.00	.0	.0	0	.00	.0	.00

DATE	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
NOV 01...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00	.00
JUL 05...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00	.00

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
NOV 01...	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00
JUL 05...	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV 01...	.00	0	0	.00	.00	0	.00	0	.00	.0
JUL 05...	.00	0	0	.00	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
OCT 01...	.00	0	.00	0
JUL 05...	--	0	--	0

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°27'16", long 109°27'57", in SE&SW&NW¼ sec.34, T.6 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.0 mi (1.6 km) upstream from mouth and 9.9 mi (15.9 km) southeast of Dubois.

DRAINAGE AREA.--427 mi² (1,106 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1950 to September 1957, October 1975 to current year. Prior to October 1953, published as North Fork Wind River near Dubois.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map. Prior to Sept. 30, 1957, at site 500 ft (152 m) upstream at same datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Nov. 15 to Mar. 28, July 27-30, Sept. 13-30, which are poor. Diversions for irrigation of about 2,000 acres (8.09 hm²) above station.

AVERAGE DISCHARGE.--11 years, 272 ft³/s (7.703 m³/s), 197,100 acre-ft/yr (243 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft³/s (161 m³/s) June 26, 1954, gage height, 7.72 ft (2.353 m), from rating curve extended above 3,400 ft³/s (96.3 m³/s); maximum gage height, 9.27 ft (2.825 m) June 30, 1957; minimum daily discharge, 18 ft³/s (0.51 m³/s) Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft³/s (91.2 m³/s) May 27, gage height, 6.13 ft (1.868 m); minimum daily, 31 ft³/s (0.88 m³/s) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	75	54	54	52	56	48	192	315	557	112	179
2	112	75	56	56	52	56	34	192	276	524	112	161
3	107	75	58	58	54	56	52	150	359	482	107	155
4	103	75	58	60	56	56	57	179	682	443	103	144
5	103	75	60	58	56	56	52	192	1040	472	103	139
6	103	52	58	58	56	56	52	245	1010	414	98	128
7	103	61	58	56	56	60	75	172	744	404	94	123
8	103	75	58	56	56	62	52	161	423	394	112	117
9	103	80	58	56	56	60	75	134	324	385	103	112
10	103	54	60	58	56	60	94	123	306	368	192	112
11	103	33	62	58	56	60	75	117	600	359	123	107
12	98	33	62	56	56	62	57	98	1020	341	112	107
13	94	32	62	56	58	62	57	107	1520	332	508	110
14	89	32	62	54	60	64	57	172	1490	306	332	112
15	89	31	62	54	62	66	75	276	956	283	238	110
16	89	33	60	56	62	68	103	423	578	283	198	110
17	94	35	58	58	62	68	172	492	578	291	172	110
18	103	39	58	60	60	66	211	463	639	276	185	108
19	98	43	60	60	60	64	185	503	385	253	434	106
20	94	45	60	60	58	62	128	557	324	253	398	104
21	94	50	60	60	58	62	134	636	376	253	404	100
22	98	54	58	60	56	64	144	792	463	238	315	98
23	89	56	58	58	54	66	179	918	514	253	268	96
24	84	56	56	56	52	66	166	918	524	204	260	96
25	89	54	56	54	52	66	128	1280	624	204	315	92
26	80	54	58	52	52	66	117	1580	648	179	260	100
27	75	52	58	52	52	64	139	1880	624	170	276	116
28	84	52	58	52	54	63	198	1400	648	170	253	104
29	84	54	58	52	---	57	211	1040	612	160	230	90
30	71	54	56	50	---	61	224	514	624	155	204	80
31	66	---	54	50	---	48	---	376	---	117	198	---
TOTAL	2917	1589	1814	1738	1574	1903	3351	16282	19226	9523	6819	3426
MEAN	94.1	53.0	58.5	56.1	56.2	61.4	112	525	641	307	220	114
MAX	112	80	62	60	62	68	224	1880	1520	557	508	179
MIN	66	31	54	50	52	48	34	98	276	117	94	80
AC-FT	5790	3150	3600	3450	3120	3770	6650	32300	38130	18890	13530	6800

CAL YR 1978 TOTAL 117825 MEAN 323 MAX 2840 MIN 29 AC-FT 233700
WTR YR 1979 TOTAL 70162 MEAN 192 MAX 1880 MIN 31 AC-FT 139200

YELLOWSTONE RIVER BASIN

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT								
05...	1000	--	103	150	8.2	4.5	3	.83
NOV								
03...	1330	--	80	185	8.6	6.0	2	.43
29...	0920	54	--	190	8.4	.0	4	.58
JAN								
17...	1100	58	--	290	7.6	.0	7	1.1
FEB								
06...	1010	56	--	280	7.8	.0	3	.45
28...	1230	54	--	240	8.0	.0	16	2.3
MAR								
28...	1320	--	57	--	8.2	3.5	177	27
MAY								
01...	1340	--	192	170	8.4	9.0	32	17
29...	1015	--	1130	85	7.9	5.0	139	424
JUL								
02...	1200	--	524	190	8.0	15.0	127	180
30...	1030	--	165	125	8.4	14.0	6	2.7
SEP								
05...	1245	--	139	220	8.2	16.0	5	1.9

LOCATION.--Lat 43°34'37", long 109°15'42", in sec.20, T.7 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank just above Crow Creek Canyon, 2.0 mi (3.2 km) downstream from Trail Creek, 5.0 mi (8.0 km) north of Tipperary, and 19 mi (31 km) north of Crowheart.

WATER-DISCHARGE RECORDS

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft³/s (16.1 m³/s) June 16, 1965, gage height, 5.20 ft (1.585 m), from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of velocity-area study; maximum gage height, 5.64 ft (1.719 m) Jan. 14, 1975 (backwater from ice); minimum daily discharge, 0.48 ft³/s (0.014 m³/s) Jan. 9, 1977.

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Mar. 25	1200			*a5.00	1.524	June 13	1900	215	6.09	4.53	1.381
May 26	2400	*235	6.66	4.60	1.402						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	5.0	4.7	3.7	3.2	4.0	3.0	14	59	51	8.3	9.4
2	6.5	5.0	4.8	3.8	3.2	4.5	2.8	14	53	42	7.9	8.6
3	6.0	5.2	4.8	3.8	3.4	4.2	3.0	12	60	37	7.2	8.3
4	6.0	5.2	4.9	3.8	3.2	3.2	3.3	14	93	36	6.8	7.9
5	6.0	5.2	4.9	3.8	3.2	3.9	3.5	19	120	33	6.8	7.5
6	6.0	4.7	4.8	3.8	3.2	3.2	2.9	21	124	32	6.4	7.2
7	5.8	5.0	4.8	3.8	2.9	3.4	3.0	19	91	31	6.2	7.2
8	5.5	5.4	4.8	3.8	2.9	3.5	3.4	16	60	28	7.0	6.5
9	5.5	5.4	4.7	3.8	3.0	3.8	3.5	15	51	28	7.0	6.5
10	6.0	4.6	4.8	3.9	3.0	4.0	4.2	12	68	27	9.0	6.5
11	5.8	3.0	4.9	3.9	3.0	4.0	3.5	12	86	25	8.0	6.5
12	5.5	2.9	5.0	3.9	3.0	3.5	4.0	12	122	24	7.4	6.5
13	5.5	2.9	5.0	3.8	3.2	3.5	4.5	13	140	23	19	6.8
14	5.5	2.8	5.2	3.7	3.4	3.4	4.0	16	150	20	15	6.5
15	5.8	2.7	5.0	3.7	3.5	3.3	3.7	24	128	19	13	6.3
16	5.8	3.0	4.9	3.8	3.5	3.7	5.5	33	95	21	11	6.3
17	6.0	3.5	4.7	3.8	3.5	3.7	7.5	46	93	20	9.0	6.3
18	6.5	4.0	4.6	3.7	3.4	3.5	7.2	53	89	19	12	6.0
19	6.3	4.2	4.5	3.8	3.3	3.5	7.5	60	68	19	17	6.0
20	6.8	4.4	4.5	3.8	3.2	3.5	8.3	69	62	17	18	6.3
21	6.5	4.5	4.5	3.9	3.1	3.4	7.9	82	74	16	16	6.5
22	6.5	4.5	4.5	3.9	3.1	3.5	9.0	87	76	14	14	6.0
23	6.0	4.6	4.2	3.8	3.0	3.5	10	95	76	14	13	5.8
24	6.0	4.7	4.0	3.7	3.0	3.6	11	116	77	14	13	5.2
25	5.5	4.7	4.2	3.6	3.2	4.0	10	122	76	14	15	5.2
26	6.3	4.6	4.2	3.5	3.2	3.2	9.8	165	76	13	13	5.8
27	6.3	4.5	4.2	3.4	3.4	3.2	10	165	79	12	14	5.8
28	6.3	4.5	4.0	3.5	3.6	3.0	12	148	80	12	13	5.5
29	5.8	4.6	3.8	3.5	---	2.9	13	126	68	12	12	5.2
30	5.6	4.6	3.7	3.5	---	3.0	14	86	63	10	11	5.0
31	5.4	---	3.6	3.3	---	3.0	---	69	---	9.0	10	---
TOTAL	186.2	129.9	141.2	115.5	89.8	109.6	195.0	1755	2557	692.0	346.0	195.1
MEAN	6.01	4.33	4.55	3.73	3.21	3.54	6.50	56.6	85.2	22.3	11.2	6.50
MAX	7.2	5.4	5.2	3.9	3.6	4.5	14	165	150	51	19	9.4
MIN	5.4	2.7	3.6	3.3	2.9	2.9	2.8	12	51	9.0	6.2	5.0
AC-FT	369	258	280	229	178	217	387	3480	5070	1370	686	387
CAL YR 1978	TOTAL	9257.0		MEAN 25.4	MAX 247	MIN 1.5	AC-FT 18360					
WTR YR 1979	TOTAL	6512.3		MEAN 17.8	MAX 165	MIN 2.7	AC-FT 12920					

YELLOWSTONE RIVER BASIN

06222700 CROW CREEK NEAR TIPPERARY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT						
05...	1330	--	6.5	68	8.0	6.5
NOV						
03...	1015	--	4.0	74	8.2	3.0
DEC						
18...	1015	4.6	--	67	7.4	.0
FEB						
02...	1250	3.2	--	62	--	.0
MAR						
12...	0850	3.5	--	110	6.8	.0
APR						
25...	1250	--	9.8	100	7.6	5.5
MAY						
23...	1100	--	87	49	7.4	6.0
JUL						
02...	1005	--	40	70	7.5	14.0
30...	1200	--	11	64	7.5	15.0
AUG						
31...	1010	--	10	87	7.4	8.0

43

LOCATION.--Lat 43°10'37", long 109°12'08", in NE¼SW¼ sec.2, T.2 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.2 mi (1.9 km) upstream from high-water line of Bull Lake and 9.0 mi (14.5 km) south of Crowheart.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Minimum daily discharge, 22 ft³/s (0.62 m³/s) Nov. 15.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	50	31	26	25	25	28	86	682	1020	427	300
2	84	50	31	26	25	25	27	116	550	951	419	290
3	82	49	33	26	26	26	26	106	521	871	380	280
4	82	44	35	27	26	26	25	110	635	784	360	260
5	80	38	34	27	26	26	25	131	851	734	340	260
6	78	36	33	26	27	26	26	166	1010	701	330	260
7	76	38	31	26	27	26	25	140	1010	682	330	258
8	74	38	31	26	27	26	24	140	839	648	340	260
9	74	39	31	26	28	25	23	132	657	623	350	264
10	72	29	33	27	28	25	26	120	565	613	380	270
11	70	25	34	28	28	24	32	112	533	610	350	283
12	68	24	36	27	28	23	32	105	650	594	340	278
13	64	24	36	26	28	23	30	103	905	578	370	258
14	62	23	34	26	28	23	28	121	1250	586	400	224
15	64	22	33	26	29	23	26	173	1380	568	450	182
16	64	26	32	27	29	23	29	265	1210	547	420	164
17	64	28	32	27	30	23	34	373	1060	562	380	149
18	66	30	33	28	30	24	42	431	973	597	450	144
19	66	33	32	28	30	24	38	466	818	601	540	146
20	64	34	33	28	29	24	34	540	652	587	640	153
21	62	34	33	28	29	23	36	620	568	559	660	155
22	60	34	33	27	28	23	37	764	592	530	580	156
23	58	34	33	25	28	23	44	897	630	560	520	151
24	59	34	33	25	27	23	49	1020	668	594	470	144
25	57	33	32	25	27	24	47	1110	727	564	420	141
26	59	33	30	25	26	24	49	1280	816	536	390	139
27	58	32	29	25	26	25	56	1510	873	511	370	146
28	54	32	28	24	25	25	65	1560	924	497	360	143
29	52	31	27	24	---	25	71	1830	984	489	340	133
30	49	30	26	24	---	25	80	1350	1010	477	330	118
31	49	---	26	25	---	26	---	920	---	452	310	---
TOTAL	2057	1007	988	811	770	756	1114	16797	24543	19226	12746	6109
MEAN	66.4	33.6	31.9	26.2	27.5	24.4	37.1	542	818	620	411	204
MAX	86	50	36	28	30	26	80	1830	1380	1020	660	300
MIN	49	22	26	24	25	23	23	86	521	452	310	118
AC-FT	4080	2000	1960	1610	1530	1500	2210	33320	48680	38130	25280	12120
WTR YR 1978	TOTAL	111580	MEAN 306	MAX 2060	MIN 17	AC-FT 221300						
CAL YR 1979	TOTAL	86924	MEAN 238	MAX 1830	MIN 22	AC-FT 172400						

YELLOWSTONE RIVER BASIN

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)
OCT 24...	1045	--	59	56	7.4	8.0	--
DEC 18...	1230	33	--	55	7.4	.0	--
FEB 02...	1045	--	25	50	--	.0	--
MAR 12...	1000	--	23	130	7.0	3.0	--
APR 25...	1130	--	49	70	7.5	6.0	--
JUN 04...	1015	--	650	43	7.2	8.0	--
JUL 06...	1040	--	715	50	7.0	12.0	--
AUG 02...	1150	--	417	65	7.1	17.0	--
SEP 07...	1100	--	258	45	7.2	10.0	1

06225000 BULL LAKE CREEK NEAR LENORE, WY

LOCATION.--Lat 43°14'33", long 109°01'20", in NE¼NW¼ sec.17, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 700 ft (213 m) upstream from mouth, 2.8 mi (4.5 km) downstream from Bull Lake, and 8.5 mi (13.1 km) southeast of Lenore.

DRAINAGE AREA.--213 mi² (552 km²), of which 12 mi² (31 km²) is probably noncontributing.

PERIOD OF RECORD.--May 1918 to current year.

REVISED RECORDS.--WSP 1309: 1921(M, date only), 1925(M), 1926(M), 1930(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,654 ft (1,723 m), from topographic map. May 18, 1918, to Sept. 30, 1922, at site 10 ft (3 m) upstream at datum 0.86 ft (0.262 m) higher; Oct. 1, 1922, to Oct. 3, 1934, at present site at datum 2.00 ft (0.610 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Flow completely regulated by Bull Lake 2.8 mi (4.5 km) upstream since April 1938. (See station 06224500.) Diversions above station for irrigation of about 730 acres (2.95 km²) below.

AVERAGE DISCHARGE.--61 years, 279 ft³/s (7.901 m³/s), 202,100 acre-ft/yr (249 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft³/s (176 m³/s) Aug. 8, 1951, gage height, 7.09 ft (2.161 m), result of automatic spillway gates releasing on Bull Lake Dam, from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum prior to construction of Bull Lake Dam not determined, probably occurred during period of ice effect in March 1933; no flow Feb. 28 to Apr. 7, 1937 (result of regulation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft³/s (43.6 m³/s) July 17, 18, gage height, 4.04 ft (1.231 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Nov. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	28	15	26	28	24	25	119	491	215	977	65
2	70	16	15	26	29	25	24	188	426	215	1030	83
3	36	7.6	15	26	31	26	23	189	426	267	1030	221
4	24	4.0	15	26	32	26	21	286	426	592	1070	222
5	23	3.5	28	26	31	28	20	437	330	649	1120	222
6	21	1.6	28	26	30	28	20	435	255	714	1100	272
7	20	1.6	28	26	27	29	20	435	258	758	1100	347
8	20	1.7	28	26	25	27	20	408	349	773	1100	451
9	20	13	28	27	22	26	20	259	430	884	1090	491
10	40	19	28	27	21	26	20	153	429	999	1040	514
11	66	24	28	27	21	27	18	88	504	1040	927	512
12	28	76	27	27	21	28	63	90	542	1090	923	504
13	31	90	27	27	21	27	71	86	542	1090	950	505
14	47	125	27	27	21	27	35	86	543	1220	815	504
15	47	125	27	27	21	27	30	85	542	1310	710	504
16	47	125	27	27	22	28	26	85	544	1410	653	506
17	44	119	27	27	22	28	22	85	544	1500	558	507
18	30	108	27	27	21	28	21	107	546	1520	581	539
19	29	108	27	27	22	28	21	233	548	1510	604	537
20	30	85	26	27	22	28	21	234	568	1500	540	537
21	37	49	26	27	22	28	21	256	790	1420	486	553
22	38	32	26	26	22	27	20	276	826	1370	429	567
23	41	32	26	25	22	27	17	276	750	1360	364	565
24	48	20	26	25	23	27	18	276	705	1290	306	563
25	58	18	26	25	23	26	27	276	703	1180	264	562
26	85	16	26	26	23	27	26	277	651	1130	222	557
27	99	16	26	28	24	27	25	280	539	1070	174	557
28	89	16	26	27	24	26	25	283	436	968	78	557
29	76	16	26	28	---	25	25	429	349	925	78	557
30	66	16	26	29	---	25	32	570	307	922	74	525
31	46	---	26	28	---	25	---	572	---	918	65	---
TOTAL	1491	1312.0	784	826	673	831	777	7859	15299	31809	20458	13606
MEAN	48.1	43.7	25.3	26.6	24.0	26.8	25.9	254	510	1026	660	454
MAX	135	125	28	29	32	29	71	572	826	1520	1120	567
MIN	20	1.6	15	25	21	24	17	85	255	215	65	65
AC-FT	2960	2600	1560	1640	1330	1650	1540	15590	30350	63090	40580	26990
CAL YR 1978	TOTAL	89615.0	MEAN	246	MAX	1760	MIN	1.6	AC-FT	177800		
WTR YR 1979	TOTAL	95725.0	MEAN	262	MAX	1520	MIN	1.6	AC-FT	189900		

YELLOWSTONE RIVER BASIN

06225500 WIND RIVER NEAR CROWHEART, WY

LOCATION.--Lat 43°14'33", long 109°00'35", in NW¼NW¼ sec.16, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 0.9 mi (1.4 km) downstream from Bull Lake Creek and 9.0 mi (14.5 km) southeast of Crowheart.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1116: 1946-47. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft (1,718 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Bull Lake on Bull Lake Creek. (See station 06224500.) Diversions for irrigation of about 25,000 acres (101 km²) above station.

AVERAGE DISCHARGE.--34 years, 1,235 ft³/s (34.98 m³/s), 894,800 acre-ft/yr (1,110 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s (368 m³/s) June 16, 1963, gage height, 9.16 ft (2.792 m); minimum daily, 190 ft³/s (5.38 m³/s) Feb. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1927, reached a discharge of 13,000 ft³/s (368 m³/s); discharge measurement made by Bureau of Reclamation at site 1.0 mi (1.6 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft³/s (146 m³/s) May 27, gage height, 7.56 ft (2.304 m); minimum daily, 246 ft³/s (6.97 m³/s) Apr. 4.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	414	410	340	330	340	280	651	2290	2320	1890	849
2	595	415	410	340	330	340	261	784	1880	2120	1910	806
3	606	407	420	350	340	340	251	770	1890	1980	1870	890
4	584	404	420	340	350	350	246	769	2300	2220	1890	873
5	576	401	420	340	360	370	274	1020	2910	2300	1910	871
6	555	369	410	330	370	380	284	1130	3130	2300	1910	908
7	550	336	400	330	370	400	298	1150	3100	2360	1890	969
8	542	373	400	330	380	440	315	1130	2560	2280	1940	1060
9	546	410	400	330	370	460	307	932	2150	2330	2000	1100
10	539	410	420	330	370	444	349	788	1930	2400	2040	1140
11	553	400	430	330	370	470	369	708	2180	2400	1920	1160
12	512	404	430	330	380	544	376	662	2700	2400	1850	1160
13	512	434	430	330	370	522	370	614	3380	2360	2350	1130
14	506	500	430	330	370	463	335	642	3990	2430	2630	1090
15	514	548	420	330	370	438	312	746	4040	2470	2430	1050
16	518	574	410	330	360	443	357	960	3290	2560	2140	1010
17	519	582	400	340	360	412	412	1300	3000	2650	1850	994
18	522	514	400	340	370	394	498	1530	3020	2700	1760	1020
19	514	503	400	340	370	357	506	1890	2560	2730	1970	1020
20	499	480	410	350	360	333	432	2120	2210	2720	1900	1010
21	495	475	410	340	360	318	390	2390	2340	2630	2250	1020
22	505	494	420	340	350	314	401	2820	2510	2550	1920	1020
23	503	483	420	340	340	317	447	3150	2480	2560	1610	1010
24	487	460	420	330	340	321	476	3450	2430	2590	1430	1000
25	515	444	420	330	330	327	454	3540	2580	2390	1430	984
26	516	437	410	330	330	335	415	4080	2590	2300	1300	992
27	513	420	400	320	330	328	422	4510	2480	2210	1190	999
28	502	396	380	320	330	329	480	4550	2470	2080	1070	980
29	491	400	360	320	---	319	548	4630	2480	2000	1020	967
30	470	400	350	320	---	312	568	3660	2440	1960	908	927
31	418	---	340	320	---	304	---	2850	---	1900	860	---
TOTAL	16329	13287	12600	10320	9960	11764	11433	59946	79310	73200	55038	30009
MEAN	527	443	406	333	356	379	381	1934	2644	2361	1775	1000
MAX	652	582	430	350	380	544	568	4630	4040	2730	2630	1160
MIN	418	336	340	320	330	304	246	614	1880	1900	860	806
AC-FT	32390	26350	24990	20470	19760	23330	22680	118900	157300	145200	109200	59520
CAL YR 1978 TOTAL	479565			1314	MAX 6880	MIN 220	AC-FT 951200					
WTR YR 1979 TOTAL	383196			MEAN 1050	MAX 4630	MIN 246	AC-FT 760100					

YELLOWSTONE RIVER BASIN

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06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
04...	0945	7.0	--	573	5	7.7	80
NOV							
07...	1100	4.0	--	327	3	2.6	--
DEC							
01...	1110	.0	410	--	8	8.9	--
JAN							
11...	1315	.0	330	--	4	3.6	--
FEB							
08...	1340	.0	380	--	9	9.2	--
MAR							
29...	1220	6.0	--	327	58	51	--
MAY							
11...	1205	10.0	--	727	910	1790	--
17...	1015	12.0	--	1440	444	1730	--
23...	0900	10.0	--	3540	1130	10800	--
JUN							
01...	1015	9.0	--	2450	232	1540	73
06...	1200	12.0	--	3580	526	5080	44
13...	1000	13.0	--	3950	667	7110	51
20...	1015	11.0	--	2230	73	440	36
27...	1015	14.0	--	2720	90	661	50
JUL							
05...	1425	15.5	--	2450	25	165	72
11...	1430	16.5	--	2510	21	142	51
18...	1035	17.0	--	2660	17	122	53
25...	1115	16.0	--	2380	14	90	61
AUG							
01...	1045	17.0	--	1830	12	59	64
08...	0845	16.0	--	1930	8	42	63
15...	1045	15.0	--	2430	160	1050	74
22...	1045	14.0	--	1950	1970	10400	--
29...	1000	14.0	--	1040	43	121	84
SEP							
05...	1100	14.5	--	879	16	38	49
12...	1030	14.0	--	1160	11	34	81
19...	1045	14.0	--	1030	7	19	85

YELLOWSTONE RIVER BASIN

06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
OCT						
04...	--	--	--	--	--	--
NOV						
07...	--	--	--	--	--	--
DEC						
01...	--	--	--	--	--	--
JAN						
11...	--	--	--	--	--	--
FEB						
08...	--	--	--	--	--	--
MAR						
29...	--	--	--	--	--	--
MAY						
11...	75	99	100	--	--	--
17...	36	74	100	--	--	--
23...	14	30	65	85	98	100
JUN						
01...	--	--	--	--	--	--
06...	--	--	--	--	--	--
13...	--	--	--	--	--	--
20...	--	--	--	--	--	--
27...	--	--	--	--	--	--
JUL						
05...	--	--	--	--	--	--
11...	--	--	--	--	--	--
18...	--	--	--	--	--	--
25...	--	--	--	--	--	--
AUG						
01...	--	--	--	--	--	--
08...	--	--	--	--	--	--
15...	--	--	--	--	--	--
22...	19	91	98	99	100	--
29...	--	--	--	--	--	--
SEP						
05...	--	--	--	--	--	--
12...	--	--	--	--	--	--
19...	--	--	--	--	--	--

06226000 WYOMING CANAL NEAR LENORE, WY

LOCATION.--Lat 43°13'45", long 108°53'40", in SE¼SE¼ sec.17, T.3 N., R.1 W., Fremont County, Hydrologic Unit 10080001, on right bank 3.3 mi (5.3 km) downstream from diversion dam on Wind River and 15 mi (24 km) south-east of Lenore.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1945 (irrigation season only), May 1949 to current year (no winter record after 1976). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 5,560.85 ft (1,694.947 m), National Geodetic Vertical Datum of 1929. May 1, 1941, to Sept. 30, 1945, nonrecording gage at site 3.2 mi (5.1 km) upstream at different datum. May 3, 1949, to Oct. 2, 1952, and Apr. 12 to May 15, 1971, water-stage recorder at site 3.0 mi (4.8 km) upstream at different datum.

REMARKS.--Records good. Flow used for irrigation on Riverton project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,830 ft³/s (51.8 m³/s) July 17, 19-21, 26-31, 1976; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	.00	.00	.00	.00	.00	.00	564	893	1600	1500	466
2	.00	.00	.00	.00	.00	.00	3.2	730	1000	1590	1540	462
3	.00	.00	.00	.00	.00	.00	4.5	753	1070	1450	1520	500
4	.00	.00	.00	.00	.00	.00	4.6	741	1160	1400	1520	509
5	.00	.00	.00	.00	.00	.00	4.7	765	1330	1440	1520	493
6	.00	.00	.00	.00	.00	.00	4.8	765	1480	1380	1530	499
7	.00	.00	.00	.00	.00	.00	5.2	658	1550	1430	1540	527
8	.00	.00	.00	.00	.00	.00	6.4	681	1530	1440	1550	644
9	.00	.00	.00	.00	.00	.00	8.0	754	1480	1440	1560	646
10	.00	.00	.00	.00	.00	.00	10	596	1330	1440	1580	695
11	.00	.00	.00	.00	.00	.00	10	484	1430	1450	1550	697
12	.00	.00	.00	.00	.00	.00	10	504	1700	1450	1480	695
13	.00	.00	.00	.00	.00	.00	10	582	1800	1450	1490	691
14	.00	.00	.00	.00	.00	.00	10	594	1600	1490	1470	691
15	.00	.00	.00	.00	.00	.00	10	652	1800	1560	1360	679
16	.00	.00	.00	.00	.00	.00	150	732	1800	1590	1320	656
17	.00	.00	.00	.00	.00	.00	300	802	1800	1630	1230	650
18	.00	.00	.00	.00	.00	.00	310	798	1800	1700	1160	654
19	.00	.00	.00	.00	.00	.00	310	625	1790	1740	1140	654
20	.00	.00	.00	.00	.00	.00	320	495	1630	1740	1130	654
21	.00	.00	.00	.00	.00	.00	330	425	1660	1730	1110	666
22	.00	.00	.00	.00	.00	.00	367	440	1680	1730	1080	689
23	.00	.00	.00	.00	.00	.00	379	547	1680	1720	1020	683
24	.00	.00	.00	.00	.00	.00	383	495	1670	1710	879	681
25	.00	.00	.00	.00	.00	.00	380	491	1660	1680	829	685
26	.00	.00	.00	.00	.00	.00	370	562	1750	1630	812	691
27	.00	.00	.00	.00	.00	.00	380	633	1740	1550	716	697
28	.00	.00	.00	.00	.00	.00	391	726	1730	1420	608	695
29	.00	.00	.00	.00	---	.00	398	755	1630	1310	520	695
30	.00	.00	.00	.00	---	.00	422	747	1600	1290	493	518
31	.00	---	.00	.00	---	.00	---	792	---	1350	469	---
TOTAL	5.00	.00	.00	.00	.00	.00	5291.40	19888	46773	47530	37226	18862
MEAN	.16	.000	.000	.000	.000	.000	176	642	1559	1533	1201	629
MAX	5.0	.00	.00	.00	.00	.00	422	802	1800	1740	1580	697
MIN	.00	.00	.00	.00	.00	.00	.00	425	893	1290	469	462
AC-FT	9.9	.00	.00	.00	.00	.00	10500	39450	92770	94280	73840	37410
WTR YR 1979	TOTAL	175575.40	MEAN	481	MAX	1800	MIN	.00	AC-FT	348300		

YELLOWSTONE RIVER BASIN

06226000 WYOMING CANAL NEAR LENORE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Samples collected by Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
MAY										
17...	1030	11.0	779	204	429	--	52	87	96	100
23...	1030	11.0	597	168	271	96	--	--	--	--
JUN										
01...	0900	9.0	846	319	729	96	--	--	--	--
06...	1115	12.0	1470	207	822	--	20	39	81	100
13...	0900	13.0	1830	188	929	63	--	--	--	--
20...	0900	11.0	1630	83	365	53	--	--	--	--
27...	0900	14.0	1740	75	352	46	--	--	--	--
JUL										
05...	1130	16.0	1380	41	153	52	--	--	--	--
11...	1315	16.0	1450	34	133	44	--	--	--	--
18...	0920	15.0	1670	46	207	37	--	--	--	--
25...	0930	16.0	1690	61	278	33	--	--	--	--
AUG										
01...	0915	16.0	1460	43	170	40	--	--	--	--
08...	1015	17.0	1510	39	159	38	--	--	--	--
15...	0915	15.0	1350	192	700	90	--	--	--	--
22...	0915	14.0	1070	1370	3960	--	56	83	99	100
29...	1045	14.0	520	44	62	87	--	--	--	--
SEP										
05...	1000	14.0	493	23	31	81	--	--	--	--
12...	0930	13.0	695	26	49	64	--	--	--	--
19...	0915	14.0	656	20	35	58	--	--	--	--

06227500 WYOMING CANAL BELOW PILOT DIVERSION, NEAR MORTON, WY

LOCATION.--Lat 43°14', long 108°46', in NE¼ sec.20, T.3 N., R.1 E., Fremont County, Hydrologic Unit 10080005, at former gaging station, 0.2 mi (0.3 km) downstream from diversion to Pilot Butte powerplant and Pilot Butte Reservoir, and 1.5 mi (2.4 km) northwest of Morton.

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Samples collected and discharge furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
MAY											
17...	1330	12.0	160	160	69	--	59	94	100	--	--
JUN											
06...	1400	12.0	700	279	527	--	20	40	78	99	100
JUL											
05...	1430	16.0	725	38	74	58	--	--	--	--	--
AUG											
08...	1300	18.0	720	43	84	45	--	--	--	--	--
SEP											
05...	1300	15.0	350	11	10	92	--	--	--	--	--

06227600 WIND RIVER NEAR KINNEAR, WY

LOCATION.--Lat 43°08'34", long 108°42'32", in SW¼SE¼SW¼ sec.13, T.2 N., R.1 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank, at upstream side of bridge on Wyoming State Secondary Highway 132, and 1.7 mi (2.7 km) southwest of Kinneare.

DRAINAGE AREA.--2,194 mi² (5,682 km²).

PERIOD OF RECORD.--April 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, July 19-24, Aug. 6-8, 18-24, Sept. 5-19, 26-30, which are fair. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot-Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft (224 hm³). Diversions above station for irrigation of about 102,100 acres (413 km²) lying both above and below station. The Wyoming Canal of the Riverton Project is the major diversion. This diversion began in 1926 and part of it can be returned to the river above station through Pilot Wasteway. Additional waste water returns to river below station through Fivemile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft³/s (242 m³/s) June 19, 1974, gage height, 7.23 ft (2.204 m); minimum daily during periods of operation, 28 ft³/s (0.79 m³/s) Apr. 24, 25, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,660 ft³/s (160 m³/s) May 27, gage height, 6.40 ft (1.951 m); minimum daily during period of operation, 85 ft³/s (2.41 m³/s) Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							326	153	1640	605	362	398
2							285	156	932	480	344	368
3							285	144	750	431	344	392
4							275	94	1010	660	362	386
5							302	300	1520	838	380	386
6							326	398	1540	730	370	380
7							332	614	1590	794	355	431
8							350	587	1070	750	370	420
9							338	374	632	794	392	390
10							380	275	536	872	417	438
11							438	320	578	884	398	438
12							410	260	836	896	338	438
13							438	114	1450	849	692	431
14							374	91	2120	838	1240	424
15							350	110	2460	838	1150	400
16							380	195	1680	860	920	370
17							417	483	1190	920	660	350
18							496	750	1100	932	760	374
19							552	1430	761	925	940	380
20							488	1890	480	915	1100	368
21							417	2360	544	835	1200	374
22							362	2860	641	755	1000	362
23							283	3160	632	775	860	344
24							107	3620	587	815	660	338
25							109	3780	680	650	670	326
26							94	4320	730	569	560	337
27							89	4880	605	596	520	339
28							85	4820	614	623	520	312
29							159	4770	720	650	536	299
30							209	3900	690	632	445	436
31							---	2360	---	544	424	---
TOTAL							9456	49568	30318	23255	19289	11429
MEAN							315	1599	1011	750	622	381
MAX							552	4880	2460	932	1240	438
MIN							85	91	480	431	338	299
AC-FT							18760	98320	60140	46130	38260	22670

06228000 WIND RIVER AT RIVERTON, WY

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼NW¼NW¼ sec.2, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 265 ft (81 m) downstream from bridge on State Highway 789, 1.1 mi (1.8 km) southeast of post office in Riverton, and 1.5 mi (2.4 km) upstream from Little Wind River.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to August 1906, August to December 1907, May to October 1908, May 1911 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Big Wind River near Arapahoe Agency 1906 and as Big Wind River near Riverton 1907-08.

REVISED RECORDS.--WSP 1509: 1935. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.56 ft (1,493.995 m), National Geodetic Vertical Datum of 1929. See WSP 1729 for history of changes prior to Oct. 13, 1930. Oct. 13, 1930, to Apr. 15, 1968, water-stage recorder at site 280 ft (85 m) upstream at datum 2.00 ft (0.610 m) higher. Apr. 16 to Nov. 17, 1968, water-stage recorder at site 880 ft (268 m) upstream at datum 2.00 ft (0.610 m) higher. Nov. 18, 1968, to July 28, 1970, water-stage recorder at site 225 ft (69 m) upstream at datum 2.00 ft (0.610 m) higher. July 29, 1970, to Sept. 30, 1977, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Nov. 16, Dec. 8-14, Dec. 30 to Jan. 15, Feb. 3-12, Mar. 4-8, June 26 to July 3, which are poor. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft (224 hm³). Diversions above station for irrigation of about 128,000 acres (518 km²) above and below station. The Wyoming canal of the Riverton project is the major diversion. This diversion began in 1926 and part of it can be returned to the river above station through Pilot wasteway. Additional waste water returns to river below station through Five Mile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s (377 m³/s) June 15, 1935, gage height, 10.15 ft (3.094 m), present datum, from rating curve extended above 7,200 ft³/s (204 m³/s); minimum daily, 9.8 ft³/s (0.28 m³/s) May 28, July 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,500 ft³/s (127 m³/s) May 27, gage height, 7.94 ft (2.420 m); minimum daily, 45 ft³/s (1.27 m³/s) Aug. 3.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	539	426	390	310	290	360	376	217	1480	370	128	278
2	522	445	390	315	295	385	369	235	792	190	52	261
3	492	443	390	310	300	400	331	232	450	60	45	239
4	477	438	395	310	310	405	318	162	514	124	47	245
5	464	426	380	300	320	420	371	233	888	372	77	218
6	455	421	375	295	325	420	395	409	997	324	77	195
7	450	383	370	290	330	420	390	592	1140	336	70	202
8	488	372	370	295	330	420	425	648	855	305	57	199
9	556	420	385	300	340	415	388	576	419	327	75	157
10	547	430	390	300	340	405	445	343	215	380	124	199
11	577	450	390	300	345	420	518	408	164	419	138	168
12	545	420	395	295	350	470	489	377	318	428	72	211
13	523	415	390	300	350	490	496	240	754	381	137	202
14	527	430	390	310	340	490	445	143	1320	341	848	181
15	530	460	380	315	335	475	416	141	1700	353	880	158
16	536	480	370	315	335	460	406	181	1260	339	750	137
17	541	500	365	315	335	435	452	381	819	382	526	112
18	563	500	370	315	340	420	511	671	669	450	373	98
19	557	460	375	310	340	410	604	1120	526	400	483	120
20	534	440	375	310	345	400	564	1520	177	413	754	122
21	523	460	380	300	345	400	484	1810	111	397	916	117
22	551	450	385	300	340	390	448	2170	225	312	855	121
23	545	430	385	300	340	390	398	2370	259	265	596	110
24	522	420	385	295	335	390	166	2700	256	394	451	99
25	535	420	375	290	335	400	117	2830	226	297	479	76
26	570	420	360	290	335	405	114	3180	347	178	463	74
27	551	430	350	290	340	410	98	3700	390	219	373	73
28	550	420	330	285	345	410	93	3870	325	233	385	79
29	535	410	320	285	---	406	123	3870	330	263	388	85
30	522	400	310	285	---	377	195	3400	380	288	359	82
31	483	---	310	285	---	364	---	2140	---	249	317	---
TOTAL	16310	13019	11525	9315	9310	12862	10945	40869	18306	9789	11295	4618
MEAN	526	434	372	300	333	415	365	1318	610	316	364	154
MAX	577	500	395	315	350	490	604	3870	1700	450	916	278
MIN	450	372	310	285	290	360	93	141	111	60	45	73
AC-FT	32350	25820	22860	18480	18470	25510	21710	81060	36310	19420	22400	9160
CAL YR 1978 TOTAL	270016					4880	MIN 47	AC-FT 535600				
WTR YR 1979 TOTAL	168163					3870	MIN 45	AC-FT 333600				

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1960 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT										
03...	1355	--	519	8.3	10.5	20	9.3	84	150	2
NOV										
03...	1415	--	464	--	7.0	--	--	--	200	20
27...	1215	430	--	8.2	.0	--	--	--	210	30
JAN										
16...	1530	315	--	7.7	.0	--	--	--	190	10
FEB										
12...	1520	350	--	7.7	.0	--	--	--	180	16
MAR										
02...	1050	385	--	7.9	.0	--	--	--	160	12
APR										
03...	1045	--	339	8.2	6.0	--	--	--	200	11
MAY										
04...	1405	--	155	8.7	9.5	--	--	--	220	79
JUN										
12...	0845	--	276	8.1	14.0	--	--	--	100	2
JUL										
03...	1330	--	68	8.6	18.0	--	--	--	110	3
31...	1355	--	265	8.6	17.0	--	--	--	100	5
SEP										
04...	0940	--	254	8.5	12.0	--	--	--	130	0

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SURP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT									
03...	41	11	26	.9	2.1	180	0	150	44
NOV									
03...	55	15	27	.8	2.1	220	0	180	70
27...	59	14	26	.8	.3	220	0	180	77
JAN									
16...	45	19	26	.8	2.4	220	0	180	65
FEB									
12...	48	14	27	.9	2.3	200	0	160	62
MAR									
02...	45	11	28	1.0	2.3	180	0	150	58
APR									
03...	54	15	36	1.1	2.3	230	0	190	90
MAY									
04...	55	19	49	1.5	2.8	160	6	140	180
JUN									
12...	28	7.3	20	.9	1.3	120	0	98	39
JUL									
03...	32	7.4	25	1.0	2.3	130	0	110	53
31...	29	6.5	21	.9	1.7	110	3	95	44
SEP									
04...	37	9.5	25	.9	2.8	160	0	130	53

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT									
03...	7.0	.2	13	233	.32	327	.07	.30	.07
NOV									
03...	8.8	.5	13	301	.41	377	.00	--	.02
27...	4.4	.4	13	304	.41	353	.09	--	.02
JAN									
16...	6.8	.4	14	289	.39	246	.09	--	.04
FEB									
12...	.4	.4	14	268	.36	253	.27	--	.07
MAR									
02...	9.3	.4	14	258	.35	268	.07	--	.05
APR									
03...	5.9	.4	13	327	.44	299	.00	--	.03
MAY									
04...	10	.5	9.9	416	.57	174	.29	--	.02
JUN									
12...	3.4	.3	12	168	.23	125	.02	--	.04
JUL									
03...	3.4	.3	9.9	199	.27	36.5	.00	--	.04
31...	3.4	.3	6.4	173	.24	124	.00	--	.03
SEP									
04...	2.6	.3	9.3	218	.30	150	.00	--	.03

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°58'06", long 109°02'13", in SE¼SW¼SE¼ sec.18, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.9 mi (3.1 km) upstream from Washakie Dam and 8.0 mi (12.9 km) southwest of Fort Washakie.

DRAINAGE AREA.--90.3 mi² (233.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map.

REMARKS.--Records good except those for winter periods and period of missing record, Dec. 30 to Jan. 31, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s (38.8 m³/s) June 15, 1978, gage height, 6.82 ft (2.079 m); minimum daily, 4.5 ft³/s (0.13 m³/s) Feb. 1-9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 740 ft³/s (21.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	0800	*1,190 33.7	6.44 1.963	June 14	0530	823 23.3	5.54 1.689
June 6	0600	740 21.0	5.32 1.622				

Minimum daily discharge, 9.2 ft³/s (0.26 m³/s) Nov. 16.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	24	22	14	13	16	19	66	301	407	99	83
2	44	23	22	14	14	16	18	82	276	366	94	76
3	42	24	24	15	13	17	18	70	326	332	89	71
4	42	22	25	15	12	18	18	75	451	291	84	67
5	41	19	24	15	12	17	18	94	578	274	80	63
6	39	14	23	14	11	17	19	108	711	252	79	60
7	39	22	22	14	11	18	20	72	598	256	80	58
8	38	24	22	14	11	18	20	66	428	241	86	57
9	36	19	22	14	11	16	22	60	331	229	97	54
10	35	11	23	15	11	16	25	55	307	221	117	56
11	34	9.8	24	15	11	17	24	53	328	210	107	56
12	33	9.6	25	15	11	17	24	52	436	198	96	56
13	31	9.6	25	14	14	16	24	60	616	193	114	54
14	30	9.5	24	14	15	16	24	79	779	189	171	55
15	30	9.3	23	14	16	16	27	126	684	178	202	52
16	29	9.2	21	15	16	16	32	168	529	174	170	50
17	30	13	20	15	17	16	39	200	486	177	146	47
18	31	17	20	15	18	16	46	226	453	178	149	45
19	31	21	20	15	18	16	41	255	348	169	176	43
20	30	24	20	15	18	16	34	301	288	161	312	42
21	29	25	21	15	17	16	33	334	274	151	320	41
22	29	24	21	15	17	16	38	406	312	144	255	39
23	27	24	21	14	17	16	46	485	334	159	203	38
24	28	23	21	14	17	16	47	589	351	166	172	36
25	28	22	20	14	17	17	40	650	369	149	151	35
26	28	22	19	14	16	16	42	722	391	138	133	36
27	28	22	18	14	16	16	47	821	398	130	119	39
28	28	22	17	13	16	17	57	830	403	125	108	38
29	26	21	16	13	---	19	57	1030	409	118	98	36
30	20	20	15	13	---	19	63	606	415	111	91	34
31	21	---	14	13	---	19	---	398	---	105	88	---
TOTAL	1002	559.0	654	443	406	518	982	9139	12910	6192	4286	1517
MEAN	32.3	18.6	21.1	14.3	14.5	16.7	32.7	295	430	200	138	50.6
MAX	45	25	25	15	18	19	63	1030	779	407	320	83
MIN	20	9.2	14	13	11	16	18	52	274	105	79	34
AC-FT	1990	1110	1300	879	805	1030	1950	18130	25610	12280	8500	3010
CAL YR 1978	TOTAL	56660.0	MEAN	155	MAX	1210	MIN	9.2	AC-FT	112400		
WTR YR 1979	TOTAL	38608.0	MEAN	106	MAX	1030	MIN	9.2	AC-FT	76580		

YELLOWSTONE RIVER BASIN

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT										
03...	1430	--	42	63	8.2	8.0	29	6	8.0	2.3
NOV										
06...	1330	--	10	127	8.0	2.0	59	16	15	5.2
DEC										
18...	1400	20	--	108	7.5	.0	36	9	9.2	3.2
FEB										
02...	0900	--	13	125	7.2	.0	46	6	11	4.4
MAR										
12...	1040	--	16	140	7.3	1.5	--	--	--	--
APR										
25...	1005	--	37	70	7.6	6.0	32	12	8.3	2.8
MAY										
15...	1240	--	104	54	7.3	8.0	23	6	6.5	1.6
29...	1320	--	1100	34	6.7	5.0	39	31	14	1.0
JUL										
05...	1200	--	277	25	6.8	12.5	11	0	3.0	.8
AUG										
07...	1405	--	80	41	6.9	16.5	17	2	4.8	1.2
SEP										
11...	1010	--	56	75	7.2	11.0	14	0	2.3	2.1

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
03...	2.6	.2	--	.5	29	0	24	3.3	4.8
NOV									
06...	5.1	.3	--	.7	52	0	43	7.8	14
DEC									
18...	3.4	.2	--	1.0	33	0	27	6.0	7.9
FEB									
02...	4.9	.3	--	.7	48	0	39	7.1	9.8
MAR									
12...	--	--	--	--	--	--	--	--	--
APR									
25...	3.5	.3	--	.8	25	0	21	7.7	5.3
MAY									
15...	2.4	.2	2.9	.5	20	0	16	8.4	2.6
29...	2.2	.2	2.8	.6	10	0	8	7.6	.8
JUL									
05...	3.4	.5	3.8	.4	13	0	11	4.6	1.3
AUG									
07...	1.3	.1	1.7	.4	18	0	15	3.8	2.7
SEP									
11...	2.4	.3	3.0	.6	17	0	14	2.7	3.1

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT									
03...	.1	3.8	40	.05	4.54	.02	.00	--	--
NOV									
06...	.1	5.9	80	.11	2.16	.08	.01	--	--
DEC									
18...	.1	5.4	53	.07	2.86	.13	.00	--	--
FEB									
02...	.0	6.9	69	.09	2.42	.08	.00	--	--
MAR									
12...	--	--	--	--	--	--	--	--	--
APR									
25...	.1	7.5	49	.07	4.90	.10	.00	.00	.00
MAY									
15...	.1	9.1	41	.06	11.5	.01	.01	.03	.03
29...	.1	3.0	34	.05	101	.05	.00	.00	.00
JUL									
05...	.0	2.1	22	.03	16.5	.00	.02	.06	.06
AUG									
07...	.0	2.0	25	.03	5.40	.01	2.2	--	6.7
SEP									
11...	.1	2.9	25	.03	3.78	.02	.00	--	.00

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY

LOCATION.--Lat 42°57'37", long 108°29'54", in NE¼SE¼ sec.22, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080002, 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.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT												
05...	0930	160	8.1	10.5	330	170	77	33	73	1.8	2.4	200
30...	1350	115	8.2	3.0	410	230	92	43	78	1.7	2.9	220
NOV												
28...	1415	98	8.1	.0	390	210	96	36	74	1.6	.3	220
JAN												
12...	1325	67	7.6	.0	320	140	76	33	70	1.7	2.8	220
FEB												
09...	1300	88	7.2	.0	330	170	83	30	56	1.3	2.5	200
27...	1420	87	7.8	.0	280	150	69	26	58	1.5	2.4	160
APR												
04...	1030	84	8.3	4.5	510	310	110	56	160	3.1	--	250
JUN												
01...	1215	560	7.8	14.0	90	42	23	7.8	13	.6	.0	59
JUL												
03...	1100	230	8.4	19.0	190	92	45	19	34	1.1	1.9	120
AUG												
13...	1120	14	8.1	18.0	350	170	80	37	110	2.6	3.8	220
SEP												
04...	1305	125	8.2	13.0	230	110	58	21	44	1.3	2.3	140

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT											
05...	0	160	300	8.5	.4	4.9	700	.95	302	.11	.04
30...	0	180	360	13	.7	4.2	704	.96	219	.14	.03
NOV											
28...	0	180	350	10	.6	4.8	683	.93	181	.41	.01
JAN											
12...	0	180	270	11	.5	10	585	.80	106	.45	.03
FEB											
09...	0	160	260	13	.6	9.1	555	.75	132	.41	.02
27...	0	130	250	13	.5	8.5	508	.69	119	.50	.02
APR											
04...	0	200	640	20	.8	4.5	--	1.56	261	.02	.02
JUN											
01...	0	48	61	4.4	.2	4.6	143	.19	216	.00	.14
JUL											
03...	0	98	160	5.9	.4	3.3	330	.45	205	.00	.04
AUG											
13...	0	180	390	10	.4	7.3	750	1.02	28.4	.27	.04
SEP											
04...	4	120	200	5.2	.4	--	--	--	137	.00	.03

YELLOWSTONE RIVER BASIN

06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY

LOCATION.--Lat 42°43'00", long 108°38'34", in NE¼SE¼ sec.27, T.32 N., R.99 W., Fremont County, Hydrologic Unit 10080003, on left bank 700 ft (213 m) downstream from bridge on State Highway 28, 2.5 mi (4.0 km) downstream from Red Canyon Creek, and 9.5 mi (15.3 km) southeast of post office in Lander.

DRAINAGE AREA.--125 mi² (324 km²).

PERIOD OF RECORD.--March 1946 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,436.49 ft (1,657.042 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 540 acres (2.19 km²) above station. Slight regulation by Christina Lake, capacity, about 3,860 acre-ft (4.76 hm³).

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1947-71), 80.3 ft³/s (2.274 m³/s), 58,180 acre-ft/yr (71.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) June 16, 1963, gage height, 6.64 ft (2.024 m); minimum daily, 12 ft³/s (0.34 m³/s) Jan. 20, 21, Feb. 26 to Mar. 2, 1960, Jan. 10, 11, 18, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	0730	*660 18.7	4.83 1.472	June 14	0830	379 10.7	4.09 1.247
June 7	0230	394 11.2	4.13 1.259				

Minimum daily discharge during period of operation, 21 ft³/s (0.60 m³/s) Apr. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							22	88	277	170	54	50
2							21	120	250	158	50	46
3							21	112	259	150	46	45
4							21	106	295	140	45	43
5							21	140	337	132	43	43
6							24	145	373	128	41	43
7							32	115	352	138	39	41
8							29	115	289	120	41	41
9							34	108	250	112	45	39
10							43	106	235	108	52	43
11							32	97	235	99	46	43
12							32	97	256	92	43	45
13							30	106	310	90	54	45
14							30	122	349	88	78	46
15							34	118	331	84	84	46
16							43	150	280	84	72	48
17							59	182	262	82	76	45
18							70	202	247	82	97	46
19							64	228	225	82	82	45
20							57	253	202	84	135	45
21							55	274	190	82	145	45
22							68	313	190	80	110	45
23							78	358	190	84	92	45
24							78	367	188	92	86	43
25							64	412	185	82	76	43
26							66	421	182	76	72	41
27							70	460	180	72	68	43
28							78	510	178	70	64	43
29							72	609	172	66	59	41
30							76	424	170	63	54	39
31							---	328	---	57	52	---
TOTAL							1424	7186	7439	3047	2101	1316
MEAN							47.5	232	248	98.3	67.8	43.9
MAX							78	609	373	170	145	50
MIN							21	88	170	57	39	39
AC-FT							2820	14250	14760	6040	4170	2610

06235000 BEAVER CREEK NEAR ARAPAHOE, WY

LOCATION.--Lat 42°57'16", long 108°25'39", in NW¼NE¼ sec.29, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, 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.--Water years 1950-53, 1968 to current year.

REMARKS.--No flow was observed Oct. 5, 31, Nov. 30, Jan. 12, Feb. 14, Mar. 1, July 11, Aug. 6, Sept. 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
APR 05...	0950	23	8.2	4.0	490	240	140	35	170	3.3	93	310
MAY 03...	0920	32	8.0	7.0	150	68	45	9.6	47	1.7	2.8	100
31...	1300	85	8.0	9.5	130	15	35	11	50	1.9	3.5	140

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR 05...	0	250	620	77	1.1	13	1300	1.77	80.7	.02	2.0
MAY 03...	0	82	120	39	.4	6.0	320	.44	27.6	.00	.26
31...	0	120	110	17	.5	11	308	.42	70.7	.00	.96

YELLOWSTONE RIVER BASIN

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY

LOCATION.--Lat 42°59'51", long 108°22'29", in NE¼NW¼ sec.11, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year. Prior to October 1958, published as Popo Agie River near Riverton.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.84 ft (1,494.081 m), National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1956, at site 600 ft (183 m) downstream at same datum.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Nov. 14-17, Dec. 10 to Mar. 20, which are poor. Diversions for irrigation of about 62,900 acres (255 km²) above station.

AVERAGE DISCHARGE.--38 years, 582 ft³/s (16.48 m³/s), 421,700 acre-ft/yr (520 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s (416 m³/s) June 17, 1963, gage height, 10.85 ft (3.307 m); minimum daily, 41 ft³/s (1.16 m³/s) Aug. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,200 ft³/s (90.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	2230	*4,310 122	6.47 1.972

Minimum daily discharge, 124 ft³/s (3.51 m³/s) Aug. 8.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	256	240	150	165	220	273	329	1560	783	206	464
2	293	268	240	150	170	225	250	556	1150	757	180	453
3	326	268	240	145	180	230	234	875	1000	686	166	417
4	320	264	245	140	190	240	218	750	1070	640	143	381
5	298	258	250	140	200	250	215	632	1340	611	127	355
6	289	251	245	140	205	260	209	683	1690	547	132	321
7	287	237	240	145	210	270	204	672	1960	518	134	281
8	284	247	240	145	205	270	208	636	1840	517	124	259
9	284	259	240	150	200	270	211	665	1490	460	141	250
10	284	230	240	150	200	260	245	664	1160	428	176	234
11	283	175	240	150	200	270	362	766	1030	414	190	217
12	278	160	240	150	200	280	413	629	1090	381	184	212
13	268	150	235	150	205	300	434	548	1400	368	193	211
14	268	140	230	150	210	320	439	539	1940	351	285	249
15	268	140	225	155	220	320	365	573	2240	311	437	255
16	269	135	220	160	220	310	299	661	1880	298	489	259
17	273	170	220	165	220	300	282	794	1530	278	448	248
18	279	210	215	170	220	300	301	952	1350	273	444	219
19	292	250	215	170	230	300	334	1100	1120	276	637	212
20	288	280	215	175	230	320	333	1220	865	280	823	202
21	276	285	215	175	230	330	302	1350	706	289	949	209
22	273	275	215	175	230	340	274	1500	614	282	910	219
23	311	270	215	175	225	360	274	1750	598	280	807	220
24	298	265	210	175	220	390	299	1930	598	313	782	221
25	301	260	210	175	220	430	316	2020	626	326	775	213
26	315	255	200	170	220	399	300	2110	668	301	712	193
27	311	255	190	170	220	345	294	2440	693	278	659	193
28	307	255	180	170	220	318	293	2990	744	285	616	204
29	294	245	170	170	---	308	311	3730	776	285	581	198
30	281	240	160	165	---	285	316	3830	783	247	540	192
31	271	---	155	165	---	267	---	2310	---	222	493	---
TOTAL	8975	6953	6795	4935	5865	9287	8808	40204	35511	12285	13483	7761
MEAN	290	232	219	159	209	300	294	1297	1184	396	435	259
MAX	326	285	250	175	230	430	439	3830	2240	783	949	464
MIN	268	135	155	140	165	220	204	329	598	222	124	192
AC-FT	17800	13790	13480	9790	11630	18420	17470	79740	70440	24370	26740	15390
CAL YR 1978 TOTAL	230231		MEAN 631	MAX 4860	MIN 110	AC-FT 456700						
WTR YR 1979 TOTAL	160862		MEAN 441	MAX 3830	MIN 124	AC-FT 319100						

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1960-64, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT												
05...	1340	--	297	8.2	11.0	350	170	84	33	74	1.7	2.7
NOV												
02...	0800	--	273	8.1	3.5	400	220	96	39	67	1.5	2.4
27...	1510	255	--	8.0	.0	340	160	86	32	63	1.5	.2
JAN												
05...	1500	140	--	7.2	.0	330	140	81	32	65	1.5	2.5
FEB												
05...	1500	200	--	7.5	.0	330	150	82	31	62	1.5	1.8
MAR												
26...	1500	--	407	7.9	4.0	430	240	93	47	160	3.4	49
MAY												
07...	1425	--	655	8.3	12.0	240	130	57	23	45	1.3	2.7
31...	1100	--	2360	7.8	9.0	76	31	14	10	11	.5	.8
JUL												
03...	0920	--	674	8.1	18.0	190	83	47	18	28	.9	1.8
31...	0940	--	228	8.6	14.0	340	180	85	32	65	1.5	3.4
AUG												
29...	1415	--	575	8.3	20.5	250	130	61	23	39	1.1	1.5

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT												
05...	220	0	180	320	11	.5	4.2	749	1.02	601	.00	.02
NOV												
02...	220	0	180	350	7.4	.6	3.7	676	.92	498	.00	.02
27...	220	0	180	290	7.7	.5	4.4	596	.81	410	.43	.04
JAN												
05...	230	0	190	280	8.1	.4	11	592	.81	224	.52	.09
FEB												
05...	220	0	180	280	8.9	.6	10	588	.80	318	.29	.14
MAR												
26...	230	0	190	620	19	.7	7.5	1110	1.51	1220	.07	.21
MAY												
07...	130	0	110	220	8.7	.5	7.1	429	.58	759	.20	.36
31...	55	0	45	51	2.3	.2	4.7	122	.17	777	.00	1.0
JUL												
03...	130	0	110	140	2.9	.3	4.3	308	.42	561	.00	.06
31...	200	0	160	310	6.9	.6	6.8	607	.83	374	.00	.03
AUG												
29...	150	0	120	190	4.0	.4	5.5	399	.54	619	.00	.05

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T, TOTAL (UG/L)	2,4,5-T, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV							
02...	0800	.00	0	.00	0	.00	.0

YELLOWSTONE RIVER BASIN

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

LOCATION.--Lat 43°07'43", long 108°13'28", in NW¼NE¼NE¼ sec.25, T.2 N., R.5 E., Fremont County, Hydrologic Unit 10080001, 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.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT										
03...	0925	996	8.2	9.0	30	9.1	220	220	57	57
NOV										
02...	0750	880	7.9	3.0	3	9.0	530	230	67	58
30...	1425	701	8.1	.0	3	11.7	240	270	77	67
JAN										
09...	1445	463	7.4	.0	--	8.7	12	370	100	96
FEB										
07...	1345	542	7.8	.0	3	10.6	800	240	62	64
27...	1130	569	7.6	.0	4	9.8	1200	260	91	66
APR										
02...	1320	810	8.2	6.0	95	9.0	34	290	120	74
MAY										
10...	1320	1270	8.2	8.5	120	10.1	350	210	87	48
JUN										
05...	1545	1870	8.0	19.5	50	7.9	170	110	28	30
JUL										
02...	1330	1200	8.2	19.5	20	8.7	82	160	62	43
AUG										
09...	0845	473	8.0	19.0	15	7.9	--	230	57	59
SEP										
06...	1230	410	8.0	16.0	5	8.0	--	200	60	50

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
03...	19	41	1.2	--	2.5	200	0	160	130	5.3
NOV										
02...	21	42	1.2	--	2.6	200	0	160	160	6.1
30...	24	50	1.3	--	3.3	230	0	190	180	6.8
JAN										
09...	32	64	1.4	--	4.8	330	0	270	230	6.0
FEB										
07...	20	41	1.1	--	2.4	220	0	180	140	6.5
27...	22	38	1.0	--	2.7	200	0	160	160	7.0
APR										
02...	26	59	1.5	--	3.4	210	0	170	240	16
MAY										
10...	22	61	1.8	64	2.7	150	0	120	210	11
JUN										
05...	8.0	18	.8	20	1.8	97	0	80	70	5.0
JUL										
02...	13	27	.9	29	1.8	120	0	98	120	3.8
AUG										
09...	20	61	1.8	65	3.7	210	0	170	180	9.6
SEP										
06...	18	43	1.3	45	2.2	170	0	140	160	4.9

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 03...	.4	12	366	.50	984	.05	.08	--	--
NOV 02...	.3	10	399	.54	948	.02	.01	--	--
30...	.4	15	460	.63	871	.01	.04	--	--
JAN 09...	.4	23	621	.84	776	.58	.10	--	--
FEB 07...	.3	16	400	.54	585	.32	.05	--	--
27...	.3	15	411	.56	631	.34	.11	--	--
APR 02...	.4	11	534	.73	1170	.16	.17	--	--
MAY 10...	.3	10	440	.60	1510	.28	.21	.64	.64
JUN 05...	.3	9.4	190	.26	959	.00	.16	.49	.49
JUL 02...	.2	8.5	276	.38	894	.00	.65	2.0	2.0
AUG 09...	.4	8.7	446	.61	570	.02	.07	--	.21
SEP 06...	.4	7.6	370	.50	410	.04	.03	--	.09

DATE	TIME	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 24...	1600	10.0	.0	4	.00	.00	.0	.0	0	.00	.0
JUN 12...	1500	23.0	.0	0	--	.00	.0	.0	0	.00	.0

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)
OCT 24...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00
JUN 12...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00

YELLOWSTONE RIVER BASIN

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
OCT 24...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00
JUN 12...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 24...	.00	0	0	.00	.00	0	.02	0	.00	.0
JUN 12...	.00	0	0	.00	.09	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
OCT 24...	.01	0	.00	0
JUN 12...	.01	0	.00	0

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY

LOCATION.--Lat 43°11'56", long 108°34'08", in NE¼NE¼NW¼ sec.31, T.3 N., R.3 E., Fremont County, Hydrologic Unit 10080005, on left bank 2,000 ft (610 m) downstream from Ocean Lake outlet, 6.4 mi (10.3 km) northeast of Kinnear, and 6.9 mi (11.1 km) southeast of Pavillion.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1948 to September 1953, April 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,230 ft (1,594 m) from topographic map. Sept. 1, 1948, to Sept. 30, 1953, water-stage recorder at site 1,850 ft (564 m) upstream at datum 1.32 ft (0.402 m) higher.

REMARKS.--Records good except those for periods of no gage-height record, Dec. 8 to Feb 12, May 26 to June 13, which are poor.

AVERAGE DISCHARGE.--6 years, 25.2 ft³/s (0.714 m³/s), 18,260 acre-ft/yr (22.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 141 ft³/s (3.99 m³/s) Aug. 24, 1979, gage height, 4.21 ft (1.283 m); no flow at times in 1949 and 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 141 ft³/s (3.99 m³/s) Aug. 24, gage height, 4.21 ft (1.283 m); minimum daily, 16.0 ft³/s (0.45 m³/s) Feb. 20, 21.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	45	36	21	21	18	32	30	28	60	99	125
2	83	44	36	21	21	18	32	31	28	60	100	121
3	82	43	36	21	20	18	32	32	29	60	101	119
4	79	44	36	21	20	18	32	32	29	60	100	116
5	77	41	35	21	20	18	32	32	29	61	101	114
6	76	42	36	21	21	18	32	32	29	63	101	112
7	75	39	37	22	21	18	31	30	29	64	102	111
8	74	41	36	22	21	19	30	32	30	65	102	111
9	72	40	36	22	21	20	30	34	30	67	102	111
10	71	41	35	22	21	20	33	34	30	68	105	108
11	68	42	35	23	22	20	35	34	30	69	106	104
12	63	42	35	23	22	21	36	34	31	70	106	103
13	62	42	34	23	22	21	36	33	31	72	109	101
14	61	42	34	23	22	22	35	32	32	74	111	99
15	60	41	33	23	20	22	35	32	32	74	112	97
16	59	40	33	24	18	22	35	32	32	76	114	97
17	58	40	33	24	18	24	34	30	33	77	116	96
18	58	40	32	24	17	26	37	30	36	79	117	96
19	57	40	31	24	17	26	36	30	36	79	121	95
20	56	38	31	24	16	27	34	29	36	81	130	94
21	55	38	31	25	16	27	34	29	38	83	134	94
22	54	38	31	25	17	28	32	28	42	84	137	94
23	54	38	30	25	18	28	32	28	45	86	137	94
24	52	38	30	25	18	29	32	28	49	89	138	94
25	52	37	30	25	18	30	32	28	50	92	138	94
26	51	37	29	25	18	30	30	28	52	94	138	96
27	50	37	28	25	18	30	31	28	54	94	138	95
28	49	36	27	24	18	30	31	28	55	96	137	96
29	49	36	26	23	---	30	30	28	57	96	136	95
30	47	36	24	22	---	30	30	28	59	97	136	96
31	46	---	22	21	---	30	---	28	---	97	130	---
TOTAL	1935	1198	998	714	542	738	983	944	1121	2387	3654	3078
MEAN	62.4	39.9	32.2	23.0	19.4	23.8	32.8	30.5	37.4	77.0	118	103
MAX	85	45	37	25	22	30	37	34	59	97	138	125
MIN	46	36	22	21	16	18	30	28	28	60	99	94
AC-FT	3840	2380	1980	1420	1080	1460	1950	1870	2220	4730	7250	6110
WTR YR 1979 TOTAL	18292		MEAN 50.1		MAX 138	MIN 16	AC-FT 36280					

YELLOWSTONE RIVER BASIN

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1947 to August 1951, April 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT										
06...	1010	--	76	1550	8.4	11.0	8.7	270	93	70
NOV										
06...	1020	--	42	1600	8.6	6.5	10.6	290	110	74
DEC										
01...	1300	--	36	1700	8.6	1.5	12.6	280	160	71
JAN										
04...	0900	21	--	1800	8.0	.5	9.0	320	140	82
FEB										
13...	1130	--	22	1500	8.1	1.5	11.2	340	130	88
MAR										
13...	1045	--	21	1500	8.1	1.5	11.0	350	140	89
APR										
13...	1410	--	35	1500	8.5	7.0	11.4	260	82	62
MAY										
15...	1245	--	32	1500	8.3	15.5	9.4	310	130	79
JUN										
13...	0945	--	30	1600	8.1	20.0	8.0	300	120	78
JUL										
13...	1015	--	72	1700	8.1	21.0	7.4	240	60	60
AUG										
13...	1230	--	109	1440	8.1	20.5	7.0	270	77	69
SEP										
12...	0940	--	104	1700	8.2	17.0	7.4	280	110	76

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
06...	24	240	6.3	--	4.8	220	0	180	580	20
NOV										
06...	25	250	6.4	--	5.1	200	7	180	610	21
DEC										
01...	26	260	6.7	--	6.3	150	1	120	660	21
JAN										
04...	29	280	6.8	--	6.6	--	--	180	730	23
FEB										
13...	29	280	6.6	--	5.7	--	--	210	710	24
MAR										
13...	30	280	6.6	--	7.4	--	--	210	700	37
APR										
13...	26	250	6.7	--	4.0	--	--	180	580	19
MAY										
15...	27	250	6.2	250	4.7	--	--	180	610	20
JUN										
13...	25	250	6.3	260	5.1	--	--	180	610	21
JUL										
13...	22	270	7.6	280	5.3	--	--	180	600	21
AUG										
13...	23	230	6.1	230	4.7	--	--	190	580	18
SEP										
12...	22	220	5.7	230	5.0	--	--	170	540	21

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT									
06...	.7	7.1	1060	1.44	218	.00	--	130	30
NOV									
06...	.5	5.3	1100	1.50	125	.01	--	130	20
DEC									
01...	.6	4.5	1130	1.54	110	.28	--	110	0
JAN									
04...	.6	5.3	1270	1.73	72.0	.18	--	150	30
FEB									
13...	.7	6.0	1270	1.73	75.4	.05	--	150	10
MAR									
13...	.7	5.7	1280	1.74	72.6	.03	--	890	30
APR									
13...	.6	4.2	1050	1.43	101	.03	--	140	0
MAY									
15...	.6	7.6	1110	1.51	95.9	.00	--	140	10
JUN									
13...	.6	3.0	1100	1.50	89.4	.01	--	110	20
JUL									
13...	.6	5.0	1090	1.48	212	.00	--	60	10
AUG									
13...	.6	7.6	1050	1.43	309	.04	--	130	10
SEP									
12...	.6	9.5	996	1.35	280	.00	.03	110	30

YELLOWSTONE RIVER BASIN

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼SW¼ sec.19, T.3 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1942, August 1948 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,750 ft (1,448 m), from topographic map. May 10, 1941, to Sept. 30, 1942, nonrecording gage at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records poor. No gage-height record Oct. 1-2, Apr. 25 to May 22, June 10 to Aug. 4, Aug. 14-24. Natural flow of stream affected by regulation of Bureau of Indian Affairs reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--32 years, 152 ft³/s (4,305 m³/s), 110,100 acre-ft/yr (136 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft³/s (96.0 m³/s) June 15, 1962, gage height, 7.85 ft (2.393 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s); maximum gage height, 9.61 ft (2.929 m) Dec. 27, 1954 (backwater from ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Jan. 4-6, 1942.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 24, 1923, discharge, 3,500 ft³/s (99.1 m³/s), estimated by Water and Power Resources Service, exceeded all floods at this location during period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 568 ft³/s (16.1 m³/s) Aug. 20, gage height, 4.04 ft (1.231 m); minimum daily, 35 ft³/s (0.99 m³/s) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	99	78	56	39	52	72	140	212	300	370	374
2	195	99	78	52	40	52	70	140	218	300	370	378
3	171	99	78	54	40	52	69	150	222	300	370	364
4	167	100	77	56	40	52	66	150	231	310	380	360
5	158	100	74	60	40	52	62	150	240	320	388	326
6	156	97	75	60	40	52	61	150	251	320	396	296
7	154	99	76	58	41	52	63	150	260	330	396	313
8	152	100	74	56	41	54	62	160	293	340	396	323
9	150	100	73	56	41	56	61	170	300	350	396	300
10	144	94	72	56	41	56	68	180	300	360	416	296
11	146	94	72	56	41	58	78	180	300	360	392	330
12	139	94	70	56	43	58	69	180	300	360	396	323
13	135	93	68	56	46	60	64	180	310	360	413	306
14	133	92	68	56	47	60	63	180	310	370	440	303
15	129	88	68	56	45	60	67	180	320	370	470	300
16	129	86	67	57	42	60	64	180	320	375	460	296
17	129	84	68	58	40	62	60	170	320	370	450	296
18	127	84	68	58	38	64	57	170	320	370	430	290
19	125	84	66	58	36	66	56	170	320	370	450	290
20	125	80	66	58	35	66	50	170	320	380	520	274
21	122	78	66	58	36	60	47	170	320	380	490	300
22	120	78	66	56	38	66	52	170	320	390	450	300
23	114	78	66	55	42	64	59	171	330	390	470	286
24	116	78	66	54	47	69	80	180	330	390	430	280
25	112	78	66	52	46	75	110	188	330	390	396	283
26	111	78	66	52	49	70	130	180	330	390	388	296
27	109	78	66	51	50	69	130	185	330	390	396	290
28	104	78	64	50	52	70	140	182	320	390	396	296
29	104	79	64	48	---	68	140	205	320	380	402	309
30	100	78	62	45	---	67	140	218	310	380	402	316
31	99	---	60	41	---	69	---	205	---	370	388	---
TOTAL	4215	2647	2148	1695	1176	1891	2310	5354	8907	11155	12907	9294
MEAN	136	88.2	69.3	54.7	42.0	61.0	77.0	173	297	360	416	310
MAX	240	100	78	60	52	75	140	218	330	390	520	378
MIN	99	78	60	41	35	52	47	140	212	300	370	274
AC-FT	8360	5250	4260	3360	2330	3750	4580	10620	17670	22130	25600	18430
CAL YR 1978 TOTAL	62963		MEAN 173	MAX 484	MIN 33	AC-FT 124900						
WTR YR 1979 TOTAL	63699		MEAN 175	MAX 520	MIN 35	AC-FT 126300						

YELLOWSTONE RIVER BASIN

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06253000 FIVEMILE CREEK NEAR SHOSHONI, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT									
02...	1350	--	192	8.7	11.0	270	81	77	20
30...	1330	--	99	8.4	7.5	420	230	110	32
NOV									
29...	1045	79	--	8.3	.0	520	270	150	35
JAN									
03...	1045	54	--	7.8	.0	470	220	130	35
FEB									
07...	1000	41	--	8.0	.0	470	180	130	36
27...	0900	50	--	8.2	.0	500	230	140	38
MAR									
27...	1330	--	70	8.4	8.0	500	250	140	37
APR									
23...	1050	--	55	8.2	16.5	500	280	140	36
MAY									
30...	1050	--	220	8.2	11.0	180	32	43	17
JUL									
16...	1045	--	375	7.9	18.0	190	67	56	13
AUG									
08...	1030	--	406	8.2	19.5	190	34	53	14
30...	1130	--	406	8.2	18.0	240	76	67	18

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT									
02...	210	5.5	3.4	230	0	190	480	16	.7
30...	330	7.1	4.2	230	0	190	860	25	1.1
NOV									
29...	330	6.3	.4	310	0	250	900	24	1.1
JAN									
03...	350	7.0	4.6	300	0	250	960	28	1.3
FEB									
07...	390	7.8	3.9	350	0	290	950	24	1.2
27...	410	7.9	5.0	330	0	270	1100	32	1.2
MAR									
27...	340	6.6	51	300	0	250	1000	29	1.1
APR									
23...	350	6.8	6.5	270	0	220	1000	18	1.1
MAY									
30...	130	4.2	3.0	180	0	150	300	11	.6
JUL									
16...	93	2.9	3.5	150	0	120	270	8.3	.5
AUG									
08...	140	4.4	3.0	190	0	160	300	14	.5
30...	140	3.9	2.8	200	0	160	380	10	.6

YELLOWSTONE RIVER BASIN

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT								
02...	6.2	1050	1.43	544	.95	.08	72	37
30...	3.0	1480	2.01	396	2.0	.02	18	4.8
NOV								
29...	.9	1600	2.18	341	2.7	.04	50	11
JAN								
03...	7.4	1680	2.28	245	2.7	.04	92	13
FEB								
07...	6.5	1720	2.34	190	1.7	.07	44	4.9
27...	6.4	1910	2.60	258	2.9	.08	99	13
MAR								
27...	4.5	1750	2.38	331	.23	.05	127	24
APR								
23...	4.1	1693	2.30	251	1.6	.02	100	15
MAY								
30...	7.6	603	.82	358	.07	.38	282	168
JUL								
16...	7.9	530	.72	537	.54	.30	259	262
AUG								
08...	7.3	627	.85	687	.36	.19	222	243
30...	7.6	727	.99	797	.52	.07	188	206

06256900 DRY CREEK NEAR BONNEVILLE, WY

LOCATION.--Lat 43°16'52", long 107°54'45", in NW¼NW¼ sec.8, T.38 N., R.92 W., Fremont County, Hydrologic Unit 10080006, on left bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,010 ft (1,527 m), from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 200 acres (81 hm²) above station.

AVERAGE DISCHARGE.--14 years, 3.00 ft³/s (0.085 m³/s), 2,170 acre-ft/yr (2.68 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) June 17, 1967, gage height, 12.41 ft (3.783 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Aug. 20	1800	*202	5.72	6.08	1.853
Aug. 24	2630	87	2.46	5.26	1.603

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.39	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.72	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.33	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.36	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.22	.00	1.1	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.08	.00	2.1	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.37	2.6	.00	.00	8.6	.00
21	.00	.00	.00	.00	.00	.00	.81	1.5	.00	.00	2.8	.00
22	.00	.00	.00	.00	.00	.00	.90	.00	.00	.00	.01	.00
23	.00	.00	.00	.00	.00	.00	1.3	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.94	.00	.00	.00	5.2	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.30	4.32	10.31	.00	.00	18.65	.00
MEAN	.000	.000	.000	.000	.000	.010	.14	.33	.000	.000	.60	.000
MAX	.00	.00	.00	.00	.00	.22	1.3	2.6	.00	.00	8.6	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.6	8.6	20	.00	.00	37	.00
CAL YR 1978	TOTAL	1406.40	MEAN	3.85	MAX	94	MIN	.00	AC-FT	2790		
WTR YR 1979	TOTAL	33.58	MEAN	.092	MAX	8.6	MIN	.00	AC-FT	67		

YELLOWSTONE RIVER BASIN

06256900 DRY CREEK NEAR BONNEVILLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: September 1965 to current year.

REMARKS.--No flow observed Oct. 2, 30, Nov. 29, Jan. 29, Mar. 16, Apr. 6, 17, May 22, June 5, 23.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days each year.

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

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days during year.

SEDIMENT LOADS: Maximum daily, 11 tons (10 tonnes) Aug. 20; minimum daily, 0 tons on many days during year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAY 14...	0945	.54	660	8.2	11.5	280	110	86	15
AUG 21...	1330	.33	530	7.9	23.0	98	24	33	3.9

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY 14...	40	1.0	42	2.0	200	0	160	180	4.3
AUG 21...	50	2.2	52	2.2	91	0	75	140	4.0

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
MAY 14...	.4	21	447	.61	.65	.01	.05	.15	.15
AUG 21...	.4	--	279	.38	.25	.22	.62	--	1.9

06256900 DRY CREEK NEAR BONNEVILLE, WY--Continued

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	DISCHARGE (TONS)	SUSPENDED SEDIMENT DAILY DISCHARGE (TONS)			CONCENTRATION (MG/L)	
				MEAN	MAXIMUM	MINIMUM	WEIGHTED MEAN	MAXIMUM OBSERVED
OCTOBER 1978...	0	0	0	0	0	0		
NOVEMBER.....	0	0	0	0	0	0		
DECEMBER.....	0	0	0	0	0	0		
JANUARY 1979...	0	0	0	0	0	0		
FEBRUARY.....	0	0	0	0	0	0		
MARCH.....	0.30	0.6	0.04	0.001	0.03	0		
APRIL.....	4.32	8.6	1.53	0.051	0.55	0		
MAY.....	10.31	20	4.37	0.141	1.6	0		
JUNE.....	0	0	0	0	0	0		
JULY.....	0	0	0	0	0	0		
AUGUST.....	18.65	37	18.64	0.60	11	0		
SEPTEMBER.....	0	0	0	0	0	0		
WATER YEAR...	33.58	67	24.58	0.067	11	0		

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.
					% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM
AUG 21...	1330	2	23.0	.33	2	2	3
DATE					BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.
					% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM
AUG 21...	17	34	61	85	96	97	100

YELLOWSTONE RIVER BASIN

06258000 MUDDY CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°17'10", long 108°16'30", in NE¼NW¼ sec.34, T.4 N., R.5 E., Fremont County, Hydrologic Unit 10080005, on left bank 2.5 mi (4.0 km) upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m) and 9.0 mi (14.5 km) northwest of Shoshoni.

DRAINAGE AREA.--332 mi² (860 km²).

PERIOD OF RECORD.--March 1949 to September 1968, October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,780 ft (1,457 m), from topographic map. Prior to May 13, 1949, water-stage recorder at site 50 ft (15 m) upstream at different datum.

REMARKS.--Records good except those for winter periods and periods of no gage-height record, Oct. 1-2, Dec. 20 to Mar. 27, and Sept. 26-30, which are poor. Natural flow of stream affected by regulation of Bureau of Indian Affairs reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--26 years (water years 1950-68, 1973-79), 20.4 ft³/s (0.578 m³/s), 14,780 acre-ft/yr (18.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) July 22, 1951, gage height, 7.50 ft (2.286 m); no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 24, 1923, reached a discharge of 16,300 ft³/s (462 m³/s), from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81 ft³/s (2.29 m³/s) Apr. 26, gage height, 2.53 ft (0.771 m); maximum gage height, 2.94 ft (0.896 m) Mar. 27 (backwater from ice); minimum daily discharge, 1.2 ft³/s (0.034 m³/s) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	9.2	9.4	6.4	1.3	10	33	24	37	30	23	37
2	34	9.2	9.4	6.2	1.3	10	31	20	35	30	28	37
3	33	9.2	9.4	6.0	1.3	10	29	39	38	34	28	35
4	15	9.2	9.4	6.0	1.3	10	28	42	43	39	29	36
5	11	9.6	9.0	6.2	1.3	9.6	28	41	31	41	27	29
6	11	10	9.0	6.4	1.3	10	27	39	21	49	24	25
7	10	10	8.8	6.2	1.3	11	28	38	28	59	23	20
8	10	10	8.8	5.8	1.3	12	27	32	38	65	24	20
9	10	10	8.6	5.4	1.3	17	26	63	36	58	28	33
10	10	8.7	8.6	5.0	1.3	15	27	66	33	49	35	35
11	9.6	8.0	8.6	5.0	1.3	15	27	63	32	40	42	33
12	9.2	7.8	8.4	5.0	1.3	17	24	64	32	39	50	35
13	9.2	7.8	8.2	5.0	1.4	20	22	60	32	39	54	38
14	9.2	7.8	8.2	4.7	1.4	23	20	54	42	34	54	35
15	9.2	7.8	8.2	4.4	1.4	26	20	54	46	26	56	36
16	8.8	7.6	8.0	4.3	1.4	32	21	56	48	28	53	39
17	8.8	7.8	8.2	4.2	1.4	35	20	46	45	28	49	37
18	10	8.2	8.2	4.2	1.3	35	20	39	42	24	43	28
19	9.2	8.8	8.0	4.2	1.3	34	20	37	43	27	50	26
20	9.2	9.4	7.8	4.0	1.2	31	20	38	46	34	61	25
21	10	9.6	7.8	3.9	1.3	29	19	49	46	41	54	20
22	10	9.8	7.8	3.3	1.4	31	18	32	39	43	43	20
23	10	10	7.8	2.9	2.3	35	18	21	39	40	43	18
24	10	10	7.8	2.7	5.2	39	18	16	55	41	41	21
25	12	10	7.8	2.5	7.4	41	18	20	55	39	39	20
26	13	10	7.6	2.5	8.6	41	32	20	52	37	36	20
27	14	10	7.6	2.4	9.0	40	33	20	44	41	37	20
28	14	10	7.4	2.2	9.0	36	70	28	36	35	39	21
29	12	10	7.0	1.8	---	35	51	37	35	27	37	21
30	9.6	9.8	6.8	1.4	---	34	27	37	32	24	32	21
31	9.2	---	6.6	1.3	---	34	---	38	---	23	37	---
TOTAL	395.2	275.3	254.2	131.5	70.6	777.6	802	1233	1181	1164	1219	841
MEAN	12.7	9.18	8.20	4.24	2.52	25.1	26.7	39.8	39.4	37.5	39.3	28.0
MAX	35	10	9.4	6.4	9.0	41	70	66	55	65	61	39
MIN	8.8	7.6	6.6	1.3	1.2	9.6	18	16	21	23	23	18
AC-FT	784	546	504	261	140	1540	1590	2450	2340	2310	2420	1670

CAL YR 1978 TOTAL 7179.7 MEAN 19.7 MAX 130 MIN 3.5 AC-FT 14240
WTR YR 1979 TOTAL 8344.4 MEAN 22.9 MAX 70 MIN 1.2 AC-FT 16550

YELLOWSTONE RIVER BASIN

75

06258010 COTTONWOOD DRAIN NEAR SHOSHONI, WY

LOCATION.--Lat 43°18'08", long 108°16'52", in NW¼NW¼NW¼ sec.27, T.4 N., R.5 E., Fremont County, Hydrologic Unit 10080005, at concrete drop structure, 1.3 mi (2.1 km) upstream from high-water line of Lake Cameahwait, and 9.6 mi (15.4 km) northwest of Shoshoni.

PERIOD OF RECORD.--June to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN 05...	1010	9.0	17.0	39	.95	83
JUL 16...	0805	6.1	18.0	35	.58	74
AUG 01...	1250	22	24.0	135	8.0	37
30...	1445	73	19.0	216	43	48

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY

LOCATION.--Lat 43°25'30", long 108°10'42", in NW¼SW¼ sec.9, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 0.6 mi (1.0 km) downstream from Boysen Dam and 13 mi (21 km) north of Shoshoni.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,608.58 ft (1,404.695 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Boysen Reservoir (station number 06258900) since October 1951. Natural flow also affected by Bull Lake, Pilot Butte Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft (234 hm³), and diversions for irrigation of about 196,000 acres (793 km²) above station.

AVERAGE DISCHARGE.--28 years, 1,423 ft³/s (40.30 m³/s), 1,031,000 acre-ft/yr (1,271 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s (382 m³/s) July 7, 1967, gage height, 13.35 ft (4.069 m); minimum daily, 4.7 ft³/s (0.13 m³/s) Apr. 3, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,310 ft³/s (65.4 m³/s) June 19, gage height, 6.14 ft (1.871 m); minimum daily, 900 ft³/s (25.5 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	1590	1390	1190	1010	1020	1490	1980	1530	1330	1370	1200
2	1660	1600	1270	1110	1010	1040	1610	1980	1530	1340	1380	1200
3	1650	1600	1260	1020	1010	1020	1900	1970	1540	1350	1370	1200
4	1660	1610	1270	1010	1010	1020	1990	1970	1520	1350	1370	1200
5	1650	1610	1280	1010	1010	1020	1990	1970	1530	1360	1370	1200
6	1650	1590	1270	1010	1010	1020	1990	1970	1530	1360	1370	1190
7	1650	1580	1280	985	1010	1020	1990	1980	1520	1340	1370	1190
8	1670	1580	1280	1000	1020	1030	1980	1750	1520	1350	1340	1190
9	1640	1600	1270	1000	1020	1020	1980	1560	1530	1350	1360	1190
10	1670	1600	1270	1000	1020	1020	1990	1560	1500	1360	1360	1160
11	1660	1590	1300	1010	1020	1030	2000	1560	1490	1720	1360	1180
12	1670	1590	1280	1020	1030	1030	1990	1560	1510	1870	1370	1110
13	1640	1580	1270	1010	1020	1030	1990	1560	1480	1380	1370	1030
14	1640	1570	1270	1000	1020	1020	1980	1550	1470	1360	1300	990
15	1650	1570	1250	997	1030	1030	2000	1550	1580	1330	1260	967
16	1650	1570	1260	997	1020	1020	1990	1530	1670	1340	1260	963
17	1650	1550	1270	993	1030	1020	1990	1560	1690	1340	1260	960
18	1650	1570	1270	991	1030	1030	1980	1610	1720	1360	1270	952
19	1640	1590	1270	991	1020	1030	1980	1610	2100	1360	1270	952
20	1640	1580	1260	991	1020	1020	1990	1600	2260	1360	1270	945
21	1640	1570	1270	991	1020	1060	1990	1590	2260	1350	1290	941
22	1650	1560	1260	1010	1030	1100	1990	1600	2250	1340	1290	938
23	1650	1560	1270	994	1020	1090	2000	1590	1730	1330	1290	930
24	1650	1560	1280	991	1020	1090	1970	1590	1460	1160	1260	925
25	1640	1560	1280	994	1020	1100	1970	1580	1470	1030	1190	917
26	1620	1560	1270	999	1020	1100	1980	1560	1470	1020	1150	910
27	1590	1560	1270	997	1030	1110	1970	1560	1410	1190	1190	904
28	1590	1550	1280	997	1020	1160	1990	1560	1300	1380	1180	916
29	1590	1560	1270	997	---	1160	1960	1560	1330	1360	1180	903
30	1590	1560	1290	1000	---	1250	1970	1550	1330	1360	1180	900
31	1580	---	1210	1010	---	1490	---	1550	---	1370	1190	---
TOTAL	50830	47320	39490	31315	28550	33200	58590	51670	48230	41800	40040	31153
MEAN	1640	1577	1274	1010	1020	1071	1953	1667	1608	1348	1292	1038
MAX	1670	1610	1390	1190	1030	1490	2000	1980	2260	1870	1380	1200
MIN	1580	1550	1210	985	1010	1020	1490	1530	1300	1020	1150	900
AC-FT	100800	93860	78330	62110	56630	65850	116200	102500	95660	82910	79420	61790
CAL YR 1978	TOTAL	572672	MEAN	1569	MAX	5050	MIN	293	AC-FT	1136000		
WTR YR 1979	TOTAL	502188	MEAN	1376	MAX	2260	MIN	900	AC-FT	996100		

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at tailrace of powerplant at Boysen Dam, 0.6 mi (1.0 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1954, 1961 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1953 to September 1954, December 1960 to current year.

WATER TEMPERATURES: December 1953 to September 1954, December 1960 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,380 micromhos June 18, 1954; minimum daily, 367 micromhos July 1, 1976.

WATER TEMPERATURES: Maximum, 22.0°C on several days in 1961, 1970, 1971; minimum, 0.0°C Jan. 6-9, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,040 micromhos Apr. 12; minimum daily, 520 micromhos Oct. 1.

WATER TEMPERATURES: Maximum, 20.0°C Aug. 6-8, 10-12, 31; minimum, 2.0°C on many days during December to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT									
14...	1130	1640	550	--	14.0	4	8.1	8	170
NOV									
28...	1215	1560	600	--	3.0	1	10.6	1	190
DEC									
22...	1240	1260	780	--	.0	2	12.0	3	190
JAN									
16...	1230	997	680	--	3.0	1	10.4	<1	190
MAR									
05...	1130	1020	670	--	5.5	1	11.8	1	190
24...	1120	1090	650	--	2.0	1	14.4	<1	210
APR									
16...	1250	1990	800	--	5.0	2	17.8	<1	210
MAY									
10...	0920	1560	800	8.1	7.0	1	10.0	<1	230
JUN									
04...	1550	1530	--	8.4	15.0	1	9.8	1	230
JUL									
02...	1145	1350	630	8.2	20.0	--	8.7	1	210
AUG									
09...	1100	1360	600	8.0	17.5	2	7.6	--	200
SEP									
06...	1115	1190	620	8.2	19.0	3	7.7	6	200

DATE	HARD- NESS, NUNCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT									
14...	55	45	13	62	2.1	2.8	140	0	120
NOV									
28...	59	49	15	68	2.2	.2	160	0	130
DEC									
22...	59	49	15	64	2.1	2.4	160	0	130
JAN									
16...	51	48	16	56	1.8	3.0	170	0	140
MAR									
05...	46	55	13	68	2.1	2.6	170	3	140
24...	62	58	17	64	1.9	2.5	180	0	150
APR									
16...	61	54	19	73	2.2	2.8	170	6	150
MAY									
10...	110	58	20	65	1.9	2.5	140	3	120
JUN									
04...	82	59	20	66	1.9	.1	180	0	150
JUL									
02...	87	55	18	54	1.6	2.3	150	0	120
AUG									
09...	69	51	17	59	1.8	2.5	160	0	130
SEP									
06...	69	55	16	60	1.8	2.8	160	0	130

YELLOWSTONE RIVER BASIN

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 14...	180	6.6	.2	7.9	389	.53	1720	.54	.02
NOV 28...	190	7.4	.4	4.4	415	.56	1750	.14	.04
DEC 22...	190	7.0	.6	6.1	414	.56	1410	.27	.03
JAN 16...	150	8.1	.5	9.8	375	.51	1010	.18	.04
MAR 05...	190	8.3	.5	8.9	437	.59	1200	.11	.03
24...	190	7.9	.5	8.3	432	.59	1270	.16	.01
APR 16...	210	6.8	.5	6.0	463	.63	2490	.16	.02
MAY 10...	240	9.1	.6	8.2	479	.65	2020	.50	.00
JUN 04...	220	8.3	.6	9.2	470	.64	1940	.00	.02
JUL 02...	190	8.8	.4	7.7	412	.56	1500	.02	.02
AUG 09...	200	5.2	.3	9.8	423	.58	1550	.00	.02
SEP 06...	180	6.0	.4	8.0	406	.55	1300	.00	.03

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE D RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE D RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE D RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 14...	1130	190	180	10	2	2	0	0	0	5	5	0
APR 16...	1250	0	0	0	2	2	0	0	<1	0	0	1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE D RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE D RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE D RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 14...	0	0	0	2	0	4	160	140	20	0	0	0
APR 16...	0	0	0	2	0	4	150	140	10	7	6	1

DATE	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE D RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE D RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE D RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE D RECOV- ERABLE (UG/L AS MO)
OCT 14...	10	0	30	50	20	30	.0	.0	.0	2	1
APR 16...	20	0	20	30	10	20	.0	.0	.1	2	0

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE D RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE D RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE D RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 14...	1	2	1	1	1	0	2	--	10	10	0
APR 16...	<10	2	1	1	0	0	0	1.0	20	10	6

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
JAN 16...	1230	14	<.4	6.9	.6	6.4	.6	.11	9.0	--	--
APR 16...	1250	<7.8	<.4	<3.6	.7	<3.4	.9	.12	10	<5.3	<.3

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)
OCT 25...	0815	1650	12.0	.0	4	.00	.00	.0	.0	0	.00
JUN 13...	0845	1480	14.5	.0	1	--	.00	.0	.0	0	.00

DATE	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN, TOTAL (UG/L)	DI-ELDRIN, IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, IN BOT-TOM MA-TERIAL (UG/KG)
OCT 25...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0
JUN 13...	.0	.00	.1	.00	.0	.00	.00	.0	.00	.00	.0

DATE	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE, IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
OCT 25...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00
JUN 13...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00

DATE	PARA-THION, TOTAL (UG/L)	PER-THANE, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, IN BOT-TOM MA-TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, IN BOT-TOM MA-TERIAL (UG/KG)
OCT 25...	.00	.00	0	0	.00	.00	0	.00	0	.00	.0
JUN 13...	.00	.00	0	0	.00	.03	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
OCT 24...	.02	0	.00	0
JUN 13...	.01	0	.00	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	563	573	617	628	649	733	747	732	609	612	667
2	574	546	589	614	638	651	730	797	726	595	583	673
3	552	557	584	604	638	630	730	729	723	603	614	638
4	530	562	584	596	633	640	668	717	696	611	622	627
5	541	565	578	618	638	646	671	703	673	576	641	632
6	547	562	586	607	638	657	677	718	700	611	630	644
7	550	577	583	618	649	651	674	724	729	616	623	644
8	544	559	592	616	638	654	677	741	735	616	623	638
9	552	571	603	622	631	643	677	737	648	600	623	638
10	555	565	587	616	627	643	751	737	665	597	611	632
11	557	560	598	622	621	643	906	737	674	585	603	632
12	562	563	597	627	634	637	1040	726	639	585	623	636
13	541	575	591	625	631	643	768	731	630	629	614	641
14	552	568	594	614	643	631	732	737	654	629	617	630
15	555	572	591	622	649	645	689	726	649	607	611	638
16	548	576	589	627	643	631	684	714	684	613	621	633
17	547	563	601	630	637	652	649	740	678	591	610	641
18	545	574	603	619	649	649	611	749	644	613	615	638
19	552	575	598	627	649	654	649	718	646	596	610	633
20	541	579	606	630	633	660	681	733	649	607	607	644
21	569	584	606	638	641	660	692	737	638	607	612	644
22	562	589	606	617	641	646	728	746	638	602	626	639
23	572	576	611	628	638	651	790	745	643	602	601	644
24	562	584	600	638	632	662	830	763	631	607	620	639
25	562	571	618	625	632	657	778	751	620	596	652	644
26	553	576	591	621	646	707	707	748	614	607	633	639
27	557	582	590	638	638	707	765	773	617	618	654	639
28	562	590	589	621	643	707	774	734	609	618	641	639
29	546	582	615	627	---	709	748	745	601	631	636	644
30	545	582	601	616	---	718	750	751	620	604	635	642
31	549	---	614	628	---	730	---	726	---	625	630	---
MEAN	552	572	596	622	638	660	732	738	660	607	621	640
WTR YR 1979	MEAN	636	MAX	1040	MIN	520						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	10.0	3.0	2.0	2.0	4.0	4.0	6.0	12.0	16.0	19.0	19.0
2	15.0	10.0	4.0	2.0	2.0	4.0	4.0	6.0	13.0	16.0	19.0	19.0
3	14.0	10.0	4.0	2.0	2.0	4.0	5.0	6.0	14.0	18.0	19.0	19.0
4	14.0	10.0	4.0	2.0	2.0	4.0	5.0	8.0	13.0	17.0	19.0	19.0
5	14.0	10.0	3.0	2.0	2.0	4.0	5.0	9.0	13.0	19.0	19.0	18.0
6	15.0	10.0	3.0	3.0	2.0	5.0	5.0	8.0	13.0	18.0	20.0	18.0
7	14.0	10.0	3.0	2.0	2.0	5.0	5.0	8.0	13.0	18.0	20.0	19.0
8	14.0	10.0	3.0	2.0	2.0	5.0	4.0	9.0	12.0	18.0	20.0	19.0
9	14.0	10.0	4.0	2.0	2.0	5.0	5.0	9.0	12.0	18.0	18.0	19.0
10	14.0	8.0	3.0	2.0	3.0	4.0	5.0	9.0	15.0	18.0	20.0	18.0
11	14.0	7.0	3.0	2.0	3.0	4.0	5.0	8.0	14.0	18.0	20.0	18.0
12	14.0	7.0	2.0	2.0	3.0	5.0	5.0	8.0	14.0	18.0	20.0	18.0
13	14.0	7.0	2.0	2.0	3.0	5.0	5.0	9.0	15.0	18.0	19.0	18.0
14	14.0	7.0	2.0	2.0	3.0	6.0	5.0	9.0	15.0	18.0	19.0	18.0
15	12.0	6.0	2.0	2.0	3.0	6.0	4.0	9.0	15.0	17.0	19.0	18.0
16	12.0	6.0	2.0	2.0	3.0	6.0	5.0	9.0	14.0	18.0	19.0	18.0
17	12.0	5.0	3.0	2.0	3.0	5.0	5.0	9.0	15.0	19.0	19.0	17.0
18	12.0	5.0	3.0	2.0	3.0	5.0	4.0	10.0	15.0	19.0	19.0	17.0
19	12.0	5.0	4.0	2.0	3.0	5.0	4.0	10.0	15.0	19.0	19.0	17.0
20	12.0	4.0	2.0	3.0	3.0	5.0	5.0	9.0	15.0	19.0	19.0	17.0
21	12.0	3.0	2.0	2.0	3.0	5.0	5.0	12.0	15.0	19.0	19.0	17.0
22	12.0	3.0	2.0	2.0	3.0	5.0	5.0	12.0	15.0	19.0	19.0	17.0
23	12.0	3.0	2.0	2.0	3.0	5.0	5.0	13.0	15.0	19.0	19.0	17.0
24	12.0	3.0	2.0	2.0	3.0	5.0	5.0	13.0	15.0	19.0	19.0	17.0
25	11.0	3.0	4.0	2.0	3.0	4.0	5.0	13.0	15.0	18.0	19.0	17.0
26	11.0	3.0	2.0	2.0	4.0	5.0	5.0	13.0	15.0	19.0	19.0	17.0
27	11.0	3.0	3.0	3.0	4.0	5.0	6.0	15.0	15.0	19.0	19.0	17.0
28	11.0	3.0	3.0	3.0	4.0	5.0	6.0	14.0	16.0	19.0	19.0	16.0
29	11.0	3.0	2.0	2.0	---	5.0	6.0	11.0	16.0	16.0	19.0	16.0
30	10.0	3.0	2.0	2.0	---	5.0	6.0	10.0	16.0	19.0	19.0	17.0
31	10.0	---	2.0	2.0	---	5.0	---	12.0	---	19.0	20.0	---
MEAN	12.5	6.0	2.5	2.0	3.0	5.0	5.0	10.0	14.5	18.0	19.0	17.5
WTR YR 1979	MEAN	9.5	MAX	20.0	MIN	2.0						

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY

LOCATION.--Lat 43°40'01", long 108°51'18", in sec.28, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 0.2 mi (0.3 km) upstream from normal high-water line of Anchor Reservoir, 1.6 mi (2.6 km) upstream from Anchor Dam, 2.6 mi (4.2 km) southwest of Anchor, and 33 mi (53 km) west of Thermopolis.

DRAINAGE AREA.--85.5 mi² (221 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to May 1932, August 1939 to September 1943 (no winter records except 1941 water year), April 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 6,453.11 ft (1,966.908 m), National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Aug. 11, 1965. Aug. 11, 1965, to Nov. 3, 1968, at present site and datum. Nov. 4, 1968, to June 5, 1970, at site 0.7 mi (1.1 km) upstream on left bank at datum 51.36 ft (15.655 m) higher. June 6, 1970, to Sept. 30, 1972, at site 0.7 mi (1.1 km) upstream on right bank at datum 51.22 ft (15.612 m) higher. Oct. 1, 1972, to June 5, 1978, at site 0.7 mi (1.1 km) upstream on left bank at datum 51.36 ft (15.655 m) higher.

REMARKS.--Records good except those for November to May, which are poor. No diversion above station.

AVERAGE DISCHARGE.--21 years (water years 1941, 1960-79), 34.9 ft³/s (0.988 m³/s), 25,280 acre-ft/yr (31.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s (54.9 m³/s) July 25, 1941, gage height, 8.73 ft (2.661 m), site and datum then in use, from rating curve extended above 640 ft³/s (18.1 m³/s) on basis of slope-area measurement of peak flow; no flow Jan. 10-17, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 26	2300	262 7.42	2.02 0.616
June 13	2200	*270 7.65	2.08 .634

No flow Jan. 10-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	4.0	.49	.02	.75	5.2	37	45	78	18	26
2	13	12	3.4	.40	.02	.70	5.6	33	44	75	17	24
3	12	15	3.3	.30	.02	.66	6.2	31	64	65	16	22
4	14	18	3.6	.25	.02	.70	6.8	34	105	60	15	21
5	18	11	3.6	.20	.02	.80	7.2	38	130	59	14	20
6	18	10	3.2	.12	.06	1.0	7.2	44	116	53	15	19
7	18	13	2.8	.08	.25	1.5	5.6	37	79	56	14	18
8	17	17	2.4	.04	.27	1.5	6.3	33	50	53	15	16
9	17	13	2.1	.02	.30	1.4	8.3	30	40	50	14	15
10	16	9.4	2.2	.00	.30	1.4	8.7	29	42	49	14	15
11	16	7.5	2.3	.00	.40	1.5	12	27	80	49	13	15
12	16	6.6	2.4	.00	.45	1.6	4.4	25	128	47	11	14
13	16	5.9	2.3	.00	.45	1.7	6.6	25	169	47	56	14
14	18	5.5	2.2	.00	.42	1.7	11	28	165	45	48	15
15	15	5.2	2.2	.00	.40	2.2	15	38	115	44	36	13
16	18	5.5	2.1	.00	.45	2.4	21	52	101	45	25	13
17	18	6.0	2.1	.00	.50	2.3	32	54	101	45	34	13
18	19	5.8	2.0	.02	.60	2.1	46	54	105	45	30	12
19	16	4.8	1.9	.04	.60	2.0	40	59	74	48	49	12
20	16	4.1	1.8	.06	.58	2.1	32	65	53	42	57	11
21	16	4.0	1.7	.06	.58	2.4	32	76	80	38	62	11
22	18	4.3	1.6	.06	.55	3.0	37	89	96	38	54	11
23	15	4.4	1.5	.06	.52	3.7	41	96	96	45	48	10
24	18	4.5	1.4	.04	.56	4.9	39	122	92	42	47	11
25	16	4.6	1.3	.04	.70	4.6	32	142	95	38	47	11
26	16	4.5	1.1	.02	.80	4.6	32	181	91	33	44	11
27	17	4.5	1.1	.02	.75	5.0	38	189	93	30	44	11
28	17	4.5	1.0	.02	.75	6.0	43	171	97	25	40	11
29	15	4.4	.80	.02	---	7.0	33	137	91	22	36	11
30	7.5	4.4	.70	.02	---	6.4	37	73	96	21	31	11
31	15	---	.60	.02	---	5.8	---	54	---	20	29	---
TOTAL	494.5	230.4	64.70	2.40	11.34	83.41	651.1	2103	2733	1407	993	437
MEAN	16.0	7.68	2.09	.077	.41	2.69	21.7	67.8	91.1	45.4	32.0	14.6
MAX	19	18	4.0	.49	.80	7.0	46	189	169	78	62	26
MIN	7.5	4.0	.60	.00	.02	.66	4.4	25	40	20	11	10
AC-FT	981	457	128	4.8	22	165	1290	4170	5420	2790	1970	867
CAL YR 1978 TOTAL	15809.20			MEAN 43.3	MAX 425	MIN .60	AC-FT 31360					
WTR YR 1979 TOTAL	9210.85			MEAN 25.2	MAX 189	MIN .00	AC-FT 18270					

YELLOWSTONE RIVER BASIN

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT 04...	1315	13	150	4.5
JUN 13...	1450	115	70	12.5
JUL 05...	1230	50	90	15.0
AUG 06...	1245	16	150	10.0

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY

LOCATION.--Lat 43°39'57", long 108°47'34", in sec.25, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 1.6 mi (2.6 km) downstream from Anchor Dam and 30 mi (48 km) west of Thermopolis.

DRAINAGE AREA.--131 mi² (339 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,120 ft (1,865 m), from topographic map.

REMARKS.--Records good except those for November to March and periods of no gage-height record, Dec. 9 to Apr. 7, July 29-30, which are poor. Flow regulated by Anchor Dam (see station 06260300). No diversion above station.

AVERAGE DISCHARGE.--20 years, 21.2 ft³/s (0.600 m³/s), 15,360 acre-ft/yr (18.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 373 ft³/s (10.6 m³/s) May 26, 1967, gage height, 3.64 ft (1.109 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft³/s (4.98 m³/s) June 10, gage height, 3.26 ft (0.994 m); maximum gage height, 3.47 ft (1.059 m) backwater from ice; no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	3.1	.38	.00	.00	.00	3.1	18	104	85	14	23
2	8.6	3.6	.35	.00	.00	.00	3.4	16	96	71	13	21
3	8.2	4.4	.31	.00	.00	.00	3.8	11	88	60	12	19
4	8.2	5.1	.30	.00	.00	.00	4.2	13	107	55	11	18
5	7.1	3.2	.33	.00	.00	.00	4.8	15	124	58	9.8	17
6	6.8	3.0	.32	.00	.00	.00	5.0	19	125	45	9.8	16
7	6.5	4.2	.28	.00	.00	.25	4.5	12	122	48	9.8	16
8	8.2	4.7	.25	.00	.00	.25	3.2	14	104	43	11	16
9	18	2.7	.22	.00	.00	.23	4.0	12	82	37	12	15
10	16	1.7	.21	.00	.00	.23	4.3	9.8	76	36	12	14
11	7.8	1.0	.22	.00	.00	.27	6.8	10	92	33	11	14
12	6.2	.86	.23	.00	.00	.32	4.1	11	125	31	9.4	14
13	5.6	.74	.23	.00	.00	.33	3.5	12	153	31	23	14
14	5.6	.64	.22	.00	.00	.33	4.1	17	166	28	38	14
15	6.5	.48	.21	.00	.00	.40	5.0	23	156	25	32	14
16	6.2	.45	.20	.00	.00	.60	7.8	32	118	25	24	13
17	6.5	.44	.18	.00	.00	.54	13	46	99	26	21	12
18	7.1	.42	.16	.00	.00	.52	21	48	108	25	25	12
19	6.2	.40	.14	.00	.00	.49	16	56	71	26	28	11
20	6.2	.38	.14	.00	.00	.51	11	62	49	24	40	12
21	6.2	.36	.12	.00	.00	.62	13	75	61	22	46	13
22	6.8	.35	.10	.00	.00	.85	14	92	82	22	48	12
23	6.2	.38	.08	.00	.00	1.3	18	97	85	28	46	12
24	7.1	.39	.07	.00	.00	2.5	16	129	84	27	43	11
25	6.2	.40	.05	.00	.00	2.2	13	107	86	23	41	9.4
26	6.2	.39	.03	.00	.00	2.2	13	78	82	21	38	9.8
27	6.5	.39	.00	.00	.00	3.0	14	85	82	20	36	11
28	6.6	.39	.00	.00	.00	3.5	18	90	88	19	33	11
29	6.0	.39	.00	.00	---	4.0	13	90	88	18	30	10
30	4.2	.39	.00	.00	---	3.8	17	97	88	16	26	10
31	3.6	---	.00	.00	---	3.4	---	112	---	16	24	---
TOTAL	225.7	45.34	5.33	.00	.00	32.64	281.6	1508.8	2991	1044	776.8	414.2
MEAN	7.28	1.51	.17	.000	.000	1.05	9.39	48.7	99.7	33.7	25.1	13.8
MAX	18	5.1	.38	.00	.00	4.0	21	129	166	85	48	23
MIN	3.6	.35	.00	.00	.00	.00	3.1	9.8	49	16	9.4	9.4
AC-FT	448	90	11	.00	.00	65	559	2990	5930	2070	1540	822
CAL YR 1978	TOTAL	7492.84	MEAN 20.5	MAX 184	MIN .00	AC-FT 14860						
WTR YR 1979	TOTAL	7325.41	MEAN 20.1	MAX 166	MIN .00	AC-FT 14530						

YELLOWSTONE RIVER BASIN

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT 04...	1130	7.9	160	5.0
JUN 13...	1605	162	70	13.5
JUL 05...	1110	61	80	16.5
AUG 06...	1050	9.7	170	10.0

06264700 BIGHORN RIVER AT LUCERNE, WY

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, 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.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT									
14...	1235	1720	--	--	6.5	--	--	--	190
NOV									
28...	1400	1650	850	8.2	4.0	1	13.2	35	270
DEC									
22...	1410	1200	760	8.4	.0	1	14.2	15	200
JAN									
16...	1345	1100	740	7.7	.0	1	11.9	37	220
MAR									
05...	1400	1100	740	8.1	7.5	2	11.2	12	230
24...	1305	1250	733	8.3	2.5	5	12.4	17	210
APR									
16...	1420	2360	820	8.2	7.0	6	17.4	12	220
MAY									
14...	1900	1740	1080	--	13.0	6	12.6	27	330
JUN									
04...	1200	1450	1060	8.2	17.0	6	11.0	710	280
29...	0930	1270	910	8.2	19.0	4	8.4	1600	250
AUG									
02...	1015	1130	1250	8.1	21.0	5	10.3	88	290
SEP									
12...	0930	960	760	8.6	16.5	3	8.4	K7300	240

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)
OCT									
14...	59	53	15	63	2.0	3.1	160	0	130
NOV									
28...	110	70	24	98	2.6	.3	190	0	160
DEC									
22...	61	54	17	65	2.0	2.4	170	0	140
JAN									
16...	56	55	18	59	1.8	4.0	200	0	160
MAR									
05...	99	61	18	68	2.0	3.0	160	0	130
24...	46	54	19	65	1.9	3.0	200	0	160
APR									
16...	59	57	20	71	2.1	4.6	190	3	160
MAY									
14...	160	85	29	85	2.0	3.3	200	3	170
JUN									
04...	130	71	25	82	2.1	1.6	180	0	150
29...	130	64	22	70	1.9	2.8	140	3	120
AUG									
02...	130	75	24	79	2.0	3.4	190	0	160
SEP									
12...	96	66	18	63	1.8	2.8	170	3	140

YELLOWSTONE RIVER BASIN

06264700 BIGHORN RIVER AT LUCERNE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT									
14...	190	9.6	.3	7.7	502	.68	2330	.00	.03
NOV									
28...	300	10	.5	4.7	601	.82	2680	.14	.02
DEC									
22...	200	9.2	.6	5.3	439	.60	1420	.25	.02
JAN									
16...	150	12	.6	8.9	405	.55	1200	.23	.03
MAR									
05...	210	20	.5	8.8	470	.64	1400	.07	.03
24...	170	11	.6	8.0	420	.57	1420	.11	.02
APR									
16...	180	11	.5	6.2	450	.61	2870	.14	.03
MAY									
14...	320	14	.6	7.1	646	.88	3040	.00	.02
JUN									
04...	300	12	.2	8.4	587	.80	2300	.00	.04
29...	270	11	.4	11	524	.71	1800	.02	.04
AUG									
02...	290	14	.6	11	591	.80	1800	.09	.05
SEP									
12...	200	10	.5	6.9	456	.62	1180	.00	.04

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY

LOCATION.--Lat 43°54'55", long 107°55'46", in SE¼NE¼ sec.31, T.46 N., R.92 W., Washakie County, Hydrologic Unit 10080007, on left bank 50 ft (15 m) upstream from county road, 1.8 mi (2.9 km) upstream from mouth, 5.2 mi (8.4 km) southeast of Colter, and 7.0 mi (11.3 km) south of Worland.

DRAINAGE AREA.--149 mi² (386 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR WY-75-1: 1972-73.

GAGE.--Water-stage recorder. Altitude of gage is 4,165 ft (1,269 m), from topographic map.

REMARKS.--Records poor. No gage-height record Dec. 30 to Mar. 15, May 14-29, June 30 to July 22.

AVERAGE DISCHARGE.--8 years, 5.73 ft³/s (0.162 m³/s), 4,150 acre-ft/yr (5.12 hm³/yr).EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s (86.1 m³/s) May 18, 1978, gage height, 6.65 ft (2.027 m); no flow for most of each year.EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 30	a0500	*305 8.64	b2.20 0.671

a-About.

b-From floodmark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	12	1.5	.00	9.0	.00	.00	.00
2	.00	.00	.00	.00	.00	7.0	17	.00	3.0	.00	.00	.00
3	.00	.00	.00	.00	.00	6.0	5.4	.67	.50	.00	.00	.00
4	.00	.00	.00	.00	.00	6.0	2.0	3.4	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	6.0	.30	2.0	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	8.0	.00	.86	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	10	.00	.36	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	70	.00	.05	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	50	.00	18	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	54	.00	21	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	60	4.8	6.7	.00	.00	.00	.00
12	.00	.00	.00	.00	1.0	80	25	11	.00	.00	.00	.00
13	.00	.00	.00	.00	3.0	90	4.8	5.4	.00	.00	.00	.00
14	.00	.00	.00	.00	5.1	60	1.7	2.7	.00	.00	.00	.00
15	.00	.00	.00	.00	4.0	65	.39	.00	.00	.00	1.8	.00
16	.00	.00	.00	.00	3.0	80	.00	.00	.00	.00	.05	.00
17	.00	.00	.00	.00	2.0	50	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	3.0	30	.00	.00	.00	.00	9.6	.00
19	.00	.00	.00	.00	3.0	8.2	.00	.00	.00	.00	1.7	.00
20	.00	.00	.00	.00	2.0	2.0	.00	.00	.00	.00	1.7	.00
21	.00	.00	.00	.00	2.6	3.8	.00	.00	.00	.00	.16	.00
22	.00	.00	.00	.00	2.8	4.8	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	3.0	4.3	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	1.0	3.8	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	1.5	3.8	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	1.7	1.7	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	1.9	1.8	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	2.0	11	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	9.0	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	5.4	.00	60	.00	.00	.00	.00
31	.00	---	.00	.00	---	2.0	---	35	---	.00	.00	---
TOTAL	.00	.00	.00	.00	42.60	805.6	62.89	167.14	12.50	.00	15.01	.00
MEAN	.000	.000	.000	.000	1.52	26.0	2.10	5.39	.42	.000	.48	.000
MAX	.00	.00	.00	.00	5.1	90	25	60	9.0	.00	9.6	.00
MIN	.00	.00	.00	.00	.00	1.7	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	84	1600	125	332	25	.00	30	.00
CAL YR 1978 TOTAL	4773.08			MEAN 13.1	MAX 1850	MIN .00	AC-FT 9470					
WTR YR 1979 TOTAL	1105.74			MEAN 3.03	MAX 90	MIN .00	AC-FT 2190					

YELLOWSTONE RIVER BASIN
06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1977 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1978 to September 1979.

SUSPENDED SEDIMENT: October 1978 to September 1979.

REMARKS.--No flow Oct. 1 to Feb. 11, Apr. 6-10, Apr. 16 to May 2, May 15-29, June 4 to Aug. 14, Aug. 17, Aug. 22 to Sept. 30.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 37,600 mg/L May 30; minimum daily mean, no flow for many days.
SEDIMENT LOADS: Maximum daily, 9,730 tons (8,830 tonnes) May 30; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- RID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAR 19...	1425	12	--	--	7.0	9000	--	27	0	7.7
APR 12...	1445	15	--	--	8.0	17000	--	42	0	12
MAY 11...	1045	9.0	--	8.1	8.0	-- 18000	--	29	0	7.9
30...	0950	107	450	8.3	10.0	-- 42	--	27	0	7.2
AUG 18...	1250	9.0	--	8.2	16.0	-- 10000	--	40	0	11

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAR 19...	1.9	62	5.2	--	2.5	87	--	71	70	20
APR 12...	2.8	80	5.4	--	2.8	100	--	82	140	3.3
MAY 11...	2.2	87	7.1	89	2.4	90	0	74	140	91
30...	2.3	86	7.1	89	3.1	80	0	66	170	4.5
AUG 18...	3.0	85	5.9	89	4.2	150	0	120	120	5.9

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
MAR 19...	.4	9.6	217	.30	7.03	.67	.20	--	7.1
APR 12...	.6	5.5	297	.40	12.0	1.6	.22	.27	1.9
MAY 11...	.5	8.3	386	.53	9.38	1.9	.23	.28	1.1
30...	.7	6.2	322	.44	96.5	1.4	.16	.19	.30
AUG 18...	.7	7.8	312	.42	7.58	.48	.24	.29	.17

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 19...	7.3	8.0	35	2.1	--	--	--	--	--
APR 12...	2.1	3.7	16	1.3	4.0	4.0	26500	1070	100
MAY 11...	1.3	3.2	14	3.3	--	10	19600	476	100
30...	.46	1.9	8.2	5.4	17	17	58300	17500	94
AUG 18...	.41	.89	3.9	9.8	--	30	33200	807	100

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)
MAR 19...	1425	--	--	--	--	--	--	--	--	60	--	--
APR 12...	1445	--	--	--	--	--	--	--	--	80	--	--
MAY 11...	1045	--	--	--	--	--	--	--	--	80	--	--
30...	0950	160000	160000	580	37	1	20	20	0	160	9	9
AUG 18...	1250	200000	200000	130	66	2	20	20	0	100	5	3

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
MAR 19...	--	--	--	--	--	--	--	--	--	300	--	--
APR 12...	--	--	--	--	--	--	--	--	--	540	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	2000	--	--
30...	0	320	320	0	560	540	25	220000	220000	1600	370	370
AUG 18...	2	220	210	10	450	410	38	270000	270000	400	350	340

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE RECOV- ERABLE (UG/L AS MO)
MAR 19...	--	--	--	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--	--	--
30...	2	330	330	4	2300	2300	10	2.6	2.4	.2	0	0
AUG 18...	11	330	320	8	2400	2400	0	1.0	1.0	.0	3	3

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--	--
30...	0	410	410	3	35	20	15	--	2100	2100	20
AUG 18...	0	380	370	7	39	30	9	4.0	1900	1900	20

YELLOWSTONE RIVER BASIN

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	.0	4.0	---	10.0		---	
2					---	---	7.0	---	11.5		---	
3					---	.0	3.5	---			---	
4					---	---	1.0	---			---	
5					---	---	---	---			---	
6					---	.0	---	---			---	
7					---	3.0	---	---			---	
8					---	.0	---	---			---	
9					---	.0	---	11.0			---	
10					---	.0	---	12.0			---	
11					---	.0	---	8.0			---	
12					---	2.0	8.0	---			---	
13					---	.0	7.0	---			---	
14					---	.0	---	19.0			---	
15					---	1.0	---	---			---	
16					---	4.0	---	---			---	
17					---	.0	---	---			---	
18					---	.0	---	---			16.0	
19					---	7.0	---	---			15.5	
20					.0	6.0	---	---			18.0	
21					.0	3.0	---	---			---	
22					.5	9.0	---	---			---	
23					.5	---	---	---			---	
24					.0	8.0	---	---			---	
25					---	---	---	---			---	
26					---	10.5	---	---			---	
27					.5	1.0	---	---			---	
28					.0	4.5	---	---			---	
29					---	11.5	---	---			---	
30					---	13.0	---	10.0			---	
31					---	5.0	---	9.0			---	
MEAN					.0	3.5	5.0	11.5	11.0		16.5	
WTR YR 1979	MEAN	5.0		MAX	19.0		MIN	.0				

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
JANUARY			FEBRUARY			MARCH			
1	.00		.00	---	---	12	8900	288	
2	.00		.00	---	---	7.0	9200	174	
3	.00		.00	---	---	6.0	9050	147	
4	.00		.00	---	---	6.0	8800	143	
5	.00		.00	---	---	6.0	8400	136	
6	.00		.00	---	---	8.0	8800	190	
7	.00		.00	---	---	10	13900	375	
8	.00		.00	---	---	70	17000	3210	
9	.00		.00	---	---	50	15800	2130	
10	.00		.00	---	---	54	10400	1520	
11	.00		.00	---	---	60	9600	1560	
12	.00		1.0	3700	10	80	25800	5570	
13	.00		3.0	6900	56	90	23600	5730	
14	.00		5.1	8700	120	60	19500	3160	
15	.00		4.0	7900	85	65	27600	4840	
16	.00		3.0	6900	56	80	26000	5620	
17	.00		2.0	5700	31	50	26000	3510	
18	.00		3.0	6900	56	30	17500	1420	
19	.00		3.0	6900	56	8.2	9000	199	
20	.00		2.0	8550	46	2.0	6200	33	
21	.00		2.6	7100	50	3.8	9460	114	
22	.00		2.8	6200	47	4.8	10700	139	
23	.00		3.0	6200	50	4.3	9500	110	
24	.00		1.0	6800	18	3.8	9300	95	
25	.00		1.5	7400	30	3.8	8900	91	
26	.00		1.7	7400	34	1.7	7900	36	
27	.00		1.9	7400	38	1.8	8620	61	
28	.00		2.0	8200	44	11	15500	493	
29	.00		---	---	---	9.0	17800	433	
30	.00		---	---	---	5.4	13500	197	
31	.00		---	---	---	2.0	11000	59	
TOTAL	0.00		42.60	---	827	805.6	---	41783	

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1.5	1600	6.5	.00	---	---	9.0	20000	486
2	17	25000	1340	.00	---	---	3.0	14300	116
3	5.4	15000	219	.67	2400	4.3	.50	2300	3.1
4	2.0	11900	64	3.4	10400	95	.00	---	---
5	.30	2380	1.9	2.0	6500	35	.00	983	.00
6	.00	---	---	.86	3000	7.0	.00	1680	.00
7	.00	---	---	.36	1300	1.3	.00	---	---
8	.00	---	---	.05	400	.05	.00	---	---
9	.00	---	---	18	22400	1830	.00	---	---
10	.00	---	---	21	28300	1790	.00	---	---
11	4.8	2750	36	6.7	19700	356	.00	---	---
12	25	30300	2330	11	22400	665	.00	---	---
13	4.8	19100	248	5.4	15000	219	.00	---	---
14	1.7	16000	73	2.7	4800	35	.00	---	---
15	.39	4800	5.1	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	60	37600	9730	.00	---	---
31	---	---	---	35	34700	3670	---	---	---
TOTAL	62.89	---	4323.5	167.14	---	18437.65	12.50	---	605.10
JULY			AUGUST			SEPTEMBER			
1	.00		.00	---	---	.00			
2	.00		.00	---	---	.00			
3	.00		.00	---	---	.00			
4	.00		.00	---	---	.00			
5	.00		.00	---	---	.00			
6	.00		.00	---	---	.00			
7	.00		.00	---	---	.00			
8	.00		.00	---	---	.00			
9	.00		.00	---	---	.00			
10	.00		.00	---	---	.00			
11	.00		.00	---	---	.00			
12	.00		.00	---	---	.00			
13	.00		.00	---	---	.00			
14	.00		.00	---	---	.00			
15	.00		.00	1.8	6400	31	.00		
16	.00		.05	.05	400	.05	.00		
17	.00		.00	---	---	---	.00		
18	.00		.00	9.6	26400	1120	.00		
19	.00		1.7	2200	10	.00			
20	.00		1.7	6320	77	.00			
21	.00		.16	1190	.51	.00			
22	.00		.00	---	---	.00			
23	.00		.00	---	---	.00			
24	.00		.00	---	---	.00			
25	.00		.00	---	---	.00			
26	.00		.00	---	---	.00			
27	.00		.00	---	---	.00			
28	.00		.00	---	---	.00			
29	.00		.00	---	---	.00			
30	.00		.00	---	---	.00			
31	.00		.00	---	---	---			
TOTAL	0.00		15.01	---	1238.56	0.00			
YEAR	1105.74		67214.81						

06267900 MIDDLE FORK FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°04'12", long 108°13'43", in SW¼NW¼SW¼ sec.2, T.47 N., R.95 W., Washakie County, Hydrologic Unit 10080007, 2.0 mi (3.2 km) upstream from mouth, 13.4 mi (21.6 km) northwest of Nieber, and 14.3 mi (23.0 km) west of Worland.

PERIOD OF RECORD.--August 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAY										
09...	1000	32	460	8.8	5.5	7500	12000	23	0	6.9
29...	0940	114	600	8.9	11.0	40000	57000	22	0	6.5
AUG										
20...	1400	E280	460	8.7	15.0	--	--	--	--	--
E-Estimate.										

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY										
09...	1.5	110	9.9	--	3.6	150	10	140	110	8.5
29...	1.5	130	12	130	3.1	140	7	130	170	6.1
AUG										
20...	--	--	--	--	--	--	--	--	--	--

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
MAY										
09...	.7	4.8	331	.45	28.6	4.9	.16	.19	5.0	5.2
29...	.8	5.0	400	.54	123	3.6	.24	.29	38	38
AUG										
20...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY										
09...	10	45	7.8	24	24	430	490	34400	2970	81
29...	42	180	9.5	29	29	70	650	74300	22900	84
AUG										
20...	--	--	--	--	--	--	--	58800	44500	90

YELLOWSTONE RIVER BASIN

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°01'14", long 108°00'42", in NW¼NW¼NE¼ sec.27, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, on left bank 300 ft (91 m) upstream from Bighorn Canal spillway, 2.0 mi (3.2 km) upstream from mouth, and 2.8 mi (4.5 km) west of Worland.

DRAINAGE AREA.--518 mi² (1,340 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1951 to December 1972, June 1978 to current year. Occasional measurements and annual maximum, January 1973 to May 1978.

GAGE.--Water-stage recorder. Attitude of gage is 4,070 ft (1,241 m), from topographic map. Prior to Oct. 1, 1956, at site 400 ft (122 m) upstream at datum 5.52 ft (1.682 m) higher. Oct. 1, 1956, to Sept. 30, 1969, at present site at datum 2.00 ft (0.610 m) higher. Jan. 1, 1973, to May 31, 1978, crest-stage gage at present site and datum.

REMARKS.--Records good except those above 200 ft³/s (5.7 m³/s) and periods of no gage-height record, Nov. 22 to Dec. 1, Dec. 22 to Jan. 10, Mar. 6-9, Apr. 10, 11, July 4-22, Aug. 24, Sept. 6-7, which are poor. Bureau of Land Management has extensive spreader systems on some of the tributaries above station.

AVERAGE DISCHARGE.--22 years (water years 1952-72, 1979) 10.7 ft³/s (0.303 m³/s), 7,750 acre-ft/yr (9.56 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft³/s (121 m³/s) May 18, 1978, gage height, 10.58 ft (3.225 m), from floodmarks, from rating curve extended above 1,700 ft³/s (48 m³/s); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
July 22	al700	*2,190 62.0	b6.35 1.935	Aug. 20	1930	474 13.4	3.69 1.125
Aug. 14	2000	1,230 34.8	5.66 1.725	Aug. 25	0300	928 26.3	4.58 1.396

a-About.

b-From floodmark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.42	.00	42	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.15	.00	16	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	7.0	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.33	.00	.00	.00
8	.00	.00	.00	.00	.00	10	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	25	.00	71	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	30	.00	74	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	56	.00	18	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	90	23	5.7	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	150	21	3.6	.00	.00	17	.00
14	.00	.00	.00	.00	.00	123	15	1.4	.00	.00	177	.00
15	.00	.00	.00	.00	.00	119	10	.44	.00	.00	112	.00
16	.00	.00	.00	.00	.00	168	7.5	.00	.00	.00	22	.00
17	.00	.00	.00	.00	.00	188	3.3	.00	.00	.00	4.0	.00
18	.00	.00	.00	.00	.00	125	1.8	.00	.00	.00	1.5	.00
19	.00	.00	.00	.00	.00	62	.76	.00	.00	.00	.70	.00
20	.00	.00	.00	.00	.00	31	.13	.00	.00	.00	56	.00
21	.00	.00	.00	.00	.00	19	.00	.00	.00	.00	120	.00
22	2.0	.00	.00	.00	.00	11	.00	.00	.00	57	22	.00
23	.99	.00	.00	.00	.00	11	.00	.00	.00	.82	8.6	.00
24	.76	.00	.00	.00	.00	9.8	.00	.00	.00	.00	4.6	.00
25	.08	.00	.00	.00	.00	8.6	.00	.00	.00	.00	251	.00
26	.00	.00	.00	.00	.00	6.5	.00	.00	.00	3.9	18	.00
27	.00	.00	.00	.00	.00	3.9	.00	.00	.00	.90	2.1	.00
28	.00	.00	.00	.00	.00	2.6	.00	.00	.00	.00	1.3	.00
29	.00	.00	.00	.00	---	1.5	.00	.83	.00	.00	.21	.00
30	.00	.00	.00	.00	---	1.0	.00	227	.00	3.6	.00	.00
31	.00	---	.00	.00	---	.55	---	78	---	.41	.00	---
TOTAL	3.83	.00	.00	.00	.00	1252.45	83.06	562.14	71.13	66.63	818.01	.00
MEAN	.12	.000	.000	.000	.000	40.4	2.77	18.1	2.37	2.15	26.4	.000
MAX	2.0	.00	.00	.00	.00	188	23	227	42	57	251	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	7.6	.00	.00	.00	.00	2480	165	1120	141	132	1620	.00
WTR YR 1979	TOTAL	2857.25	MEAN	7.83	MAX	251	MIN	.00	AC-FT	5670		

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1949 to December 1972, June 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March to September 1979.

SUSPENDED-SEDIMENT DISCHARGE: August 1949 to December 1972, June 1978 to current year.

INSTRUMENTATION.--Sediment pumping sampler since June 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L Apr. 16, 1952; minimum daily, no flow for many days each year.

SEDIMENT DISCHARGES: Maximum daily, 418,000 tons (379,200 tonnes) May 22, 1952; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 87,800 mg/L Aug. 25; minimum daily, no flow on many days.

SEDIMENT DISCHARGES: Maximum daily, 83,700 tons (75,900 tonnes) Aug. 25; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
APR 13...	1140	13	770	--	8.0	22000	--	<1	70	0
MAY 09...	1445	101	520	8.9	8.0	--	9300	3400	19	0
29...	1300	7.5	540	8.7	11.0	--	19000	8000	25	0
AUG 14...	1250	22	850	8.1	13.5	--	8800	8400	30	0

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SURP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
APR 13...	21	4.3	120	6.2	--	4.0	190	--	160	200
MAY 09...	5.3	1.3	110	11	--	2.9	150	10	140	110
29...	7.7	1.3	97	8.5	100	3.1	120	5	110	130
AUG 14...	8.3	2.3	130	10	130	4.1	180	0	150	150

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
APR 13...	3.9	.5	5.1	453	.62	15.9	3.4	.05	.06	11
MAY 09...	6.3	.8	5.1	327	.44	89.2	5.0	.12	.15	6.6
29...	6.6	.6	5.2	316	.43	6.40	2.1	.15	.18	22
AUG 14...	4.9	.9	8.3	398	.54	23.6	3.5	.04	.05	7.6

YELLOWSTONE RIVER BASIN

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 13...	11	14	64	2.50	7.7	7.7	70	210	100
MAY 09...	6.7	12	52	12.0	37	37	470	480	97
29...	22	24	110	8.50	26	26	40	600	100
AUG 14...	7.6	11	49	.600	--	1.8	80	550	100

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	1.5	---	11.5	---	---	
2						---	---	---	13.5	---	---	
3						---	---	---	15.5	---	---	
4						---	---	---	16.0	---	---	
5						---	---	---	---	---	---	
6						---	---	---	---	---	---	
7						---	---	---	---	---	---	
8						---	---	---	---	---	---	
9						.0	---	8.0	---	---	---	
10						1.0	---	13.0	---	---	---	
11						.0	---	9.5	---	---	---	
12						2.0	7.0	---	---	---	---	
13						2.5	8.0	---	---	---	---	
14						.0	---	14.0	---	---	13.5	
15						2.5	---	---	---	---	10.5	
16						3.0	---	---	---	---	17.0	
17						1.0	16.0	---	---	---	18.5	
18						1.0	15.0	---	---	---	16.0	
19						8.0	12.5	---	---	---	---	
20						8.5	---	---	---	---	19.5	
21						3.0	---	---	---	---	19.0	
22						4.0	---	---	---	13.5	22.5	
23						6.0	---	---	---	12.0	23.0	
24						8.5	---	---	---	---	22.0	
25						---	---	---	---	---	---	
26						6.5	---	---	---	---	---	
27						3.5	---	---	---	---	---	
28						5.5	---	---	---	---	---	
29						12.0	---	11.0	---	---	---	
30						12.0	---	8.0	---	---	---	
31						6.5	---	10.5	---	---	---	
MEAN						4.5	10.0	10.5	14.0	13.0	18.0	
WTR YR 1979	MEAN	9.5		MAX	23.0	MIN	.0					

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	.00	---	---	.00			.00		
2	.00	---	---	.00			.00		
3	.00	---	---	.00			.00		
4	.00	---	---	.00			.00		
5	.00	---	---	.00			.00		
6	.00	---	---	.00			.00		
7	.00	---	---	.00			.00		
8	.00	---	---	.00			.00		
9	.00	---	---	.00			.00		
10	.00	---	---	.00			.00		
11	.00	---	---	.00			.00		
12	.00	---	---	.00			.00		
13	.00	---	---	.00			.00		
14	.00	---	---	.00			.00		
15	.00	---	---	.00			.00		
16	.00	---	---	.00			.00		
17	.00	---	---	.00			.00		
18	.00	---	---	.00			.00		
19	.00	---	---	.00			.00		
20	.00	---	---	.00			.00		
21	.00	---	---	.00			.00		
22	2.0	6700	36	.00			.00		
23	.99	4000	11	.00			.00		
24	.76	3000	6.2	.00			.00		
25	.08	500	.11	.00			.00		
26	.00	---	---	.00			.00		
27	.00	---	---	.00			.00		
28	.00	---	---	.00			.00		
29	.00	---	---	.00			.00		
30	.00	---	---	.00			.00		
31	.00	---	---	.00			.00		
TOTAL	3.83	---	53.31	0.00			0.00		
JANUARY				FEBRUARY			MARCH		
1	.00			.00			.00	---	---
2	.00			.00			.00	---	---
3	.00			.00			.00	---	---
4	.00			.00			.00	---	---
5	.00			.00			.00	---	---
6	.00			.00			.00	---	---
7	.00			.00			.00	---	---
8	.00			.00			.00	---	---
9	.00			.00			10	4400	119
10	.00			.00			25	10000	675
11	.00			.00			30	8500	688
12	.00			.00			56	13000	1970
13	.00			.00			90	27800	6760
14	.00			.00			150	30300	12300
15	.00			.00			123	16200	5380
16	.00			.00			119	16300	5240
17	.00			.00			168	29200	13200
18	.00			.00			188	22000	11200
19	.00			.00			125	13700	4620
20	.00			.00			62	7180	1280
21	.00			.00			31	4900	410
22	.00			.00			19	4100	210
23	.00			.00			11	3500	104
24	.00			.00			11	3000	89
25	.00			.00			9.8	3000	79
26	.00			.00			8.6	3700	86
27	.00			.00			6.5	4100	72
28	.00			.00			3.9	4200	44
29	.00			.00			2.6	8100	57
30	.00			.00			1.5	4700	19
31	.00			.00			1.0	2600	7.0
TOTAL	0.00			0.00			.55	1700	2.5
							1252.45	---	64611.5

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY			JUNE		
1	.42	900	1.0	.00	---	---	42	30400	3450
2	.15	135	.05	.00	---	---	16	18800	812
3	.00	---	---	.00	---	---	7.0	14000	265
4	.00	---	---	.00	---	---	3.0	13400	109
5	.00	---	---	.00	---	---	1.8	10500	51
6	.00	---	---	.00	---	---	1.0	4900	13
7	.00	---	---	.00	---	---	.33	800	.71
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	71	26600	6440	.00	---	---
10	.00	---	---	74	36200	7790	.00	---	---
11	.00	---	---	18	39700	1930	.00	---	---
12	23	15500	2260	5.7	35800	551	.00	---	---
13	21	29600	1680	3.6	30700	298	.00	---	---
14	15	27100	1100	1.4	25800	98	.00	---	---
15	10	24300	656	.44	7600	9.0	.00	---	---
16	7.5	22000	446	.00	---	---	.00	---	---
17	3.3	12100	108	.00	---	---	.00	---	---
18	1.8	8500	41	.00	---	---	.00	---	---
19	.76	3000	6.2	.00	---	---	.00	---	---
20	.13	200	.07	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	83	29500	14400	.00	---	---
30	.00	---	---	227	65500	40100	.00	---	---
31	---	---	---	78	34200	7620	---	---	---
TOTAL	83.06	---	6298.32	562.14	---	79236.0	71.13	---	4700.71
JULY				AUGUST			SEPTEMBER		
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	17	9660	2950	.00	---	---
14	.00	---	---	177	55400	32200	.00	---	---
15	.00	---	---	112	86700	23900	.00	---	---
16	.00	---	---	22	82800	5810	.00	---	---
17	.00	---	---	4.0	26000	309	.00	---	---
18	.00	---	---	1.5	12500	51	.00	---	---
19	.00	---	---	.70	9500	18	.00	---	---
20	.00	---	---	56	41800	20800	.00	---	---
21	.00	---	---	120	86500	31400	.00	---	---
22	57	18000	10800	22	42500	2520	.00	---	---
23	.82	4270	20	8.6	27000	627	.00	---	---
24	.00	---	---	4.6	12000	149	.00	---	---
25	.00	---	---	251	87800	83700	.00	---	---
26	3.9	12400	131	18	67000	3760	.00	---	---
27	.90	4000	9.7	2.1	39000	221	.00	---	---
28	.00	---	---	1.3	5000	18	.00	---	---
29	.00	---	---	.21	1000	.6	.00	---	---
30	3.6	11600	113	.00	---	---	.00	---	---
31	.41	1500	1.7	.00	---	---	---	---	---
TOTAL	66.63	---	11075.4	818.01	---	208433.6	0.00	---	---
YEAR	2857.25	---	374408.84	---	---	---	---	---	---

06268600 BIGHORN RIVER AT WORLAND, WY

LOCATION.--Lat 44°00'53", long 107°58'08", in SW¼NE¼ sec.25, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, 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.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT												
14...	1310	E1910	--	7.0	230	74	61	20	92	2.6	4.2	190
NOV												
28...	1545	E1710	--	3.5	230	82	60	19	79	2.3	.4	180
DEC												
23...	0900	E1200	--	.0	250	110	63	21	90	2.5	3.9	170
JAN												
16...	1430	E1100	--	.0	260	96	66	22	77	2.1	4.4	200
MAR												
05...	1435	1200	--	5.0	240	68	60	22	140	3.9	4.4	210
24...	1400	E1296	--	2.5	320	130	81	28	140	3.4	4.8	230
APR												
16...	1515	E1790	--	9.5	280	100	70	26	130	3.4	7.0	220
MAY												
14...	2020	780	--	15.5	320	160	81	28	98	2.4	3.5	190
JUN												
04...	1300	600	8.3	20.0	290	110	75	26	110	2.8	2.0	220
29...	0850	334	8.0	20.5	280	130	73	24	92	2.4	3.8	180
AUG												
02...	1140	390	7.8	13.0	290	100	78	24	110	2.8	5.2	230
SEP												
12...	1040	E395	8.2	15.0	280	86	75	23	110	2.9	3.8	230

E-Estimate.

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT											
14...	0	160	240	17	.4	8.7	635	.86	3270	.32	.17
NOV											
28...	0	150	220	14	.5	2.4	486	.66	2240	.14	.02
DEC											
23...	0	140	270	16	.8	6.1	553	.75	1790	.29	.05
JAN											
16...	0	160	230	17	.6	9.6	526	.72	1560	.16	.02
MAR											
05...	0	170	320	24	.6	9.0	691	.94	2240	.18	.24
24...	0	190	390	2.5	.7	8.8	768	1.04	2690	2.5	.15
APR											
16...	0	180	330	19	.7	6.9	702	.95	3390	.50	.23
MAY											
14...	0	160	330	19	.6	6.3	662	.90	1390	.02	.06
JUN											
04...	0	180	330	20	.6	6.4	680	.92	1100	.02	.09
29...	0	150	320	17	.5	13	635	.86	573	.56	.15
AUG											
02...	0	190	300	17	.6	12	662	.90	697	1.1	.12
SEP											
12...	3	190	280	14	.6	6.0	627	.85	669	.32	.05

YELLOWSTONE RIVER BASIN

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY

LOCATION.--Lat 44°00'48", long 107°25'39", in SW¼NW¼ sec.27, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to September 1943, March 1950 to December 1955 (published as Nowood Creek near Tensleep), October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft (1,347 m), from topographic map. May 6, 1938, to Sept. 30, 1943, nonrecording gage at site 200 ft (61 m) downstream at different datum. Mar. 17, 1950, to Dec. 31, 1955, water-stage recorder at site 100 ft (30 m) upstream at different datum.

REMARKS.--Records fair except those for November to March and May to July, which are poor. Diversions for irrigation of about 550 acres (2.23 km²) above station.

AVERAGE DISCHARGE.--17 years (water years 1939-43, 1951-55, 1973-79), 120 ft³/s (3.398 m³/s), 86,940 acre-ft/yr (107 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft³/s (95.7 m³/s) May 19, 1978, gage height, 12.94 ft (3.944 m); maximum gage height observed, 13.0 ft (3.96 m) Mar. 12, 13, 1942 (ice jam), site and datum then in use; minimum daily discharge, 0.70 ft³/s (0.020 m³/s) Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Aug. 14	2130	*1,080 30.6	8.00 2.438

Minimum daily discharge, 12 ft³/s (0.34 m³/s) July 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	106	110	50	71	100	118	202	187	58	23	53
2	111	106	100	52	68	94	113	214	163	56	25	53
3	111	106	90	57	66	100	111	225	136	54	26	53
4	111	106	95	62	72	93	106	250	122	52	22	48
5	113	107	89	60	70	99	104	270	113	51	18	45
6	113	107	84	56	84	105	104	250	104	50	18	42
7	113	107	76	56	91	110	102	240	92	49	23	41
8	115	107	70	57	95	107	104	223	90	48	28	43
9	113	106	76	61	98	102	115	210	100	47	29	43
10	113	98	80	66	100	104	111	230	89	44	32	41
11	113	86	82	75	103	110	124	230	82	41	29	40
12	113	79	86	70	106	116	140	235	70	34	34	35
13	111	76	80	66	110	111	120	248	65	24	44	36
14	111	78	76	71	98	110	113	272	64	16	120	40
15	107	85	79	78	77	115	122	292	62	15	106	43
16	107	92	75	78	77	110	122	278	48	15	51	43
17	107	96	74	76	82	105	124	258	59	14	42	43
18	107	100	82	80	91	100	140	252	62	12	44	42
19	111	94	87	78	95	104	192	248	55	12	46	41
20	107	90	80	80	96	110	258	234	52	12	52	40
21	109	94	75	83	91	118	202	216	55	13	54	44
22	109	94	80	78	87	122	174	202	55	15	51	47
23	109	97	86	76	84	115	168	188	55	14	51	48
24	107	100	85	79	89	118	210	170	55	14	47	48
25	109	96	82	85	94	118	268	162	56	14	51	46
26	109	99	79	80	100	116	234	158	58	22	51	40
27	109	109	74	75	103	116	212	152	60	18	54	42
28	106	109	70	75	107	118	196	142	61	19	58	42
29	106	104	62	75	---	120	192	148	61	28	60	46
30	106	105	55	70	---	126	192	208	60	28	58	42
31	106	---	52	66	---	122	---	214	---	22	54	---
TOTAL	3403	2939	2471	2171	2505	3414	4591	6821	2391	911	1401	1310
MEAN	110	98.0	79.7	70.0	89.5	110	153	220	79.7	29.4	45.2	43.7
MAX	115	109	110	85	110	126	268	292	187	58	120	53
MIN	106	76	52	50	66	93	102	142	48	12	18	35
AC-FT	6750	5830	4900	4310	4970	6770	9110	13530	4740	1810	2780	2600
CAL YR 1978	TOTAL	94301	MEAN	258	MAX	3130	MIN	52	AC-FT	187000		
WTR YR 1979	TOTAL	34328	MEAN	94.0	MAX	292	MIN	12	AC-FT	68090		

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT												
05...	0900	--	113	--	8.0	400	220	110	31	22	.5	2.0
28...	0930	--	106	--	--	410	230	100	39	18	.4	1.4
DEC												
28...	1045	70	--	--	.0	400	210	110	29	16	.4	1.4
JAN												
25...	1230	85	--	--	.0	410	230	110	32	14	.3	.7
MAR												
21...	1140	118	--	--	8.5	430	250	120	32	40	.8	2.2
APR												
13...	1000	--	118	--	.5	380	220	100	32	44	1.0	3.3
MAY												
19...	0920	248	--	7.9	13.5	250	120	62	24	10	.3	1.3
JUN												
19...	0910	--	59	8.3	14.5	440	280	120	33	30	.6	1.3
JUL												
11...	0920	41	--	8.1	21.0	560	370	150	44	42	.8	2.9
AUG												
07...	1015	--	24	8.1	16.0	540	330	140	47	91	1.7	3.2
SEP												
11...	0925	--	44	8.1	14.5	450	300	120	37	29	.6	1.8

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT												
05...	220	0	180	270	3.7	.3	8.4	668	.91	204	.18	.03
28...	220	0	180	280	1.8	.4	8.1	560	.76	160	.25	.03
DEC												
28...	230	0	190	240	.0	.3	11	524	.71	99.0	.68	.02
JAN												
25...	220	0	180	250	1.0	.3	11	532	.72	122	.77	.04
MAR												
21...	220	0	180	330	2.9	.5	9.2	640	.87	204	.54	.28
APR												
13...	190	0	160	310	2.0	.5	7.4	595	.81	190	.45	.10
MAY												
19...	160	0	130	130	2.0	.3	8.2	328	.45	220	.02	.58
JUN												
19...	200	0	160	340	2.7	.4	8.0	632	.86	101	.02	.04
JUL												
11...	230	0	190	420	2.9	.4	8.1	780	1.06	86.3	.00	.04
AUG												
07...	260	0	210	480	3.4	.4	11	906	1.23	58.7	.00	.02
SEP												
11...	180	0	150	370	.9	.5	5.6	655	.89	77.8	.00	.04

YELLOWSTONE RIVER BASIN

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER .062 MM
OCT							
05...	0900	8.0	--	113	54	16	--
28...	0930	--	--	106	36	10	--
DEC							
28...	1045	.0	70	--	71	13	--
JAN							
25...	1230	.0	85	--	67	15	--
MAR							
21...	1140	8.5	118	--	346	110	92
APR							
13...	1000	.5	--	118	192	61	94
MAY							
19...	0920	13.5	248	--	704	471	80
30...	1300	15.0	--	208	2320	1300	96
JUN							
19...	0910	14.5	--	59	66	11	--
JUL							
11...	0920	21.0	41	--	40	4.4	--
AUG							
07...	1015	16.0	--	24	34	2.2	--
SEP							
11...	0925	14.5	--	44	18	2.1	--

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WY

LOCATION.--Lat 44°12'20", long 107°42'54", in SW¼SE¼NW¼ sec.19, T.49 N., R.90 W., Big Horn County, Hydrologic Unit 10080008, 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.--Water years 1951-53, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT												
05...	1045	100	--	9.0	350	190	99	24	32	.7	1.4	200
28...	1145	87	--	.5	390	200	100	32	34	.8	2.1	230
DEC												
28...	1300	50	--	.0	320	150	88	24	32	.8	1.8	210
JAN												
24...	1530	50	--	.5	330	170	88	28	41	1.0	1.5	190
MAR												
21...	1540	53	--	2.5	380	210	100	31	64	1.4	2.3	210
APR												
13...	1130	72	--	2.5	350	180	90	30	41	1.0	2.8	200
MAY												
19...	1220	269	8.2	10.0	130	40	28	14	8.0	.3	1.0	110
JUN												
19...	1040	863	7.9	10.5	78	35	21	6.1	5.0	.2	.3	52
JUL												
11...	1030	253	8.5	18.0	170	80	47	13	13	.4	1.5	110
AUG												
07...	1230	24	8.5	17.0	530	310	150	37	57	1.1	3.4	260
SEP												
11...	1115	51	8.1	14.5	520	320	150	35	52	1.0	2.8	250

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT											
05...	0	160	260	1.5	.3	9.6	629	.86	170	.00	.01
28...	0	190	270	1.8	.5	9.7	570	.78	134	.02	.03
DEC											
28...	0	170	220	.0	.2	11	484	.66	65.3	.43	.03
JAN											
24...	0	160	260	1.0	.4	11	527	.72	71.1	.45	.02
MAR											
21...	0	170	340	4.4	.5	8.1	653	.89	93.4	.20	.23
APR											
13...	3	170	260	2.9	.4	5.9	535	.73	104	.00	.00
MAY											
19...	0	90	52	2.4	.2	5.8	163	.22	118	.00	.09
JUN											
19...	0	43	40	.0	.2	4.4	102	.14	238	.07	.02
JUL											
11...	0	90	100	.8	.2	6.0	237	.32	162	.00	.07
AUG											
07...	3	220	440	3.4	.5	13	837	1.14	54.2	.00	.03
SEP											
11...	0	200	430	.9	.6	12	803	1.09	111	.00	.02

YELLOWSTONE RIVER BASIN

06274220 NOWOOD RIVER AT MANDERSON, WY

LOCATION.--Lat 44°16'34", long 107°57'35", in NE4SW4 sec.30, T.50 N., R.92 W., Big Horn County, Hydrologic Unit 10080008, at bridge on State Secondary Highway 0201, and 0.5 mi (0.8 km) upstream from mouth near corporate limits of Manderson.

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

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT												
05...	1200	313	--	10.0	350	210	94	28	31	.7	1.5	170
23...	1310	292	--	2.5	390	220	91	40	31	.7	2.3	210
DEC												
28...	1345	120	--	.0	400	210	110	31	31	.7	2.2	230
JAN												
24...	1500	195	--	.0	350	230	90	31	29	.7	1.4	150
MAR												
21...	1425	248	--	3.5	400	260	110	31	80	1.7	3.0	170
APR												
13...	1310	266	--	2.0	440	280	110	39	62	1.3	4.6	200
MAY												
19...	1310	790	8.2	15.0	190	92	40	21	12	.4	1.0	120
JUN												
19...	1130	1430	7.8	13.0	85	35	23	6.7	8.0	.4	.0	61
JUL												
11...	1155	396	8.4	23.0	200	100	53	17	21	.6	1.3	120
AUG												
07...	1325	37	8.4	20.0	510	330	130	45	110	2.1	4.3	220
SEP												
11...	1155	139	8.3	18.0	390	270	100	34	60	1.3	2.3	150

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT											
05...	0	140	280	2.9	.2	6.9	615	.84	520	.00	.03
23...	0	170	290	1.8	.4	6.8	563	.77	444	.00	.04
DEC											
28...	0	190	270	5.5	.4	11	577	.78	187	.66	.10
JAN											
24...	0	120	260	3.1	.3	11	502	.68	264	.70	.04
MAR											
21...	0	140	420	5.5	.6	7.0	738	1.00	494	.56	1.7
APR											
13...	0	160	400	6.8	.6	5.9	730	.99	524	.38	.37
MAY											
19...	0	98	100	2.0	.2	7.2	244	.33	520	.07	.80
JUN											
19...	0	50	54	1.7	.0	4.9	129	.18	498	.09	.10
JUL											
11...	0	98	150	2.9	.2	4.6	310	.42	331	.00	.07
AUG											
07...	0	180	560	8.6	.4	7.3	976	1.33	97.5	.00	.07
SEP											
11...	0	120	380	3.4	.4	3.7	659	.90	247	.00	.02

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN									
13...	1600	2240	15.0	.00	0	.00	0	.00	.0
AUG									
23...	1800	345	22.5	.00	--	.00	--	.00	--

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN				
13...	.00	0	.00	0
AUG				
23...	.00	--	.00	--

06275000 WOOD RIVER AT SUNSHINE, WY

LOCATION.--Lat 44°02'15", long 108°58'24", in NW¼SW¼ sec.15, T.47 N., R.101 W., Park County, Hydrologic Unit 10080009, on right bank at bridge on county road, 1.0 mi (1.6 km) downstream from Ernest May Ranch, 5.2 mi (8.4 km) downstream from Dick Creek, and 10 mi (16 km) southwest of Meeteetse.

DRAINAGE AREA.--194 mi² (502 km²), approximately.

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1309: 1947(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft (1,966 m), from topographic map. Prior to Sept. 18, 1952, and Oct. 28, 1953, to June 15, 1963, water-stage recorder at site 2.0 mi (3.2 km) upstream at different datum. Sept. 18, 1952, to Oct. 27, 1953, nonrecording gage at site 2.0 mi (3.2 km) upstream at different datum. June 16, 1963, to Aug. 13, 1967, water-stage recorder at site 1.4 mi (2.3 km) upstream at different datum. Aug. 14 to Oct. 5, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for November to March and period of no gage-height record, Nov. 19-21, Dec. 6 to Jan. 16, Jan. 18 to Feb. 2, Feb. 17, June 8-9, July 4-6, which are poor. Water diverts above station to Lower Sunshine Reservoir since 1972. Diversion above station for irrigation of about 3,200 acres (13.0 km²), of which about 1,000 acres (4.05 km²) are below station.

AVERAGE DISCHARGE.--27 years (water years 1946-72), prior to Lower Sunshine diversion, 117 ft³/s (3.313 m³/s), 84,770 acre-ft/yr (105 hm³/yr); 7 years (water years 1973-79), 101 ft³/s (2.860 m³/s), 73,170 acre-ft/yr (90.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s (144 m³/s) June 15, 1963, gage height, 7.00 ft (2.134 m), from floodmark, site and datum then in use, from contracted-opening measurement of peak flow; minimum daily, 0.40 ft³/s (0.011 m³/s) Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 401 ft³/s (11.4 m³/s) June 13, gage height, 6.07 ft (1.850 m); minimum daily, 11 ft³/s (0.31 m³/s) Apr. 20-23, Apr. 25 to May 1, May 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	25	64	50	28	30	19	11	122	206	76	120
2	55	25	62	49	26	28	19	12	132	184	74	112
3	54	26	60	51	25	32	19	11	143	164	71	109
4	54	26	62	53	26	39	19	11	204	155	69	103
5	54	24	62	54	28	40	19	11	290	149	68	102
6	54	42	65	51	29	34	19	11	302	142	74	97
7	54	43	64	49	29	35	21	44	255	140	82	93
8	55	26	62	50	28	35	21	71	200	132	85	90
9	58	28	60	48	24	30	24	36	150	127	86	86
10	60	25	64	50	24	32	26	41	168	122	95	85
11	62	22	65	49	24	34	21	68	225	120	86	86
12	63	21	65	50	24	33	19	74	305	115	86	85
13	62	21	64	50	23	31	18	83	238	109	132	85
14	61	23	64	49	23	33	15	99	222	100	86	82
15	61	26	64	48	23	30	19	109	275	92	61	78
16	61	32	63	47	22	29	24	130	278	93	40	73
17	62	37	64	50	22	28	29	158	248	95	29	68
18	67	41	66	52	23	26	18	152	230	99	67	65
19	62	40	64	52	25	24	12	154	158	104	150	61
20	61	38	62	48	24	23	11	156	132	104	240	62
21	61	36	64	46	23	22	11	166	152	104	272	61
22	64	43	66	47	26	22	11	190	178	109	212	60
23	42	49	68	42	24	22	11	212	184	124	188	60
24	29	51	68	40	27	23	12	230	188	116	176	59
25	28	52	68	41	32	23	11	272	206	106	182	50
26	27	49	68	39	37	23	11	317	200	102	164	38
27	26	50	66	36	33	22	11	287	202	99	170	33
28	26	56	66	34	31	21	11	218	215	93	150	29
29	27	60	64	32	---	20	11	168	215	88	142	29
30	25	63	60	30	---	20	11	71	230	88	133	29
31	24	---	54	29	---	20	---	89	---	85	126	---
TOTAL	1553	1100	1978	1416	733	864	503	3662	6247	3666	3674	2190
MEAN	50.1	36.7	63.8	45.7	26.2	27.9	16.8	118	208	118	119	73.0
MAX	67	63	68	54	37	40	29	317	305	206	272	120
MIN	24	21	54	29	22	20	11	11	122	85	29	29
AC-FT	3080	2180	3920	2810	1450	1710	998	7260	12390	7270	7290	4340
CAL YR 1978	TOTAL	38348.43	MEAN	105	MAX 830	MIN .40	AC-FT	76060				
WTR YR 1979	TOTAL	27586.00	MEAN	75.6	MAX 317	MIN 11	AC-FT	54720				

YELLOWSTONE RIVER BASIN

06276500 GREYBULL RIVER AT MEETEETSE, WY

LOCATION.--Lat 44°09'20", long 108°52'35", in sec.4, T.48 N., R.100 W., Park County, Hydrologic Unit 10080009, on right bank at Meeteetse, 0.5 mi (0.5 km) upstream from bridge on State Highway 120, and 3.0 mi (4.8 km) upstream from Meeteetse Creek.

DRAINAGE AREA.--681 mi² (1,764 km²).

PERIOD OF RECORD.--June to December 1897, April to October 1903 (gage heights and discharge measurements only), July 1920 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1923(M), 1924, 1925(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,739.42 ft (1,749.375 m), National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Apr. 28, 1938. Apr. 28, 1938, to May 24, 1961, at site on left bank at datum 2.00 ft (0.610 m) higher. May 25, 1961, to May 9, 1967, at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records poor. Some regulation by Sunshine Reservoir beginning May 1940, capacity, 52,990 acre-ft (65.3 hm³), and Lower Sunshine Reservoir beginning December 1972, capacity, 58,900 acre-ft (72.6 hm³). Diversions for irrigation of about 10,600 acres (42.9 km²) above station. Several diversions above station for irrigation below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1921-71), 347 ft³/s (9.827 m³/s), 251,400 acre-ft/yr (310 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s (385 m³/s) June 15, 1963, gage height, 9.20 ft (2.804 m), from floodmark, from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of velocity-area study; minimum daily, 16 ft³/s (0.45 m³/s) Mar. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 839 ft³/s (23.8 m³/s) July 23, gage height, 3.76 ft (1.146 m); minimum daily during period of operation, 58 ft³/s (1.64 m³/s) Apr. 30, May 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							92	59	317	594	678	345
2							87	67	291	546	636	329
3							82	64	298	540	624	309
4							75	59	420	588	600	345
5							92	58	648	618	600	400
6							94	58	654	594	600	430
7							86	96	570	690	600	440
8							79	173	405	690	594	425
9							72	176	372	696	576	430
10							94	77	368	714	588	440
11							87	182	505	714	594	445
12							89	160	588	714	588	460
13							80	165	594	720	762	425
14							86	228	642	727	552	425
15							93	305	624	708	420	420
16							99	305	588	727	294	410
17							92	321	546	755	284	405
18							84	341	546	776	270	400
19							77	381	410	783	450	400
20							73	440	400	797	636	425
21							72	485	500	804	588	445
22							71	600	624	790	455	430
23							71	636	636	811	440	415
24							70	594	654	797	390	440
25							68	636	654	769	372	515
26							66	666	618	776	350	500
27							64	588	594	755	341	505
28							63	696	600	727	325	505
29							59	654	648	696	354	510
30							58	291	636	648	386	368
31							---	337	---	702	358	---
TOTAL							2375	9898	15950	21966	15305	12741
MEAN							79.2	319	532	709	494	425
MAX							99	696	654	811	762	515
MIN							58	58	291	540	270	309
AC-FT							4710	19630	31640	43570	30360	25270

06277500 GREYBULL RIVER NEAR BASIN, WY

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼NW¼SW¼ sec.8, T.51 N., R.94 W., Big Horn County, Hydrologic Unit 10080009, 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.--Water years 1951-53, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT												
03...	1345	394	--	11.0	170	31	43	16	48	1.6	2.1	170
31...	1400	105	--	5.5	330	76	80	33	96	2.3	2.9	310
DEC												
07...	1600	110	--	.0	320	64	79	29	100	2.4	2.9	300
JAN												
17...	1430	58	--	.0	260	14	64	24	74	2.0	2.6	300
FEB												
13...	1300	68	--	.0	260	47	64	24	77	2.1	2.1	260
MAR												
06...	1500	110	--	.0	250	65	61	23	83	2.3	2.3	220
APR												
13...	1430	132	--	3.5	320	77	77	32	110	2.7	6.1	290
MAY												
19...	1520	23	8.6	22.0	310	75	66	36	130	3.2	2.8	280
JUN												
15...	1310	247	7.7	17.0	140	9	36	11	46	1.7	1.8	160
JUL												
11...	1345	15	8.4	28.0	330	67	84	30	190	4.5	4.3	320
AUG												
02...	1010	18	8.2	19.0	320	29	81	28	210	5.1	4.8	340
SEP												
11...	0915	12	7.8	11.5	370	50	96	31	230	5.2	4.8	390

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT											
03...	0	140	140	.7	.2	11	432	.59	460	.09	.11
31...	0	250	250	7.4	.5	11	632	.86	179	.36	.03
DEC											
07...	6	260	260	6.6	.4	16	653	.89	194	.61	.02
JAN											
17...	0	250	150	5.5	.5	13	486	.66	76.1	.47	.02
FEB											
13...	0	210	200	7.2	.4	12	519	.71	95.3	.54	.06
MAR											
06...	3	700	220	11	.4	13	527	.72	157	.45	.09
APR											
13...	3	240	320	8.3	.5	9.3	707	.96	252	.18	.12
MAY											
19...	3	240	330	11	.6	11	730	.99	45.3	.02	.03
JUN											
15...	0	130	110	2.4	.3	12	297	.40	198	.27	.28
JUL											
11...	0	260	480	17	.7	17	984	1.34	39.9	.16	.03
AUG											
02...	7	290	440	21	.8	17	982	1.34	47.7	.43	.04
SEP											
11...	0	320	490	17	.8	14	1090	1.48	35.3	3.2	.02

YELLOWSTONE RIVER BASIN

06277500 GREYBULL RIVER NEAR BASIN, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 13...	1500	292	25.0	.0	0	.00	.0	.0	0	.00	.0

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)
JUN 13...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
JUN 13...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 13...	.00	0	0	.00	4.3	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 13...	.01	0	.00	0

06278000 DRY CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°29'48", long 108°12'33", in NW¼SW¼NW¼ sec.7, T.52 N., R.94 W., Big Horn County, Hydrologic Unit 10080011, on left bank 1.0 mi (1.6 km) downstream from Kellerman Gulch, 7.3 mi (11.7 km) northeast of Otto, and 7.7 mi (12.4 km) west of Greybull.

PERIOD OF RECORD.--June to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
JUN 25...	1150	63	1470	8.1	19.0	230	3900	--	4600	280	69
SEP 11...	1120	25	1250	8.1	12.0	40	3400	K450	4800	350	82

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JUN 25...	67	28	120	3.1	--	--	260	0	210	360	14
SEP 11...	90	31	130	3.0	130	4.7	--	--	270	380	8.3

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
JUN 25...	.9	18	736	1.00	125	2.3	.07	.08	1.3	1.4
SEP 11...	2.1	21	830	1.13	56.0	1.9	.02	.02	.41	.43

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN 25...	3.7	16	.50	1.5	1.5	160	20	880	150	76
SEP 11...	2.3	10	.11	--	.34	210	20	85	5.7	68

06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY

LOCATION---Lat 44°30'29", long 107°24'11", in sec.1, T.52 N., R.88 W., Big Horn County, Hydrologic Unit 10080010, Bighorn National Forest, on right bank 0.2 mi (0.3 km) upstream from Shell Reservoir, 1.1 mi (1.8 km) downstream from Buckley Creek, 6.0 mi (9.7 km) southeast of Shell Creek ranger station, and 19 mi (31 km) east of Shell.

DRAINAGE AREA---23.1 mi² (59.8 km²).

PERIOD OF RECORD---October 1956 to current year. Prior to October 1969, published as Shell Creek above Shell Creek Reservoir.

REVISED RECORDS---WSP 1629: 1958. WSP 1709: Drainage area.

GAGE---Water-stage recorder. Altitude of gage is 9,050 ft (2,758 m), from topographic map.

REMARKS---Records good except those for November to April, which are poor. No diversions above station.

AVERAGE DISCHARGE---23 years, 36.9 ft³/s (1.045 m³/s), 26,730 acre-ft/yr (33.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD---Maximum discharge, 1,870 ft³/s (53.0 m³/s) June 15, 1963, gage height, 7.84 ft (2.390 m), from floodmarks, from rating curve extended above 725 ft³/s (20.5 m³/s) on basis of velocity-area study; minimum daily, 0.60 ft³/s (0.017 m³/s) Mar. 7, 1967.

EXTREMES FOR CURRENT YEAR---Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 28	0030	585 16.6	a5.27 1.606	June 3	2300	*663 b18.8	5.50 1.676
June 6	0030	585 16.6	a5.27 1.606				

a-estimated.

b-from floodmark.

Minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	9.1	5.8	3.5	2.2	2.7	2.4	3.7	64	86	14	20
2	24	8.8	5.6	3.6	2.3	2.6	2.3	3.6	68	72	13	18
3	22	8.8	5.6	3.7	2.4	2.5	2.3	3.6	130	62	12	17
4	22	8.8	5.8	3.5	2.4	2.6	2.4	5.0	291	111	11	16
5	20	7.5	5.8	3.2	2.5	2.7	2.5	7.0	390	85	11	16
6	19	7.3	5.6	3.2	2.5	2.7	2.7	12	320	76	10	15
7	18	8.2	5.2	3.2	2.6	2.7	2.7	11	125	86	10	14
8	18	7.9	5.2	3.2	2.6	2.7	2.7	8.6	80	63	11	14
9	18	7.5	5.4	3.2	2.7	2.6	2.8	7.8	62	52	11	13
10	16	7.5	5.6	3.2	2.7	2.5	2.9	7.5	63	46	11	13
11	16	7.0	5.8	3.4	2.8	2.6	2.9	7.3	162	41	10	12
12	16	7.0	6.0	3.4	2.8	2.7	2.7	6.8	354	38	10	13
13	16	7.3	5.8	3.4	2.9	2.7	2.7	6.7	430	35	33	13
14	18	6.6	5.8	3.2	3.0	2.6	2.8	7.1	425	33	36	12
15	14	6.6	5.8	3.2	2.8	2.5	2.9	11	251	30	27	12
16	13	6.8	5.6	3.4	2.8	2.4	3.0	23	183	28	22	11
17	13	7.0	5.8	3.4	2.9	2.4	3.3	38	165	27	22	11
18	13	7.0	5.8	3.4	2.9	2.3	3.8	35	157	25	21	10
19	12	7.0	5.8	3.4	2.9	2.3	3.5	49	114	24	20	10
20	12	6.2	5.6	3.4	2.8	2.3	3.2	71	99	22	22	9.8
21	11	6.6	5.2	3.3	2.7	2.3	3.2	107	140	21	23	9.8
22	12	6.8	5.2	3.3	2.6	2.3	3.3	184	157	20	30	9.3
23	14	6.8	5.2	2.9	2.5	2.3	3.3	241	137	24	30	9.1
24	14	6.6	5.2	2.9	2.6	2.4	3.6	312	131	24	32	8.8
25	11	6.2	4.9	2.9	2.7	2.6	3.5	366	129	21	34	8.4
26	15	6.0	4.7	2.5	2.8	2.4	3.3	409	130	20	29	8.2
27	11	6.0	4.6	2.3	2.7	2.5	3.3	440	120	22	28	8.2
28	10	5.8	4.6	2.2	2.7	2.6	3.4	472	115	19	26	7.9
29	9.8	6.0	4.3	2.1	---	2.6	3.4	392	106	17	24	7.7
30	10	6.0	3.9	2.0	---	2.6	3.5	134	99	16	22	7.5
31	9.1	---	3.5	2.1	---	2.5	---	83	---	16	20	---
TOTAL	470.9	212.7	164.7	95.6	74.8	78.2	90.3	3464.7	5197	1262	635	354.7
MEAN	15.2	7.09	5.31	3.08	2.67	2.52	3.01	112	173	40.7	20.5	11.8
MAX	24	9.1	6.0	3.7	3.0	2.7	3.8	472	430	111	36	20
MIN	9.1	5.8	3.5	2.0	2.2	2.3	2.3	3.6	62	16	10	7.5
AC-FT	934	422	327	190	148	155	179	6870	10310	2500	1260	704
CAL YR 1978 TOTAL	17638.5			MEAN 48.3	MAX 618	MIN 1.5	AC-FT 34990					
WTR YR 1979 TOTAL	12100.6			MEAN 33.2	MAX 472	MIN 2.0	AC-FT 24000					

06278500 SHELL CREEK NEAR SHELL, WY

LOCATION.--Lat 44°33'54", long 107°42'44", in SE¼SW¼ sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, on right bank 0.9 mi (1.4 km) upstream from White Creek and 5.0 mi (8.0 km) northeast of Shell.

DRAINAGE AREA.--145 mi² (376 km²).

PERIOD OF RECORD.--October 1940 to current year (no winter records since 1971). Prior to December 1940, monthly discharge only, published in WSP 1309.

REVISED RECORDS.--WSP 1239: 1941, 1945(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.05 ft (1,331.991 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation by two small reservoirs, capacity, 3,650 acre-ft (4.50 hm³). Diversions above station for irrigation of about 80 acres (32 hm²) below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years (1941-71), 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (106 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft³/s (85.5 m³/s) June 24, 1945, gage height, 7.49 ft (2.283 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s); minimum daily, 18 ft³/s (0.51 m³/s) Mar. 5, 7, 1950, Jan. 30, 31, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	0330	*1,390 39.4	4.97 1.515	June 14	0100	1,120 31.7	4.68 1.426
June 6	0130	1,070 30.3	4.59 1.399				

Minimum daily discharge during period of operation, 43 ft³/s (1.22 m³/s) Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							44	76	343	260	159	139
2							44	78	337	212	159	136
3							43	74	391	210	157	133
4							44	80	590	258	157	133
5							44	103	840	260	151	133
6							46	130	888	225	151	132
7							46	103	506	250	151	130
8							46	97	402	220	159	127
9							47	89	346	189	157	127
10							48	80	337	179	157	127
11							46	97	405	169	151	126
12							44	79	653	161	153	127
13							45	76	967	155	203	126
14							43	84	900	147	195	122
15							46	161	690	142	167	120
16							49	218	489	138	159	115
17							54	248	440	133	157	115
18							67	235	436	128	157	114
19							69	265	388	126	159	112
20							58	310	346	126	157	110
21							58	377	346	124	159	110
22							59	454	391	159	163	110
23							66	416	364	173	167	109
24							73	834	337	167	163	108
25							69	988	328	165	159	106
26							58	1050	331	169	149	104
27							61	1080	316	171	147	104
28							62	1060	301	165	147	103
29							68	1110	283	163	144	102
30							72	542	272	161	140	102
31							---	349	---	163	140	---
TOTAL							1619	10943	13963	5468	4894	3562
MEAN							54.0	353	465	176	158	119
MAX							73	1110	967	260	203	139
MIN							43	74	272	124	140	102
AC-FT							3210	21710	27700	10850	9710	7070

YELLOWSTONE RIVER BASIN

06279090 SHELL CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°30'34", long 108°02'52", in NW¼SW¼ sec.4, T.52 N., R.93 W., Big Horn County, Hydrologic Unit 10080010, 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.--Water years 1951, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT									
15...	0915	115	890	8.1	5.0	6	10.8	K40	400
NOV									
12...	0900	95	950	8.3	.0	--	--	--	470
DEC									
10...	0900	100	950	7.9	.0	--	--	--	390
JAN									
10...	0815	80	840	7.6	.0	--	--	--	360
FEB									
04...	1715	50	830	7.6	.0	--	--	--	350
MAR									
18...	0950	252	1300	7.9	2.0	--	--	--	360
APR									
18...	0830	95	1010	8.2	11.0	--	--	--	360
JUN									
12...	1645	850	340	7.8	16.5	--	--	--	120
JUL									
21...	1700	36	1580	8.2	28.0	--	--	--	620
AUG									
23...	1040	109	1380	8.1	17.0	--	--	--	560
SEP									
17...	1000	44	1800	8.0	13.0	--	--	--	570

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT									
15...	220	98	37	88	1.9	1.9	220	0	180
NOV									
12...	270	130	36	74	1.5	1.8	250	0	200
DEC									
10...	190	110	31	63	1.4	1.5	250	0	200
JAN									
10...	160	96	30	46	1.1	1.4	240	0	200
FEB									
04...	150	97	27	48	1.1	1.1	240	0	200
MAR									
18...	230	100	27	150	3.4	4.3	160	0	130
APR									
18...	180	93	32	74	1.7	4.3	210	3	180
JUN									
12...	43	33	9.3	18	.7	.8	94	0	77
JUL									
21...	410	170	47	140	2.5	3.9	260	0	210
AUG									
23...	350	160	39	110	2.0	3.8	260	0	210
SEP									
17...	400	150	46	140	2.6	3.8	210	0	170

YELLOWSTONE RIVER BASIN

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06279090 SHELL CREEK NEAR GREYBULL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 15...	370	2.9	.5	6.3	716	.97	222	.25	.05
NOV 12...	420	1.8	.5	3.6	790	1.07	203	.59	.02
DEC 10...	300	1.8	.4	9.3	640	.87	173	.66	.01
JAN 10...	260	.7	.4	10	568	.77	123	.75	.02
FEB 04...	220	14	.5	8.9	539	.73	72.8	.50	.06
MAR 18...	550	7.7	.7	5.5	938	1.28	638	2.7	2.2
APR 18...	350	4.9	.5	1.7	664	.90	170	.09	.07
JUN 12...	85	.0	.2	4.4	197	.27	452	.11	.12
JUL 21...	700	4.3	.7	7.7	1200	1.63	117	.20	.02
AUG 23...	550	3.4	.6	10	1010	1.37	297	.52	.18
SEP 17...	680	4.3	.6	3.6	1140	1.55	135	.11	.02

DATE	TIME	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 12...	1645	.00	0	.00	0	.00	.0
JUL 21...	1700	.16	0	.00	0	.00	.0
AUG 23...	1040	.00	--	.00	--	.00	--
SEP 17...	1000	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 12...	.00	0	.00	0
JUL 21...	.01	0	.01	0
AUG 23...	.00	--	.00	--
SEP 17...	.00	0	.00	0

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WY

LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼NE¼SW¼ sec.9, T.55 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, on right bank 180 ft (55 m) upstream from Bighorn Canyon National Recreation Area boundary, 0.5 mi (0.8 km) upstream from normal high-water line of Bighorn Lake at elevation 3,660 ft (1,116 m), 1.3 mi (2.1 km) upstream from Five Springs Creek, and 5.9 mi (9.5 km) south of Kane.

DRAINAGE AREA.--15,765 mi² (40,831 km²). Area at sites used prior to May 17, 1956, 15,846 mi² (41,041 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M). WSP 1509: 1929. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft (1,116 m), from topographic map. Aug. 29, 1928, to Apr. 25, 1932, nonrecording gage, and Apr. 25, 1932, to May 16, 1956, water-stage recorder, at site 12.5 mi (20.1 km) downstream at different datum.

REMARKS.--Records good except those for November to June, which are poor. No gage-height record Feb. 16, 17, Mar. 16 to May 21, June 6, 7, 14-27. Some regulation by Boysen Reservoir (station 06258900) since October 1951. Diversions for irrigation of about 376,000 acres (1,522 km²) above station.

AVERAGE DISCHARGE.--51 years, 2,288 ft³/s (64.80 m³/s), 1,658,000 acre-ft/yr (2,044 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft³/s (714 m³/s) June 16, 1935, gage height, 11.10 ft (3.383 m), site and datum then in use; minimum daily, 179 ft³/s (5.07 m³/s) July 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1923, 14.8 ft (4.51 m) Sept. 30, 1923, site and datum in use April 1932 to May 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,190 ft³/s (204 m³/s) May 30, gage height, 4.95 ft (1.509 m); maximum gage height, 6.65 ft (2.027 m) Nov. 15 (backwater from ice); minimum daily discharge, 820 ft³/s (23.2 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2980	2460	1930	1880	1520	1750	2400	2850	3890	1930	1030	1240
2	3020	2480	1900	1860	1500	1720	2600	2850	3340	1780	1000	1260
3	3000	2470	1820	1850	1450	1700	2800	2900	3090	1500	985	1230
4	3020	2470	1850	1600	1300	1650	2900	2900	3300	1460	949	1180
5	2980	2410	1850	1500	1100	1600	2900	2850	4090	1820	967	1080
6	3030	2380	1850	1500	1200	1610	2900	2800	4450	1810	932	1020
7	3030	2350	1850	1500	1550	1650	2900	2800	4250	1500	900	1030
8	3030	2320	1840	1550	1500	1720	2900	2800	3660	1440	876	1040
9	2910	2410	1810	1580	1480	1750	2900	2850	3050	1290	924	1020
10	2620	2380	1810	1580	1500	1780	2900	2900	2750	1190	932	1030
11	2500	2250	1820	1590	1550	1800	2950	2800	2640	1120	932	1030
12	2540	2250	1820	1600	1590	1800	3000	2600	2840	1050	976	1040
13	2590	2200	1810	1600	1610	1800	2950	2400	3970	1290	1120	1100
14	2590	2200	1800	1580	1650	1800	2900	2300	4160	1350	1660	1100
15	2780	2100	1810	1580	1700	1800	2950	2200	4250	1000	2710	1080
16	2700	1800	1820	1600	1710	1800	2950	2200	3900	932	2340	1090
17	2690	1500	1830	1550	1720	1800	2900	2250	3200	868	1560	1030
18	2700	1300	1820	1550	1750	1780	2900	2300	2980	828	1350	985
19	2660	1550	1820	1550	1750	1750	2950	2350	2850	820	1320	958
20	2750	2050	1810	1550	1800	1780	3000	2400	2800	836	1460	967
21	2620	2050	1830	1580	1800	1850	3000	2450	2800	852	1930	1010
22	2520	2080	1860	1580	1800	1920	3050	2700	2800	868	2010	1040
23	2520	2080	1880	1560	1800	1940	3000	3090	2800	1530	1630	1070
24	2530	2020	1890	1560	1800	1920	3000	3540	2800	1410	1540	1070
25	2500	2010	1900	1560	1800	1920	2950	4130	2730	1350	1540	1080
26	2540	2020	1900	1580	1800	1980	2950	4490	2650	1170	1740	1060
27	2530	2020	1910	1580	1800	2000	2920	4820	2540	1130	1520	1110
28	2460	2020	1900	1590	1800	2050	2900	5030	2500	1150	1450	1130
29	2460	2020	1900	1590	---	2080	2900	5480	2300	1100	1460	1150
30	2420	2000	1900	1590	---	2200	2900	6660	1950	1160	1370	1210
31	2410	---	1890	1550	---	2500	---	4860	---	1060	1280	---
TOTAL	83630	63650	57430	49470	45330	57200	87120	99550	95330	38594	42393	32440
MEAN	2698	2122	1853	1596	1619	1845	2904	3211	3178	1245	1368	1081
MAX	3030	2480	1930	1880	1800	2500	3050	6660	4450	1930	2710	1260
MIN	2410	1300	1800	1500	1100	1600	2400	2200	1950	820	876	958
AC-FT	165900	126200	113900	98120	89910	113500	172800	197500	189100	76550	84090	64340
CAL YR 1978 TOTAL	1047990		MEAN	2871	MAX	17900	MIN	700	AC-FT	2079000		
WTR YR 1979 TOTAL	752137		MEAN	2061	MAX	6660	MIN	820	AC-FT	1492000		

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 15...	1000	--	2880	800	8.3	8.0	10	9.8	K80	270
NOV 12...	1000	--	2280	740	8.3	1.0	20	12.3	K56	270
DEC 10...	1000	1810	--	1000	8.1	.0	8	12.8	92	330
JAN 10...	0915	1580	--	730	7.7	.0	40	11.9	84	320
FEB 04...	1645	1300	--	1100	7.6	.0	4	12.0	--	340
MAR 18...	1030	1780	--	1300	8.0	1.0	1000	12.4	260	250
APR 18...	0920	2900	--	1100	8.2	11.0	90	9.6	220	290
JUN 13...	0715	--	3390	510	8.1	16.0	55	8.3	260	160
JUL 22...	0700	--	852	1100	8.3	22.0	30	6.7	430	360
AUG 23...	1130	--	1570	1090	8.1	19.5	650	7.9	460	320

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT 15...	110	68	25	80	2.1	3.5	200	0	160
NOV 12...	110	69	23	76	2.0	3.1	190	0	160
DEC 10...	130	87	28	98	2.3	3.8	240	0	200
JAN 10...	130	84	27	84	2.0	4.2	230	0	190
FEB 04...	140	89	28	110	2.6	3.9	240	0	200
MAR 18...	110	61	24	190	5.2	10	170	0	140
APR 18...	88	72	27	140	3.6	4.3	240	3	200
JUN 13...	78	42	13	42	1.5	2.0	100	0	82
JUL 22...	170	96	29	110	2.5	4.6	230	0	190
AUG 23...	140	84	26	110	2.7	4.8	220	0	180

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 15...	270	13	.5	7.6	566	.77	4400	.20	.06
NOV 12...	260	11	.5	2.2	536	.73	3300	.32	.10
DEC 10...	290	17	.6	9.6	656	.89	3210	.38	.03
JAN 10...	300	12	.6	11	635	.86	2710	.54	.12
FEB 04...	330	18	.7	11	713	.97	2500	.61	.05
MAR 18...	480	33	.7	4.1	891	1.21	4280	.88	3.4
APR 18...	340	17	.6	6.0	731	.99	5720	.20	.15
JUN 13...	160	5.5	.3	5.4	323	.44	2960	.18	.17
JUL 22...	380	17	.6	7.4	757	1.03	1740	.52	.08
AUG 23...	350	16	.6	12	718	.98	3040	.68	1.8

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/KG)	DDD, TOTAL (UG/L)
OCT 25...	1215	2470	8.0	.0	0	.00	.00	.0	.0	0	.00
JUN 13...	1320	3890	22.0	.0	1	--	.00	.0	.0	1	.00

DATE	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN, TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 25...	.0	.00	.0	.00	.0	.00	.00	.1	.00	.00	.0
JUN 13...	.1	.00	.0	.00	.2	.00	.00	.2	.00	.00	.0

DATE	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
OCT 25...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00
JUN 13...	.00	.00	.0	.00	.0	.00	.1	.00	.00	.00	.00

DATE	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 25...	.00	.00	0	0	.00	.00	0	.01	0	.00	.0
JUN 13...	.00	.00	0	0	.00	.46	0	.01	0	.00	.0

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
OCT 25...	.01	0	.01	0
JUN 13...	.12	0	.00	0

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 05...	1230	8.0	2930	241	1910	--
MAY 21...	1230	17.0	2480	357	2390	87
JUL 09...	1300	17.0	1290	122	425	--
SEP 06...	1230	20.5	1020	66	182	--

YELLOWSTONE RIVER BASIN

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY

LOCATION.--Lat 44°28'45", long 109°20'28", in NW¼NE¼SE¼ sec.15, T.52 N., R.104 W., Park County, Hydrologic Unit 10080012, on left bank 600 ft (183 m) downstream from Trout Creek, 1.6 mi (2.6 km) upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft (1,636 m), 4.8 mi (7.7 km) east of Wapiti, and 14 mi (23 km) west of Cody.

DRAINAGE AREA.--775 mi² (2,007 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to September 1926, May to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft (1,646 m), from topographic map. January 1921 to September 1926, water-stage recorder at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good. Diversion for irrigation of about 2,700 acres (10.9 km²) above station.

AVERAGE DISCHARGE.--5 years (water years 1922-26), 845 ft³/s (23.93 m³/s), 612,200 acre-ft/yr (755 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,250 ft³/s (262 m³/s), June 23, 1925, gage height, 6.88 ft (2.097 m), site and datum then in use; minimum daily, 100 ft³/s (2.83 m³/s) Feb. 27, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,380 ft³/s (209 m³/s) June 13, gage height 7.67 ft (2.338 m); minimum daily during period of operation, 231 ft³/s (6.54 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								900	1820	3250	618	439
2								840	1700	2880	589	398
3								720	1930	2630	572	385
4								800	2880	2390	540	372
5								1000	3870	2320	524	364
6								1200	4710	2120	519	364
7								1050	3530	1950	503	351
8								930	2600	1930	483	343
9								850	2120	1820	540	330
10								760	2090	1720	498	330
11								670	3030	1660	468	322
12								670	4310	1550	483	310
13								680	5570	1460	680	302
14								740	6100	1350	630	294
15								1000	5060	1260	718	283
16								1600	4040	1230	529	275
17								2300	3920	1240	493	268
18								2240	3840	1160	509	268
19								2270	2900	1090	584	264
20								2360	2470	1090	990	260
21								2660	2330	990	974	256
22								3110	2380	982	781	253
23								3460	2590	1230	618	245
24								3800	2980	974	606	242
25								4130	3380	934	578	238
26								4650	3450	870	519	245
27								5070	3570	818	488	279
28								5040	3460	753	545	249
29								4260	3400	746	478	234
30								2920	3450	692	459	231
31								2260	---	636	439	---
TOTAL								64940	99480	45725	17955	8994
MEAN								2095	3316	1475	579	300
MAX								5070	6100	3250	990	439
MIN								670	1700	636	439	231
AC-FT								128800	197300	90700	35610	17840

WATER-QUALITY RECORDS

EXTREMES FOR PERIOD MAY TO SEPTEMBER.--Maximum daily, 17.0°C Aug. 2, 10; minimum during period of operation, 2.5°C May 29, June 7.

[illegible]

06280300 SOUTH FORK SHOSHONE RIVER NEAR VALLEY, WY

LOCATION.--Lat 44°12'30", long 109°33'15", in NE¼ sec.24, T.49 N., R.106 W., Park County, Hydrologic Unit 10080013, Shoshone National Forest, on left bank 75 ft (23 m) downstream from U.S. Forest Service bridge, 0.4 mi (0.6 km) downstream from Boulder Creek, 3.2 mi (5.1 km) northeast of Valley, and 34 mi (55 km) southwest of Cody.

DRAINAGE AREA.--297 mi² (769 km²).

PERIOD OF RECORD.--October 1956 to September 1958, October 1959 to current year.

REVISED RECORDS.--WRD WY 1974: 1963.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft (1,890 m), from topographic map. Prior to Nov. 22, 1961, at site 75 ft (23 m) upstream at same datum.

REMARKS.--Records good except those for November to January, which are poor. Diversions for irrigation of about 450 acres (1.82 km²) above station.

AVERAGE DISCHARGE.--22 years, 425 ft³/s (12.04 m³/s), 307,900 acre-ft/yr (380 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft³/s (233 m³/s) June 15, 1963, gage height, 8.83 ft (2.691 m), from rating curve extended above 5,600 ft³/s (159 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 41 ft³/s (1.16 m³/s) Feb. 27, 28, 1961, Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 13	2300	*3,140 88.9	5.67 1.728

Minimum daily discharge, 63 ft³/s (1.78 m³/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	122	106	80	64	78	80	255	617	1240	326	211
2	182	122	100	83	63	78	79	255	594	1140	309	198
3	173	122	100	87	67	72	78	198	754	1020	300	188
4	173	124	106	81	73	69	78	271	1190	1010	283	182
5	170	122	106	76	78	71	77	340	1550	976	271	179
6	167	110	105	78	80	77	77	441	1800	912	271	173
7	164	116	93	74	79	83	83	275	1330	877	263	170
8	162	118	96	79	77	82	82	236	898	850	271	167
9	159	122	100	76	80	73	95	201	711	808	267	164
10	156	86	106	79	80	69	100	176	754	767	326	164
11	153	69	106	78	80	74	95	164	1170	742	275	164
12	153	68	106	76	78	78	90	159	1730	693	283	159
13	146	72	105	74	82	79	87	164	2290	705	549	159
14	146	74	101	74	82	78	85	229	2480	663	382	156
15	146	86	100	80	83	83	86	396	1890	611	344	151
16	146	102	106	84	74	93	103	675	1550	617	296	143
17	148	110	106	89	73	90	162	736	1460	634	279	143
18	156	108	100	93	73	87	208	723	1390	600	292	141
19	146	98	99	90	75	82	151	748	961	571	344	141
20	143	94	104	86	77	79	127	815	787	554	543	141
21	141	98	110	89	74	78	122	954	870	577	474	138
22	141	110	110	86	77	82	148	1140	1040	543	372	136
23	131	110	110	80	77	82	173	1270	1170	583	318	136
24	136	110	110	83	74	80	156	1450	1260	511	344	133
25	136	102	107	78	75	85	138	1650	1390	484	304	131
26	133	100	107	74	78	85	129	1860	1450	452	279	138
27	131	110	107	72	78	85	138	1980	1460	431	279	141
28	133	110	100	70	78	85	198	1930	1450	391	304	133
29	131	110	84	68	---	83	244	1660	1420	382	263	133
30	120	110	80	66	---	82	271	1010	1400	358	229	131
31	116	---	77	70	---	82	---	761	---	335	222	---
TOTAL	4623	3115	3153	2453	2129	2484	3740	23122	38816	21037	9862	4644
MEAN	149	104	102	79.1	76.0	80.1	125	746	1294	679	318	155
MAX	185	124	110	93	83	93	271	1980	2480	1240	549	211
MIN	116	68	77	66	63	69	77	159	594	335	222	131
AC-FT	9170	6180	6250	4870	4220	4930	7420	45860	76990	41730	19560	9210
CAL YR 1978 TOTAL	180936			MEAN 496	MAX 3040	MIN 53	AC-FT 358900					
WTR YR 1979 TOTAL	119178			MEAN 327	MAX 2480	MIN 63	AC-FT 236400					

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°25'58", long 109°15'06", in lot 46, sec.33, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, on right bank at bridge on county road, 1.0 mi (1.6 km) upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft (1,636 m), 1.1 mi (1.8 km) downstream from Cody Canal diversion, and 11.5 mi (18.5 km) southwest of Cody.

DRAINAGE AREA.--585 mi² (1,515 km²).

PERIOD OF RECORD.--May to November 1903, May 1905 to September 1908, January 1921 to September 1926, October 1973 to current year (gage heights only June to September 1908). No winter records 1906, 1908, 1922. Published as "at Marquette" 1903, 1905-8, and as Shoshone River above Shoshone Reservoir 1921-26.

REVISED RECORDS.--WSP 1309: 1907.

GAGE.--Water-stage recorder. Altitude of gage is 5,410 ft (1,649 m), from topographic map. Apr. 26 to Nov. 30, 1903, and May 1905 to May 30, 1908, nonrecording gages at sites within about 6.0 mi (9.7 km) downstream at different datums.

REMARKS.--Records poor. No gage-height record Oct. 10-11, Nov. 9 to Apr. 17, July 15-31, Aug. 28 to Sept. 6. Diversions for irrigation of about 11,000 acres (44.5 km²) above station.

AVERAGE DISCHARGE.--11 years (water years 1907, 1923-26, 1974-79), 437 ft³/s (12.38 m³/s), 316,600 acre-ft/yr (390 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,120 ft³/s (230 m³/s) July 3, 1975; maximum gage height, 7.39 ft (2.252 m) Jan. 12, 1977 (backwater from ice); minimum daily discharge, 2.8 ft³/s (0.079 m³/s) Oct. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,190 ft³/s (90.3 m³/s) June 14, gage height, 7.05 ft (2.149 m); minimum daily, 4.5 ft³/s (0.13 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	53	140	100	103	110	93	248	336	1250	14	50
2	8.2	46	138	107	100	110	93	227	220	1060	12	40
3	8.2	47	136	110	96	107	92	143	291	822	10	35
4	7.4	63	137	108	99	104	92	155	787	696	8.2	30
5	9.1	112	139	100	107	110	92	253	1360	710	7.8	25
6	9.1	98	142	104	112	113	96	448	1650	570	8.2	20
7	9.1	81	130	105	120	118	98	220	1300	500	9.5	13
8	7.8	120	140	105	120	116	97	157	703	487	9.1	12
9	7.0	162	140	105	117	108	104	123	364	393	8.2	10
10	6.7	134	137	105	120	108	113	95	300	364	13	9.4
11	6.7	120	133	105	120	110	110	86	766	348	12	10
12	6.7	120	132	105	120	111	105	71	1480	248	9.1	10
13	8.2	122	131	100	120	111	100	58	2170	248	174	8.8
14	8.6	130	130	100	120	112	100	73	2590	205	96	8.2
15	7.8	139	130	105	120	115	110	152	2070	196	50	7.1
16	8.2	150	133	110	116	120	185	563	1540	190	21	6.2
17	8.2	150	130	120	110	115	216	703	1410	185	17	5.8
18	8.6	150	127	130	110	108	331	619	1390	180	21	6.7
19	9.1	136	124	126	110	100	248	605	822	180	70	6.2
20	7.0	130	126	120	113	93	179	640	570	180	217	6.7
21	6.3	130	130	127	110	87	162	752	619	175	334	6.2
22	7.0	140	130	125	112	92	176	992	815	175	224	5.8
23	7.0	140	130	125	110	88	231	1150	1000	170	130	5.3
24	6.7	140	130	120	108	88	253	1450	1140	120	133	6.2
25	15	135	128	117	110	92	205	1670	1240	86	112	8.2
26	61	130	128	120	110	93	111	2010	1360	70	83	7.7
27	64	132	126	117	110	94	92	2280	1350	60	77	6.7
28	61	140	124	110	110	94	134	2380	1400	50	78	5.8
29	61	140	118	108	---	94	195	2040	1290	40	82	4.9
30	56	140	113	106	---	92	257	1040	1340	30	70	4.5
31	53	---	103	100	---	93	---	682	---	20	60	---
TOTAL	558.8	3630	4035	3445	3133	3206	4470	22085	33673	10008	2170.1	381.4
MEAN	18.0	121	130	111	112	103	149	712	1122	323	70.0	12.7
MAX	64	162	142	130	120	120	331	2380	2590	1250	334	50
MIN	6.3	46	103	100	96	87	92	58	220	20	7.8	4.5
AC-FT	1110	7200	8000	6830	6210	6360	8870	43810	66790	19850	4300	757
CAL YR 1978	TOTAL	170374.0	MEAN 467	MAX 3260	MIN 6.3	AC-FT 337900						
WTR YR 1979	TOTAL	90795.3	MEAN 249	MAX 2590	MIN 4.5	AC-FT 180100						

YELLOWSTONE RIVER BASIN

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, Hydrologic Unit 10080014, on left bank 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). Area at site prior to Oct. 1, 1949, 1,502 mi² (3,890 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to current year. Prior to October 1944, published as "below Shoshone Reservoir".

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,494 m), from topographic map. Prior to Oct. 1, 1949, at site 2.5 mi (4.0 km) upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Buffalo Bill Reservoir. (See station 09281500.) Diversions above station for irrigation of about 56,100 acres (227 km²), of which about 37,900 acres (153 km²) are below station. Diversion, 2.1 mi (3.4 km) upstream, to Heart Mountain Canal began in 1943.

AVERAGE DISCHARGE.--21 years (water years 1922-42), prior to Heart Mountain diversion, 1,256 ft³/s (35.57 m³/s), 909,300 acre-ft/yr (1,121 hm³/yr); 37 years (water years 1943-79), 1,142 ft³/s (32.34 m³/s), 827,400 acre-ft/yr (1,020 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s (416 m³/s) May 28, 1928, gage height, 10.62 ft (3.237 m), site and datum then in use, from rating curve extended above 11,000 ft³/s (312 m³/s); minimum daily discharge, 14 ft³/s (0.40 m³/s) Nov. 19, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since construction of Buffalo Bill Reservoir in 1909, 18,700 ft³/s (530 m³/s) June 15, 1918, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) July 15, gage height, 5.52 ft (1.682 m); minimum daily, 490 ft³/s (13.9 m³/s) Dec. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	880	564	820	856	528	523	833	1140	1490	1410	1310	787
2	873	558	813	856	527	523	834	1240	1500	1410	1250	794
3	880	554	820	856	523	523	835	1270	1500	1410	1260	794
4	894	557	826	855	524	522	837	1280	1490	1410	1250	794
5	880	557	833	855	523	519	833	1290	1500	1390	1240	794
6	880	555	866	852	526	520	834	1290	1490	1400	1220	794
7	880	556	862	854	525	520	833	1280	1500	1390	1230	807
8	880	556	860	852	527	524	831	1260	1490	1390	1200	820
9	873	700	858	851	524	523	836	910	1500	1380	1180	860
10	880	869	858	853	524	521	833	1110	1500	1390	1160	921
11	873	873	862	854	524	521	832	1240	1510	1420	1180	935
12	873	873	856	852	524	520	830	1240	1510	1380	1160	935
13	662	840	655	849	525	523	831	1350	1480	1380	1110	953
14	557	813	490	851	525	523	830	1410	1410	1420	1070	974
15	557	813	660	851	525	524	831	1410	1420	1480	996	976
16	557	813	866	851	524	523	831	1420	1370	1550	928	978
17	775	820	862	850	523	525	812	1410	1360	1510	907	974
18	880	813	863	849	524	520	830	1420	1380	1490	914	974
19	873	813	862	854	524	562	829	1420	1390	1500	907	973
20	880	813	867	850	524	619	851	1420	1390	1510	866	980
21	873	813	867	854	525	738	848	1400	1410	1510	813	980
22	873	813	868	850	523	825	886	1390	1400	1520	813	980
23	873	820	864	847	524	822	977	1440	1410	1510	807	980
24	873	833	865	848	521	828	976	1480	1420	1520	807	980
25	866	873	860	851	521	825	977	1480	1430	1470	800	980
26	873	860	859	847	523	822	977	1490	1390	1500	800	980
27	866	840	861	848	523	826	1040	1490	1400	1500	794	988
28	866	800	858	786	522	835	1100	1510	1390	1510	800	988
29	866	813	857	568	---	837	1100	1510	1400	1510	787	980
30	691	813	858	528	---	836	1100	1510	1410	1480	794	980
31	572	---	855	527	---	836	---	1500	---	1400	794	---
TOTAL	25379	22588	25731	25405	14675	19608	26627	42010	43240	45050	31147	27633
MEAN	819	753	830	820	524	633	888	1355	1441	1453	1005	921
MAX	894	873	868	856	528	837	1100	1510	1510	1550	1310	988
MIN	557	554	490	527	521	519	812	910	1360	1380	787	787
AC-FT	50340	44800	51040	50390	29110	38890	52810	83330	85770	89360	61780	54810
CAL YR 1978 TOTAL	453712			1243	MAX 7830	MIN 194	AC-FT 899900					
WTR YR 1979 TOTAL	349093			956	MAX 1550	MIN 490	AC-FT 692400					

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-49, 1965 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1947 to September 1949, April 1976 to September 1979 (discontinued).

INSTRUMENTATION.--Temperature recorder since April 1976.

REMARKS.--No temperature record Oct. 1, 2, Feb. 17-24, June 15 to July 1; clock stopped.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 20.5°C Sept. 5-7, 1977; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 18.0°C Sept. 6-8; minimum recorded, 3.5°C Dec. 21.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT									
15...	1530	552	550	6.4	15.0	9.2	K2	250	94
NOV									
12...	1545	873	360	6.5	7.0	--	--	160	37
JAN									
10...	1500	860	430	6.9	4.0	--	--	180	32
FEB									
04...	1515	524	630	7.1	5.0	--	--	250	53
MAR									
18...	1645	519	750	6.6	8.0	--	--	350	160
APR									
18...	1520	833	480	6.5	9.0	--	--	180	41
JUN									
13...	1315	1540	340	6.5	12.0	--	--	130	40
JUL									
22...	1215	1520	235	6.5	14.0	--	--	92	12
AUG									
23...	1700	800	440	6.9	17.0	--	--	170	55

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)
OCT									
15...	70	15	17	.5	2.9	190	0	160	120
NOV									
12...	48	9.8	15	.5	2.3	150	0	120	68
JAN									
10...	51	12	20	.7	3.0	180	0	150	75
FEB									
04...	76	15	27	.7	3.5	240	0	200	100
MAR									
18...	110	18	28	.7	3.5	230	0	190	190
APR									
18...	51	12	25	.8	2.2	170	0	140	83
JUN									
13...	38	7.9	14	.5	1.5	110	0	90	69
JUL									
22...	27	6.0	10	.5	1.9	98	0	80	31
AUG									
23...	50	12	20	.7	2.8	140	0	120	99

YELLOWSTONE RIVER BASIN

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 15...	1.1	.5	12	333	.45	496	.09	.05
NOV 12...	.0	.4	7.7	224	.30	528	.18	.18
JAN 10...	4.4	.4	15	269	.37	625	.16	.03
FEB 04...	14	.5	14	374	.51	529	.09	.03
MAR 18...	4.2	.6	13	488	.66	684	.14	.02
APR 18...	2.4	.4	11	270	.37	607	.07	.03
JUN 13...	.0	.3	13	196	.27	815	.07	.04
JUL 22...	2.6	.2	13	140	.19	575	.05	.04
AUG 23...	1.7	.4	14	269	.37	581	.05	.11

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 13...	1315	.0	5	.00	.0	.0	0	.00	.0	.00	.0

DATE	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN, TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
JUN 13...	.00	.0	.00	.00	.0	.00	.00	.00	.0	.00	.00

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
JUN 13...	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 13...	.00	0	0	.00	.03	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 13...	.00	0	.00	0

YELLOWSTONE RIVER BASIN

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY

LOCATION.--Lat 44°34'37", long 108°58'18", in SE¼NW¼NW¼ sec.13, T.53 N., R.101 W., Park County, Hydrologic Unit 10080014, 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.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CACU3)
OCT										
15...	1445	632	590	8.5	15.0	4	12.4	K8	270	93
NOV										
12...	1500	890	500	7.9	5.0	6	11.8	24	200	96
DEC										
10...	1515	848	520	7.8	5.0	--	11.6	K10	220	69
JAN										
10...	1415	800	520	7.7	2.0	3	11.8	37	200	47
FEB										
04...	1440	580	700	8.2	3.0	2	12.4	--	290	90
MAR										
18...	1530	580	800	8.2	6.5	35	11.6	K7	320	110
APR										
18...	1400	800	580	7.9	11.0	30	11.2	27	200	65
JUN										
13...	1200	1260	320	7.4	14.0	10	10.2	33	120	33
JUL										
22...	1115	1340	430	7.7	19.5	10	6.5	--	140	3
AUG										
23...	1610	920	530	8.0	18.0	25	9.8	52	200	64

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
15...	75	19	35	.9	--	4.4	210	0	170	150
NOV										
12...	58	14	30	.9	--	2.9	130	0	110	120
DEC										
10...	62	15	29	.9	--	3.5	180	0	150	120
JAN										
10...	58	14	37	1.1	--	3.5	190	0	160	120
FEB										
04...	85	20	43	1.1	--	4.2	250	0	210	180
MAR										
18...	89	23	58	1.4	--	4.5	250	0	210	220
APR										
18...	57	15	35	1.1	38	3.2	170	0	140	120
JUN										
13...	35	8.7	19	.7	21	2.3	110	0	90	64
JUL										
22...	39	11	39	1.4	43	4.1	170	0	140	93
AUG										
23...	55	14	32	1.0	35	2.8	160	0	130	150

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIU2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 15...	4.7	.5	16	409	.56	698	.25	.04	--	--
NOV 12...	6.6	.3	15	312	.42	750	.21	.08	--	--
DEC 10...	3.6	.3	14	337	.46	772	.15	.06	--	--
JAN 10...	3.6	.3	18	349	.47	754	.26	.04	--	--
FEB 04...	4.8	.4	16	478	.65	749	.19	.05	--	--
MAR 18...	6.5	.5	15	540	.73	846	.13	.03	--	--
APR 18...	4.0	.4	13	332	.45	717	.12	.07	.21	.21
JUN 13...	2.5	.3	13	199	.27	677	.06	.04	.12	.12
JUL 22...	2.7	.4	19	292	.40	1060	.06	.13	--	.40
AUG 23...	3.4	.3	32	369	.50	917	.22	.10	--	.31

06284200 SHOSHONE RIVER AT WILLWOOD, WY

LOCATION.--Lat 44°42'32", long 108°45'31", in NW¼NE¼NE¼ sec.34, T.55 N., R.99 W., Park County, Hydrologic Unit 10080014, on left bank 25 ft (8 m) downstream from bridge on State Secondary Highway 1505, 0.7 mi (1.1 km) north of Willwood, and 3.0 mi (4.8 km) south of Powell.

DRAINAGE AREA.--1,980 mi² (5,128 km²).

PERIOD OF RECORD.--April 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,300 ft (1,311 m), from topographic map.

REMARKS.--Records good except those for October and January, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Diversions above station for irrigation of about 92,500 acres (374 km²), of which about 46,800 acres (189 km²) are below station.

AVERAGE DISCHARGE.--5 years (water years 1975-79), 889 ft³/s (25.18 m³/s), 644,100 acre-ft/yr (794 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s (343 m³/s) June 20, 1974, gage height, 10.43 ft (3.179 m); minimum daily, 95 ft³/s (2.69 m³/s) May 27, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft³/s (43.3 m³/s) May 8, gage height, 5.53 ft (1.686 m); maximum gage height, 6.59 ft (2.009 m) Jan. 18 (backwater from ice); minimum daily discharge, 415 ft³/s (11.8 m³/s) May 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	876	974	1100	1050	580	685	897	415	1050	679	560	560
2	876	967	1110	1030	600	655	897	482	1070	643	472	565
3	862	960	1120	1020	600	655	890	589	1120	631	472	565
4	862	960	1150	1010	600	655	883	583	1080	655	532	532
5	848	946	1110	1000	610	649	883	625	988	637	565	466
6	820	918	1150	1000	620	692	897	625	939	625	548	482
7	834	911	1150	1000	625	827	904	589	960	625	554	504
8	827	918	1150	1000	625	799	897	876	953	577	583	526
9	820	946	1150	1000	625	679	897	834	960	554	589	548
10	813	1170	1150	1000	631	667	925	521	932	521	613	589
11	820	1210	1150	1000	643	698	911	516	827	526	667	589
12	813	1210	1140	1000	667	724	890	482	771	516	718	595
13	744	1200	1050	1000	757	698	897	435	704	516	841	583
14	543	1130	806	1000	744	679	897	577	526	532	834	601
15	554	1130	813	1000	637	685	897	613	538	583	956	613
16	560	1130	1130	1000	692	692	764	583	526	685	704	595
17	676	1130	1180	980	704	685	890	565	532	679	673	583
18	911	1130	1130	980	637	661	711	554	613	643	679	554
19	918	1130	1130	970	643	655	589	521	711	673	757	538
20	1060	1120	1130	960	643	692	711	560	757	637	750	538
21	1170	1120	1120	953	643	792	577	526	834	625	679	554
22	1160	1120	1130	946	637	897	516	420	890	619	711	548
23	1270	1110	1130	946	637	897	560	472	939	631	704	538
24	1300	1110	1130	946	637	904	516	488	967	601	698	571
25	1320	1140	1120	925	643	911	466	589	946	601	649	607
26	1320	1150	1100	925	643	904	440	595	883	577	613	637
27	1320	1130	1100	920	661	897	482	631	820	613	589	649
28	1260	1090	1070	820	685	918	543	661	744	649	625	637
29	1290	1110	1080	620	---	918	494	862	685	685	637	631
30	1210	1110	1070	550	---	911	460	1000	685	692	601	619
31	974	---	1060	560	---	904	---	1020	---	637	554	---
TOTAL	29631	32380	34109	29111	18069	23685	22181	18809	24950	19067	20127	17117
MEAN	956	1079	1100	939	645	764	739	607	832	615	649	571
MAX	1320	1210	1180	1050	757	918	925	1020	1120	692	956	649
MIN	543	911	806	550	580	649	440	415	526	516	472	466
AC-FT	58770	64230	67660	57740	35840	46980	44000	37310	49490	37820	39920	33950
CAL YR 1978	TOTAL	414803	MEAN	1136	MAX	6630	MIN	290	AC-FT	822800		
WTR YR 1979	TOTAL	289236	MEAN	792	MAX	1320	MIN	415	AC-FT	573700		

06284400 SHOSHONE RIVER NEAR GARLAND, WY

LOCATION.--Lat 44°44'20", long 108°35'38", in SE¼SE¼ sec.13, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, on right bank 50 ft (15 m) downstream from bridge on county road, 600 ft (183 m) downstream from Penrose Dam, 1.3 mi (2.1 km) upstream from Bitter Creek, 4.3 mi (6.9 km) southeast of Garland, and 8.0 mi (12.9 km) east of Powell.

DRAINAGE AREA.--2,036 mi² (5,273 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 4,073.67 ft (1,241.655 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 12, 1965, at site 50 ft (15 m) upstream at present datum. Nov. 12, 1965, to June 13, 1968, at site 150 ft (46 m) upstream at datum 3.64 ft (1.109 m) higher.

REMARKS.--Records good except those for November to February, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Diversions above station for irrigation of about 143,000 acres (579 km²), of which about 37,000 acres (150 km²) are below station.

AVERAGE DISCHARGE.--21 years, 682 ft³/s (19.31 m³/s), 494,100 acre-ft/yr (609 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s (377 m³/s) July 1, 1967, gage height, 8.76 ft (2.670 m), from floodmark, site and datum then in use; minimum daily, 5.0 ft³/s (0.14 m³/s) May 25, 26, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft³/s (35.1 m³/s) May 8, gage height, 5.40 ft (1.646 m); maximum gage height, 7.05 ft (2.149 m) Dec. 3 (backwater from ice); minimum daily discharge, 69 ft³/s (1.95 m³/s) May 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	576	594	860	850	600	688	874	199	702	286	256	242
2	582	636	860	850	600	654	874	252	709	263	169	252
3	576	630	860	850	610	648	866	330	746	256	169	256
4	576	642	860	850	630	648	866	314	709	278	214	220
5	570	630	860	850	640	648	858	314	606	278	260	157
6	540	594	860	840	660	688	908	298	558	256	242	160
7	546	582	860	840	680	842	944	270	582	252	229	169
8	546	594	860	840	700	944	935	483	546	208	270	196
9	546	588	860	840	710	762	917	660	552	181	290	214
10	540	730	860	840	700	709	953	203	540	124	318	263
11	540	800	860	840	700	762	944	160	450	129	338	246
12	540	860	860	840	720	802	926	166	368	103	382	256
13	525	890	860	840	760	738	926	96	306	112	525	249
14	294	880	860	850	818	674	926	229	166	122	530	266
15	286	870	640	850	630	680	926	229	163	178	660	274
16	286	840	760	840	667	690	716	211	193	238	520	263
17	318	840	870	830	716	680	826	205	214	274	445	246
18	540	840	880	820	660	660	582	169	266	242	426	226
19	552	840	890	810	660	618	515	145	368	263	510	208
20	642	840	900	810	660	674	606	166	377	252	520	217
21	826	850	890	800	660	754	460	160	404	238	445	246
22	818	860	880	800	654	866	306	69	455	256	450	249
23	882	860	880	800	654	874	342	82	480	274	431	246
24	890	860	880	800	654	890	372	82	510	266	404	286
25	908	860	880	800	636	899	290	163	485	252	364	310
26	908	860	880	800	636	862	232	184	422	260	322	326
27	890	860	870	800	660	874	256	226	372	322	298	330
28	882	860	870	800	681	890	286	274	334	342	302	322
29	882	860	860	780	---	899	249	465	294	386	314	334
30	826	860	860	740	---	890	238	702	290	408	290	354
31	582	---	860	640	---	882	---	654	---	346	238	---
TOTAL	19415	23310	26390	25340	18756	23809	19919	8160	13167	7645	11131	7583
MEAN	626	777	851	817	670	768	664	263	439	247	359	253
MAX	908	890	900	850	818	944	953	702	746	408	660	354
MIN	286	582	640	640	600	618	232	69	163	103	169	157
AC-FT	38510	46240	52340	50260	37200	47230	39510	16190	26120	15160	22080	15040
CAL YR 1978 TOTAL	341443				5780	MIN 58	AC-FT 677300					
WTR YR 1979 TOTAL	204625				953	MIN 69	AC-FT 405900					

YELLOWSTONE RIVER BASIN

06284400 SHOSHONE RIVER NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT					
02...	1300	--	582	600	12.0
30...	1145	--	866	600	8.0
DEC					
06...	1130	860	--	800	.5
FEB					
13...	1230	760	--	1000	1.0
MAR					
07...	1215	--	738	750	6.0
APR					
06...	1000	--	926	710	8.0
MAY					
23...	1235	--	132	660	19.0
JUN					
11...	1050	--	480	440	20.5
JUL					
02...	1600	--	242	510	20.5
31...	1310	--	390	550	17.5
SEP					
05...	1515	--	137	650	19.0

06284500 BITTER CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼SW¼SW¼ sec.7, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 100 ft (30 m) downstream from bridge on county road, 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1950 to December 1953, October 1957 to September 1960, October 1968 to current year.

REVISED RECORDS.--WSP 1709: Drainage area. WRD WY 1975: 1960(M), 1969(M), 1973(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft (1,244 m), from topographic map.

REMARKS.--Records good except those for November to March, which are poor. Flow is mainly return flow from Garland Canal system of Shoshone irrigation project.

AVERAGE DISCHARGE.--17 years (water years 1951-53, 1958-60, 1969-79), 144 ft³/s (4.078 m³/s), 104,300 acre-ft/yr (129 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s (34.8 m³/s) July 4, 1975, gage height, 4.74 ft (1.445 m), from rating curve extended above 580 ft³/s (16.4 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s (0.014 m³/s) Jan. 30 to Feb. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 412 ft³/s (11.7 m³/s) Aug. 13, gage height, 2.68 ft (0.817 m); maximum gage height, 4.81 ft (1.466 m) Feb. 15 (backwater from ice); minimum daily discharge, 17 ft³/s (0.48 m³/s) Jan. 7.

CORRECTION.--The average discharge for water years 1951-53, 1958-60, 1969-78 is 105,100 acre-ft/yr (130 hm³/yr), superseding figures in the 1978 report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	44	40	22	18	39	25	197	265	231	275	198
2	241	43	37	23	19	36	24	241	254	226	270	185
3	233	42	34	24	19	30	24	255	250	214	285	191
4	224	41	35	25	20	29	23	237	239	236	291	178
5	213	40	37	23	22	27	24	231	240	234	294	175
6	214	40	35	20	24	29	24	237	229	235	283	183
7	208	40	34	17	27	40	24	252	242	224	264	175
8	194	39	32	18	27	43	22	265	231	230	283	166
9	187	40	32	20	24	56	23	94	224	220	254	176
10	187	34	33	21	25	44	25	132	228	206	251	197
11	183	33	33	22	27	51	23	189	231	207	270	221
12	181	34	36	22	29	56	21	209	231	229	300	231
13	189	38	34	20	32	53	21	231	227	236	363	235
14	174	36	33	18	36	51	21	237	223	222	320	248
15	119	36	33	19	34	53	20	206	233	219	294	250
16	75	38	34	19	32	56	20	205	256	236	221	275
17	67	36	34	19	30	58	20	210	277	230	212	275
18	81	37	35	20	32	51	20	211	290	220	207	248
19	78	36	38	20	35	45	40	211	298	224	228	242
20	72	35	35	20	37	41	80	221	304	227	238	232
21	55	34	35	21	36	41	105	236	297	230	224	236
22	50	36	37	22	34	38	116	226	290	241	200	236
23	50	36	38	20	30	38	141	225	285	234	192	258
24	49	37	39	20	25	38	182	238	276	230	192	262
25	48	38	34	21	25	38	169	253	271	240	196	227
26	46	39	32	22	25	33	175	259	269	252	203	200
27	45	41	32	21	28	33	176	274	268	260	216	193
28	44	42	32	21	32	31	147	304	250	260	221	193
29	44	44	28	20	---	30	181	339	240	285	192	194
30	43	42	25	19	---	30	184	321	241	282	185	192
31	44	---	22	18	---	28	---	309	---	280	194	---
TOTAL	3882	1151	1048	637	784	1266	2100	7255	7659	7300	7618	6472
MEAN	125	38.4	33.8	20.5	28.0	40.8	70.0	234	255	235	246	216
MAX	244	44	40	25	37	58	184	339	304	285	363	275
MIN	43	33	22	17	18	27	20	94	223	206	185	166
AC-FT	7700	2280	2080	1260	1560	2510	4170	14390	15190	14480	15110	12840
CAL YR 1978	TOTAL	49499	MEAN 136	MAX 393	MIN 13	AC-FT 98180						
WTR YR 1979	TOTAL	47172	MEAN 129	MAX 363	MIN 17	AC-FT 93570						

YELLOWSTONE RIVER BASIN

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at bridge on county road 100 ft (30 m) upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1958-61, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to current year.

WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,150 micromhos Dec. 12, 1972; minimum daily, 451 micromhos July 9, 1978.

WATER TEMPERATURES: Maximum, 26.0°C July 21, 1977; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,220 micromhos Jan. 14, 15; minimum daily, 598 micromhos May 3.

WATER TEMPERATURES: Maximum, 25.0°C July 20; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT											
15...	1245	--	110	950	8.8	10.0	14.0	K60	280	52	74
NOV											
12...	1315	34	--	1450	8.6	.0	13.0	K390	350	67	89
DEC											
10...	1330	33	--	1650	8.2	.0	--	--	370	71	94
JAN											
10...	1200	21	--	1500	8.0	.0	--	--	350	120	86
FEB											
04...	1300	20	--	1600	8.0	.0	--	--	350	67	89
MAR											
18...	1330	--	44	1600	8.5	5.5	--	--	330	110	86
APR											
18...	1230	--	20	1800	8.7	15.5	--	--	350	38	85
JUN											
13...	1015	--	244	700	8.1	15.0	--	--	200	41	54
JUL											
22...	1000	241	--	750	8.0	16.0	--	--	210	25	56
AUG											
23...	1415	--	189	870	8.3	19.0	--	--	250	46	66

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
15...	24	120	3.1	--	3.7	270	6	230	280	9.1
NOV										
12...	32	240	5.6	--	4.5	350	0	290	540	18
DEC										
10...	34	240	5.4	--	5.2	370	0	300	540	21
JAN										
10...	34	230	5.3	240	5.5	290	0	240	--	22
FEB										
04...	32	230	5.3	--	4.7	350	0	290	520	21
MAR										
18...	29	240	5.7	--	5.0	270	0	220	560	24
APR										
18...	34	260	6.0	--	4.0	320	31	310	540	21
JUN										
13...	17	82	2.5	--	3.2	200	0	160	190	6.7
JUL										
22...	18	89	2.6	93	3.7	230	0	190	210	7.0
AUG										
23...	21	99	2.7	100	3.0	250	0	210	250	7.4

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 15...	.9	15	676	.92	201	2.3	.07	--	--	.05
NOV 12...	1.0	18	1130	1.54	104	4.3	.15	--	--	.15
DEC 10...	1.1	18	1160	1.58	103	4.5	.50	--	--	.36
JAN 10...	1.1	--	--	--	--	4.4	.66	--	2.0	.00
FEB 04...	1.0	19	1110	1.51	59.9	4.0	.56	--	--	.53
MAR 18...	.8	12	1100	1.50	131	2.9	.19	--	--	.18
APR 18...	1.1	7.1	1150	1.56	62.1	2.8	.32	.98	.98	.31
JUN 13...	.6	15	478	.65	315	2.4	.10	.31	.31	.10
JUL 22...	.7	18	527	.72	343	2.5	.37	--	1.1	.14
AUG 23...	.7	18	601	.82	307	2.9	.20	--	.61	.03

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	736	1430	1580	1620	1540	1560	1400	630	696	706	706	900
2	733	1380	1460	1620	1540	1600	1420	615	701	715	694	906
3	844	1420	1640	1550	1540	1620	1650	598	679	721	738	926
4	765	1400	1600	1580	1480	1600	1660	639	696	731	742	926
5	787	1360	1570	1630	1480	1590	1560	610	709	713	735	942
6	773	1400	1590	1630	1490	1650	1640	619	693	694	743	952
7	795	1400	1530	1650	1450	1660	1470	635	690	726	709	952
8	789	1410	1570	1580	1470	1260	1460	1060	698	715	754	939
9	792	1430	1570	1520	1530	1260	1600	821	704	753	759	939
10	790	1330	1580	1550	1520	1520	1620	816	682	737	712	782
11	794	1310	1550	2020	1510	1580	1640	748	740	728	743	805
12	814	1300	1520	1900	1520	1560	1650	723	683	731	704	805
13	789	1550	1550	2170	1500	1640	1560	704	726	654	734	759
14	847	1540	1530	2220	1560	1560	1530	665	703	742	751	759
15	1030	1570	1560	2220	1550	1570	1510	724	700	745	774	765
16	1080	1540	1580	1540	1620	1570	1600	721	694	698	788	759
17	1230	1470	1540	1600	1620	1580	1630	729	657	751	832	781
18	1100	1520	1580	1310	1550	1490	1620	727	676	756	843	789
19	1080	1520	1620	1530	1520	1460	1270	727	662	762	803	789
20	1080	1570	1650	1550	1520	1520	898	704	657	795	800	794
21	1240	1600	1660	1520	1520	1510	887	749	662	718	820	792
22	1280	1590	1660	1280	1670	1460	786	759	684	684	825	783
23	1340	1600	1530	1550	1690	1450	688	731	692	740	817	778
24	1270	1620	1560	1520	1620	1430	688	747	638	751	806	795
25	1250	1630	1480	1510	1590	1400	685	702	662	754	812	812
26	1240	1620	1560	1500	1490	1440	676	683	665	756	820	840
27	1270	1460	1600	1490	1480	1430	682	704	681	707	806	829
28	1300	1560	1620	1520	1560	1420	700	646	692	696	800	813
29	1380	1590	1790	1580	---	1430	682	635	714	707	822	807
30	1240	1600	1560	1550	---	1370	717	682	671	696	789	819
31	1410	---	1580	1550	---	1420	---	668	---	714	814	---
MEAN	1030	1490	1580	1630	1540	1500	1250	707	687	726	774	835
WTR YR 1979	MEAN	1140	MAX	2220	MIN	598						

YELLOWSTONE RIVER BASIN

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.5	5.0	1.0	.0	.0	1.0	8.0	10.5	18.0	22.0	22.0	18.0
2	12.0	9.5	1.0	.0	.0	2.5	9.5	9.5	18.0	25.0	22.0	18.0
3	12.5	11.0	1.0	.0	.0	3.0	8.0	14.0	18.5	24.5	22.5	20.0
4	14.5	6.0	2.0	.0	.0	3.0	8.5	13.5	21.0	24.0	24.0	20.5
5	14.5	5.5	.0	.0	.0	3.5	14.5	10.5	21.5	24.0	23.5	19.5
6	15.0	6.5	.5	.0	.0	3.0	16.5	11.0	14.0	24.5	20.0	21.0
7	13.0	9.0	.5	.0	.0	4.0	10.0	14.5	14.5	24.5	19.0	20.5
8	13.0	10.0	.0	.0	.0	4.5	16.0	4.0	16.5	23.0	21.0	20.0
9	11.0	5.0	.5	.0	.0	4.0	15.5	5.5	16.5	23.5	21.0	20.5
10	10.0	1.0	1.0	.0	.0	3.0	7.0	14.5	18.0	23.0	21.0	18.0
11	15.0	1.0	1.0	.0	.0	8.5	5.5	10.0	19.0	23.0	20.0	17.5
12	10.0	1.0	1.0	.0	.0	6.0	4.5	14.5	24.0	22.0	16.5	18.5
13	8.0	2.0	1.0	.0	.0	2.5	7.0	17.0	22.5	16.5	16.0	18.0
14	8.0	1.0	.5	.0	.0	3.5	8.5	15.0	20.5	23.0	19.0	17.0
15	13.0	.5	1.0	.0	.0	4.5	17.0	11.5	19.5	21.5	20.0	14.0
16	9.5	.5	1.0	.0	.0	4.5	10.0	13.0	17.5	17.0	19.0	19.5
17	10.0	1.0	1.0	.0	.0	5.5	18.0	14.0	19.0	23.0	22.0	19.0
18	8.0	.5	.5	.0	.0	4.5	15.5	15.0	15.5	24.5	18.5	20.0
19	8.5	.5	1.0	.0	.0	5.5	13.0	14.5	14.5	24.0	14.5	20.5
20	14.0	1.0	1.0	.0	.0	7.5	13.0	10.0	16.0	25.0	15.0	19.0
21	15.0	1.5	1.0	.0	.0	10.0	15.0	18.5	20.5	18.0	17.5	18.0
22	8.0	1.0	.5	.0	.0	7.5	16.5	18.5	21.0	16.0	21.5	18.5
23	7.5	.5	.5	.0	.0	10.5	10.0	21.5	20.5	23.0	21.5	18.0
24	10.5	.5	1.0	.0	.0	11.0	10.5	17.0	21.0	23.0	21.5	19.0
25	13.5	.5	1.0	.0	.0	7.0	14.0	17.0	21.0	22.5	21.0	19.5
26	14.0	.5	1.0	.0	.0	11.5	12.0	21.5	20.0	22.0	17.0	17.0
27	10.5	1.5	.5	.0	.0	10.0	14.0	19.0	20.0	21.0	20.0	17.0
28	12.0	3.0	.5	.0	.0	10.5	14.5	11.5	23.0	20.5	20.5	17.5
29	6.0	1.0	.5	.0	---	9.0	14.5	10.0	21.5	20.0	16.0	17.5
30	9.0	1.5	1.0	.0	---	9.0	15.0	13.0	18.0	19.0	20.0	15.0
31	4.5	---	.5	.0	---	10.0	---	14.5	---	22.0	18.0	---
MEAN	11.0	3.0	1.0	.0	.0	6.0	12.0	13.5	19.0	22.0	19.5	18.5
WTR YR 1979	MEAN	10.5		MAX	25.0		MIN	.0				

06284800 WHISTLE CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°43'21", long 108°34'16", in NW¼NW¼NE¼ sec.30, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,150 ft (1,265 m), from topographic map. Prior to May 31, 1960, at different datum.

REMARKS.--Records good except those for November to March, which are poor. Part of flow is return flow from areas irrigated by diversions from the Shoshone River.

AVERAGE DISCHARGE.--12 years (water years 1959, 1969-79), 28.1 ft³/s (0.796 m³/s), 20,360 acre-ft/yr (25.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft³/s (135 m³/s) July 3, 1975, gage height, 12.44 ft (3.792 m), from floodmarks, on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft³/s (0.001 m³/s) Jan. 12, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1961, reached a discharge of 4,260 ft³/s (121 m³/s), at site 6.5 mi (10.5 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 908 ft³/s (25.7 m³/s) Aug. 20, gage height, 4.52 ft (1.378 m); minimum daily, 0.45 ft³/s (0.013 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	2.8	2.2	.60	.50	1.2	5.1	45	49	48	44	36
2	39	2.8	2.1	.63	.54	1.1	3.4	49	59	44	41	46
3	38	2.8	2.0	.68	.54	1.1	3.1	48	58	51	48	46
4	38	2.8	2.1	.74	.56	1.2	2.8	49	56	49	52	46
5	45	2.5	2.2	.64	.56	1.4	2.8	43	51	52	55	32
6	44	2.5	2.1	.51	.59	1.7	3.4	44	49	48	61	38
7	39	2.5	2.1	.45	.65	2.8	3.7	43	49	41	56	32
8	38	2.5	2.0	.48	.60	5.0	5.9	45	44	46	55	23
9	34	3.4	1.8	.50	.58	4.1	4.7	73	46	48	55	24
10	33	1.8	1.8	.54	.61	3.5	11	82	46	46	55	26
11	29	1.8	1.9	.60	.62	4.0	33	75	49	43	62	28
12	32	2.0	2.0	.60	.64	5.3	12	64	43	35	61	35
13	38	2.1	1.8	.56	.66	8.0	5.9	46	40	39	61	36
14	52	2.0	1.6	.50	.72	7.4	5.1	45	45	38	64	36
15	52	1.8	1.7	.53	.68	8.0	5.1	38	52	41	58	36
16	51	1.7	1.7	.57	.62	10	4.7	46	52	44	72	38
17	52	1.8	1.7	.57	.62	15	4.7	45	51	44	51	40
18	48	1.9	1.8	.60	.68	14	4.7	48	56	41	48	36
19	52	1.8	1.9	.60	.72	12	12	38	52	48	67	43
20	55	1.8	1.7	.60	.86	9.8	34	45	55	48	141	36
21	55	1.8	1.6	.63	.80	10	40	45	53	49	87	35
22	45	1.8	1.7	.66	.80	12	40	39	51	51	62	43
23	51	1.8	1.8	.60	.76	10	41	35	51	51	52	55
24	22	1.9	1.8	.60	.75	11	44	35	49	45	44	52
25	5.5	1.9	1.6	.62	.75	13	39	36	49	51	40	49
26	4.0	1.9	1.5	.64	.80	11	39	38	49	49	48	43
27	3.7	2.0	1.4	.60	.90	8.8	48	41	56	53	58	40
28	3.4	2.1	1.0	.60	1.2	8.8	45	46	53	53	53	40
29	3.4	2.2	.81	.56	---	8.3	43	80	58	58	40	43
30	3.1	2.2	.60	.52	---	7.8	46	251	51	55	30	45
31	2.8	---	.55	.48	---	6.3	---	51	---	46	32	---
TOTAL	1046.9	64.7	52.56	18.01	19.31	223.6	592.1	1708	1522	1455	1753	1158
MEAN	33.8	2.16	1.70	.58	.69	7.21	19.7	55.1	50.7	46.9	56.5	38.6
MAX	55	3.4	2.2	.74	1.2	15	48	251	59	58	141	55
MIN	2.8	1.7	.55	.45	.50	1.1	2.8	35	40	35	30	23
AC-FT	2080	128	104	36	38	444	1170	3390	3020	2890	3480	2300
CAL YR 1978 TOTAL	12434.57			MEAN 34.1	MAX 1230	MIN .55	AC-FT 24660					
WTR YR 1979 TOTAL	9613.18			MEAN 26.3	MAX 251	MIN .45	AC-FT 19070					

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to current year.

WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 12,300 micromhos Jan. 10, 1970; minimum daily, 279 micromhos Feb. 28, 1975.

WATER TEMPERATURES: Maximum, 30.0°C July 21, 1977; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 5,580 micromhos Jan. 13; minimum daily, 374 micromhos June 13.

WATER TEMPERATURES: Maximum, 29.0°C June 28; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT										
15...	1330	--	55	625	8.6	10.0	230	86	64	18
NOV										
12...	1400	2.0	--	4500	7.9	.0	810	410	160	100
DEC										
10...	1415	1.8	--	5500	7.9	.0	920	490	170	120
JAN										
10...	1230	.54	--	6200	7.7	.0	1100	530	190	150
MAR										
18...	1430	14	--	1300	8.0	3.5	210	81	57	17
APR										
18...	1300	--	4.0	3500	8.2	18.0	510	220	120	51
JUN										
13...	1100	--	44	410	8.3	18.0	140	44	39	11
JUL										
22...	1400	--	49	670	8.4	23.5	200	66	51	17
AUG										
23...	1500	--	52	700	8.4	23.0	220	80	58	18

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CU3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT										
15...	57	1.6	--	3.7	180	0	150	190	4.5	.4
NOV										
12...	880	13	--	9.4	490	0	400	2300	65	.4
DEC										
10...	930	13	--	12	520	0	430	2300	57	.5
JAN										
10...	1300	17	--	16	680	0	560	3200	58	.4
MAR										
18...	210	6.3	--	4.8	160	0	130	500	14	.3
APR										
18...	570	11	580	9.2	350	0	290	1300	35	.5
JUN										
13...	32	1.2	33	1.3	120	0	98	100	2.9	.3
JUL										
22...	76	2.4	80	3.7	160	0	130	240	6.1	.3
AUG										
23...	63	1.9	66	3.0	170	0	140	230	4.8	.4

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SILICA, DIS- SOLVED (MG/L AS SI O2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 15...	14	441	.60	65.5	.17	.10	--	--	.02
NOV 12...	9.4	3780	5.14	20.4	4.0	.01	--	--	.01
DEC 10...	10	3880	5.28	18.9	4.5	.03	--	--	.03
JAN 10...	13	5290	7.19	7.71	5.7	.03	--	--	.02
MAR 18...	5.4	892	1.21	33.7	.98	2.3	--	--	.02
APR 18...	8.0	2280	3.10	24.6	2.0	7.3	22	22	.02
JUN 13...	12	258	.35	30.7	.10	.15	.46	.46	.02
JUL 22...	13	487	.66	64.4	.21	.19	--	.58	.15
AUG 23...	63	525	.71	73.7	.21	.22	--	.67	.04

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	636	4160	4130	4760	4980	1130	3190	545	740	487	727	680
2	633	4240	3620	4670	4870	838	3300	551	580	477	525	668
3	627	4240	4880	4820	4650	841	4360	604	552	461	623	598
4	659	4250	4600	4490	4980	875	4280	633	544	449	623	598
5	637	4240	4780	5080	5030	876	4580	651	519	456	551	765
6	623	4400	4730	5190	5070	1440	4630	677	601	711	687	834
7	648	4260	4840	5190	5050	1460	4530	640	514	665	538	880
8	671	4230	4750	4870	5190	536	4440	518	545	673	643	828
9	762	4260	4820	4630	5160	528	1970	510	445	671	654	874
10	752	4460	4970	4740	5210	594	3150	541	415	728	676	701
11	665	4640	4880	4740	5280	588	1460	621	405	731	660	811
12	627	4760	4660	4680	4920	530	1440	601	397	750	515	816
13	626	4550	4610	5580	4920	499	3100	657	374	728	788	805
14	809	4680	4720	5520	753	842	2750	778	694	717	750	621
15	840	3480	4810	5240	733	835	3020	745	645	725	989	805
16	777	3410	4700	5130	928	1260	2850	575	683	781	574	627
17	768	4000	4810	5360	942	1260	3380	588	792	696	785	778
18	803	3550	4960	5080	1960	1750	3330	588	510	792	754	797
19	627	3240	4950	5340	1990	1710	3270	541	595	764	594	814
20	639	3330	1470	4960	2820	1740	767	541	497	682	584	819
21	640	3260	3370	5410	2880	1740	564	798	503	660	771	702
22	822	3840	1440	5320	947	2170	857	793	491	676	674	740
23	3180	3590	4760	5430	947	2190	568	1080	616	684	699	735
24	1070	3620	4850	4880	1020	1580	573	1100	600	690	651	727
25	3340	3940	2930	5090	1040	1590	571	644	714	679	654	735
26	3270	4060	4570	5100	1560	2780	806	847	676	673	715	769
27	4030	3690	4640	5000	1520	2850	665	879	681	839	801	783
28	4030	4000	4780	4760	1160	2520	665	665	606	850	654	778
29	4030	4230	4930	4740	---	2740	532	682	476	574	627	772
30	4090	4320	4800	4940	---	2560	532	804	487	660	638	633
31	4150	---	4920	5060	---	2840	---	757	---	675	847	---
MEAN	1500	4030	4410	5030	3090	1470	2340	682	563	671	676	750
WTR YR 1979	MEAN	2090	MAX	5580	MIN	374						

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	2.0	1.0	.0	.0	2.0	8.0	11.0	20.5	25.0	28.0	21.0
2	13.0	2.0	1.0	.0	.0	1.5	11.0	10.5	20.0	20.0	19.0	21.0
3	13.0	2.0	.5	.0	.0	1.0	12.0	14.0	23.5	22.5	27.0	22.0
4	8.0	2.0	1.0	.0	.0	1.0	13.0	14.5	25.0	21.5	27.5	22.5
5	14.5	3.0	1.0	.0	.0	1.0	14.0	11.0	24.5	21.0	26.0	21.5
6	15.0	3.0	.5	.0	.0	1.5	15.5	10.0	17.0	22.0	25.5	24.0
7	8.0	3.0	.5	.0	.0	1.5	9.5	16.0	16.5	22.0	25.0	24.0
8	12.5	3.5	.0	.0	.0	1.5	15.5	3.5	17.5	21.0	26.0	24.0
9	8.5	4.0	.5	.0	.0	1.5	16.0	4.5	19.0	27.0	24.5	24.5
10	8.0	1.0	.0	.0	.0	1.0	7.0	14.0	19.0	27.0	25.0	19.5
11	14.0	.5	.0	.0	.0	2.0	5.5	10.0	22.0	26.5	22.5	19.0
12	7.0	.5	.5	.0	.0	2.0	4.0	16.0	24.0	26.5	19.0	20.0
13	6.0	.5	.5	.0	.0	2.5	6.0	18.5	24.0	25.5	17.0	19.5
14	6.0	.5	.0	.0	.0	3.0	8.0	12.5	25.0	24.5	22.0	19.0
15	5.5	1.0	.0	.0	.0	3.5	16.0	13.0	25.0	24.5	24.5	14.5
16	11.5	.5	.5	.0	.0	3.5	10.0	15.0	20.0	28.0	22.0	22.0
17	13.0	1.0	.0	.0	.0	2.0	18.0	14.0	24.5	27.0	25.0	21.5
18	13.0	.5	.0	.0	.0	1.5	16.0	13.5	19.5	28.0	20.0	22.0
19	12.5	.5	.0	.0	.0	3.5	12.0	13.0	12.0	29.0	17.0	22.5
20	13.0	1.0	.0	.0	.0	3.5	11.5	12.5	18.0	26.0	17.5	21.5
21	12.5	1.0	.5	.0	.0	5.5	14.5	22.5	24.0	21.0	24.0	19.5
22	12.0	.5	.5	.0	.0	2.5	14.5	22.5	24.5	18.0	24.0	20.0
23	10.0	.5	.5	.0	.0	8.0	10.0	23.0	23.5	28.0	25.5	21.0
24	10.0	.5	1.0	.0	.0	9.0	10.5	19.0	24.0	26.0	25.0	21.0
25	11.0	.5	.5	.0	.0	5.0	13.5	20.0	24.0	27.5	23.0	20.5
26	10.5	.5	1.0	.0	.0	10.0	13.0	26.5	23.0	27.0	21.0	19.0
27	5.0	1.5	.5	.0	.0	8.5	14.5	24.0	24.0	24.5	22.0	20.0
28	4.0	2.5	.5	.0	.0	8.5	15.0	12.0	29.0	24.0	14.0	20.5
29	3.5	1.0	.5	.0	---	9.0	10.0	10.5	25.5	24.0	23.0	21.5
30	7.5	1.0	1.0	.0	---	10.5	10.5	15.5	25.0	21.5	22.0	16.5
31	2.0	---	.5	.0	---	10.0	---	16.5	---	27.0	20.5	---
MEAN	10.0	1.5	.5	.0	.0	4.0	12.0	15.0	22.0	24.5	22.5	21.0
WTR YR 1979	MEAN	11.0		MAX	29.0		MIN	.0				

06285100 SHOSHONE RIVER NEAR LOVELL, WY

LOCATION.--Lat 44°50'20", long 108°26'00", in NW¼NW¼ sec.16, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on right bank 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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,850 ft (1,173 m), from topographic map. Prior to Oct. 1, 1976, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair except those for November to February, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Natural flow of stream affected by storage reservoirs, power development, diversions above station for irrigation of about 143,000 acres (579 km²), of which about 8,000 acres (32.4 km²) are below station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--13 years, 1,039 ft³/s (29.42 m³/s), 752,800 acre-ft/yr (928 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft³/s (379 m³/s) July 1, 1967, gage height, 7.49 ft (2.283 m) present datum; maximum gage height, 9.09 ft (2.771 m) Feb. 3, 1972 (backwater from ice) present datum; minimum daily discharge, 27 ft³/s (0.76 m³/s) May 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft³/s (58.3 m³/s) May 30, gage height, 2.89 ft (0.881 m); maximum gage height, 7.11 ft (2.167 m) Feb. 14 (backwater from ice); minimum daily discharge, 184 ft³/s (5.21 m³/s) July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	750	1010	880	660	700	1030	436	1130	589	589	632
2	1090	791	1000	880	660	700	1010	506	1140	513	474	640
3	1080	775	1000	880	620	690	1000	670	1210	513	480	640
4	1030	808	990	880	620	686	994	618	1190	547	540	567
5	1000	800	1000	880	640	678	1000	596	1070	567	610	436
6	958	733	1000	880	660	686	1020	560	967	500	596	430
7	949	709	1010	880	680	817	1030	567	1040	493	526	424
8	940	742	1020	880	700	1270	1020	693	967	430	589	430
9	931	766	1050	870	700	1000	1000	976	949	400	603	461
10	904	922	1060	870	700	852	1050	412	949	326	618	574
11	878	1160	1070	870	700	931	1100	365	843	280	686	589
12	869	1350	1080	870	720	1140	1020	230	694	184	775	640
13	904	1340	1000	870	730	1260	994	343	625	216	1090	647
14	625	1230	700	870	780	1050	985	193	487	220	1140	670
15	567	1260	720	870	760	1130	976	230	412	269	1240	663
16	500	1230	1120	860	680	1370	766	445	500	394	958	670
17	493	1240	1170	860	720	1320	913	468	589	430	766	663
18	834	1180	1200	860	700	1100	694	406	663	371	725	603
19	860	1130	1100	860	680	860	567	354	895	394	958	581
20	949	1140	1020	860	680	895	825	371	967	388	985	574
21	1150	1140	1040	840	680	985	750	442	940	388	1050	603
22	1120	1130	1060	830	680	1130	513	264	985	418	852	625
23	1170	1130	1100	820	680	1130	533	244	1030	480	800	640
24	1210	1120	1020	810	660	1160	632	284	1050	448	958	686
25	1180	1100	980	800	660	1180	547	424	1010	455	913	702
26	1160	1100	970	800	660	1070	461	493	913	493	852	686
27	1160	1080	960	800	670	1080	487	554	843	567	843	686
28	1150	1070	890	800	700	1110	474	694	766	618	852	678
29	1140	1050	880	800	---	1100	474	1180	670	686	808	702
30	1130	1030	880	780	---	1100	474	1530	625	742	750	750
31	750	---	880	720	---	1080	---	1140	---	709	625	---
TOTAL	29791	31006	30980	26230	19140	31260	24339	16688	26119	14028	24251	18292
MEAN	961	1034	999	846	684	1008	811	538	871	453	782	610
MAX	1210	1350	1200	880	780	1370	1100	1530	1210	742	1240	750
MIN	493	709	700	720	620	678	461	193	412	184	474	424
AC-FT	59090	61500	61450	52030	37960	62000	48280	33100	51810	27820	48100	36280
CAL YR 1978	TOTAL	452627	MEAN	1240	MAX	6920	MIN	254	AC-FT	897800		
WTR YR 1979	TOTAL	292124	MEAN	800	MAX	1530	MIN	184	AC-FT	579400		

YELLOWSTONE RIVER BASIN

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06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1966 to current year.

WATER TEMPERATURES: October 1966 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,580 micromhos Apr. 15, 1977; minimum daily, 238 micromhos June 26, 1974.

WATER TEMPERATURES: Maximum, 30.0°C June 6, 1969; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 976 micromhos Mar. 19; minimum daily, 547 micromhos May 9.

WATER TEMPERATURES: Maximum 20.0°C June 22, July 22; minimum, 0.0°C on many days during November to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
03...	1145	--	1040	--	--	10.0	--	--	--	--	--	--
15...	1130	--	567	850	8.4	8.0	--	--	--	300	110	77
31...	1145	--	742	--	--	6.0	--	--	--	--	--	--
NOV												
12...	1130	--	1340	650	8.3	1.0	20	12.2	K170	260	97	70
DEC												
10...	1140	--	1020	710	8.2	.0	20	12.4	K52	260	92	73
15...	1200	--	703	--	--	.5	--	--	--	--	--	--
JAN												
10...	1015	870	--	770	8.0	.0	3	12.8	K28	440	170	120
FEB												
04...	1030	620	--	1200	8.1	.0	3	12.9	52	510	190	140
MAR												
07...	1045	--	758	--	--	4.5	--	--	--	--	--	--
18...	1130	--	1130	910	8.2	4.5	800	12.4	280	280	100	76
APR												
06...	1200	--	1000	--	--	8.5	--	--	--	--	--	--
18...	1045	--	886	820	8.2	11.0	170	10.2	K50	270	100	74
MAY												
24...	1000	--	326	--	--	18.0	--	--	--	--	--	--
JUN												
12...	0915	--	717	--	--	16.0	--	--	--	--	--	--
13...	0900	--	655	660	8.1	16.0	35	8.8	K60	200	65	54
JUL												
02...	1030	--	548	--	--	16.5	--	--	--	--	--	--
22...	0830	--	394	760	8.1	18.0	40	7.5	--	240	63	63
AUG												
02...	1330	--	513	--	--	21.0	--	--	--	--	--	--
09...	1530	--	647	--	--	14.5	--	--	--	--	--	--
23...	1300	--	852	750	8.2	18.0	--	8.8	K120	230	62	61
SEP												
05...	1000	--	448	--	--	14.5	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC=FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. X FINER THAN .062 MM
OCT 03...	--	--	--	--	--	--	--	--	48	135	84
15...	605	.82	926	.79	.02	--	--	.02	--	--	--
31...	--	--	--	--	--	--	--	--	62	124	--
NOV 12...	469	.64	1700	.65	.08	--	--	.01	--	--	--
DEC 10...	495	.67	1360	.69	.10	--	--	.08	--	--	--
15...	--	--	--	--	--	--	--	--	126	239	--
JAN 10...	862	1.17	2020	1.0	.14	--	--	.14	--	--	--
FEB 04...	877	1.19	1470	.93	.06	--	--	.06	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	784	1610	91
18...	580	.79	1770	.63	1.4	--	--	.02	--	--	--
APR 06...	--	--	--	--	--	--	--	--	392	1060	94
18...	482	.66	1150	.24	.23	.71	.71	.03	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	94	83	96
JUN 12...	--	--	--	--	--	--	--	--	208	403	79
13...	424	.58	750	.80	.11	.34	.34	.03	--	--	--
JUL 02...	--	--	--	--	--	--	--	--	144	213	86
22...	514	.70	547	1.2	.19	--	.58	.08	--	--	--
AUG 02...	--	--	--	--	--	--	--	--	108	150	89
09...	--	--	--	--	--	--	--	--	82	143	95
23...	434	.59	998	1.4	.18	--	.55	.05	--	--	--
SEP 05...	--	--	--	--	--	--	--	--	42	51	--

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	720	792	692	685	---	876	789	682	612	695	706	834
2	704	770	623	685	---	876	760	728	595	690	685	817
3	705	773	694	690	---	876	789	662	565	715	770	804
4	701	792	700	693	---	862	772	651	550	725	790	821
5	684	782	674	715	---	849	671	660	556	691	737	817
6	689	785	659	752	---	860	682	691	585	714	740	815
7	707	819	665	770	---	887	711	645	569	714	745	817
8	701	829	668	787	---	811	694	680	572	734	745	807
9	707	841	610	780	---	902	662	547	574	706	708	818
10	709	757	683	748	---	943	685	765	598	831	725	793
11	719	649	662	728	---	936	760	804	583	838	716	762
12	709	684	638	690	---	861	731	771	600	800	708	768
13	726	681	674	646	---	822	662	836	624	762	685	780
14	766	710	773	665	---	879	688	743	689	795	702	764
15	850	741	881	693	---	891	688	756	727	762	679	749
16	885	723	783	707	---	805	671	752	740	762	725	749
17	887	717	691	690	---	786	699	773	718	718	713	741
18	820	712	674	699	---	847	716	792	696	707	722	755
19	723	704	645	682	853	976	857	795	640	720	722	778
20	735	712	668	710	861	945	710	823	651	704	716	775
21	688	705	665	---	857	907	733	781	673	737	786	775
22	715	691	657	---	846	796	820	846	643	723	738	770
23	685	712	668	---	889	855	750	907	618	707	727	755
24	652	697	645	---	870	765	688	841	593	707	733	738
25	667	697	634	---	842	742	716	848	577	701	716	738
26	671	671	691	---	829	765	733	757	597	696	733	749
27	680	682	680	---	840	841	710	762	619	693	762	741
28	651	682	674	---	833	852	730	726	635	712	779	750
29	676	745	677	---	---	852	714	677	662	696	772	741
30	671	743	680	---	---	829	682	706	690	662	793	739
31	712	---	685	---	---	812	---	659	---	685	830	---
MEAN	720	733	681	711	852	855	722	744	625	726	736	775
WTR YR 1979	MEAN	734	MAX	976	MIN	547						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	8.5	.0	.0	---	2.0	5.0	11.0	11.0	16.0	17.0	14.0
2	12.5	9.0	.0	.0	---	2.0	5.5	7.5	10.0	16.0	18.0	16.0
3	11.0	9.5	.0	.5	---	1.0	6.0	8.5	13.0	16.0	17.5	16.0
4	13.0	10.5	.0	.0	---	1.5	5.5	10.5	15.0	18.0	18.0	16.0
5	9.0	8.0	.0	.0	---	2.0	5.0	12.0	16.0	18.5	18.0	16.0
6	10.5	7.0	.0	.0	---	4.0	8.5	10.0	14.0	19.0	18.5	16.0
7	11.0	7.5	.0	.0	---	4.0	8.5	9.0	10.0	17.5	19.0	16.5
8	12.0	7.5	.0	.0	---	4.0	6.0	9.0	10.0	17.5	18.0	17.0
9	12.0	7.0	.0	.0	---	4.0	8.0	6.0	11.0	17.0	17.0	17.0
10	12.0	.0	.0	.0	---	5.0	8.0	6.0	14.0	18.0	17.0	16.0
11	14.5	.0	.5	.0	---	5.0	5.0	9.0	14.0	17.5	17.0	13.0
12	11.0	1.0	.5	.0	---	4.5	4.0	11.0	15.0	18.0	17.5	13.5
13	9.0	1.0	.5	.0	---	4.5	6.0	11.5	17.0	17.5	16.0	13.0
14	10.0	.5	.0	.0	---	4.5	7.0	12.0	17.0	17.0	15.0	11.5
15	9.0	.0	.0	.0	---	4.5	9.0	12.0	15.0	16.0	16.0	11.0
16	11.0	.0	.5	.0	---	5.0	9.0	12.5	14.0	17.0	17.0	13.0
17	11.0	1.0	.0	.0	---	4.0	9.0	12.0	17.0	18.0	17.0	14.5
18	10.5	1.0	1.0	.0	---	4.5	10.0	13.5	16.0	18.0	17.0	13.0
19	11.5	.0	.5	.5	.0	3.5	9.0	13.5	13.0	18.5	17.0	14.0
20	10.5	.0	.0	.5	.0	3.5	9.0	12.0	13.0	19.0	17.0	14.0
21	10.5	.0	.0	---	.0	4.5	8.0	13.0	16.0	18.0	16.0	14.0
22	9.0	.0	.0	---	.0	4.5	10.0	14.0	20.0	20.0	16.0	14.5
23	9.5	.0	1.0	---	.0	4.0	9.0	14.0	16.0	18.5	16.5	14.5
24	9.0	1.0	1.0	---	.0	6.5	8.0	18.0	16.0	19.0	16.5	14.0
25	9.0	1.0	.0	---	.0	5.0	8.0	16.0	16.0	19.0	16.5	14.0
26	9.0	1.0	.5	---	.0	3.5	10.0	16.0	16.0	18.0	16.0	15.0
27	9.5	1.0	.0	---	.0	5.5	8.0	17.0	17.0	18.0	17.0	15.0
28	10.0	1.0	.0	---	.0	4.5	10.0	15.0	16.5	17.0	16.5	15.0
29	10.0	1.0	.0	---	---	6.0	10.0	15.0	18.0	16.0	16.0	13.0
30	9.0	1.5	.0	---	---	7.0	11.0	12.0	18.0	17.0	18.0	14.0
31	8.0	---	.0	---	---	6.0	---	10.0	---	16.0	16.0	---
MEAN	10.5	3.0	.0	.0	.0	4.0	8.0	12.0	15.0	17.5	17.0	14.5
WTR YR 1979	MEAN	9.0	MAX	20.0	MIN	.0						

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEEVER, WY

LOCATION.--Lat 44°53'08", long 108°33'01", in NE¼NE¼NW¼ sec.34, T.57 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map.

REMARKS.--Records good except those for January, February, and May, which are poor. Flow is mostly return flow from land irrigated by canals diverting water from Shoshone River.

AVERAGE DISCHARGE.--12 years (water years 1959, 1969-79), 66.2 ft³/s (1.875 m³/s), 47,960 acre-ft/yr (59.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s (63.7 m³/s) June 8, 1958, gage height, 9.22 ft (2.810 m), from floodmark, from rating curve extended above 500 ft³/s (14.2 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s (0.014 m³/s) Feb. 2-6, Feb. 21 to Mar. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 231 ft³/s (6.54 m³/s) Aug. 13, gage height, 3.81 ft (1.161 m); minimum daily, 13 ft³/s (0.37 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	38	23	17	14	30	36	86	149	100	67	150
2	145	39	24	18	15	27	33	109	137	97	63	144
3	147	39	22	18	15	28	32	106	140	88	63	139
4	150	38	23	18	15	31	32	100	132	81	59	134
5	149	37	25	17	15	34	32	95	125	82	63	131
6	148	36	25	15	15	36	35	95	116	81	64	133
7	145	36	24	13	15	41	36	96	118	83	60	131
8	138	36	23	14	14	45	35	99	116	76	59	116
9	130	39	23	14	16	48	37	103	108	81	64	99
10	124	27	25	14	16	90	36	104	103	64	75	90
11	115	33	25	15	17	83	36	100	97	54	90	88
12	105	33	26	15	17	80	35	90	83	50	106	89
13	108	36	25	14	18	61	32	80	75	55	189	93
14	138	33	25	14	19	81	31	70	78	58	202	98
15	150	31	25	14	20	84	31	50	79	58	197	106
16	127	31	24	14	21	110	30	63	82	62	191	107
17	114	31	24	14	21	123	30	72	82	68	187	110
18	137	31	23	14	22	103	31	74	94	59	187	108
19	152	28	24	14	22	79	30	75	126	59	200	100
20	165	28	24	15	24	65	28	75	142	59	202	101
21	132	28	24	16	30	65	28	75	143	68	188	104
22	55	29	23	16	28	60	99	74	152	72	164	99
23	45	28	23	15	28	57	119	76	159	73	146	92
24	46	28	23	15	28	57	93	77	159	67	138	95
25	42	28	23	16	30	55	114	83	161	68	142	107
26	42	28	24	16	31	40	110	86	156	65	142	118
27	41	28	24	15	28	47	83	87	147	68	142	123
28	41	29	22	15	30	41	72	85	137	62	158	122
29	38	30	21	15	---	45	80	102	137	59	164	122
30	37	29	19	14	---	42	84	122	116	59	157	124
31	37	---	17	14	---	39	---	147	---	67	154	---
TOTAL	3291	965	725	468	584	1847	1540	2756	3649	2143	4083	3373
MEAN	106	32.2	23.4	15.1	20.9	59.6	51.3	88.9	122	69.1	132	112
MAX	165	39	26	18	31	123	119	147	161	100	202	150
MIN	37	27	17	13	14	27	28	50	75	50	59	88
AC-FT	6530	1910	1440	928	1160	3660	3050	5470	7240	4250	8100	6690
CAL YR 1978	TOTAL	28363.0	MEAN	77.7	MAX	370	MIN	9.0	AC-FT	56260		
WTR YR 1979	TOTAL	25424.0	MEAN	69.7	MAX	202	MIN	13	AC-FT	50430		

YELLOWSTONE RIVER BASIN

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEEVER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to current year.

WATER TEMPERATURES: July 1969 to November 1976, September 1977 to current year.

REMARKS.--Daily temperature readings from observer not available Oct. 1 to Nov. 11.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 6,650 micromhos Apr. 26, 1973; minimum daily, 819 micromhos May 4, 1975.

WATER TEMPERATURES: Maximum, 28.5°C July 17, 1974; minimum, 0.0°C on many days during winter period in most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,510 micromhos June 19; minimum daily, 931 micromhos Apr. 26.

WATER TEMPERATURES: Maximum, 28.0°C June 4, 5; minimum observed, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT										
15...	1200	--	155	1050	8.2	7.5	400	220	99	38
NOV										
12...	1220	--	33	2600	8.1	.0	980	660	210	110
DEC										
10...	1230	25	--	3400	7.8	.0	1100	780	230	130
JAN										
10...	1100	14	--	3500	7.8	.0	1100	760	230	130
FEB										
04...	1200	15	--	3400	7.8	.5	1100	760	230	130
MAR										
18...	1215	--	82	1900	8.0	.5	630	450	130	74
APR										
18...	1130	--	31	2300	8.4	13.5	770	510	150	97
JUN										
13...	0930	--	82	1680	8.1	16.0	560	370	120	63
JUL										
22...	0910	--	76	1760	8.0	18.0	620	400	140	65
AUG										
23...	1330	--	143	1290	8.2	19.0	450	270	110	42

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT										
15...	98	2.1	--	4.2	220	0	180	410	8.7	.6
NOV										
12...	310	4.3	--	5.4	390	0	320	1300	23	.7
DEC										
10...	390	5.1	--	6.8	400	0	330	1600	25	.7
JAN										
10...	450	5.9	--	7.5	430	0	350	1600	28	.7
FEB										
04...	400	5.2	--	7.6	430	0	350	1600	30	.7
MAR										
18...	220	3.8	--	5.9	220	0	180	890	25	.5
APR										
18...	210	3.3	210	3.9	290	15	260	870	23	.7
JUN										
13...	190	3.5	--	5.2	230	0	190	710	17	.5
JUL										
22...	200	3.5	200	4.8	260	0	210	740	16	.6
AUG										
23...	120	2.5	120	3.6	220	0	180	510	11	.5

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEEVER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 15...	12	781	1.06	327	.52	.15	--	--	.02
NOV 12...	12	2170	2.95	193	2.1	.04	--	--	.01
DEC 10...	13	2600	3.54	176	2.5	.04	--	--	.02
JAN 10...	13	2680	3.64	101	2.7	.03	--	--	.02
FEB 04...	12	2630	3.58	107	2.4	.05	--	--	.02
MAR 18...	8.6	1470	2.00	325	.80	.23	--	--	.05
APR 18...	5.5	1520	2.07	127	.54	.04	.12	.12	.02
JUN 13...	11	1240	1.69	275	1.4	.05	.15	.15	.05
JUL 22...	12	1310	1.78	269	.96	.20	--	.61	.07
AUG 23...	15	924	1.26	357	.75	.17	--	.52	.11

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	2280	3130	3220	3090	2320	2050	1080	1360	1450	1790	1080
2	1050	2300	3090	3180	3040	2390	2140	1090	1130	1480	1780	1070
3	1050	2330	3090	3160	3100	2370	2160	1080	1140	1510	1850	1220
4	1050	2240	3050	3050	2980	2230	2150	1200	1030	1580	1640	1210
5	1010	2260	3060	2900	3050	2230	2110	1250	1230	1590	1650	1210
6	991	2310	3080	3200	3010	2400	2090	1240	1220	1590	1670	1250
7	1120	2260	3180	3090	3010	2340	2100	1240	1200	1560	1300	1250
8	1080	2320	3050	3130	3060	2390	2020	1180	1220	1550	1660	1520
9	1080	2330	3020	3110	3020	1840	2000	2310	1440	1660	1390	1520
10	1140	2620	3030	3090	3040	1820	1980	2350	1450	1630	1380	1600
11	1250	2850	3070	3120	3070	1830	2060	1570	1540	1740	1600	1610
12	1270	2820	3010	3120	2880	2470	1870	1550	1560	1790	1210	1600
13	1200	2890	2940	3130	2900	2440	1960	1580	1550	1790	1170	1490
14	1200	2820	3130	3140	3030	2490	1990	1590	1650	1520	1130	1470
15	1210	2870	3080	3160	3050	2290	1980	1610	1640	1570	1140	1340
16	1300	2780	3090	3120	3090	1970	1920	1640	1660	1600	1070	1350
17	1230	2900	3050	3040	2700	2090	2060	1350	3360	1660	1090	1360
18	1200	2920	3060	3040	2650	2080	2100	1340	3460	1630	1070	1380
19	1160	3190	3060	3060	2640	2090	2090	1500	3510	1860	1070	1400
20	1060	2890	3050	3000	2650	2400	2050	1480	1360	1770	1140	1400
21	1080	2890	3090	3050	2480	2320	2010	1460	1360	1600	1140	1450
22	1970	2810	3060	3020	2520	2340	1180	1460	1010	1630	1280	1450
23	2350	2980	3070	3030	2570	2510	1180	1410	964	1600	1210	1370
24	2240	3010	2960	3090	2460	2370	1020	1550	1010	1770	1220	1380
25	2380	3070	2960	3060	2450	2410	989	1530	1200	1830	1130	1370
26	2340	2960	3110	3000	2560	2470	931	1460	1240	1780	1080	1330
27	2330	2970	3020	3040	2590	2250	1080	1580	1270	1650	1090	1330
28	2360	3010	3080	3040	2480	2210	1300	1580	1240	1600	1110	1280
29	2210	2960	3240	3040	---	2230	1170	1360	1490	1670	1080	1280
30	2260	3060	3150	3100	---	2070	1140	1360	1440	1690	1080	1270
31	2230	---	3170	3090	---	2050	---	---	---	1750	1080	---
MEAN	1500	2730	3070	3080	2830	2250	1760	1470	1530	1650	1300	1360
WTR YR 1979	MEAN	2040	MAX	3510	MIN	931						

YELLOWSTONE RIVER BASIN

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEEVER, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.0	.0				---	18.0	23.0	24.0	16.0
2	---	---	.0	.0				---	26.0	22.0	24.0	17.0
3	---	---	.0	.0				---	24.0	23.0	24.0	23.0
4	---	---	.0	.0				---	28.0	23.0	25.0	18.0
5	---	---	.0	.0				---	28.0	22.0	25.0	23.0
6	---	---	.0	.0				---	22.0	22.0	17.0	23.0
7	---	---	.0	.0				---	15.0	22.0	24.0	24.0
8	---	---	.0	.0				---	10.0	24.0	24.0	25.0
9	---	---	.0	.0				5.0	12.0	23.0	22.0	23.0
10	---	---	.0	.0				5.0	17.0	25.0	25.0	23.0
11	---	---	.0	.0				15.0	22.0	26.0	24.0	20.0
12	---	.0	.0	.0				15.0	22.0	26.0	16.0	17.0
13	---	.0	.0	.0				17.0	25.0	26.0	17.0	12.0
14	---	.0	.0	.0				18.0	26.0	25.0	16.0	9.0
15	7.5	.0	.0	.0				19.0	26.0	25.0	15.0	9.0
16	---	.0	.0	.0				20.0	25.0	25.0	16.0	11.0
17	---	.0	.0	.0				17.0	22.0	23.0	16.0	19.0
18	---	.0	.0	.0				13.0	16.0	23.0	17.0	19.0
19	---	.0	.0	.0				18.0	14.0	25.0	16.0	19.0
20	---	.0	.0	.0				15.0	22.0	23.0	17.0	18.0
21	---	.0	.0	.0				22.0	22.0	23.0	17.0	18.0
22	---	.0	.0	.0				19.0	23.0	25.0	17.0	18.0
23	---	.0	.0	.0				22.0	23.0	25.0	17.0	19.0
24	---	.0	.0	.0				22.0	23.0	25.0	16.0	19.0
25	---	.0	.0	.0				20.0	22.0	24.0	15.0	19.0
26	---	.0	.0	.0				27.0	21.0	23.0	15.0	12.0
27	---	.0	.0	.0				24.0	22.0	25.0	15.0	11.0
28	---	.0	.0	.0				22.0	24.0	25.0	15.0	15.0
29	---	.0	.0	.0				16.0	23.0	22.0	16.0	12.0
30	---	.0	.0	.0				17.0	24.0	24.0	17.0	16.0
31	---	---	.0	.0				18.0	---	24.0	16.0	---
MEAN	7.5	.0	.0	.0				17.5	21.5	24.0	18.5	17.5
WTR YR 1979	MEAN	13.0		MAX	28.0		MIN	.0				

06286200 SHOSHONE RIVER AT KANE, WY

LOCATION.--Lat 44°51'31", long 108°19'52", in NE¼SE¼SE¼ sec.6, T.56 N., R.95 W., Big Horn County, Hydrologic Unit 10080014, at bridge on county road, 3.4 mi (5.5 km) northeast of Lovell, 6.5 mi (10.5 km) west of Kane, 6.6 mi (10.6 km) upstream from high-water line of Bighorn Lake at elevation 3,640 ft (1,109 m), and 7.8 mi (12.6 km) upstream from former discharge station.

DRAINAGE AREA.--2,989 mi² (7,742 km²), at former discharge station.

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 25...	1300	8.0	.0	0	.00	.00	.0	.0	0	.00	.0
JUN 13...	1400	20.5	.0	0	--	.00	.0	.0	0	.00	.0

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)
OCT 25...	.00	.0	.00	.0	.00	.00	.1	.00	.00	.0	.00
JUN 13...	.00	.1	.00	.1	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
OCT 25...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00
JUN 13...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 25...	.00	0	0	.00	.00	0	.00	0	.00	.0
JUN 13...	.00	0	0	.00	1.4	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
OCT 25...	.00	0	.00	0
JUN 13...	.11	0	.00	0

YELLOWSTONE RIVER BASIN

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06286400 BIGHORN LAKE NEAR ST. XAVIER, MT

LOCATION.--Lat 45°18'27", long 107°57'26", in SW¼SE¼ sec.18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi (2.1 km) upstream from Grapevine Creek, 15.5 mi (24.9 km) southeast of St. Xavier, and at mile 81.0 (130.3 km).

DRAINAGE AREA.--19,626 mi² (50,831 km²).

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir."

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is referenced to National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,356,000 acre-ft (1.67 km³) between elevation 3,296.50 ft (1,004.773 m), river outlet invert, and 3,657.00 ft (1,114.654 m), top of flood control. Elevation of spillway crest, 3,593.00 ft (1,095.146 m). Normal maximum operating level, 1,097,000 acre-ft (1.35 km³), elevation, 3,640.00 ft (1,109.472 m). Minimum operating level, 483,400 acre-ft (596 hm³), elevation, 3,547.00 ft (1,081.126 m). Dead storage, 18,970 acre-ft (23.4 hm³) below elevation 3,296.50 ft (1,004.773 m). Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,346,000 acre-ft (1.66 km³) July 6, 1967, elevation, 3,656.43 ft (1,114.480 m); minimum since first filling, 660,700 acre-ft (815 hm³) Mar. 11, 1970, elevation, 3,584.45 ft (1,092.540 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,072,000 acre-ft (1.32 km³) June 29, elevation, 3,637.95 ft (1,108.847 m); minimum, 831,200 acre-ft (1.02 km³) Mar. 8, elevation, 3,611.87 ft (1,100.898 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,635.41	1,042,000	--
Oct. 31	3,635.65	1,045,000	+3,000
Nov. 30	3,632.30	1,008,000	-37,000
Dec. 31	3,624.49	933,700	-74,300
CAL YR 1978			-28,200
Jan. 31	3,619.26	890,500	-43,200
Feb. 28	3,613.07	839,500	-51,000
Mar. 31	3,618.82	887,300	+47,800
Apr. 30	3,621.21	905,800	+18,500
May 31	3,628.03	965,700	+59,900
June 30	3,637.75	1,069,000	+103,300
July 31	3,630.80	992,700	-76,300
Aug. 31	3,629.23	977,200	-15,500
Sept. 30	3,629.24	977,300	+100
WTR YR 1979			-64,700

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, Hydrologic Unit 10080015, on right bank 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). Area at site used prior to Apr. 16, 1963, 19,626 mi² (50,831 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,158.38 ft (962.558 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 16, 1963, and June 13, 1964, to Mar. 31, 1965, water-stage recorder at site 1.2 mi (1.9 km) upstream at different datum. Apr. 1, 1965, to July 31, 1966, water-stage recorder at site 1,300 ft (400 m) downstream at present datum.

REMARKS.--Water-discharge records good. Figures of discharge given herein are sum of river flow and flow of Bighorn Canal. Some regulation by 14 reservoirs in Wyoming with combined capacity of 1,400,000 acre-ft (1,726 hm³) and complete regulation by Bighorn Lake (see preceding page) since Nov. 3, 1965. Diversions for irrigation of about 375,000 acres (1,520 km²) above station.

AVERAGE DISCHARGE.--45 years, 3,600 ft³/s (102.0 m³/s), 2,608,000 acre-ft/yr (3.22 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft³/s (1,060 m³/s) June 16, 1935; minimum observed, 49 ft³/s (1.39 m³/s) Mar. 29, 1966, result of discharge measurement (dam closure); minimum daily, 112 ft³/s (3.17 m³/s) Apr. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,250 ft³/s (149 m³/s) July 5; minimum daily, 640 ft³/s (18.1 m³/s) Nov. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3840	4960	4290	3520	3530	3520	3520	4110	2930	3460	3610	2260
2	3840	4980	4290	3520	3520	3520	3510	4560	2930	3470	3620	2270
3	3840	4990	4290	3500	3520	3520	3520	4610	2930	3470	3600	2270
4	3840	5000	4290	3500	3520	3520	3520	4610	2930	3470	3570	2270
5	3830	4990	4290	3500	3520	3520	3530	4610	2920	4010	3590	2260
6	3840	4990	4290	3500	3520	3520	3520	4610	2930	3510	3590	2260
7	3840	5000	4300	3500	3520	3520	3520	4610	2930	3460	3590	2260
8	3830	4990	4290	3500	3520	3520	3530	4650	2930	3490	3610	2270
9	3820	4990	4290	3500	3520	3520	3530	4630	2930	3490	3610	2270
10	3840	1730	4320	3500	3520	3520	3520	3630	2930	3490	3630	2270
11	4210	640	4320	3520	3520	3520	3500	2720	2980	3490	3630	2280
12	4210	642	4300	3520	3520	3520	3500	2670	3010	3490	3640	2260
13	4210	888	4330	3520	3520	3520	3500	2670	2950	3500	3640	2270
14	4210	3970	4300	3520	3520	3510	3490	2670	2990	3510	3660	2270
15	4210	4300	4280	3520	3530	3520	3500	2670	3010	3510	3200	2260
16	4210	4300	4300	3520	3520	3520	3510	2670	2990	3510	2700	2270
17	4220	4290	4320	3520	3520	3520	3480	2670	2980	3530	2610	2270
18	4220	4290	4330	3520	3520	3520	3480	2670	2990	3530	2610	2260
19	4210	4290	4320	3520	3520	3520	3500	2670	2990	3540	2620	2270
20	4220	4300	4280	3520	3520	3520	3520	2670	3030	3540	2620	2260
21	4220	4290	4320	3520	3520	3510	3520	2670	3430	3550	2620	2270
22	4210	4290	4320	3520	3520	3520	3520	2670	3450	3550	2620	2270
23	4210	4290	4320	3520	3520	3520	3860	2660	3450	3550	2620	2260
24	4210	4280	4320	3520	3520	3520	4140	2660	3450	3550	2620	2260
25	4210	4300	4320	3510	3520	3520	4140	2680	3460	3570	2620	2260
26	4210	4290	4320	3500	3520	3520	4110	2620	3460	3580	2630	2260
27	1540	4290	4320	3520	3520	3520	4110	2620	3460	3580	2620	2270
28	3750	4290	4050	3520	3520	3520	4120	2620	3460	3580	2260	2260
29	4250	4260	3670	3520	---	3520	4110	2630	3470	3600	2240	2270
30	4230	4280	3500	3520	---	3520	4110	2710	3460	3600	2260	2270
31	4250	---	3500	3520	---	3520	---	2930	---	3610	2240	---
TOTAL	123780	121390	130980	108930	98580	109100	109940	100850	93760	109790	94300	67980
MEAN	3993	4046	4225	3514	3521	3519	3665	3253	3125	3542	3042	2266
MAX	4250	5000	4330	3520	3530	3520	4140	4650	3470	4010	3660	2280
MIN	1540	640	3500	3500	3520	3510	3480	2620	2920	3460	2240	2260
AC-FT	245500	240800	259800	216100	195500	216400	218100	200000	186000	217800	187000	134800
CAL YR 1978 TOTAL	1701990		MEAN 4663		MAX 11400	MIN 640	AC-FT 3376000					
WTR YR 1979 TOTAL	1269380		MEAN 3478		MAX 5000	MIN 640	AC-FT 2518000					

YELLOWSTONE RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1966 to current year.

WATER TEMPERATURES: December 1962 to current year.

REMARKS.--Flow regulated since Nov. 3, 1965, by Bighorn Lake.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

WATER TEMPERATURES: (1963-65, prior to regulation) maximum, 24.5°C on several days during 1963-65; minimum, 0.0°C on many days during winter periods most years; (1966 to current year) maximum daily, 20.5°C Aug. 23, 24, 1967; minimum daily, 1.0°C at times during winter months since regulation by Bighorn Lake.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,030 micromhos Apr. 23; minimum daily, 747 micromhos Nov. 8.

WATER TEMPERATURES: Maximum daily, 15.5°C Oct. 15; minimum daily, 1.0°C Jan. 28, Feb. 15, 16, 23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO
OCT 03...	1000	3620	867	8.3	14.5	280	--	76	23	82	2.1
NOV 08...	1030	5040	763	8.1	13.0	250	120	62	22	67	1.9
DEC 15...	1030	4370	756	8.1	6.5	250	110	61	23	68	1.9
JAN 16...	1000	3460	834	7.9	3.0	270	120	68	25	73	1.9
FEB 12...	1001	3510	915	8.0	2.5	310	170	78	28	82	2.0
MAR 20...	1000	3480	936	7.8	2.0	330	170	87	27	79	1.9
APR 11...	1030	3430	972	7.9	3.0	290	110	69	29	89	2.3
MAY 08...	1030	4670	--	--	3.0	320	160	80	28	92	2.3
JUN 12...	0840	2600	866	8.0	7.0	290	130	74	26	78	2.0
JUL 10...	0830	3070	867	8.4	7.0	300	140	79	26	74	1.8
AUG 15...	1130	2850	892	8.3	12.0	300	140	75	27	81	2.0
SEP 11...	0900	1980	865	8.2	13.0	290	130	75	26	74	1.9

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 03...	3.6	--	270	13	.4	11	--	--	--	.55	.030
NOV 08...	3.1	130	240	8.0	.3	11	493	.67	6710	.40	.020
DEC 15...	4.0	140	250	8.9	.3	10	511	.70	6030	.36	.030
JAN 16...	4.0	150	270	16	.3	11	559	.76	5220	.38	.020
FEB 12...	3.4	140	320	13	.4	12	623	.85	5900	.44	.010
MAR 20...	4.1	160	290	15	.5	12	613	.83	5760	.48	.010
APR 11...	3.9	180	310	13	.4	11	636	.87	5890	.45	.010
MAY 08...	2.2	160	300	13	.4	9.0	623	.85	7860	.39	.010
JUN 12...	3.6	160	290	16	.4	8.1	593	.81	4160	.23	--
JUL 10...	3.5	160	270	10	.4	9.2	570	.78	4720	.31	.010
AUG 15...	3.5	160	290	17	.4	10	602	.82	4630	.40	.010
SEP 11...	3.6	160	290	9.7	.4	9.7	587	.80	3140	.46	.000

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	860	767	---	754	891	894	969	975	848	831	870	868
2	879	772	---	755	897	896	951	998	837	829	872	864
3	868	774	792	752	903	896	959	1000	836	829	867	860
4	866	782	---	754	906	901	956	996	831	828	869	857
5	873	777	---	764	910	901	955	962	835	829	871	855
6	---	780	---	751	914	904	963	968	830	831	870	856
7	879	757	---	752	909	905	972	967	839	824	868	854
8	---	747	---	748	910	905	969	969	841	833	867	855
9	---	---	762	748	906	903	957	973	840	840	870	850
10	864	---	757	768	904	917	953	966	837	830	880	846
11	865	---	757	787	898	911	958	949	831	832	---	843
12	860	---	762	790	903	910	959	967	829	831	877	858
13	847	---	760	782	---	913	973	948	831	830	878	840
14	849	788	759	812	---	912	985	934	832	835	878	831
15	840	762	754	812	904	925	998	936	829	831	880	---
16	840	770	754	816	902	911	992	934	834	839	879	833
17	835	750	754	818	900	918	991	903	829	831	881	828
18	841	---	753	823	903	923	992	924	835	843	881	821
19	828	---	752	831	902	924	---	911	830	839	882	820
20	819	777	754	839	902	934	1010	923	836	838	880	822
21	828	785	752	852	903	941	---	921	830	849	881	810
22	825	775	749	---	902	944	1020	892	829	841	880	806
23	797	773	749	861	903	945	1030	939	---	847	880	801
24	770	777	752	868	893	947	1020	890	831	846	879	800
25	814	777	749	872	902	939	1020	891	828	841	881	801
26	787	775	---	874	901	937	995	912	820	850	881	797
27	882	768	752	883	---	945	995	903	828	844	875	792
28	819	749	753	887	903	950	1010	902	830	845	879	791
29	811	755	---	869	---	950	1010	897	---	850	879	790
30	808	774	752	878	---	952	996	881	832	854	880	791
31	810	---	750	879	---	948	---	890	---	853	876	---
MEAN	838	770	756	813	903	923	984	936	833	838	876	829
MAX	882	788	792	887	914	952	1030	1000	848	854	882	868
MIN	770	747	749	748	891	894	951	881	820	824	867	790
WTR YR 1979	MEAN	862	MAX	1030	MIN	747						

YELLOWSTONE RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	12.5	---	3.5	1.5	1.5	2.0	2.0	6.0	8.0	10.5	14.5
2	14.0	13.0	---	3.5	1.5	2.0	2.0	3.0	6.0	8.5	11.0	13.5
3	15.0	12.0	6.0	3.5	1.5	2.0	2.0	3.5	7.0	8.5	11.0	13.5
4	14.5	12.0	---	3.5	2.0	2.0	1.5	3.0	6.5	7.5	11.0	13.5
5	15.0	11.5	---	3.0	1.5	2.5	2.0	3.5	6.5	7.5	11.0	13.5
6	---	11.5	---	3.0	2.0	2.5	2.5	3.0	6.0	8.0	11.5	14.0
7	15.0	12.0	---	2.5	2.0	2.5	2.0	3.5	6.0	9.0	11.5	14.5
8	---	12.0	---	2.0	2.5	2.0	3.0	3.0	6.5	8.5	11.5	14.0
9	---	---	6.5	2.5	2.0	2.0	3.0	2.5	5.0	8.5	12.0	15.0
10	15.0	---	6.5	3.0	2.0	3.0	2.0	4.0	7.0	8.5	12.0	14.0
11	15.0	---	6.0	3.5	1.5	2.0	2.0	3.0	7.0	8.5	---	14.0
12	15.0	---	6.5	2.5	1.5	2.0	2.5	3.0	7.0	9.0	11.5	13.5
13	14.0	---	6.0	3.0	---	2.0	2.5	4.5	7.0	8.5	12.0	14.5
14	15.0	10.0	6.0	3.0	---	2.5	3.0	5.0	7.5	8.5	12.5	15.0
15	15.5	10.0	5.0	2.5	1.0	2.5	3.5	4.5	7.5	8.5	12.5	---
16	14.5	10.0	6.0	2.5	1.0	2.0	2.5	4.5	6.5	9.0	12.0	15.0
17	14.0	10.0	5.5	2.5	2.0	1.5	3.0	5.5	7.0	9.0	13.0	15.0
18	13.5	---	6.0	2.5	1.5	1.5	2.5	5.0	7.0	8.0	12.5	15.0
19	15.0	---	5.5	3.0	1.5	2.5	---	5.0	7.0	9.5	12.5	14.0
20	14.5	9.0	5.5	2.5	2.0	2.0	3.0	5.5	7.5	9.5	13.0	14.5
21	13.5	9.5	5.0	2.5	1.5	2.5	---	5.5	7.0	10.0	13.5	15.0
22	14.0	9.0	5.0	---	1.5	1.5	3.0	5.0	7.5	9.0	13.5	14.0
23	13.5	10.0	5.0	2.0	1.0	2.0	2.5	5.5	---	9.5	14.0	14.0
24	13.5	9.5	5.0	2.0	2.5	2.0	2.0	5.5	8.0	9.5	13.5	15.0
25	13.0	9.0	5.0	2.0	3.0	1.5	2.5	6.0	8.0	10.0	12.5	15.0
26	13.5	9.0	---	1.5	2.0	2.0	2.0	5.0	7.5	9.5	13.0	14.5
27	14.0	8.5	5.0	2.0	---	2.0	3.0	6.0	8.5	10.0	13.0	15.0
28	13.0	8.5	4.0	1.0	2.5	2.0	3.0	5.0	9.0	11.0	13.0	15.0
29	12.5	8.5	---	2.0	---	2.0	2.5	4.5	---	11.0	14.5	14.5
30	12.5	8.0	4.0	1.5	---	2.0	3.0	6.0	7.5	11.0	13.5	14.5
31	14.0	---	4.0	1.5	---	2.0	---	5.5	---	11.0	13.5	---
MEAN	14.0	10.0	5.5	2.5	2.0	2.0	2.5	4.5	7.0	9.0	12.5	14.5
MAX	15.5	13.0	6.5	3.5	3.0	3.0	3.5	6.0	9.0	11.0	14.5	15.0
MIN	12.5	8.0	4.0	1.0	1.0	1.5	1.5	2.0	5.0	7.5	10.5	13.5
WTR YR 1979	MEAN	7.0	MAX	15.5	MIN	1.0						

06289000 LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'25", long 107°37'05", in SW¼NW¼ sec.36, T.9 S., R.33 E., Bighorn County, Hydrologic Unit 10080016, on right bank 20 ft (6 m) downstream from county bridge, 0.5 mi (0.8 km) north of Wyoming-Montana State line, 1.0 mi (1.6 km) downstream from West Fork, and 13 mi (21 km) southwest of Wyola.

DRAINAGE AREA.--193 mi² (500 km²).

PERIOD OF RECORD.--March 1939 to current year. Prior to October 1940, published as Little Horn River at State line, near Wyola.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,350 ft (1,326 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Diversions for irrigation of 163 acres (660,000 m²) above station.

AVERAGE DISCHARGE.--40 years, 157 ft³/s (4.446 m³/s), 113,700 acre-ft/yr (140 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft³/s (77.3 m³/s) June 3, 1944, gage height, 4.87 ft (1.484 m), from rating curve extended above 1,400 ft³/s (39.6 m³/s); maximum gage height recorded, 5.93 ft (1.807 m) June 9, 1944 (log jam); minimum discharge, 21 ft³/s (0.59 m³/s) Dec. 27, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 510 ft³/s (14.4 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 27	2130	*875 24.8	3.21 0.978	June 12	2230	551 15.6	2.63 0.802
June 5	2300	663 18.8	2.83 .863				

Minimum discharge, 49 ft³/s (1.39 m³/s) Dec. 31 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	105	93	54	52	72	72	101	306	213	118	96
2	125	104	82	64	53	70	71	95	306	204	116	95
3	123	104	74	76	56	68	71	91	332	196	114	93
4	123	105	94	72	64	72	72	95	415	204	112	93
5	121	101	90	74	60	76	72	116	495	190	110	93
6	119	95	74	73	64	80	72	152	525	182	110	92
7	121	105	62	75	68	82	74	125	407	177	109	91
8	119	104	64	74	75	74	72	119	360	169	110	91
9	119	105	70	76	80	68	73	110	329	164	109	91
10	118	81	88	76	88	68	76	105	321	162	107	92
11	118	78	92	78	80	76	74	107	372	157	107	92
12	118	88	93	77	84	84	74	104	415	154	107	95
13	112	92	88	76	90	80	74	102	471	152	129	93
14	116	92	91	74	85	76	74	107	456	149	116	91
15	114	101	91	78	74	74	76	129	402	145	110	89
16	114	105	88	80	60	76	78	185	368	142	107	88
17	114	104	89	85	80	76	86	250	348	138	107	88
18	114	99	89	85	77	74	93	251	348	136	107	86
19	110	70	89	84	76	73	98	264	325	134	107	86
20	110	60	80	84	72	73	86	291	325	134	105	86
21	112	75	84	84	72	73	85	344	302	134	105	86
22	112	92	88	84	70	73	86	429	291	131	104	86
23	107	98	88	77	64	72	91	471	277	147	102	85
24	112	101	88	85	70	73	95	520	267	136	101	85
25	110	98	86	79	75	73	91	556	254	134	102	85
26	110	96	78	68	82	72	91	572	247	127	102	85
27	107	95	66	60	80	73	86	651	241	127	102	86
28	107	95	60	60	80	73	88	611	235	123	101	85
29	107	95	54	58	---	73	89	530	222	121	98	86
30	101	93	52	50	---	73	92	385	219	121	96	89
31	101	---	49	50	---	73	---	336	---	119	96	---
TOTAL	3539	2836	2474	2270	2031	2293	2432	8304	10181	4722	3326	2679
MEAN	114	94.5	79.8	73.2	72.5	74.0	81.1	268	339	152	107	89.3
MAX	125	105	94	85	90	84	98	651	525	213	129	96
MIN	101	60	49	50	52	68	71	91	219	119	96	85
AC-FT	7020	5630	4910	4500	4030	4550	4820	16470	20190	9370	6600	5310
CAL YR 1978	TOTAL	87917	MEAN 241	MAX 1610	MIN 49	AC-FT 174400						
WTR YR 1979	TOTAL	47087	MEAN 129	MAX 651	MIN 49	AC-FT 93400						

06297480 TONGUE RIVER AT TONGUE CANYON CAMPGROUND, NEAR DAYTON, WY

LOCATION.--Lat 44°50'45", long 107°19'56", in SE¼NE¼NW¼ sec.10, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank at footbridge, 0.2 mi (0.3 km) upstream from Tongue Canyon Campground, 1.0 mi (1.6 km) upstream from intake of Highline ditch, 2.1 mi (3.4 km) downstream from Sheep Creek, and 3.8 mi (6.1 km) south-west of Dayton.

DRAINAGE AREA.--202 mi² (523 km²).

PERIOD OF RECORD.--October 1974 to July 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,210 ft (1,283 m), from topographic map.

REMARKS.--Records poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 2,750 ft³/s (77.9 m³/s) May 10, 1977, gage height, 4.3 ft (1.31 m), from floodmarks; maximum gage height, 4.50 ft (1.372 m) June 9, 1978; minimum daily discharge, 32 ft³/s (0.91 m³/s) Nov. 27, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges during period October 1978 to July 1979 above base of 980 ft³/s (27.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 31	2000	-- --	a3.9 1.19
May 28	0130	*1,140 32.3	3.69 1.125

a-Maximum recorded during backwater from ice.

Minimum daily discharge, 40 ft³/s (1.13 m³/s) Nov. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	93	65	62	48	55	51	120	494	279		
2	90	86	61	64	48	54	46	109	478	263		
3	88	87	61	64	50	49	51	104	494	258		
4	92	94	59	62	52	50	55	112	579	305		
5	87	78	59	60	55	57	53	165	737	274		
6	84	58	56	62	52	61	58	236	825	244		
7	86	98	53	62	56	61	58	177	588	249		
8	87	98	56	64	53	59	51	148	484	229		
9	83	83	67	66	59	55	61	131	445	219		
10	86	48	63	68	56	52	58	129	440	207		
11	80	40	69	69	53	58	58	126	500	200		
12	80	72	60	71	57	60	54	124	579	195		
13	70	76	66	66	58	60	51	129	660	191		
14	75	60	66	66	53	59	55	158	671	184		
15	78	65	59	62	48	51	61	224	570	177		
16	78	75	61	58	52	53	66	323	489	175		
17	75	82	61	58	54	52	78	362	472	173		
18	76	80	65	55	58	52	98	342	462	165		
19	75	65	60	56	60	51	101	355	422	156		
20	78	67	61	56	58	50	79	381	445	152		
21	70	75	61	56	57	48	79	467	396	150		
22	74	78	64	55	55	48	84	588	396	148		
23	66	70	59	52	52	44	101	633	377	158		
24	96	69	66	51	56	48	113	737	352	156		
25	86	63	57	51	54	46	110	792	342	148		
26	80	63	57	50	55	52	96	814	332	146		
27	83	65	64	47	55	50	93	928	326	148		
28	83	69	74	47	54	51	96	892	320	146		
29	90	65	70	47	---	50	101	940	302	142		
30	70	66	66	47	---	53	109	633	291	146		
31	76	---	64	48	---	50	---	549	---	148		
TOTAL	2514	2188	1930	1802	1518	1639	2225	11928	14268	5931		
MEAN	81.1	72.9	62.3	58.1	54.2	52.9	74.2	385	476	191		
MAX	96	98	74	71	60	61	113	940	825	305		
MIN	66	40	53	47	48	44	46	104	291	142		
AC-FT	4990	4340	3830	3570	3010	3250	4410	23660	28300	11760		
CAL YR 1978	TOTAL	99921	MEAN	274	MAX	2380	MIN	40	AC-FT	198200		

06298000 TONGUE RIVER NEAR DAYTON, WY

LOCATION.--Lat 44°50'58", long 107°18'14", in NE¼NE¼ sec.11, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to September 1929, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1921.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, July 3 to Aug. 21, which are fair.

Small diversion above station for Dayton municipal supply. Figures of daily discharge do not include water diverted 0.6 mi (1.0 km) above station by Highline ditch for irrigation below station.

AVERAGE DISCHARGE.--50 years (water years 1919-29, 1941-79), 189 ft³/s (5.352 m³/s), 136,900 acre-ft/yr (169 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s (96.3 m³/s) June 3, 1944, gage height, 6.45 ft (1.966 m); minimum daily, 18 ft³/s (0.51 m³/s) Nov. 29, 1919.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 980 ft³/s (27.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 28	0145	*1,130 32.0	4.14 1.262

Minimum daily discharge, 35 ft³/s (0.99 m³/s) Nov. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	85	75	56	62	55	50	121	495	259	130	74
2	96	78	72	58	64	53	46	106	490	253	125	72
3	92	82	71	58	65	48	45	94	506	244	125	69
4	98	87	69	56	61	49	51	104	588	290	120	69
5	94	75	74	54	57	56	50	164	720	260	115	68
6	92	56	68	56	57	60	53	242	806	230	115	68
7	94	85	65	56	57	60	57	176	605	235	115	67
8	93	87	68	58	55	57	50	153	500	215	115	65
9	90	84	77	60	57	53	57	128	465	210	115	64
10	90	47	72	62	59	50	60	121	460	195	115	65
11	89	35	72	64	57	57	55	121	512	190	110	68
12	90	67	72	68	59	55	51	117	583	180	110	75
13	80	71	69	65	59	55	49	121	654	180	170	75
14	88	56	68	65	57	50	51	151	672	170	160	72
15	94	59	69	68	52	54	56	223	572	165	140	68
16	91	71	68	64	56	56	60	345	500	160	120	65
17	91	77	67	61	58	55	72	400	475	160	120	62
18	91	75	67	61	60	55	90	360	475	150	115	62
19	88	59	68	62	58	54	100	380	435	145	110	60
20	88	62	67	62	58	53	74	415	450	140	100	60
21	86	70	65	62	55	51	72	500	405	140	90	60
22	88	74	67	64	55	53	75	616	400	135	87	60
23	77	78	68	61	52	48	92	660	375	145	85	59
24	94	78	69	60	56	50	110	720	350	145	90	59
25	87	74	68	61	54	51	102	774	332	135	104	57
26	82	72	65	60	55	48	96	793	327	135	104	56
27	84	74	69	59	55	51	84	890	322	135	92	57
28	85	77	68	57	54	51	90	940	309	135	85	57
29	87	75	64	57	---	49	94	938	288	130	82	57
30	71	75	60	60	---	53	102	622	272	135	77	56
31	65	---	58	61	---	50	---	556	---	135	74	---
TOTAL	2731	2145	2119	1876	1604	1640	2094	12051	14343	5536	3415	1926
MEAN	88.1	71.5	68.4	60.5	57.3	52.9	69.8	389	478	179	110	64.2
MAX	98	87	77	68	65	60	110	940	806	290	170	75
MIN	65	35	58	54	52	48	45	94	272	130	74	56
AC-FT	5420	4250	4200	3720	3180	3250	4150	23900	28450	10980	6770	3820

†	73	0	0	0	0	0	0	260	1,620	1,420	1,250	1,000
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ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

MEAN	89.3	71.5	68.4	60.5	57.3	52.9	69.8	393	505	202	130	81.0
AC-FT	5,490	4,250	4,200	3,720	3,180	3,250	4,150	24,160	30,070	12,400	8,020	4,820

UNADJUSTED

ADJUSTED

CAL YR 1978	TOTAL 98,959	MEAN 271	MAX 2,360	MIN 35	AC-FT 196,300	MEAN 277	AC-FT 200,200
WTR YR 1979	TOTAL 51,480	MEAN 141	MAX 940	MIN 35	AC-FT 102,100	MEAN 149	AC-FT 107,700

† Diversion, in acre-ft, above station by Highline ditch.

YELLOWSTONE RIVER BASIN

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 14...	1315	75	265	8.2	5.0	130	0	32
NOV 11...	1215	34	310	8.0	2.0	170	6	43
DEC 09...	1120	77	280	8.1	.5	150	11	39
JAN 09...	1110	82	280	8.2	.5	150	11	37
FEB 03...	1120	67	285	8.2	.5	140	1	37
MAR 17...	1100	54	275	8.3	3.0	130	0	34
APR 17...	1100	67	275	8.1	6.0	120	0	31
JUN 12...	1400	539	135	7.9	11.0	64	1	18
JUL 21...	1400	143	225	8.3	15.0	110	0	30
AUG 23...	0740	85	230	8.0	12.0	110	3	28
SEP 19...	1830	60	265	8.1	12.5	140	9	36

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 14...	13	2.5	.1	1.0	160	6	140	5.7	1.5
NOV 11...	15	1.4	.0	.7	200	0	160	8.0	.7
DEC 09...	12	1.9	.1	.4	170	0	140	12	.4
JAN 09...	13	1.9	.1	.5	170	0	140	7.4	.0
FEB 03...	12	.0	.0	.3	170	0	140	--	--
MAR 17...	11	2.0	.1	.5	160	3	140	2.5	.0
APR 17...	11	4.0	.2	.5	150	3	130	8.2	.0
JUN 12...	4.7	1.5	.1	.0	77	0	63	7.4	.0
JUL 21...	9.4	1.0	.0	.8	130	3	110	1.6	.9
AUG 23...	9.9	1.3	.1	.8	130	0	110	4.1	.0
SEP 19...	11	2.0	.1	1.0	160	0	130	2.5	.9

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 14...	.2	5.0	149	.20	30.2	.14	--	.01
NOV 11...	.1	--	--	--	15.2	.32	--	.01
DEC 09...	.1	6.2	157	.21	32.6	.25	--	.00
JAN 09...	.1	6.7	153	.21	33.9	.36	--	.01
FEB 03...	.2	6.8	--	.20	26.4	.20	--	.00
MAR 17...	.1	5.1	138	.19	20.1	.16	--	.00
APR 17...	.2	2.0	136	.19	24.6	.07	--	.00
JUN 12...	.2	4.3	74	.10	108	.05	--	.01
JUL 21...	.1	5.4	119	.16	45.9	.02	--	.00
AUG 23...	.1	6.3	117	.16	26.9	.00	--	.04
SEP 19...	.1	6.2	140	.19	22.7	--	.07	.00

06299500 WOLF CREEK AT WOLF, WY

LOCATION.--Lat 44°46'21", long 107°14'01", in NE¼SW¼NW¼ sec.4, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank at Wolf and 0.5 mi (0.8 km) downstream from Red Canyon Creek.

DRAINAGE AREA.--37.8 mi² (97.9 km²).

PERIOD OF RECORD.--January 1945 to current year (no winter records since 1971). Monthly discharge for January to March 1945, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,525 ft (1,379 m), from topographic map. Prior to May 26, 1945, nonrecording gage at same site and datum.

REMARKS.--Records good. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years (water years 1946-71), 29.3 ft³/s (0.830 m³/s), 21,230 acre-ft/yr (26.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s (32.0 m³/s) June 15, 1963, gage height, 4.60 ft (1.402 m), from rating curve extended above 500 ft³/s (14.2 m³/s); no flow for part of each day Jan. 13, 15, 29, 30, Feb. 26, 1947, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 5.0 ft (1.52 m) May 18, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 149 ft³/s (4.22 m³/s) June 13, gage height, 2.24 ft (0.683 m), no peak above base of 180 ft³/s (5.10 m³/s); minimum daily during period of operation, 6.0 ft³/s (0.17 m³/s) Apr. 2, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							6.2	16	89	40	16	9.4
2							6.0	16	92	36	14	9.0
3							7.1	15	98	34	13	8.6
4							6.2	15	103	45	13	8.3
5							6.0	21	117	37	12	8.3
6							6.8	33	135	34	11	8.0
7							7.4	28	115	31	11	7.7
8							6.8	24	94	27	11	7.4
9							7.4	22	92	26	12	7.1
10							8.3	22	98	24	11	7.4
11							7.7	23	101	24	11	8.0
12							7.1	22	110	24	11	9.0
13							6.8	24	119	24	25	10
14							6.5	26	119	24	22	9.4
15							6.8	32	101	23	18	8.3
16							8.0	48	91	22	15	8.0
17							11	53	84	22	14	7.4
18							14	49	80	20	13	7.4
19							16	56	76	20	12	7.1
20							14	61	78	19	11	7.1
21							13	70	68	18	11	7.1
22							13	76	65	18	11	6.8
23							14	77	62	20	11	6.8
24							16	89	59	20	11	6.8
25							16	98	56	18	13	6.5
26							15	99	54	17	13	6.5
27							13	106	53	18	12	6.8
28							14	117	48	17	11	6.8
29							14	119	45	16	11	6.8
30							15	98	42	17	10	6.8
31							---	92	---	18	9.4	---
TOTAL							309.1	1647	2544	753	399.4	230.6
MEAN							10.3	53.1	84.8	24.3	12.9	7.69
MAX							16	119	135	45	25	10
MIN							6.0	15	42	16	9.4	6.5
AC-FT							613	3270	5050	1490	792	457

06299980 TONGUE RIVER AT MONARCH, WY

LOCATION.--Lat 44°54'08", long 107°01'49", in NW¼SW¼NW¼ sec.20, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, 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.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)
OCT											
14...	1145	223	440	8.2	5.5	1	--	11.4	K14	220	28
S19...	0810	131	450	7.5	7.0	--	--	--	--	230	52
NOV											
11...	1110	86	500	8.3	.0	1	--	12.4	K11	240	53
DEC											
09...	1000	88	550	7.9	.0	1	--	--	K83	270	61
JAN											
09...	0945	E80	410	7.8	.0	1	--	11.4	K26	260	65
FEB											
03...	1015	E50	530	7.8	.0	2	--	12.4	100	260	54
MAR											
17...	0920	114	550	7.9	.5	90	--	11.8	K32	240	96
APR											
17...	0910	142	660	8.2	9.0	18	--	10.4	80	260	80
JUN											
12...	1210	500	210	8.0	15.0	6	--	9.8	K220	99	17
JUL											
21...	1300	132	395	8.3	21.5	--	6.5	9.2	120	190	27
AUG											
22...	1710	98	450	8.4	21.0	--	2.6	9.5	K36	200	23
SEP											
19...	1740	66	485	8.4	18.0	--	4.1	9.9	78	240	37

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM+ SODIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
14...	49	23	13	.4	--	2.1	230	0	190	64
19...	55	23	22	.6	--	1.6	220	0	180	64
NOV										
11...	54	26	17	.5	--	1.8	230	0	190	82
DEC										
09...	62	29	19	.5	--	2.3	260	0	210	90
JAN										
09...	62	26	15	.4	--	1.8	240	0	200	78
FEB										
03...	61	26	16	.4	--	1.4	250	0	210	74
MAR										
17...	48	28	32	.9	--	4.5	170	0	140	150
APR										
17...	55	30	32	.9	--	2.8	220	0	180	140
JUN										
12...	25	8.8	4.6	.2	5.8	1.2	99	0	81	17
JUL										
21...	45	19	12	.4	14	2.4	200	0	160	51
AUG										
22...	45	22	14	.4	16	1.5	220	0	180	63
SEP										
19...	52	26	17	.5	19	2.3	--	--	200	74

YELLOWSTONE RIVER BASIN

06299980 TONGUE RIVER AT MONARCH, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT										
14...	2.4	.3	6.8	--	274	.37	165	.15	.06	--
19...	2.1	.2	6.9	265	283	.38	100	.02	.01	--
NOV										
11...	2.2	.2	7.4	--	304	.41	70.6	.07	.03	--
DEC										
09...	2.8	.2	9.0	--	343	.47	81.5	.27	.04	--
JAN										
09...	2.3	.1	8.2	--	312	.42	--	.34	.02	--
FEB										
03...	2.1	.2	9.1	--	313	.43	42.3	.33	.11	--
MAR										
17...	3.9	.2	7.5	--	358	.49	110	.34	.19	--
APR										
17...	3.5	.2	4.9	--	377	.51	145	.03	.08	.10
JUN										
12...	.8	.2	6.3	--	113	.15	153	.15	.08	.10
JUL										
21...	2.4	.2	6.5	--	237	.32	84.5	.02	.01	.01
AUG										
22...	1.7	.2	6.8	--	263	.36	69.6	.02	.04	.05
SEP										
19...	1.9	.3	7.4	--	301	.41	53.6	.09	.07	.08

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PU4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT										
14...	.63	.69	.84	3.7	.01	--	--	--	3.7	1.1
19...	.25	.26	.28	1.2	.01	--	--	.01	2.9	.7
NOV										
11...	.37	.40	.47	2.1	.01	--	--	--	--	--
DEC										
09...	.42	.46	.73	3.2	.02	--	--	--	--	--
JAN										
09...	.23	.25	.59	2.6	.01	--	--	--	--	--
FEB										
03...	.25	.36	.69	3.1	.02	--	--	--	--	--
MAR										
17...	.73	.92	1.3	5.6	.16	--	--	--	--	--
APR										
17...	.35	.43	.46	2.0	.06	.18	.18	--	--	--
JUN										
12...	.90	.98	1.1	5.0	.02	.06	.06	--	5.5	.6
JUL										
21...	.54	.55	.57	2.5	.04	--	.12	--	--	--
AUG										
22...	.23	.27	.29	1.3	.01	--	.03	--	--	--
SEP										
19...	.59	.66	.75	3.3	.02	--	.06	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOVERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOVERABLE (UG/L AS PB)
DOCT												
14...	3	0	0	0	4	0	6	160	140	20	5	0
19...	--	--	--	--	--	--	--	--	--	90	--	--
NOV												
11...	--	--	--	--	--	--	--	--	--	80	--	--
DEC												
09...	--	--	--	--	--	--	--	--	--	100	--	--
JAN												
09...	--	--	--	--	--	--	--	--	--	70	--	--
FEB												
03...	--	--	--	--	--	--	--	--	--	30	--	--
MAR												
17...	--	--	--	--	--	--	--	--	--	60	--	--
APR												
17...	--	--	--	--	--	--	--	--	--	60	--	--
JUN												
12...	1	0	0	0	6	6	0	430	400	30	12	12
JUL												
21...	--	--	--	--	--	--	--	--	--	50	--	--
AUG												
22...	--	--	--	--	--	--	--	--	--	50	--	--
SEP												
19...	--	--	--	--	--	--	--	--	--	20	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

06299980 TONGUE RIVER AT MONARCH, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

AUG. 22, 1979
1710 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHLOROPHYTA	GREEN ALGAE
..CHLOROPHYCEAE	
...ULOTRICHIALES	
...CHAETOPHORACEAE	
....PROTODERMA	
&PSEUDODUVELLA	
CHRYSTOPHYTA	
..BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
& ...COCCONEIS	
...CYMBELLACEAE	
& ...EPITHEMIA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	

SEP. 19, 1979
1740 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHLOROPHYTA	GREEN ALGAE
..CHLOROPHYCEAE	
...CLADOPHORALES	
...CLADOPHORACEAE	
...RHIZOCLONIUM	
...OEDOGONIALES	
...OEDOGONIACEAE	
...OEDOGONIUM	
...ULOTRICHIALES	
...CHAETOPHORACEAE	
...STIGEOCLONIUM	
CHRYSTOPHYTA	
..BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
...COCCONEIS	
...CYMBELLACEAE	
...CYMBELLA	
& ...EPITHEMIA	
...FRAGILARIACEAE	
...SYNEDRA	
...GOMPHONEMATACEAE	
...GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
...CALONEIS	
...NAVICULA	
...NITZSCHIA	
...NITZSCHIA	
CYANOPHYTA	BLUE-GREEN ALGAE
..CYANOPHYCEAE	
...HORMOGONIALES	FILAMENTOUS BL-GREEN
...OSCILLATORIA	
....LYNGBYA	
....OSCILLATORIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

YELLOWSTONE RIVER BASIN

06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°32'18", long 107°13'33", in SE¼SE¼NW¼ sec.28, T.53 N., R.86 W., Johnson County, Hydrologic Unit 10090101, Bighorn National Forest, on right bank 0.7 mi (1.1 km) upstream from Park Reservoir and 16 mi (26 km) southwest of Big Horn.

DRAINAGE AREA.--20.1 mi² (52.1 km²).

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1973). Prior to October 1960, published as East Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,320 ft (2,536 m), from topographic map. Prior to June 28, 1960, water-stage recorder at site 1.1 mi (1.8 km) downstream at different datum. June 28, 1960, to July 14, 1970, water-stage recorder at site 0.9 mi (1.4 km) downstream at different datums and July 15 to Oct. 7, 1970, nonrecording gage at present site and datum.

REMARKS.--Records fair. No gage-height record Apr. 1 to June 4. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--20 years (water years 1954-73), 32.6 ft³/s (0.923 m³/s), 23,620 acre-ft/yr (29.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s (34.8 m³/s) June 15, 1963, gage height, 4.59 ft (1.399 m), site and datum then in use, from rating curve extended above 250 ft³/s (7.08 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft³/s (0.03 m³/s) Dec. 11-14, 1963, Mar. 24, 25, Nov. 14, 15, 1964, Mar. 18, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.10 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 6	0130	312 8.84	4.82 1.469	July 4	1130	197 5.58	4.28 1.305
June 14	0030	*480 13.6	5.40 1.646				

Minimum daily discharge during period of operation, 8.1 ft³/s (0.23 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									77	108	18	21
2									68	87	17	19
3									70	76	16	18
4									106	139	15	17
5									214	100	14	16
6									230	77	13	15
7									127	87	13	14
8									83	71	14	14
9									66	60	14	13
10									64	56	14	12
11									109	51	14	12
12									208	47	14	13
13									300	46	50	13
14									313	42	60	13
15									224	38	55	12
16									167	36	50	12
17									149	34	45	11
18									138	33	40	10
19									110	31	35	9.7
20									90	29	30	9.7
21									120	28	28	10
22									143	28	26	9.9
23									120	32	34	9.5
24									125	34	36	9.2
25									135	29	56	8.7
26									137	28	42	8.5
27									139	30	36	8.3
28									130	26	33	8.3
29									123	24	30	8.1
30									119	22	26	8.1
31									---	21	24	---
TOTAL									4204	1550	912	363.0
MEAN									140	50.0	29.4	12.1
MAX									313	139	60	21
MIN									64	21	13	8.1
AC-FT									8340	3070	1810	720

06301500 WEST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°36'47", long 107°17'49", in NW¼ Sec.30, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.3 mi (0.5 km) downstream from Twin Lakes Branch and 16 mi (26 km) west of Big Horn.

DRAINAGE AREA.--24.4 mi² (63.2 km²).

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1971). Prior to October 1960, published as West Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,420 ft (2,566 m), from topographic map.

REMARKS.--Records good. Some regulation by Twin Lakes, capacity, 1,200 acre-ft (1.48 hm³) and Dome Lake, capacity, 1,800 acre-ft (2.22 hm³). No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--18 years (water years 1954-71), 34.4 ft³/s (0.974 m³/s), 24,920 acre-ft/yr (30.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) June 15, 1963, gage height, 5.37 ft (1.637 m), from rating curve extended above 410 ft³/s (11.6 m³/s) on basis of velocity-area study; minimum daily, 0.80 ft³/s (0.023 m³/s) Dec. 14, 26, 1963, Jan. 15, 16, Feb. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 467 ft³/s (13.2 m³/s) June 14, gage height, 4.09 ft (1.247 m); minimum daily during period of operation, 4.8 ft³/s (0.14 m³/s) Apr. 8, 9, 13, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							5.1	8.9	114	130	42	52
2							5.3	8.9	104	113	41	52
3							5.1	8.6	104	98	40	51
4							4.9	9.2	142	98	40	51
5							5.1	11	207	100	39	50
6							5.3	12	275	90	39	49
7							4.9	11	210	88	39	48
8							4.8	11	144	84	38	46
9							4.8	11	113	77	37	40
10							4.9	12	104	73	37	36
11							4.9	10	112	55	36	38
12							4.9	11	185	48	36	41
13							4.8	10	301	58	40	46
14							4.8	11	407	58	39	51
15							4.8	13	337	57	38	50
16							4.9	16	229	56	37	48
17							5.7	18	189	55	41	47
18							7.0	18	183	52	41	45
19							7.2	18	157	60	41	38
20							6.7	18	134	62	41	36
21							6.5	18	140	61	41	69
22							6.7	19	167	58	41	89
23							7.6	19	160	58	40	79
24							7.8	19	152	60	46	48
25							7.6	58	152	57	48	10
26							7.6	142	155	49	47	9.2
27							7.8	177	157	46	48	8.9
28							7.8	229	152	44	50	8.3
29							7.8	281	148	44	50	7.6
30							8.3	209	138	43	52	7.6
31							---	143	---	44	53	---
TOTAL							181.4	1560.6	5272	2076	1298	1251.6
MEAN							6.05	50.3	176	67.0	41.9	41.7
MAX							8.3	281	407	130	53	89
MIN							4.8	8.6	104	43	36	7.6
AC-FT							360	3100	10460	4120	2570	2480

YELLOWSTONE RIVER BASIN

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY

LOCATION.--Lat 44°42'08", long 107°10'51", in NW¼NE¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.4 mi (0.6 km) upstream from Cave Creek and 14 mi (23 km) southwest of Sheridan.

DRAINAGE AREA.--120 mi² (311 km²).

PERIOD OF RECORD.--September 1929 to current year (no winter records since 1971). Prior to October 1960, published as Goose Creek near Sheridan. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1006: Drainage area. WSP 1509: 1930(M), 1931.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft (1,375 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 20 acres (8.1 hm²) and to Sheridan Filtration plant, and return flow from irrigated areas. PK ditch diverts water 0.6 mi (1.0 km) above station for irrigation of lands downstream from station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years (water years 1930-71), 79.6 ft³/s (2.254 m³/s), 57,670 acre-ft/yr (71.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft³/s (89.5 m³/s) June 15, 1963, gage height, 5.83 ft (1.777 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s); minimum daily, 1.6 ft³/s (0.045 m³/s) Nov. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 570 ft³/s (16.1 m³/s) May 29, gage height, 3.24 ft (0.988 m); minimum daily during period of operation, 14 ft³/s (0.40 m³/s) Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							15	41	382	161	25	47
2							14	37	358	133	22	46
3							19	34	334	105	21	43
4							15	36	326	115	26	39
5							15	51	379	118	26	36
6							16	74	422	102	25	32
7							17	54	362	97	26	30
8							15	50	262	83	29	28
9							18	46	227	68	29	26
10							20	46	216	59	27	26
11							17	47	216	47	24	28
12							16	47	262	25	24	32
13							14	48	362	34	58	34
14							16	53	472	33	55	42
15							17	67	481	32	48	40
16							21	94	454	30	39	36
17							27	110	390	28	43	34
18							36	104	354	24	43	36
19							39	108	298	29	40	36
20							28	111	259	28	38	28
21							28	116	232	28	32	48
22							29	115	243	26	32	87
23							36	97	243	31	35	76
24							41	94	234	41	43	58
25							34	125	229	37	48	18
26							30	224	232	32	48	26
27							28	295	234	31	44	24
28							34	422	229	32	43	22
29							35	505	211	28	42	22
30							34	476	183	29	50	21
31							---	418	---	29	51	---
TOTAL							724	4145	9086	1695	1136	1101
MEAN							24.1	134	303	54.7	36.6	36.7
MAX							41	505	481	161	58	87
MIN							14	34	183	24	21	18
AC-FT							1440	8220	18020	3360	2250	2180

06303500 LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN, WY

LOCATION.--Lat 44°35'46", long 107°02'22", in SE¼SW¼NE¼ sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, on left bank 100 ft (30 m) upstream from headgate of Lower Peralta ditch and 6.5 mi (10.5 km) south-west of Big Horn.

DRAINAGE AREA.--51.6 mi² (133.6 km²).

PERIOD OF RECORD.--April 1941 to current year (no winter records since 1971).

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft (1,481 m), from topographic map.

REMARKS.--Records good. Three small reservoirs above station, combined capacity, 860 acre-ft (1.06 hm³), two of which store some imported water. Water imported into drainage basin above station from East Goose Creek basin is diverted below station for irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years (water years 1942-71), 63.4 ft³/s (1.795 m³/s), 45,930 acre-ft/yr (56.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft³/s (38.2 m³/s) June 15, 1963, gage height, 6.78 ft (2.067 m), from rating curve extended above 900 ft³/s (25.5 m³/s); minimum recorded, 2.2 ft³/s (0.062 m³/s) Dec. 4, 1949, gage height, 0.71 ft (0.216 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 359 ft³/s (10.2 m³/s) June 12, gage height, 3.81 ft (1.161 m); minimum daily during period of operation, 9.9 ft³/s (0.28 m³/s) Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							10	38	131	134	111	114
2							10	38	138	130	101	113
3							12	35	156	103	99	112
4							10	40	210	124	99	111
5							9.9	59	249	112	97	104
6							11	75	246	116	98	89
7							13	67	198	108	110	84
8							12	64	174	97	108	69
9							14	60	171	91	106	65
10							16	57	179	81	107	64
11							14	56	209	64	110	46
12							13	53	258	55	111	45
13							12	53	251	64	129	50
14							12	56	247	73	114	50
15							14	66	195	68	107	50
16							18	90	171	70	102	48
17							25	107	158	85	98	47
18							33	103	165	87	90	44
19							37	108	145	82	88	42
20							28	113	155	81	86	35
21							27	124	154	86	90	34
22							28	141	147	90	88	39
23							32	147	138	97	78	40
24							34	177	132	98	77	48
25							32	193	129	97	78	64
26							31	193	123	104	72	66
27							29	232	119	110	71	75
28							31	253	114	103	70	74
29							32	215	113	94	73	72
30							33	147	125	97	110	71
31							---	138	---	115	114	---
TOTAL							632.9	3298	5101	2916	2992	1965
MEAN							21.1	106	170	94.1	96.5	65.5
MAX							37	253	253	134	129	114
MIN							9.9	35	113	55	70	34
AC-FT							1260	6540	10120	5780	5930	3900

YELLOWSTONE RIVER BASIN

06304500 LITTLE GOOSE CREEK AT SHERIDAN, WY

LOCATION.--Lat 44°48'10", long 106°57'10", in NE¼NW¼SW¼ sec.26, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, at bridge on Sheridan Avenue in Sheridan and 0.6 mi (1.0 km) upstream from mouth.

PERIOD OF RECORD.--March to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
MAR 16...	1500	80	800	8.2	5.0	20	11.7	K120	505	.69	109
APR 16...	1530	61	750	8.4	11.0	2	11.9	K5	--	--	--
JUN 12...	0950	225	260	7.8	13.0	25	9.0	K500	--	--	--
JUL 21...	1000	9.3	880	8.3	20.0	3	9.8	--	--	--	--
AUG 22...	1300	43	690	8.3	19.0	8	10.2	K300	--	--	--
SEP 19...	1400	42	755	8.5	17.5	8	11.4	140	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
MAR 16...	--	.51	--	.19	1.0	1.2	1.7	7.6	.09	--	--
APR 16...	465	.05	.13	.16	.39	.52	.57	2.5	.01	.03	.03
JUN 12...	254	.11	.03	.04	.71	.74	.85	3.8	.14	.43	.43
JUL 21...	612	.01	.05	.06	.54	.59	.60	2.7	.03	--	.09
AUG 22...	483	.03	.12	.15	.54	.66	.69	3.1	.41	--	1.3
SEP 19...	481	.07	.07	.08	.74	.81	.88	3.9	.03	--	.09

LOCATION.--Lat 44°49'25", long 106°57'40", in SE¼SW¼ sec.15, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 700 ft (213 m) north of Sheridan city limits and 0.2 mi (0.3 km) downstream from Soldier Creek.

WATER-DISCHARGE RECORDS

REMARKS.--Records good. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft (18.5 hm³). Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft³/s (154 m³/s) June 16, 1963, gage height, 7.82 ft (2.384 m); maximum gage height, 9.11 ft (2.777 m) Feb. 28, 1972 (backwater from ice); minimum daily discharge, 4.0 ft³/s (0.11 m³/s) Aug. 11, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 880 ft³/s (24.9 m³/s) May 30, gage height, 3.68 ft (1.122 m); minimum daily, 33 ft³/s (0.93 m³/s) Aug. 7.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	102	98	68	63	62	114	157	630	230	49	135
2	202	104	86	67	63	62	104	185	590	208	42	127
3	182	103	68	68	64	60	96	169	560	178	39	123
4	159	100	102	70	66	60	106	161	550	198	39	115
5	145	97	97	72	66	60	104	171	615	208	34	108
6	149	91	90	73	67	58	102	212	655	190	34	102
7	147	91	79	74	72	55	137	210	670	188	33	86
8	143	96	80	74	72	64	141	200	530	169	39	86
9	141	108	88	73	72	98	133	208	435	147	38	79
10	139	82	98	72	72	110	151	212	410	123	35	78
11	117	80	96	74	74	131	149	208	415	109	34	82
12	114	94	97	72	78	163	129	195	465	96	36	90
13	119	106	82	70	80	202	119	185	550	84	73	91
14	127	92	82	70	84	173	117	190	640	85	115	96
15	155	90	90	74	62	173	125	200	630	73	102	98
16	157	98	80	74	62	175	137	232	590	73	90	98
17	153	104	67	73	61	141	147	282	535	62	78	85
18	169	100	82	73	64	119	169	288	490	66	80	84
19	167	79	90	73	67	102	225	282	425	58	85	82
20	139	73	84	73	67	96	202	288	362	52	90	86
21	109	84	86	74	67	98	169	292	321	51	86	85
22	121	91	91	72	67	108	155	300	321	49	79	102
23	117	94	92	70	62	103	159	272	321	58	78	115
24	112	90	94	70	60	104	163	278	306	72	76	110
25	110	88	92	68	60	123	161	298	290	72	94	96
26	109	91	84	68	62	97	153	342	288	67	106	72
27	108	94	76	67	66	96	147	430	295	66	109	76
28	108	96	84	64	60	97	147	620	290	62	106	78
29	108	98	67	63	---	98	143	730	272	53	104	74
30	103	97	67	62	---	123	145	785	245	45	109	79
31	97	---	68	62	---	121	---	710	---	54	127	---
TOTAL	4234	2813	2637	2177	1880	3332	4249	9292	13696	3246	2239	2818
MEAN	137	93.8	85.1	70.2	67.1	107	142	300	457	105	72.2	93.9
MAX	208	108	102	74	84	202	225	785	670	230	127	135
MIN	97	73	67	62	60	55	96	157	245	45	33	72
AC-FT	8400	5580	5230	4320	3730	6610	8430	18430	27170	6440	4440	5590
CAL YR 1978	TOTAL	120803	MEAN 331	MAX	4200	MIN 50	AC-FT	239600				
YR 1979	TOTAL	52613	MEAN 144	MAX	785	MIN 33	AC-FT	104400				

YELLOWSTONE RIVER BASIN

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT											
14...	0800	--	117	650	8.2	5.0	7	9.4	4.2	K120000	310
23...	1650	--	117	--	--	--	--	--	--	--	--
NOV											
11...	0830	--	67	700	8.3	.0	4	12.2	4.7	51000	350
17...	1515	--	112	--	--	--	--	--	--	--	--
DEC											
08...	1600	--	80	820	8.0	.0	3	--	4.8	49000	380
18...	1535	--	85	--	--	--	--	--	--	--	--
JAN											
08...	1540	74	--	750	7.9	.0	2	11.2	6.4	130000	340
16...	1330	--	80	--	--	--	--	--	--	--	--
FEB											
02...	1515	63	--	780	7.8	.0	3	11.6	5.4	86000	340
06...	1050	--	70	--	--	--	--	--	--	--	--
MAR											
12...	1330	--	178	--	--	--	--	--	--	--	--
16...	1620	--	178	810	8.1	2.0	40	12.2	5.6	56000	340
APR											
17...	0720	--	139	840	8.2	9.0	10	10.2	4.8	K34000	340
17...	1150	--	151	--	--	--	--	--	--	--	--
MAY											
09...	1055	--	210	--	--	--	--	--	--	--	--
29...	1845	--	750	--	--	--	--	--	--	--	--
JUN											
12...	0715	--	480	300	7.8	12.5	30	9.0	2.2	12000	120
12...	1600	--	510	--	--	--	--	--	--	--	--
JUL											
03...	1415	--	182	--	--	--	--	--	--	--	--
21...	0815	--	51	820	8.0	18.0	6	6.1	3.2	33000	370
AUG											
08...	1430	--	41	--	--	--	--	--	--	--	--
22...	1420	--	84	700	8.5	21.0	10	10.6	7.1	68000	310
SEP											
05...	1440	--	108	--	--	--	--	--	--	--	--
19...	1510	--	84	740	8.6	18.0	7	11.2	--	64000	330

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
14...	64	56	40	28	.7	2.5	300	0	250	120	4.1
23...	--	--	--	--	--	--	--	--	--	--	--
NOV											
11...	100	73	40	32	.7	3.1	300	0	250	160	5.5
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
08...	130	77	45	38	.9	3.0	310	0	250	190	6.8
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
08...	94	66	42	31	.7	2.8	300	0	250	130	6.3
16...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	86	73	39	30	.7	2.5	310	0	250	140	16
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	--	--	--	--	--	--	--	--	--	--	--
16...	140	69	40	36	.9	4.6	240	0	200	210	5.4
APR											
17...	120	64	43	37	.9	4.8	270	0	220	190	5.9
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	22	26	13	10	.4	1.0	120	0	98	41	3.9
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
03...	--	--	--	--	--	--	--	--	--	--	--
21...	120	74	45	34	.8	4.3	310	0	250	180	7.8
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
22...	80	60	39	30	.7	3.8	280	0	230	150	4.3
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
19...	71	66	40	33	.8	4.0	310	3	260	140	5.2

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
14...	.4	5.9	409	.56	129	--	0	.52	.02	--	.22
23...	--	--	--	--	--	--	--	--	--	--	--
NOV											
11...	.5	2.7	468	.64	84.7	--	17	.34	.19	--	.46
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
08...	.5	11	526	.72	114	--	2	.52	.51	--	.99
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
08...	.4	4.5	436	.59	87.1	--	4	.70	.56	--	1.2
16...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	.5	12	466	.63	79.3	--	14	.61	.56	--	1.4
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	--	--	--	--	--	--	--	--	--	--	--
16...	.4	8.0	496	.67	238	--	129	.59	.48	--	.59
APR											
17...	.5	1.8	477	.65	179	--	21	.07	.08	--	.36
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	.2	6.9	161	.22	209	--	60	.07	.12	--	.09
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
03...	--	--	--	--	--	--	--	--	--	--	--
21...	.4	3.1	502	.68	69.1	--	8	.79	.10	--	.65
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
22...	.4	7.5	436	.59	98.9	--	17	.09	.13	--	.80
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
19...	.4	6.1	451	.61	102	23	--	--	.17	.14	1.0

YELLOWSTONE RIVER BASIN

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
14...	--	.69	.91	.93	4.1	.11	4.4	.7	--	--	--
23...	--	--	--	--	--	--	--	--	11	3.5	--
NOV											
11...	--	.30	.76	.95	4.2	.24	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	43	13	--
DEC											
08...	--	1.6	2.6	3.1	14	.27	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	12	2.8	--
JAN											
08...	--	.50	1.7	2.3	10	.19	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	16	3.5	--
FEB											
02...	--	.40	1.8	2.4	10	.32	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	14	2.6	--
MAR											
12...	--	--	--	--	--	--	--	--	130	62	--
16...	--	.81	1.4	1.9	8.3	.39	--	--	--	--	--
APR											
17...	.44	.47	.83	.91	4.0	.11	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	36	15	--
MAY											
09...	--	--	--	--	--	--	--	--	28	16	83
29...	--	--	--	--	--	--	--	--	187	379	74
JUN											
12...	.11	.46	.55	.67	3.0	.08	5.5	--	--	--	--
12...	--	--	--	--	--	--	--	--	83	114	--
JUL											
03...	--	--	--	--	--	--	--	--	25	12	--
21...	.79	.65	1.3	1.4	6.2	.33	--	--	--	--	--
AUG											
08...	--	--	--	--	--	--	--	--	18	2.0	--
22...	.97	.30	1.1	1.2	5.4	.40	--	--	--	--	--
SEP											
05...	--	--	--	--	--	--	--	--	36	10	--
19...	1.2	.70	1.7	1.9	8.3	.38	--	--	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)
OCT												
14...	0800	230	200	30	1	0	0	0	<1	180	2	0
NOV												
11...	0830	--	--	--	--	--	--	--	--	140	--	--
DEC												
08...	1600	--	--	--	--	--	--	--	--	160	--	--
JAN												
08...	1540	--	--	--	--	--	--	--	--	210	--	--
FEB												
02...	1515	--	--	--	--	--	--	--	--	120	--	--
MAR												
16...	1620	--	--	--	--	--	--	--	--	180	--	--
APR												
17...	0720	--	--	--	--	--	--	--	--	110	--	--
JUN												
12...	0715	720	700	20	1	0	0	0	0	80	2	1
JUL												
21...	0815	--	--	--	--	--	--	--	--	170	--	--
AUG												
22...	1420	--	--	--	--	--	--	--	--	130	--	--
SEP												
19...	1510	--	--	--	--	--	--	--	--	130	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible][illegible]

[illegible]

LOCATION.--Lat 45°03'05", long 106°55'36", in NW¼NW¼ sec.14, T.9 S., R.39 E., Bighorn County, Hydrologic Unit 10090101, on left bank 0.4 mi (0.6 km) upstream from Powers Cormack ditch, 0.5 mi (0.8 km) northwest of C X Ranch, 4 mi (6 km) northwest of Decker, and 7 mi (11 km) upstream from mouth.

WATER-DISCHARGE RECORDS

REMARKS.--Water-discharge records fair. Two small diversions above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 75 ft³/s (2.12 m³/s) Apr. 19, gage height, 3.69 ft (1.125 m); minimum, 0.37 ft³/s (0.011 m³/s) Sept. 27, gage height, 1.21 ft (0.369 m).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.3	3.0	2.9	1.7	2.1	15	25	10	3.5	3.9	.71
2	1.7	2.1	3.0	2.9	1.7	2.1	13	23	9.2	3.3	2.3	.66
3	1.7	2.0	2.9	2.7	1.5	2.1	11	21	8.8	3.2	1.8	.62
4	1.7	2.0	3.1	2.7	1.4	2.1	11	21	8.1	3.6	1.6	.62
5	1.7	1.7	3.1	2.7	1.4	2.2	11	23	8.0	4.2	1.5	.58
6	1.7	1.7	3.1	2.8	1.4	2.5	11	27	7.5	3.4	1.5	.54
7	1.9	1.7	3.1	2.8	1.5	3.1	15	24	7.8	3.2	1.4	.54
8	1.9	1.7	3.1	2.7	1.3	3.9	27	21	8.1	3.0	1.4	.54
9	1.9	1.7	3.1	2.6	1.4	4.1	30	20	7.5	2.7	1.4	.47
10	1.9	1.7	3.1	2.3	1.5	4.5	36	19	7.1	2.7	1.3	.50
11	1.9	1.7	3.1	2.3	1.5	5.5	30	18	6.5	2.4	1.2	.58
12	1.9	1.8	3.1	2.3	1.5	7.4	22	19	6.2	2.3	1.2	.84
13	1.9	1.8	3.0	2.3	1.5	9.9	18	20	5.8	2.1	1.5	.99
14	1.9	1.7	3.1	2.3	1.6	10	18	20	5.4	2.1	1.9	.89
15	1.9	1.6	3.2	2.3	1.6	12	21	18	5.1	1.9	1.7	.80
16	2.0	2.2	3.1	2.4	1.7	14	28	18	5.1	1.9	1.5	.75
17	2.1	2.7	3.2	2.4	1.7	17	37	18	5.3	2.2	1.4	.66
18	2.1	2.8	3.1	2.4	1.7	17	50	18	5.3	2.0	1.2	.58
19	2.1	2.8	3.2	2.3	1.7	15	58	16	5.1	1.7	1.2	.54
20	2.1	2.6	3.1	2.4	1.7	10	39	15	5.0	1.5	1.2	.54
21	2.2	2.6	3.1	2.4	1.7	9.5	31	14	4.7	1.5	1.2	.58
22	2.3	2.8	3.1	2.3	1.7	9.5	30	13	4.4	1.3	1.2	.58
23	2.3	2.8	3.3	2.3	1.7	9.8	35	12	4.3	1.3	1.0	.58
24	2.3	2.8	3.3	2.5	1.7	10	29	12	4.1	1.5	.99	.58
25	2.3	2.8	3.2	2.5	1.8	14	25	12	3.9	1.5	.99	.54
26	2.3	2.8	3.2	2.4	1.9	13	28	11	4.0	1.7	1.2	.62
27	2.3	3.0	3.2	2.3	1.9	12	30	11	8.4	1.8	1.3	.58
28	2.3	3.0	3.2	2.2	2.0	10	28	10	5.4	1.7	1.2	.62
29	2.3	3.0	3.1	2.1	---	10	29	11	4.3	12	1.1	.62
30	2.3	3.0	2.9	2.0	---	12	24	14	3.9	4.9	.94	.66
31	2.3	---	2.9	1.9	---	15	---	12	---	3.9	.80	---
TOTAL	62.9	68.9	96.3	75.4	45.4	271.3	790	536	184.3	86.0	44.02	18.91
MEAN	2.03	2.30	3.11	2.43	1.62	8.75	26.3	17.3	6.14	2.77	1.42	.63
MAX	2.3	3.0	3.3	2.9	2.0	17	58	27	10	12	3.9	.99
MIN	1.7	1.6	2.9	1.9	1.3	2.1	11	10	3.9	1.3	.80	.47
AC-FT	125	137	191	150	90	538	1570	1060	366	171	87	38
CAL YR 1978												
WTR YR 1979												
TOTAL	3306.89	MEAN	9.06	MAX	323	MIN	.60	AC-FT	6560			
	2279.43	MEAN	6.25	MAX	58	MIN	.47	AC-FT	4520			

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEDUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 31...	1115	2.3	1310	8.3	2.0	11.2	92	--	690	240	94
DEC 19...	1230	3.2	1320	8.0	.0	11.7	92	--	660	230	100
FEB 20...	1240	1.7	1400	8.4	.0	11.8	92	--	660	220	100
MAR 27...	1410	13	1040	8.3	4.0	10.6	94	--	550	230	100
APR 24...	1225	28	896	8.7	7.5	11.0	105	.2	420	150	69
MAY 22...	1210	13	1040	8.5	15.0	9.2	103	--	550	230	89
JUN 20...	1300	5.0	1120	8.4	17.0	8.6	101	--	640	270	92
JUL 24...	1235	1.5	1260	8.2	22.0	7.5	97	--	640	250	73
SEP 11...	1410	.53	1410	8.2	15.0	8.2	92	--	750	290	87

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 31...	110	50	.8	7.7	450	350	4.2	.4	.1	.00	13
DEC 19...	100	45	.8	7.0	430	350	3.6	.4	--	--	14
FEB 20...	100	50	.8	6.2	440	340	3.8	.3	.0	.01	13
MAR 27...	73	29	.5	5.2	320	290	3.7	.3	--	--	9.7
APR 24...	60	23	.5	4.4	270	220	2.3	.2	.0	.00	9.8
MAY 22...	80	29	.5	5.3	320	280	3.0	.3	--	--	7.2
JUN 20...	100	39	.7	6.5	370	320	3.4	.2	--	--	9.0
JUL 24...	110	51	.9	8.4	390	370	4.3	.4	--	--	12
SEP 11...	130	64	1.0	9.4	460	390	4.7	.5	.1	.01	64

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 31...	900	1.22	5.59	.00	.00	.30	.30	.010	8.8	.3
DEC 19...	879	1.20	7.59	.15	.02	.30	.32	.020	--	--
FEB 20...	878	1.19	4.03	.21	.05	.12	.17	.010	4.1	--
MAR 27...	703	.96	24.7	.49	.05	.41	.46	.020	--	--
APR 24...	551	.75	41.7	.24	.01	.64	.65	.100	9.2	--
MAY 22...	686	.93	24.1	.02	.04	.21	.25	.040	--	--
JUN 20...	793	1.08	10.7	.14	.04	.53	.57	.390	--	--
JUL 24...	864	1.18	3.50	.08	.05	.58	.63	.050	--	--
SEP 11...	1030	1.40	1.47	.50	.03	.00	.00	.060	--	--

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 31...	1115	--	--	--	--	--	130	--	--	--
DEC 19...	1230	--	--	--	--	--	100	--	--	--
FEB 20...	1240	--	--	--	--	--	110	--	--	--
MAR 27...	1410	--	--	--	--	--	80	--	--	--
APR 24...	1225	2	3	0	0	<1	70	--	--	<1
MAY 22...	1210	--	--	--	--	--	90	--	--	--
JUN 20...	1300	--	--	--	--	--	80	--	--	--
JUL 24...	1235	--	--	--	--	--	140	--	--	--
SEP 11...	1410	2	2	0	0	<1	150	1	0	1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 31...	--	--	--	--	--	--	--	--	20
DEC 19...	--	--	--	--	--	--	--	--	20
FEB 20...	--	--	--	--	--	--	--	--	30
MAR 27...	--	--	--	--	--	--	--	--	10
APR 24...	10	10	0	13	11	2	3300	3300	10
MAY 22...	--	--	--	--	--	--	--	--	10
JUN 20...	--	--	--	--	--	--	--	--	10
JUL 24...	--	--	--	--	--	--	--	--	10
SEP 11...	10	0	10	2	0	2	560	--	40

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 31...	--	--	--	--	--	--	.0	--	--
DEC 19...	--	--	--	--	--	--	.0	--	--
FEB 20...	--	--	--	--	--	--	.0	--	--
MAR 27...	--	--	--	--	--	--	.0	--	--
APR 24...	--	--	0	130	100	30	.0	.0	.0
MAY 22...	--	--	--	--	--	--	.0	--	--
JUN 20...	--	--	--	--	--	--	.1	--	--
JUL 24...	--	--	--	--	--	--	.1	--	--
SEP 11...	4	4	0	140	20	120	.2	.2	.0

YELLOWSTONE RIVER BASIN

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOVERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOVERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 31...	--	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--
APR 24...	9	9	0	1	0	1	50	50	43
MAY 22...	--	--	--	--	--	--	--	--	--
JUN 20...	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--
SEP 11...	7	7	0	1	1	0	10	0	20

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 31...	1115	2.0	2.3	12	.07	--
DEC 19...	1230	.0	3.2	52	.45	--
FEB 20...	1240	.0	1.7	46	.21	--
MAR 27...	1410	4.0	13	142	5.0	95
APR 24...	1225	7.5	28	176	13	97
MAY 22...	1210	15.0	13	87	3.1	--
JUN 20...	1300	17.0	5.0	116	1.6	92
JUL 24...	1235	22.0	1.5	126	.51	--
SEP 11...	1410	15.0	.53	45	.06	--

LOCATION.--Lat 44°59'02", long 106°50'21", in NE¼SW¼SW¼ sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft (183 m) upstream from county bridge, 0.9 mi (1.5 km) upstream from mouth, 2.8 mi (4.5 km) downstream from Coutant Creek, and 7.6 mi (12.2 km) northeast of Acme.

WATER-DISCHARGE RECORDS

REMARKS.--Records good except those for winter period and period of no gage-height record, Nov. 5 to Dec. 19, which are poor. Diversions for irrigation of about 13,600 acres (55.0 km²) above station, of which about 60 acres (243,000 m²) are below station. Flow supplemented by 3 transbasin diversions from North Piney Creek and South Piney Creek via Prairie Dog Creek ditch, Piney and Cruse ditch, and Mead-Coffeen ditch.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,940 ft³/s (112 m³/s) May 19, 1978, gage height, 12.60 ft (3.840 m), from floodmark, from rating curve extended above 670 ft³/s (19.0 m³/s) on basis of slope-area determination of peak flow; minimum daily, 6.3 ft³/s (0.18 m³/s) June 4, 5, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 265 ft³/s (7.50 m³/s) Mar. 17, gage height, 3.85 ft (1.173 m); minimum daily, 14 ft³/s (0.40 m³/s) July 24, Aug. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	39	32	16	19	21	80	50	79	48	22	45
2	42	38	28	17	20	21	74	48	64	45	21	44
3	41	37	24	18	21	21	74	51	49	46	19	45
4	40	37	25	17	22	23	63	53	42	41	19	45
5	40	37	25	16	23	25	61	50	33	38	19	44
6	40	35	24	17	23	31	58	47	28	57	18	44
7	40	34	23	18	22	43	56	40	29	66	17	46
8	41	33	23	18	20	60	63	39	37	47	15	46
9	42	32	23	18	24	76	71	40	39	40	14	46
10	42	30	24	18	28	86	75	42	36	32	17	45
11	42	30	27	18	28	119	83	46	34	29	20	44
12	41	30	28	18	27	150	84	50	32	27	21	50
13	40	31	27	18	29	194	78	49	32	23	26	54
14	41	32	28	17	26	194	73	45	30	20	38	54
15	41	32	25	18	24	194	68	43	32	18	49	51
16	43	33	24	19	23	205	65	40	31	17	46	48
17	44	34	24	19	26	249	70	47	29	16	51	45
18	37	34	25	20	27	222	76	49	30	16	52	44
19	38	30	26	21	26	137	92	51	29	17	52	41
20	37	34	27	22	25	133	98	47	32	16	45	45
21	37	40	27	24	24	115	101	44	31	16	45	45
22	37	45	27	23	23	107	87	44	29	16	47	47
23	38	49	26	22	22	104	73	44	30	15	48	41
24	41	47	26	21	20	101	67	44	30	14	48	38
25	39	45	26	20	20	97	62	45	29	15	50	38
26	40	49	26	20	22	99	59	44	30	18	51	40
27	38	52	25	19	22	78	58	41	34	19	56	41
28	33	56	22	19	22	73	56	43	40	18	58	47
29	36	48	20	19	---	71	54	50	48	18	56	46
30	39	39	16	18	---	70	51	65	50	18	48	37
31	39	---	15	18	---	74	---	76	---	21	47	---
TOTAL	1233	1142	768	586	658	3193	2130	1467	1098	847	1135	1346
MEAN	39.8	38.1	24.8	18.9	23.5	103	71.0	47.3	36.6	27.3	36.6	44.9
MAX	44	56	32	24	29	249	101	76	79	66	58	54
MIN	33	30	15	16	19	21	51	39	28	14	14	37
AC-FT	2450	2270	1520	1160	1310	6330	4220	2910	2180	1680	2250	2670
CAL YR 1978	TOTAL	26791	MEAN 73.4	MAX	3090	MIN 10	AC-FT	53140				
WTR YR 1979	TOTAL	15603	MEAN 42.7	MAX	249	MIN 14	AC-FT	30950				

YELLOWSTONE RIVER BASIN

06306250 PRAIRIE DOG CREEK NEAR ACME, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to September 1979 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	
OCT 19...	0845	38	1550	8.2	7.0	.0	680	390	130	87	85	1.4	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 19...	8.0	360	1	300	560	4.3	.3	9.4	1080	1060	1.44	109	
S-Seepage run data (see Explanation of Water-Quality Records).													
DATE		NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 19...	.02	.02	.33	.35	.37	1.6	.02	.00	140	30	5.0	.8	

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, Hydrologic Unit 10090101, on left bank 1.0 mi (1.6 km) north of Wyoming-Montana State line, 1.4 mi (2.4 km) upstream from Badger Creek, and 1.4 mi (2.3 km) southeast of Decker.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,429.14 ft (1,045.202 m) National Geodetic Vertical Datum of 1929 (levels by Army Corps of Engineers).

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft (18.5 hm³). Diversions for irrigation of about 64,300 acres (260 km²) above station.

AVERAGE DISCHARGE.--19 years, 519 ft³/s (14.70 m³/s), 376,000 acre-ft/yr (464 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s (496 m³/s) May 19, 1978, gage height, 14.25 ft (4.343 m); minimum, 3.0 ft³/s (0.11 m³/s) Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
May 29	2230	*2,050	58.1	5.84	1.780

Minimum discharge, 106 ft³/s (3.00 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	247	190	140	170	370	399	399	1420	651	163	253
2	399	267	195	150	190	370	375	446	1270	624	148	260
3	395	260	190	160	200	360	335	455	1190	583	133	253
4	371	260	180	170	200	370	313	408	1180	645	131	243
5	351	263	200	160	200	390	324	408	1330	750	126	227
6	339	250	205	170	200	400	316	492	1460	619	119	221
7	339	230	210	170	210	430	324	599	1590	568	117	215
8	339	220	210	180	220	420	429	534	1310	520	110	200
9	335	210	215	180	230	415	420	539	1070	469	110	191
10	331	200	225	180	240	400	442	520	970	416	112	183
11	328	200	230	180	230	380	492	506	957	367	115	183
12	305	210	240	180	240	400	446	492	1020	320	115	197
13	305	205	230	180	240	470	387	473	1200	287	131	203
14	305	210	220	170	230	460	359	460	1320	257	221	203
15	324	230	225	180	210	450	359	492	1350	247	291	203
16	359	220	230	190	190	450	375	594	1230	240	253	203
17	359	210	220	200	200	460	399	797	1140	234	227	194
18	355	200	215	210	220	460	464	888	1060	218	215	180
19	367	190	235	220	230	430	573	857	1030	203	221	177
20	363	180	240	220	220	460	672	869	913	177	227	174
21	316	170	235	230	220	500	539	913	869	172	227	180
22	302	175	235	220	220	520	473	1000	803	158	224	180
23	313	180	235	210	210	520	442	1090	791	145	215	191
24	298	180	235	200	210	500	460	1120	767	172	215	200
25	302	175	225	190	230	492	460	1200	716	177	221	200
26	291	170	220	180	280	433	442	1270	700	191	247	185
27	284	175	215	180	300	359	438	1380	722	183	270	172
28	273	180	200	175	350	351	408	1590	750	177	263	177
29	280	190	180	170	---	335	399	1770	716	172	257	180
30	284	190	170	165	---	367	395	1900	694	161	250	169
31	267	---	150	165	---	416	---	1640	---	153	247	---
TOTAL	10178	6247	6605	5675	6290	13138	12659	26101	31538	10256	5921	5997
MEAN	328	208	213	183	225	424	422	842	1051	331	191	200
MAX	399	267	240	230	350	520	672	1900	1590	750	291	260
MIN	267	170	150	140	170	335	313	399	694	145	110	169
AC-FT	20190	12390	13100	11260	12480	26060	25110	51770	62560	20340	11740	11900
CAL YR 1978	TOTAL	318390	MEAN 872	MAX 15400	MIN 130	AC-FT 631500						
WTR YR 1979	TOTAL	140605	MEAN 385	MAX 1900	MIN 110	AC-FT 278900						

YELLOWSTONE RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT											
14...	0950	--	313	700	8.2	6.0	1	9.7	K48	330	100
S19...	1330	--	371	690	8.1	10.0	--	--	--	330	160
NOV											
11...	1000	200	--	770	8.3	.0	3	11.9	110	360	120
DEC											
09...	0810	215	--	950	7.9	.0	4	--	130	430	150
JAN											
09...	0830	180	--	1700	7.7	.0	5	12.9	K30	900	280
FEB											
03...	0830	200	--	940	7.6	.0	2	10.8	K540	420	160
MAR											
17...	0810	460	--	880	8.0	.0	40	12.4	K620	350	150
APR											
17...	0820	--	408	1090	8.3	10.0	15	9.7	K130	440	200
JUN											
12...	1100	--	925	370	8.0	16.0	15	8.8	K960	150	35
JUL											
21...	1130	--	174	740	8.4	24.0	15	8.1	K80	330	120
AUG											
22...	1600	--	218	760	8.5	22.0	6	11.1	170	330	100
SEP											
19...	1620	--	180	820	8.7	18.0	7	13.2	120	350	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).
S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT											
14...	63	42	33	.8	3.1	280	0	230	170	3.7	.4
19...	65	41	29	.7	3.1	190	8	170	190	3.5	.3
NOV											
11...	74	42	41	.9	3.2	290	0	240	210	3.7	.5
DEC											
09...	86	51	47	1.0	3.7	340	0	280	250	5.2	.5
JAN											
09...	180	110	98	1.4	11	760	0	620	490	17	.7
FEB											
03...	89	48	44	.9	3.2	320	0	260	240	18	.5
MAR											
17...	65	45	50	1.2	6.2	240	0	200	250	6.0	.4
APR											
17...	83	56	61	1.3	5.3	280	6	240	330	5.9	.5
JUN											
12...	32	17	15	.5	.0	140	0	120	71	2.7	.2
JUL											
21...	69	38	35	.8	3.8	260	0	210	180	6.9	.3
AUG											
22...	64	41	42	1.0	4.3	270	3	230	200	3.4	.4
SEP											
19...	72	42	39	.9	4.8	280	6	240	190	5.2	.3

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT										
14...	3.9	--	459	.62	388	--	8	.43	.03	--
19...	6.3	445	440	.60	441	--	--	--	.03	--
NOV										
11...	--	--	--	.70	253	--	17	.11	.04	--
DEC										
09...	9.6	--	615	.84	357	--	11	.45	.46	--
JAN										
09...	26	--	1320	1.80	642	--	12	1.5	1.4	--
FEB										
03...	11	--	617	.84	333	--	11	.61	.55	--
MAR										
17...	7.2	--	553	.75	687	--	70	.61	.47	--
APR										
17...	.9	--	689	.94	759	--	40	.05	.06	--
JUN										
12...	6.2	--	214	.29	534	--	38	.14	.09	--
JUL										
21...	2.2	--	465	.63	218	--	31	.02	.05	--
AUG										
22...	6.3	--	505	.69	297	--	9	.02	.03	--
SEP										
19...	2.6	--	512	.70	249	35	--	--	.56	.02

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT										
14...	.04	--	.61	.65	.68	3.0	.08	--	4.1	.4
19...	.01	--	.34	.35	.38	1.7	.05	.03	4.9	2.6
NOV										
11...	.05	--	.44	.49	.53	2.3	.03	--	--	--
DEC										
09...	.17	--	.56	.73	1.2	5.3	.10	--	--	--
JAN										
09...	.67	--	4.5	5.2	6.6	29	.09	--	--	--
FEB										
03...	.33	--	.28	.61	1.2	5.1	.11	--	--	--
MAR										
17...	.30	--	.80	1.1	1.6	7.0	.15	--	--	--
APR										
17...	.18	.22	.45	.63	.69	3.1	.06	--	--	--
JUN										
12...	.06	.07	.81	.87	.96	4.3	.06	--	5.6	1.0
JUL										
21...	.07	.08	.90	.97	1.0	4.5	.04	--	--	--
AUG										
22...	.05	.06	.35	.40	.43	1.9	.08	--	--	--
SEP										
19...	.00	.00	.68	.68	1.2	5.5	.05	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE	ALUM- INUM, SUS- PENDED RECOV.	ALUM- INUM, DIS- SOLVED	ARSENIC TOTAL	ARSENIC DIS- SOLVED	BERYL- LIUM, TOTAL RECOV- ERABLE	BERYL- LIUM, SUS- PENDED RECOV.	BERYL- LIUM, DIS- SOLVED	BORON, TOTAL RECOV- ERABLE	BORON, DIS- SOLVED	CADMIUM TOTAL RECOV- ERABLE
		(UG/L AS AL)	(UG/L AS AL)	(UG/L AS AL)	(UG/L AS AS)	(UG/L AS AS)	(UG/L AS BE)	(UG/L AS BE)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS B)	(UG/L AS CD)
OCT												
14...	0950	80	70	10	1	1	0	0	<1	150	--	5
19...	1330	--	--	--	--	--	--	--	--	--	90	--
NOV												
11...	1000	--	--	--	--	--	--	--	--	140	--	--
DEC												
09...	0810	--	--	--	--	--	--	--	--	160	--	--
JAN												
09...	0830	--	--	--	--	--	--	--	--	220	--	--
FEB												
03...	0830	--	--	--	--	--	--	--	--	50	--	--
MAR												
17...	0810	--	--	--	--	--	--	--	--	210	--	--
APR												
17...	0820	--	--	--	--	--	--	--	--	130	--	--
JUN												
12...	1100	790	770	20	1	1	0	0	0	220	--	3
JUL												
21...	1130	--	--	--	--	--	--	--	--	90	--	--
AUG												
22...	1600	--	--	--	--	--	--	--	--	130	--	--
SEP												
19...	1620	--	--	--	--	--	--	--	--	110	--	--

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

JULY 21, 1979
1130 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHLOROPHYTA	
..CHLOROPHYCEAE	GREEN ALGAE
..ULOTRICHAE	
...CHAETOPHORACEAE	
& ...PROTODERMA	
CHRYSTOPHYTA	
..BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
& ...COCCONEIS	
...CYMBELLACEAE	
& ...EPITHEMIA	
...GOMPHONEMATACEAE	
...GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
...NAVICULA	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
 SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
 ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

LOCATION.--Lat 43°34'40", long 107°08'16", in SE¼SW¼NE¼ sec.26, T.42 N., R.86 W., Washakie County, Hydrologic Unit 10090201, on left bank 1,100 ft (335 m) downstream from Rock Creek and 13 mi (21 km) southwest of Barnum.

PERIOD OF RECORD.--September 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,220 ft (2,201 m), from topographic map. Prior to Oct. 1, 1970, at site 900 ft (274 m) upstream at different datum.

REMARKS.--Records good except those during winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--18 years, 33.3 ft³/s (0.943 m³/s), 24,130 acre-ft/yr (29.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s (201 m³/s) June 15, 1963, gage height, 12.6 ft (3.840 m), from floodmark, site and datum then in use, on basis of slope-area measurement of peak flow; minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Dec. 15, 16, 1964, Jan. 24-27, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)
May 16	1830	*488	13.8	a3.6	1.10

a-From floodmarks and partial gage-height record.

Minimum daily discharge, 4.0 ft³/s (0.11 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	7.6	6.5	5.4	5.2	5.9	7.2	65	58	15	7.6	5.3
2	8.8	7.6	6.2	5.5	5.2	5.9	7.0	55	54	14	7.6	5.3
3	8.5	7.6	6.0	5.6	5.2	5.8	7.2	52	55	14	7.2	5.0
4	8.2	7.3	6.2	5.6	5.2	5.8	7.6	51	54	16	6.8	5.0
5	8.2	7.0	6.1	5.4	5.4	5.8	7.9	100	53	14	6.4	5.0
6	8.2	6.6	6.0	5.6	5.4	5.9	8.8	170	50	13	6.0	5.0
7	8.2	7.0	5.9	5.6	5.2	5.9	9.1	111	54	13	6.0	4.6
8	8.2	7.6	5.8	5.7	5.2	5.8	9.2	77	50	12	6.4	4.3
9	8.2	6.2	6.0	5.8	5.2	5.8	9.4	61	49	12	6.4	4.0
10	7.9	5.2	6.2	5.8	5.2	5.8	9.4	52	44	11	6.4	4.3
11	7.9	5.0	6.4	6.2	5.2	6.0	9.4	45	42	11	6.0	4.6
12	8.2	6.2	6.6	6.0	5.4	6.4	7.9	43	41	11	6.0	5.3
13	8.2	7.1	6.4	5.7	5.7	7.0	9.4	51	39	11	7.2	5.6
14	8.2	6.9	6.4	5.6	5.9	6.2	11	68	37	10	7.6	5.6
15	8.2	6.8	6.4	5.8	6.2	5.7	13	129	36	9.8	6.8	5.0
16	8.2	7.0	6.4	6.0	6.4	5.7	14	315	35	9.8	6.8	4.6
17	8.5	7.3	6.4	5.8	6.4	5.7	21	300	33	9.8	8.0	4.6
18	8.8	7.3	6.6	5.9	6.4	5.9	29	215	32	9.3	7.6	4.3
19	7.9	7.0	6.3	5.9	6.4	5.7	28	151	29	9.3	7.6	4.6
20	7.6	6.9	6.0	5.7	6.2	5.6	23	135	29	9.3	7.6	4.6
21	7.6	7.3	6.2	5.7	5.9	5.7	23	139	26	9.3	8.0	4.6
22	7.6	7.6	6.2	5.7	5.4	6.0	27	117	24	8.9	6.8	4.6
23	7.6	7.7	6.4	5.7	5.4	6.2	40	109	23	9.3	6.4	4.3
24	7.9	7.6	6.4	5.9	5.4	6.4	45	103	22	8.9	6.4	4.3
25	8.2	7.1	5.7	5.9	5.4	6.7	39	100	20	8.4	7.2	4.3
26	8.5	7.0	5.7	5.9	5.9	6.6	38	93	19	9.3	6.8	4.3
27	8.2	7.0	5.7	5.7	5.9	7.0	36	89	18	9.3	8.0	4.6
28	8.2	6.9	5.6	5.7	5.9	7.6	37	84	18	8.9	7.2	4.6
29	7.9	6.8	5.5	5.7	---	7.6	39	99	17	8.4	6.4	4.6
30	7.6	6.7	5.4	5.4	---	7.5	52	78	16	8.4	5.6	4.6
31	7.6	---	5.3	5.2	---	7.3	---	64	---	8.9	5.3	---
TOTAL	251.5	208.9	188.9	177.1	157.8	192.9	624.5	3321	1077	332.3	212.1	141.4
MEAN	8.11	6.96	6.09	5.71	5.64	6.22	20.8	107	35.9	10.7	6.84	4.71
MAX	8.8	7.7	6.6	6.2	6.4	7.6	52	315	58	16	8.0	5.6
MIN	7.6	5.0	5.3	5.2	5.2	5.6	7.0	43	16	8.4	5.3	4.0
AC=FT	499	414	375	351	313	383	1240	6590	2140	659	421	280
CAL YR 1978	TOTAL	17957.6	MEAN	49.2	MAX	502	MIN	4.3	AC=FT	35620		
WTR YR 1979	TOTAL	6885.4	MEAN	18.9	MAX	315	MIN	4.0	AC=FT	13660		

06309260 BUFFALO CREEK ABOVE NORTH FORK BUFFALO CREEK, NEAR ARMINTO, WY

LOCATION.--Lat 43°25'33", long 107°11'18", in SW¼NW¼NE¼ sec.20, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, on left bank 150 ft (46 m) downstream from South Fork, 0.8 mi (1.3 km) upstream from North Fork, and 17.5 mi (28.2 km) north of Arminto.

DRAINAGE AREA.--8.80 mi² (22.8 km²).

PERIOD OF RECORD.--October 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,660 ft (2,335 m), from topographic map.

REMARKS.--Records good except those for November to January and Apr. 15 to May 10, which are poor. No gage-height record Dec. 29 to Jan. 30. No diversion above station. Results of discharge measurement, in cubic feet per second, made during period when station was not in operation, is given below:

Oct. 1 . . . 0.22

AVERAGE DISCHARGE.--5 years, 3.58 ft³/s (0.101 m³/s), 2,590 acre-ft/yr (3.19 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117 ft³/s (3.31 m³/s) June 18, 1975, gage height, 2.02 ft (0.616 m); maximum gage height, 3.55 ft (1.082 m) May 9, 1978 (backwater from snow); minimum daily discharge, 0.16 ft³/s (0.005 m³/s) Jan. 11, 1975.

Peak discharges for the water years 1975-78 above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 18, 1975	1900	83 2.35	1.91 0.582	May 2, 1977	1830	87 2.46	2.08 0.634
June 6, 1975	1900	89 2.52	1.93 .588	May 9, 1977	2300	*94 2.66	2.08 .634
June 14, 1975	1700	53 1.50	1.75 .533	May 15, 1977	0530	59 1.67	1.88 .573
June 18, 1975	1730	*117 3.31	2.02 .616	May 16, 1978	1830	82 2.32	2.05 .625
May 14, 1976	1800	*56 1.59	1.75 .533	May 23, 1978	1800	*94 2.66	2.11 .643
				June 7, 1978	1930	73 2.07	2.00 .610

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 26	1300	-- --	a*2.35 0.716	May 16	1830	*53 1.50	1.87 0.570

a-backwater from ice.

Minimum daily discharge, 0.17 ft³/s (0.005 m³/s) Sept. 8-10.

REVISIONS.--Figures of daily discharge, in cubic feet per second, for October 1974 which were not published in the report WY-75-1 are given below:

DISCHARGE. IN CUBIC FEET PER SECOND, OCTOBER 1974

DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S
1...	0.20	6...	0.28	11...	0.22	16...	0.20	21...	0.20	26...	0.20
2...	.20	7...	.26	12...	.21	17...	.20	22...	.20	27...	.20
3...	.20	8...	.24	13...	.20	18...	.20	23...	.22	28...	.20
4...	.30	9...	.23	14...	.20	19...	.20	24...	.21	29...	.20
5...	.26	10...	.22	15...	.20	20...	.20	25...	.20	30...	.30
										31...	.45

	TOTAL	MEAN	AC-FT	MAX	MIN
OCT. 1974	7.00	.23	14	.45	.20
1975 W.Y.	1,764.21	4.83	3,500	65	.16

06309260 BUFFALO CREEK ABOVE NORTH FORK BUFFALO CREEK, NEAR ARMINTO, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.60	.41	.32	.40	.32	.24	6.4	7.4	1.7	.55	.28
2	.60	.58	.40	.33	.40	.32	.24	4.6	7.7	1.6	.45	.24
3	.60	.55	.40	.34	.36	.32	.24	3.8	8.0	1.6	.45	.24
4	.55	.55	.40	.35	.36	.32	.28	4.2	8.4	1.7	.40	.20
5	.55	.53	.42	.37	.32	.32	.32	9.5	8.4	1.5	.36	.20
6	.55	.50	.38	.38	.36	.32	.36	11	7.4	1.4	.36	.24
7	.55	.52	.35	.39	.36	.32	.45	6.2	7.4	1.3	.40	.20
8	.50	.54	.35	.41	.36	.32	.40	5.4	6.4	1.2	.45	.17
9	.50	.51	.36	.43	.40	.28	.45	4.2	7.0	1.1	.45	.17
10	.50	.36	.40	.44	.40	.32	.50	3.8	5.6	1.0	.45	.17
11	.50	.34	.41	.45	.40	.32	.40	3.7	5.6	1.0	.40	.28
12	.50	.39	.42	.40	.40	.32	.32	3.8	5.9	1.0	.36	.40
13	.50	.48	.41	.35	.36	.32	.36	5.1	5.9	1.0	.66	.36
14	.50	.53	.43	.37	.36	.32	.36	9.5	5.6	.98	.84	.36
15	.55	.55	.45	.39	.36	.28	.45	17	5.1	.98	.55	.28
16	.50	.57	.44	.40	.36	.32	.66	24	4.9	.84	.45	.24
17	.60	.57	.46	.41	.36	.32	.98	19	4.6	.84	.91	.20
18	.72	.54	.48	.43	.36	.32	1.3	17	4.6	.78	.66	.24
19	.66	.48	.46	.42	.36	.28	1.8	15	3.8	.78	.55	.24
20	.55	.45	.44	.41	.36	.28	1.9	13	4.0	.78	.66	.28
21	.50	.48	.44	.41	.36	.28	1.1	16	3.4	.72	.60	.28
22	.50	.55	.44	.39	.36	.32	1.5	16	3.2	.72	.48	.24
23	.50	.56	.44	.37	.36	.32	3.4	14	2.9	.78	.40	.20
24	.50	.54	.46	.39	.36	.32	4.0	14	2.7	.72	.40	.20
25	.54	.48	.44	.40	.36	.32	2.3	13	2.6	.66	.50	.20
26	.56	.46	.42	.39	.36	.32	2.3	14	2.6	.72	.40	.24
27	.58	.45	.40	.37	.32	.32	2.3	14	2.4	.66	.55	.28
28	.60	.46	.38	.36	.32	.32	3.2	14	2.4	.55	.40	.28
29	.60	.43	.33	.36	---	.32	4.0	14	2.2	.55	.36	.20
30	.60	.42	.32	.36	---	.28	5.4	9.9	1.9	.55	.28	.24
31	.60	---	.31	.36	---	.28	---	8.0	---	.66	.28	---
TOTAL	17.11	14.97	12.65	11.95	10.20	9.64	41.51	333.1	150.0	30.37	15.01	7.35
MEAN	.55	.50	.41	.39	.36	.31	1.38	10.7	5.00	.98	.48	.25
MAX	.72	.60	.48	.45	.40	.32	5.4	24	8.4	1.7	.91	.40
MIN	.50	.34	.31	.32	.32	.28	.24	3.7	1.9	.55	.28	.17
AC-FT	34	30	25	24	20	19	82	661	298	60	30	15
CAL YR 1978 TOTAL	1919.61			MEAN 5.26	MAX 66	MIN .17	AC-FT 3810					
WTR YR 1979 TOTAL	653.86			MEAN 1.79	MAX 24	MIN .17	AC-FT 1300					

YELLOWSTONE RIVER BASIN

06309270 NORTH FORK BUFFALO CREEK NEAR ARMINTO, WY

LOCATION.--Lat 43°26'11", long 107°10'58", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.17, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, on right bank 1.3 mi (2.1 km) upstream from mouth and 18.5 mi (29.8 km) north of Arminto.

DRAINAGE AREA.--8.10 mi² (21.0 km²).

PERIOD OF RECORD.--October 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,720 ft (2,353 m), from topographic map.

REMARKS.--Records good except those for December to February and those for period of no gage-height record, Dec. 25 to Mar. 6, which are poor. No diversion above station. Result of discharge measurement, in cubic feet per second, made during period when station was not in operation, is given below:

Oct. 1 . . . 1.02

AVERAGE DISCHARGE.--5 years, 5.68 ft³/s (0.161 m³/s), 4,120 acre-ft/yr (5.08 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 201 ft³/s (5.69 m³/s) June 18, 1975, gage height, 2.64 ft (0.805 m); minimum daily, 0.52 ft³/s (0.015 m³/s) Jan. 1, 1975.

Peak discharges for the water years 1975-78 above base of 60 ft³/s (1.70 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
June 7, 1975	1700	152	4.30	2.51	0.765	May 2, 1977	1830	*129	3.65	2.36	0.719
June 15, 1975	1800	146	4.13	2.33	.710	May 10, 1977	1800	123	3.48	2.34	.713
June 18, 1975	1800	*201	5.69	2.64	.805	May 15, 1977	0530	75	2.12	2.08	.634
May 10, 1976	1800	*78	2.21	a2.00	.610	May 16, 1978	2200	75	2.12	2.06	.628
May 14, 1976	1800	75	2.12	2.00	.610	May 23, 1978	1800	105	2.97	2.21	.674
May 19, 1976	1800	75	2.12	*2.02	.616	June 7, 1978	1800	*115	3.26	2.25	.686
						June 13, 1978	1730	105	2.97	2.21	.674

a-about.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 60 ft³/s (1.70 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 16	1800	*64	1.81	1.99	0.607

Minimum daily discharge, 0.83 ft³/s (0.024 m³/s) Mar. 10, 13, Apr. 12.

REVISIONS.--Figures of daily discharge, in cubic feet per second, for October 1974 which were not published in the report WY-75-1 are given below:

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1974

DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S
1...	0.95	6...	1.4	11...	1.0	16...	1.0	21...	1.0	26...	1.0
2...	.95	7...	1.3	12...	1.0	17...	1.0	22...	1.1	27...	1.0
3...	.95	8...	1.2	13...	1.0	18...	1.0	23...	1.2	28...	1.0
4...	1.3	9...	1.1	14...	1.0	19...	1.0	24...	1.2	29...	1.0
5...	1.3	10...	1.0	15...	1.0	20...	1.0	25...	1.1	30...	1.7
										31...	2.0

	TOTAL	MEAN	AC-FT	MAX	MIN
Oct. 1974	34.75	1.12	69	2.0	.95
1975 W.Y.	2,698.43	7.39	5,350	105	.52

06309270 NORTH FORK BUFFALO CREEK NEAR ARMINTO, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.6	1.3	1.0	.86	.88	.89	5.5	12	2.6	1.4	1.3
2	1.9	1.5	1.3	1.0	.86	.88	.89	4.9	11	2.4	1.4	1.2
3	1.8	1.6	1.3	1.0	.86	.88	.89	4.9	10	2.4	1.4	1.2
4	1.8	1.5	1.3	1.0	.86	.88	.89	5.5	10	2.6	1.4	1.2
5	1.8	1.3	1.3	1.0	.86	.88	.89	8.4	10	2.4	1.3	1.2
6	1.8	1.4	1.3	1.0	.86	.89	1.2	12	9.7	2.3	1.4	1.2
7	1.7	1.6	1.3	1.0	.86	.89	1.2	12	10	2.2	1.4	1.2
8	1.7	1.5	1.3	1.0	.86	.89	1.2	9.0	8.7	2.2	1.4	1.2
9	1.7	1.3	1.3	1.0	.86	.89	1.3	7.8	9.4	2.0	1.4	1.2
10	1.7	1.0	1.3	1.0	.86	.83	1.3	6.2	9.7	2.0	1.4	1.2
11	1.7	1.5	1.3	1.0	.86	.89	1.0	5.1	8.1	2.0	1.4	1.0
12	1.7	1.7	1.3	.98	.87	.89	.83	4.9	7.5	2.0	1.4	1.1
13	1.7	1.8	1.3	.96	.87	.83	1.1	5.7	7.0	2.0	1.6	1.1
14	1.7	1.6	1.3	.95	.88	.89	1.1	8.1	6.4	1.9	1.5	1.1
15	1.8	1.6	1.3	.95	.88	.89	1.3	13	5.7	1.9	1.4	1.0
16	1.8	1.5	1.3	.95	.88	.89	1.7	36	5.5	1.9	1.6	1.0
17	1.8	1.5	1.3	.95	.88	.96	2.3	35	5.3	1.8	1.9	1.0
18	1.9	1.5	1.3	.95	.88	.89	3.1	28	4.7	1.8	1.5	1.0
19	1.8	1.5	1.3	.95	.88	.89	3.8	27	4.7	1.8	1.4	1.0
20	1.8	1.5	1.3	.95	.88	.89	2.3	25	4.3	1.8	1.5	1.0
21	1.8	1.5	1.3	.95	.88	.89	2.3	28	3.9	1.8	1.4	1.0
22	1.7	1.5	1.2	.95	.88	.89	2.9	26	3.8	1.7	1.3	1.0
23	1.6	1.5	1.2	.95	.88	.89	4.3	23	3.6	1.8	1.4	1.0
24	1.8	1.5	1.1	.95	.88	.89	4.3	21	3.4	1.7	1.5	1.0
25	1.8	1.4	1.1	.95	.88	.89	4.1	22	3.3	1.7	1.4	.96
26	1.8	1.4	1.1	.94	.88	.89	3.9	20	3.1	1.7	1.4	1.0
27	1.7	1.4	1.1	.92	.88	.89	3.6	20	2.9	1.7	1.6	1.0
28	1.8	1.4	1.1	.90	.88	.96	3.8	18	2.8	1.5	1.4	1.0
29	1.8	1.4	1.1	.88	---	.96	3.9	21	2.8	1.5	1.3	1.0
30	1.6	1.3	1.0	.86	---	.96	4.9	14	2.6	1.5	1.3	1.0
31	1.6	---	1.0	.86	---	.89	---	12	---	1.4	1.2	---
TOTAL	54.5	44.3	38.3	29.70	24.40	27.70	67.18	489.0	191.9	60.0	44.3	32.36
MEAN	1.76	1.48	1.24	.96	.87	.89	2.24	15.8	6.40	1.94	1.43	1.08
MAX	1.9	1.8	1.3	1.0	.88	.96	4.9	36	12	2.6	1.9	1.3
MIN	1.6	1.0	1.0	.86	.86	.83	.83	4.9	2.6	1.4	1.2	.96
AC-FT	108	88	76	59	48	55	133	970	381	119	88	64
CAL YR 1978	TOTAL	2917.02	MEAN 7.99	MAX 86	MIN .86	AC-FT 5790						
WTR YR 1979	TOTAL	1103.64	MEAN 3.02	MAX 36	MIN .83	AC-FT 2190						

06309280 BUFFALO CREEK BELOW NORTH FORK BUFFALO CREEK, NEAR ARMINTO, WY

LOCATION.--Lat 43°25'08", long 107°09'59", in NE¼NW¼SE¼ sec.21, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, on left bank 0.3 mi (0.5 km) downstream from North Fork, 1.8 mi (2.9 km) upstream from Pine Creek, and 17.5 mi (28.2 km) north of Arminto.

DRAINAGE AREA.--18.6 mi² (48.2 km²).

PERIOD OF RECORD.--October 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,500 ft (2,286 m), from topographic map.

REMARKS.--Records good except those for Aug. 21 to Sept. 30, which are poor. No gage-height record Aug. 21-26, Aug. 29 to Sept. 30, stage below 0.35 ft (0.11 m). Flow at site July 27 to Sept. 30, 1979, originated from a ruptured pipeline that was completed about July 20, 1979. The pipeline is intended to return flow to the stream at a point downstream from both the station and recharge area of the Madison Limestone geologic formation. No other diversions above station.

AVERAGE DISCHARGE.--5 years, 5.52 ft³/s (0.156 m³/s), 4,000 acre-ft/yr (4.93 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 295 ft³/s (8.35 m³/s) June 18, 1975, gage height, 2.16 ft (0.658 m); maximum gage height, 2.56 ft (0.780 m) Apr. 24, 1977 (backwater from snow); no flow for many days each year.

Peak discharges for the water years 1975-78 above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 18, 1975	1900	a92 2.61	unknown	May 2, 1977	1800	200 5.66	2.01 0.613
June 5, 1975	1730	219 6.20	2.07 0.631	May 9, 1977	2330	*223 6.32	2.07 0.631
June 14, 1975	2000	178 5.04	1.86 0.567	May 15, 1977	0530	130 3.68	1.79 0.546
June 18, 1975	1800	*295 8.35	2.16 0.658	May 16, 1978	2100	149 4.22	1.91 0.582
May 10, 1976	a2000	unknown	unknown	May 24, 1978	1830	178 5.04	2.01 0.613
May 14, 1976	1800	*124 3.51	1.71 0.521	June 7, 1978	1830	*189 5.35	2.05 0.625
May 19, 1976	1830	112 3.17	1.67 0.509				

a-about.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 16	1900	*77 2.18	1.59 0.485

No flow for many days.

REVISIONS.--Figures of daily discharge, in cubic feet per second, for October 1974 which were not published in the report WY-75-1 are given below:

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1974

DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S
1...	0	6...	0	11...	0	16...	0	21...	0	26...	0
2...	0	7...	0	12...	0	17...	0	22...	0	27...	0
3...	0	8...	0	13...	0	18...	0	23...	0	28...	0
4...	0	9...	0	14...	0	19...	0	24...	0	29...	0
5...	0	10...	0	15...	0	20...	0	25...	0	30...	0
										31...	0
TOTAL		MEAN		AC-FT		MAX		MIN			
OCT. 1974		0		0		0		0		0	
1975 W.Y.		2,876.1		7.88		5,700		135		0	

06309280 BUFFALO CREEK BELOW NORTH FORK BUFFALO CREEK, NEAR ARMINTO, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	7.7	.00	.76	.55
2	.00	.00	.00	.00	.00	.00	.00	.00	6.2	.00	.64	.55
3	.00	.00	.00	.00	.00	.00	.00	.00	6.4	.00	.64	.55
4	.00	.00	.00	.00	.00	.00	.00	.00	6.9	.00	.53	.55
5	.00	.00	.00	.00	.00	.00	.00	1.2	6.4	.00	.53	.55
6	.00	.00	.00	.00	.00	.00	.00	3.9	5.1	.00	.59	.55
7	.00	.00	.00	.00	.00	.00	.00	.32	6.2	.00	.70	.55
8	.00	.00	.00	.00	.00	.00	.00	.00	4.1	.00	.70	.50
9	.00	.00	.00	.00	.00	.00	.00	.00	4.6	.00	.70	.50
10	.00	.00	.00	.00	.00	.00	.00	.00	3.6	.00	.70	.50
11	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.59	.50
12	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.53	.50
13	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.93	.50
14	.00	.00	.00	.00	.00	.00	.00	1.7	1.5	.00	.87	.50
15	.00	.00	.00	.00	.00	.00	.00	11	.68	.00	.64	.50
16	.00	.00	.00	.00	.00	.00	.00	39	.46	.00	.76	.50
17	.00	.00	.00	.00	.00	.00	.00	41	.37	.00	1.3	.45
18	.00	.00	.00	.00	.00	.00	.00	32	.10	.00	.99	.45
19	.00	.00	.00	.00	.00	.00	.00	31	.00	.00	.87	.45
20	.00	.00	.00	.00	.00	.00	.00	27	.00	.00	.87	.45
21	.00	.00	.00	.00	.00	.00	.00	31	.00	.00	.72	.45
22	.00	.00	.00	.00	.00	.00	.00	32	.00	.00	.59	.45
23	.00	.00	.00	.00	.00	.00	.00	28	.00	.00	.57	.45
24	.00	.00	.00	.00	.00	.00	.00	25	.00	.00	.58	.45
25	.00	.00	.00	.00	.00	.00	.00	26	.00	.00	.58	.30
26	.00	.00	.00	.00	.00	.00	.00	24	.00	.00	.58	.00
27	.00	.00	.00	.00	.00	.00	.00	23	.00	.15	.59	.00
28	.00	.00	.00	.00	.00	.00	.00	23	.00	.82	.64	.00
29	.00	.00	.00	.00	---	.00	.00	26	.00	.82	.55	.00
30	.00	.00	.00	.00	---	.00	.00	14	.00	.87	.55	.00
31	.00	---	.00	.00	---	.00	---	9.4	---	.87	.55	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	449.52	66.61	3.53	21.34	12.25
MEAN	.000	.000	.000	.000	.000	.000	.000	14.5	2.22	.11	.69	.41
MAX	.00	.00	.00	.00	.00	.00	.00	41	7.7	.87	1.3	.55
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.53	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	892	132	7.0	42	24
CAL YR 1978	TOTAL	3291.97	MEAN 9.02	MAX 138	MIN .00	AC-FT 6530						
WTR YR 1979	TOTAL	553.25	MEAN 1.52	MAX 41	MIN .00	AC-FT 1100						

YELLOWSTONE RIVER BASIN

06309450 BEAVER CREEK BELOW BAYER CREEK, NEAR BARNUM, WY

LOCATION---Lat 43°39'55", long 107°03'48", in SE¼SE¼NW¼ sec.28, T.43 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.2 mi (0.3 km) downstream from Bayer Creek and 7.7 mi (12.4 km) west of Barnum.

DRAINAGE AREA--10.9 mi (28.2 km).

PERIOD OF RECORD--October 1974 to September 1979 (discontinued).

GAGE--Water-stage recorder. Altitude of gage is 7,030 ft (2,143 m), from topographic map. Prior to Mar. 30, 1978, at site 300 ft (91 m) downstream at datum 3.95 ft (1.204 m) lower.

REMARKS--Records fair except those for Nov. 27 to Mar. 14, which are poor. No diversion above station. Results of discharge measurements, in cubic feet per second, made during period when station was not in operation, are given below:

Oct. 1 . . . 2.33
Nov. 1 . . . 2.73

AVERAGE DISCHARGE--5 years, 8.59 ft³/s (0.243 m³/s), 6,220 acre-ft/yr (7.67 hm³/yr).

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 186 ft³/s (5.27 m³/s) July 6, 1978, gage height, 2.72 ft (0.829 m); maximum gage height, 2.93 ft (0.893 m) May 7, 1978 (backwater from snow); minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Dec. 30, 31, 1974, Jan. 2, 10-12, 1975.

Peak discharges for the water years 1975-78 above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 18, 1975	1800	72 2.04	a1.63 0.497	May 2, 1977	1800	109 3.09	a1.37 0.418
June 3, 1975	1830	87 2.46	a1.71 .521	May 7, 1977	1900	101 2.86	a1.30 .396
June 18, 1975	1700	*123 3.48	a1.94 .591	May 15, 1977	0430	*113 3.20	a1.39 .424
May 24, 1976	1900	105 2.97	a1.70 .518	May 16, 1978	2230	176 4.98	2.69 .820
May 29, 1976	1730	73 2.07	a1.40 .427	May 24, 1978	1800	158 4.47	2.63 .802
Aug. 4, 1976	1630	*148 4.19	a2.19 .668	June 28, 1978	1700	130 3.68	2.52 .768
				July 6, 1978	2000	*186 5.27	2.72 .829
				July 16, 1978	1930	137 3.88	2.55 .777

a-site and datum then in use.

EXTREMES FOR CURRENT YEAR--Maximum discharge, 41 ft³/s (1.16 m³/s) May 16, gage height, 1.79 ft (0.546 m); maximum gage height, 1.93 ft (0.588 m) Dec. 11 (backwater from ice); no peak above base of 50 ft³/s (1.42 m³/s); minimum daily discharge, 1.5 ft³/s (0.042 m³/s) Nov. 10.

REVISIONS--Figures of daily discharge, in cubic feet per second, for October 1974 which were not published in the report WY-75-1 are given below:

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1974

DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S
1...	1.9	6...	2.5	11...	2.0	16...	2.0	21...	2.0	26...	2.2
2...	1.9	7...	2.3	12...	2.0	17...	2.0	22...	2.2	27...	2.1
3...	1.9	8...	2.1	13...	2.0	18...	2.0	23...	2.4	28...	2.1
4...	2.4	9...	2.0	14...	2.0	19...	2.0	24...	2.5	29...	2.1
5...	2.9	10...	2.0	15...	2.0	20...	2.0	25...	2.3	30...	2.3
										31...	2.1

	TOTAL	MEAN	AC-FT	MAX	MIN
OCT. 1974	66.2	2.14	131	2.9	1.9
1975 W.Y.	3,261.6	8.94	6,470	62	.80

06309450 BEAVER CREEK BELOW BAYER CREEK, NEAR BARNUM, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.0	3.5	2.2	2.0	2.1	2.9	15	16	6.3	4.3	2.9
2	5.0	3.8	3.4	2.3	2.0	2.1	2.8	13	15	6.3	4.3	2.9
3	4.8	3.8	3.1	2.3	2.0	2.0	3.0	13	14	6.3	4.0	2.7
4	4.5	3.8	3.4	2.3	2.0	2.0	3.4	17	14	6.3	4.0	2.5
5	4.5	3.4	3.5	2.2	2.0	2.1	3.8	21	14	6.0	3.8	2.4
6	4.5	3.4	3.3	2.2	2.0	2.2	4.5	18	14	6.0	3.8	2.4
7	4.5	3.6	3.2	2.3	2.0	2.3	4.8	15	17	5.6	3.8	2.4
8	4.3	3.8	3.2	2.3	2.0	2.4	4.3	12	16	5.6	4.0	2.2
9	4.3	3.4	3.4	2.4	2.0	2.2	5.3	13	15	5.6	4.0	2.2
10	4.3	1.5	3.6	2.5	2.0	2.0	5.0	13	13	5.6	3.8	2.2
11	4.3	2.9	3.7	2.6	2.1	2.1	3.8	13	12	5.3	3.6	2.4
12	4.3	3.5	3.8	2.5	2.2	2.1	3.5	14	12	5.3	3.6	2.5
13	4.0	3.7	3.6	2.4	2.4	2.1	3.6	18	11	5.3	4.5	2.5
14	4.0	3.8	3.4	2.3	2.5	2.1	4.0	21	11	5.3	4.3	2.7
15	4.0	3.8	3.4	2.4	2.5	2.1	6.3	25	11	5.6	3.8	2.5
16	4.0	3.8	3.2	2.5	2.4	2.2	9.3	27	11	5.3	4.0	2.4
17	4.3	3.8	3.4	2.4	2.4	2.2	13	21	11	5.3	4.3	2.4
18	4.3	3.8	3.2	2.4	2.4	2.2	17	20	9.7	5.3	3.8	2.4
19	4.5	3.6	3.2	2.4	2.2	2.1	15	19	9.3	5.0	4.0	2.5
20	4.3	3.6	3.4	2.3	2.2	2.1	9.7	18	9.3	4.8	4.3	2.7
21	4.3	3.6	3.2	2.3	2.2	2.1	9.3	18	8.9	4.8	4.3	2.5
22	4.3	3.6	3.0	2.3	2.2	2.2	11	18	8.5	4.5	3.4	2.4
23	4.0	3.4	2.9	2.3	2.1	2.2	18	17	8.5	4.8	3.2	2.4
24	4.3	3.6	2.9	2.4	2.0	2.4	18	17	8.1	4.5	3.2	2.5
25	4.3	3.6	2.9	2.4	2.1	2.2	13	17	7.7	4.5	3.2	2.4
26	4.3	3.6	2.7	2.4	2.1	2.2	11	17	7.0	4.3	3.0	2.2
27	4.3	3.4	2.9	2.3	2.1	2.7	11	16	8.1	4.5	3.8	2.2
28	4.3	3.4	2.5	2.3	2.1	2.9	12	16	7.3	4.5	3.4	2.2
29	4.0	3.4	2.5	2.3	---	3.2	14	21	6.6	4.3	3.2	2.2
30	4.0	3.5	2.4	2.1	---	3.2	15	20	6.3	4.8	3.0	2.2
31	3.8	---	2.2	2.0	---	3.0	---	17	---	4.5	2.9	---
TOTAL	133.4	105.9	98.0	72.3	60.2	71.0	257.3	540	332.3	162.1	116.6	73.0
MEAN	4.30	3.53	3.16	2.33	2.15	2.29	8.58	17.4	11.1	5.23	3.76	2.43
MAX	5.0	4.0	3.8	2.6	2.5	3.2	18	27	17	6.3	4.5	2.9
MIN	3.8	1.5	2.2	2.0	2.0	2.0	2.8	12	6.3	4.3	2.9	2.2
AC-FT	265	210	194	143	119	141	510	1070	659	322	231	145
CAL YR 1978	TOTAL	5320.2	MEAN	14.6	MAX	130	MIN	1.5	AC-FT	10550		
WTR YR 1979	TOTAL	2022.1	MEAN	5.54	MAX	27	MIN	1.5	AC-FT	4010		

06309460 BEAVER CREEK ABOVE WHITE PANTHER DITCH, NEAR BARNUM, WY

LOCATION.--Lat 43°41'52", long 106°56'52", in SE¼SW¼NW¼ sec.16, T.43 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.1 mi (0.2 km) upstream from White Panther ditch and 3.0 mi (4.8 km) northwest of Barnum.

DRAINAGE AREA.--24.2 mi² (62.7 km²).

PERIOD OF RECORD.--October 1974 to September 1979 (discontinued).

REVISED RECORDS.--WDR WY-78-1: 1975-77(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (1,631 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Dec. 7 to Jan. 15, Apr. 11 to May 4, June 23, 24, July 3-31, which are poor. No diversion above station. Results of discharge measurement, in cubic feet per second, during period when station was not in operation, is given below:

Oct. 1 . . . 10.7

AVERAGE DISCHARGE.--5 years, 17.2 ft³/s (0.487 m³/s), 12,460 acre-ft/yr (15.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 797 ft³/s (22.6 m³/s) July 6, 1978, gage height, 5.94 ft (1.811 m), from floodmarks, from rating curve extended above 140 ft³/s (3.96 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 5.6 ft³/s (0.16 m³/s) Jan. 12, 1975.

Peak discharges for the water years 1975-78 above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 18, 1975	2000	91 2.58	1.60 0.488	May 2, 1977	unknown	112 3.17	1.82 0.555
June 3, 1975	1900	132 3.74	1.89 .576	May 9, 1977	2100	79 2.24	1.57 .479
June 8, 1975	0630	119 3.37	1.78 .543	May 15, 1977	0900	*122 3.46	1.90 .579
June 18, 1975	2100	*154 4.36	2.00 .610	May 1, 1978	0130	75 2.12	1.55 .472
May 29, 1976	1900	*95 2.69	1.67 .509	May 17, 1978	0100	220 6.23	2.60 .792
				May 24, 1978	2000	205 5.81	2.52 .768
				July 6, 1978	a2000 b*797	22.6 c5.94	1.811

a-about.

b-from rating curve extended above 140 ft³/s (3.96 m³/s) on basis of slope-area measurement of peak flow.

c-from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 17	2230	*97 2.75	1.46 0.445
unknown	unknown	-- --	a*2.40 .732

a-from range in stage during period of no gage-height record, Dec. 7 to Jan. 5, due to backwater from ice.

Minimum daily discharge, 8.7 ft³/s (0.25 m³/s) Feb. 11, 12, 15.

REVISIONS.--Figures of daily discharge, in cubic feet per second, for October 1974 which were not published in the report WY-75-1 are given below:

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1974

DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S	DAY	FT ³ /S
1...	7.2	6...	8.1	11...	7.0	16...	7.0	21...	7.0	26...	8.0
2...	7.2	7...	7.8	12...	7.0	17...	7.0	22...	7.4	27...	7.5
3...	7.2	8...	7.5	13...	6.8	18...	7.0	23...	7.9	28...	7.5
4...	8.0	9...	7.1	14...	6.8	19...	7.0	24...	8.3	29...	7.5
5...	8.4	10...	7.0	15...	6.8	20...	7.0	25...	8.0	30...	8.5
										31...	8.3

	TOTAL	MEAN	AC-FT	MAX	MIN
OCT. 1974	230.8	7.45	458	8.5	6.8
1975 W.Y.	6,317.6	17.3	12,530	109	5.6

06309460 BEAVER CREEK ABOVE WHITE PANTHER DITCH, NEAR BARNUM, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	12	11	11	9.5	9.9	26	26	14	12	11
2	15	14	12	11	11	9.5	9.9	23	25	14	12	11
3	15	13	11	11	11	9.5	9.1	23	25	14	12	11
4	14	13	12	11	12	9.5	9.5	28	25	14	12	11
5	14	13	13	11	12	9.9	10	30	24	14	11	11
6	14	13	13	11	12	9.5	11	31	25	13	11	11
7	14	14	13	11	11	9.5	12	26	26	13	12	11
8	14	14	13	11	10	9.5	10	25	27	13	11	11
9	14	14	13	11	9.9	9.1	12	24	26	13	12	10
10	14	9.9	13	11	9.5	9.1	13	24	24	13	12	11
11	14	9.9	13	11	8.7	10	13	23	23	13	11	11
12	14	14	12	11	8.7	10	14	25	22	13	11	11
13	14	12	12	11	9.1	9.5	14	27	22	13	13	11
14	14	14	12	11	9.5	9.9	13	31	22	13	13	11
15	14	14	12	11	8.7	9.9	15	33	22	14	12	11
16	14	14	12	10	9.9	10	19	37	22	13	12	11
17	14	14	12	10	9.5	10	22	33	25	13	13	10
18	14	14	12	10	9.1	10	29	31	20	13	12	10
19	14	13	12	10	9.1	10	27	30	17	12	12	10
20	14	13	12	11	9.1	9.9	19	29	17	12	13	10
21	14	13	12	11	9.5	9.9	19	29	16	12	13	10
22	14	13	12	11	9.1	9.9	21	29	16	12	12	10
23	13	13	12	11	9.5	9.5	31	28	16	12	12	10
24	13	13	12	11	9.5	9.9	31	27	16	12	12	10
25	14	13	12	11	9.5	10	23	27	16	11	12	10
26	13	13	12	12	9.5	9.9	20	27	15	11	12	10
27	13	12	12	12	9.5	9.9	20	27	17	12	12	10
28	13	12	11	12	9.5	10	22	27	15	12	12	10
29	13	12	11	12	---	10	24	31	15	12	12	10
30	12	12	11	12	---	10	26	28	15	13	11	10
31	12	---	11	11	---	10	---	27	---	12	11	---
TOTAL	427	388.8	374	342	276.4	302.8	528.4	866	622	395	370	315
MEAN	13.8	13.0	12.1	11.0	9.87	9.77	17.6	27.9	20.7	12.7	11.9	10.5
MAX	15	14	13	12	12	10	31	37	27	14	13	11
MIN	12	9.9	11	10	8.7	9.1	9.1	23	15	11	11	10
AC-FT	847	771	742	678	548	601	1050	1720	1230	783	734	625
CAL YR 1978	TOTAL	9415.2	MEAN 25.8	MAX 180	MIN 6.9	AC-FT 18680						
WTR YR 1979	TOTAL	5207.4	MEAN 14.3	MAX 37	MIN 8.7	AC-FT 10330						

06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY

LOCATION.--Lat 44°01'43", long 107°04'55", in NW¼SE¼NW¼ sec.21, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.5 mi (0.8 km) downstream from Twin Creek, 0.7 mi (1.1 km) upstream from Dullknife Reservoir, 7.2 mi (11.6 km) southwest of Hazelton, and 19 mi (31 km) northwest of Mayoworth.

DRAINAGE AREA.--24.5 mi² (63.5 km²).

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1279: 1947-48(M), 1949, 1950-51(M), 1952.

GAGE.--Water-stage recorder. Altitude of gage is 8,180 ft (2,493 m), from topographic map. Prior to Oct. 1, 1966, at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--Records good except those for October to May, which are poor. No diversion above station.

AVERAGE DISCHARGE.--33 years, 14.8 ft³/s (0.419 m³/s), 10,720 acre-ft/yr (13.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 886 ft³/s (25.1 m³/s) June 15, 1953, gage height, 4.34 ft (1.323 m), site and datum then in use, from rating curve extended above 110 ft³/s (3.12 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 6.07 ft (1.850 m) May 17, 1975 (backwater from ice and footbridge); minimum daily discharge, 0.60 ft³/s (0.017 m³/s) Oct. 30, 1960, Apr. 9, 12, 15-17, 1961, but may have been less during winter months of water years 1947-48.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 190 ft³/s (5.38 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 31	0830	-- --	a*4.10 1.250	May 23	2200	*227 6.43	3.27 0.997
May 21	2000	215 6.09	3.22 .981				

a-backwater from ice.

Minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Feb. 22, 23, Mar. 3, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	3.4	3.1	2.6	2.6	2.5	2.8	5.6	56	24	8.7	6.3
2	5.7	3.4	3.0	2.7	2.5	2.4	2.7	6.0	62	23	8.1	6.0
3	5.2	3.4	2.9	2.7	2.5	2.3	2.5	6.6	69	23	8.1	5.4
4	5.0	3.3	3.1	2.7	2.6	2.4	2.8	9.0	81	41	7.5	5.2
5	4.7	3.2	3.0	2.5	2.6	2.5	2.7	10	90	27	7.2	5.2
6	4.4	3.1	2.9	2.6	2.7	2.6	3.0	12	104	22	7.2	5.2
7	4.7	3.3	2.8	2.5	2.8	2.6	3.0	13	78	21	7.2	5.0
8	4.7	3.4	2.8	2.5	2.6	2.4	3.0	11	65	19	7.5	5.0
9	4.7	3.1	2.9	2.6	2.8	2.3	3.3	12	68	17	7.2	4.7
10	4.7	3.0	3.2	2.7	2.8	2.4	3.4	13	77	16	7.2	4.7
11	4.7	2.9	3.3	2.7	2.8	2.5	3.3	14	81	16	6.9	5.0
12	4.7	2.9	3.3	2.7	2.8	2.6	3.3	18	87	15	6.6	5.2
13	4.5	2.9	3.1	2.6	2.9	2.5	3.3	21	91	14	16	5.4
14	4.6	2.8	3.3	2.5	2.8	2.5	3.3	25	91	14	15	6.3
15	4.7	3.0	3.4	2.6	2.5	2.6	3.5	40	70	14	9.0	6.3
16	4.7	3.1	3.3	2.7	2.6	2.6	3.5	70	70	13	8.4	5.4
17	4.7	3.2	3.4	2.8	2.7	2.5	3.9	88	78	13	7.8	5.0
18	5.0	3.3	3.5	2.9	2.7	2.4	3.9	65	65	14	10	4.7
19	4.7	3.2	3.3	3.0	2.6	2.4	3.8	84	53	19	11	4.7
20	4.7	3.0	3.2	3.0	2.5	2.5	3.6	83	52	13	11	4.4
21	4.4	3.0	3.3	3.1	2.4	2.6	3.7	117	44	12	11	4.4
22	5.0	3.2	3.3	3.1	2.3	2.6	3.8	127	44	13	9.8	4.4
23	4.5	3.2	3.2	3.0	2.3	2.6	3.9	130	40	23	8.1	4.2
24	4.3	3.2	3.3	3.0	2.4	2.8	4.0	132	38	16	7.5	4.0
25	4.0	3.0	3.1	3.0	2.5	2.6	4.0	116	35	14	10	4.0
26	4.1	3.2	3.1	2.9	2.6	2.5	4.0	112	33	12	8.1	4.0
27	4.1	3.1	3.0	2.8	2.5	2.6	4.1	116	32	11	8.1	4.0
28	4.1	3.4	2.8	2.7	2.6	2.6	4.1	104	31	11	9.0	3.8
29	4.3	3.3	2.7	2.7	---	2.8	4.5	114	29	11	7.5	3.8
30	3.8	3.2	2.5	2.6	---	2.9	5.0	62	27	9.8	6.9	3.8
31	3.3	---	2.5	2.6	---	2.9	---	58	---	9.8	6.6	---
TOTAL	141.9	94.7	95.6	85.1	73.0	79.0	105.7	1794.2	1841	520.6	270.2	145.5
MEAN	4.58	3.16	3.08	2.75	2.61	2.55	3.52	57.9	61.4	16.8	8.72	4.85
MAX	5.7	3.4	3.5	3.1	2.9	2.9	5.0	132	104	41	16	6.3
MIN	3.3	2.8	2.5	2.5	2.3	2.3	2.5	5.6	27	9.8	6.6	3.8
AC-FT	281	188	190	169	145	157	210	3560	3650	1030	536	289
CAL YR 1978	TOTAL	9564.9	MEAN	26.2	MAX	282	MIN	1.5	AC-FT	18970		
WTR YR 1979	TOTAL	5246.5	MEAN	14.4	MAX	132	MIN	2.3	AC-FT	10410		

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LOCATION.--Lat 44°00'29", long 107°01'08", in NE¼SE¼SW¼ sec.25, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 20 ft (6 m) downstream from Bull Creek, 2.1 mi (3.4 km) downstream from Dullknife Reservoir, and 6.8 mi (10.9 km) southwest of Hazelton.

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,840 ft (2,390 m), from topographic map.

REMARKS.--Records fair. Flow regulated by Dullknife Reservoir 2.1 mi (3.4 km) upstream, capacity, 4,350 acre-ft (5.36 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 415 ft³/s (11.8 m³/s) May 25, 1976, gage height, 4.17 ft (1.271 m); minimum daily, 0.50 ft³/s (0.014 m³/s) Jan. 24-30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 133 ft³/s (3.77 m³/s) May 22, gage height, 3.37 ft (1.027 m); minimum daily, 2.4 ft³/s (0.068 m³/s) Mar. 19, 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.3	3.3	3.5	3.6	3.3	2.6	8.3	77	22	36	16
2	4.7	3.3	3.2	3.7	3.6	3.2	2.6	6.8	77	20	29	16
3	4.6	3.3	3.3	3.8	3.8	3.2	3.0	7.1	77	20	29	16
4	4.6	3.3	3.3	3.8	4.4	3.8	3.2	8.3	62	34	28	16
5	4.6	3.3	3.7	3.8	4.7	4.2	3.2	17	80	27	27	16
6	4.4	3.3	3.7	3.8	4.7	4.0	3.2	15	84	20	23	16
7	4.4	3.5	3.7	3.8	4.6	3.7	3.0	9.8	83	18	23	16
8	4.2	3.3	3.7	3.8	4.2	3.7	2.9	6.5	71	16	23	16
9	3.7	3.3	3.7	3.8	4.4	3.8	3.2	5.4	68	15	23	16
10	3.7	3.3	3.7	3.8	4.2	3.8	3.2	5.4	68	14	23	16
11	3.5	3.5	3.7	3.8	3.8	3.3	3.0	5.1	73	13	24	16
12	3.5	3.7	3.3	3.8	3.8	3.2	2.9	5.4	74	12	22	16
13	3.5	3.8	3.3	3.7	3.3	2.9	2.9	6.5	74	11	22	16
14	3.5	3.7	3.7	3.7	3.2	2.8	3.2	12	75	11	21	16
15	3.5	3.5	3.8	3.7	3.2	2.9	3.3	25	70	9.5	20	16
16	3.7	3.5	3.8	3.5	3.5	2.6	3.8	24	66	9.1	20	16
17	3.7	3.5	3.8	3.3	3.8	2.5	4.9	14	75	9.8	20	16
18	3.7	3.5	3.8	3.5	4.0	2.5	5.9	12	67	11	20	16
19	3.3	3.5	3.7	3.5	4.0	2.4	5.1	18	60	16	20	16
20	3.3	3.5	3.5	3.3	4.0	2.4	4.6	81	57	11	20	16
21	3.3	3.5	3.8	3.3	3.8	2.6	4.4	91	43	9.1	20	16
22	3.3	3.5	3.7	3.3	4.0	2.6	5.1	108	41	25	20	16
23	3.5	3.5	3.7	3.5	4.2	2.5	7.1	101	44	40	20	16
24	3.5	3.5	3.5	3.5	4.0	2.6	7.6	102	42	40	20	16
25	3.3	3.7	3.5	3.5	4.0	2.6	6.5	99	37	40	20	16
26	3.7	3.7	3.5	3.5	4.0	2.6	5.4	94	35	40	20	16
27	3.7	3.5	3.5	3.3	3.8	2.5	5.9	94	33	40	20	15
28	3.3	3.3	3.5	3.3	3.5	2.6	6.8	94	32	39	20	15
29	3.3	3.3	3.5	3.5	---	2.6	7.3	101	22	39	19	15
30	3.2	3.3	3.5	3.5	---	2.6	9.5	87	25	39	16	15
31	3.2	---	3.5	3.5	---	2.6	---	80	---	39	16	---
TOTAL	116.0	103.7	110.9	111.1	110.1	92.6	135.3	1343.6	1792	709.5	684	476
MEAN	3.74	3.46	3.58	3.58	3.93	2.99	4.51	43.3	59.7	22.9	22.1	15.9
MAX	4.7	3.8	3.8	3.8	4.7	4.2	9.5	108	84	40	36	16
MIN	3.2	3.3	3.2	3.3	3.2	2.4	2.6	5.1	22	9.1	16	15
AC-FT	230	206	220	220	218	184	268	2670	3550	1410	1360	944
CAL YR 1978	TOTAL	10117.1	MEAN 27.7	MAX 262	MIN 1.3	AC-FT 20070						
WTR YR 1979	TOTAL	5784.8	MEAN 15.8	MAX 108	MIN 2.4	AC-FT 11470						

06311400 NORTH FORK POWDER RIVER BELOW PASS CREEK, NEAR MAYOWORTH, WY

LOCATION.--Lat 43°54'41", long 106°53'20", in NW¼NE¼SE¼ sec.36, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.8 mi (1.3 km) downstream from Pass Creek, 1.2 mi (1.9 km) upstream from Hat Ranch, 7.2 mi (11.6 km) northwest of Mayoworth, and 13 mi (21 km) downstream from Dullknife Reservoir.

DRAINAGE AREA.--100 mi² (259 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,700 ft (1,737 m), from topographic map.

REMARKS.--Records fair. Some regulation for irrigation by Dullknife Reservoir 13 mi (21 km) upstream, capacity, 4,350 acre-ft (5.36 hm³).

AVERAGE DISCHARGE.--6 years, 35.2 ft³/s (0.997 m³/s), 25,500 acre-ft/yr (31.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft³/s (25.2 m³/s) July 31, 1974, gage height, 7.10 ft (2.164 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurement of peak flow; minimum daily discharge, 13 ft³/s (0.37 m³/s) Feb. 5, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 815 ft³/s (23.1 m³/s) Aug. 18, gage height, 6.70 ft (2.042 m), from floodmark; minimum daily, 17 ft³/s (0.48 m³/s) Jan. 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	20	19	19	20	19	19	31	111	39	50	27
2	22	20	19	19	20	19	19	30	109	37	44	27
3	21	21	20	19	20	19	19	26	109	38	43	27
4	21	21	20	19	20	20	19	27	95	46	43	27
5	21	20	20	19	20	19	19	45	115	46	43	27
6	21	20	20	19	20	19	19	62	131	39	40	27
7	21	20	20	19	20	19	19	38	138	36	39	27
8	21	20	20	19	20	19	19	34	123	34	39	27
9	20	20	20	19	20	19	19	27	113	33	38	27
10	20	20	20	19	20	19	20	27	111	31	38	27
11	20	19	20	19	20	19	20	26	115	30	36	27
12	20	19	20	18	20	19	19	27	117	28	35	27
13	20	20	20	18	19	19	19	26	117	27	35	28
14	20	20	19	17	20	19	19	31	117	27	34	28
15	20	19	19	17	21	19	19	70	113	26	33	28
16	20	20	18	17	21	19	19	98	104	25	33	28
17	20	20	19	17	21	19	19	74	147	25	33	28
18	20	20	19	18	20	19	20	54	99	24	60	28
19	20	20	19	18	20	19	23	51	80	27	36	28
20	21	20	19	19	20	19	23	95	75	28	33	28
21	21	20	19	19	19	18	23	125	64	26	33	29
22	21	20	19	19	19	18	22	156	55	27	33	29
23	21	20	19	19	21	18	24	165	59	50	33	29
24	21	20	20	19	20	18	32	173	57	56	33	29
25	22	19	19	19	20	18	30	163	53	54	33	29
26	21	19	20	19	19	18	26	153	50	53	33	29
27	21	19	19	20	19	19	24	149	48	50	33	29
28	20	19	20	20	19	19	24	151	46	50	33	29
29	21	19	19	20	---	19	25	161	41	50	31	29
30	21	19	19	20	---	19	28	136	40	51	28	29
31	20	---	19	20	---	19	---	117	---	50	27	---
TOTAL	642	593	602	582	558	584	649	2548	2752	1163	1135	838
MEAN	20.7	19.8	19.4	18.8	19.9	18.8	21.6	82.2	91.7	37.5	36.6	27.9
MAX	23	21	20	20	21	20	32	173	147	56	60	29
MIN	20	19	18	17	19	18	19	26	40	24	27	27
AC-FT	1270	1180	1190	1150	1110	1160	1290	5050	5460	2310	2250	1660
CAL YR 1978	TOTAL	18851	MEAN	51.6	MAX	356	MIN	17	AC-FT	37390		
WTR YR 1979	TOTAL	12646	MEAN	34.6	MAX	173	MIN	17	AC-FT	25080		

06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼NW¼SW¼ sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, on left bank 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 (2,540 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October to December 1933, March to August 1934, November 1934, May 1935, April 1938 to June 1940, October 1940 to September 1971, October 1978 to September 1979. Monthly discharge only for some periods, published in WSP 1309. Prior to October 1960, published as Middle Fork Powder River near Kaycee.

REVISED RECORDS.--WSP 1309: 1934.

GAGE.--Water-stage recorder. Datum of gage is 4,533.76 ft (1,381.890 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1940, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records fair except those for winter period and those below 30 ft³/s (0.85 m³/s), which are poor. No gage-height record Nov. 15, Dec. 3-5, 8-11, Dec. 26 to Jan. 10, Feb. 21, 22, May 20 to June 12, June 14, 16, 21-24, July 7-29, Aug. 1-17, 19, Sept. 1-15, 17, 19-30. Diversion above station for irrigation of about 14,900 acres (60.3 km²), of which about 4,600 acres (18.6 km²) are below station.

AVERAGE DISCHARGE.--33 years (water years 1938-39, 1940-71, 1979), 128 ft³/s (3.625 m³/s), 92,740 acre-ft/yr (114 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,230 ft³/s (148 m³/s) Aug. 11, 1941, gage height, 12.57 ft (3.831 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurements at gage heights 8.98 ft (2.737 m), 11.17 ft (3.405 m), and 12.57 ft (3.831 m); no flow July 14-16, Aug. 1-11, 14, 1938, Aug. 8, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of about 18.0 ft (5.486 m), discharge not determined, and flood of June 3, 1936, reached a stage of 14.3 ft (4.359 m), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 930 ft³/s (26.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 7	1400	-- --	a*4.33 1.320
May 17	1400	*965 27.3	4.01 1.222

a-backwater from ice.

Minimum daily discharge, 0.73 ft³/s (0.021 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	117	108	95	88	110	149	230	270	43	2.4	16
2	70	121	107	98	86	106	151	315	240	35	.76	15
3	86	116	107	100	88	113	159	342	230	28	.73	13
4	101	119	108	98	92	130	147	303	220	39	.75	12
5	103	117	109	96	94	156	149	280	200	52	.75	11
6	103	116	104	94	95	175	145	381	190	17	.79	10
7	103	114	98	95	101	182	147	441	165	.80	.80	12
8	101	119	97	94	108	176	155	298	145	.80	.84	10
9	103	121	100	91	103	187	143	278	170	.80	.81	9.3
10	103	121	104	93	106	190	151	260	140	.78	.80	9.6
11	103	87	102	92	108	197	169	228	120	.78	.82	11
12	104	84	106	90	111	221	173	201	110	.78	1.1	12
13	105	84	106	90	113	225	151	191	100	.78	6.0	16
14	111	83	105	90	109	230	143	203	100	.76	1.0	17
15	110	87	107	91	95	250	145	232	89	.76	.90	20
16	108	93	110	92	97	260	147	391	89	.77	.80	21
17	110	100	114	94	98	228	161	706	83	.78	.88	19
18	114	105	115	95	104	207	175	510	146	.80	4.1	18
19	116	98	110	96	107	177	217	456	122	.80	11	14
20	110	89	111	98	106	157	230	390	92	.78	27	14
21	111	90	114	100	104	155	187	370	80	.78	50	17
22	111	92	118	98	100	157	175	370	70	.78	56	15
23	114	93	115	94	99	149	181	360	66	.78	48	13
24	114	95	113	94	105	147	197	350	74	.79	42	11
25	116	92	110	95	105	153	278	345	57	.83	131	11
26	121	96	101	93	117	143	232	340	46	.84	76	12
27	121	98	101	92	116	143	213	335	37	.82	60	11
28	121	117	100	90	113	157	193	340	35	.80	49	12
29	121	114	99	88	---	155	191	350	37	.80	49	11
30	121	109	95	86	---	155	199	400	49	15	41	12
31	119	---	94	88	---	153	---	320	---	9.4	15	---
TOTAL	3320	3087	3288	2900	2868	5344	5253	10516	3572	256.59	680.03	404.9
MEAN	107	103	106	93.5	102	172	175	339	119	8.28	21.9	13.5
MAX	121	121	118	100	117	260	278	706	270	52	131	21
MIN	66	83	94	86	86	106	143	191	35	.76	.73	9.3
AC-FT	6590	6120	6520	5750	5690	10600	10420	20860	7090	509	1350	803

WTR YR 1979 TOTAL 41489.52 MEAN 114 MAX 706 MIN .73 AC-FT 82290

YELLOWSTONE RIVER BASIN

06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE&NW&SW¼ sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, 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.--Water years 1946-47, 1949-54, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEDUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
17...	1045	--	108	1100	8.2	7.0	5	10.8	480	410
20...	0915	--	110	1120	8.3	7.5	--	--	--	430
NOV										
14...	1030	83	--	1100	8.1	.0	10	12.2	260	480
DEC										
12...	0950	106	--	1200	8.0	.0	20	11.8	K580	450
JAN										
12...	0915	90	--	1180	7.8	.0	6	11.4	410	520
FEB										
06...	1015	95	--	1080	7.7	.0	35	12.2	710	420
MAR										
20...	0800	--	155	1500	8.2	1.0	70	12.0	680	480
APR										
20...	0900	--	235	1060	8.0	7.0	400	10.4	--	370
JUN										
15...	0900	--	91	850	8.1	16.0	30	8.3	270	310
JUL										
24...	0530	.79	--	1600	8.1	17.0	25	6.2	360	560
AUG										
22...	1050	--	53	1400	8.2	17.0	45	8.7	410	550
SEP										
19...	1120	--	14	1550	8.3	15.0	7	9.3	K70	530

K-Results based on colony count outside the acceptable range (non-ideal colony count).

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
17...	220	98	41	79	1.7	2.8	230	0	190	340
20...	240	100	43	78	1.6	3.1	230	0	190	340
NOV										
14...	270	120	42	89	1.8	3.0	250	6	220	390
DEC										
12...	200	120	40	81	1.6	2.7	300	0	250	280
JAN										
12...	270	130	44	90	1.7	5.4	300	0	250	390
FEB										
06...	220	110	35	74	1.6	2.6	250	0	200	310
MAR										
20...	300	120	41	140	2.8	2.9	220	0	180	530
APR										
20...	210	92	34	80	1.8	9.1	200	0	160	350
JUN										
15...	170	79	28	55	1.4	1.3	170	0	140	250
JUL										
24...	370	140	50	160	3.0	4.6	230	0	190	560
AUG										
22...	340	140	48	120	2.2	4.3	260	0	210	490
SEP										
19...	340	130	49	140	2.7	4.5	230	0	190	510

06312500 POWDER RIVER NEAR KAYCEE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIU2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT										
17...	43	.5	4.6	--	719	.98	210	.00	--	--
20...	44	.3	5.6	771	727	.99	216	--	.05	--
NOV										
14...	47	.6	3.2	--	833	1.13	187	.54	--	--
DEC										
12...	52	.5	10	--	740	1.01	212	.88	--	--
JAN										
12...	58	.6	11	--	882	1.20	214	.72	--	--
FEB										
06...	46	.5	9.1	--	709	.96	182	.29	--	--
MAR										
20...	41	.7	8.2	--	997	1.36	417	.68	--	--
APR										
20...	29	.6	4.0	--	699	.95	444	.41	--	--
JUN										
15...	30	.4	7.4	--	536	.73	132	.05	--	--
JUL										
24...	89	.6	5.9	--	1120	1.52	2.39	.02	--	--
AUG										
22...	51	.5	10	--	995	1.35	142	.18	--	--
SEP										
19...	67	.5	5.3	--	1020	1.39	38.6	--	--	.02

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT									
17...	--	--	--	--	--	.03	--	--	--
20...	.03	.57	.60	.65	2.9	.02	.00	130	<10
NOV									
14...	--	--	--	--	--	.05	--	--	--
DEC									
12...	--	--	--	--	--	.08	--	--	--
JAN									
12...	--	--	--	--	--	.03	--	--	--
FEB									
06...	--	--	--	--	--	.14	--	--	--
MAR									
20...	--	--	--	--	--	.15	--	--	--
APR									
20...	--	--	--	--	--	.53	--	--	--
JUN									
15...	--	--	--	--	--	.08	--	--	--
JUL									
24...	--	--	--	--	--	.04	--	--	--
AUG									
22...	--	--	--	--	--	.13	--	--	--
SEP									
19...	--	--	--	--	--	.04	--	--	--

YELLOWSTONE RIVER BASIN

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°36'27", long 106°34'15", in SE4SW4NW4 sec.15, T.42 N., R.81 W., Johnson County, Hydrologic Unit 10090203, on right bank 1.2 mi (1.9 km) upstream from bridge on old U.S. Highway 87, 1.8 mi (2.9 km) upstream from I-25 bridge, 8.5 mi (13.7 km) southeast of Kaycee, and 9.2 mi (14.8 km) upstream from mouth.

DRAINAGE AREA.--1,150 mi² (2,978 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to October 1911, April 1938 to June 1940, May 1950 to September 1969, October 1978 to September 1979. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,660 ft (1,420 m), from topographic map. May 11 to Nov. 18, 1911, non-recording gage at site 3.2 mi (5.1 km) downstream at different datum. Apr. 9, 1938, to June 30, 1940, non-recording gage and May 1, 1950, to Dec. 3, 1956, water-stage recorder at site 1.1 mi (1.8 km) downstream at different datums. Dec. 4, 1956, to Sept. 30, 1969, at site 1.2 mi (1.9 km) downstream at different datums.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, Nov. 16, Nov. 24 to Dec. 17, Jan. 3-14, Apr. 7, 9, May 17 to June 26, which are poor. Adjudications for 16 small reservoirs, combined capacity, 1,300 acre-ft (1.6 hm³) for storage of water above station for stock and irrigation use. Water rights totaling 62.4 ft³/s (1.77 m³/s) for irrigation of about 4,350 acres (5.4 hm²) above station.

AVERAGE DISCHARGE.--21 years (water years 1939, 1951-69, 1979) 36.2 ft³/s (1.025 m³/s), 26,230 acre-ft/yr (32.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,500 ft³/s (1,010 m³/s) May 22, 1962, gage height, 14.43 ft (4.398 m), site and datum then in use, from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of slope-area measurement of peak flow; no flow in 1911, 1939, 1969, and 1979 water years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 804 ft³/s (22.8 m³/s) Aug. 20, gage height, 7.06 ft (2.152 m); no peak above base of 1,000 ft³/s (28.3 m³/s); no flow Jan. 3-19, 28-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	4.5	2.4	.12	.02	5.4	106	8.1	20	.40	.04	3.2
2	1.6	4.0	2.2	.02	.04	17	98	55	18	.30	.03	2.7
3	1.8	4.0	1.6	.00	.20	15	92	110	17	2.9	.05	1.8
4	1.6	3.8	1.8	.00	.28	20	82	260	17	3.8	.06	1.2
5	1.5	3.3	1.6	.00	.50	25	76	328	15	.80	.05	.80
6	1.5	3.2	1.4	.00	.70	33	74	270	14	.20	.05	.70
7	1.6	5.0	1.3	.00	1.0	58	150	215	14	2.2	.06	.30
8	1.8	5.5	1.3	.00	1.1	96	150	180	17	.70	.06	.15
9	2.0	4.5	1.5	.00	.90	195	140	205	15	.09	.06	.15
10	1.8	1.6	1.7	.00	.80	100	140	205	15	.07	.05	.10
11	1.5	1.5	1.6	.00	.80	102	135	306	12	.06	.04	.10
12	1.5	1.5	2.0	.00	2.0	128	130	334	10	.06	.03	.10
13	1.6	1.6	1.9	.00	7.0	312	125	270	9.0	.06	.05	.10
14	1.5	1.7	2.4	.00	40	176	160	210	8.0	.06	.07	.10
15	1.4	1.7	2.8	.00	10	215	155	170	7.6	.06	.06	.10
16	3.0	1.9	3.0	.00	7.0	346	140	140	7.0	.06	.05	.09
17	3.3	1.9	3.2	.00	7.4	384	130	130	6.0	.06	.24	.09
18	3.3	2.0	3.2	.00	7.6	329	125	120	5.2	.05	.42	.09
19	3.8	1.6	3.2	.00	7.2	156	115	100	4.6	.05	.34	.09
20	3.5	1.3	2.9	.10	12	106	115	80	4.4	.05	.318	.09
21	3.5	1.4	2.5	.12	16	88	100	70	4.7	.05	.248	.09
22	3.5	2.2	2.7	.10	15	94	75	60	5.0	.05	.60	.09
23	3.3	2.5	2.5	.08	10	90	55	45	7.6	.05	.22	.09
24	4.0	2.6	2.2	.10	5.6	74	40	40	6.0	1.8	.18	.09
25	4.0	2.5	2.0	.12	5.0	128	36	40	5.0	7.1	.22	.09
26	4.2	2.6	1.7	.08	5.5	94	32	38	3.4	5.0	.44	.09
27	4.2	2.6	1.5	.02	5.4	72	28	34	2.4	3.5	.10	.09
28	4.2	2.6	1.4	.00	4.8	172	17	31	1.8	2.0	.32	.09
29	3.8	2.7	1.0	.00	---	225	8.7	48	1.0	.25	.14	.09
30	3.5	2.5	.64	.00	---	190	8.1	40	.70	.08	.6.0	.09
31	3.5	---	.30	.00	---	128	---	32	---	.06	4.2	---
TOTAL	82.20	80.3	61.44	.86	173.84	4173.4	2837.8	4174.1	273.40	31.97	899.01	12.95
MEAN	2.65	2.68	1.98	.028	6.21	135	94.6	135	9.11	1.03	29.0	.43
MAX	4.2	5.5	3.2	.12	40	384	160	334	20	7.1	318	3.2
MIN	.90	1.3	.30	.00	.02	5.4	8.1	8.1	.70	.05	.03	.09
AC-FT	163	159	122	1.7	345	8280	5630	8280	542	63	1780	26
WTR YR 1979	TOTAL	12801.27	MEAN	35.1	MAX	384	MIN	.00	AC-FT	25390		

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°37'10", long 106°34'36", in NE¼SE¼ sec.9, T.42 N., R.81 W., Johnson County, Hydrologic Unit 10090203, 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.--Water years 1949-53, 1968 to current year.

REMARKS.--No flow observed Feb. 6, July 24, Sept. 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
17...	0930	--	3.3	3800	8.1	4.0	2	11.6	K22	1200
NOV										
14...	0930	1.7	--	5500	7.9	.0	300	10.6	250	1300
DEC										
12...	0800	2.0	--	4000	7.5	.0	20	10.2	K26	1200
JAN										
12...	0815	.00	--	5000	7.5	.0	10	6.2	K2	1400
MAR										
20...	0700	--	102	3000	8.0	.0	1100	12.6	260	790
APR										
20...	0800	--	100	3400	8.0	4.0	1100	11.1	--	770
JUN										
15...	1030	7.6	--	5000	8.2	17.0	600	8.4	350	1200
AUG										
22...	1010	--	60	3000	7.9	16.5	5500	8.6	K6000	790

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT									
17...	1100	330	97	480	6.0	9.1	180	0	150
NOV									
14...	1100	340	120	930	11	12	260	0	210
DEC									
12...	1000	340	82	520	6.6	7.9	240	0	200
JAN									
12...	1200	380	100	400	4.7	10	280	0	230
MAR									
20...	660	230	53	440	6.8	6.8	160	0	130
APR									
20...	560	200	69	420	6.5	14	260	0	210
JUN									
15...	1000	310	94	740	9.5	8.8	240	0	200
AUG									
22...	710	200	59	380	6.1	7.5	98	0	80

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT									
17...	1900	150	1.2	3.3	3060	4.16	27.3	.90	.05
NOV									
14...	2600	420	3.9	1.9	4560	6.20	20.9	.90	.00
DEC									
12...	1800	190	1.2	7.7	3070	4.18	16.6	1.0	.05
JAN									
12...	1700	170	1.3	5.9	2910	3.96	.00	.88	.03
MAR									
20...	1600	31	1.2	4.4	2460	3.35	677	1.9	2.3
APR									
20...	1400	47	1.2	2.8	2293	3.12	619	1.7	1.4
JUN									
15...	2300	120	1.1	6.9	3700	5.03	75.9	.66	.26
AUG									
22...	1500	30	.9	5.7	2260	3.07	366	1.2	--

06313180 DUGOUT CREEK TRIBUTARY NEAR MIDWEST, WY

LOCATION.--Lat 43°26'11", long 106°25'11", in SE¼NW¼ sec.14, T.40 N., R.80 W., Natrona County, Hydrologic Unit 10090204, on left bank 1.1 mi (1.8 km) north of Smoky Gap Road, 4.0 mi (6.4 km) upstream from mouth, and 6.5 mi (10.5 km) west of Midwest.

DRAINAGE AREA.--0.8 mi² (2.1 km²).

PERIOD OF RECORD.--Annual maximum, water years 1965-74. October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,930 ft (1,503 m), from topographic map. May 4, 1965, to Sept. 30, 1974, crest-stage gage at present site and datum.

AVERAGE DISCHARGE.--5 years, 0.23 ft³/s (0.007 m³/s), 167 acre-ft/yr (206,000 m³/yr).

REMARKS.--Records poor. No gage-height record Dec. 23 to Feb. 6, Feb. 15 to Mar. 1, Mar. 3-29, Apr. 17-22, May 9. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft³/s (45.0 m³/s) July 15, 1967, gage height, 9.10 ft (2.774 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft³/s (0.48 m³/s) May 3, gage height, 0.56 ft (0.171 m); maximum gage height, 4.83 ft (1.472 m) Feb. 14 (backwater from snow); no peak above base of 200 ft³/s (5.66 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.04	.01	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.20	.05	.13	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.10	.07	1.9	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.04	.01	.40	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.14	.00	.21	.00	.16	.00	.00
6	.00	.00	.00	.00	.00	.40	.00	.06	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.70	.00	.03	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.96	.00	.01	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.15	.00	.20	.01	.00	.00	.00
10	.00	.00	.00	.00	.00	.10	.00	2.1	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.30	.04	.98	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.35	.10	.73	.00	.00	.00	.00
13	.00	.00	.00	.00	.20	.31	1.4	.13	.00	.00	.00	.00
14	.00	.00	.00	.00	2.0	.26	.50	.06	.00	.00	.00	.00
15	.00	.00	.00	.00	.30	.22	.25	.05	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.18	.18	.03	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.12	.11	.01	.00	.00	.00	.00
18	.00	.00	.00	.00	.06	.09	.08	.01	.00	.00	.00	.00
19	.00	.00	.00	.00	.12	.06	.06	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.16	.05	.05	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.13	.04	.05	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.07	.03	.04	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.02	.03	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.03	.02	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.01	.01	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.01	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	3.04	4.92	3.18	7.05	.01	.16	.00	.00
MEAN	.000	.000	.000	.000	.11	.16	.11	.23	.000	.005	.000	.000
MAX	.00	.00	.00	.00	2.0	.96	1.4	2.1	.01	.16	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	6.0	9.8	6.3	14	.02	.3	.00	.00

CAL YR 1978 TOTAL 135.00 MEAN .37 MAX 30 MIN .00 AC-FT 268
WTR YR 1979 TOTAL 18.36 MEAN .050 MAX 2.1 MIN .00 AC-FT 36

06313400 SALT CREEK NEAR SUSSEX, WY

LOCATION.--Lat 43°37'19", long 106°22'04", in NE&NE&SE& sec.8, T.42 N., R.79 W., Johnson County, Hydrologic Unit 10090204, on left bank 200 ft (61 m) upstream from bridge on West Sussex Dugout oil field road, 6.3 mi (10.1 km) southwest of Sussex, and 12.6 mi (20.3 km) upstream from mouth.

DRAINAGE AREA.--769 mi² (1,992 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft (1,366 m), from topographic map.

REMARKS.--Records poor. No gage-height record Oct. 1-4, 13-17, 20, 21, 25, 26, Oct. 30 to Nov 1, Nov. 10 to Dec. 15, Dec. 20 to Jan 10, Jan. 13 to Feb. 6, Feb. 24, Mar. 11. Some regulation by Lower Salt Creek Reservoir, capacity, 2,710 acre-ft (3.34 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) May 18, 1978, gage height, 9.88 ft (3.011 m), from floodmark, from rating curve extended above 2,300 ft³/s (65 m³/s) on basis of slope-area measurement of peak flow; minimum daily discharge, 12 ft³/s (0.34 m³/s) Aug. 21-25, Sept. 5, 6, 17, 18, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 567 ft³/s (16.1 m³/s) July 30, gage height, 3.62 ft (1.103 m); maximum gage height, occurred during period of missing record either Nov. 10 to Dec. 15, Feb. 24, or Mar. 11 (backwater from ice); minimum daily discharge, 14 ft³/s (0.40 m³/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	32	22	18	21	39	70	29	31	26	28	26
2	27	32	20	20	20	36	67	39	32	28	26	26
3	27	32	18	21	21	33	64	66	31	27	27	26
4	27	31	20	20	23	39	60	91	32	30	25	26
5	28	30	22	19	25	47	54	55	31	33	25	28
6	28	29	20	20	27	80	56	40	31	33	25	28
7	28	29	17	21	29	268	73	33	34	31	50	27
8	28	29	14	23	29	360	83	31	37	27	41	27
9	28	29	15	24	30	230	77	56	39	27	34	26
10	28	27	17	24	33	165	75	84	35	26	72	26
11	28	23	18	27	36	153	88	40	32	26	34	26
12	27	19	19	26	38	167	87	16	28	26	28	31
13	27	19	18	23	70	180	90	77	26	28	30	33
14	27	20	19	21	150	190	120	53	23	26	32	30
15	27	21	20	23	100	200	116	46	24	26	28	28
16	28	21	21	25	53	201	100	39	27	26	26	26
17	28	21	21	24	46	201	82	38	47	26	48	26
18	28	21	23	25	62	176	75	37	32	26	42	25
19	28	19	26	24	76	96	66	34	30	26	35	23
20	27	17	23	24	86	80	64	33	28	27	34	24
21	27	18	24	25	74	75	52	34	27	27	35	25
22	26	20	25	24	64	80	47	34	28	26	35	25
23	27	23	26	22	38	72	44	32	35	26	32	24
24	28	25	26	23	27	72	45	32	51	28	28	23
25	28	23	24	24	33	88	41	33	35	26	33	23
26	29	23	23	23	37	70	41	36	31	31	34	22
27	29	23	24	21	35	67	44	32	30	27	29	20
28	30	23	22	20	36	102	38	30	29	26	30	23
29	30	22	21	20	---	107	33	36	29	29	30	24
30	31	22	19	19	---	94	31	33	27	83	27	23
31	31	---	18	21	---	73	---	32	---	52	26	---
TOTAL	867	723	645	694	1319	3841	1983	1301	952	932	1029	770
MEAN	28.0	24.1	20.8	22.4	47.1	124	66.1	42.0	31.7	30.1	33.2	25.7
MAX	31	32	26	27	150	360	120	91	51	83	72	33
MIN	26	17	14	18	20	33	31	16	23	26	25	20
AC-FT	1720	1430	1280	1380	2620	7620	3930	2580	1890	1850	2040	1530
CAL YR 1978	TOTAL	29877	MEAN 81.9	MAX 7610	MIN 14	AC-FT 59260						
WTR YR 1979	TOTAL	15056	MEAN 41.2	MAX 360	MIN 14	AC-FT 29860						

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1952, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT												
17...	1215	28	8000	8.3	7.5	9.7	7.5	280	0	55	34	1600
20...	1445	27	7000	--	12.0	--	--	--	--	--	--	--
NOV												
14...	1215	20	7000	8.1	.0	4.1	6.6	320	0	67	37	1600
JAN												
12...	1130	26	>8000	8.2	.0	3.3	.1	290	0	64	32	1500
FEB												
06...	1200	27	8000	8.0	.0	2.9	--	330	0	74	36	1300
MAR												
20...	1000	70	6500	8.3	.5	11.4	7.6	320	0	110	7.8	1300
APR												
20...	1040	63	7000	8.2	7.5	9.7	3.9	830	360	130	120	1200
JUN												
15...	1230	39	>8000	8.3	22.5	7.7	4.2	250	0	39	37	1600
JUL												
24...	0800	22	>8000	8.4	16.5	7.3	2.4	220	0	38	31	1500
AUG												
22...	0900	30	7300	8.3	15.5	7.7	7.0	330	0	63	41	1400
SEP												
19...	0940	22	7900	8.5	13.0	8.8	4.3	240	0	47	29	1700

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT												
17...	42	14	940	0	770	950	1400	4.9	20	4540	6.17	343
20...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
14...	39	15	970	0	800	910	1400	4.0	18	4530	6.16	245
JAN												
12...	38	18	990	0	810	820	1400	3.5	6.0	4330	5.89	304
FEB												
06...	31	15	970	0	800	740	1200	3.5	21	3870	5.26	282
MAR												
20...	32	11	570	0	470	1700	560	2.1	9.8	3980	5.41	752
APR												
20...	18	15	570	0	470	2000	620	2.1	11	4380	5.96	745
JUN												
15...	44	18	910	0	750	1000	1300	1.6	21	4470	6.08	471
JUL												
24...	44	18	850	0	700	810	1400	1.7	24	4240	5.77	252
AUG												
22...	34	17	920	0	760	1100	1100	1.5	19	4200	5.71	340
SEP												
19...	48	18	980	0	800	790	1400	1.7	23	4490	6.11	267

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 17...	.0	.0	3	0	3	3	0	1	60	30	20
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	.0	--	0	--	6	--	1	--	--	60	--
FEB 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--
APR 20...	.1	--	2	--	23	--	4	--	--	170	--
JUN 15...	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	.0	--	1	--	5	--	1	--	--	50	--
AUG 22...	--	--	--	--	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 17...	1215	<71	2.0	<24	2.9	<22	2.9	.21	3.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY

LOCATION.--Lat 43°41'54", long 106°17'50", in NE¼SE¼NW¼ sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, on left bank, 10 ft (3.0 m) downstream from bridge on State Highway 192, 0.2 mi (0.3 km) west of Sussex, and 3.2 mi (5.1 km) downstream from Salt Creek.

DRAINAGE AREA.--3,090 mi² (8,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to June 1940, February 1950 to September 1957, October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,362.95 ft (1,329.827 m), National Geodetic Vertical Datum of 1929. Prior to June 30, 1940, nonrecording gage about 500 ft (152 m) downstream at datum 0.28 ft (0.085 m) higher. Feb. 8, 1950, to Sept. 30, 1957, water-stage recorder about 600 ft (183 m) downstream at datum 0.79 ft (0.241 m) lower.

REMARKS.--Records poor. Numerous small reservoirs and diversions for irrigation of about 17,000 acres (68.8 km²) above station.

AVERAGE DISCHARGE.--10 years (water years 1939, 1951-57, 1978-79), 192 ft³/s (5.437 m³/s), 139,100 acre-ft/yr (172 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s (920 m³/s) May 23, 1952, gage height, 12.6 ft (3.84 m), from floodmarks, site and datum then in use, from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft³/s (0.042 m³/s) Aug. 25, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 12.8 ft (3.60 m) present datum, at site about 600 ft (183 m, downstream, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	1730	*2,350 66.6	5.04 1.536

Minimum daily discharge, 24 ft³/s (0.68 m³/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	204	115	80	100	310	459	319	359	75	61	53
2	88	217	105	80	105	300	400	428	312	61	37	48
3	94	223	95	80	110	290	429	603	260	63	32	44
4	139	223	95	80	115	280	386	696	241	69	27	39
5	163	229	90	80	120	290	359	630	217	75	27	34
6	153	223	80	85	130	350	372	599	186	82	24	32
7	158	229	75	85	140	700	436	608	204	69	39	34
8	158	241	70	90	150	1000	564	444	280	58	88	32
9	158	247	75	95	160	900	539	405	312	56	41	30
10	158	100	85	100	180	800	498	503	260	44	113	32
11	153	35	90	110	195	750	506	636	217	32	46	34
12	153	35	100	115	210	900	482	671	186	30	27	41
13	158	40	110	115	220	1200	482	594	163	32	36	51
14	158	45	120	120	230	1570	539	417	130	34	39	56
15	163	55	125	120	220	1190	605	383	113	34	34	66
16	163	65	125	125	210	1320	530	495	117	36	25	58
17	156	80	120	130	210	1150	482	783	163	34	34	61
18	156	90	125	135	215	975	444	701	163	32	158	63
19	153	80	130	140	215	637	451	580	299	30	163	50
20	143	70	130	140	220	429	498	550	163	30	197	53
21	139	70	130	140	225	407	415	500	148	30	572	63
22	153	75	125	140	225	422	372	506	139	30	308	58
23	158	80	120	135	220	436	332	506	134	30	226	53
24	153	90	120	125	215	372	312	506	169	30	172	46
25	169	100	115	120	210	436	400	482	143	67	248	48
26	180	100	110	115	225	459	386	482	109	117	305	53
27	180	110	100	110	280	386	357	429	102	69	220	48
28	174	135	95	105	320	514	317	407	79	48	163	53
29	180	130	90	105	---	680	297	451	92	34	172	50
30	192	125	85	100	---	613	308	564	85	106	132	53
31	198	---	80	100	---	482	---	459	---	242	75	---
TOTAL	4779	3746	3230	3400	5375	20548	12957	16337	5545	1779	3841	1436
MEAN	154	125	104	110	192	663	432	527	185	57.4	124	47.9
MAX	198	247	130	140	320	1570	605	783	359	242	572	66
MIN	78	35	70	80	100	280	297	319	79	30	24	30
AC-FT	9480	7430	6410	6740	10660	40760	25700	32400	11000	3530	7620	2850
CAL YR 1978	TOTAL	174980	MEAN 479	MAX	11900	MIN 30	AC-FT	347100				
WTR YR 1979	TOTAL	82973	MEAN 227	MAX	1570	MIN 24	AC-FT	164600				

06313500 POWDER RIVER AT SUSSEX, WY--Continued

LOCATION.--Lat 43°41'54", long 106°17'50", in NE¼SE¼NW¼ sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, at bridge on State Route 192 at former discharge station, 0.2 mi (0.3 km) west of Sussex, and 3.2 mi (5.1 km) downstream from Salt Creek.

DRAINAGE AREA.--3,090 mi² (8,000 km²), approximately.

PERIOD OF RECORD.--Water years 1949-53, 1967-68, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
OCT 17...	0915	154	2490	8.4	7.0	4.5	42	54	140	460	190	110
OCT 20...	0950	158	2490	--	7.0	--	--	--	--	--	--	--
NOV 29...	1400	131	2260	8.2	.0	--	--	250	170	480	170	110
DEC 07...	1200	75	2610	8.0	.0	8.6	69	100	300	550	210	140
JAN 17...	1315	130	2440	7.9	.0	6.3	51	440	67	480	140	120
FEB 15...	1245	222	2150	7.6	.0	9.5	75	94	K500	510	300	130
MAR 07...	1315	E700	2470	8.0	.0	10.7	86	410	5600	460	220	110
MAR 20...	1700	404	2960	8.1	4.0	10.9	97	310	7500	720	430	180
APR 25...	1010	387	2140	8.4	11.0	9.2	97	830	550	510	270	120
MAY 22...	1300	470	1570	8.4	13.5	7.7	95	680	440	350	160	69
JUN 26...	1010	110	3950	8.3	19.0	7.8	98	K670	1600	660	280	150
JUL 25...	1115	30	6400	8.3	23.0	8.4	112	K39	190	0	0	--
AUG 14...	0930	46	5800	8.4	15.0	8.4	94	K330	650	530	0	120
SEP 13...	1130	51	4550	8.4	13.0	9.2	101	87	160	540	72	120

Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 17...	46	380	7.7	--	6.1	320	7	290	540	320	.8	9.0
OCT 20...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 29...	50	320	6.4	--	7.1	380	0	310	460	280	.6	12
DEC 07...	49	380	7.0	--	7.1	410	0	340	570	300	.7	12
JAN 17...	44	390	7.7	--	8.6	410	0	340	460	350	.7	14
FEB 15...	46	350	6.7	--	7.2	260	0	210	730	200	.6	9.0
MAR 07...	45	370	7.5	--	7.3	290	0	240	760	200	.7	8.3
MAR 20...	65	440	7.2	--	7.1	350	0	290	1100	180	.6	8.3
APR 25...	51	290	5.6	--	5.1	280	5	250	700	160	.6	8.2
MAY 22...	42	220	5.2	--	4.3	230	2	200	370	170	.5	9.0
JUN 26...	70	610	10	620	11	460	0	380	1200	340	.8	10
JUL 25...	--	--	--	--	--	730	0	600	410	1600	2.1	19
AUG 14...	55	1000	19	1000	13	770	10	640	880	830	1.6	14
SEP 13...	59	800	15	810	13	550	10	470	950	640	1.3	13

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
OCT											
17...	1540	1580	2.15	657	.00	.01	--	.60	.61	.61	2.7
20...	--	--	--	--	--	--	--	--	--	--	--
NOV											
29...	1450	1430	1.94	506	.42	.08	--	.53	.61	1.0	4.6
DEC											
07...	1640	1660	2.26	336	.46	.08	--	.57	.65	1.1	4.9
JAN											
17...	1550	1590	2.16	558	.56	.14	--	.50	.64	1.2	5.3
FEB											
15...	1650	1600	2.18	959	.67	.13	--	.62	.75	1.4	6.3
MAR											
07...	1660	1650	2.24	--	.64	.16	--	2.2	2.4	3.0	13
20...	2180	2150	2.92	2350	.72	.11	--	3.8	3.9	4.6	20
APR											
25...	1480	1480	2.01	1550	.40	.33	.40	2.8	3.1	3.5	16
MAY											
22...	1000	1000	1.36	1270	.31	.03	.04	1.2	1.2	1.5	6.7
JUN											
26...	2670	2620	3.56	778	.05	.11	.13	3.3	3.4	3.5	15
JUL											
25...	3980	--	5.41	322	4.2	.01	.01	1.5	1.5	5.7	25
AUG											
14...	3220	3300	4.49	410	.03	.23	.19	2.2	2.4	2.4	11
SEP											
13...	1180	2880	3.92	397	.08	.06	.07	.15	.21	.29	1.3

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS P04)	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
OCT											
17...	.15	--	--	.01	4.3	1.0	1600	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
NOV											
29...	.07	--	--	.00	3.4	.3	550	6.77	7.40	.130	.000
DEC											
07...	.08	--	--	.02	4.4	--	87	--	--	--	--
JAN											
17...	.06	--	--	.02	4.0	.9	38000	--	--	--	--
FEB											
15...	.15	--	--	.03	6.8	--	3100	--	--	--	--
MAR											
07...	.02	--	--	.01	4.3	6.1	1900	.000	.000	.000	.000
20...	1.6	--	--	.01	5.7	10	160	--	--	--	--
APR											
25...	.01	.03	.03	.02	4.7	1.3	2200	--	--	--	--
MAY											
22...	.47	1.4	1.4	.01	5.8	3.9	77	--	--	--	--
JUN											
26...	1.4	4.3	4.3	.02	6.9	9.2	8900	--	--	--	--
JUL											
25...	1.5	--	4.6	.07	7.6	.4	490	--	--	--	--
AUG											
14...	.63	1.9	--	.01	7.6	6.9	13000	--	--	--	--
SEP											
13...	.14	--	.43	.01	5.3	.7	260	--	--	--	--

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
OCT										
17...	0915	30	2	1	20	0	0	160	0	0
NOV										
29...	1400	--	--	--	--	--	--	--	--	--
DEC										
07...	1200	--	--	--	--	--	--	--	--	--
JAN										
17...	1315	--	--	--	--	--	--	--	--	--
FEB										
15...	1245	--	--	--	--	--	--	--	--	--
MAR										
07...	1315	--	--	--	--	--	--	--	--	--
20...	1700	0	14	1	2	500	0	56	0	0
APR										
25...	1010	--	--	--	6	--	--	92	--	--
MAY										
22...	1300	--	--	--	--	--	--	--	--	--
JUN										
26...	1010	--	--	--	--	--	--	--	--	--
JUL										
25...	1115	--	--	--	--	--	--	--	--	--
AUG										
14...	0930	--	--	--	--	--	--	--	--	--
SEP										
13...	1130	--	--	--	--	--	--	--	--	--

DATE	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
OCT										
17...	0	540	9	8	1	0	0	3	2	0
NOV										
29...	--	460	--	--	--	--	--	--	--	--
DEC										
07...	--	510	--	--	--	--	--	--	--	--
JAN										
17...	--	540	--	--	--	--	--	--	--	--
FEB										
15...	--	340	--	--	--	--	--	--	--	--
MAR										
07...	--	380	--	--	--	--	--	--	--	--
20...	0	360	1	2	0	40	10	2	16	1
APR										
25...	0	340	--	--	0	--	--	8	--	--
MAY										
22...	--	320	--	--	--	--	--	--	--	--
JUN										
26...	--	660	--	--	--	--	--	--	--	--
JUL										
25...	--	2000	--	--	--	--	--	--	--	--
AUG										
14...	--	1400	--	--	--	--	--	--	--	--
SEP										
13...	--	1100	--	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN

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06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
OCT 17...	3	15	2	1	0	2.0	40	20	18
NOV 29...	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--
FEB 15...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
20...	0	0	9	7	0	.2	300	20	12
APR 25...	--	0	--	--	0	--	--	--	16
MAY 22...	--	--	--	--	--	--	--	--	--
JUN 26...	--	--	--	--	--	--	--	--	--
JUL 25...	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 20...	1700	<32	180	<13	99	12	85	<22	120

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
OCT											
17...	0915	7.0	154	468	195	--	--	--	--	--	--
NOV											
29...	1400	.0	131	256	91	--	--	--	--	--	--
DEC											
07...	1200	.0	75	234	47	--	--	--	--	--	--
JAN											
17...	1315	.0	130	164	58	--	--	--	--	--	--
FEB											
15...	1245	.0	222	379	227	--	--	--	--	--	--
MAR											
07...	1315	.0	E700	2000	3780	--	--	--	--	--	--
20...	1700	4.0	404	4070	4440	45	61	74	87	97	100
APR											
25...	1010	11.0	387	2680	2800	--	--	--	--	--	--
MAY											
22...	1300	13.5	470	2220	2820	--	--	--	--	--	--
JUN											
26...	1010	19.0	110	2560	760	85	96	97	98	100	--
JUL											
25...	1200	20.0	30	375	30	--	--	--	--	--	--
AUG											
14...	0930	14.5	46	1550	193	--	--	--	--	--	--
SEP											
13...	1130	13.0	51	413	57	--	--	--	--	--	--

E-Estimate.

[illegible]

06313500 POWDER RIVER AT SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 17,78 0915	NOV 29,78 1400	JAN 17,79 1315	FEB 15,79 1245	MAR 7,79 1315	MAR 20,79 1700										
TOTAL CELLS/ML	1600	550	38000	3100	1900	160										
DIVERSITY: DIVISION	1.2	0.7	0.0	0.0	0.5	0.0										
..CLASS	1.2	0.7	0.0	0.0	0.5	0.0										
...ORDER	1.5	0.7	0.0	0.0	0.5	0.0										
...FAMILY	2.5	1.1	0.0	0.0	0.6	0.0										
....GENUS	2.9	1.1	0.0	0.0	0.0	0.0										
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT						
CHLOROPHYTA (GREEN ALGAE)																
..CHLOROPHYCEAE																
...CHLOROCOCCALES																
....SCENEDESMACEAE																
.....SCENEDESMUS	--	-	--	-	* 0	--	-	--	-	--	-					
...VOLVOCALES																
....CHLAMYDOMONADACEAE																
.....CHLAMYDOMONAS	22	1	--	-	--	-	--	-	28	1	--	-				
CHRYSOPHYTA																
..BACILLARIOPHYCEAE																
...PENNALES																
....ACHNANTHACEAE																
.....ACHNANTHES	22	1	--	-	--	-	--	-	--	-	--	-				
....RHOICOSPHENIA	45	3	--	-	--	-	--	-	--	-	--	-				
...CYMBELLACEAE																
....CYMBELLA	90	5	14	3	* 0	--	-	--	-	--	-	--	-			
...DIATOMACEAE																
....DIATOMA	22	1	--	-	--	-	--	-	--	-	--	-	--	-		
...FRAGILARIACEAE																
....SYNEDRA	22	1	--	-	--	-	--	-	--	-	--	-	--	-		
...GOMPHONEMACEAE																
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-	--	-	--	-		
...NAVICULACEAE																
....NAVICULA	--	-	--	-	* 0	--	-	--	-	--	-	--	-	* 0		
...GYROSIGMA	340#	21	14	3	* 0	--	-	42	2	--	-	42	2	--	-	
...NITZSCHIA																
....NITZSCHIA	110	7	58	11	* 0	--	-	14	1	--	-	14	1	--	-	
...SURIRELLACEAE																
....SURIRELLA	67	4	29	5	* 0	--	-	83	4	--	-	83	4	--	-	
CYANOPHYTA (BLUE-GREEN ALGAE)																
..CYANOPHYCEAE																
...CHROOCOCCALES																
....CHROOCOCCACEAE																
.....ANACYSTIS	110	7	--	-	--	-	--	-	--	-	--	-	--	-	--	-
...HORMOGONALES																
....OSCILLATORIACEAE	--	-	--	-	--	-	--	-	1000#	52	--	-	1000#	52	--	-
...LYNGBYA	540#	33	--	-	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	220	14	430#	79	38000#	100	3100#	100	760#	39	--	-	760#	39	--	-
EUGLENOPHYTA (EUGLENOIDS)																
..EUGLENOPHYCEAE																
...EUGLENALES																
....EUGLENACEAE																
.....TRACHELOMONAS	22	1	--	-	--	-	--	-	--	-	--	-	--	-	160#	100

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	APR 25,79 1010		MAY 22,79 1300		JUN 26,79 1010		JUL 25,79 1115		AUG 14,79 0930		SEP 13,79 1130	
TOTAL CELLS/ML	2200		77		8900		490		13000		260	
DIVERSITY: DIVISION	0.5		0.0		0.1		0.5		0.3		1.0	
..CLASS	0.5		0.0		0.1		0.5		0.3		1.0	
...ORDER	0.5		0.0		0.1		0.5		0.3		1.0	
...FAMILY	0.5		0.0		0.1		0.9		0.3		1.0	
....GENUS	0.5		0.0		0.1		0.9		0.3		1.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
....SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	52	11	820	6	--	-
...VOLVOCALES												
....CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSTOPHYTA												
..BACILLARIOPHYCEAE												
...PENNALES												
....ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	--	-
....RHODICOSPHEA	--	-	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	--	-	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE												
....GOMPHONEMA	--	-	77#100		--	-	--	-	--	-	--	-
...NAVICULACEAE												
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-	--	-
...NAVICULA	--	-	--	-	--	-	39	8	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	230	11	--	-	120	1	400#	82	--	-	130#	50
...SURIPELLACEAE												
....SURIPELLA	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROOCOCCALES												
....CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	130#	50
...HORMOGONALES												
....OSCILLATORIACEAE	--	-	--	-	--	-	--	-	--	-	--	-
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	2000#	89	--	-	8800#	99	--	-	12000#	94	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
....EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06313500 POWDER RIVER AT SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE	DEC 7, 78
TIME	1200

TOTAL CELLS/ML	87
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DIVERSITY: DIVISION	0.7
..CLASS	0.7
...ORDER	0.7
...FAMILY	0.7
....GENUS	0.7

ORGANISM	CELLS /ML	PER- CENT
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...PENNALES		
...GOMPHONEMACEAE		
....GOMPHONEMA	14#	17
CYANOPHYTA (BL-GREEN ALGAE)		
..CYANOPHYCEAE		
...HORMOGONALES		
...NOSTOCACEAE		
....ANABAENA	72#	83

NOTE: # - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: GLASS CHAMBER(12MM CIRC), INVERTED MICROSCOPE

YELLOWSTONE RIVER BASIN

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°12'54", long 106°06'41", in NW¼SE¼SW¼ sec.15, T.49 N., R.77 W., Johnson County, Hydrologic Unit 10090202, on left bank 30 ft (9 m) upstream from bridge on dirt road, 0.8 mi (1.3 km) upstream from Interstate Highway 90, 5.3 mi (8.5 km) upstream from mouth, and 31 mi (50 km) east of Buffalo.

DRAINAGE AREA.--151 mi² (391 km²).

PERIOD OF RECORD.--Annual maximum, water years 1958-71. October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,970 ft (1,210 m), from topographic map. Oct. 1, 1958, to Sept. 30, 1971, crest-stage gage at present site and datum. Nov. 24, 1971, to July 15, 1976, water-stage recorder at site 0.3 mi (0.5 km) upstream at different datum.

REMARKS.--Records poor. No gage-height record Dec. 4-12, Dec. 29 to Jan. 2, Jan 3-11, 12-16, Jan. 17 to Feb. 25, Mar. 1-6, June 16, 17.

AVERAGE DISCHARGE.--8 years, 3.34 ft³/s (0.095 m³/s), 2,420 acre-ft/yr (2.98 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,890 ft³/s (81.8 m³/s) June 16, 1979, gage height, 11.73 ft (3.575 m), from floodmarks, from rating curve extended above 1,150 ft³/s (32.6 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow, present site and datum; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
June 16	a2030	*2,890	81.8	b11.73	3.575	July 29	0830	392	11.1	6.20	1.890
July 26	2200	2,400	68.0	11.24	3.426	Aug. 19	2100	422	12.0	6.36	1.939

a-about.

b-from floodmark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.03	.00	.00	.20	.20	.14	.15	.10	3.0	.06
2	.00	.02	.01	.00	.00	.10	.20	.16	.15	.10	1.0	.06
3	.00	.02	.01	.00	.00	.10	.15	.18	.15	.10	.50	.06
4	.00	.02	.01	.00	.00	.40	.20	.16	.15	1.0	.30	.06
5	.00	.02	.01	.00	.00	.50	.15	.14	.15	.20	.20	.06
6	.00	.02	.01	.00	.00	3.0	.25	.12	.15	.10	.10	.06
7	.00	.02	.01	.00	.00	4.0	.20	.14	.15	.10	.10	.06
8	.00	.02	.01	.00	.00	3.0	.20	.18	.15	.10	.10	.04
9	.00	.02	.01	.00	.00	4.0	.20	.16	.15	.10	.10	.02
10	.00	.02	.01	.00	.01	5.0	.15	.14	.15	.10	.10	.04
11	.00	.01	.01	.00	.02	5.5	.15	.14	.15	.10	.10	.06
12	.00	.01	.01	.00	.03	6.0	.15	.12	.15	.10	.10	.10
13	.00	.01	.01	.00	.05	5.0	.13	.10	.15	.20	.20	.10
14	.00	.01	.01	.00	.04	4.0	.12	.10	.15	.10	.10	.10
15	.00	.01	.01	.00	.02	5.0	.10	.10	34	.10	.10	.08
16	.00	.01	.01	.00	.02	6.0	.10	.12	755	.10	.10	.08
17	.00	.01	.02	.00	.03	4.0	.10	.16	144	.10	15	.08
18	.10	.01	.02	.00	.05	3.0	.10	.20	26	.10	1.3	.06
19	.10	.01	.01	.00	.05	1.0	.12	.22	5.2	.10	54	.06
20	.05	.01	.01	.00	.03	.50	.12	.20	4.0	.10	18	.06
21	.05	.01	.02	.00	.02	.24	.14	.18	1.0	.10	.30	.06
22	.08	.01	.01	.00	.02	.20	.16	.18	.50	.10	.24	.06
23	.10	.01	.01	.00	.02	.20	.16	.16	.20	.10	.12	.06
24	.08	.01	.01	.00	.05	.30	.16	.16	.20	.10	.10	.08
25	.05	.01	.01	.00	.10	.20	.16	.15	.20	.10	.08	.08
26	.05	.01	.02	.00	.14	.20	.18	.15	.20	302	.08	.08
27	.05	.01	.02	.00	.20	.30	.20	.15	.20	114	.08	.08
28	.05	.02	.04	.00	.30	.30	.18	.15	.20	17	.10	.08
29	.05	.02	.03	.00	---	.40	.16	.15	.20	129	.08	.08
30	.03	.01	.02	.00	---	.30	.14	.15	.20	31	.08	.06
31	.02	---	.01	.00	---	.20	---	.15	---	5.5	.06	---
TOTAL	.86	.42	.44	.00	1.20	63.14	4.73	4.71	973.40	602.10	95.82	2.02
MEAN	.028	.014	.014	.000	.043	2.04	.16	.15	32.4	19.4	3.09	.067
MAX	.10	.02	.04	.00	.30	6.0	.25	.22	755	302	54	.10
MIN	.00	.01	.01	.00	.00	.10	.10	.10	.15	.10	.06	.02
AC-FT	1.7	.8	.9	.00	2.4	125	9.4	9.3	1930	1190	190	4.0
CAL YR 1978	TOTAL	3874.02	MEAN 10.6	MAX 819	MIN .00	AC-FT 7680						
WTR YR 1979	TOTAL	1748.84	MEAN 4.79	MAX 755	MIN .00	AC-FT 3470						

06313950 NORTH FORK CRAZY WOMAN CREEK BELOW POLE CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°11'11", long 106°51'12", in NW¼NE¼SW¼ sec.28, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, Bighorn National Forest, on right bank 8 ft (2 m) upstream from bridge, 0.7 mi (1.1 km) upstream from forest boundary, 3.4 mi (5.5 km) downstream from Pole Creek, and 13 mi (21 km) southwest of Buffalo.

DRAINAGE AREA.--43.4 mi² (112.4 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft (1,914 m), from topographic map.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--6 years, 26.1 ft³/s (0.739 m³/s), 18,910 acre-ft/yr (23.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 536 ft³/s (15.2 m³/s) May 24, 1978, gage height, 4.65 ft (1.417 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Jan. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.53 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	0930	160 4.53	3.41 1.039
June 14	0130	*165 4.67	3.43 1.045

Minimum daily discharge, 4.0 ft³/s (0.11 m³/s) Jan. 31 to Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	8.7	6.8	5.6	4.0	4.5	5.0	30	109	52	20	17
2	11	6.4	6.8	5.5	4.0	4.5	5.0	20	107	47	19	17
3	9.9	7.7	6.8	5.2	4.0	4.5	5.0	18	107	44	16	16
4	9.9	8.7	6.8	5.2	4.0	4.3	4.8	26	116	110	16	15
5	9.1	5.0	7.4	5.0	4.0	4.5	4.8	41	127	59	15	15
6	9.1	6.4	7.1	5.0	4.0	4.5	5.8	53	140	48	14	15
7	9.5	7.4	6.8	4.6	4.1	4.5	6.8	30	128	48	14	14
8	9.5	9.9	6.8	4.6	4.3	4.6	6.4	26	114	42	15	14
9	9.5	7.7	6.4	4.6	4.3	4.6	7.1	20	116	39	15	13
10	9.1	5.2	6.4	4.6	4.3	4.6	8.3	20	121	37	15	13
11	9.1	5.2	6.8	5.0	4.5	4.6	6.8	19	117	35	14	14
12	9.1	6.5	6.8	5.2	4.5	4.6	5.8	20	123	34	14	15
13	8.0	8.5	6.4	5.0	4.5	4.8	5.5	24	134	34	47	18
14	8.3	8.3	7.1	4.8	4.5	4.6	5.2	32	139	32	43	17
15	9.1	7.4	7.1	4.8	4.5	4.6	7.1	46	119	30	25	15
16	9.1	7.7	7.1	4.8	4.5	5.0	9.5	68	117	29	20	14
17	9.5	7.7	7.1	4.8	4.5	5.0	13	73	125	30	22	13
18	9.9	7.7	7.1	4.8	4.5	5.0	25	62	125	28	28	13
19	9.1	7.7	7.1	4.8	4.7	5.0	27	66	98	28	26	12
20	9.5	7.7	7.1	4.8	4.8	4.8	20	67	86	28	33	12
21	9.1	7.7	7.1	4.8	4.8	4.6	17	69	81	26	30	13
22	9.1	7.4	6.8	4.8	4.8	4.6	19	74	81	25	30	12
23	7.1	7.4	6.8	4.6	4.8	4.6	25	73	80	44	35	12
24	10	6.8	6.8	4.5	4.8	4.6	36	87	71	46	30	11
25	8.3	6.4	6.4	4.5	4.8	4.8	33	88	66	31	35	11
26	7.7	6.4	6.1	4.5	4.8	4.6	25	93	63	27	26	11
27	8.0	6.8	6.1	4.3	4.6	4.8	19	102	63	26	25	11
28	8.7	6.8	6.1	4.3	4.5	5.0	25	110	61	24	24	11
29	8.7	6.8	6.0	4.3	---	5.0	25	148	58	22	22	11
30	5.5	6.8	5.8	4.1	---	5.0	26	110	54	22	19	10
31	5.8	---	5.6	4.0	---	5.0	---	110	---	22	18	---
TOTAL	274.8	216.8	207.4	147.4	124.4	145.7	433.9	1825	3046	1149	725	405
MEAN	8.86	7.23	6.69	4.75	4.44	4.70	14.5	58.9	102	37.1	23.4	13.5
MAX	11	9.9	7.4	5.6	4.8	5.0	36	148	140	110	47	18
MIN	5.5	5.0	5.6	4.0	4.0	4.3	4.8	18	54	22	14	10
AC-FT	545	430	411	292	247	289	861	3620	6040	2280	1440	803
CAL YR 1978	TOTAL	13657.1	MEAN 37.4	MAX 385	MIN 3.3	AC-FT 27090						
WTR YR 1979	TOTAL	8700.4	MEAN 23.8	MAX 148	MIN 4.0	AC-FT 17260						

YELLOWSTONE RIVER BASIN

06314000 NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°11'16", long 106°49'48", in SW¼SW¼NE¼ sec.27, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, on left bank, 70 ft (21 m) upstream from bridge on county road, 2.1 mi (3.4 km) upstream from Spring Draw, and 13 mi (21 km) southwest of Buffalo.

DRAINAGE AREA.--44.9 mi² (116.3 km²).

PERIOD OF RECORD.--April 1942 to September 1949, October 1973 to current year. Prior to October 1944, monthly discharge only published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (1,798 m), from topographic map. Apr. 1, 1942, to Sept. 23, 1943, nonrecording gage nearby at different datum. Sept. 24, 1943, to Sept. 30, 1949, water-stage recorder at datum 1.33 ft (0.405 m) lower.

REMARKS.--Records good. No gage-height record Oct. 13 to Nov. 5, Apr. 10-21. No diversion above station.

AVERAGE DISCHARGE.--13 years (water years 1943-49, 1974-79), 25.6 ft³/s (0.725 m³/s), 18,550 acre-ft/yr (22.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 611 ft³/s (17.3 m³/s) June 6, 1949, gage height, 4.23 ft (1.289 m) from rating curve extended above 150 ft³/s (4.25 m³/s) on basis of slope-area measurement of peak flow at site 3.2 mi (5.1 km) downstream; minimum daily, 1.7 ft³/s (0.048 m³/s) Jan. 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142 ft³/s (4.02 m³/s), May 29, gage height, 2.50 ft (0.762 m), no peak above base of 160 ft³/s (4.53 m³/s); minimum daily discharge, 5.0 ft³/s (0.14 m³/s) Feb. 8 to Mar. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	9.4	6.0	5.6	5.0	5.4	32	92	49	18	17
2	12	8.0	9.4	5.8	5.6	5.0	5.4	21	92	45	17	16
3	12	10	9.4	5.8	5.4	5.0	5.2	18	97	43	16	15
4	12	11	9.4	5.8	5.4	5.0	5.4	25	102	91	15	14
5	11	7.0	9.8	5.8	5.4	5.0	5.4	42	109	57	14	14
6	11	8.7	9.4	5.8	5.4	5.0	5.6	56	118	44	13	14
7	12	8.7	9.0	5.6	5.2	5.0	6.9	33	109	44	13	14
8	12	12	8.7	5.6	5.0	5.0	6.0	26	91	38	14	14
9	12	9.8	8.7	5.6	5.0	5.0	6.9	20	92	35	14	13
10	11	6.0	8.7	5.6	5.0	5.0	9.0	21	102	34	14	13
11	11	5.2	8.7	5.6	5.0	5.0	8.0	19	100	31	13	13
12	11	6.9	8.4	5.6	5.0	5.0	7.0	20	106	30	13	14
13	10	9.0	8.1	5.6	5.0	5.2	7.0	23	116	31	44	17
14	10	8.7	7.8	5.6	5.0	5.2	6.0	32	118	29	43	17
15	11	8.4	7.5	5.6	5.0	5.2	8.0	47	104	26	24	15
16	11	9.0	7.5	5.6	5.0	5.2	10	65	99	26	19	14
17	11	9.8	7.5	5.6	5.0	5.6	14	69	109	26	20	13
18	12	10	7.5	5.8	5.0	5.6	26	62	106	24	27	13
19	11	9.8	7.5	5.8	5.0	5.4	28	64	82	24	24	12
20	12	9.0	7.5	5.8	5.0	5.2	21	66	77	25	32	12
21	11	9.8	7.5	5.8	5.0	5.2	18	66	74	22	29	13
22	11	10	7.2	5.2	5.0	5.2	18	74	77	22	30	13
23	9.0	10	7.2	5.8	5.0	5.2	26	73	73	38	35	12
24	12	9.8	7.2	5.8	5.0	5.2	39	84	66	44	31	12
25	10	9.0	7.2	5.8	5.0	5.2	34	85	62	29	36	12
26	10	9.4	7.2	5.6	5.0	5.2	25	88	62	24	26	12
27	10	9.8	7.2	5.6	5.0	5.2	19	102	60	23	24	12
28	11	9.8	7.2	5.6	5.0	5.4	25	104	60	21	24	12
29	11	9.4	6.9	5.4	---	5.4	26	129	55	20	21	11
30	8.0	9.0	6.6	5.4	---	5.6	26	97	53	19	19	11
31	8.0	---	6.3	5.4	---	5.6	---	96	---	20	17	---
TOTAL	338.0	274.0	247.6	176.0	143.0	161.0	452.2	1759	2663	1034	699	404
MEAN	10.9	9.13	7.99	5.68	5.11	5.19	15.1	56.7	88.8	33.4	22.5	13.5
MAX	12	12	9.8	6.0	5.6	5.6	39	129	118	91	44	17
MIN	8.0	5.2	6.3	5.4	5.0	5.0	5.2	18	53	19	13	11
AC-FT	670	543	491	349	284	319	897	3490	5280	2050	1390	801
CAL YR 1978	TOTAL	14693.1	MEAN	40.3	MAX	400	MIN	3.4	AC-FT	29140		
WTR YR 1979	TOTAL	8350.8	MEAN	22.9	MAX	129	MIN	5.0	AC-FT	16560		

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY

LOCATION.--Lat 44°29'28", long 106°10'38", in NE¼SW¼SW¼ sec.7, T.52 N., R.77 W., Johnson County, Hydrologic Unit 10090205, on left bank 1.1 mi (1.8 km) upstream from Jewell Draw, 5.0 mi (8.0 km) upstream from mouth, and 11 mi (18 km) south of Arvada.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1963 to September 1970, October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,765 ft (1,148 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 12,000 acres (48.6 km²) above station.

AVERAGE DISCHARGE.--9 years, 53.9 ft³/s (1.526 m³/s), 39,050 acre-ft/yr (48.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s (447 m³/s) June 15, 1965, gage height, 16.02 ft (4.883 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of slope-area measurement of peak flow; no flow Sept. 4-8, 1964, and for many days in 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 19	1800	*531 15.0	5.86 1.786

Minimum daily discharge, 5.8 ft³/s (0.16 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	55	38	27	15	27	66	69	197	96	17	37
2	29	54	37	26	15	23	62	72	170	89	13	31
3	29	52	36	25	16	23	61	78	168	79	13	34
4	31	55	38	22	17	24	60	75	151	76	12	32
5	32	53	38	23	18	26	62	63	147	71	11	29
6	35	54	37	22	19	30	57	59	141	83	9.8	27
7	30	55	40	21	20	80	56	70	156	119	8.8	25
8	24	53	43	20	21	88	54	103	175	95	8.1	25
9	29	52	45	19	22	92	53	97	188	79	7.2	18
10	32	30	44	19	24	109	53	83	169	71	6.7	14
11	32	15	43	19	26	145	53	74	155	61	6.2	11
12	32	18	43	18	26	127	51	66	165	53	5.8	13
13	32	25	43	18	25	118	48	63	155	48	7.9	14
14	31	32	45	18	25	107	48	60	142	42	8.2	13
15	31	38	43	17	24	103	46	57	139	37	6.8	13
16	28	44	40	17	23	103	37	57	148	31	9.0	14
17	27	40	42	17	23	96	33	72	168	28	41	17
18	28	42	47	18	23	91	31	87	130	25	25	17
19	28	43	40	19	23	79	41	115	295	23	33	16
20	27	42	39	20	24	74	37	112	307	24	22	13
21	27	40	42	20	25	75	54	107	248	23	31	12
22	28	38	43	21	26	79	63	105	208	21	41	14
23	27	39	40	20	27	74	60	103	183	20	45	14
24	39	42	42	20	29	78	63	100	161	19	45	14
25	41	44	40	20	30	82	62	99	148	16	44	14
26	41	46	39	19	32	80	82	97	137	16	41	18
27	49	43	40	19	34	77	91	110	125	22	41	18
28	51	41	37	18	32	77	83	120	111	22	61	18
29	52	40	30	17	---	78	72	151	108	29	57	17
30	53	39	27	15	---	78	67	154	106	16	44	16
31	53	---	29	15	---	72	---	205	---	14	44	---
TOTAL	1057	1264	1230	609	664	2415	1706	2883	5001	1448	765.5	568
MEAN	34.1	42.1	39.7	19.6	23.7	77.9	56.9	93.0	167	46.7	24.7	18.9
MAX	53	55	47	27	34	145	91	205	307	119	61	37
MIN	24	15	27	15	15	23	31	57	106	14	5.8	11
AC-FT	2100	2510	2440	1210	1320	4790	3380	5720	9920	2870	1520	1130
CAL YR 1978	TOTAL	45732.0	MEAN	125	MAX	2030	MIN	8.0	AC-FT	90710		
WTR YR 1979	TOTAL	19610.5	MEAN	53.7	MAX	307	MIN	5.8	AC-FT	38900		

YELLOWSTONE RIVER BASIN

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT										
S17...	0910	27	1480	8.3	7.0	9.8	92	--	26	K17
S20...	1025	26	1700	--	10.0	--	--	--	--	--
NOV										
28...	1200	41	1340	7.8	.0	--	--	--	52	36
DEC										
08...	1000	43	1460	8.0	.0	--	--	--	51	42
JAN										
16...	1055	18	1840	7.6	.0	11.3	90	--	23	21
FEB										
16...	1015	23	1560	7.7	.0	10.4	81	--	K13	27
MAR										
06...	1215	26	1630	8.0	.0	10.0	83	--	K1	480
21...	1130	75	1400	8.2	.0	12.2	97	--	K1	180
APR										
26...	0950	79	1530	8.4	9.5	10.0	93	93	470	78
MAY										
24...	0930	97	1120	8.2	16.0	8.2	95	--	760	400
JUN										
07...	1055	--	--	--	--	--	--	--	--	--
27...	0935	128	945	8.2	20.0	7.7	95	--	450	1900
JUL										
24...	0945	19	1880	8.4	20.0	7.5	94	--	180	350
AUG										
15...	0910	7.0	2450	8.3	15.5	8.5	97	--	190	250
SEP										
19...	1440	16	1620	8.4	19.0	9.1	110	--	150	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).
 S-Seepage run data (see Explanation of Water-Quality Records).

DATE	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS Na)	POTAS- SIUM DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
OCT										
17...	650	450	140	72	100	1.7	--	3.8	240	0
20...	--	--	--	--	--	--	--	--	--	--
NOV										
28...	580	370	130	61	100	1.8	--	3.5	260	0
DEC										
08...	600	400	130	68	120	2.1	--	3.6	240	0
JAN										
16...	800	550	170	90	140	2.2	--	3.5	300	0
FEB										
16...	650	430	150	68	120	2.0	--	3.5	280	0
MAR										
06...	680	460	150	75	120	2.0	--	4.8	270	0
21...	570	410	120	65	110	2.0	--	4.0	200	0
APR										
26...	630	450	130	73	140	2.4	140	4.3	210	4
MAY										
24...	440	290	96	48	96	2.0	100	3.6	180	0
JUN										
07...	--	--	--	--	--	--	--	--	--	--
27...	380	230	89	39	63	1.4	67	3.6	180	0
JUL										
24...	820	600	180	90	150	2.3	160	5.7	270	2
AUG										
15...	990	760	230	100	200	2.8	210	6.7	280	0
SEP										
19...	700	500	140	85	120	2.0	120	4.8	230	5

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
17...	200	660	9.1	.3	7.3	1180	1110	1.51	80.9	.01
20...	--	--	--	--	--	--	--	--	--	--
NOV										
28...	210	560	7.4	.2	12	1030	1000	1.36	111	.08
DEC										
08...	200	640	8.4	.2	11	1140	1100	1.50	128	.17
JAN										
16...	240	800	11	.2	14	1560	1380	1.88	67.1	.40
FEB										
16...	230	650	7.4	.2	13	1230	1150	1.56	71.4	.40
MAR										
06...	220	700	10	.3	12	1290	1210	1.65	84.9	.36
21...	160	600	8.4	.2	8.4	1150	1020	1.39	207	.23
APR										
26...	190	710	9.6	.3	7.0	1320	1180	1.60	252	.00
MAY										
24...	140	490	6.6	.3	8.2	870	837	1.14	219	.02
JUN										
07...	--	--	--	--	--	--	--	--	--	--
27...	140	370	4.5	.2	11	712	669	.91	231	.19
JUL										
24...	230	890	11	.3	11	1640	1470	2.00	75.8	.01
AUG										
15...	230	1200	19	.3	4.0	2110	1900	2.58	35.9	.00
SEP										
19...	190	760	8.6	.4	1.9	1310	1240	1.69	53.6	.19

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT										
17...	.01	--	.36	.37	.38	1.7	.02	--	--	.00
20...	--	--	--	--	--	--	--	--	--	--
NOV										
28...	.01	--	.41	.42	.50	2.2	.00	--	--	.00
DEC										
08...	.01	--	.39	.40	.57	2.5	.03	--	--	.01
JAN										
16...	.06	--	.07	.13	.53	2.3	.02	--	--	.01
FEB										
16...	.11	--	.40	.51	.91	4.0	.02	--	--	.02
MAR										
06...	.10	--	.43	.53	.89	3.9	.01	--	--	.01
21...	.07	--	.27	.34	.57	2.5	.08	--	--	.01
APR										
26...	.02	.02	.71	.73	.73	3.2	.03	.09	.09	.01
MAY										
24...	.09	.11	.72	.81	.83	3.7	.09	.28	.28	.02
JUN										
07...	--	--	--	--	--	--	--	--	--	--
27...	.02	.02	.89	.91	1.1	4.9	.42	1.3	1.3	.02
JUL										
24...	.02	.02	.70	.72	.73	3.2	.02	--	.06	.05
AUG										
15...	.04	.05	.63	.67	.67	3.0	.05	--	.15	.01
SEP										
19...	.05	.06	.45	.50	.69	3.1	.03	--	.09	.00

YELLOWSTONE RIVER BASIN

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT									
17...	8.1	.4	600	--	--	--	--	9	.66
20...	--	--	--	--	--	--	--	--	--
NOV									
28...	5.4	.5	220	--	--	--	--	32	3.5
DEC									
08...	5.4	.4	530	--	--	--	--	46	5.3
JAN									
16...	6.3	.4	40	--	--	--	--	27	1.3
FEB									
16...	6.4	--	30	--	--	--	--	66	4.1
MAR									
06...	7.9	.6	130	.000	.080	.020	.000	18	1.3
21...	5.7	1.3	590	--	--	--	--	180	36
APR									
26...	11	--	2100	--	--	--	--	172	37
MAY									
24...	12	--	670	--	--	--	--	320	84
JUN									
07...	--	--	--	--	--	--	--	412	--
27...	11	--	360	--	--	--	--	708	245
JUL									
24...	17	1.1	3100	--	--	--	--	118	6.1
AUG									
15...	13	.5	350	--	--	--	--	91	1.7
SEP									
19...	11	.8	440	--	--	--	--	49	2.1

[illegible]

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BURON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
OCT 17...	0	0	150	0	--	1	2	0	--	0	4
NOV 28...	--	--	140	--	--	--	--	--	--	--	--
DEC 08...	--	--	140	--	--	--	--	--	--	--	--
JAN 16...	--	--	160	--	--	--	--	--	--	--	--
FEB 16...	--	--	140	--	--	--	--	--	--	--	--
MAR 06...	--	--	170	--	--	--	--	--	--	--	--
21...	0	0	140	5	--	7	0	10	--	10	4
APR 26...	<1	1	150	6	1	5	0	10	10	0	4
MAY 24...	--	--	120	--	--	--	--	--	--	--	--
JUN 27...	0	0	80	7	0	11	0	10	10	0	2
JUL 24...	--	--	180	--	--	--	--	--	--	--	--
AUG 15...	--	--	170	--	--	--	--	--	--	--	--
SEP 19...	--	--	160	--	--	--	--	--	--	--	--

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
OCT 17...	0	--	0	12	7	--	10	8	20	26	--
NOV 28...	--	--	--	--	--	--	--	--	10	--	--
DEC 08...	--	--	--	--	--	--	--	--	10	--	--
JAN 16...	--	--	--	--	--	--	--	--	20	--	--
FEB 16...	--	--	--	--	--	--	--	--	30	--	--
MAR 06...	--	--	--	--	--	--	--	--	30	--	--
21...	0	--	0	0	8	--	5	8	0	98	--
APR 26...	0	0	<3	0	14	9	5	4	10	69	16
MAY 24...	--	--	--	--	--	--	--	--	10	--	--
JUN 27...	7	7	0	0	17	13	4	4	40	53	0
JUL 24...	--	--	--	--	--	--	--	--	<0	--	--
AUG 15...	--	--	--	--	--	--	--	--	10	--	--
SEP 19...	--	--	--	--	--	--	--	--	<10	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
OCT 17...	16	1	--	1	0	.0	20	--	20	14
NOV 28...	--	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--	--
JAN 16...	--	--	--	--	--	--	--	--	--	--
FEB 16...	--	--	--	--	--	--	--	--	--	--
MAR 06...	--	--	--	--	--	--	--	--	--	--
21...	0	2	--	2	0	.0	30	--	20	14
APR 26...	0	1	0	1	0	.0	50	40	10	16
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 27...	0	2	1	1	0	.0	70	60	10	11
JUL 24...	--	--	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 21...	1130	<23	6.1	6.3	5.5	5.8	4.7	<16	4.1
APR 26...	0950	36	8.7	<7.7	6.1	<6.7	5.7	24	5.9
JUN 27...	0935	21	39	8.1	22	7.4	20	14	27

DATE	TIME	TEMPER- ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 11...	1115	17.0	.00	0	.00	0	.00	.0
JUL 20...	1200	23.5	.00	0	.00	0	.00	.0
AUG 16...	1130	20.0	.00	0	.00	0	.00	.0
SEP 13...	1200	13.0	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 11...	.00	0	.00	0
JUL 20...	.00	0	.00	0
AUG 16...	.00	0	.00	0
SEP 13...	.00	0	.01	0

YELLOWSTONE RIVER BASIN

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAR 21...	1130	2	.0	75	2	4	12	28
APR 26...	0950	2	9.5	79	3	6	15	30
JUN 27...	0935	2	20.0	128	8	21	79	99

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAR 21...	40	46	53	63	72	94	100
APR 26...	36	39	43	52	66	94	100
JUN 27...	100	--	--	--	--	--	--

DATE TIME	OCT 17,78 0910	NOV 28,78 1200	DEC 8,78 1000	JAN 16,79 1055	FEB 16,79 1015	
TOTAL CELLS/ML	600	220	530	40	30	
DIVERSITY: DIVISION	0.2	0.0	0.6	0.0	0.0	
..CLASS	0.2	0.0	0.7	0.0	0.0	
..ORDER	0.7	0.0	1.0	0.0	0.0	
...FAMILY	1.6	1.8	2.7	1.0	1.0	
....GENUS	2.3	2.2	3.0	1.0	1.5	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	14	3
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-
...SCENEDESMACEAE						
...SCENEDESMUS	--	-	--	-	28	5
..TETRASPORALES						
...PALMELLACEAE						
...SPHAEROCYSTIS	--	-	--	-	--	-
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	--	-	--	-	28	5
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCAEAE						
...CYCLOTELLA	67	11	--	-	14	3
...MELOSIRA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
...ACHNANTHES	22	4	--	-	--	-
...RHOICOSPHEA	--	-	14	6	--	-
...CYMBELLACEAE						
...CYMBELLA	--	-	14	6	--	-
...DIATOMACEAE						
...DIATOMA	--	-	14	6	83#	16
...FRAGILARIACEAE						
...FRAGILARIA	--	-	--	-	--	-
...SYNEDRA	--	-	--	-	42	8
...GOMPHONEMACEAE						
...GOMPHONEMA	--	-	--	-	14	3
...NAVICULACEAE						
...AMPHIPLEURA	270#	44	55#	25	120#	24
...CALONEIS	--	-	--	-	--	-
...GYROSIGMA	45	7	--	-	--	-
...NAVICULA	45	7	42#	19	42	8
...NITZSCHACEAE					15#	38
...NITZSCHIA	130#	22	83#	38	120#	24
...SURIRELLACEAE					25#	63
...SURIRELLA	--	-	--	-	--	-
..CHRYSTOPHYCEAE						
...CHRYSDOMNADALES						
...OCHROMONADACEAE						
...OCHROMONAS	--	-	--	-	14	3
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
...CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE						
...CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...ANACYSTIS	--	-	--	-	--	-
...HORMOGONALES						
...OSCILLATORIAEAE						
...SPIRULINA	22	4	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
...EUGLENA	--	-	--	-	--	-
...TRACHELOMONAS	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...GYMNODINIALES						
...GYMNODINIACEAE						
...GYMNODINIUM	--	-	--	-	--	-

NOTE: # = DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* = OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN
06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PHYTOPLANKTON ANALYSES

DATE TIME	MAR 6,79 1215	MAR 21,79 1130	APR 26,79 0950	MAY 24,79 0930				
TOTAL CELLS/ML	130	590	2100	670				
DIVERSITY: DIVISION	0.8	1.0	0.6	0.0				
..CLASS	0.8	1.0	0.6	0.0				
...ORDER	1.2	1.7	1.0	0.9				
...FAMILY	2.2	2.5	2.2	1.6				
....GENUS	2.2	2.5	2.3	1.6				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	26 4	39 2	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
...OOCYSTIS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	29#	22	--	-	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	77 4	--	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	160#	26	97 5	--	--	-
CHRYSPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	90#	15	120 5	210#	31	
....MELOSIRA	14	11	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
...RHOICOSPHENIA	--	-	13 2	--	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	13 2	--	--	-	--	-
..DIATOMACEAE								
...DIATOMA	--	-	--	-	120 5	--	--	-
...FRAGILARIACEAE								
....FRAGILARIA	29#	22	39 7	--	--	-	--	-
...SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE								
....GOMPHONEMA	--	-	--	-	19 1	--	--	-
...NAVICULACEAE								
....AMPHIPLEURA	14	11	--	-	--	-	--	-
....CALONEIS	--	-	--	-	58 3	--	--	-
....GYROSIGMA	--	-	13 2	--	--	-	--	-
...NAVICULA	--	-	13 2	480#	23	210#	31	
...NITZSCHIACEAE								
....NITZSCHIA	43#	33	220#	37	1100#	50	260#	38
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	39 2	--	--	-
..CHRYSPHYCEAE								
...CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	--	-
...HORMOGONALES								
...OSCILLATORACEAE								
....SPIRULINA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
...TRACHELOMONAS	--	-	--	-	39 2	--	--	-
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	13 2	--	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE TIME	JUN 27,79 0935		JUL 24,79 0945		AUG 15,79 0910		SEP 19,79 1440	
TOTAL CELLS/ML	360		3100		350		440	
DIVERSITY: DIVISION	1.0		1.0		1.4		1.6	
..CLASS	1.0		1.0		1.4		1.6	
..ORDER	1.5		1.1		1.7		2.2	
...FAMILY	1.5		1.3		1.9		2.4	
....GENUS	1.9		1.6		1.9		2.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESUS	72#	20	2200#	73	--	-	150#	35
....KIRCHNERIELLA	72#	20	--	-	--	-	--	-
....OOCYSTIS	--	-	150	5	--	-	52	12
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	77	3	52	15	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
...VOLVOCALES								
....CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	13	4	77#	18
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	140#	40	77	3	13	4	13	3
....MELOSIRA	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	13	4	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....AMPHIPLEURA	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
...NAVICULA	72#	20	39	1	--	-	13	3
...NITZSCHACEAE								
....NITZSCHIA	--	-	230	8	65#	19	39	9
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
..CHRYSOPHYCEAE								
...CHRYSONOMADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	13	3
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	39	1	--	-	13	3
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	120	4	190#	56	52	12
...HORMOGONALES								
...OSCILLATORIACEAE								
....SPIRULINA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	39	1	--	-	--	-
....TRACHELONAS	--	-	39	1	--	-	13	3
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06317000 POWDER RIVER AT ARVADA, WY

LOCATION.--Lat 44°38'45", long 106°08'00", in NE¼NW¼ sec.21, T.54 N., R.77 W., Sheridan County, Hydrologic Unit 10090202, on left bank 0.5 mi (0.8 km) upstream from bridge on county road, 0.5 mi (0.8 km) southwest of Arvada, and 0.8 mi (1.3 km) upstream from Wild Horse Creek.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year (no winter records in water years 1919-30, 1934). Records for Feb. 16-23, 1930, published in WSP 701 are unreliable and should not be used.

REVISED RECORDS.--WSP 1509: 1921(M), 1923(M), 1924-26, 1927-28(M), 1929, 1930(M), 1931, 1932(M), 1933, 1934(M), 1935-36. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,622.01 ft (1,103.989 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 24, 1938, nonrecording gage at bridge 0.5 mi (0.8 km) downstream at datum 0.14 ft (0.043 m) lower.

REMARKS.--Records poor. Numerous small reservoirs and diversions for irrigation of about 29,000 acres (117 km²) above station.

AVERAGE DISCHARGE.--48 years (water years 1931-33, 1935-79), 284 ft³/s (8.043 m³/s), 205,800 acre-ft/yr (254 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 100,000 ft³/s (2,830 m³/s) Sept. 29, 1923, gage height, 23.7 ft (7.22 m), from floodmarks, site and datum then in use, from rating curve extended above 20,000 ft³/s (566 m³/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,800 ft³/s (79.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 16	0900	-- --	a*7.62 2.323	July 27	1130	*3,790 107	6.17 1.881
June 17	1100	3,680 104	6.09 1.856				

a-backwater from ice.

Minimum daily discharge, 6.2 ft³/s (0.18 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	270	140	80	86	200	600	390	780	279	150	126
2	150	279	140	80	88	190	500	400	550	207	110	114
3	146	279	130	80	90	180	460	520	490	170	110	98
4	155	288	150	80	96	200	440	640	460	205	89	86
5	160	263	140	30	100	230	510	730	430	224	48	68
6	170	214	140	80	110	270	590	850	370	170	27	53
7	214	228	130	80	120	300	610	760	370	190	16	46
8	221	242	130	85	110	410	570	760	351	235	12	36
9	207	270	140	85	120	420	620	880	380	288	7.9	32
10	207	180	150	90	130	500	730	700	420	170	6.2	26
11	221	110	150	92	130	660	720	620	410	146	17	20
12	207	120	150	92	140	900	660	650	400	122	12	22
13	185	130	140	92	160	800	700	800	400	114	15	23
14	175	120	150	90	140	900	690	750	342	104	27	23
15	175	130	160	88	120	1100	690	640	279	98	24	24
16	180	140	150	90	120	1500	710	510	360	83	15	26
17	180	150	160	95	130	1400	750	510	1970	74	16	29
18	185	160	160	100	140	1100	690	790	910	59	42	32
19	195	140	150	96	150	800	680	1000	600	55	62	34
20	200	130	140	98	150	600	530	760	890	50	106	36
21	190	130	150	105	140	500	480	670	770	45	165	36
22	200	130	150	105	130	500	570	660	710	40	191	36
23	190	140	140	105	120	520	450	590	620	38	360	38
24	200	140	140	100	130	530	440	550	510	34	256	36
25	221	140	130	100	150	540	380	650	470	36	185	34
26	207	150	120	96	180	480	420	620	380	36	175	34
27	200	150	120	94	200	540	520	540	390	1250	155	36
28	221	170	100	92	220	520	510	600	315	1350	200	38
29	279	160	90	90	---	510	410	710	380	1120	221	38
30	242	150	85	88	---	560	420	670	270	802	180	38
31	256	---	80	88	---	720	---	640	---	351	138	---
TOTAL	6081	5303	4205	2816	3700	18580	17050	20560	15997	8145	3138.1	1318
MEAN	196	177	136	90.8	132	599	568	663	533	263	101	43.9
MAX	279	288	160	105	220	1500	750	1000	1970	1350	360	126
MIN	142	110	80	80	86	180	380	390	270	34	6.2	20
AC-FT	12060	10520	8340	5590	7340	36850	33820	40780	31730	16160	6220	2610
CAL YR 1978	TOTAL	271527.0	MEAN 744	MAX 22600	MIN 62	AC-FT 538600						
WTR YR 1979	TOTAL	106893.1	MEAN 293	MAX 1970	MIN 6.2	AC-FT 212000						

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 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 discharge station.

PERIOD OF RECORD.--Water years 1946-57, 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1949 to September 1957, October 1967 to September 1978.

SUSPENDED-SEDIMENT DISCHARGE: April 1946 to September 1957, October 1967 to September 1971, January 1975 to September 1978.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
13...	1200	--	185	2600	8.4	6.0	300	11.5	K60	510
17...	1015	--	175	2500	8.3	7.0	--	--	--	550
NOV										
10...	1400	--	165	2000	8.3	.0	200	--	--	530
DEC										
08...	1150	--	130	2600	7.8	.0	40	--	--	590
JAN										
08...	1130	85	--	3500	7.6	.0	35	6.0	K110	820
FEB										
02...	1130	88	--	2800	7.6	.0	35	--	--	520
MAR										
16...	1100	1500	--	2200	7.9	.5	750	--	--	460
APR										
16...	1100	--	740	3600	8.2	10.0	1400	9.6	K110	760
JUN										
11...	1040	--	410	1700	8.2	18.0	500	--	--	340
JUL										
20...	1100	50	--	3500	8.4	24.0	40	8.0	K160	790
AUG										
16...	1030	--	17	5200	8.3	21.0	250	--	--	800
SEP										
13...	1100	--	23	3800	8.5	12.0	220	--	--	630

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
13...	290	120	51	370	7.1	6.2	270	0	220	720
17...	250	120	61	370	6.9	6.7	370	0	300	680
NOV										
10...	300	120	58	340	6.4	5.0	280	0	230	670
DEC										
08...	280	150	54	370	6.6	5.5	380	0	310	640
JAN										
08...	450	190	83	480	7.3	7.2	450	0	370	1000
FEB										
02...	170	130	48	470	9.0	4.6	430	0	350	630
MAR										
16...	300	120	38	320	6.5	4.9	200	0	160	820
APR										
16...	480	180	76	480	7.6	14	340	0	280	1300
JUN										
11...	190	82	34	220	5.2	5.3	180	0	150	480
JUL										
20...	550	170	87	500	7.8	10	280	6	240	1100
AUG										
16...	520	190	80	850	13	13	340	0	280	1600
SEP										
13...	400	140	69	570	9.9	10	280	0	230	1100

YELLOWSTONE RIVER BASIN

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT									
13...	270	.8	6.6	--	1820	2.48	909	.09	--
17...	270	.7	8.3	1730	1700	2.31	803	--	.08
NOV									
10...	260	.8	6.0	--	1600	2.18	713	.16	--
DEC									
08...	260	.8	10	--	1670	2.27	586	.34	--
JAN									
08...	340	1.2	13	--	2340	3.18	537	.47	--
FEB									
02...	280	.9	11	--	1790	2.43	425	.41	--
MAR									
16...	120	.9	4.3	--	1530	2.08	6200	1.5	--
APR									
16...	170	1.2	3.9	--	2390	3.25	4780	.79	--
JUN									
11...	150	.7	9.7	--	1072	1.46	1190	.00	--
JUL									
20...	320	.8	9.1	--	2340	3.18	316	.00	--
AUG									
16...	590	1.1	7.1	--	3500	4.76	161	.11	--
SEP									
13...	430	1.0	5.5	--	2470	3.36	153	.00	--

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT									
13...	--	--	--	--	--	.01	--	--	--
17...	.01	1.6	1.6	1.7	7.4	.04	.02	460	20
NOV									
10...	--	--	--	--	--	.22	--	--	--
DEC									
08...	--	--	--	--	--	.18	--	--	--
JAN									
08...	--	--	--	--	--	.18	--	--	--
FEB									
02...	--	--	--	--	--	.10	--	--	--
MAR									
16...	--	--	--	--	--	2.1	--	--	--
APR									
16...	--	--	--	--	--	1.7	--	--	--
JUN									
11...	--	--	--	--	--	.37	--	--	--
JUL									
20...	--	--	--	--	--	.14	--	--	--
AUG									
16...	--	--	--	--	--	.96	--	--	--
SEP									
13...	--	--	--	--	--	.40	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT				
02...	1555	148	1580	631
NOV				
06...	1545	221	1080	644
JAN				
08...	1620	86	356	83

LOCATION.--Lat 44°19'58", long 106°46'36", in SE¼SW¼NW¼ sec.6, T.50 N., R.82 W., Johnson County, Hydrologic Unit 10090206, on left bank 500 ft (152 m) upstream from abandoned Pacific Power & Light Company powerplant, 2.0 mi (3.2 km) downstream from Mosier Gulch, and 4.0 mi (6.4 km) west of Buffalo.

PERIOD OF RECORD.--April to September 1894, May to September 1896, May 1897 to December 1899, June 1917 to October 1927, April 1938 to current year. Published as "at Buffalo" 1897-98. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 5,184.83 ft (1,580.336 m), National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to 1961.

AVERAGE DISCHARGE.--53 years (water years 1898-99, 1918-27, 1939-79), 63.5 ft³/s (1.798 m³/s), 46,010 acre-ft/yr (56.7 hm³/yr).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s (10.8 m³/s) and maximum (*):

Minimum daily discharge, 14 ft³/s (0.40 m³/s) Nov. 6, Mar. 5, 9, 20, 23, 27, Apr. 3, 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	23	19	19	16	15	15	54	192	231	62	92
2	42	22	19	19	16	15	15	43	173	178	57	85
3	40	24	18	17	16	15	14	38	169	158	53	76
4	40	24	19	17	15	15	16	45	190	499	50	69
5	38	21	18	17	15	14	14	65	245	319	47	63
6	38	14	18	16	15	15	15	83	306	207	45	59
7	37	25	17	16	15	15	17	54	251	187	44	54
8	36	23	17	16	15	15	15	49	197	164	44	51
9	34	22	18	15	15	14	18	39	173	143	46	49
10	33	16	19	16	16	15	20	42	169	132	50	48
11	32	16	20	16	16	15	18	38	182	121	45	49
12	31	16	20	16	16	15	16	40	284	117	43	52
13	30	15	19	16	16	16	16	44	419	116	171	55
14	30	15	20	17	16	15	16	56	540	109	290	51
15	30	15	21	17	15	16	20	72	475	100	176	49
16	30	16	20	17	16	16	29	106	326	92	137	46
17	29	17	21	17	16	16	39	126	316	89	110	42
18	30	18	21	17	16	16	65	122	352	83	124	41
19	29	17	21	17	16	15	59	135	277	81	117	39
20	28	16	21	17	16	14	34	151	187	77	143	40
21	29	17	21	16	15	15	32	166	182	75	156	43
22	30	18	20	16	15	15	35	202	220	70	141	40
23	28	19	20	16	15	14	52	200	202	92	162	38
24	31	20	20	16	15	15	61	245	187	119	139	36
25	29	19	20	16	15	15	49	262	190	101	197	35
26	27	20	20	16	15	15	40	274	194	107	164	34
27	27	21	20	16	15	14	32	374	226	95	141	34
28	26	22	19	16	15	16	39	442	239	85	147	34
29	26	21	19	16	---	16	41	510	234	77	143	33
30	24	20	20	16	---	16	42	293	226	72	121	32
31	20	---	20	16	---	15	---	220	---	70	106	---
TOTAL	974	572	605	511	433	469	894	4590	7523	4166	3471	1469
MEAN	31.4	19.1	19.5	16.5	15.5	15.1	29.8	148	251	134	112	49.0
MAX	42	25	21	19	16	16	65	510	540	499	290	92
MIN	20	14	17	15	15	14	14	38	169	70	43	32
AC-FT	1930	1130	1200	1010	859	930	1770	9100	14920	8260	6880	2910
CAL YR 1978	TOTAL	37460	MEAN	103	MAX 704	MIN 12	AC-FT	74300				
WTR YR 1979	TOTAL	25677	MEAN	70.3	MAX 540	MIN 14	AC-FT	50930				

YELLOWSTONE RIVER BASIN

06320000 ROCK CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°27'22", long 106°52'42", in NW¼NW¼NW¼ sec.29, T.52 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on left bank 300 ft (91 m) downstream from confluence of North and South Forks and 11.5 mi (18.5 km) northwest of Buffalo.

DRAINAGE AREA.--60.0 mi² (155.4 km²).

PERIOD OF RECORD.--April to August 1941, April to December 1942, May 1943 to November 1944, April 1945 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map. Prior to Jan. 8, 1944, nonrecording gages 600 ft (183 m) upstream on North and South Forks at different datums. Jan. 8, 1944, to Sept. 30, 1952, water-stage recorder at present site at datum 0.72 ft (0.219 m) lower.

REMARKS.--Records good. Water is imported into drainage basin above station from South Piney Creek. Diversions for irrigation of about 250 acres (1.01 km²) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--27 years (water years 1944, 1946-71), 36.4 ft³/s (1.031 m³/s), 26,370 acre-ft/yr (32.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) June 15, 1963, gage height, 7.98 ft (2.432 m), from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s (0.014 m³/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1941, about 8.05 ft (2.454 m), probably during 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 203 ft³/s (5.75 m³/s) May 28, gage height, 5.12 ft (1.561 m); minimum daily during period of operation, 4.6 ft³/s (0.13 m³/s) Apr. 3.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							4.7	18	88	48	35	31
2							4.9	17	102	42	33	29
3							4.6	14	128	38	34	26
4							5.2	15	153	111	33	26
5							4.6	26	171	64	33	25
6							5.3	38	171	49	33	25
7							6.2	27	134	50	38	27
8							5.2	22	106	42	38	26
9							6.6	18	100	39	37	26
10							7.6	19	106	38	35	26
11							6.4	18	116	36	34	27
12							5.2	18	138	32	34	28
13							4.8	19	149	31	65	29
14							5.1	26	149	30	72	30
15							6.0	34	120	32	50	30
16							9.1	55	106	31	48	28
17							12	67	103	33	43	28
18							19	57	149	45	45	28
19							22	60	97	44	45	27
20							14	70	84	45	50	26
21							12	82	82	45	44	21
22							11	102	81	43	39	20
23							15	89	74	52	42	19
24							21	120	68	56	40	19
25							18	153	67	45	50	18
26							15	139	76	46	45	18
27							12	149	74	48	41	17
28							14	167	62	44	40	9.4
29							15	171	54	42	38	8.1
30							15	104	50	42	36	7.8
31							---	89	---	41	32	---
TOTAL							306.5	2003	3158	1384	1282	705.3
MEAN							10.2	64.6	105	44.6	41.4	23.5
MAX							22	171	171	111	72	31
MIN							4.6	14	50	30	32	7.8
AC-FT							608	3970	6260	2750	2540	1400

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°21'44", long 106°39'13", in SW¼SE¼NW¼ sec.30, T.51 N., R.81 W., Johnson County, Hydrologic Unit 10090206, on right bank 100 ft (30 m) downstream from bridge on county road, 0.5 mi (0.8 km) downstream from Rock Creek, and 2.5 mi (4.0 km) northeast of Buffalo.

DRAINAGE AREA.--322 mi² (834 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1971 to current year (no winter records prior to 1976). Records prior to October 1975 in files of Office of Wyoming State Engineer.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft (1,366 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 13,500 acres (54.6 km²), of which 269 acres (1.09 km²) are below station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft³/s (58.3 m³/s) May 30, 1971, gage height, 6.28 ft (1.914 m); minimum daily, 7.5 ft³/s (0.21 m³/s) July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 790 ft³/s (22.4 m³/s) May 29, gage height, 4.47 ft (1.362 m); minimum daily, 34 ft³/s (0.96 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	59	58	43	36	49	50	80	206	188	62	122
2	71	58	56	44	36	48	48	87	183	144	60	111
3	72	59	54	44	36	48	45	75	186	122	50	104
4	70	60	57	43	36	50	47	71	216	445	46	92
5	67	56	56	38	36	52	48	86	323	314	45	86
6	67	50	52	38	37	52	47	113	400	193	39	83
7	67	52	50	38	39	52	56	93	346	167	36	78
8	66	60	50	38	37	51	53	78	225	142	37	69
9	67	60	52	37	39	48	55	69	176	116	37	72
10	66	62	56	37	39	51	59	75	165	104	40	70
11	64	55	60	38	40	54	54	72	179	99	38	69
12	64	54	58	38	42	56	50	71	256	98	34	65
13	64	54	56	37	44	54	47	71	400	96	124	82
14	65	52	58	36	42	52	47	83	517	93	292	76
15	67	52	58	36	38	55	51	98	456	83	176	70
16	67	54	55	37	40	66	60	131	314	78	131	66
17	65	56	56	37	42	70	75	174	311	72	115	65
18	69	57	56	38	42	58	110	165	474	67	118	64
19	67	52	54	38	42	55	134	167	292	66	123	60
20	65	50	55	38	41	47	89	190	206	62	152	59
21	65	54	56	38	40	47	70	211	179	60	172	59
22	65	57	56	38	39	52	66	266	200	54	167	56
23	66	60	54	38	38	46	80	239	190	61	183	54
24	69	60	54	38	40	47	102	317	174	76	157	52
25	67	58	52	38	43	50	90	352	163	67	213	50
26	65	60	49	38	46	45	71	384	163	78	213	51
27	62	62	51	38	48	46	60	466	186	108	181	46
28	62	64	47	38	50	47	62	589	188	93	179	45
29	60	62	44	37	---	50	65	693	186	74	176	41
30	59	60	44	36	---	53	71	420	186	82	157	41
31	54	---	43	36	---	52	---	254	---	72	134	---
TOTAL	2034	1709	1657	1186	1128	1603	1962	6240	7646	3574	3687	2058
MEAN	65.6	57.0	53.5	38.3	40.3	51.7	65.4	201	255	115	119	68.6
MAX	72	64	60	44	50	70	134	693	517	445	292	122
MIN	54	50	43	36	36	45	45	69	163	54	34	41
AC-FT	4030	3390	3290	2350	2240	3180	3890	12380	15170	7090	7310	4080
CAL YR 1978	TOTAL	64518	MEAN	177	MAX	1500	MIN	34	AC-FT	128000		
WTR YR 1979	TOTAL	34484	MEAN	94.5	MAX	693	MIN	34	AC-FT	68400		

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEDUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT											
03...	1735	--	71	--	--	11.0	--	--	--	--	--
16...	1700	--	66	700	8.7	10.0	1	--	10.8	2.1	--
21...	1205	--	65	758	--	8.5	--	--	--	--	--
NOV											
07...	1530	--	51	--	--	5.0	--	--	--	--	--
13...	1620	54	--	750	8.0	.0	2	--	12.3	2.7	--
DEC											
11...	1610	60	--	780	7.6	.0	3	--	11.8	2.6	--
18...	1430	56	--	--	--	.0	--	--	--	--	--
JAN											
10...	1145	37	--	--	--	.0	--	--	--	--	--
11...	1500	38	--	770	7.6	.0	1	--	11.4	2.2	--
FEB											
05...	1510	36	--	890	7.6	.0	2	--	12.4	1.7	--
06...	1700	37	--	--	--	.0	--	--	--	--	--
MAR											
06...	1600	52	--	--	--	.5	--	--	--	--	--
19...	1500	--	54	1230	8.2	3.0	2	--	12.3	1.6	--
APR											
03...	1630	--	42	--	--	5.0	--	--	--	--	--
19...	1500	--	131	610	8.1	5.0	8	--	10.8	3.0	--
MAY											
09...	1530	--	64	--	--	6.0	--	--	--	--	--
24...	0920	--	363	--	--	10.5	--	--	--	--	--
JUN											
06...	1745	--	424	--	--	10.0	--	--	--	--	--
14...	1630	--	484	130	7.7	14.5	--	5.4	9.2	1.9	130
JUL											
05...	1400	--	295	--	--	18.0	--	--	--	--	--
23...	1530	--	61	470	8.4	17.5	--	2.9	8.9	2.1	K700
AUG											
01...	1230	--	62	--	--	19.0	--	--	--	--	--
09...	0930	--	38	--	--	17.0	--	--	--	--	--
14...	1500	--	274	--	--	15.0	--	--	--	--	--
16...	1715	--	134	455	8.3	18.5	--	4.9	8.2	1.6	250
SEP											
05...	1140	--	90	--	--	15.0	--	--	--	--	--
14...	0850	--	78	640	8.1	6.5	--	1.5	10.0	1.8	210

K-Results based on colony count outside the acceptable range (non-ideal colony count).

YELLOWSTONE RIVER BASIN

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06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
16...	300	150	70	31	35	.9	--	2.5	180	4	150
21...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	380	210	86	39	43	1.0	--	2.9	200	0	160
DEC											
11...	340	190	80	35	41	1.0	--	2.8	190	0	160
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
10...	--	--	--	--	--	--	--	--	--	--	--
11...	340	180	81	34	45	1.1	--	2.8	200	0	160
FEB											
05...	360	180	82	37	42	1.0	--	2.9	210	0	170
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
19...	550	360	130	54	66	1.2	--	4.1	230	0	190
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
19...	240	140	55	24	30	.9	--	2.8	120	0	98
MAY											
09...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
14...	47	28	12	4.2	5.7	.4	6.2	.5	24	0	20
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
23...	190	94	44	20	25	.8	27	2.0	120	0	98
AUG											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
16...	190	100	45	19	22	.7	24	2.0	110	0	90
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
14...	250	130	59	25	29	.8	31	2.3	--	--	120

YELLOWSTONE RIVER BASIN

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIU2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
16...	220	3.9	.3	11	545	467	.64	83.2	1	.07	.01
21...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	290	4.4	.2	13	--	577	.78	84.1	--	.11	.02
DEC											
11...	280	4.3	.2	14	--	551	.75	89.3	--	.40	.33
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
10...	--	--	--	--	--	--	--	--	--	--	--
11...	250	4.5	.2	14	--	530	.72	54.4	--	.32	.70
FEB											
05...	270	4.6	.2	13	--	556	.76	54.0	--	.26	.59
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
19...	460	6.4	.2	12	--	846	1.15	123	--	.21	.35
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
19...	190	3.6	.1	10	--	375	.51	133	--	.12	.19
MAY											
09...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
14...	31	.8	.2	6.0	--	72	.10	94.1	--	.02	.06
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
23...	130	2.5	.1	10	--	293	.40	48.3	--	.08	.16
AUG											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
16...	130	2.3	.1	8.9	--	284	.39	103	--	.05	.04
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
14...	200	2.4	.1	11	--	401	.55	84.5	--	.02	.01

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
03...	--	--	--	--	--	--	--	--	6	1.2	--
16...	--	2.6	2.6	2.7	12	.07	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	13	1.8	--
13...	--	.61	.63	.74	3.3	.06	--	--	--	--	--
DEC											
11...	--	.36	.69	1.1	4.8	.13	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	20	3.0	--
JAN											
10...	--	--	--	--	--	--	--	--	10	1.0	--
11...	--	.09	.79	1.1	4.9	.16	--	--	--	--	--
FEB											
05...	--	.23	.82	1.1	4.8	.18	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	5	.50	--
MAR											
06...	--	--	--	--	--	--	--	--	16	2.2	--
19...	--	.46	.81	1.0	4.5	.10	--	--	--	--	--
APR											
03...	--	--	--	--	--	--	--	--	4	.45	--
19...	.23	.36	.55	.67	3.0	.04	.12	.12	--	--	--
MAY											
09...	--	--	--	--	--	--	--	--	10	1.7	--
24...	--	--	--	--	--	--	--	--	130	127	--
JUN											
06...	--	--	--	--	--	--	--	--	58	66	--
14...	.07	.42	.48	.50	2.2	.03	.09	.09	--	--	--
JUL											
05...	--	--	--	--	--	--	--	--	44	35	--
23...	.19	.44	.60	.68	3.0	.03	--	.09	--	--	--
AUG											
01...	--	--	--	--	--	--	--	--	11	1.8	--
09...	--	--	--	--	--	--	--	--	27	2.8	94
14...	--	--	--	--	--	--	--	--	57	42	80
16...	.05	.19	.23	.28	1.2	.08	--	.25	--	--	--
SEP											
05...	--	--	--	--	--	--	--	--	14	3.4	92
14...	.01	.49	.50	.52	2.3	.01	--	.03	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)
OCT										
16...	1700	50	0	0	70	0	0	4	140	--
NOV										
13...	1620	--	--	--	70	--	--	--	--	--
DEC										
11...	1610	--	--	--	70	--	--	--	--	--
JAN										
11...	1500	80	1	0	60	5	0	9	220	--
FEB										
05...	1510	--	--	--	100	--	--	--	--	--
MAR										
19...	1500	--	--	--	80	--	--	--	--	--
APR										
19...	1500	230	1	0	40	13	0	26	570	390
JUN										
14...	1630	--	--	--	7	--	--	--	--	--
JUL										
23...	1530	160	1	0	50	1	0	3	190	140
AUG										
16...	1715	--	--	--	50	--	--	--	--	--
SEP										
14...	0850	--	--	--	60	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 16...	100	5	10	40	.0	3	2	0	10
NOV 13...	80	--	--	--	--	--	--	--	--
DEC 11...	60	--	--	--	--	--	--	--	--
JAN 11...	80	8	10	50	.1	0	6	0	20
FEB 05...	70	--	--	--	--	--	--	--	--
MAR 19...	100	--	--	--	--	--	--	--	--
APR 19...	180	64	10	60	.0	0	7	1	90
JUN 14...	80	--	--	--	--	--	--	--	--
JUL 23...	50	3	5	20	.0	0	5	0	30
AUG 16...	70	--	--	--	--	--	--	--	--
SEP 14...	30	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 16...	1700	<7.0	<.4	4.4	<.4	4.0	.4	.08	4.7

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 14...	1630	.27	0	.00	0	.00	.0
JUL 23...	1530	.06	0	.00	0	.00	.0
AUG 16...	1715	.00	0	.00	0	.00	.0
SEP 14...	0850	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 14...	.20	0	.00	0
JUL 23	.02	0	.01	0
AUG 16...	.01	<2	.00	0
SEP 14...	.00	0	.00	0

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAY								
09...	1530	2	6.0	64	1	5	19	35
24...	0920	2	10.5	363	1	2	9	29
JUL								
05...	1400	2	18.0	295	1	4	20	48
AUG								
14...	1500	2	15.0	274	1	7	16	26

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY							
09...	45	50	55	62	75	92	100
24...	38	44	52	62	72	83	100
JUL							
05...	63	69	74	80	84	90	100
AUG							
14...	32	35	39	47	55	75	100

YELLOWSTONE RIVER BASIN

06320400 CLEAR CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'09", long 106°32'06", in NE¼SW¼NE¼ sec.19, T.53 N., R.80 W., Johnson County, Hydrologic Unit 10090206, on left bank 0.5 mi (0.8 km) upstream from Sheridan-Johnson County line, 0.7 mi (1.1 km) south of Ucross, and 1.6 mi (2.6 km) upstream from Piney Creek.

DRAINAGE AREA.--409 mi² (1,059 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,070 ft (1,241 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Nov. 8-12, Dec. 9-17, Jan. 5-8, Mar. 7 to Apr. 2, which are poor. Diversions above station for irrigation of about 17,700 acres (71.6 km²), of which about 200 acres (0.81 km²) are below station. Water was diverted into Lake De Smet and then released into Piney Creek basin, bypassing the station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s (49.3 m³/s) May 19, 1978, gage height, 9.07 ft (2.765 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 642 ft³/s (18.2 m³/s) May 30, gage height, 6.28 ft (1.914 m); minimum daily, 8.5 ft³/s (0.24 m³/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	61	15	11	8.7	13	17	15	92	92	48	120
2	76	66	15	11	8.8	12	17	15	87	95	56	115
3	80	63	15	11	8.8	12	17	15	75	95	42	104
4	78	65	16	11	8.8	14	16	14	76	119	46	84
5	76	65	15	11	9.0	16	16	14	69	203	43	61
6	74	62	15	11	9.0	16	16	13	69	111	41	49
7	74	52	15	12	9.2	17	16	13	64	98	36	46
8	74	45	14	12	9.6	17	16	13	62	83	34	50
9	74	65	15	12	10	17	16	16	59	87	31	52
10	74	45	15	12	10	16	16	16	62	76	31	55
11	72	35	18	11	10	15	16	15	65	68	33	58
12	71	40	17	12	11	15	16	14	63	70	30	57
13	71	45	15	12	12	15	15	14	66	75	33	63
14	69	45	17	12	12	15	14	14	72	76	154	65
15	69	40	18	12	10	15	14	14	114	77	174	65
16	70	45	18	12	10	15	14	12	120	72	171	68
17	71	50	17	12	11	15	14	17	107	69	157	68
18	56	70	17	12	12	15	14	27	161	62	133	68
19	58	130	17	13	12	15	15	35	150	51	128	68
20	56	130	17	13	11	15	16	36	94	42	134	69
21	51	100	18	13	11	16	15	36	92	26	154	70
22	52	60	18	13	10	16	15	35	92	19	166	69
23	53	35	18	12	10	16	15	36	93	16	170	69
24	53	35	17	12	10	17	15	103	98	17	174	63
25	52	35	17	11	11	17	15	120	104	22	173	44
26	53	35	16	11	12	17	16	150	114	33	181	44
27	35	35	15	11	13	17	15	221	111	66	180	41
28	60	35	13	10	13	17	15	500	108	84	181	42
29	75	25	12	9.0	---	17	14	494	88	65	179	41
30	125	15	12	8.6	---	17	14	416	93	47	171	47
31	68	---	11	8.5	---	17	---	104	---	63	146	---
TOTAL	2096	1629	488	354.1	292.9	484	460	2557	2720	2179	3430	1915
MEAN	67.6	54.3	15.7	11.4	10.5	15.6	15.3	82.5	90.7	70.3	111	63.8
MAX	125	130	18	13	13	17	17	500	161	203	181	120
MIN	35	15	11	8.5	8.7	12	14	12	59	16	30	41
AC-FT	4160	3230	968	702	581	960	912	5070	5400	4320	6800	3800
CAL YR 1978 TOTAL	65937.0			181		MAX 1480	MIN 11	AC-FT 130800				
WTR YR 1979 TOTAL	18605.0			MEAN 51.0		MAX 500	MIN 8.5	AC-FT 36900				

YELLOWSTONE RIVER BASIN
06320400 CLEAR CREEK AT UCROSS, WY--Continued
WATER-QUALITY RECORDS

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PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT											
03...	1340	--	80	--	--	13.0	--	--	--	--	--
16...	1600	--	72	950	8.4	10.0	1	--	11.4	2.1	460
S21...	0950	--	50	1060	--	5.5	--	--	--	--	--
NOV											
07...	1345	--	48	--	--	4.0	--	--	--	--	--
13...	1530	45	--	1050	8.0	.0	2	--	12.4	2.9	540
DEC											
11...	1515	18	--	1300	7.5	.0	0	--	11.3	1.6	--
18...	1115	17	--	--	--	.0	--	--	--	--	--
JAN											
09...	1430	12	--	--	--	.0	--	--	--	--	--
11...	1400	11	--	1200	7.5	.0	1	--	12.0	2.1	530
FEB											
06...	1300	9.0	--	--	--	.0	--	--	--	--	--
MAR											
06...	1100	16	--	--	--	.0	--	--	--	--	--
19...	1350	15	--	1300	7.9	.0	4	--	12.0	1.6	600
APR											
03...	1440	--	17	--	--	5.0	--	--	--	--	--
19...	1330	--	16	1390	8.2	8.0	2	--	10.4	2.5	610
MAY											
07...	1340	--	13	--	--	14.0	--	--	--	--	--
JUN											
06...	1100	--	69	--	--	14.0	--	--	--	--	--
14...	1530	--	76	470	8.4	23.0	--	6.8	9.5	2.3	200
JUL											
06...	1145	--	113	--	--	23.0	--	--	--	--	--
23...	1430	--	16	1100	8.2	21.0	--	2.2	9.8	1.8	470
AUG											
03...	1300	--	38	--	--	30.0	--	--	--	--	--
16...	1615	--	171	595	8.2	20.0	--	21	7.8	2.4	250
SEP											
05...	0925	--	59	--	--	19.0	--	--	--	--	--
13...	1625	--	68	860	8.5	14.0	--	4.4	10.2	2.3	370

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
16...	270	110	44	52	1.1	--	3.5	220	3	190	340
21...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	330	120	59	71	1.3	--	4.4	260	0	210	450
DEC											
11...	--	--	--	--	--	--	5.8	300	0	250	490
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
11...	290	120	57	75	1.4	--	5.2	300	0	250	440
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
19...	380	130	67	83	1.5	--	5.5	270	0	220	490
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
19...	400	130	70	82	1.4	--	5.1	260	0	210	530
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
14...	110	50	19	22	.7	25	2.7	110	0	90	150
JUL											
06...	--	--	--	--	--	--	--	--	--	--	--
23...	230	98	55	68	1.4	74	5.7	290	0	240	410
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
16...	140	58	25	30	.8	33	2.9	130	0	110	190
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	210	87	38	48	1.1	51	3.4	--	--	160	320

YELLOWSTONE RIVER BASIN

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
16...	17	.3	7.7	804	686	.93	133	<1	.03	.01
21...	--	--	--	--	--	--	--	--	--	--
NOV										
07...	--	--	--	--	--	--	--	--	--	--
13...	6.2	.2	11	--	850	1.16	103	--	.05	.09
DEC										
11...	6.0	.2	--	--	--	.88	--	--	.34	.16
18...	--	--	--	--	--	--	--	--	--	--
JAN										
09...	--	--	--	--	--	--	--	--	--	--
11...	6.1	.2	15	--	867	1.18	25.8	--	.47	.51
FEB										
06...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
19...	6.5	.2	10	--	926	1.26	37.5	--	.35	.34
APR										
03...	--	--	--	--	--	--	--	--	--	--
19...	6.4	.2	3.6	--	956	1.30	41.3	--	.01	.02
MAY										
07...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
14...	2.1	.1	4.4	--	305	.41	62.6	--	.02	.06
JUL										
06...	--	--	--	--	--	--	--	--	--	--
23...	3.9	.2	8.4	--	792	1.08	34.2	--	.04	.08
AUG										
03...	--	--	--	--	--	--	--	--	--	--
16...	2.9	.1	9.4	--	382	.52	176	--	.05	.02
SEP										
05...	--	--	--	--	--	--	--	--	--	--
13...	3.0	.2	9.7	--	606	.82	111	--	.07	.16

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT										
03...	--	--	--	--	--	--	--	--	10	2.2
16...	--	.63	.64	.67	3.0	.04	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
NOV										
07...	--	--	--	--	--	--	--	--	12	1.6
13...	--	.56	.65	.70	3.1	.03	--	--	--	--
DEC										
11...	--	.41	.57	.91	4.0	.04	--	--	--	--
18...	--	--	--	--	--	--	--	--	36	1.7
JAN										
09...	--	--	--	--	--	--	--	--	14	.45
11...	--	3.8	4.3	4.8	21	.06	--	--	--	--
FEB										
06...	--	--	--	--	--	--	--	--	12	.29
MAR										
06...	--	--	--	--	--	--	--	--	10	.43
19...	--	.48	.82	1.2	5.2	.05	--	--	--	--
APR										
03...	--	--	--	--	--	--	--	--	3	.14
19...	.02	.57	.59	.60	2.7	.02	.06	.06	--	--
MAY										
07...	--	--	--	--	--	--	--	--	19	.67
JUN										
06...	--	--	--	--	--	--	--	--	32	6.0
14...	.07	.65	.71	.73	3.2	.06	.18	.18	--	--
JUL										
06...	--	--	--	--	--	--	--	--	64	20
23...	.10	.72	.80	.84	3.7	.03	--	.09	--	--
AUG										
03...	--	--	--	--	--	--	--	--	28	2.9
16...	.02	.84	.86	.91	4.0	.07	--	.21	--	--
SEP										
05...	--	--	--	--	--	--	--	--	13	2.1
13...	.19	.37	.53	.60	2.7	.00	--	.00	--	--

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)
OCT 16...	1600	70	0	0	110	0	0	5	190	--
NOV 13...	1530	--	--	--	110	--	--	--	--	--
DEC 11...	1515	--	--	--	140	--	--	--	--	--
JAN 11...	1400	70	1	10	120	7	0	5	160	--
MAR 19...	1350	--	--	--	110	--	--	--	--	--
APR 19...	1330	60	0	0	130	6	10	16	250	170
JUN 14...	1530	--	--	--	30	--	--	--	--	--
JUL 23...	1430	120	1	0	150	2	0	3	170	130
AUG 16...	1615	--	--	--	70	--	--	--	--	--
SEP 13...	1625	--	--	--	100	--	--	--	--	--

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 16...	100	23	20	30	.0	4	3	0	20
NOV 13...	100	--	--	--	--	--	--	--	--
DEC 11...	--	--	--	--	--	--	--	--	--
JAN 11...	80	8	20	60	.0	0	4	0	30
MAR 19...	100	--	--	--	--	--	--	--	--
APR 19...	80	120	20	160	.0	1	6	1	50
JUN 14...	50	--	--	--	--	--	--	--	--
JUL 23...	40	2	20	40	.0	0	7	0	30
AUG 16...	30	--	--	--	--	--	--	--	--
SEP 13...	20	--	--	--	--	--	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCT 26...	0930	300	0	2	2	0	0	130	2	0	0	0
NOV 23...	0900	--	--	--	--	--	--	160	--	--	--	--
DEC 19...	0915	--	--	--	--	--	--	150	--	--	--	--
FEB 22...	0915	710	--	1	--	0	--	160	3	--	10	--
MAR 30...	0830	--	--	--	--	--	--	120	--	--	--	--
APR 27...	0800	120	--	18	--	0	--	100	2	--	60	--
JUN 01...	0900	--	--	--	--	--	--	80	--	--	--	--
JUN 22...	0930	--	--	--	--	--	--	110	--	--	--	--
AUG 01...	1500	310	--	3	--	0	--	130	12	--	10	--
AUG 28...	1430	--	--	--	--	--	--	150	--	--	--	--
SEP 25...	1530	--	--	--	--	--	--	190	--	--	--	--

YELLOWSTONE RIVER BASIN

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 26...	4	2	920	--	40	3	0	30	40	220	190
NOV 23...	--	--	--	--	90	--	--	--	--	--	--
DEC 19...	--	--	--	--	100	--	--	--	--	--	--
FEB 22...	15	--	1400	--	30	12	--	50	--	130	--
MAR 30...	--	--	--	--	40	--	--	--	--	--	--
APR 27...	68	--	53000	53000	40	62	--	20	--	1600	--
JUN 01...	--	--	--	--	40	--	--	--	--	--	--
22...	--	--	--	--	80	--	--	--	--	--	--
AUG 01...	8	--	490	440	50	3	--	40	--	80	--
28...	--	--	--	--	30	--	--	--	--	--	--
SEP 25...	--	--	--	--	50	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	.0	.0	6	6	5	2	1	1	.0	10	0
NOV 23...	--	--	--	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--	--	--	--
FEB 22...	.0	--	6	--	3	--	2	--	--	20	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 27...	.1	--	2	--	88	--	4	--	--	230	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	.0	--	3	--	4	--	2	--	--	40	--
28...	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 16...	1600	14	<.4	5.0	<.4	4.5	<.4	.13	6.7

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAY 07...	1340	2	14.0	13	2	3	6	35
JUL 06...	1145	2	23.0	113	1	5	18	33
AUG 03...	1300	2	30.0	38	1	3	12	24

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY 07...	56	60	63	66	70	85	100
JUL 06...	38	39	40	43	47	73	100
AUG 03...	29	32	36	44	54	75	100

06320500 SOUTH PINEY CREEK AT WILLOW PARK, WY

LOCATION.--Lat 44°27'59", long 107°02'03", in NW¼ sec.24, T.52 N., R.85 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank about 300 ft (91 m) downstream from Willow Park Dam, 1.4 mi (2.3 km) upstream from Kearny Creek, and 10 mi (16 km) southwest of Story.

DRAINAGE AREA.--33.6 mi² (87.0 km²).

PERIOD OF RECORD.--September 1945 to September 1957 (no winter records prior to 1948), October 1959 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1309: 1949(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,540 ft (2,603 m), from topographic map. Prior to Oct. 1, 1957, at site about 600 ft (183 m) upstream at different datum. Oct. 1, 1959, to Sept. 30, 1965, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. No gage-height record Apr. 1 to June 8. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), and Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm³). Storage began in Willow Park Reservoir in April 1959. Cloud Peak Reservoir enlarged December 1958. Water released from storage in Cloud Peak Reservoir is diverted just below station into Rock Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1948-57, 1960-71), 42.4 ft³/s (1.201 m³/s), 30,720 acre-ft/yr (37.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft³/s (45.9 m³/s) June 15, 1963, gage height, 5.68 ft (1.731 m), present datum, from rating curve extended above 360 ft³/s (10.2 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft³/s (0.008 m³/s) Nov. 19-21, 1966, but may have been less on individual days of no gage-height record; minimum daily determined prior to construction of Willow Park Reservoir, 4.5 ft³/s (0.13 m³/s) Mar. 1 to Apr. 5, 1955, but may have been less during years of no winter records.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 293 ft³/s (8.30 m³/s) June 15, gage height, 3.59 ft (1.094 m); minimum daily during period of operation, 1.9 ft³/s (0.054 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									64	142	84	109
2									60	126	82	102
3									41	109	81	93
4									40	215	76	91
5									80	218	71	84
6									155	193	74	74
7									150	169	78	74
8									120	130	76	72
9									102	116	80	69
10									85	105	82	68
11									98	95	82	67
12									156	89	85	64
13									231	84	91	70
14									273	80	105	76
15									277	75	131	76
16									237	71	159	76
17									211	79	166	76
18									216	85	162	75
19									176	93	156	73
20									139	94	151	60
21									116	91	149	48
22									118	90	146	48
23									115	91	146	47
24									114	104	144	46
25									115	114	146	45
26									124	116	149	45
27									134	115	149	24
28									142	114	136	2.9
29									147	104	119	2.4
30									147	96	116	1.9
31									---	89	112	---
TOTAL									4183	3492	3584	1859.2
MEAN									139	113	116	62.0
MAX									277	218	166	109
MIN									40	71	71	1.9
AC-FT									8300	6930	7110	3690

06321000 SOUTH PINEY CREEK NEAR STORY, WY

LOCATION.--Lat 44°33'26", long 106°56'11", in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank 2.3 mi (3.7 km) southwest of Story and 3.3 mi (5.3 km) upstream from confluence with North Piney Creek.

DRAINAGE AREA.--69.4 mi² (179.7 km²).

PERIOD OF RECORD.--June 1951 to September 1974 (no winter records in water years 1972-74), November 1974 to current year.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,590 ft (1,704 m), from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 300 ft (91 m) upstream at different datum. Oct. 1, 1951, to July 9, 1970, at site 200 ft (61 m) downstream at datum 10.08 ft (3.072 m) lower.

REMARKS.--Records poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm³), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³). Diversion above station into Rock Creek basin for irrigation.

AVERAGE DISCHARGE.--24 years (water years 1952-71, 1976-79), 77.2 ft³/s (2.186 m³/s), 55,930 acre-ft/yr (69.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft³/s (59.2 m³/s) June 15, 1963, gage height, 4.37 ft (1.332 m), site and datum then in use, from rating curve extended above 1,050 ft³/s (29.7 m³/s); maximum gage height, 6.55 ft (1.996 m) Mar. 30, 1977 (backwater from snow and ice); minimum daily discharge, 0.40 ft³/s (0.011 m³/s) Nov. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 454 ft³/s (12.9 m³/s) July 5, gage height, 3.49 ft (1.064 m) (indefinite stage-discharge relationship); minimum daily discharge, 14 ft³/s (0.40 m³/s) Apr. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	27	25	23	19	18	15	27	125	253	128	160
2	37	26	26	23	19	17	15	27	110	214	120	155
3	35	26	25	23	19	15	15	25	72	184	118	148
4	29	26	28	22	19	16	15	26	69	360	115	140
5	41	25	25	22	19	18	15	32	152	420	110	135
6	39	23	22	22	19	18	15	41	229	400	106	122
7	36	25	25	21	19	19	16	36	225	290	108	118
8	35	25	28	21	19	18	15	33	181	195	110	115
9	35	25	30	20	19	16	17	30	148	170	115	110
10	34	23	29	19	19	16	17	30	128	148	130	106
11	34	23	28	19	19	17	16	29	132	140	130	106
12	33	23	28	19	19	17	16	28	178	128	135	104
13	33	23	28	19	19	17	14	29	241	110	142	104
14	33	20	29	18	19	17	14	31	290	102	148	108
15	32	22	28	17	18	17	16	37	300	98	163	108
16	32	24	27	17	17	17	17	50	265	118	175	108
17	32	23	27	17	18	17	23	60	230	115	181	108
18	31	24	27	17	18	17	26	63	250	100	178	108
19	31	23	27	18	18	17	26	69	270	112	175	106
20	30	25	25	18	18	16	22	76	245	102	169	102
21	30	26	26	18	18	16	23	79	220	100	166	94
22	30	26	26	18	18	18	23	83	220	90	166	92
23	29	25	26	18	18	16	25	88	215	112	166	92
24	30	25	25	19	18	17	27	94	215	130	163	90
25	30	24	25	19	18	17	26	102	215	138	163	88
26	29	25	24	19	18	16	26	108	220	150	163	88
27	28	25	24	19	18	16	25	115	230	155	163	81
28	27	25	23	19	18	16	25	120	253	152	155	62
29	28	24	20	19	---	16	25	125	261	145	150	60
30	25	25	22	18	---	15	25	125	261	142	152	58
31	26	---	23	19	---	15	---	122	---	138	163	---
TOTAL	991	731	801	600	517	518	595	1940	6150	5211	4526	3176
MEAN	32.0	24.4	25.8	19.4	18.5	16.7	19.8	62.6	205	168	146	106
MAX	41	27	30	23	19	19	27	125	300	420	181	160
MIN	25	20	20	17	17	15	14	25	69	90	106	58
AC-FT	1970	1450	1590	1190	1030	1030	1180	3850	12200	10340	8980	6300
CAL YR 1978	TOTAL	42083	MEAN	115	MAX	700	MIN	19	AC-FT	83470		
WTR YR 1979	TOTAL	25756	MEAN	70.6	MAX	420	MIN	14	AC-FT	51090		

06321020 MEAD-COFFEEN DITCH ABOVE FISH HATCHERY, NEAR STORY, WY

LOCATION.--Lat 44°33'41", long 106°55'45", in NE¼SW¼SW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on right bank upstream from ford, 0.3 mi (0.5 km) southwest of fish hatchery, 0.4 mi (0.6 km) downstream from intake, and 1.9 mi (3.1 km) southwest of Story.

PERIOD OF RECORD.--November 1974 to May 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,510 ft (1,679 m), from topographic map.

REMARKS.--Records poor. No gage-height record Nov. 12-15, Nov. 18 to Dec. 14, Dec. 19 to Apr. 16. Ditch diverts water from South Piney Creek in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W. Result of discharge measurement, in cubic feet per second, made during period when station was not in operation is given below:

June 6 . . . 21

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s (1.16 m³/s) June 16, 1975, gage height, 2.26 ft (0.689 m); maximum gage height, 2.61 ft (0.796 m) Dec. 4, 1975 (backwater from ice); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during period October 1978 to May 1979, 14 ft³/s (0.40 m³/s) May 29-31; maximum gage height, 2.45 ft (0.747 m) Nov. 9 (backwater from ice); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.0	.76	.86	.00	.00	.02	.11	20			
2	1.9	3.0	.74	.86	.00	.00	.02	.10	17			
3	1.9	3.0	.76	.88	.00	.00	.02	.06	9.6			
4	1.2	2.8	.84	.88	.00	.00	.02	.15	8.2			
5	3.3	2.6	.84	.88	.00	.00	.02	.30	18			
6	3.2	2.0	.82	.88	.00	.00	.04	1.2	20			
7	3.1	2.3	.80	.88	.00	.00	.04	.80	---			
8	2.6	2.6	.78	.88	.00	.00	.05	.50	---			
9	2.2	2.8	.82	.88	.00	.00	.06	.30	---			
10	2.3	2.4	.86	.86	.00	.00	.06	.28	---			
11	2.6	1.0	.94	.88	.00	.00	.06	.25	---			
12	2.8	.20	.90	.88	.00	.01	.06	.22	---			
13	2.7	.22	.88	.88	.00	.01	.06	.20	---			
14	2.8	.24	.92	.86	.00	.01	.09	.23	---			
15	2.7	.27	.85	.84	.00	.01	.12	.80	---			
16	2.6	.30	.86	.84	.00	.01	.14	3.0	---			
17	2.6	.70	.81	.84	.00	.01	.16	4.7	---			
18	2.7	.64	.80	.86	.00	.01	.30	5.0	---			
19	2.5	.60	.80	.86	.00	.01	.02	5.9	---			
20	2.0	.64	.80	.88	.00	.01	.01	7.1	---			
21	2.4	.56	.84	.90	.00	.01	.01	7.5	---			
22	2.8	.60	.88	.84	.00	.01	.01	8.2	---			
23	2.7	.66	.90	.82	.00	.01	.02	8.6	---			
24	2.8	.66	.94	.84	.00	.01	.07	9.4	---			
25	4.4	.68	.92	.78	.00	.01	.02	11	---			
26	3.8	.70	.92	.38	.00	.01	.01	12	---			
27	2.8	.72	.92	.10	.00	.02	.02	12	---			
28	2.3	.76	.92	.07	.00	.02	.03	12	---			
29	3.1	.78	.90	.03	---	.02	.06	14	---			
30	2.7	.78	.88	.02	---	.02	.07	14	---			
31	2.8	---	.86	.00	---	.02	---	14	---			
TOTAL	82.1	38.21	26.46	22.14	.00	.25	1.69	153.90	---			
MEAN	2.65	1.27	.85	.71	.000	.008	.056	4.96	---			
MAX	4.4	3.0	.94	.90	.00	.02	.30	14	---			
MIN	1.2	.20	.74	.00	.00	.00	.01	.06	---			
AC-FT	163	76	52	44	.00	.5	3.4	305	---			

CAL YR 1978 TOTAL 960.02 MEAN 2.63 MAX 26 MIN .00 AC-FT 1900

06321040 MEAD-COFFEEN DITCH BELOW FISH HATCHERY, NEAR STORY, WY

LOCATION.--Lat 44°34'07", long 106°55'23", in NE¼SE¼NW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on right bank upstream from culvert in county road, 0.3 mi (0.5 km) northeast of fish hatchery, 1.1 mi (1.8 km) downstream from intake, and 1.4 mi (2.3 km) southwest of Story.

PERIOD OF RECORD.--November 1974 to May 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (1,631 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, Oct. 5-23, Dec. 14, Jan. 1-15, Feb. 1-5, 15-28, Mar. 1-8, which are poor. Ditch diverts water from South Piney Creek in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W. to supplement flow in North Piney Creek. Water can also be diverted into ditch from Spring Creek at the fish hatchery 0.3 mi (0.5 km) upstream. Result of discharge measurement, in cubic feet per second, made during the period when station was not in operation is given below:

June 6 . . . 21

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46 ft³/s (1.30 m³/s) June 16, 1975, gage height, 3.63 ft (1.106 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Apr. 27, May 1, 4, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1978 to May 1979, 17 ft³/s (0.48 m³/s) May 29-31; maximum gage height, 2.27 ft (0.692 m) May 30, 31; minimum daily, 0.30 ft³/s (0.008 m³/s) Apr. 27, May 1, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	3.5	1.8	.98	.76	.76	.46	.30	17			
2	4.4	3.4	2.2	1.0	.76	.74	.46	.33	16			
3	3.9	3.4	2.4	1.0	.76	.72	.60	.33	10			
4	2.7	3.2	2.5	1.0	.76	.74	.39	.30	9.3			
5	4.8	3.0	2.6	.98	.76	.78	.39	.50	17			
6	4.6	2.4	2.6	1.0	.76	.80	.42	1.9	21			
7	4.5	3.0	2.6	1.0	.76	.82	.42	1.2	---			
8	4.0	3.0	2.5	1.0	.76	.84	.42	.88	---			
9	3.6	3.1	1.9	1.0	.76	.88	.42	.65	---			
10	3.6	1.1	1.9	.98	.82	1.0	.46	.60	---			
11	4.0	.82	1.7	1.0	.76	1.1	.46	.50	---			
12	4.2	1.1	1.8	1.0	.76	.88	.42	.46	---			
13	4.0	1.4	1.7	.96	.82	.82	.42	.42	---			
14	4.2	1.7	1.6	.94	.88	.70	.42	.46	---			
15	4.0	2.2	1.4	.94	.70	.76	.42	1.1	---			
16	3.8	2.8	1.3	.94	.70	.76	.50	4.5	---			
17	3.8	3.0	1.5	.94	.72	.76	.70	7.4	---			
18	4.0	2.6	1.5	.94	.74	.70	.82	7.5	---			
19	3.8	2.5	1.4	.94	.74	.65	.88	8.7	---			
20	3.2	3.1	1.4	.94	.74	.50	.94	9.5	---			
21	2.6	2.4	1.5	.94	.72	.46	.94	10	---			
22	3.0	2.3	1.7	.88	.72	.46	.88	12	---			
23	2.8	2.1	1.7	.94	.68	.42	.82	12	---			
24	3.5	2.2	1.7	.94	.70	.42	.94	13	---			
25	4.3	2.3	1.6	.94	.74	.42	.88	14	---			
26	4.0	2.2	1.9	.88	.78	.42	.60	15	---			
27	3.5	2.0	1.9	.84	.80	.46	.30	16	---			
28	3.7	1.9	1.9	.78	.80	.46	.33	16	---			
29	3.8	1.9	1.1	.76	---	.42	.33	17	---			
30	3.3	1.9	1.0	.76	---	.46	.33	17	---			
31	3.3	---	1.1	.76	---	.46	---	17	---			
TOTAL	116.9	71.52	55.4	28.90	21.16	20.57	16.77	206.53	---			
MEAN	3.77	2.38	1.79	.93	.76	.66	.56	6.66	---			
MAX	4.8	3.5	2.6	1.0	.88	1.1	.94	17	---			
MIN	2.6	.82	1.0	.76	.68	.42	.30	.30	---			
AC-FT	232	142	110	57	42	41	33	410	---			

CAL YR 1978 TOTAL 2193.42 MEAN 6.01 MAX 30 MIN .82 AC-FT 4350

YELLOWSTONE RIVER BASIN

06321100 SOUTH PINEY CREEK BELOW MEAD-COFFEEN DITCH, NEAR STORY, WY

LOCATION.--Lat 44°33'29", long 106°55'50", in SW¼SW¼SW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on left bank 0.3 mi (0.5 km) downstream from intake of Mead-Coffeen ditch, 0.5 mi (0.8 km) upstream from intake of Big Piney Divide ditch, and 2.1 mi (3.4 km) southwest of Story.

DRAINAGE AREA.--69.5 mi² (180.0 km²).

PERIOD OF RECORD.--November 1974 to July 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft (1,682 m), from topographic map.

REMARKS.--Records fair. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm³), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³). Diversions above station into Rock Creek basin for irrigation and by Mead-Coffeen ditch into North Piney Creek basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 741 ft³/s (21.0 m³/s) June 24, 1978, gage height, 3.54 ft (1.079 m); maximum gage height, 4.08 ft (1.244 m) Jan. 3, 1977 (backwater from ice); minimum daily discharge, 5.5 ft³/s (0.16 m³/s) Apr. 4, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1978 to July 1979, 409 ft³/s (11.6 m³/s) July 5, gage height, 3.12 ft (0.951 m); maximum gage height, 3.42 ft (1.042 m) Nov. 16 (backwater from ice); minimum daily discharge, 9.9 ft³/s (0.28 m³/s) Mar. 13, 14.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	20	16	14	14	11	10	17	90	236		
2	29	20	16	14	14	11	10	18	81	179		
3	28	19	16	14	14	11	10	17	42	140		
4	22	20	18	14	14	12	10	18	40	317		
5	34	19	16	14	15	12	10	21	113	385		
6	31	18	13	14	14	12	11	26	199	363		
7	29	19	16	14	14	12	11	22	199	257		
8	27	19	18	14	14	11	12	21	143	169		
9	26	19	18	14	14	11	12	19	107	149		
10	26	17	17	14	14	11	12	19	90	135		
11	26	17	16	14	13	10	12	18	92	125		
12	26	17	16	13	13	10	14	17	132	113		
13	25	17	16	14	13	9.9	13	18	202	98		
14	25	15	16	14	12	9.9	12	19	249	90		
15	24	16	15	14	12	10	12	23	266	90		
16	24	17	15	14	11	10	13	30	229	107		
17	24	17	15	14	12	10	16	36	192	104		
18	24	18	15	14	12	10	18	38	210	96		
19	24	16	14	14	12	11	18	43	229	102		
20	24	17	13	14	12	10	14	48	210	89		
21	24	18	14	14	12	11	15	54	186	87		
22	24	17	14	14	12	11	15	55	182	71		
23	23	17	14	14	12	10	16	58	179	94		
24	22	17	14	14	12	11	18	64	179	109		
25	21	17	14	14	12	10	17	68	179	115		
26	21	18	13	14	12	10	16	70	182	132		
27	19	18	13	14	12	10	15	76	192	135		
28	19	17	12	14	12	10	16	83	221	132		
29	19	17	10	14	---	10	15	85	240	120		
30	18	16	12	13	---	10	16	90	244	111		
31	19	---	14	13	---	10	---	89	---	110		
TOTAL	757	529	459	431	359	327.8	409	1280	5099	4560		
MEAN	24.4	17.6	14.8	13.9	12.8	10.6	13.6	41.3	170	147		
MAX	34	20	18	14	15	12	18	90	266	385		
MIN	18	15	10	13	11	9.9	10	17	40	71		
AC-FT	1500	1050	910	855	712	650	811	2540	10110	9040		
CAL YR 1978	TOTAL	36363.7	MEAN	99.6	MAX	669	MIN	8.1	AC-FT	72130		

LOCATION.--Lat 44°34'50", long 106°55'55", in NW¼SW¼ sec.12, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on left bank 2.1 mi (3.4 km) west of Story and 3.2 mi (5.1 km) upstream from confluence with South Piney Creek.

GAGE.--Water-stage recorder. Altitude of gage is 5,290 ft (1,612 m), from topographic map. Prior to Sept. 14, 1951, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--28 years, 39.2 ft³/s (1.110 m³/s), 28,400 acre-ft/yr (35.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft³/s (51.5 m³/s) June 15, 1963, gage height, 5.04 ft (1.536 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s); minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Mar. 12, 1956, Jan. 20, 21, 24, 25, Mar. 3, 1966.

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 28	0215	*292	8.27	2.61	0.796	June 12	2245	252	7.14	2.48	0.756
June 5	0215	246	6.97	2.46	.750						

Minimum daily discharge, 3.2 ft³/s (0.091 m³/s) Nov. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.4	8.1	7.3	7.6	7.0	7.4	33	133	37	18	11
2	12	8.8	8.0	7.5	7.9	6.8	8.0	31	141	35	16	11
3	12	9.7	7.7	7.6	8.0	6.8	8.0	30	157	33	15	10
4	11	9.8	7.9	7.3	7.6	7.0	8.0	36	189	115	15	10
5	11	8.5	8.0	7.0	7.4	7.2	8.0	56	213	58	14	10
6	10	5.1	7.9	7.0	7.2	7.4	9.0	72	217	52	13	10
7	10	12	7.8	6.9	7.0	7.6	11	64	181	49	13	9.8
8	10	9.7	7.7	6.8	7.0	7.4	10	56	149	40	13	9.4
9	10	9.1	7.9	7.0	7.2	7.0	13	50	152	37	13	9.2
10	9.8	3.2	7.9	7.0	7.2	7.0	16	49	158	36	13	9.5
11	9.5	6.8	8.0	7.1	7.2	7.2	14	46	167	34	12	11
12	10	7.0	8.1	7.1	7.5	7.3	13	45	197	33	12	15
13	9.6	7.0	7.9	7.0	8.0	7.0	13	47	193	32	27	13
14	10	8.0	8.0	7.1	7.5	8.2	13	54	180	30	22	12
15	10	9.0	7.9	7.2	7.0	6.9	16	70	146	28	18	11
16	9.7	9.4	7.7	7.1	7.2	7.2	22	97	127	28	17	10
17	9.5	8.9	7.8	7.0	7.4	7.0	27	117	117	27	16	9.8
18	10	8.6	7.8	7.0	7.4	6.6	31	122	122	25	14	9.7
19	9.7	8.1	7.7	6.9	7.2	6.2	31	135	95	23	14	9.4
20	9.4	7.9	7.4	6.8	7.0	6.1	23	147	88	24	14	9.3
21	9.3	8.2	7.3	6.7	7.0	6.5	21	162	79	24	13	9.5
22	11	8.3	7.4	6.8	7.0	6.2	22	179	75	22	14	9.1
23	9.6	8.1	7.3	7.0	7.0	6.2	25	186	66	24	15	8.8
24	12	7.8	7.3	7.0	7.2	6.6	28	213	60	26	14	8.7
25	11	7.7	7.4	7.0	7.4	7.0	26	226	56	22	16	8.6
26	10	7.9	7.7	6.8	7.4	7.0	23	211	52	22	15	8.6
27	10	8.0	7.6	6.8	7.2	6.4	23	226	50	25	14	8.6
28	9.7	8.1	7.2	6.8	7.0	6.2	25	230	46	22	13	8.8
29	9.6	8.0	7.4	6.8	---	6.4	26	198	43	19	12	8.5
30	7.8	7.8	7.2	6.9	---	7.0	28	146	40	19	11	8.4
31	7.5	---	7.2	7.1	---	7.4	---	136	---	21	11	---
TOTAL	311.7	245.9	238.2	217.4	204.7	213.8	548.4	3470	3689	1022	457	297.7
MEAN	10.1	8.20	7.68	7.01	7.31	6.90	18.3	112	123	33.0	14.7	9.92
MAX	12	12	8.1	7.6	8.0	8.2	31	230	217	115	27	15
MIN	7.5	3.2	7.2	6.7	7.0	6.1	7.4	30	40	19	11	8.4
AC-FT	618	488	472	431	406	424	1090	6880	7320	2030	906	590
CAL YR 1978	TOTAL	23275.4	MEAN 63.8	MAX 522	MIN 3.2	AC-FT 46170						
WTR YR 1979	TOTAL	10915.8	MEAN 29.9	MAX 230	MIN 3.2	AC-FT 21650						

YELLOWSTONE RIVER BASIN

06321800 SPRING CREEK NEAR STORY, WY

LOCATION.--Lat 44°34'07", long 106°55'29", in NE¼SE¼NW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on right bank near upstream end of culvert in county road, 0.3 mi (0.5 km) northeast of fish hatchery, 1.4 mi (2.3 km) upstream from mouth, and 1.4 mi (2.3 km) southwest of Story.

PERIOD OF RECORD.--November 1974 to May 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft (1,628 m), from topographic map.

REMARKS.--Records fair. No gage-height record Dec. 28 to Jan. 15, Jan. 26 to Feb. 5, Feb. 14-25. Flow of the springs at the fish hatchery, the origin of Spring Creek, are directly affected by subsurface flow from South Piney Creek and the upper reaches of Mead-Coffeen ditch. Water can be diverted from the springs into Mead-Coffeen ditch below the fish hatchery. Result of discharge measurement, in cubic feet per second, made during period when station was not in operation is given below:

June 6 . . . 10

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22 ft³/s (0.62 m³/s) May 19, 1978, gage height, 2.49 ft (0.759 m), from rating curve extended above 11 ft³/s (0.31 m³/s); minimum daily, 1.1 ft³/s (0.031 m³/s) Mar. 12, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1978 to May 1979, 12 ft³/s (0.34 m³/s) May 25, gage height, 1.74 ft (0.530 m); minimum daily, 2.6 ft³/s (0.074 m³/s) Feb. 23-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.5	3.1	2.9	2.9	3.6	4.1	6.8				
2	4.8	3.3	3.0	3.1	3.0	3.6	3.5	6.9				
3	4.6	3.3	3.2	3.2	3.1	3.2	3.3	6.7				
4	3.8	3.3	3.8	3.2	3.1	3.1	3.9	6.6				
5	4.0	3.3	3.2	3.0	3.2	3.1	3.8	7.2				
6	4.2	3.5	3.0	3.0	3.2	3.3	3.9	8.0				
7	4.1	4.1	3.2	3.0	3.2	3.4	4.2	8.0				
8	4.1	3.9	3.2	3.1	3.1	3.5	3.9	7.5				
9	4.7	4.1	3.8	3.1	3.1	3.0	4.4	7.2				
10	4.4	3.4	4.1	3.2	3.3	3.0	4.7	7.0				
11	3.9	3.2	3.9	3.3	3.4	3.2	4.4	6.9				
12	3.8	3.8	3.9	3.2	3.4	3.3	4.3	6.8				
13	3.8	4.2	3.8	3.1	3.3	3.2	3.7	6.7				
14	4.1	4.4	3.9	3.1	3.3	3.2	3.8	7.0				
15	4.0	5.4	3.8	3.3	2.9	3.3	4.4	7.5				
16	3.9	6.2	3.8	3.4	2.9	3.3	4.8	8.4				
17	3.8	5.7	3.8	3.3	2.9	3.2	5.6	9.0				
18	3.7	4.6	3.9	3.3	3.0	3.3	6.7	9.1				
19	3.8	4.3	3.8	3.3	3.0	3.1	7.0	9.2				
20	4.0	4.8	3.6	3.4	2.9	3.2	5.8	9.2				
21	3.4	5.2	3.5	3.6	2.8	3.7	5.7	9.3				
22	3.4	4.5	3.4	3.4	2.7	4.9	5.9	9.4				
23	3.3	3.8	3.3	3.4	2.6	4.4	6.1	9.3				
24	3.6	3.4	3.3	3.6	2.6	4.5	6.5	9.4				
25	4.2	3.2	3.3	3.6	2.6	4.6	6.4	9.6				
26	4.0	3.2	3.2	3.5	2.6	3.9	6.6	9.5				
27	4.0	3.2	3.3	3.4	3.4	4.1	6.4	9.8				
28	4.4	3.2	3.2	3.3	3.6	4.0	6.6	9.9				
29	4.2	3.0	3.0	3.2	---	4.2	6.5	10				
30	3.8	3.0	2.9	2.9	---	4.3	6.6	10				
31	3.6	---	2.8	3.0	---	4.3	---	9.9				
TOTAL	124.2	118.0	107.0	100.4	85.1	112.0	153.5	257.8				
MEAN	4.01	3.93	3.45	3.24	3.04	3.61	5.12	8.32				
MAX	4.8	6.2	4.1	3.6	3.6	4.9	7.0	10				
MIN	3.3	3.0	2.8	2.9	2.6	3.0	3.3	6.6				
AC-FT	246	234	212	199	169	222	304	511				

CAL YR 1978 TOTAL 1893.2 MEAN 5.19 MAX 18 MIN 2.8 AC-FT 3760

06323000 PINEY CREEK AT KEARNY, WY

LOCATION.--Lat 44°32'08", long 106°49'18", in NE¼NE¼SW¼ sec.26, T.53 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on right bank at Kearny, 300 ft (91 m) northeast of Historical Monument and 2.0 mi (3.2 km) upstream from Little Piney Creek.

DRAINAGE AREA.--118 mi² (306 km²).

PERIOD OF RECORD.--September 1902 to June 1906, June to August 1910, May 1911 to July 1917, May 1919 to September 1923 (no winter records), October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1176: 1944. WSP 1309: 1913(M). WSP 1509: 1906, 1920(M), 1941(M), 1942, 1943(M). WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,655.11 ft (1,418.878 m), National Geodetic Vertical Datum of 1929. Sept. 6, 1902, to June 30, 1906, nonrecording gage at site 50 ft (15 m) upstream at different datum. May 14, 1911, to July 31, 1917, and May 1, 1919, to Sept. 30, 1923, nonrecording gage at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (55.0 hm³), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³). Diversion above station from South Piney Creek into Rock Creek basin for irrigation. Diversions above station for irrigation of about 240 acres (97 hm²), of which about 90 acres (36 hm²) are below station. Record includes flow in bypass channel (Spring Creek), 300 ft (91 m) left of main channel.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--38 years (water years 1941-79), 88.6 ft³/s (2.509 m³/s), 64,190 acre-ft/yr (79.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,410 ft³/s (96.6 m³/s) June 15, 1963, gage height, 6.05 ft (1.844 m), from rating curve extended above 1,800 ft³/s (51.0 m³/s); minimum daily, 2.0 ft³/s (0.057 m³/s) Oct. 10, 1922.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 470 ft³/s (13.3 m³/s) June 7, gage height, 3.28 ft (1.000 m); minimum daily, 5.6 ft³/s (0.16 m³/s) Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	25	36	32	28	28	32	62	218	160	17	55
2	22	25	36	32	28	27	30	65	221	116	9.8	51
3	23	26	35	33	29	26	30	60	183	78	6.7	42
4	18	27	39	32	29	27	31	62	200	302	6.4	40
5	22	26	38	31	28	28	30	80	293	368	5.6	31
6	24	24	34	32	29	28	31	106	396	328	9.8	23
7	22	27	34	31	29	29	36	97	380	226	7.0	20
8	20	26	38	31	28	28	34	88	268	121	8.0	22
9	19	32	40	30	28	27	38	82	224	92	8.0	18
10	18	31	40	29	29	27	42	80	206	74	10	17
11	18	33	40	29	29	28	38	77	203	64	10	17
12	19	33	40	29	29	28	36	74	268	54	11	19
13	18	33	39	28	29	28	35	74	320	45	27	17
14	18	32	40	27	29	29	35	66	360	40	35	19
15	18	34	40	27	27	30	39	70	344	38	46	19
16	18	35	38	28	27	30	45	102	282	51	56	18
17	18	35	39	27	28	29	55	138	239	47	61	18
18	19	35	39	27	28	28	66	143	262	32	66	17
19	18	34	39	28	29	27	72	162	249	27	72	17
20	17	34	36	28	29	27	57	181	218	22	67	15
21	17	36	37	28	29	29	55	195	183	18	61	11
22	24	36	37	28	28	30	55	212	175	13	60	10
23	27	36	37	27	28	26	56	215	165	16	60	10
24	30	36	36	28	28	29	60	249	152	27	58	9.8
25	35	35	35	28	28	30	58	279	150	36	59	10
26	35	36	35	28	28	30	58	265	136	45	60	12
27	27	36	35	28	28	28	54	276	143	46	59	12
28	25	36	33	28	28	27	56	293	160	41	56	7.4
29	25	36	30	27	---	29	56	276	170	34	44	5.9
30	24	35	31	27	---	30	57	236	170	29	44	5.9
31	24	---	32	28	---	30	---	233	---	27	55	---
TOTAL	682	965	1138	896	794	877	1377	4598	6938	2617	1155.3	589.0
MEAN	22.0	32.2	36.7	28.9	28.4	28.3	45.9	148	231	84.4	37.3	19.6
MAX	35	36	40	33	29	30	72	293	396	368	72	55
MIN	17	24	30	27	27	26	30	60	136	13	5.6	5.9
AC-FT	1350	1910	2260	1780	1570	1740	2730	9120	13760	5190	2290	1170
CAL YR 1978 TOTAL	60161.1			MEAN 165		MAX 1140	MIN 5.0	AC-FT 119300				
WTR YR 1979 TOTAL	22626.3			MEAN 62.0		MAX 396	MIN 5.6	AC-FT 44880				

06323500 PINEY CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'45", long 106°32'25", in SW¼NW¼SE¼ sec.18, T.53 N., R.80 W., Sheridan County, Hydrologic Unit 10090206, on left bank at Ucross, 140 ft (43 m) upstream from bridge on U.S. Highways 14 and 16, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--267 mi² (692 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1917 to September 1923 (no winter record), January 1950 to current year.

REVISED RECORDS.--WSP 1176: Drainage area. WSP 1439: 1952.

GAGE.--Water-stage recorder. Datum of gage is 4,066.83 ft (1,239.570 m), National Geodetic Vertical Datum of 1929. May 1917 to Sept. 29, 1923, nonrecording gage and Sept. 30, 1923 to May 5, 1976, water-stage recorder, at site 140 ft (43 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm³), Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³), and Lake De Smet, capacity, 135,500 acre-ft (167 hm³). Diversions above station from South Piney Creek into Rock Creek basin for irrigation. Diversions for irrigation of about 9,800 acre (39.7 km²) above station.

AVERAGE DISCHARGE.--29 years (water years 1951-79), 88.3 ft³/s (2.501 m³/s), 63,970 acre-ft/yr (78.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,570 ft³/s (101 m³/s) June 16, 1963, gage height, 7.33 ft (2.234 m); minimum daily, 0.60 ft³/s (0.017 m³/s) Oct. 12-26, 1955, Sept. 28, Oct. 1, 2, 1956.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of June 1, 1929, reached a stage of 10.9 ft (3.32 m) present datum, from information by local resident. Stage may have been affected by backwater from bridge.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 179 ft³/s (5.07 m³/s) July 4, gage height, 2.81 ft (0.856 m); maximum gage height, 3.37 ft (1.027 m) Jan. 8 (backwater from ice); minimum daily discharge, 10 ft³/s (0.28 m³/s) Jan. 28 to Feb. 6, Feb. 9, 15, 16, 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	22	16	11	10	11	30	27	68	50	89	38
2	36	20	16	12	10	11	26	30	58	42	54	26
3	32	20	16	12	10	11	24	31	54	30	44	23
4	29	19	17	12	10	11	24	29	53	80	42	22
5	26	17	16	12	10	11	25	28	61	98	46	21
6	34	17	16	12	10	11	24	29	60	95	49	20
7	36	16	15	12	11	12	29	28	64	93	93	31
8	34	16	15	12	11	11	37	29	60	93	98	35
9	33	17	16	12	10	11	37	31	57	81	91	35
10	28	12	17	12	11	11	41	30	54	71	89	33
11	28	16	17	12	11	12	40	29	55	64	89	26
12	31	16	17	12	12	15	31	27	48	50	88	26
13	31	16	17	12	12	13	30	26	36	33	102	26
14	27	15	17	12	11	15	31	25	22	24	124	28
15	32	16	17	12	10	18	31	25	22	19	124	23
16	34	16	17	12	10	17	36	24	37	21	106	23
17	33	16	18	12	11	16	43	25	44	27	122	22
18	33	17	18	12	11	16	50	26	48	23	131	21
19	31	17	17	13	11	17	50	23	52	18	140	22
20	29	17	16	13	11	18	48	23	48	19	137	22
21	29	18	17	13	11	19	38	23	50	33	120	22
22	30	17	17	12	10	22	35	60	54	36	110	20
23	28	18	16	11	10	32	34	79	61	36	112	20
24	26	17	17	11	10	35	33	86	68	78	114	20
25	25	17	16	11	11	36	31	82	65	88	108	22
26	25	17	15	11	12	34	31	73	50	112	110	21
27	25	17	15	11	12	33	32	71	42	124	104	22
28	23	18	14	10	12	30	29	68	38	126	114	22
29	23	17	13	10	---	32	28	76	44	124	100	20
30	22	17	12	10	---	31	26	78	52	114	78	15
31	23	---	11	10	---	31	---	70	---	108	64	---
TOTAL	909	511	494	361	301	603	1004	1311	1525	2010	2992	727
MEAN	29.3	17.0	15.9	11.6	10.8	19.5	33.5	42.3	50.8	64.8	96.5	24.2
MAX	36	22	18	13	12	36	50	86	68	126	140	38
MIN	22	12	11	10	10	11	24	23	22	18	42	15
AC-FT	1800	1010	980	716	597	1200	1990	2600	3020	3990	5930	1440
CAL YR 1978	TOTAL	59168	MEAN	162	MAX	1130	MIN	11	AC-FT	117400		
WTR YR 1979	TOTAL	12748	MEAN	34.9	MAX	140	MIN	10	AC-FT	25290		

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
16...	1500	--	34	450	8.2	9.0	1	10.4	K12	200
21...	1110	--	29	470	--	8.0	--	--	--	--
NOV										
13...	1450	16	--	570	7.9	.0	1	12.4	K28	280
DEC										
11...	1400	17	--	950	7.8	.0	2	12.4	65	410
JAN										
11...	1230	12	--	890	7.7	.0	2	11.2	37	400
FEB										
05...	1400	10	--	980	7.6	.0	1	11.6	23	410
MAR										
19...	1300	17	--	770	8.0	1.0	2	12.6	K15	340
APR										
19...	1240	--	54	840	8.2	8.0	3	10.2	--	340
JUN										
14...	1430	--	24	395	8.3	23.0	5	8.9	K200	160
JUL										
23...	1330	--	32	590	8.3	20.0	5	8.9	K64	250
AUG										
16...	1530	--	112	530	8.4	20.0	4	8.0	72	220
SEP										
13...	1540	--	26	630	8.4	14.0	3	9.5	110	260

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LILITY (MG/L AS CACO3)
OCT										
16...	41	46	20	21	.7	--	3.9	190	0	160
21...	--	--	--	--	--	--	--	--	--	--
NOV										
13...	85	65	29	31	.8	--	4.2	240	0	200
DEC										
11...	150	91	45	61	1.3	--	6.5	320	0	260
JAN										
11...	130	88	44	57	1.2	--	6.4	330	0	270
FEB										
05...	130	86	47	58	1.3	--	6.2	340	0	280
MAR										
19...	99	77	35	43	1.0	--	6.0	290	0	240
APR										
19...	120	75	36	48	1.1	--	5.7	260	0	210
JUN										
14...	57	36	16	21	.7	24	3.1	120	0	98
JUL										
23...	97	55	28	40	1.1	45	4.6	190	0	160
AUG										
16...	85	52	23	28	.8	32	4.1	170	0	140
SEP										
13...	100	61	27	35	.9	40	4.6	--	--	160

YELLOWSTONE RIVER BASIN

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT										
16...	98	2.3	.2	8.1	293	.40	26.9	.04	.03	--
21...	--	--	--	--	--	--	--	--	--	--
NOV										
13...	140	2.5	.1	11	401	.55	17.3	.01	.04	--
DEC										
11...	280	3.6	.2	13	658	.89	30.2	.36	.09	--
JAN										
11...	230	4.0	.2	14	606	.82	19.6	.29	.16	--
FEB										
05...	270	3.7	.2	12	651	.89	17.6	.25	.09	--
MAR										
19...	170	3.9	.2	11	489	.67	22.4	.27	.12	--
APR										
19...	220	3.4	.2	6.1	523	.71	76.3	.03	.06	.07
JUN										
14...	96	1.4	.1	5.5	238	.32	15.4	.03	.05	.06
JUL										
23...	170	2.4	.2	6.4	400	.54	34.6	.03	.03	.04
AUG										
16...	140	2.4	.2	5.0	339	.46	103	.02	.02	.02
SEP										
13...	200	2.1	.2	7.5	434	.59	30.5	.03	.07	.08

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C)
OCT									
16...	.77	.80	.84	3.7	.04	--	--	4.4	.6
21...	--	--	--	--	--	--	--	--	--
NOV									
13...	.36	.40	.41	1.8	.00	--	--	--	--
DEC									
11...	.44	.53	.89	3.9	.02	--	--	--	--
JAN									
11...	.75	.91	1.2	5.3	.03	--	--	--	--
FEB									
05...	.31	.40	.65	2.9	.02	--	--	--	--
MAR									
19...	.55	.67	.94	4.2	.03	--	--	--	--
APR									
19...	.46	.52	.55	2.4	.01	.03	.03	--	--
JUN									
14...	.74	.79	.82	3.6	.03	.09	.09	4.9	.8
JUL									
23...	.42	.45	.48	2.1	.08	--	.25	--	--
AUG									
16...	.27	.29	.31	1.4	.02	--	.06	--	--
SEP									
13...	.42	.49	.52	2.3	.06	--	.18	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE	ALUM- INUM, SUS- PENDED RECOV.	ALUM- INUM, DIS- SOLVED	ARSENIC TOTAL	ARSENIC DIS- SOLVED	BERYL- LIUM, TOTAL RECOV- ERABLE	BERYL- LIUM, SUS- PENDED RECOV.	BERYL- LIUM, DIS- SOLVED	BORON, DIS- SOLVED	CADMIUM TOTAL RECOV- ERABLE	CADMIUM SUS- PENDED RECOV- ERABLE
		(UG/L AS AL)	(UG/L AS AL)	(UG/L AS AL)	(UG/L AS AS)	(UG/L AS AS)	(UG/L AS BE)	(UG/L AS BE)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS CD)	(UG/L AS CD)
OCT 16...	1500	40	0	40	0	0	0	0	<1	60	2	0
NOV 13...	1450	--	--	--	--	--	--	--	--	50	--	--
DEC 11...	1400	--	--	--	--	--	--	--	--	90	--	--
JAN 11...	1230	--	--	--	--	--	--	--	--	80	--	--
FEB 05...	1400	--	--	--	--	--	--	--	--	90	--	--
MAR 19...	1300	--	--	--	--	--	--	--	--	60	--	--
APR 19...	1240	--	--	--	--	--	--	--	--	90	--	--
JUN 14...	1430	180	180	0	1	1	0	0	0	2	1	0
JUL 23...	1330	--	--	--	--	--	--	--	--	70	--	--
AUG 16...	1530	--	--	--	--	--	--	--	--	50	--	--
SEP 13...	1540	--	--	--	--	--	--	--	--	60	--	--

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible][illegible]

YELLOWSTONE RIVER BASIN

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06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 14...	1430	.30	0	.00	0	.00	.0
JUL 23...	1330	.00	0	.00	0	.00	.0
AUG 16...	1530	.00	0	.01	0	.00	.0
SEP 13...	1540	.02	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 14...	.09	15	.06	0
JUL 23...	.00	0	.00	0
AUG 16...	.00	0	.01	0
SEP 13...	.00	0	.01	0

YELLOWSTONE RIVER BASIN

06324000 CLEAR CREEK NEAR ARVADA, WY

LOCATION.--Lat 44°52'18", long 106°04'56", in Sec.36, T.57 N., R.77 W., Sheridan County, Hydrologic Unit 10090206, on right bank 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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1915 to April 1919 and April 1928 to May 1929 (no winter records), September 1939 to current year.

REVISÉD RECORDS.--WSP 1309: 1928(M).

GAGE.--Water-stage recorder. Datum of gage is 3,506.51 ft (1,068.784 m), National Geodetic Vertical Datum of 1929. July 21, 1915, to Apr. 30, 1919, nonrecording gage at same site at different datum. Apr. 15, 1928, to May 26, 1929, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Sept. 13, 1939, to Jan. 14, 1951, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, Nov. 15 to Dec. 6, Dec. 31 to Jan. 7, Jan. 9 to Feb. 4, Feb. 16 to Mar. 4, Mar. 9-17, Mar. 22 to Apr. 1, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm³), Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³) and Lake De Smet, capacity, 135,500 acre-ft (167 hm³). Diversions for irrigation of about 35,000 acres (142 km²) above station. Diversion to Kendrick canal about 4.5 mi (7.2 km) upstream.

AVERAGE DISCHARGE.--40 years (water years 1940-79), 183 ft³/s (5.183 m³/s), 132,600 acre-ft/yr (163 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft³/s (272 m³/s) Aug. 5, 1954, gage height, 10.45 ft (3.185 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of slope-area measurement at gage height 10.17 ft (3.100 m); no flow July 22, 1954, May 8-29, Sept. 6-9, 1960, July 5, Aug. 26-28, Aug. 31 to Sept. 6, 1961, Aug. 7-10, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 582 ft³/s (16.5 m³/s) May 30, gage height, 3.20 ft (0.975 m); minimum daily, 17 ft³/s (0.48 m³/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	112	49	25	22	36	79	64	129	104	109	197
2	113	101	47	26	23	35	78	64	108	111	93	161
3	117	97	47	26	25	35	72	64	93	107	61	128
4	119	101	47	26	26	36	67	67	81	101	41	116
5	117	100	50	26	27	37	66	66	72	229	36	90
6	112	99	47	26	28	37	65	62	78	250	32	81
7	112	98	42	26	30	37	63	60	77	173	32	56
8	117	94	42	26	28	36	62	60	77	168	44	51
9	114	93	45	26	29	35	68	67	82	144	66	53
10	114	104	46	26	29	37	74	71	83	130	59	57
11	110	62	47	27	30	39	84	71	77	115	55	55
12	104	72	46	27	31	42	91	65	79	97	52	63
13	104	80	45	27	32	40	82	63	67	91	62	60
14	106	80	47	27	30	44	73	59	46	84	87	61
15	104	77	46	27	28	49	71	57	40	69	189	63
16	104	72	45	27	28	56	71	56	42	63	233	63
17	110	78	43	27	29	55	74	54	92	58	221	61
18	112	84	45	28	30	54	78	54	98	53	221	62
19	108	104	43	29	30	54	101	55	120	52	217	60
20	108	140	44	29	29	57	110	63	146	38	229	59
21	105	140	45	30	28	59	108	66	94	29	237	63
22	101	121	44	29	27	64	91	65	91	20	236	64
23	103	93	43	28	27	69	81	63	85	30	243	63
24	101	70	42	27	29	72	77	71	91	18	253	62
25	98	66	40	27	31	72	76	102	96	17	263	60
26	94	66	37	26	33	70	75	130	107	36	273	55
27	92	66	35	25	35	70	74	120	112	66	269	54
28	88	66	32	24	37	74	70	177	103	107	271	55
29	82	68	30	23	---	77	70	444	95	137	265	55
30	106	68	28	22	---	80	65	496	88	130	258	53
31	137	---	26	22	---	80	---	351	---	113	238	---
TOTAL	3317	2672	1315	817	811	1638	2316	3327	2649	2940	4945	2181
MEAN	107	89.1	42.4	26.4	29.0	52.8	77.2	107	88.3	94.8	160	72.7
MAX	137	140	50	30	37	80	110	496	146	250	273	197
MIN	82	62	26	22	22	35	62	54	40	17	32	51
AC-FT	6580	5300	2610	1620	1610	3250	4590	6600	5250	5830	9810	4330
CAL YR 1978	TOTAL	132136	MEAN	362	MAX	4440	MIN 26	AC-FT	262100			
WTR YR 1979	TOTAL	28928	MEAN	79.3	MAX	496	MIN 17	AC-FT	57380			

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-54, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT											
02...	1055	--	113	--	--	12.0	--	--	--	--	--
13...	1330	--	105	1100	8.4	8.0	2	11.6	K11	460	260
17...	1250	--	111	1130	8.4	9.0	--	--	--	490	290
21...	1100	--	108	1140	--	8.5	--	--	--	--	--
NOV											
06...	1215	--	99	--	--	2.5	--	--	--	--	--
10...	1430	--	111	1090	8.3	.0	3	12.4	K4	580	370
DEC											
07...	1300	42	--	--	--	.0	--	--	--	--	--
08...	1330	42	--	1400	7.8	.0	4	--	--	600	340
JAN											
08...	1240	26	--	1700	7.5	.0	1	10.4	K10	840	490
08...	1320	26	--	--	--	.0	--	--	--	--	--
FEB											
02...	1230	23	--	1850	7.6	.0	1	10.8	24	800	470
05...	1240	27	--	--	--	.0	--	--	--	--	--
MAR											
05...	1125	37	--	--	--	.0	--	--	--	--	--
16...	1200	56	--	1320	7.9	.5	5	12.4	22	490	330
APR											
02...	1800	--	78	--	--	6.0	--	--	--	--	--
16...	1200	--	71	2200	8.3	11.0	3	10.2	57	740	490
MAY											
01...	1500	--	64	--	--	9.0	--	--	--	--	--
JUN											
05...	1400	--	69	--	--	23.5	--	--	--	--	--
11...	1230	--	76	1030	8.2	21.0	5	8.7	62	390	230
JUL											
02...	1245	--	111	--	--	23.0	--	--	--	--	--
20...	1330	--	38	1280	8.2	26.0	15	8.2	40	450	250
AUG											
02...	1015	--	95	--	--	24.0	--	--	--	--	--
16...	1310	--	241	1090	8.2	22.0	20	7.8	120	420	230
SEP											
04...	1230	--	117	--	--	20.0	--	--	--	--	--
13...	1300	--	63	1220	8.4	14.0	5	9.6	98	480	280

K-Results based on colony count outside the acceptable range (non-ideal colony count).

YELLOWSTONE RIVER BASIN
06324000 CLEAR CREEK NEAR ARVADA, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
13...	110	44	78	1.6	4.4	240	0	200	420	5.9	.3
17...	110	53	71	1.4	4.5	240	2	200	440	4.3	.2
21...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
10...	130	64	80	1.4	4.0	260	0	210	500	7.4	.5
DEC											
07...	--	--	--	--	--	--	--	--	--	--	--
08...	140	62	110	1.9	4.5	320	0	260	530	5.2	.5
JAN											
08...	190	92	150	2.2	6.2	430	0	350	830	5.5	.6
08...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	180	87	160	2.5	5.0	400	0	330	810	6.2	.6
05...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
16...	110	50	93	1.8	7.3	190	0	160	510	7.0	.5
APR											
02...	--	--	--	--	--	--	--	--	--	--	--
16...	140	95	200	3.2	11	290	6	250	930	6.2	.8
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
11...	85	42	65	1.4	4.5	200	0	160	330	5.4	.4
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
20...	85	58	120	2.5	5.5	240	0	200	490	4.1	.4
AUG											
02...	--	--	--	--	--	--	--	--	--	--	--
16...	100	41	80	1.7	5.5	230	0	190	390	4.3	.4
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
13...	100	53	93	1.9	4.5	230	6	200	460	2.6	.4

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
13...	3.0	--	785	1.07	223	--	0	.25	.12	.01	--
17...	4.8	864	808	1.10	242	--	--	--	.07	.01	--
21...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
10...	3.8	--	921	1.25	276	--	21	.25	.18	.02	--
DEC											
07...	--	--	--	--	--	--	--	--	--	--	--
08...	9.2	--	1030	1.40	117	--	3	.70	.67	.08	--
JAN											
08...	13	--	1500	2.04	105	--	0	1.2	1.2	.16	--
08...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	12	--	1470	2.00	91.3	--	13	1.0	1.0	.27	--
05...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
16...	7.2	--	883	1.20	134	--	0	.79	.64	.42	--
APR											
02...	--	--	--	--	--	--	--	--	--	--	--
16...	.0	--	1540	2.09	295	--	0	.02	.04	.09	.11
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
11...	2.1	--	633	.86	130	--	14	.00	.06	.06	.07
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
20...	4.2	--	1010	1.37	104	--	24	.02	.03	.09	.11
AUG											
02...	--	--	--	--	--	--	--	--	--	--	--
16...	7.7	--	739	1.01	481	--	63	.05	.05	.07	.08
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
13...	1.8	--	841	1.14	143	8	--	.02	.05	.07	.08

YELLOWSTONE RIVER BASIN

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06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT										
02...	--	--	--	--	--	--	--	--	17	5.2
13...	.60	.61	.73	3.2	.02	--	6.1	.4	--	--
17...	.44	.45	.52	2.3	.02	.00	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	26	6.9
10...	.52	.54	.72	3.2	.03	--	--	--	--	--
DEC										
07...	--	--	--	--	--	--	--	--	64	7.3
08...	.76	.84	1.5	6.7	.00	--	--	--	--	--
JAN										
08...	.68	.84	2.0	9.0	.01	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	86	6.0
FEB										
02...	.51	.78	1.8	7.9	.02	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	22	1.6
MAR										
05...	--	--	--	--	--	--	--	--	65	6.5
16...	.78	1.2	1.8	8.1	.02	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	10	2.1
16...	.62	.71	.75	3.3	.00	--	--	--	--	--
MAY										
01...	--	--	--	--	--	--	--	--	39	6.7
JUN										
05...	--	--	--	--	--	--	--	--	44	8.2
11...	.58	.64	.70	3.1	.04	--	8.2	.6	--	--
JUL										
02...	--	--	--	--	--	--	--	--	98	29
20...	.86	.95	.98	4.3	.04	--	--	--	--	--
AUG										
02...	--	--	--	--	--	--	--	--	116	30
16...	.63	.70	.75	3.3	.04	--	--	--	--	--
SEP										
04...	--	--	--	--	--	--	--	--	25	7.9
13...	.18	.25	.30	1.3	.03	--	--	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
OCT												
13...	1330	50	50	0	0	0	0	0	<1	160	--	1
17...	1250	--	--	--	--	--	--	--	--	--	120	--
NOV												
10...	1430	--	--	--	--	--	--	--	--	200	--	--
DEC												
08...	1330	--	--	--	--	--	--	--	--	180	--	--
JAN												
08...	1240	--	--	--	--	--	--	--	--	180	--	--
FEB												
02...	1230	--	--	--	--	--	--	--	--	260	--	--
MAR												
16...	1200	--	--	--	--	--	--	--	--	140	--	--
APR												
16...	1200	--	--	--	--	--	--	--	--	180	--	--
JUN												
11...	1230	270	250	20	1	0	0	0	0	170	--	1
JUL												
20...	1330	--	--	--	--	--	--	--	--	180	--	--
AUG												
16...	1310	--	--	--	--	--	--	--	--	130	--	--
SEP												
13...	1300	--	--	--	--	--	--	--	--	130	--	--

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible][illegible]

YELLOWSTONE RIVER BASIN

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06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MOLYB- DENUM, SUS- PENDE RECOV. (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT												
13...	2	1	3	2	1	1	0	1	.0	20	10	6
17...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
10...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
08...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
16...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
16...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
11...	0	0	4	2	2	1	0	1	.0	30	10	20
JUL												
20...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
13...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN							
11...	1230	.00	0	.00	0	.00	.0
JUL							
20...	1330	.00	0	.00	0	.00	.0
AUG							
16...	1310	.00	0	.00	0	.00	.0
SEP							
13...	1300	.01	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN				
11...	.00	0	.06	0
JUL				
20...	.00	0	.09	0
AUG				
16...	.00	<1.6	.01	0
SEP				
13...	.00	0	.08	0

YELLOWSTONE RIVER BASIN

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TYPE	TEMPER- ATURE (DEG °C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAY								
01...	1500	2	9.0	64	1	2	5	10
JUL								
02...	1245	2	23.0	111	0	1	3	15
AUG								
02...	1015	2	24.0	95	7	9	13	17
SEP								
04...	1230	2	20.0	117	1	1	3	8

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
MAY								
01...	15	17	22	33	52	88	100	--
JUL								
02...	23	26	31	39	50	75	100	--
AUG								
02...	23	27	36	47	53	67	85	100
SEP								
04...	13	16	20	29	35	55	93	100

06324500 POWDER RIVER AT MOORHEAD, MT

LOCATION.--Lat 45°04'04", long 105°52'10", in NW¼SE¼NW¼ sec.8, T.9 S., R.48 E., Powder River County, Hydrologic Unit 10090207, on left bank 500 ft (152 m) downstream from discontinued post office at Moorhead, 6.2 mi (10.0 km) upstream from Buffalo Creek, and at mile 184.8 (297.3 km).

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to September 1972, October 1974 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,334.6 ft (1,016.39 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 28, 1931, nonrecording gage at site 0.3 mi (0.5 km) upstream at different datum. Aug. 28, 1931, to Mar. 21, 1956, water-stage recorder at site 1.2 mi (1.9 km) upstream at different datum. Mar. 22 to July 24, 1956, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum. July 25 to Sept. 12, 1956, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft (45.4 hm³). Diversions for irrigation of about 66,300 acres (268 km²) above station.

AVERAGE DISCHARGE.--48 years, 467 ft³/s (13.23 m³/s), 338,300 acre-ft/yr (417 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,000 ft³/s (651 m³/s) June 17, 1962, gage height, 12.77 ft (3.892 m), from graph based on gage readings, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.7 ft (5.39 m) Mar. 21, 1956, site and datum then in use (ice jam); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 19 ft (5.8 m), site and datum used 1931-56, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, undetermined (ice jam) Mar. 17, no peaks above base of 3,700 ft³/s (105 m³/s); maximum gage height, 8.94 ft (2.725 m) Mar. 17 (result of ice jam); minimum discharge, 49 ft³/s (1.39 m³/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	323	110	90	96	110	651	409	792	380	330	316
2	248	296	100	120	92	110	642	387	715	390	270	289
3	248	296	100	150	100	100	573	409	582	370	193	248
4	255	289	110	140	110	105	524	462	516	330	162	213
5	248	289	100	120	130	110	493	565	462	340	134	193
6	255	283	90	130	150	115	493	616	439	580	109	162
7	255	283	110	140	140	120	454	651	462	420	92	145
8	276	283	120	140	130	125	424	633	462	379	80	114
9	276	270	140	150	130	130	424	725	439	380	84	105
10	270	220	160	140	140	140	493	715	439	373	92	105
11	270	180	190	150	130	160	573	590	424	316	80	105
12	270	130	200	130	170	180	582	573	410	283	80	114
13	270	100	200	100	125	240	582	625	380	233	96	109
14	270	76	192	90	115	300	582	633	350	206	119	105
15	270	70	210	100	100	500	557	625	330	187	162	109
16	270	70	190	110	96	1000	532	516	310	174	276	114
17	283	75	170	120	100	2200	565	470	1200	145	262	109
18	283	80	160	130	120	1890	524	477	1000	129	255	109
19	283	80	190	150	130	1460	532	607	640	109	270	109
20	289	70	200	180	120	1300	565	763	680	96	283	105
21	283	65	200	170	110	1150	532	687	720	84	303	109
22	276	60	210	170	100	894	540	616	660	70	359	109
23	283	72	210	150	94	782	548	573	610	101	394	109
24	283	82	200	160	90	633	493	557	560	80	524	109
25	276	95	170	162	110	625	454	557	520	57	462	105
26	276	110	150	150	120	565	439	557	540	54	424	105
27	276	120	130	130	110	500	470	565	500	70	409	105
28	270	130	110	120	110	573	500	582	450	1040	401	101
29	270	130	90	110	---	540	470	904	410	812	401	105
30	283	120	80	105	---	493	439	1140	420	915	409	101
31	296	---	76	100	---	625	---	1020	---	485	373	---
TOTAL	8409	4747	4668	4107	3268	17775	15650	19209	16422	9588	7888	4036
MEAN	271	158	151	132	117	573	522	620	547	309	254	135
MAX	296	323	210	180	170	2200	651	1140	1200	1040	524	316
MIN	248	60	76	90	90	100	424	387	310	54	80	101
AC-FT	16680	9420	9260	8150	6480	35260	31040	38100	32570	19020	15650	8010
CAL YR 1978	TOTAL	399042	MEAN	1093	MAX	27500	MIN	60	AC-FT	791500		
WTR YR 1979	TOTAL	115767	MEAN	317	MAX	2200	MIN	54	AC-FT	229600		

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 1.1 mi (1.8 km) upstream from discontinued post office at Moorhead, 1.2 mi (1.9 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1956-57, 1969-72, 1975 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1951 to September 1953, October 1955 to September 1957, October 1974-77, March to September 1978, March to September 1979.

SUSPENDED SEDIMENT DISCHARGE: October 1974-77, March to September 1978, March to September 1979.

REMARKS.--Flow regulated by reservoirs and diversions for irrigation upstream from station. Flow affected by ice during most of winter months.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum daily, 32.0°C July 7, 1951; minimum daily, 0.0°C on many days during winter periods most years.

SEDIMENT CONCENTRATIONS: Maximum daily, 40,500 mg/L June 24, 1976; minimum daily, 5 mg/L Sept. 15, 1975.

SEDIMENT LOADS: Maximum daily, 2,230,000 tons (2,023,000 tonnes) May 20, 1978; minimum daily, 0.24 ton (0.22 tonne) Sept. 15, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum daily, 30.0°C July 19, 22, Aug. 5.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 35,400 mg/L July 29; minimum daily mean, 65 mg/L July 25.

SEDIMENT LOADS: Maximum daily, 101,000 tons (91,600 tonnes) July 28; minimum daily, 10 tons (9.1 tonnes) July 25.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT											
12...	0930	--	276	2170	8.5	9.0	10.2	99	630	410	150
17...	1535	--	293	2060	8.4	9.5	--	--	550	310	120
NOV											
07...	0920	--	289	2090	8.3	2.0	12.5	102	510	290	110
DEC											
14...	1000	--	192	2420	7.6	.0	7.8	60	700	400	160
JAN											
25...	1000	--	162	2520	7.9	.0	5.4	42	670	340	160
FEB											
07...	1045	--	141	2680	7.9	.0	4.0	31	690	380	170
MAR											
27...	1030	--	509	2740	8.2	1.5	11.8	96	760	520	180
APR											
10...	0850	--	487	3390	8.2	9.0	9.6	95	820	580	190
MAY											
08...	1030	--	689	2610	8.4	9.5	9.2	92	610	330	140
JUN											
06...	1030	436	--	1570	8.3	19.0	7.6	93	410	250	95
JUL											
10...	0930	--	386	1650	8.4	22.0	7.6	98	490	320	120
31...	0945	--	487	2050	7.9	19.0	7.3	88	--	--	--
SEP											
06...	0900	--	156	2100	8.5	16.5	8.5	97	560	370	130

YELLOWSTONE RIVER BASIN

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06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SURP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT											
12...	61	260	4.5	--	7.2	--	--	220	670	170	.8
17...	61	260	4.8	--	6.1	290	4	250	650	170	.6
NOV											
07...	56	250	4.8	--	5.3	--	--	220	610	170	.4
DEC											
14...	72	300	4.9	--	7.9	--	--	300	760	190	.4
JAN											
25...	65	320	5.4	--	6.4	--	--	330	730	240	.4
FEB											
07...	65	340	5.6	--	8.1	--	--	310	700	240	.5
MAR											
27...	75	360	5.7	--	7.3	--	--	240	990	190	.5
APR											
10...	84	410	6.2	--	6.8	--	--	240	1200	160	.6
MAY											
08...	63	380	6.7	--	6.5	--	--	280	970	150	.6
JUN											
06...	41	190	4.1	200	5.2	--	--	160	510	89	.5
JUL											
10...	46	190	3.6	200	6.5	--	--	170	550	100	.4
31...	--	--	--	--	--	--	--	110	990	61	.5
SEP											
06...	56	260	4.8	270	6.4	--	--	190	710	150	.4

DATE	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT										
12...	.8	.08	6.2	--	1460	1.99	1090	.06	.04	--
17...	--	--	6.4	1440	1420	1.93	1120	.06	.02	--
NOV										
07...	--	--	7.8	--	1340	1.82	1050	.09	.02	--
DEC										
14...	--	--	11	--	1680	2.28	871	.40	.05	--
JAN										
25...	.9	.16	13	--	1730	2.35	757	.27	.04	--
FEB										
07...	--	--	12	--	1720	2.34	655	.47	.13	--
MAR										
27...	--	--	7.1	--	1950	2.65	2680	.59	.13	--
APR										
10...	.7	.08	6.3	--	2200	2.99	2890	.59	.03	--
MAY										
08...	--	--	6.7	--	1890	2.57	3520	.70	.23	.28
JUN										
06...	.4	.05	8.2	--	1040	1.41	1220	.28	.06	.07
JUL										
10...	--	--	8.6	--	1120	1.52	1170	.04	.06	.07
31...	--	--	6.5	--	--	--	--	.54	.04	.05
SEP										
06...	--	--	7.4	--	1430	1.94	602	.19	.13	.16

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT										
12...	1.1	1.1	1.2	5.1	.33	--	--	--	6.2	--
17...	.98	1.0	1.1	4.7	.30	--	--	.01	--	--
NOV										
07...	.89	.91	1.0	4.4	.29	--	--	--	--	--
DEC										
14...	.51	.56	.96	4.3	.07	--	--	--	--	--
JAN										
25...	.30	.34	.61	2.7	.06	--	--	--	3.9	3.6
FEB										
07...	.39	.52	.99	4.4	.03	--	--	--	--	--
MAR										
27...	2.5	2.6	3.2	14	.86	--	--	--	--	--
APR										
10...	2.2	2.2	2.8	12	.31	--	--	--	5.1	--
MAY										
08...	.47	.70	1.4	6.2	1.1	3.4	3.4	--	--	--
JUN										
06...	1.3	1.4	1.7	7.4	.55	1.7	1.7	--	8.5	11
JUL										
10...	1.4	1.5	1.5	6.8	.34	--	1.0	--	--	--
31...	.53	.57	1.1	4.9	6.3	--	19	--	--	--
SEP										
06...	.09	.22	.41	1.8	.36	--	1.1	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)
OCT										
12...	0930	--	--	--	--	--	--	340	--	--
17...	1535	--	--	--	--	--	--	330	--	--
NOV										
07...	0920	--	--	--	--	--	--	310	--	--
DEC										
14...	1000	--	--	--	--	--	--	360	--	--
JAN										
25...	1000	--	--	--	--	--	--	400	--	--
FEB										
07...	1045	--	--	--	--	--	--	400	--	--
MAR										
27...	1030	--	--	--	--	--	--	270	--	--
APR										
10...	0850	--	--	--	--	--	--	330	--	--
MAY										
08...	1030	--	--	--	--	--	--	340	--	--
JUN										
06...	1030	4	4	1	0	0	0	230	0	0
JUL										
10...	0930	--	--	--	--	--	--	260	--	--
31...	0945	--	--	--	--	--	--	780	--	--
SEP										
06...	0900	--	--	--	--	--	--	310	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUS- PENDED RECOVERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOVERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT									
12...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
NOV									
07...	--	--	--	--	--	--	--	--	--
DEC									
14...	--	--	--	--	--	--	--	--	--
JAN									
25...	--	--	--	--	--	--	--	--	--
FEB									
07...	--	--	--	--	--	--	--	--	--
MAR									
27...	--	--	--	--	--	--	--	--	--
APR									
10...	--	--	--	--	--	--	--	--	--
MAY									
08...	--	--	--	--	--	--	--	--	--
JUN									
06...	28	26	2	2	1	1	120	100	20
JUL									
10...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
SEP									
06...	--	--	--	--	--	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN											
11...	1440	424	24.5	.0	0	.00	.0	.0	0	.00	.0

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)
JUN											
11...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
JUN											
11...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN										
11...	.00	0	0	.00	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN				
11...	.00	0	.01	0

YELLOWSTONE RIVER BASIN

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06324500 POWDER RIVER AT MOORHEAD, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	4.0	14.0	17.0	24.0	24.0	20.0
2						---	7.0	7.0	19.0	24.0	25.0	16.0
3						---	7.0	17.0	21.0	27.0	27.0	25.0
4						---	7.0	8.0	22.0	24.0	25.0	20.0
5						---	5.0	19.5	24.0	26.5	30.0	22.0
6						---	2.0	15.0	17.0	25.0	23.0	25.0
7						---	10.5	14.0	14.0	29.0	21.0	25.0
8						---	14.0	10.0	16.0	29.0	20.0	28.0
9						---	15.0	8.0	14.0	25.0	23.0	20.0
10						---	11.0	10.0	15.0	28.0	27.0	18.0
11						---	5.0	12.0	22.0	28.0	29.0	15.0
12						---	6.0	15.0	26.0	27.0	23.0	15.0
13						---	9.0	16.0	25.0	22.0	18.0	15.0
14						---	8.5	19.0	20.0	23.0	20.0	15.0
15						---	15.0	23.0	20.0	18.0	25.0	21.0
16						---	17.0	22.0	17.0	21.0	25.0	20.0
17						4.0	18.0	18.0	17.0	28.0	25.0	15.0
18						2.0	14.0	15.0	16.0	29.0	21.0	20.0
19						2.0	11.0	18.0	17.0	30.0	22.0	14.0
20						4.0	14.0	19.0	19.0	20.0	20.0	20.0
21						.0	8.0	17.0	21.0	29.0	20.0	21.0
22						5.0	12.5	15.5	21.0	30.0	21.0	21.0
23						5.0	10.0	22.0	21.0	25.0	19.0	18.0
24						6.0	11.0	24.0	25.0	---	22.0	22.0
25						4.5	12.0	23.0	22.0	25.0	20.0	22.0
26						4.0	10.0	24.0	23.0	25.0	21.0	20.0
27						7.0	14.0	27.0	22.0	26.0	20.0	19.0
28						7.0	12.0	17.0	24.0	24.0	---	18.0
29						10.0	14.0	14.0	24.0	24.0	25.0	10.0
30						10.5	15.0	11.0	25.0	21.0	24.0	19.0
31						9.0	---	10.0	---	25.0	20.0	---
MEAN						5.5	10.5	16.5	20.0	25.5	23.0	19.5
MAX						10.5	18.0	27.0	26.0	30.0	30.0	28.0
MIN						.0	2.0	7.0	14.0	18.0	18.0	10.0
WTR YR 1979	MEAN	18.0	MAX	30.0	MIN	.0						

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	248			323			110		
2	248			296			100		
3	248			296			100		
4	255			289			110		
5	248			289			100		
6	255			283			90		
7	255			283			110		
8	276			283			120		
9	276			270			140		
10	270			220			160		
11	270			180			190		
12	270			130			200		
13	270			100			200		
14	270			76			192		
15	270			70			210		
16	270			70			190		
17	283			75			170		
18	283			80			160		
19	283			80			190		
20	289			70			200		
21	283			65			200		
22	276			60			210		
23	283			72			210		
24	283			82			200		
25	276			95			170		
26	276			110			150		
27	276			120			130		
28	270			130			110		
29	270			130			90		
30	283			120			80		
31	296			---			76		
TOTAL	8409			4747			4668		
JANUARY			FEBRUARY			MARCH			
1	90			96			110	---	---
2	120			92			110	---	---
3	150			100			100	---	---
4	140			110			105	---	---
5	120			130			110	---	---
6	130			150			115	---	---
7	140			140			120	---	---
8	140			130			125	---	---
9	150			130			130	---	---
10	140			140			140	---	---
11	150			130			160	---	---
12	130			170			180	---	---
13	100			125			240	---	---
14	90			115			300	---	---
15	100			100			500	---	---
16	110			96			1000	---	---
17	120			100			2200	10400	61800
18	130			120			1890	6400	32700
19	150			130			1460	6000	23700
20	180			120			1300	9600	33700
21	170			110			1150	7360	22900
22	170			100			894	6220	15000
23	150			94			782	6430	13600
24	160			90			633	3670	6270
25	162			110			625	2630	4440
26	150			120			565	2170	3310
27	130			110			500	1740	2350
28	120			110			573	1820	2820
29	110			---			540	1710	2490
30	105			---			493	1340	1780
31	100			---			625	2220	3750
TOTAL	4107			3268			17775	---	230610

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	651	2470	4340	409	1470	1620	792	3530	7550
2	642	3510	6080	387	1240	1300	715	3290	6350
3	573	3430	5310	409	1290	1420	582	2540	3990
4	524	2800	3960	462	2160	2690	516	1890	2630
5	493	2390	3180	565	3250	4960	462	1690	2110
6	493	2150	2860	616	5150	8570	439	1470	1740
7	454	1710	2100	651	5460	9600	462	1370	1710
8	424	1480	1690	633	5760	9840	462	1170	1460
9	424	1360	1560	725	6460	12600	439	1280	1520
10	493	2020	2690	715	6690	12900	439	1410	1670
11	573	2490	3850	590	4680	7460	424	1750	2000
12	582	2520	3960	573	3530	5460	410	1430	1580
13	582	2840	4460	625	3910	6600	380	1010	1040
14	582	2620	4120	633	4170	7130	350	813	768
15	557	2770	4170	625	4740	8000	330	692	617
16	532	2510	3610	516	4350	6060	310	555	465
17	565	2700	4120	470	4170	5290	1200	4200	13600
18	524	3210	4540	477	3790	4880	1000	13000	35100
19	532	3540	5080	607	5170	8470	640	9640	16700
20	565	3360	5130	763	6570	13500	680	6170	11300
21	532	3290	4730	687	6020	11200	720	3830	7450
22	540	2500	3650	616	4480	7450	660	2930	5220
23	548	2470	3650	573	3350	5180	610	2100	3460
24	493	2200	2930	557	3790	5700	560	1640	2480
25	454	1750	2150	557	3520	5290	520	1420	1990
26	439	1520	1800	557	3840	5770	540	1200	1750
27	470	1550	1970	565	4170	6360	500	898	1210
28	500	2020	2730	582	3230	5080	450	898	1090
29	470	1770	2250	904	6220	15700	410	905	1000
30	439	1960	2320	1140	7980	24600	420	781	886
31	---	---	---	1020	5090	14000	---	---	---
TOTAL	15650	---	104990	19209	---	244680	16422	---	140436
JULY			AUGUST			SEPTEMBER			
1	380	796	817	330	10100	9000	316	2260	1930
2	390	825	869	270	4500	3280	289	1550	1210
3	370	635	634	193	1800	938	248	1380	924
4	330	423	377	162	979	428	213	1280	736
5	340	2040	1870	134	850	308	193	860	448
6	580	3800	5950	109	753	222	162	671	293
7	420	1200	1360	92	677	168	145	572	224
8	379	642	657	80	500	108	114	448	138
9	380	694	712	84	353	80	105	358	101
10	373	688	693	92	251	62	105	323	92
11	316	585	499	80	205	44	105	280	79
12	283	423	323	80	171	37	114	281	86
13	233	310	195	96	250	65	109	292	86
14	206	220	122	119	284	91	105	253	72
15	187	169	85	162	372	160	109	244	72
16	174	182	86	276	720	537	114	223	69
17	145	118	46	262	572	405	109	195	57
18	129	90	31	255	400	275	109	190	56
19	109	96	28	270	425	310	109	186	55
20	96	84	22	283	700	535	105	205	58
21	84	66	15	303	839	686	109	233	69
22	70	72	14	359	1920	1860	109	219	64
23	101	260	71	394	5000	5320	109	207	61
24	80	157	34	524	1500	2120	109	166	49
25	57	65	10	462	21000	26200	105	176	50
26	54	122	18	424	14300	16400	105	174	49
27	70	141	27	409	9250	10200	105	168	48
28	1040	34800	101000	401	5700	6170	101	175	48
29	812	35400	78200	401	3720	4030	105	133	38
30	915	31900	76600	409	3900	4310	101	120	33
31	485	21600	28300	373	3420	3440	---	---	---
TOTAL	9588	---	299665	7888	---	97789	4036	---	7295
YEAR	115767		1125465						

YELLOWSTONE RIVER BASIN

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°30'20", long 105°27'12", in NW¼SW¼NE¼ sec.12, T.52 N., R.72 W., Campbell County, Hydrologic Unit 10090208, on right bank 0.3 mi (0.5 km) upstream from Bull Creek, 3.0 mi (4.8 km) downstream from Corral Creek, 11 mi (18 km) southwest of Weston, and 15 mi (24 km) north of Gillette.

DRAINAGE AREA.--204 mi² (528 km²), of which 3.69 mi² (9.56 km²) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975, October 1977 to current year. Prior to October 1977, published as Little Powder River below Corral Creek, near Gillette.

GAGE.--Water-stage recorder. Altitude of gage is 3,980 ft (1,213 km), from topographic map.

REMARKS.--Records fair except those for winter period, those for period of no gage-height record, Jan. 7 to Feb. 11, and those below 2.0 ft³/s (0.057 m³/s), which are poor. Small diversions for irrigation of hay meadows above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) May 18, 1978, gage height, 9.61 ft (2.929 m), from rating curve extended above 410 ft³/s (11.6 m³/s) on basis of slope area measurement at gage height 9.08 ft (2.768 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft³/s (0.76 m³/s) Mar. 20, gage height, 2.92 ft (0.890 m), backwater from ice; maximum gage height, 4.76 ft (1.451 m) Mar. 15 (backwater from ice); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.24	.92	.40	.00	.06	7.9	12	3.0	1.6	.02	.17
2	.00	.23	.90	.35	.00	.06	7.7	12	2.4	1.2	.00	.02
3	.00	.32	.87	.30	.00	.07	7.5	14	2.2	.84	.00	.00
4	.02	.32	.85	.28	.00	.08	7.0	13	1.5	.66	.00	.00
5	.03	.25	.82	.27	.00	.10	7.1	12	1.2	.76	.00	.00
6	.03	.25	.80	.26	.00	.13	7.9	11	1.1	.66	.00	.00
7	.07	.23	.78	.25	.00	.17	10	11	1.0	1.2	.00	.00
8	.03	.23	.76	.24	.00	.20	11	9.9	1.1	1.8	.00	.00
9	.02	.25	.75	.23	.00	.25	12	9.1	1.1	1.4	.00	.00
10	.01	.29	.74	.22	.00	.30	12	8.7	1.0	1.1	.00	.00
11	.02	.34	.75	.20	.00	.40	13	8.1	1.0	.88	.00	.00
12	.02	.30	.78	.20	.00	.50	16	6.6	.92	.63	.00	.00
13	.01	.25	.83	.18	.00	1.0	16	5.1	.84	.56	.00	.00
14	.01	.27	.88	.16	.00	3.0	19	4.0	.68	.37	.00	.00
15	.01	.30	.92	.17	.00	9.0	15	4.7	.57	.29	.00	.00
16	.01	.29	.94	.20	.01	11	11	7.5	.57	.31	.27	.00
17	.01	.28	.94	.24	.01	13	9.5	7.0	.97	.32	.27	.00
18	.03	.26	.95	.26	.01	15	8.7	6.2	1.0	.31	.19	.00
19	.05	.25	.96	.28	.02	17	11	4.9	.77	.27	.19	.00
20	.07	.21	.96	.30	.02	17	8.9	2.6	.77	.21	.27	.00
21	.08	.30	.96	.30	.02	15	10	2.2	.63	.17	.34	.00
22	.23	.50	.96	.29	.03	14	11	1.7	.59	.16	.34	.00
23	1.6	.80	.94	.28	.03	12	11	2.3	.57	.15	.34	.00
24	.33	1.2	.92	.27	.03	9.9	14	2.3	.55	.18	.27	.00
25	.29	1.4	.90	.25	.04	11	11	2.6	.41	.19	.25	.00
26	.20	1.2	.87	.23	.04	8.1	6.8	3.3	.31	.19	.29	.00
27	.11	1.1	.84	.20	.04	7.7	9.9	2.8	.34	.17	.40	.00
28	.12	1.0	.82	.15	.05	9.1	12	2.4	1.2	.16	.77	.00
29	.95	1.0	.78	.10	---	8.3	12	2.8	1.3	.13	.77	.00
30	.38	.95	.60	.05	---	7.9	12	4.0	1.3	.08	.63	.00
31	.21	---	.50	.00	---	7.9	---	3.7	---	.06	.32	---
TOTAL	4.95	14.81	26.19	7.11	.35	199.22	327.9	199.5	30.89	17.01	5.95	.19
MEAN	.16	.49	.84	.23	.013	6.43	10.9	6.44	1.03	.55	.19	.006
MAX	1.6	1.4	.96	.40	.05	17	19	14	3.0	1.8	.77	.17
MIN	.00	.21	.50	.00	.00	.06	6.8	1.7	.31	.06	.00	.00
AC-FT	9.8	29	52	14	.7	395	650	396	61	34	12	.4
CAL YR 1978	TOTAL	9016.81	MEAN	24.7	MAX	1620	MIN	.00	AC-FT	17880		
WTR YR 1979	TOTAL	834.07	MEAN	2.29	MAX	19	MIN	.00	AC-FT	1650		

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1975, May-August, November 1976, October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 21...	0755	.08	2940	7.9	5.0	7.9	72	K9	65	1400	1100	290
DEC 29...	0925	.79	2290	8.1	.0	8.9	71	10	20	1300	990	310
MAR 15...	0955	9.1	2400	7.9	.0	10.0	80	17	680	1100	910	190
APR 24...	1615	16	5920	8.2	12.5	10.4	103	24	110	3300	2900	320
MAY 21...	1640	1.7	5400	8.1	14.5	11.6	132	34	K15	2600	2200	330
JUN 22...	0905	.56	3270	7.8	16.5	5.5	64	110	410	1500	1200	270
JUL 19...	0915	.23	4100	7.4	20.0	8.8	110	190	950	700	490	280

K-Results based on colony count outside the acceptable range (non-ideal colony count).
 S-Seepage run data (see Explanation of Water-Quality Records).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM- DIS- SOLVED (MG/L AS NA)	SODIUM+ POTAS- AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 21...	160	190	2.2	--	45	380	0	320	1500	17	.7	11
DEC 29...	120	130	1.6	--	35	380	0	310	1200	12	.8	23
MAR 15...	160	170	2.2	--	22	230	0	190	1300	9.9	.4	11
APR 24...	600	600	4.6	630	33	470	0	380	3900	21	.5	2.5
MAY 21...	430	490	4.2	540	51	460	0	370	3200	21	.5	1.7
JUN 22...	200	260	2.9	300	37	310	0	250	1800	16	.7	9.6
JUL 19...	--	370	--	380	6.9	260	0	210	2600	16	.5	3.4

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 21...	2590	2400	3.26	.52	.01	.02	--	.62	.64	.65	2.9	.02
DEC 29...	2110	2020	2.75	4.31	.05	.01	--	.21	.22	.27	1.2	.00
MAR 15...	2080	1980	2.69	48.6	.30	.19	--	.66	.85	1.2	5.1	.12
APR 24...	5630	5710	7.77	247	.01	.04	.05	.66	.70	.71	3.1	.02
MAY 21...	5340	4750	6.46	21.8	.01	.08	.10	.65	.73	.74	3.3	.02
JUN 22...	2960	2750	3.74	4.16	.01	.05	.06	.57	.62	.63	2.8	.19
JUL 19...	4160	3410	4.64	2.12	.02	.04	.05	.02	.06	.08	.35	.02

YELLOWSTONE RIVER BASIN

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	PHOS- PHATE, TOTAL (MG/L AS P04)	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
OCT 21...	--	--	.01	11	.4	250	--	--	--	--	--
DEC 29...	--	--	.01	4.7	.3	77	--	--	--	--	--
MAR 15...	--	--	.08	12	.8	20	--	--	--	--	--
APR 24...	.06	.06	.01	15	.7	1200	--	--	--	--	--
MAY 21...	.06	.06	.01	15	--	2700	.080	.160	--	.000	.000
JUN 22...	.58	.58	.01	13	--	190	--	--	--	--	--
JUL 19...	--	.06	.06	15	.6	190	1.20	1.80	500	1.26	.290

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL FM BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
OCT 21...	0755	30	1	0	6	0	0	100	0	0
DEC 29...	0925	--	--	--	--	--	--	--	--	--
MAR 15...	0955	20	1	1	--	0	0	--	0	0
APR 24...	1615	--	--	--	38	--	--	200	--	--
MAY 21...	1640	--	--	--	--	--	--	--	--	--
JUN 22...	0905	--	--	--	--	--	--	--	--	--
JUL 19...	0915	--	--	--	--	--	--	--	--	--

DATE	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM TOTAL FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CU)	COBALT, DIS- SOLVED (UG/L AS CU)
OCT 21...	0	1300	1	1	0	10	0	4	0	0
DEC 29...	--	1100	--	--	--	--	--	--	--	--
MAR 15...	--	280	13	8	--	10	10	--	4	0
APR 24...	1	1100	--	--	0	--	--	8	--	--
MAY 21...	--	1300	--	--	--	--	--	--	--	--
JUN 22...	--	1700	--	--	--	--	--	--	--	--
JUL 19...	--	1200	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 15...	0955	<41	<.4	23	1.4	21	1.5	<28	<.3
DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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		
APR 24...	1615	2	12.5	16	11	14	17		
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 24...	21	23	30	45	69	89	100		

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 21,78 0755	DEC 29,78 0925	MAR 15,79 0955	APR 24,79 1615				
TOTAL CELLS/ML	250	77	20	1200				
DIVERSITY: DIVISION	0.0	0.5	0.8	1.5				
..CLASS	0.8	0.5	0.8	1.5				
..ORDER	1.0	0.5	0.8	1.7				
...FAMILY	1.1	0.5	0.8	2.1				
....GENUS	1.1	0.9	0.8	2.1				
ORGANISM	CELLS /ML	PEN- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	15#	75	14	1
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	--	-	--	-
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	14	1
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCAEAE								
....CYCLOTELLA	14	6	8	10	5#	25	72	6
..PENNALES								
...ACHNANTHACEAE								
...COCCONEIS	14	6	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	170	14
...NAVICULACEAE								
....NAVICULA	29	12	--	-	--	-	43	4
...NITZSCHIAEAE								
....NITZSCHIA	--	-	--	-	--	-	72	6
..CHRYSTOPHYCEAE								
...CHRYSONOMADALES								
...OCHROMONADACEAE								
....OCHROMONAS	190#	76	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	29	2
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	29	2
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	62#	80	--	-	--	-
....ANACYSTIS	--	-	8	10	--	-	720#	59
...HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENIIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	58	5

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	MAY 21,79 1640		JUN 22,79 0905		JUL 19,79 0915	
TOTAL CELLS/ML	2700		190		190	
DIVERSITY: DIVISION	1.4		0.7		1.9	
..CLASS	1.4		0.7		1.9	
...ORDER	1.7		1.4		2.5	
...FAMILY	1.8		1.4		2.7	
....GENUS	1.8		1.4		2.7	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLORUPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	50	2	13	7	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	--	-	--	-	26	13
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	75	3	26	13	26	13
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCAEAE						
....CYCLOTELLA	1100#	42	130#	67	13	7
..PENNALES						
...ACHNANTHACEAE						
...COCCONEIS	--	-	--	-	13	7
...FRAGILARIACEAE						
....ASTERIONELLA	100	4	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	75	3	26	13	65#	33
..CHRYSTOPHYCEAE						
...CHRYSOMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHRUOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	1200#	43	--	-	13	7
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-
...HORMOGONALES						
...OSCILLATORIAEAE						
....OSCILLATORIA	--	-	--	-	26	13
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....EUGLENA	100	4	--	-	13	7

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324925 LITTLE POWDER RIVER NEAR WESTON, WY

LOCATION.--Lat 44°38'51", long 105°18'37", in NE¼NE¼SE¼ sec.19, T.54 N., R.70 W., Campbell County, Hydrologic Unit 10090208, on left bank 100 ft (30 m) downstream from bridge on county road, 1.5 mi (2.4 km) northeast of Weston, and 2.0 mi (3.2 km) downstream from Spring Creek.

DRAINAGE AREA.--540 mi² (1,399 km²), of which 3.69 mi² (9.56 km²) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,680 ft (1,122 m), from topographic map.

REMARKS.--Records good except those for winter period and those below 1.0 ft³/s (0.028 m³/s), which are poor. Small diversions for irrigation of hay meadows above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,460 ft³/s (126 m³/s) May 19, 1978, gage height, 13.32 ft (4.060 m); no flow July 22, 23, Aug. 4-6, 8, Sept. 11, 17-29, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 186 ft³/s (5.27 m³/s) Mar. 16, gage height, 5.91 ft (1.801 m), backwater from ice; maximum gage height, 6.06 ft (1.847 m) Mar. 8, 13 (backwater from ice); no flow July 22, 23, Aug. 4-6, 8, Sept. 11, 17-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	1.0	1.0	.52	.58	1.1	17	12	4.9	.36	.23	.02
2	.36	1.0	1.0	.54	.56	1.1	16	12	3.8	.27	.08	.02
3	.53	1.0	1.0	.55	.55	1.0	15	11	3.2	.23	.02	.02
4	.31	1.0	1.0	.57	.54	1.0	14	11	2.7	.27	.00	.02
5	.48	1.1	1.1	.60	.54	1.1	14	14	2.1	.52	.00	.02
6	.49	1.0	1.0	.61	.56	2.0	13	11	1.5	9.7	.00	.02
7	.43	1.0	.95	.62	.60	10	12	10	2.0	3.0	.02	.02
8	.45	1.2	.98	.64	.70	80	12	10	2.1	.85	.00	.02
9	.45	1.2	1.0	.65	.75	70	13	10	2.4	.62	8.8	.02
10	.46	1.1	1.0	.65	.85	65	13	10	1.6	.22	1.2	.01
11	.44	.95	1.1	.65	.90	65	15	9.9	1.1	.14	.99	.00
12	.45	.85	1.1	.65	.95	100	18	9.6	1.5	.11	3.0	.02
13	.42	.80	1.1	.65	1.0	140	22	9.1	1.3	.11	2.1	.02
14	.52	.80	1.2	.66	1.1	110	38	7.7	.88	.10	1.3	.02
15	.54	.85	1.2	.68	1.0	100	29	6.2	.48	.07	.59	.02
16	.59	.87	1.2	.70	1.0	150	26	4.5	1.1	.09	.35	.01
17	.58	.90	1.2	.72	1.0	120	19	2.1	1.3	.10	.19	.00
18	.71	.90	1.2	.73	1.0	90	14	2.1	.97	.09	.15	.00
19	.74	.90	1.2	.74	1.0	64	12	4.2	.79	.06	.09	.00
20	.76	.90	1.3	.74	1.1	50	11	4.2	.64	.02	.07	.00
21	.83	.90	1.3	.74	1.1	38	11	4.7	.63	.01	.11	.00
22	.84	.90	1.3	.73	1.1	30	9.9	3.7	1.1	.00	.05	.00
23	.95	.90	1.3	.71	1.1	25	10	2.9	1.2	.00	.05	.00
24	.93	.90	1.3	.70	1.1	23	11	2.4	.72	.02	.03	.00
25	.90	.90	1.3	.69	1.1	22	12	1.8	.46	.12	.01	.00
26	1.0	.90	1.3	.67	1.1	20	12	2.5	.34	.13	.05	.00
27	1.0	.90	1.3	.65	1.1	20	11	2.5	.36	.04	.05	.00
28	1.0	.90	1.3	.63	1.1	18	9.4	2.8	.46	.02	.06	.00
29	1.0	.90	1.1	.62	---	20	9.6	3.2	.57	.01	.05	.01
30	.90	.90	.80	.61	---	18	11	7.7	.56	3.7	.04	.02
31	.90	---	.50	.60	---	18	---	9.1	---	.75	.02	---
TOTAL	20.40	28.32	34.63	20.22	25.08	1473.3	449.9	213.9	42.76	73.21	19.70	.31
MEAN	.66	.94	1.12	.65	.90	47.5	15.0	6.90	1.43	2.36	.64	.010
MAX	1.0	1.2	1.3	.74	1.1	150	38	14	4.9	.52	8.8	.02
MIN	.31	.80	.50	.52	.54	1.0	9.4	1.8	.34	.00	.00	.00
AC-FT	40	56	69	40	50	2920	892	424	85	145	39	.6
CAL YR 1978 TOTAL	26078.81			MEAN 71.4	MAX 3130	MIN .20	AC-FT 51730					
WTR YR 1979 TOTAL	2401.73			MEAN 6.58	MAX 150	MIN .00	AC-FT 4760					

YELLOWSTONE RIVER BASIN

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT S21...	1115	.78	4080	8.2	8.5	9.3	90	K1	K7	740	250	130
DEC 01...	0915	1.0	4420	8.1	.0	--	--	K1	52	850	240	160
27...	1110	1.3	4400	8.1	.0	10.8	85	K5	21	940	290	180
JAN 15...	1600	.68	4520	7.9	.0	6.5	51	K1	400	1000	310	200
FEB 14...	1115	1.1	4250	7.8	.0	9.2	74	K7	300	900	270	180
MAR 12...	1555	107	467	7.9	.0	11.3	89	K150	K120000	130	73	24
APR 24...	1200	11	4630	8.3	11.0	9.1	99	K35	88	2000	1600	240
MAY 23...	1615	2.7	4830	8.2	21.0	11.4	144	K8	93	2000	1600	280
JUN 25...	1610	.47	4210	8.2	24.0	8.6	115	42	140	1200	790	190
JUL 19...	1400	.05	2350	8.2	29.0	9.4	125	72	33	500	200	100
AUG 13...	1700	2.1	1525	8.0	18.5	6.3	76	K420	1800	280	120	59
SEP 10...	1230	.02	3950	8.4	18.0	8.2	98	K11	240	620	200	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).
 S-Seepage run data (see Explanation of Water-Quality Records).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 21...	100	790	13	--	18	600	0	490	1800	16	.6	6.0
DEC 01...	110	800	12	--	20	750	0	620	2100	18	.7	13
27...	120	850	12	--	17	790	0	640	2000	15	.6	14
JAN 15...	130	--	--	--	17	840	0	690	2300	15	.6	17
FEB 14...	110	770	11	--	17	760	0	630	2000	15	.6	16
MAR 12...	16	53	2.1	--	5.9	70	0	57	170	3.0	.2	7.4
APR 24...	330	490	4.8	--	38	480	0	390	2600	19	.6	2.1
MAY 23...	320	580	5.6	630	46	450	0	370	2800	19	.6	1.2
JUN 25...	170	640	8.1	670	29	500	0	410	2100	15	.6	5.6
JUL 19...	60	360	7.0	380	15	370	0	300	930	7.1	.6	9.3
AUG 13...	33	260	6.7	270	11	190	0	160	680	5.5	.4	8.0
SEP 10...	85	750	13	770	20	510	5	430	1700	16	.7	2.7

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 21...	3250	3160	4.30	6.66	.01	.03	--	1.5	1.5	1.5	6.7	.01
DEC 01...	3570	3590	4.88	9.69	.03	.03	--	.36	.39	.42	1.9	.00
27...	3690	3590	4.88	12.6	.05	.02	--	.39	.41	.46	2.0	.01
JAN 15...	3900	3090	4.20	5.67	.06	.19	--	.32	.51	.57	2.5	.02
FEB 14...	3540	3480	4.73	10.3	.09	.34	--	.28	.62	.71	3.1	.02
MAR 12...	295	314	.43	90.7	.21	.04	--	1.6	1.6	1.8	8.0	.24
APR 24...	4500	3960	5.39	118	.02	.04	.05	.72	.76	.78	3.5	.03
MAY 23...	4760	4270	5.81	31.1	.01	.07	.08	.59	.66	.67	3.0	.01
JUN 25...	3470	3400	4.62	4.31	.04	.02	.02	.50	.52	.56	2.5	.05
JUL 19...	1750	1660	2.26	.22	.05	.03	.04	.78	.81	.86	3.8	.03
AUG 13...	1080	1150	1.56	6.52	.15	.02	.02	.98	1.0	1.2	5.1	.08
SEP 10...	3000	2940	4.00	.16	.03	.03	.04	.53	.56	.59	2.6	.04

DATE	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
OCT 21...	--	--	.00	11	.6	3200	--	--	--	--	--
DEC 01...	--	--	.00	8.7	.3	72	13.6	15.0	--	2.00	.000
27...	--	--	.01	8.7	.4	600	--	--	--	--	--
JAN 15...	--	--	.02	8.7	1.1	110	--	--	--	--	--
FEB 14...	--	--	.01	8.8	.5	45	--	--	--	--	--
MAR 12...	--	--	.03	12	7.2	910	--	--	--	--	--
APR 24...	.09	.09	.01	17	.7	3100	--	--	--	--	--
MAY 23...	.03	.03	.02	13	--	1200	101	106	4902	1.02	.000
JUN 25...	.15	.15	.02	13	.7	2000	--	--	--	--	--
JUL 19...	--	.09	.05	13	--	820	.790	1.10	1476	.210	.000
AUG 13...	--	.25	.01	19	2.2	1000	7.56	8.27	348	2.04	.210
SEP 10...	--	.12	.01	12	.6	1100	51.8	55.8	498	8.03	.290

YELLOWSTONE RIVER BASIN

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)
OCT 21...	1115	10	1	1	30	0	--	0	270	0	--
DEC 01...	0915	--	--	--	--	--	--	--	--	--	--
27...	1110	--	--	--	--	--	--	--	--	--	--
JAN 15...	1600	--	--	--	--	--	--	--	--	--	--
FEB 14...	1115	--	--	--	--	--	--	--	--	--	--
MAR 12...	1555	60	2	0	--	100	--	100	--	0	--
APR 24...	1200	--	--	--	41	--	--	--	280	--	--
MAY 23...	1615	--	--	--	--	--	--	--	--	--	--
JUN 25...	1610	--	--	--	--	--	--	--	--	--	--
JUL 19...	1400	--	--	--	--	--	--	--	--	--	--
AUG 13...	1700	0	2	1	1	100	0	100	120	10	9
SEP 10...	1230	--	--	--	--	--	--	--	--	--	--

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
OCT 21...	0	0	210	4	--	4	1	0	--	0	4
DEC 01...	--	--	210	--	--	--	--	--	--	--	--
27...	--	--	210	--	--	--	--	--	--	--	--
JAN 15...	--	--	270	--	--	--	--	--	--	--	--
FEB 14...	--	--	220	--	--	--	--	--	--	--	--
MAR 12...	0	--	100	1	--	0	--	20	--	0	--
APR 24...	--	1	720	--	--	--	0	--	--	--	5
MAY 23...	--	--	930	--	--	--	--	--	--	--	--
JUN 25...	--	--	540	--	--	--	--	--	--	--	--
JUL 19...	--	--	200	--	--	--	--	--	--	--	--
AUG 13...	<1	0	110	2	0	23	0	10	10	0	3
SEP 10...	--	--	230	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

YELLOWSTONE RIVER BASIN
06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PHYTOPLANKTON ANALYSES

DATE TIME	OCT 21,78 1115	DEC 1,78 0915	DEC 27,78 1110	JAN 15,79 1600	FEB 14,79 1115	MAR 12,79 1555
TOTAL CELLS/ML	3200	72	600	110	45	910
DIVERSITY: DIVISION	0.7	0.7	2.2	0.0	0.5	0.8
..CLASS	0.7	0.7	2.2	0.0	0.5	0.8
..ORDER	0.7	0.7	2.7	0.0	0.5	1.3
...FAMILY	0.8	0.7	3.1	0.3	1.4	2.2
....GENUS	0.8	0.7	3.2	0.3	1.4	2.6
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....DOCYSTACEAE						
.....ANKISTRODESMUS	190	6	--	--	--	--
.....DICTYOSPHAERIUM	--	--	--	--	--	--
.....KIRCHNERIELLA	64	2	--	--	--	--
.....DOCYSTIS	--	--	--	--	--	--
.....TREUBARIA	--	--	--	--	--	--
.....SCENEDESMACEAE						
.....CRUCIGENIA	--	--	--	--	--	--
.....SCENEDESMUS	--	--	15	3	--	--
...VOLVOCALES						
....CHLAMYDOMONADACEAE	--	--	--	--	--	--
.....CARTERIA	--	--	--	--	--	--
....CHLAMYDOMONAS	--	--	54	9	5	11
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCEAE						
.....CYCLOTELLA	32	1	15	3	--	100
.....STEPHANODISCUS	--	--	--	--	--	11
...PENNALES						
....ACHNANTHACEAE			8	1	--	--
.....ACHNANTHES	--	--	--	--	--	--
....CYMBELLACEAE						
.....AMPHORA	32	1	--	--	--	--
....FRAGILARIACEAE						
.....ASTERIONELLA	--	--	--	--	--	--
.....SYNEDRA	--	--	23	4	5	11
...NAVICULACEAE						
....CALONEIS	--	--	--	--	--	100
.....ENTOMONEIS	--	--	15	3	--	11
....NAVICULA	32	1	39	6	5	11
.....NEIDIUM	--	--	--	--	--	100
....PINNULARIA	--	--	--	--	--	11
...NITZSCHIA						
.....NITZSCHIA	64	2	14#	20	100#	95
...SURIPELLACEAE						
.....SURIPELLA	--	--	--	--	30#	67
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
....CRYPTOCHRYSIDACEAE						
.....CHROOMONAS	--	--	15	3	--	--
....CRYPTOMONADACEAE						
.....CRYPTOMONAS	--	--	--	--	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
....CHROOCOCCACEAE						
.....ANACYSTIS	--	--	31	5	--	100
...HORMOGONALES						
....OSCILLATORIA						
.....OSCILLATORIA	--	--	150#	26	--	--
EUGLENOPHYTA (EUGLENIIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE						
.....EUGLENA	--	--	--	--	--	--
.....PHACUS	--	--	--	--	--	--
....TRACHELOMONAS	2800#	87	57#	80	100#	17
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...GYMNODINIALES						
....GYMNODINIACEAE						
.....GYMNODINIUM	--	--	23	4	--	--
...PERIDINIALES						
....GLENODINIACEAE						
.....GLENODINIUM	--	--	8	1	--	--

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE TIME	APR 24,79 1200	MAY 23,79 1615	JUN 25,79 1610	JUL 19,79 1400	AUG 13,79 1700	SEP 10,79 1245
TOTAL CELLS/ML	3100	1200	2000	820	1000	1100
DIVERSITY: DIVISION	1.0	1.9	1.1	1.6	1.5	1.7
..CLASS	1.0	1.9	1.1	1.6	1.5	1.7
..ORDER	1.2	2.4	1.1	1.7	1.7	2.0
...FAMILY	1.2	2.8	1.2	1.8	2.1	2.3
....GENUS	0.0	2.8	2.4	1.9	2.5	2.7
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....OOCYSTACEAE						
.....ANKISTRODESMUS	210	7	370#	30	800#	40
.....DICTYOSPHAERIUM	--	--	--	--	130	7
.....KIRCHNERIELLA	--	--	--	--	620#	31
.....OOCYSTIS	--	--	--	--	26	3
.....TREUBARIA	--	--	--	--	--	--
.....SCENEDESMACEAE	--	--	--	--	--	--
.....CRUCIGENIA	--	--	--	--	43	4
.....SCENEDESMUS	--	--	26	2	260#	25
...VOLVOCELES	--	--	--	--	--	--
...CHLAMYDOMONADACEAE	30	1	--	--	--	--
....CARTERIA	89	3	--	--	--	--
....CHLAMYDOMONAS	--	--	39	3	19	1
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCEAE						
.....CYCLOTELLA	30	1	--	--	--	--
.....STEPHANODISCUS	--	--	140	11	--	--
...PENNALES						
....ACHNANTHACEAE	--	--	--	--	--	--
....ACHNANTHES	--	--	--	--	--	--
....CYMBELLACEAE	--	--	--	--	--	--
....AMPHORA	--	--	--	--	--	--
....FRAGILARIACEAE	--	--	--	--	--	--
....ASTERIONELLA	--	--	13	1	--	--
....SYNEDRA	--	--	--	--	--	--
....NAVICULACEAE	--	--	--	--	--	--
....CALONEIS	--	--	--	--	--	--
....ENTOMONEIS	--	--	26	2	--	--
....NAVICULA	--	--	39	3	19	1
....NEIDIUM	--	--	--	--	--	--
....PINNULARIA	--	--	--	--	14	1
....NITZSCHIA	2400#	78	320#	26	75	4
....NITZSCHIA	--	--	--	--	65	8
....SURIRELLACEAE	--	--	--	--	200#	19
....SURIRELLA	--	--	--	--	--	--
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
....CRYPTOCHRYSIDACEAE	--	--	--	--	--	--
....CHROOMONAS	--	--	--	--	--	--
....CRYPTOMONADACEAE	30	1	77	6	93	5
....CRYPTOMONAS	--	--	--	--	26	3
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
....CHROOCOCCACEAE	--	--	120	9	37	2
.....ANACYSTIS	--	--	--	--	13	2
....HORMOGONALES	--	--	--	--	--	--
....OSCILLATORIA	--	--	--	--	520#	63
....OSCILLATORIA	--	--	--	--	--	--
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE	--	--	--	--	110	6
.....EUGLENA	--	--	--	--	78	10
.....PHACUS	--	--	--	--	300#	29
....TRACHELOMONAS	300	10	64	5	56	3
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...GYMNODINIALES						
....GYMNODINIACEAE	--	--	--	--	--	--
.....GYMNODINIUM	--	--	--	--	--	--
....PERIDINIALES	--	--	--	--	--	--
....GLENODINIACEAE	--	--	--	--	--	--
....GLENODINIUM	--	--	13	1	--	--

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°55'45", long 105°21'06", in NW¼SW¼ sec.13, T.57 N., R.71 W., Campbell County, Hydrologic Unit 10090208, on left bank 3.1 mi (5.0 km) upstream from Dry Creek, 5.0 mi (8.0 km) south of the Wyoming-Montana State line, and 20 mi (32 km) north of Weston.

DRAINAGE AREA.--1,235 mi² (3,199 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR WY-77-1: Drainage area. WDR WY-78-1: 1976(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft (1,039 m), from topographic map.

REMARKS.--Records good except those for winter period and those below 3.0 ft³/s (0.085 m³/s), which are poor.

Diversion above station for irrigation of about 80 acres (32 hm²) are below station. Since August 1976, the Rawhide Mine has intermittently pumped water into the river in T.52 N., R.71 W., about 45 mi (72 km) upstream.

AVERAGE DISCHARGE.--7 years, 28.0 ft³/s (0.793 m³/s), 20,290 acre-ft/yr (25.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,300 ft³/s (150 m³/s) May 19, 1978, gage height, 11.62 ft (3.542 m); maximum gage height, 11.63 ft (3.545 m) Mar. 20, 1978 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 130 ft³/s (3.68 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 14	0830	-- --	b*6.42 1.957
Mar. 17	0600	a*270 7.6	b6.28 1.914

a-About.

b-Backwater from ice.

Minimum daily discharge, 0.02 ft³/s (0.001 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.2	3.6	2.4	2.2	3.2	30	15	11	2.6	1.8	.04
2	1.6	2.2	3.4	2.5	2.3	3.0	27	15	11	2.2	.84	.06
3	1.5	2.4	3.1	2.5	2.3	2.9	24	16	8.5	1.6	.44	.06
4	1.4	2.4	3.3	2.6	2.4	3.1	24	15	7.8	1.3	.34	.06
5	1.6	2.4	3.1	2.5	2.5	3.2	23	14	7.3	2.0	.26	.07
6	2.1	2.5	2.9	2.6	2.5	3.5	22	16	6.9	56	.16	.06
7	2.0	2.8	2.7	2.6	2.5	4.1	20	16	6.6	17	.14	.07
8	2.0	2.5	2.8	2.9	2.4	4.7	19	15	6.6	7.9	.14	.07
9	1.8	3.0	2.9	2.8	2.6	120	18	14	4.4	4.4	1.1	.06
10	1.6	4.4	3.3	2.6	2.7	150	19	15	4.6	2.9	1.8	.07
11	1.5	4.1	3.2	2.8	2.7	110	21	14	5.5	3.0	.68	.06
12	1.5	3.7	3.4	2.7	2.7	110	24	14	5.3	2.3	1.6	.09
13	1.5	3.5	3.3	2.5	2.7	160	25	14	4.4	1.6	1.4	.07
14	1.5	3.3	3.5	2.4	2.6	190	29	13	4.0	.55	1.1	.07
15	1.5	3.2	3.7	2.5	2.4	150	44	12	3.4	.30	.76	.07
16	1.6	3.3	3.6	2.5	2.3	190	37	12	3.6	.49	1.1	.06
17	1.6	3.4	3.8	2.6	2.6	230	34	11	5.7	.55	1.1	.07
18	2.0	3.2	4.4	2.6	2.8	180	29	10	5.5	.49	.68	.09
19	1.8	3.0	4.3	2.7	2.9	140	24	9.5	4.8	.30	.44	.11
20	1.8	2.9	4.1	2.8	2.9	93	21	8.2	4.0	.22	.30	.11
21	2.0	3.0	4.1	2.9	2.8	68	18	7.8	3.4	.82	.26	.11
22	2.1	3.1	4.0	2.8	2.8	52	18	8.0	3.2	1.4	.14	.11
23	2.2	3.1	4.0	2.7	2.7	40	16	7.1	2.9	.55	.09	.09
24	2.4	3.2	4.2	2.8	2.7	30	16	7.8	2.9	.39	.09	.07
25	2.4	3.1	4.1	2.8	2.9	33	17	7.8	2.5	.34	.09	.07
26	2.0	3.2	3.8	2.6	3.0	33	16	7.1	2.4	.34	.09	.06
27	2.0	3.4	3.9	2.5	3.1	35	17	6.6	2.4	3.6	.09	.06
28	2.0	3.7	3.9	2.4	3.2	32	17	6.4	2.4	4.8	.07	.04
29	2.0	3.7	3.3	2.3	---	30	15	7.3	2.7	3.4	.06	.03
30	2.2	3.7	2.7	2.2	---	32	14	8.8	3.0	3.6	.04	.02
31	2.1	---	2.4	2.2	---	32	---	8.2	---	3.2	.04	---
TOTAL	56.9	93.6	108.8	80.3	74.2	2267.7	678	351.6	148.7	130.14	17.24	2.08
MEAN	1.84	3.12	3.51	2.59	2.65	73.2	22.6	11.3	4.96	4.20	.56	.069
MAX	2.4	4.4	4.4	2.9	3.2	230	44	16	11	56	1.8	.11
MIN	1.4	2.2	2.4	2.2	2.2	2.9	14	6.4	2.4	.22	.04	.02
AC-FT	113	186	216	159	147	4500	1340	697	295	258	34	4.1
CAL YR 1978 TOTAL	45772.80			125	5000		1.4	90790				
WTR YR 1979 TOTAL	4009.26			11.0	230		.02	7950				

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)
OCT										
03...	1030	1.4	--	--	11.0	--	--	--	--	--
13...	0930	1.5	4000	8.3	7.0	4	9.4	K8	960	600
S21...	1050	1.8	4200	--	8.0	--	--	--	--	--
NOV										
08...	1215	2.5	--	--	5.0	--	--	--	--	--
10...	1030	4.4	3500	8.2	.0	5	12.0	K6	1100	690
DEC										
08...	0900	2.8	4000	7.9	.0	5	--	K6	1100	680
27...	0950	3.9	--	--	--	--	--	--	--	--
JAN										
08...	0915	2.9	5500	7.6	.0	15	11.5	K110	1300	740
26...	1100	2.6	--	--	--	--	--	--	--	--
FEB										
02...	0915	2.3	5000	7.6	.0	6	12.2	K2	1300	770
13...	1030	2.7	--	--	--	--	--	--	--	--
MAR										
13...	1150	160	--	--	.5	--	--	--	--	--
16...	0845	190	810	7.8	.5	270	13.0	K110	200	130
APR										
04...	1030	24	--	--	5.0	--	--	--	--	--
16...	0830	38	4300	8.3	9.0	9	9.9	48	1400	1200
MAY										
08...	1955	14	--	--	4.0	--	--	--	--	--
JUN										
11...	0830	5.5	4700	8.0	17.5	9	7.7	100	41	0
12...	0920	5.5	--	--	19.5	--	--	--	--	--
JUL										
11...	1225	3.2	--	--	24.5	--	--	--	--	--
20...	0830	.19	3800	7.9	20.0	10	5.5	K60	1000	710
AUG										
09...	1805	2.9	--	--	24.0	--	--	--	--	--
16...	0815	1.0	3800	8.1	18.0	10	6.2	K60	1000	710
SEP										
06...	1620	.06	--	--	26.5	--	--	--	--	--
13...	0830	.07	3000	8.0	10.5	4	8.0	120	790	410

K-Results based on colony count outside the acceptable range (non-ideal colony count).
 S-Seepage run data (see Explanation of Water-Quality Records).

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
13...	170	130	630	8.9	--	23	440	0	360	1800
21...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
10...	190	140	540	7.3	--	22	440	0	360	1700
DEC										
08...	220	140	600	7.8	--	26	540	0	440	2000
27...	--	--	--	--	--	--	--	--	--	--
JAN										
08...	260	160	710	8.5	--	30	690	0	570	2200
26...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	250	160	720	8.7	--	25	630	0	520	2400
13...	--	--	--	--	--	--	--	--	--	--
MAR										
13...	--	--	--	--	--	--	--	--	--	--
16...	44	23	87	2.6	--	7.6	94	0	77	300
APR										
04...	--	--	--	--	--	--	--	--	--	--
16...	230	200	440	5.1	--	21	220	0	180	2000
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
11...	--	10	--	--	--	4.9	420	0	340	2400
12...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
20...	170	150	580	7.8	610	25	410	0	340	1900
AUG										
09...	--	--	--	--	--	--	--	--	--	--
16...	190	130	500	6.8	520	24	360	0	300	1700
SEP										
06...	--	--	--	--	--	--	--	--	--	--
13...	150	100	420	6.5	440	19	--	--	380	1400

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
13...	21	.7	9.0	3000	4.08	12.2	.05	.03	--	2.9
21...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
10...	20	.5	9.8	2840	3.86	33.7	.01	.01	--	.46
DEC										
08...	24	.6	13	3290	4.47	24.9	.09	.04	--	.57
27...	--	--	--	--	--	--	--	--	--	--
JAN										
08...	21	.6	15	3740	5.09	29.3	.18	.03	--	.61
26...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	23	.6	16	3910	5.32	24.3	.25	.08	--	.45
13...	--	--	--	--	--	--	--	--	--	--
MAR										
13...	--	--	--	--	--	--	--	--	--	--
16...	7.0	.2	5.7	521	.71	267	.20	.17	--	1.5
APR										
04...	--	--	--	--	--	--	--	--	--	--
16...	15	.5	7.7	3020	4.11	310	.05	.17	.21	.62
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
11...	18	.6	3.4	2640	3.59	39.2	.05	.07	.08	.66
12...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
20...	24	.7	6.9	3060	4.16	1.57	.03	.20	.24	1.1
AUG										
09...	--	--	--	--	--	--	--	--	--	--
16...	22	.6	6.0	2750	3.74	7.43	.02	.05	.06	.66
SEP										
06...	--	--	--	--	--	--	--	--	--	--
13...	11	.9	7.9	2340	3.18	.44	.03	.12	.15	.64

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT										
03...	--	--	--	--	--	--	--	--	58	.22
13...	2.9	3.0	13	.02	--	--	9.4	.6	--	--
21...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	86	.58
10...	.47	.48	2.1	.01	--	--	--	--	--	--
DEC										
08...	.61	.70	3.1	.03	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	38	.40
JAN										
08...	.64	.82	3.6	.02	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	126	.88
FEB										
02...	.53	.78	3.5	.02	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	84	.61
MAR										
13...	--	--	--	--	--	--	--	--	623	269
16...	1.7	1.9	8.4	.16	--	--	--	--	--	--
APR										
04...	--	--	--	--	--	--	--	--	53	3.4
16...	.79	.84	3.7	.02	.06	.06	14	.4	--	--
MAY										
08...	--	--	--	--	--	--	--	--	59	2.2
JUN										
11...	.73	.78	3.5	.06	.18	.18	--	--	--	--
12...	--	--	--	--	--	--	--	--	107	1.6
JUL										
11...	--	--	--	--	--	--	--	--	141	1.2
20...	1.3	1.3	5.9	.10	--	.31	--	--	--	--
AUG										
09...	--	--	--	--	--	--	--	--	82	.64
16...	.71	.73	3.2	.03	--	.09	--	--	--	--
SEP										
06...	--	--	--	--	--	--	--	--	54	.01
13...	.76	.79	3.5	.01	--	.03	--	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)
OCT												
13...	0930	110	80	30	1	1	0	0	0	230	1	0
NOV												
10...	1030	--	--	--	--	--	--	--	--	230	--	--
DEC												
08...	0900	--	--	--	--	--	--	--	--	200	--	--
JAN												
08...	0915	--	--	--	--	--	--	--	--	220	--	--
FEB												
02...	0915	--	--	--	--	--	--	--	--	230	--	--
MAR												
16...	0845	--	--	--	--	--	--	--	--	70	--	--
APR												
16...	0830	180	180	0	0	0	0	0	0	380	2	0
JUN												
11...	0830	--	--	--	--	--	--	--	--	500	--	--
JUL												
20...	0830	--	--	--	--	--	--	--	--	320	--	--
AUG												
16...	0815	--	--	--	--	--	--	--	--	340	--	--
SEP												
13...	0830	--	--	--	--	--	--	--	--	200	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOVERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOVERABLE (UG/L AS PB)
OCT 13...	3	0	0	0	6	1	5	200	180	20	6	0
NOV 10...	--	--	--	--	--	--	--	--	--	90	--	--
DEC 08...	--	--	--	--	--	--	--	--	--	90	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	20	--	--
FEB 02...	--	--	--	--	--	--	--	--	--	40	--	--
MAR 16...	--	--	--	--	--	--	--	--	--	100	--	--
APR 16...	5	10	10	0	13	8	5	280	240	40	96	89
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--	20	--	--
AUG 16...	--	--	--	--	--	--	--	--	--	50	--	--
SEP 13...	--	--	--	--	--	--	--	--	--	10	--	--

[illegible]

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 13...	1	4	0	4	0	0	1	.0	30	0	30
NOV 10...	--	--	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--	--	--	--	--
APR 16...	.2	6	3	3	1	0	1	.0	50	20	30
JUN 11...	--	--	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
JUL 11...	1225	2	24.5	3.2	12	18	39	41

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
JUL 11...	45	51	64	81	85	92	97	100

Reservoirs in Yellowstone River basin in Wyoming

- 06224500 BULL LAKE.--Lat 43°12'35", long 109°02'30", in E½NW¼ sec.30, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at dam on Bull Lake Creek, 2.8 mi (4.5 km) upstream from mouth of Bull Lake Creek, and 9.8 mi (15.8 km) south of Lenore. DRAINAGE AREA, 210 mi² (544 km²) of which 12 mi² (31.1 km²) is probably noncontributing. PERIOD OF RECORD, April 1938 to current year. Monthend contents only for some periods, published in WSP 1309. Published as Bull Lake Reservoir near Lenore 1938-50. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum).
- REMARKS, reservoir is formed by rockfill dam completed by Water and Power Resources Service July 22, 1938. Capacity, 152,500 acre-ft (188 hm³) below elevation 5,805.00 ft (1,769.364 m), top of spillway gates. Dead storage, 722 acre-ft (0.890 hm³). Figures given herein represent total contents. Water used for irrigation near Riverton. COOPERATION, records furnished by Water and Power Resources Service.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 154,200 acre-ft (190 hm³) Aug. 10, 1965, elevation, 5,805.70 ft (1,769.577 m); minimum daily (since appreciable storage was attained), 5,540 acre-ft (6.83 hm³) Mar. 15, 1950, elevation, 5,742.56 ft (1,750.332 m).
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 142,480 acre-ft (176 hm³) July 7, elevation, 5,801.80 ft (1,768.389 m); minimum daily, 74,300 acre-ft (91.6 hm³) Sept. 30, elevation, 5,777.15 ft (1,760.875 m).
- 06260300 ANCHOR RESERVOIR.--Lat 43°39'50", long 108°49'27", in sec.26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2.0 mi (3.2 km) downstream from Middle Fork, 3.0 mi (4.8 km) southeast of Anchor, and 32 mi (51 km) west of Thermopolis. DRAINAGE AREA, 131 mi² (339 km²). PERIOD OF RECORD, November 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum).
- REMARKS, reservoir is formed by concrete arch dam completed by Water and Power Resources Service in 1960. Capacity, 17,230 acre-ft (21.2 hm³), below elevation 6,441.00 ft (1,963.217 m), crest of spillway. Includes 68 acre-ft (0.0838 hm³) below elevation 6,343.75 ft (1,933.575 m), invert of river outlet. Figures given herein represent total contents. Water used for irrigation of lands in Owl Creek basin. COOPERATION, records furnished by Water and Power Resources Service.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 9,250 acre-ft (11.4 hm³) July 4, 1967, elevation, 6,418.52 ft (1,956.365 m); no storage on many days each year.
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 967 acre-ft (1.19 hm³) May 30, elevation, 6,370.19 ft (1,941.634 m); no storage on many days.
- 06258900 BOYSEN RESERVOIR.--Lat 43°25'00", long 108°10'37", in NW¼NW¼ sec.16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi (21 km) north of Shoshoni. DRAINAGE AREA, 7,700 mi² (19,943 km²). PERIOD OF RECORD, October 1951 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum of 1933).
- REMARKS, reservoir is formed by rockfill dam completed by Water and Power Resources Service in October 1951. Capacity, 802,000 acre-ft (989 hm³) below elevation 4,725.00 ft (1,440.180 m), top of spillway gate. Includes 59,880 acre-ft (73.8 hm³) dead storage below elevation 4,657.00 ft (1,419.454 m), invert of penstock pipe. Figures given herein represent total contents. Water used for irrigation, flood control, and power development. COOPERATION, records furnished by Water and Power Resources Service.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 922,400 acre-ft (1,140 hm³) July 6, 7, 1967, elevation, 4,730.83 ft (1,441.957 m); minimum daily (since normal use of water started), 251,800 acre-ft (310 hm³) Mar. 18, 19, 1956, elevation, 4,684.18 ft (1,427.738 m).
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 635,590 acre-ft (784 hm³) Sept. 6, elevation, 4,715.79 ft (1,437.373 m); minimum daily, 493,770 acre-ft (609 hm³) May 17, elevation, 4,706.48 ft (1,434.535 m).
- 06281500 BUFFALO BILL RESERVOIR.--Lat 44°30'05", long 109°11'00", in NE¼ sec.12, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, at dam on Shoshone River, 5.0 mi (8.0 km) upstream from Trail Creek, and 6.0 mi (9.7 km) southwest of Cody. DRAINAGE AREA, 1,498 mi² (3,880 km²). PERIOD OF RECORD, May to July 1909, January 1910 to current year. Monthend contents only prior to October 1938, published in WSP 1309. Prior to October 1944, published as Shoshone Reservoir near Cody. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum). Prior to July 8, 1959, nonrecording gage at same datum.
- REMARKS, reservoir is formed by masonry dam completed by Water and Power Resources Service in 1909. Capacity, 424,000 acre-ft (523 hm³) between elevations 5,140.00 ft (1,566.672 m), gate sill, and 5,360.00 ft (1,633.728 m), crest of spillway. Dead storage negligible. Figures given herein represent total contents. Water used for power development and irrigation of lands east of Cody. COOPERATION, records furnished by Water and Power Resources Service.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 507,000 acre-ft (625 hm³) June 15, 1918, elevation, 5,367.3 ft (1,635.95 m); minimum daily, 19,000 acre-ft (23.4 hm³) Jan. 23-25, 1941, elevation, 5,225.3 ft (1,592.67 m).
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 391,920 acre-ft (483 hm³) July 10, 11, elevation, 5,355.13 ft (1,632.244 m); minimum daily, 179,030 acre-ft (221 hm³) May 15, elevation, 5,312.70 ft (1,619.372 m).

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979			
Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,790.05	108,000	-
Oct. 31	5,790.00	107,900	-100
Nov. 30	5,789.65	106,900	-1,000
Dec. 31	5,789.60	106,800	-100
CAL YR 1978	-	-	+28,490
Jan. 31	5,789.75	107,200	+400
Feb. 28	5,789.75	107,200	0
Mar. 31	5,789.80	107,300	+100
Apr. 30	5,789.80	107,300	0
May 31	5,794.65	121,100	+13,800
June 30	5,800.20	137,600	+16,500
July 31	5,790.00	107,900	-29,700
Aug. 31	5,784.10	91,900	-16,000
Sept. 30	5,777.15	74,300	-17,600
WTR YR 1979	-	-	-33,700
06258900 BOYSEN RESERVOIR			
Sept. 30	4,721.82	741,500	-
Oct. 31	4,719.60	701,200	-40,300
Nov. 30	4,716.73	651,400	-49,800
Dec. 31	4,714.42	613,200	-38,200
CAL YR 1978	-	-	+75,700
Jan. 31	4,712.54	583,400	-29,800
Feb. 28	4,711.04	560,400	-23,000
Mar. 31	4,711.54	568,000	+7,600
Apr. 30	4,707.34	505,900	-62,100
May 31	4,712.65	585,100	+79,200
June 30	4,715.10	624,200	+39,100
July 31	4,714.73	618,200	-6,000
Aug. 31	4,715.71	634,300	+16,100
Sept. 30	4,715.32	627,800	-6,500
WTR YR 1979	-	-	-113,700
06260300 ANCHOR RESERVOIR			
Sept. 30	0	0	-
Oct. 31	0	0	0
Nov. 30	0	0	0
Dec. 31	0	0	0
CAL YR 1978	-	-	0
Jan. 31	0	0	0
Feb. 28	0	0	0
Mar. 31	0	0	0
Apr. 30	0	0	0
May 31	6,369.35	910	+910
June 30	0	0	-910
July 31	0	0	0
Aug. 31	0	0	0
Sept. 30	0	0	0
WTR YR 1979	-	-	0
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,348.15	348,400	-
Oct. 31	5,342.45	315,100	-33,300
Nov. 30	5,338.50	293,300	-21,800
Dec. 31	5,333.17	265,700	-27,600
CAL YR 1978	-	-	+69,780
Jan. 31	5,326.87	235,700	-30,000
Feb. 28	5,324.40	224,700	-11,000
Mar. 31	5,321.22	211,200	-13,500
Apr. 30	5,316.10	190,900	-20,300
May 31	5,329.62	248,400	+57,500
June 30	5,352.30	373,900	+125,500
July 31	5,349.00	353,500	-20,400
Aug. 31	5,339.80	300,400	-53,100
Sept. 30	5,328.43	242,800	-57,600
WTR YR 1979	-	-	-105,600

06364700 ANTELOPE CREEK NEAR TECKLA, WY

LOCATION.--Lat 43°29'08", long 105°13'39", in SW¼NE¼ sec.35, T.41 N., R.70 W., Converse County, Hydrologic Unit 10120101, on left bank 0.4 mi (0.6 km) downstream from Porcupine Creek, 9 mi (14 km) southeast of Teckla, and 18 mi (29 km) north of Bill.

DRAINAGE AREA.--959 mi² (2,484 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,450 ft (1,356 m), from topographic map.

REMARKS.--Records poor. Numerous small stockwater reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s (187 m³/s) May 18, 1978, gage height, 8.83 ft (2.691 m), from floodmark, from rating curve extended above 80 ft³/s (2.26 m³/s) on basis of slope-area measurement of peak flow and step-backwater method; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Nov. 10, 19, 1978, July 19-24, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,760 ft³/s (49.8 m³/s) Aug. 17, gage height, 6.54 ft (1.993 m), from rating curve extended above 80 ft³/s (2.27 m³/s) on basis of slope-area measurement at gage height 8.83 ft (2.691 m) and step-backwater method; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Nov. 10, 19, July 19-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.16	.48	.16	.32	1.0	22	8.7	2.7	7.0	.96	5.7
2	.14	.16	.48	.16	.32	1.1	21	9.5	2.4	6.4	.50	4.5
3	.14	.16	.32	.16	.32	.90	22	14	2.2	5.8	.16	3.2
4	.14	.16	.48	.16	.32	.80	20	15	1.8	24	.16	1.6
5	.14	.16	.48	.16	.32	1.0	19	14	1.5	224	.16	.17
6	.14	.16	.32	.16	.35	2.0	17	12	1.2	55	.16	.17
7	.14	.16	.32	.16	.40	5.0	18	11	.91	22	.16	.16
8	.14	.15	.32	.16	.45	8.6	19	10	1.1	12	.16	.16
9	.14	.12	.32	.16	.50	23	27	15	1.3	7.0	.82	.16
10	.14	.10	.48	.16	.55	15	22	14	1.1	4.5	20	.16
11	.14	.12	.48	.16	.60	12	25	14	1.1	2.3	6.5	.16
12	.16	.15	.48	.16	.65	15	27	13	.99	1.5	2.8	.17
13	.16	.16	.48	.16	.70	21	31	12	.78	1.0	1.1	.17
14	.16	.17	.32	.16	.60	20	31	10	.66	.50	1.0	.17
15	.16	.18	.32	.32	.50	21	31	9.2	.68	.40	.80	.17
16	.16	.18	.32	.32	.60	25	29	8.2	2.4	.30	.16	.16
17	.16	.17	.32	.32	.80	30	26	7.3	1.6	.20	104	.16
18	.16	.13	.32	.32	1.0	30	30	6.8	115	.11	20	.17
19	.16	.10	.32	.32	1.0	21	29	6.3	36	.10	10	.17
20	.16	.12	.32	.32	.90	22	35	5.7	7.0	.10	5.0	.17
21	.16	.14	.32	.32	.90	27	30	5.4	2.9	.10	.50	.17
22	.16	.17	.32	.32	.60	24	25	5.0	1.0	.10	.16	.17
23	.16	.18	.32	.32	.60	21	22	3.8	1.0	.10	.16	.16
24	.16	.19	.32	.32	.60	21	18	3.5	.80	.10	.16	.16
25	.16	.19	.32	.32	.80	20	16	3.5	.50	1.8	.16	.16
26	.16	.20	.32	.32	1.1	18	16	3.8	59	3.0	14	.16
27	.13	.21	.32	.32	1.3	23	14	3.6	43	.16	54	.17
28	.15	.23	.32	.32	1.1	23	11	2.5	20	2.0	35	.18
29	.16	.27	.16	.32	---	25	9.5	2.6	11	.16	17	.18
30	.16	.32	.16	.32	---	27	8.7	3.1	8.3	27	11	.18
31	.16	---	.16	.32	---	26	---	2.9	---	11	7.7	---
TOTAL	4.70	5.07	10.72	7.68	18.20	530.40	671.2	255.4	329.92	419.73	314.44	19.34
MEAN	.15	.17	.35	.25	.65	17.1	22.4	8.24	11.0	13.5	10.1	.64
MAX	.16	.32	.48	.32	1.3	30	35	15	115	224	104	5.7
MIN	.13	.10	.16	.16	.32	.80	8.7	2.5	.50	.10	.16	.16
AC-FT	9.3	10	21	15	36	1050	1330	507	654	833	624	38
CAL YR 1978 TOTAL	10476.64			MEAN 28.7	MAX 2560	MIN .10	AC-FT 20780					
WTR YR 1979 TOTAL	2586.80			MEAN 7.09	MAX 224	MIN .10	AC-FT 5130					

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT											
12...	1730	.14	2580	--	11.0	7.8	83	100	39	1100	730
DEC											
28...	1330	.33	2470	7.9	1.0	10.2	84	K1	K6	1000	610
JAN											
18...	1005	.28	2450	7.7	2.5	8.5	74	K1	K1	1100	710
FEB											
13...	1615	.86	2240	7.8	3.0	8.8	78	K16	K3300	980	700
MAR											
08...	1645	17	2270	8.1	2.0	10.8	92	K2	440	970	770
21...	1025	25	--	--	2.0	--	--	--	--	--	--
MAY											
04...	1830	16	1930	8.2	16.0	8.3	99	93	25	700	470
23...	1000	3.7	2200	8.1	12.0	8.3	98	84	20	590	340
JUN											
21...	1335	2.4	1990	8.0	27.5	6.1	90	400	140	760	520
28...	0945	20	--	--	19.0	--	--	--	--	--	--
JUL											
18...	1615	.11	1950	7.9	25.0	6.7	72	37	44	770	440
AUG											
15...	1615	.72	1850	8.0	26.5	6.2	89	K16	54	720	470
28...	1045	37	910	8.3	18.0	7.7	96	--	--	330	220

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 12...	270	100	220	2.9	--	18	--	--	360	1100	18
DEC 28...	240	98	220	3.0	--	16	470	0	390	1100	12
JAN 18...	280	98	230	3.0	--	16	480	0	390	1100	21
FEB 13...	260	81	200	2.8	--	12	340	0	280	1100	18
MAR 08...	230	97	220	3.1	--	11	250	0	210	1100	24
21...	--	--	--	--	--	--	--	--	--	--	--
MAY 04...	180	60	180	3.0	--	8.8	280	0	230	840	17
23...	210	15	220	4.0	230	12	310	0	250	980	25
JUN 21...	200	64	190	2.8	200	14	300	0	250	900	17
28...	--	--	--	--	--	--	--	--	--	--	--
JUL 18...	200	66	170	2.3	190	15	400	0	330	820	11
AUG 15...	180	65	160	2.6	170	14	300	0	250	810	14
28...	82	30	77	1.9	84	7.3	140	0	110	400	8.9

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
OCT											
12...	.7	23	2140	1970	2.68	.74	.01	.00	--	.43	.43
DEC											
28...	.5	19	2170	1940	2.64	1.73	.02	.01	--	.24	.25
JAN											
18...	.5	17	2120	2000	2.72	1.51	.03	.08	--	.19	.27
FEB											
13...	.3	13	1940	1850	2.52	4.30	.08	.04	--	.27	.31
MAR											
08...	.3	6.7	1970	1810	2.46	83.1	.09	.07	--	.82	.89
21...	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	.4	8.5	1530	1430	1.94	61.8	.02	.05	.06	.26	.31
23...	.5	11	1830	1630	2.22	16.3	.02	.05	.06	.30	.35
JUN											
21...	.5	13	1590	1550	2.11	10.0	.09	.03	.04	.23	.26
28...	--	--	--	--	--	--	--	--	--	--	--
JUL											
18...	.6	16	1620	1500	2.04	.45	.01	.02	.02	.34	.36
AUG											
15...	.5	7.0	1520	1400	1.90	2.72	.02	.03	.04	.50	.53
28...	.5	5.9	656	681	.93	68.0	.01	.03	.04	.48	.51

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT											
12...	.44	1.9	.00	--	--	.00	12	.5	750	48	.02
DEC											
28...	.27	1.2	.00	--	--	.00	5.9	.4	480	46	.04
JAN											
18...	.30	1.3	.01	--	--	.01	5.9	.7	76	30	.02
FEB											
13...	.39	1.7	.02	--	--	.01	8.2	.6	290	24	.06
MAR											
08...	.98	4.3	.02	--	--	.00	8.0	--	460	333	15
21...	--	--	--	--	--	--	--	--	--	155	10
MAY											
04...	.33	1.5	.00	.00	.00	.00	5.2	.2	100	51	2.2
23...	.37	1.6	.01	.03	.03	.02	6.6	.2	1500	14	.14
JUN											
21...	.35	1.5	.02	.06	.06	.00	13	--	77	29	.19
28...	--	--	--	--	--	--	--	--	--	379	20
JUL											
18...	.37	1.6	.01	--	.03	.04	9.5	.2	1900	24	.01
AUG											
15...	.55	2.4	.03	--	.09	.04	7.1	--	300	36	.07
28...	.52	2.3	.30	--	.92	.00	13	.8	20000	352	35

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BE)
OCT											
12...	1730	40	0	0	2	0	--	100	0	0	--
DEC											
28...	1330	--	--	--	--	--	--	--	--	--	--
JAN											
18...	1005	--	--	--	--	--	--	--	--	--	--
FEB											
13...	1615	--	--	--	--	--	--	--	--	--	--
MAR											
08...	1645	10	1	1	8	0	--	0	8	10	--
MAY											
04...	1830	--	--	--	--	--	--	--	--	--	--
23...	1000	--	--	--	--	--	--	--	--	--	--
JUN											
21...	1335	--	--	--	--	--	--	--	--	--	--
JUL											
18...	1615	--	--	--	--	--	--	--	--	--	--
AUG											
15...	1615	--	--	--	--	--	--	--	--	--	--
28...	1045	0	1	1	3	100	50	50	0	10	9

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BERYL- LIUM, FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, FM BOT- TOM MA- TERIAL (UG/G)
OCT											
12...	0	0	270	11	--	15	0	0	--	0	1
DEC											
28...	--	--	190	--	--	--	--	--	--	--	--
JAN											
18...	--	--	60	--	--	--	--	--	--	--	--
FEB											
13...	--	--	120	--	--	--	--	--	--	--	--
MAR											
08...	10	0	70	0	--	5	0	10	--	0	1
MAY											
04...	--	--	90	--	--	--	--	--	--	--	--
23...	--	--	540	--	--	--	--	--	--	--	--
JUN											
21...	--	--	170	--	--	--	--	--	--	--	--
JUL											
18...	--	--	240	--	--	--	--	--	--	--	--
AUG											
15...	--	--	170	--	--	--	--	--	--	--	--
28...	<1	0	70	1	0	10	0	0	0	10	2

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COBALT, FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
OCT											
12...	0	--	0	2	2	--	5	1	50	96	--
DEC											
28...	--	--	--	--	--	--	--	--	30	--	--
JAN											
18...	--	--	--	--	--	--	--	--	190	--	--
FEB											
13...	--	--	--	--	--	--	--	--	50	--	--
MAR											
08...	4	--	0	0	11	--	7	4	40	17	--
MAY											
04...	--	--	--	--	--	--	--	--	30	--	--
23...	--	--	--	--	--	--	--	--	10	--	--
JUN											
21...	--	--	--	--	--	--	--	--	0	--	--
JUL											
18...	--	--	--	--	--	--	--	--	10	--	--
AUG											
15...	--	--	--	--	--	--	--	--	10	--	--
28...	0	0	<3	5	6	2	4	1	1r	9	1

CHEYENNE RIVER BASIN

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT										
12...	85	6	50	--	60	320	--	260	540	.0
DEC										
28...	--	--	--	--	--	--	--	--	--	--
JAN										
18...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	14	0	40	--	30	570	--	140	55	.0
MAY										
04...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
21...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	--	--	--	--	--	--	--	--	--	--
28...	8	4	9	0	20	80	80	3	170	.3

DATE	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE RECOV. (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)
OCT										
12...	--	.0	.00	3	--	0	3	1	--	4
DEC										
28...	--	--	--	--	--	--	--	--	--	--
JAN										
18...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	.0	.00	0	--	0	1	12	--	1
MAY										
04...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
21...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	--	--	--	--	--	--	--	--	--	--
28...	.0	.3	.01	3	0	<10	0	5	2	3

DATE	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
OCT										
12...	4	0	--	0	0	.0	20	--	20	6
DEC										
28...	--	--	--	--	--	--	--	--	--	--
JAN										
18...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	0	1	--	1	0	.0	30	--	10	6
MAY										
04...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
21...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	--	--	--	--	--	--	--	--	--	--
28...	4	1	1	0	0	<1.0	10	6	4	8

CHEYENNE RIVER BASIN

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06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DTS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 08...	1645	<36	17	13	11	11	10	<24	12
AUG 28...	1045	<13	3.2	9.9	2.1	9.1	2.0	<8.8	2.2

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
OCT 12...	1730	2	11.0	.14	0	0	4
MAR 08...	1645	2	2.0	17	0	0	9
JUN 28...	0945	2	19.0	20	0	0	2
AUG 28...	1045	2	18.0	37	0	0	1

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
OCT 12...	27	58	68	76	85	92	100
MAR 08...	40	89	97	99	100	--	--
JUN 28...	60	86	93	96	98	100	--
AUG 28...	27	64	80	89	97	99	100

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 12,78 1730	DEC 28,78 1330	JAN 18,79 1005	FEB 13,79 1615	MAR 8,79 1645	MAY 4,79 1830				
TOTAL CELLS/ML	750	480	76	290	460	100				
DIVERSITY: DIVISION	0.9	0.7	0.0	0.3	1.5	0.0				
..CLASS	0.9	0.7	0.0	0.3	1.5	0.0				
..ORDER	1.2	1.3	1.0	0.7	1.7	0.0				
...FAMILY	1.9	1.7	1.0	2.3	2.6	0.0				
....GENUS	1.9	1.7	1.0	2.5	2.6	0.0				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....OOCYSTACEAE										
.....ANKISTRODESMUS	--	-	--	-	5	2	--	-	--	-
...VOLVOCALES										
....CHLAMYDOMONADACEAE										
.....CARTERIA	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	*	0	--	-	10	3	--	-	--	-
...ZYGNEATALES										
....DESMIDIACEAE										
.....COSMARUM	--	-	--	-	--	-	20	4	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCEACEAE										
.....CYCLOTELLA	11	1	--	-	40#	53	10	3	20	4
....MELOSIRA	--	-	--	-	--	-	10	3	--	-
...PENNALES										
....ACHNANTHACEAE										
.....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
.....CYMBELLA	--	-	--	-	5	2	--	-	--	-
...EPITHEMIA	--	-	--	-	--	-	40	9	--	-
...DIATOMACEAE										
.....DIATOMA	--	-	--	-	5	2	--	-	--	-
...FRAGILARIACEAE										
.....FRAGILARIA	--	-	--	-	15	5	20	4	--	-
...SYNEDRA	36	5	31	6	61#	21	--	-	--	-
...GOMPHONEMACEAE										
.....GOMPHONEMA	*	0	8	2	--	-	20	4	--	-
...NAVICULACEAE										
.....NAVICULA	110	14	31	6	35#	47	71#	24	120#	26
...NITZSCHIA	57	8	31	6	--	-	100#	34	20	4
...NITZSCHIA									100#	100
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
....CRYPTOMONADACEAE										
.....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
.....ANACYSTIS	14	2	--	-	--	-	40	9	--	-
....COCCOCHLORIS	*	0	300#	63	--	-	--	-	--	-
...HORMOGONALES										
....NOSTOCACEAE										
.....ANABAENA	43	6	77#	16	--	-	--	-	--	-
...OSCILLATORIACEAE										
.....OSCILLATORIA	470#	63	--	-	--	-	--	-	--	-
...SCHIZOTHRIX	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
.....EUGLENA	*	0	--	-	--	-	--	-	--	-
...EUTREPTIA	--	-	--	-	--	-	--	-	--	-
...TRACHELOMONAS	--	-	--	-	--	-	160#	35	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	MAY 23,79 1000	JUN 21,79 1335	JUL 18,79 1615	AUG 15,79 1615	AUG 28,79 1045					
TOTAL CELLS/ML	1500	77	1900	300	20000					
DIVERSITY: DIVISION	0.7	1.5	0.1	1.8	0.2					
..CLASS	0.7	1.5	0.1	1.8	0.2					
...ORDER	0.7	1.5	0.7	2.0	0.2					
...FAMILY	1.3	1.5	1.2	2.2	0.4					
....GENUS	1.3	1.5	1.2	2.2	0.4					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	13	4	*	0
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	39	3	--	-	--	-	--	-	--	-
...CHLAMYDOMONAS	--	-	--	-	37	2	52#	17	--	-
..ZYGNEATALES										
...DESMIDIACEAE										
....COSMARUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCEACEAE										
....CYCLOTELLA	--	-	--	-	240	12	--	-	*	0
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	26	9	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
...EPITHEMIA	--	-	--	-	--	-	--	-	--	-
..DIATOMACEAE										
...DIATOMA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
...SYNEDRA	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	--	-	1400#	71	--	-	*	0
...NITZSCHACEAE										
....NITZSCHIA	130	8	39#	50	290#	15	52#	17	330	2
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	13	1	26#	33	--	-	26	9	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	13#	17	--	-	130#	43	--	-
...COCCOCHLORIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	310#	20	--	-	--	-	--	-	390	2
...OSCILLATORIA										
....OSCILLATORIA	1000#	68	--	-	--	-	--	-	19000#	94
...SCHIZOTHRIX	--	-	--	-	--	-	--	-	220	1
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
...EUTREPTIA	--	-	--	-	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

CHEYENNE RIVER BASIN

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY

LOCATION.--Lat 43°13'21", long 105°40'00", in NE¼NW¼SE¼, sec.31, T.38 N., R.73 W., Converse County, Hydrologic Unit 10120102, 800 ft (244 m) downstream from Cheyenne River Draw and 21 mi (34 km) west of Bill.

DRAINAGE AREA.--128 mi² (332 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Concrete low-flow control since Sept. 15, 1977. Altitude of gage is 5,060 ft (1,542 m), from topographic map. Prior to Sept. 15, 1977, at site 700 ft (213 m) upstream at datum 4.1 ft (1.25 m) higher.

REMARKS.--Records fair except those during the winter period, those for period of no gage-height record, Nov. 20 to Feb. 25, and those below 10 ft³/s (0.28 m³/s), which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) May 18, 1978, gage height, 4.01 ft (1.222 m); no flow for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81 ft³/s (2.29 m³/s) Aug. 17, gage height, 2.05 ft (0.625 m); maximum recorded gage height, 2.91 ft (0.887 m) Mar. 1 (backwater from ice), but may have been exceeded during winter period of missing record; no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.05	.34	.15	.00	.26	.54	2.0	.19	.00	.03	.03
2	.02	.04	.31	.10	.00	.35	.47	1.6	.13	.00	.03	.03
3	.02	.04	.29	.11	.00	.47	.42	.84	.08	.00	.01	.03
4	.02	.04	.33	.08	.00	.51	.46	.41	.05	2.0	.00	.02
5	.02	.03	.29	.06	.00	.55	.49	.28	.04	.26	.00	.02
6	.02	.03	.25	.03	.02	.77	.41	.78	.04	.05	.00	.02
7	.02	.04	.20	.00	.05	2.2	.45	2.0	.04	.02	.00	.03
8	.02	.04	.17	.00	.03	4.5	.67	2.9	.05	.00	.00	.02
9	.03	.04	.21	.00	.06	1.2	.57	1.8	.19	.00	.00	.02
10	.03	.04	.25	.00	.10	.74	.57	.93	.15	.00	.00	.02
11	.03	.05	.27	.00	.17	.70	1.0	2.1	.08	.00	.00	.02
12	.03	.13	.28	.00	.24	.70	.86	1.6	.04	.00	.00	.03
13	.03	.21	.27	.00	.44	.68	.97	1.1	.03	.00	.00	.03
14	.03	.28	.29	.00	.60	.68	1.9	.78	.01	.00	.02	.05
15	.03	.37	.31	.00	.56	.67	1.4	.53	.01	.00	.02	.05
16	.04	.41	.28	.00	.30	.72	.97	.31	.03	.00	.02	.03
17	.04	.39	.34	.00	.21	.76	.72	.17	.04	.00	12	.03
18	.03	.37	.41	.00	.23	.72	.62	.15	.04	.00	14	.02
19	.03	.34	.43	.00	.26	.64	.57	.15	.05	.00	3.6	.02
20	.03	.31	.33	.00	.28	.58	.49	.13	.04	.00	1.6	.02
21	.03	.34	.35	.00	.23	.55	.34	.11	.02	.00	1.9	.02
22	.06	.40	.37	.00	.17	.50	.28	.11	.02	.00	2.4	.02
23	.09	.42	.39	.00	.05	.49	.28	.09	.05	.00	4.6	.02
24	.06	.44	.41	.00	.00	.54	.26	.08	.04	.00	2.1	.02
25	.04	.41	.39	.00	.00	.60	.23	.08	.02	.00	.28	.02
26	.04	.39	.34	.00	.00	.56	.21	.19	.01	.00	.12	.02
27	.04	.37	.36	.00	.02	.63	.26	.19	.01	.00	.12	.02
28	.04	.38	.32	.00	.20	.68	.23	.11	.02	.00	.08	.02
29	.04	.35	.27	.00	---	.65	.28	.19	.01	.00	.06	.02
30	.04	.33	.23	.00	---	.63	1.3	.31	.00	5.3	.05	.02
31	.04	---	.18	.00	---	.60	---	.21	---	1.4	.04	---
TOTAL	1.06	7.08	9.46	.53	4.22	24.83	18.22	22.23	1.53	9.03	43.08	.74
MEAN	.034	.24	.31	.017	.15	.80	.61	.72	.051	.29	1.39	.025
MAX	.09	.44	.43	.15	.60	4.5	1.9	2.9	.19	5.3	14	.05
MIN	.02	.03	.17	.00	.00	.26	.21	.08	.00	.00	.00	.02
AC-FT	2.1	14	19	1.1	8.4	49	36	44	3.0	18	85	1.5
CAL YR 1978	TOTAL	1279.45	MEAN	3.51	MAX	631	MIN	.00	AC-FT	2540		
WTR YR 1979	TOTAL	142.01	MEAN	.39	MAX	14	MIN	.00	AC-FT	282		

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to current year.

REMARKS.--No flow observed July 17, Aug. 14, Sept. 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT 17...	1545	.04	1600	8.1	9.0	3	10.6	1.2	770	470
NOV 14...	1430	.31	2600	7.7	.0	9	11.0	2.2	1700	1300
MAR 14...	1000	.68	1550	7.7	1.0	10	11.2	3.1	800	570
APR 13...	1300	1.1	1880	7.9	3.5	10	10.2	2.0	1000	740
MAY 08...	1400	3.1	2400	7.7	6.5	15	9.0	1.6	1300	960
JUN 08...	1330	.05	2400	7.6	10.5	4	9.9	1.4	1300	1000

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 17...	160	90	68	1.1	--	14	370	0	300	590
NOV 14...	370	190	110	1.2	--	16	450	0	370	1500
MAR 14...	190	80	44	.7	--	17	290	0	240	610
APR 13...	260	96	58	.8	71	13	370	0	300	750
MAY 08...	280	150	81	1.0	--	18	430	0	350	1100
JUN 08...	300	140	88	1.1	100	13	380	0	310	1200

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	15	.6	9.6	1270	1130	1.54	.12	<1	.02
NOV 14...	32	.5	13	--	2450	3.33	2.05	--	.05
MAR 14...	17	.3	10	--	1110	1.51	2.04	--	.03
APR 13...	15	.5	11	--	1390	1.89	4.13	--	.12
MAY 08...	20	.5	7.7	--	1870	2.54	15.7	--	.03
JUN 08...	18	.5	5.8	--	1950	2.65	.26	--	.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	
DATE	TIME									
OCT 17...	1545	21	<.4	18	.4	16	.5	.25	9.1	
		TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	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	BED MAT. FALL DIAM. % FINER THAN .500 MM
DATE	TIME									
NOV 02...	1400	--	.05	27	.00	--	--	--	--	--
APR 05...	0930	1.5	.56	10	.02	--	--	--	--	--
05...	1200	--	--	--	--	3	90	96	99	100
MAY 14...	1245	18.0	.76	26	.05	--	--	--	--	--
22...	1345	7.5	.11	22	.01	--	--	--	--	--
AUG 02...	1300	24.5	.03	32	.00	--	--	--	--	--
SEP 14...	1200	13.0	.05	28	.00	--	--	--	--	--

CHEYENNE RIVER BASIN

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY

LOCATION.--Lat 43°25'45", long 105°02'43", in SE¼SW¼NE¼ sec.20, T.40 N., R.68 W., Converse County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on right bank at the Fiddleback Ranch, 1.2 mi (1.9 km) downstream from confluence of Antelope Creek and Dry Fork Cheyenne River, and 3.0 mi (4.8 km) west of Dull Center.

DRAINAGE AREA.--1,527 mi² (3,955 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,310 ft (1,314 m), from topographic map. Prior to June 16, 1978, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records poor. No gage-height records Oct. 12-14, Oct. 30 to Nov. 6, Dec. 6-12, Dec. 29 to Jan. 15, Jan. 28 to Feb. 1, Mar. 2-11.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) May 18, 1978, gage height, 14.0 ft (4.27 m), present datum, from rating curve extended above 1,700 ft³/s (48.1 m³/s) on basis of slope-area measurement of peak flow; no flow for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) June 26, gage height, 4.89 ft (1.490 m), from floodmark; no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.45	.26	.10	.14	1.3	24	10	1.9	5.1	19	2.5
2	.17	.40	.22	.11	.14	.87	23	9.9	1.7	2.3	5.4	1.7
3	.12	.35	.25	.12	.14	.62	22	12	1.4	1.1	2.1	.66
4	.12	.31	.27	.11	.15	.70	23	14	1.2	.58	1.3	.31
5	.12	.27	.24	.10	.15	1.0	20	14	1.6	585	.75	.26
6	.14	.26	.21	.11	.16	2.3	20	12	1.6	312	.85	.26
7	.21	.26	.19	.12	.17	11	19	8.9	1.6	86	12	.26
8	.21	.26	.21	.13	.16	26	20	8.4	1.6	34	3.8	.26
9	.21	.21	.25	.12	.18	30	22	14	1.2	18	251	.26
10	.21	.17	.26	.11	.19	22	23	15	.75	9.4	84	.21
11	.31	.14	.27	.10	.19	21	26	15	.50	5.4	170	.17
12	.21	.14	.28	.05	.19	30	32	15	.14	3.2	24	.26
13	.18	.17	.29	.00	.21	34	32	12	.12	1.6	6.6	.21
14	.15	.14	.29	.00	.28	32	30	12	.12	.85	3.2	.26
15	.14	.17	.28	.00	.24	32	28	10	.10	.50	1.3	.26
16	.14	.14	.26	.00	.20	30	28	8.9	25	.37	.85	.26
17	.17	.17	.25	.05	.16	30	26	7.9	5.0	.37	153	.26
18	.17	.18	.27	.10	.21	28	26	7.9	.50	.37	135	.31
19	.17	.19	.26	.12	.30	26	28	6.6	134	.31	101	.26
20	.17	.20	.25	.14	.36	23	30	5.8	16	.26	40	.21
21	.26	.22	.24	.14	.53	21	32	5.4	6.6	.26	17	.21
22	.31	.24	.23	.13	.44	22	28	4.1	2.7	.26	9.4	.21
23	.26	.25	.23	.12	.32	19	24	4.1	3.8	.26	3.0	.26
24	.31	.26	.24	.13	.36	18	19	3.8	1.3	.21	1.9	.21
25	.31	.26	.23	.14	.50	17	15	3.5	.37	.87	2.3	.21
26	.37	.27	.20	.14	.76	16	14	4.1	101	3.2	5.4	.21
27	.50	.28	.18	.14	1.2	19	14	3.5	385	1.1	89	.21
28	.50	.29	.16	.13	1.6	20	12	2.7	141	93	41	.21
29	.50	.30	.13	.13	---	20	11	2.3	28	29	15	.21
30	.50	.29	.11	.13	---	23	11	1.9	13	40	6.6	.21
31	.49	---	.00	.13	---	26	---	2.3	---	156	3.2	---
TOTAL	7.77	7.24	7.01	3.15	9.63	602.79	682	257.0	878.80	1390.87	1208.95	11.29
MEAN	.25	.24	.23	.10	.34	19.4	22.7	8.29	29.3	44.9	39.0	.38
MAX	.50	.45	.29	.14	1.6	34	32	15	385	585	251	2.5
MIN	.12	.14	.00	.00	.14	.62	11	1.9	.10	.21	.75	.17
AC-FT	15	14	14	6.2	19	1200	1350	510	1740	2760	2400	22
CAL YR 1978	TOTAL	27809.11	MEAN 76.2	MAX 9610	MIN .00	AC-FT 55160						
WTR YR 1979	TOTAL	5066.50	MEAN 13.9	MAX 585	MIN .00	AC-FT 10050						

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT										
11...	1030	.26	3600	8.1	13.0	1	--	10.2	2.1	1500
15...	1515	.17	3700	--	14.5	--	--	--	--	--
NOV										
08...	1045	.26	3500	8.0	6.0	1	--	11.0	2.1	1500
MAR										
13...	1400	43	1900	8.1	2.5	360	--	10.8	2.9	530
APR										
14...	1020	30	2050	8.3	8.0	140	--	10.8	3.4	760
MAY										
09...	1200	14	1900	8.1	5.0	--	46	11.6	1.7	710
JUN										
09...	1030	1.4	2700	7.6	16.5	--	2.8	8.6	1.7	990
JUL										
18...	1030	.37	2600	8.0	25.5	--	2.0	7.5	4.0	1000
AUG										
14...	1230	3.0	1280	8.1	16.0	--	140	8.3	2.3	470
SEP										
11...	1210	.17	2500	8.2	21.0	--	1.8	8.4	2.5	990

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
OCT									
11...	1100	350	140	390	4.5	--	20	380	0
15...	--	--	--	--	--	--	--	--	--
NOV									
08...	1100	340	150	400	4.5	--	16	400	0
MAR									
13...	370	190	13	170	3.2	--	10	190	0
APR									
14...	520	180	75	180	2.8	190	8.7	290	0
MAY									
09...	520	160	75	170	2.8	--	9.6	230	0
JUN									
09...	760	230	100	270	3.7	290	15	280	0
JUL									
18...	750	240	100	280	3.8	300	15	320	0
AUG									
14...	330	120	42	120	2.4	130	10	180	0
SEP									
11...	730	240	95	240	3.3	260	15	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLD- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 11...	310	1900	38	.6	16	3040	4.13	2.13	.04
15...	--	--	--	--	--	--	--	--	--
NOV 08...	330	1900	36	.4	13	3050	4.15	2.14	.01
MAR 13...	160	840	17	.3	7.6	1340	1.82	156	.17
APR 14...	240	820	20	.4	9.7	1440	1.96	117	.05
MAY 09...	190	820	17	.4	8.6	1370	1.86	51.8	.05
JUN 09...	230	1200	25	.4	11	1990	2.71	7.52	.02
JUL 18...	260	1300	23	.5	14	2130	2.90	2.13	.02
AUG 14...	150	570	14	.4	12	977	1.33	7.91	.05
SEP 11...	260	1400	21	.5	15	2180	2.96	1.00	.04

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 11...	.05	--	.94	.99	1.0	4.6	.01	--	--
15...	--	--	--	--	--	--	--	--	--
NOV 08...	.03	--	.66	.69	.70	3.1	.01	--	--
MAR 13...	.08	--	.40	.48	.65	2.9	.02	--	--
APR 14...	.08	.10	.68	.76	.81	3.6	.07	.21	.21
MAY 09...	.07	.08	.40	.47	.52	2.3	.03	.09	.09
JUN 09...	.05	.06	.40	.45	.47	2.1	.10	.31	.31
JUL 18...	.17	.21	.76	.93	.95	4.2	.04	--	.12
AUG 14...	.07	.08	1.2	1.3	1.4	6.0	.01	--	.03
SEP 11...	.12	.15	.39	.51	.55	2.4	.01	--	.03

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCT 11...	1030	210	20	0	0	0	0	110	1	2	0	0
NOV 08...	1045	--	--	--	--	--	--	120	--	--	--	--
MAR 13...	1400	5600	--	1	--	0	--	60	5	--	20	--
APR 14...	1020	1700	--	1	--	0	--	80	2	--	10	--
MAY 09...	1200	--	--	--	--	--	--	80	--	--	--	--
JUN 09...	1030	--	--	--	--	--	--	110	--	--	--	--
JUL 18...	1030	120	--	1	--	0	--	110	3	--	0	--
AUG 14...	1230	--	--	--	--	--	--	130	--	--	--	--
SEP 11...	1210	--	--	--	--	--	--	120	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPERATURE (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
NOV 07...	1410	7.0	.26	28	.02	--	--	--	--	--	--
MAY 07...	1220	13.5	10	137	3.7	--	--	--	--	--	--
JUN 11...	1200	25.0	.50	32	.04	--	--	--	--	--	--
28...	2105	20.5	71	2940	564	83	93	94	97	99	100
29...	0615	16.0	36	1480	144	93	97	97	99	100	--
JUL 10...	1115	25.0	10	118	3.2	--	--	--	--	--	--
AUG 08...	1315	26.5	3.0	1620	13	--	--	--	--	--	--
SEP 05...	1330	28.5	.26	28	.02	--	--	--	--	--	--

[illegible]

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°39'20", long 104°54'20", in SW¼SE¼ sec.33, T.43 N., R.67 W., Weston County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on left bank 1.2 mi (1.9 km) downstream from county bridge, 2.7 mi (4.3 km) upstream from mouth, 12 mi (19 km) northwest of Hampshire, and 38 mi (61 km) southwest of Newcastle.

DRAINAGE AREA.--234 mi² (606 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,400 ft (1,341 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Numerous small stockwater reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) May 18, 1978, gage height, 9.02 ft (2.749 m), from rating curve extended above 180 ft³/s (5.10 m³/s) on basis of slope-area measurements at gage heights 7.67 ft (2.338 m) and 9.02 ft (2.749 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 766 ft³/s (21.7 m³/s) Aug. 7, gage height, 6.43 ft (1.960 m), from rating curve as explained above; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.10	.01	.01	.30	.20	.03	.00	2.7	12	.14
2	.00	.04	.09	.02	.01	.40	.20	.04	.00	1.9	3.4	.07
3	.00	.11	.08	.03	.01	.50	.20	.11	.00	1.4	1.6	.03
4	.00	.11	.07	.03	.02	.80	.17	.11	.00	.86	.62	.02
5	.00	.11	.06	.03	.04	1.4	.09	.07	.00	59	.22	.01
6	.00	.09	.05	.04	.05	2.2	.09	.05	.00	25	.05	.00
7	.00	.07	.04	.04	.06	2.8	.05	.04	.00	8.4	71	.00
8	.00	.07	.03	.04	.07	3.5	.05	.04	.00	4.1	63	.00
9	.00	.11	.04	.04	.07	4.2	.04	.11	.01	2.4	1.4	.00
10	.00	.20	.05	.04	.08	3.9	.04	.17	.01	1.4	.40	.00
11	.00	.17	.07	.05	.09	3.8	.05	.11	.01	.63	.11	.00
12	.00	.14	.09	.05	.09	3.3	.09	.11	.01	.25	.04	.00
13	.00	.12	.11	.05	.09	2.7	.07	.09	.00	.14	.02	.00
14	.00	.10	.13	.05	.09	4.2	.09	.05	.00	.06	.02	.00
15	.00	.09	.16	.06	.07	4.5	.05	.04	.00	.03	.02	.00
16	.00	.08	.19	.06	.05	4.5	.04	.04	29	.02	.02	.00
17	.00	.06	.21	.06	.04	4.5	.04	.02	24	.02	.02	.00
18	.01	.05	.23	.06	.03	3.9	.04	.02	4.8	.01	.02	.00
19	.01	.04	.22	.05	.02	4.2	.03	.02	2.0	.00	4.3	.00
20	.02	.03	.21	.04	.02	2.1	.04	.00	.79	.00	3.3	.00
21	.02	.04	.20	.03	.02	1.8	.04	.00	.50	.00	2.7	.00
22	.04	.06	.17	.03	.02	1.2	.03	.00	.20	.00	1.7	.00
23	.04	.10	.15	.03	.02	.86	.03	.00	.66	.00	.99	.00
24	.05	.10	.14	.02	.02	.72	.03	.00	1.3	.00	.80	.00
25	.05	.06	.12	.02	.01	.50	.03	.00	.86	.00	.86	.00
26	.04	.06	.09	.02	.04	.25	.03	.00	7.7	.00	6.0	.00
27	.04	.08	.07	.02	.08	.34	.03	.00	54	.05	3.0	.00
28	.04	.11	.05	.01	.20	.34	.03	.00	54	.02	2.5	.00
29	.04	.14	.03	.01	---	.20	.03	.00	12	.00	1.6	.00
30	.04	.12	.01	.01	---	.20	.03	.00	5.1	.00	.86	.00
31	.04	---	.00	.01	---	.29	---	.00	---	47	.43	---
TOTAL	.48	2.70	3.26	1.06	1.42	64.40	1.98	1.27	196.95	155.39	183.00	.27
MEAN	.015	.090	.11	.034	.051	2.08	.066	.041	6.57	5.01	5.90	.009
MAX	.05	.20	.23	.06	.20	4.5	.20	.17	54	59	71	.14
MIN	.00	.03	.00	.01	.01	.20	.03	.00	.00	.00	.02	.00
AC-FT	1.0	5.4	6.5	2.1	2.8	128	3.9	2.5	391	308	363	.5
CAL YR 1978 TOTAL	4298.18			MEAN 11.8	MAX 1570	MIN .00	AC-FT 8530					
WTR YR 1979 TOTAL	612.18			MEAN 1.68	MAX 71	MIN .00	AC-FT 1210					

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
DEC 20...	0930	.21	4325	8.3	.0	10.6	86	K13	K11	1000	450	180
FEB 14...	1145	.09	2840	7.7	.0	9.8	79	66	6800	570	350	100
MAR 06...	1200	2.2	1300	7.5	.0	9.6	77	54	2100	290	100	61
14...	1055	4.1	925	8.1	.0	11.8	95	58	170	240	110	52
MAY 04...	1415	.13	3670	8.2	14.5	9.0	97	60	82	610	280	130
23...	1530	.00	3450	8.1	24.0	--	--	K13	64	830	440	150
JUN 20...	1420	.75	825	8.0	19.5	8.2	103	400	230	220	110	47
JUL 18...	1100	.00	1370	8.2	24.0	8.1	112	36	1600	410	230	91
AUG 15...	1300	.02	7500	8.2	20.0	9.4	119	K49	80	180	67	38
SEP 11...	1600	.00	1160	8.0	20.0	--	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

[illegible]

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 20...	3680	3660	4.98	2.08	.01	.01	--	.47	.48	.49	2.2	.02
FEB 14...	2210	2150	2.92	.52	.00	1.4	--	2.7	4.1	4.1	18	.31
MAR 06...	914	887	1.21	5.27	.04	.06	--	.94	1.0	1.0	4.6	.12
MAR 14...	606	606	.82	6.71	.05	.13	--	.55	.68	.73	3.2	.08
MAY 04...	2140	2020	2.75	.71	.02	.05	.06	.50	.55	.57	2.5	.02
MAY 23...	2750	2590	3.52	.00	.01	.08	.10	.39	.47	.48	2.1	.01
JUN 20...	552	527	.72	1.07	.31	.05	.06	1.3	1.3	1.6	7.1	.10
JUL 18...	926	904	1.23	.00	.01	.03	.04	.66	.69	.70	3.1	.02
AUG 15...	519	496	.67	.03	.13	.06	.07	.92	.98	1.1	4.9	.11
SEP 11...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
DEC 20...	--	--	.03	12	.8	490	--	--	--	--	--
FEB 14...	--	--	.32	30	--	110	--	--	--	--	--
MAR 06...	--	--	.04	15	1.5	650	--	--	--	--	--
MAR 14...	--	--	.02	8.7	1.5	400	--	--	--	--	--
MAY 04...	.06	.06	.00	8.7	1.0	5000	--	--	--	--	--
MAY 23...	.03	.03	.01	18	--	2600	1.97	2.28	3100	.100	.000
JUN 20...	--	.31	.01	16	--	1000	--	--	--	--	--
JUL 18...	--	.06	.05	13	1.4	3500	1.65	1.89	1200	.200	.000
AUG 15...	--	.34	.05	8.6	.6	7700	.310	.550	24000	.010	.000
SEP 11...	--	--	--	--	--	--	1.73	3.07	788	1.70	.270

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	
MAR 14...	1055	<11	3.7	7.8	3.6	7.2	3.5	<7.5	2.5	
DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM
OCT 12...	0915	8.0	<.01	176	.00	--	--	--	--	--
DEC 20...	0930	.0	.21	71	.04	--	--	--	--	--
FEB 14...	1145	.0	.09	23	.01	--	--	--	--	--
MAR 06...	1200	.0	2.2	80	.48	--	--	--	--	--
14...	1055	.0	4.1	86	.95	--	--	--	6	8
21...	1340	1.0	1.6	75	.32	--	--	--	--	--
MAY 04...	1415	14.5	.13	87	.03	--	--	--	--	--
23...	1530	24.0	.08	29	.01	--	--	--	--	--
JUN 16...	2015	--	E97	2830	742	--	--	--	--	--
20...	1420	19.5	.75	268	.54	--	--	--	--	--
28...	1220	20.0	68	3790	696	450 90	99	100	9	11
JUL 05...	0700	--	E97	1860	487	244 --	--	--	--	--
18...	1100	24.0	.10	34	.01	--	--	--	--	--
AUG 15...	1300	20.0	.02	307	.02	--	--	--	--	--
E-Estimate.										

E-Estimate.

	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN
DATE	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM
OCT									
12...	--	--	--	--	--	--	--	--	--
DEC									
20...	--	--	--	--	--	--	--	--	--
FEB									
14...	--	--	--	--	--	--	--	--	--
MAR									
06...	--	--	--	--	--	--	--	--	--
14...	11	16	35	53	75	90	98	100	--
21...	--	--	--	--	--	--	--	--	--
MAY									
04...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
JUN									
16...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
28...	15	19	26	37	56	78	83	97	100
JUL									
05...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
AUG									
15...	--	--	--	--	--	--	--	--	--

CHEYENNE RIVER BASIN
06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PHYTOPLANKTON ANALYSES

DATE TIME	DEC 20,78 0930	FEB 14,79 1145	MAR 6,79 1200	MAR 14,79 1055	MAY 4,79 1415					
TOTAL CELLS/ML	490	110	650	400	5000					
DIVERSITY: DIVISION	1.8	1.5	2.0	2.0	1.0					
..CLASS	1.8	1.5	2.0	2.0	1.0					
..ORDER	1.9	2.2	2.1	2.1	1.0					
...FAMILY	2.0	2.8	2.1	2.1	1.1					
....GENUS	2.1	3.0	2.1	2.3	1.9					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....OOCYSTACEAE										
....ANKISTRUDESUS	54	11	5	5	200#	31	100#	25	930#	19
....DICHOTOMOCOCCUS	--	-	--	-	--	-	--	-	200	4
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	910#	18
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	170	3
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMACEAE									63	1
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-
...VOLVOCALES									63	1
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	23	5	15	14	--	-	--	-	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCAEAE										
....CYCLOTELLA	--	-	20#	18	20	3	40	10	--	-
....MELOSIRA	--	-	5	5	--	-	--	-	--	-
...PENNALES										
....CYMBELLACEAE										
....CYMBELLA	--	-	--	-	20	3	--	-	--	-
....NAVICULACEAE										
....NAVICULA	23	5	20#	18	--	-	20	5	--	-
....NITZSCHIAEAE										
....NITZSCHIA	15	3	15	14	40	6	--	-	--	-
...SURIRELLACEAE										
....SURIRELLA	--	-	10	9	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
....CRYPTOCHRYSIDACEAE										
....CHROOMONAS	8	2	--	-	--	-	--	-	--	-
....CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	5	5	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
....ANACYSTIS	--	-	15	14	--	-	--	-	2600#	53
....HORMOGONALES										
....NOSTOCACEAE										
....ANABAENA	77#	16	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIAEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
....SPIRULINA	--	-	--	-	20	3	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	20	5	--	-
....PHACUS	8	2	--	-	--	-	--	-	--	-
....TRACHELOMONAS	270#	56	--	-	260#	41	100#	25	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...GYMNODINIALES										
....GYMNODINIACEAE										
....GYMNODINIUM	8	2	--	-	81	13	120#	30	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE TIME	MAY 23,79 1530	JUN 20,79 1420	JUL 18,79 1100	AUG 15,79 1300
TOTAL CELLS/ML	2600	1000	3500	7700
DIVERSITY: DIVISION	0.8	1.4	1.2	1.1
..CLASS	0.8	1.4	1.2	1.1
...ORDER	0.8	1.8	1.8	1.1
....FAMILY	1.0	1.8	2.1	1.1
.....GENUS	1.2	2.1	2.5	1.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....DOCYSTACEAE								
....ANKISTRODESMUS	2100#	79	100	10	250	7	--	-
....DICHOTOMOCUCCUS	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	160	5	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....DOCYSTIS	--	-	--	-	73	2	--	-
....SELENASTRUM	24	1	--	-	150	4	--	-
....TREUBARIA	47	2	--	-	--	-	--	-
....SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	73	2	--	-
....SCENEDESMUS	94	4	--	-	220	6	--	-
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	--	-	--	-	18	1	230	3
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCAEAE								
....CYCLOTELLA	--	-	210#	20	18	1	--	-
....MELOSIRA	--	-	--	-	--	-	--	-
...PENNALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	77	1
...NITZSCHIAEAE								
....NITZSCHIA	47	2	210#	20	--	-	--	-
...SURIPELLACEAE								
....SURIPELLA	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	24	1	--	-	160	5	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
....ANACYSTIS	240	9	--	-	1700#	48	--	-
...HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	2300#	30
...OSCILLATORIAEAE								
....OSCILLATORIA	--	-	--	-	640#	18	--	-
....SPIRULINA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENAEAE								
....EUGLENA	--	-	410#	40	--	-	1400#	18
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	71	3	100	10	55	2	3700#	48
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...GYMNODINIALES								
....GYMNODINIAEAE								
.....GYMNODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°34'51", long 104°43'04", in NW¼NW¼ sec.31, T.42 N., R.65 W., Weston County, Hydrologic Unit 10120103, on right bank 20 ft (6 m) downstream from bridge on county road, 1.3 mi (2.1 km) west of Hampshire, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--535 mi² (1,386 km²), approximately.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from map prepared by Army Map Service, Corps of Engineers.

REMARKS.--Records poor. There are many small stock ponds above station. No diversion above station.

AVERAGE DISCHARGE.--7 years, 10.0 ft³/s (0.283 m³/s), 7,240 acre-ft/yr (8.93 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,050 ft³/s (143 m³/s) May 18, 1978, gage height, 14.13 ft (4.307 m), from floodmark; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 18	0230	*890 25.2	11.40 3.475	July 5	2100	254 7.19	6.63 2.021
June 27	2100	633 17.9	10.19 3.106	Aug. 8	1330	700 19.8	10.52 3.206

No flow for many days.

CORRECTION.--The maximum gage height under the EXTREMES FOR PERIOD OF RECORD paragraph in the 1978 report should be 14.13 ft. The previously published figure of 14.49 ft is incorrect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	7.4	.06	.00	11	30	1.4
2	.00	.00	.00	.00	.00	.00	5.3	.20	.00	7.1	7.8	.70
3	.00	.00	.00	.00	.00	.00	4.0	.23	.00	6.5	2.5	.35
4	.00	.00	.00	.00	.00	.00	3.2	.08	.00	4.8	.35	.10
5	.00	.00	.00	.00	.00	.00	2.1	.00	.00	59	.10	.00
6	.00	.00	.00	.00	.00	.00	1.5	.00	.00	71	.00	.00
7	.00	.00	.00	.00	.00	2.0	1.2	.00	.00	26	1.8	.00
8	.00	.00	.00	.00	.00	7.0	.90	.25	.00	12	379	.00
9	.00	.00	.00	.00	.00	24	.74	.56	.00	6.5	23	.00
10	.00	.00	.00	.00	.00	27	6.0	.25	.00	3.5	7.1	.00
11	.00	.00	.00	.00	.00	17	4.6	.03	.00	1.4	3.0	.00
12	.00	.00	.00	.00	.00	13	5.7	.00	.00	.50	.80	.00
13	.00	.00	.00	.00	.00	30	6.4	.00	.00	.25	.20	.00
14	.00	.00	.00	.00	.00	36	5.7	.00	.00	.10	.04	.00
15	.00	.00	.00	.00	.00	38	4.6	.00	.10	.00	.00	.00
16	.00	.00	.00	.00	.00	50	8.2	.00	.50	.00	.00	.00
17	.00	.00	.00	.00	.00	53	7.7	.00	644	.00	1.7	.00
18	.00	.00	.00	.00	.00	47	5.1	.00	296	.00	2.1	.00
19	.00	.00	.00	.00	.00	31	3.8	.00	31	.00	12	.00
20	.00	.00	.00	.00	.00	19	3.6	.00	30	.00	11	.00
21	.00	.00	.00	.00	.00	10	2.9	.00	16	.00	7.4	.00
22	.00	.00	.00	.00	.00	7.4	1.6	.00	9.5	.00	5.5	.00
23	.00	.00	.00	.00	.00	5.5	1.1	.00	6.1	.00	3.7	.00
24	.00	.00	.00	.00	.00	4.0	.82	.00	3.5	.20	3.7	.00
25	.00	.00	.00	.00	.00	3.4	.74	.00	2.7	.30	6.5	.00
26	.00	.00	.00	.00	.00	3.2	.55	.00	2.3	.10	22	.00
27	.00	.00	.00	.00	.00	8.5	.43	.00	279	.00	14	.00
28	.00	.00	.00	.00	.00	4.4	.32	.00	187	6.4	9.1	.00
29	.00	.00	.00	.00	---	4.8	.24	.00	56	5.8	7.1	.00
30	.00	.00	.00	.00	---	12	.16	.00	18	1.5	4.8	.00
31	.00	---	.00	.00	---	8.5	---	.00	---	.45	2.7	---
TOTAL	.00	.00	.00	.00	.00	465.70	96.60	1.66	1581.70	224.40	568.99	2.55
MEAN	.0000	.0000	.0000	.0000	.0000	15.0	3.22	.054	52.7	7.24	18.4	.085
MAX	.00	.00	.00	.00	.00	53	8.2	.56	644	71	379	1.4
MIN	.00	.00	.00	.00	.00	.00	.16	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	924	192	3.3	3140	445	1130	5.1
CAL YR 1978 TOTAL	13459.47			MEAN 36.9		MAX 2850	MIN .00	AC-FT 26700				
WTR YR 1979 TOTAL	2941.60			MEAN 8.06		MAX 644	MIN .00	AC-FT 5830				

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°33'40", long 104°33'40", in SE¼NE¼ sec.5, T.41 N., R.64 W., Weston County, Hydrologic Unit 10120103, on right bank 300 ft (91 m) downstream from bridge on county road, 3.4 mi (5.5 km) downstream from Wildcat Creek, 6.7 mi (10.8 km) east of Hampshire, 8.8 mi (14.2 km) upstream from mouth, and 27 mi (43 km) southwest of Newcastle.

DRAINAGE AREA.--354 mi² (917 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 3,950 ft (1,200 m), from topographic map.

REMARKS.--Records fair except those for winter period and period of no gage-height record, Dec. 31 to Feb. 13, which are poor. Numerous small stock ponds above station. Diversions for irrigation of about 300 acres (1.21 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 166 ft³/s (4.70 m³/s) May 18, 1978, gage height, 4.08 ft (1.244 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft³/s (1.42 m³/s) June 17, gage height, 2.91 ft (0.887 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.22	.09	.00	.00	.00	2.4	.31	.03	.00	.00	.08
2	.01	.26	.08	.00	.00	.00	1.9	.26	.02	.00	.00	.05
3	.00	.31	.07	.00	.00	.00	2.1	.36	.02	.00	.00	.03
4	.01	.31	.06	.00	.00	.00	2.2	.31	.02	.03	.00	.02
5	.01	.36	.04	.00	.00	.00	2.0	.36	.01	.10	.00	.01
6	.01	.50	.03	.00	.00	.00	1.5	.31	.01	.08	.00	.01
7	.01	.50	.02	.00	.00	.10	1.2	.31	.01	.06	.00	.01
8	.01	.36	.01	.00	.00	.50	.94	.26	.01	.05	.00	.01
9	.01	.31	.01	.00	.00	1.5	.63	.58	.01	.04	.00	.00
10	.02	.25	.00	.00	.00	3.0	.83	.63	.01	.02	2.9	.00
11	.03	.22	.00	.00	.00	2.5	1.8	.54	.01	.01	.94	.00
12	.02	.20	.00	.00	.00	2.0	1.6	.50	.00	.01	.31	.00
13	.02	.18	.00	.00	.00	3.5	1.2	.50	.00	.00	.13	.00
14	.03	.16	.00	.00	.00	5.0	1.2	.50	.00	.00	.08	.00
15	.03	.14	.00	.00	.00	5.5	.94	.50	.00	.00	.04	.00
16	.03	.12	.00	.00	.00	6.5	.83	.43	.50	.00	.04	.00
17	.04	.10	.00	.00	.00	7.0	.72	.36	31	.00	.05	.00
18	.06	.09	.00	.00	.00	6.0	.67	.31	24	.00	.04	.00
19	.07	.07	.00	.00	.00	3.5	.58	.22	14	.00	.05	.00
20	.08	.06	.00	.00	.00	2.5	.58	.15	1.2	.00	.06	.00
21	.08	.07	.00	.00	.00	1.9	.50	.12	.10	.00	.05	.00
22	.10	.08	.00	.00	.00	1.8	.43	.12	.04	.00	.03	.00
23	.12	.09	.00	.00	.00	2.2	.43	.10	.03	.00	.02	.00
24	.18	.10	.00	.00	.00	2.5	.43	.10	.02	.00	.19	.00
25	.18	.11	.00	.00	.00	3.1	.43	.12	.01	.00	6.6	.00
26	.12	.11	.00	.00	.00	2.6	.36	.10	.01	.00	11	.00
27	.12	.11	.00	.00	.00	2.7	.36	.07	.02	.00	6.6	.00
28	.12	.12	.00	.00	.00	2.9	.31	.06	.02	.00	1.8	.00
29	.12	.11	.00	.00	---	2.8	.31	.04	.01	.00	.70	.00
30	.18	.10	.00	.00	---	2.8	.31	.03	.01	.00	.31	.00
31	.26	---	.00	.00	---	2.6	---	.03	---	.00	.17	---
TOTAL	2.09	5.72	.41	.00	.00	77.00	29.69	8.59	71.13	.40	32.11	.22
MEAN	.067	.19	.013	.000	.000	2.48	.99	.28	2.37	.013	1.04	.007
MAX	.26	.50	.09	.00	.00	7.0	2.4	.63	.31	.10	.11	.08
MIN	.00	.06	.00	.00	.00	.00	.31	.03	.00	.00	.00	.00
AC-FT	4.1	11	.8	.00	.00	153	59	17	141	.8	64	.4

CAL YR 1978 TOTAL 1111.16 MEAN 3.04 MAX 115 MIN .00 AC-FT 2200
WTR YR 1979 TOTAL 227.36 MEAN .62 MAX 31 MIN .00 AC-FT 451

CHEYENNE RIVER BASIN

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
12...	0915	.02	3740	--	8.0	5.8	57	770	210	150
S17...	1145	.04	4500	8.6	10.5	1.0	--	--	--	170
MAR										
09...	1120	1.7	2360	8.6	.0	10.4	84	--	K10000	110
21...	1545	1.9	--	--	1.0	--	--	--	--	--
MAY										
04...	0940	.28	2630	8.8	11.0	7.6	78	K8	50	140
23...	1200	.09	3190	9.0	19.0	11.2	142	K1	K18	110
JUN										
16...	2330	E9.5	--	--	--	--	--	--	--	--
17...	0700	E27	--	--	--	--	--	--	--	--
20...	0935	1.5	895	8.2	14.0	5.7	63	410	550	670
AUG										
15...	0930	.04	2960	8.8	15.0	7.6	85	860	870	0
26...	--	E12	--	--	--	--	--	--	--	--
SEP										
11...	1400	.00	1750	8.7	22.0	--	--	--	--	--

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

S-Seepage run data (see Explanation of Water-Quality Records).

[illegible][illegible]

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PD4)	PHOS- PHORUS TOTAL (MG/L AS PD4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT										
12...	--	2.3	2.4	2.4	11	.17	--	--	.05	23
17...	--	1.8	1.9	1.9	8.5	.13	--	--	.03	18
MAR										
09...	--	1.4	1.4	1.5	6.6	.11	--	--	.05	15
21...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	.05	.95	.99	1.0	4.6	.09	.28	.28	.02	11
23...	.10	.88	.96	.97	4.3	.05	.15	.15	.03	22
JUN										
16...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
20...	.16	2.1	2.2	2.3	10	.41	--	1.3	.06	18
AUG										
15...	.19	3.8	4.0	4.0	18	.31	--	.95	.13	32
26...	--	--	--	--	--	--	--	--	--	--
SEP										
11...	--	--	--	--	--	--	--	--	--	--

DATE	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT									
12...	7.3	41000	--	--	--	--	--	176	.01
17...	4.0	--	--	--	--	--	--	--	--
MAR									
09...	2.6	280	--	--	--	--	--	146	.67
21...	--	--	--	--	--	--	--	74	.38
MAY									
04...	3.4	25000	--	--	--	--	--	96	.07
23...	3.6	550	--	--	465	--	--	19	.00
JUN									
16...	--	--	--	--	--	--	--	574	15
17...	--	--	--	--	--	--	--	713	52
20...	7.3	1200	.460	.720	5306	.049	.016	496	2.0
AUG									
15...	7.4	39000	--	--	--	--	--	245	.03
26...	--	--	--	--	--	--	--	479	16
SEP									
11...	--	--	.950	1.02	103	.680	.160	--	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
OCT											
12...	0915	230	4	2	9	100	200	160	0	0	0
17...	1145	--	--	--	--	--	--	--	--	--	--
MAR											
09...	1120	60	3	2	--	100	0	--	10	0	--
MAY											
04...	0940	--	--	--	--	--	--	--	--	--	--
23...	1200	--	--	--	--	--	--	--	--	--	--
JUN											
20...	0935	--	--	--	--	--	--	--	--	--	--
AUG											
15...	0930	40	12	10	5	200	--	170	0	--	0

CHEYENNE RIVER BASIN

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)
OCT										
12...	150	10	11	2	0	0	2	1	0	8
17...	290	--	--	--	--	--	--	--	--	--
MAR										
09...	90	1	0	--	10	0	--	3	0	--
MAY										
04...	80	--	--	--	--	--	--	--	--	--
23...	120	--	--	--	--	--	--	--	--	--
JUN										
20...	110	--	--	--	--	--	--	--	--	--
AUG										
15...	210	2	--	0	0	--	7	3	--	5

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
OCT										
12...	8	70	8	500	120	90	16	30	20	180
17...	--	--	--	170	--	--	--	--	--	--
MAR										
09...	11	6	--	170	16	3	--	7	6	240
MAY										
04...	--	--	--	90	--	--	--	--	--	--
23...	--	--	--	20	--	--	--	--	--	--
JUN										
20...	--	--	--	350	--	--	--	--	--	--
AUG										
15...	10	--	8	--	19	--	7	7	--	220

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE RECOV. (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)
OCT										
12...	60	690	.0	.0	.01	9	--	5	4	9
17...	--	--	--	--	--	--	--	--	--	--
MAR										
09...	140	--	.0	.0	--	0	--	0	--	9
MAY										
04...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
20...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	--	200	.2	--	.02	4	2	2	4	9

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
OCT										
12...	10	20	0	--	0	0	.3	30	70	16
17...	--	--	--	--	--	--	--	--	--	--
MAR										
09...	0	--	0	--	0	--	.0	30	20	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
20...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	--	8	2	2	0	0	4.0	20	--	28

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 09...	1120	<28	4.8	<11	5.2	<10	4.9	<19	3.3

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEDUS (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
OCT 12...	0915	2	8.0	.02	18	35	50	55
MAR 09...	1120	2	.0	1.7	12	25	47	51
JUN 20...	0935	2	14.0	1.5	17	30	50	54

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT 12...	60	68	80	95	97	100	--
MAR 09...	54	61	74	87	95	100	--
JUN 20...	58	62	72	84	87	94	100

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 12,78 0915	MAR 9,79 1120	MAY 4,79 0940	MAY 23,79 1200	JUN 20,79 0935	AUG 15,79 0930		
TOTAL CELLS/ML	41000	280	25000	550	1200	39000		
DIVERSITY: DIVISION	0.7	1.3	1.1	0.8	0.8	0.4		
..CLASS	0.7	1.3	1.1	0.8	0.8	0.4		
..ORDER	1.3	1.3	1.1	1.2	0.8	0.4		
...FAMILY	1.3	1.3	1.6	1.2	0.8	1.0		
....GENUS	1.4	1.3	1.9	2.3	1.2	1.1		
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....OOCYSTACEAE								
....ANKISTRODESMUS	1100	3	140# 50	9700# 38	230# 42	--	--	450 1
....DICTYOSPHAERIUM	230	1	--	--	--	--	--	--
....KIRCHNERIELLA	--	--	--	2000 8	--	--	--	--
....OOCYSTIS	--	--	--	--	51 9	--	--	--
....SELENASTRUM	380	1	--	--	--	--	--	--
....TREUBARIA	*	0	--	--	13 2	--	--	--
....WESTELLA	--	--	--	--	100# 19	--	--	--
....SCENEDESMACEAE								
....SCENEDESMUS	--	--	--	3200 13	--	--	--	--
....TETRASTRUM	300	1	--	--	--	--	--	--
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	3300	8	--	--	39 7	--	--	* 0
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCAEAE								
....CYCLOTELLA	--	--	120# 43	--	--	--	--	* 0
..PENNALES								
...NITZSCHIAEAE								
....NITZSCHIA	--	--	--	--	--	260# 22	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
....ANACYSTIS	4200	10	--	9700# 38	100# 19	--	--	--
...HORMOGONALES								
....NOSTOCACEAE								
....ANABAENA	--	--	--	--	--	--	2600	7
....ANABAENOPSIS	--	--	--	--	--	--	2900	7
...OSCILLATORIAEAE								
....OSCILLATORIA	30000# 74	--	--	--	--	--	31000# 79	--
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
....EUGLENA	760	2	--	--	--	770# 67	1900	5
....TRACHELOMONAS	230	1	20 7	680 3	13 2	130 11	--	--

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06386000 LANCE CREEK NEAR RIVERVIEW, WY

LOCATION.--Lat 43°22', long 104°16', in sec.14, T.39 N., R.62 W., Niobrara County, Hydrologic Unit 10120104, on right bank 0.4 mi (0.6 km) north of former Spencer post office, 1.0 mi (1.6 km) upstream from mouth, 6.0 mi (9.7 km) southwest of Riverview, and 34 mi (55 km) south of Newcastle.

DRAINAGE AREA.--2,070 mi² (5,360 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to September 1954, August 1956 to current year. Prior to October 1976, published as "at Spencer."

REVISED RECORDS.--WSP 1209: 1948(P), 1950.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from map prepared by Army Map Service, Corps of Engineers. Prior to Aug. 14, 1948, nonrecording gage at same site and datum.

REMARKS.--Records poor. No gage-height record Nov. 18 to Feb. 26, Feb. 28 to Mar. 8, Mar. 12-14, July 30 to Aug. 8, Sept. 26-29. There are many small reservoirs above station used for storage of stock and irrigation water, total capacity, about 12,800 acre-ft (15.8 hm³). Diversions for irrigation of about 3,500 acres (14.2 km²) above station.

AVERAGE DISCHARGE.--29 years, 26.0 ft³/s (0.736 m³/s), 18,840 acre-ft/yr (23.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,410 ft³/s (210 m³/s) May 24, 1971, gage height, 9.67 ft (2.947 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
July 6	0930	1,690 47.9	5.51 1.679	Aug. 10	1430	*3,100 87.8	7.09 2.161
July 29	0530	758 21.5	3.75 1.143				

No flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	4.1	3.9	.13	.00	.08	24	11	2.5	33	14	38
2	.98	4.1	3.2	.12	.00	.02	24	12	4.4	22	8.9	34
3	1.1	4.1	2.7	.13	.00	.02	21	13	5.1	32	7.0	30
4	1.1	4.1	3.2	.16	.00	.06	17	13	4.1	35	6.0	24
5	.87	4.1	2.7	.14	.00	.16	20	13	3.3	31	5.3	16
6	.50	3.5	2.0	.14	.00	.39	19	13	3.0	1050	4.8	14
7	.50	6.8	1.5	.14	.00	.98	19	12	2.3	252	4.4	13
8	.87	6.5	1.2	.16	.00	15	17	11	2.1	97	26	13
9	.98	4.4	1.3	.14	.00	198	17	13	2.1	55	537	12
10	.87	5.7	1.4	.13	.04	232	14	13	2.1	38	2170	9.6
11	.87	4.2	1.3	.14	.06	158	23	14	2.3	29	429	8.6
12	.87	3.3	1.3	.12	.07	87	25	14	2.1	22	254	9.1
13	.87	2.7	1.1	.09	.09	59	24	12	1.7	18	149	8.1
14	.87	2.8	1.2	.08	.05	68	23	11	1.3	14	103	7.7
15	1.1	3.2	1.2	.11	.00	92	24	10	1.2	12	83	7.3
16	1.2	3.5	1.0	.13	.00	68	26	7.7	1.9	11	70	6.8
17	1.3	3.8	1.1	.14	.00	62	24	7.7	1.9	11	61	6.5
18	1.3	4.1	1.4	.15	.04	64	17	8.6	218	10	56	5.7
19	1.3	3.3	1.2	.17	.09	57	14	7.7	67	8.1	246	5.1
20	1.2	2.6	.93	.19	.06	52	9.6	5.1	33	5.4	248	4.7
21	1.1	2.2	.77	.18	.00	48	9.1	7.3	16	6.8	323	4.4
22	2.5	2.5	.64	.16	.00	44	9.6	7.7	6.5	7.3	136	4.1
23	1.9	3.6	.62	.13	.00	39	7.3	6.8	9.1	6.1	89	3.5
24	6.8	4.8	.62	.15	.20	37	6.8	5.1	11	5.4	64	3.3
25	6.1	4.5	.56	.16	1.0	35	12	2.8	9.6	4.7	64	2.8
26	5.4	4.1	.43	.13	.50	31	13	4.4	12	4.4	81	2.6
27	5.4	4.0	.46	.07	.25	30	13	4.4	16	51	56	2.4
28	3.8	3.8	.46	.02	.14	30	13	4.1	20	48	159	2.3
29	4.1	3.5	.30	.00	---	30	12	4.4	42	460	95	2.2
30	4.4	3.7	.21	.00	---	24	6.8	4.7	56	90	56	2.1
31	4.4	---	.16	.00	---	11	---	2.8	---	30	45	---
TOTAL	65.53	117.6	40.06	3.71	2.59	1572.71	504.2	276.3	559.6	2499.2	5650.4	302.9
MEAN	2.11	3.92	1.29	.12	.093	50.7	16.8	8.91	18.7	80.6	182	10.1
MAX	6.8	6.8	3.9	.19	1.0	232	26	14	218	1050	2170	38
MIN	.50	2.2	.16	.00	.00	.02	6.8	2.8	1.2	4.4	4.4	2.1
AC-FT	130	233	79	7.4	5.1	3120	1000	548	1110	4960	11210	601
CAL YR 1978 TOTAL	31892.94			MEAN 87.4	MAX 6070	MIN .00	AC-FT 63260					
WTR YR 1979 TOTAL	11594.80			MEAN 31.8	MAX 2170	MIN .00	AC-FT 23000					

CHEYENNE RIVER BASIN

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-54, 1957-59, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT											
11...	1415	.87	4000	8.2	19.0	11	--	8.8	3.2	890	530
17...	1810	1.3	4000	7.5	11.5	--	--	--	--	890	510
NOV											
08...	1400	6.5	3500	8.2	7.0	18	--	11.8	1.9	850	530
JAN											
06...	1100	.14	6000	7.4	.0	3	--	9.7	2.4	1300	880
31...	1145	.00	7500	7.3	.0	2	--	6.8	1.4	1400	1200
MAR											
14...	1330	68	1400	8.0	2.0	900	--	12.6	4.3	340	190
APR											
14...	1320	24	3100	8.2	14.5	7	--	11.0	3.7	660	390
MAY											
10...	1100	14	3600	8.1	5.0	--	5.5	11.8	1.6	770	500
JUN											
09...	1300	2.1	3900	8.1	20.0	--	2.5	8.9	1.7	680	350
JUL											
18...	1330	11	2500	8.2	28.0	--	5.5	7.9	3.4	630	350
AUG											
14...	1530	97	900	8.0	16.0	--	1500	7.7	5.4	270	140
SEP											
11...	1520	8.6	3000	8.3	21.0	--	16	8.6	2.5	700	420

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
11...	210	88	630	9.2	--	14	440	0	360	1800	92
17...	210	89	640	9.3	--	14	460	0	380	1800	94
NOV											
08...	220	73	560	8.4	--	13	390	0	320	1500	140
JAN											
06...	290	130	840	10	--	18	460	0	380	2400	150
31...	320	150	900	10	--	18	280	0	230	3000	140
MAR											
14...	92	27	170	4.0	--	10	180	0	150	450	66
APR											
14...	170	57	410	7.0	430	17	330	0	270	1100	150
MAY											
10...	200	65	480	7.5	--	18	320	0	260	1200	170
JUN											
09...	160	67	600	10	610	12	400	0	330	1600	110
JUL											
18...	160	55	380	6.6	400	15	340	0	280	990	78
AUG											
14...	72	22	99	2.6	110	7.9	160	0	130	320	24
SEP											
11...	180	60	430	7.1	440	14	--	--	280	1200	110

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT											
11...	.7	17	--	3390	3070	4.18	7.21	30	.18	.09	--
17...	.6	13	3050	--	3090	4.20	10.8	--	.00	.00	--
NOV											
08...	.5	12	--	--	2710	3.69	47.6	--	.02	.02	--
JAN											
06...	.4	16	--	--	4070	5.54	1.54	--	.08	.01	--
31...	.4	16	--	--	4680	6.36	.00	--	.05	.07	--
MAR											
14...	.5	9.2	--	--	914	1.24	168	--	.17	.11	--
APR											
14...	.8	13	--	--	2080	2.83	135	--	.10	.12	.15
MAY											
10...	.8	11	--	--	2300	3.13	86.9	--	.03	.09	.11
JUN											
09...	.6	11	--	--	2760	3.75	15.7	--	.02	.07	.08
JUL											
18...	.6	13	--	--	1860	2.53	55.2	--	.05	.10	.12
AUG											
14...	.5	8.6	--	--	633	.86	166	--	.31	.07	.08
SEP											
11...	.8	16	--	--	2180	2.96	50.6	--	.10	.10	.12

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT										
11...	.45	.54	.72	3.2	.03	--	--	--	--	--
17...	.69	.69	.69	3.1	.06	--	--	.01	10	.4
NOV										
08...	.77	.79	.81	3.6	.04	--	--	--	--	--
JAN										
06...	.69	.70	.78	3.5	.04	--	--	--	--	--
31...	.66	.73	.78	3.5	.02	--	--	--	--	--
MAR										
14...	.50	.61	.78	3.5	.02	--	--	--	--	--
APR										
14...	.54	.66	.76	3.4	.01	.03	.03	--	--	--
MAY										
10...	.36	.45	.48	2.1	.01	.03	.03	--	--	--
JUN										
09...	.55	.62	.64	2.8	.04	.12	.12	--	--	--
JUL										
18...	.75	.85	.90	4.0	.04	--	.12	--	--	--
AUG										
14...	19	19	19	85	.42	--	1.3	--	--	--
SEP										
11...	.16	.26	.36	1.6	.03	--	.09	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE	ALUM- INUM, DIS- SOLVED	ARSENIC TOTAL	ARSENIC DIS- SOLVED	BERYL- LIUM, TOTAL RECOV- ERABLE	BERYL- LIUM, DIS- SOLVED	BORON, DIS- SOLVED	CADMIUM TOTAL RECOV- ERABLE	CADMIUM DIS- SOLVED	CHRO- MIUM, TOTAL RECOV- ERABLE	CHRO- MIUM, DIS- SOLVED
		(UG/L AS AL)	(UG/L AS AL)	(UG/L AS AS)	(UG/L AS AS)	(UG/L AS BE)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS CD)	(UG/L AS CD)	(UG/L AS CR)	(UG/L AS CR)
OCT												
11...	1415	440	10	1	1	0	0	200	1	4	0	0
17...	1810	--	--	--	--	--	--	210	--	--	--	--
NOV												
08...	1400	--	--	--	--	--	--	220	--	--	--	--
JAN												
06...	1100	170	--	1	--	10	--	150	2	--	20	--
31...	1145	--	--	--	--	--	--	130	--	--	--	--
MAR												
14...	1330	--	--	--	--	--	--	140	--	--	--	--
APR												
14...	1320	200	--	1	--	0	--	290	3	--	20	--
MAY												
10...	1100	--	--	--	--	--	--	280	--	--	--	--
JUN												
09...	1300	--	--	--	--	--	--	210	--	--	--	--
JUL												
18...	1330	260	--	1	--	0	--	170	4	--	0	--
AUG												
14...	1530	--	--	--	--	--	--	0	--	--	--	--
SEP												
11...	1520	--	--	--	--	--	--	210	--	--	--	--

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT											
11...	5	5	670	--	20	21	59	70	70	640	540
17...	--	--	--	--	20	--	--	--	--	--	--
NOV											
08...	--	--	--	--	80	--	--	--	--	--	--
JAN											
06...	6	--	910	--	440	8	--	90	--	720	--
31...	--	--	--	--	500	--	--	--	--	--	--
MAR											
14...	--	--	--	--	70	--	--	--	--	--	--
APR											
14...	2	--	290	250	40	8	--	180	--	130	--
MAY											
10...	--	--	--	--	20	--	--	--	--	--	--
JUN											
09...	--	--	--	--	50	--	--	--	--	--	--
JUL											
18...	71	--	230	190	40	36	--	60	--	260	--
AUG											
14...	--	--	--	--	110	--	--	--	--	--	--
SEP											
11...	--	--	--	--	20	--	--	--	--	--	--

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

CHEYENNE RIVER BASIN

06386500 CHEYENNE RIVER NEAR RIVERVIEW, WY

LOCATION.--Lat 43°25', long 104°08', in N½ sec.25, T.40 N., R.61 W., Niobrara County, Hydrologic Unit 10120106, at former gaging station, at old highway bridge, 1.8 mi (2.9 km) downstream from Robbers Roost Creek, 3.2 mi (5.1 km) east of Riverview, and 30 mi (48 km) south of Newcastle.

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

PERIOD OF RECORD.--Water years 1951-54, 1969-70, 1972 to current year.

REMARKS.--No flow observed Dec. 6, Jan. 6, 31. Published as South Fork Cheyenne River near Spencer prior to October 1951. Published as Cheyenne River near Spencer prior to October 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
OCT											
11...	1615	3.1	4200	8.3	18.5	1	9.2	K16	940	650	220
NOV											
08...	1550	10	3800	8.3	10.0	3	9.6	K6	810	480	200
MAR											
14...	1530	208	1410	8.2	3.0	600	12.5	<1	340	190	85
APR											
14...	1450	44	3200	8.3	17.0	6	9.6	K2	680	380	170
MAY											
10...	1145	E30	3300	8.1	7.0	3	10.8	54	710	460	170
JUN											
09...	1445	8.7	4100	8.2	22.0	2	7.8	K10	820	530	190
JUL											
18...	1500	E8.0	2400	8.2	28.0	40	6.8	210	--	--	--
AUG											
14...	1620	E250	890	8.0	17.0	900	7.6	610	280	150	75
SEP											
11...	1640	13	2800	8.3	23.0	10	7.8	K670	660	410	170

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
11...	95	660	9.4	--	15	360	0	300	2000	71
NOV										
08...	76	610	9.3	--	13	400	0	330	1700	98
MAR										
14...	30	180	4.3	--	8.0	180	0	150	510	34
APR										
14...	62	440	7.3	--	13	360	0	300	1200	110
MAY										
10...	70	480	7.8	--	13	310	0	250	1300	79
JUN										
09...	85	650	9.9	670	16	360	0	300	1700	83
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
14...	22	100	2.6	110	7.4	160	0	130	340	27
SEP										
11...	58	410	6.9	430	15	--	--	250	1200	95

06386500 CHEYENNE RIVER NEAR RIVERVIEW, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT 11...	.7	12	3460	3250	4.42	27.2	<1	.02	.03	--
NOV 08...	.5	11	--	2910	3.96	78.6	--	.06	.05	--
MAR 14...	.4	6.5	--	943	1.28	530	--	.39	.18	--
APR 14...	.7	9.8	--	2180	2.96	259	--	.03	.11	.13
MAY 10...	.6	8.6	--	2270	3.09	184	--	.04	.10	.12
JUN 09...	.6	9.0	--	2910	3.96	68.4	--	.12	.15	.18
JUL 18...	--	--	--	--	--	--	--	--	--	--
AUG 14...	.5	8.0	--	659	.90	445	--	.34	.07	.08
SEP 11...	.6	15	--	2110	2.87	74.1	--	.06	.12	.15

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 11...	.67	.70	.72	3.2	.00	--	--	--	8.5	.3
NOV 08...	.95	1.0	1.1	4.7	.09	--	--	--	--	--
MAR 14...	.42	.60	.99	4.4	.03	--	--	--	--	--
APR 14...	.60	.71	.74	3.3	.01	.03	.03	--	--	--
MAY 10...	.47	.57	.61	2.7	.01	.03	.03	--	--	--
JUN 09...	.51	.66	.78	3.5	.05	.15	.15	9.4	--	.5
JUL 18...	--	--	--	--	--	--	--	--	--	--
AUG 14...	20	20	20	90	.55	--	1.7	--	--	--
SEP 11...	.16	.28	.34	1.5	.03	--	.09	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)
OCT 11...	1615	60	30	30	1	1	0	0	0	210	2	0
NOV 08...	1550	--	--	--	--	--	--	--	--	200	--	--
MAR 14...	1530	--	--	--	--	--	--	--	--	90	--	--
APR 14...	1450	--	--	--	--	--	--	--	--	210	--	--
MAY 10...	1145	--	--	--	--	--	--	--	--	90	--	--
JUN 09...	1445	130	100	30	1	0	0	0	0	240	2	0
AUG 14...	1620	--	--	--	--	--	--	--	--	100	--	--
SEP 11...	1640	--	--	--	--	--	--	--	--	200	--	--

CHEYENNE RIVER BASIN
06386500 CHEYENNE RIVER NEAR RIVERVIEW, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
OCT 11...	3	0	0	0	5	1	4	100	80	20	28	8
NOV 08...	--	--	--	--	--	--	--	--	--	80	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	90	--	--
APR 14...	--	--	--	--	--	--	--	--	--	40	--	--
MAY 10...	--	--	--	--	--	--	--	--	--	20	--	--
JUN 09...	4	10	0	10	5	1	4	130	100	30	8	8
AUG 14...	--	--	--	--	--	--	--	--	--	70	--	--
SEP 11...	--	--	--	--	--	--	--	--	--	10	--	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE RECOV. (UG/L AS MO)
OCT 11...	20	70	0	70	160	20	140	.0	.0	.0	5	3
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	0	70	0	80	60	0	60	.0	.0	.0	1	0
AUG 14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 11...	2	4	0	6	0	0	0	.0	30	0	40
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	2	6	4	2	0	0	0	.0	30	10	20
AUG 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 11...	1615	44	<.4	15	1.7	14	1.8	.15	31	--	--
JUN 09...	1445	<65	<.4	19	1.0	18	1.0	.12	25	<44	<.3

06392900 BEAVER CREEK AT MALLO CAMP, NEAR FOUR CORNERS, WY

LOCATION.--Lat 44°05'04", long 104°03'41", in NE¼NE¼ sec.4, T.47 N., R.60 W., Weston County, Hydrologic Unit 10120107, between Forest Service Road 811 and right bank in Mallo Campgrounds, 300 ft (91 m) upstream from mouth, 800 ft (244 m) upstream from dam on Stockade Beaver Creek, and 3.8 mi (6.1 km) east of Four Corners.

DRAINAGE AREA.--10.3 mi² (26.7 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,030 ft (1,840 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--5 years, 1.78 ft³/s (0.050 m³/s), 1,290 acre-ft/yr (1.59 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21 ft³/s (0.59 m³/s) Apr. 26, 1975, gage height, 5.40 ft (1.646 m); minimum daily, 0.23 ft³/s (0.007 m³/s) Oct. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.2 ft³/s (0.147 m³/s) Aug. 7, gage height, 4.56 ft (1.390 m), no peak above base of 10 ft³/s (0.28 m³/s); minimum discharge observed, 0.99 ft³/s (0.028 m³/s) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.5	1.8	1.4	2.2	2.7	2.9	2.8	2.7	3.3	2.7	2.5
2	2.2	2.5	1.8	1.5	2.2	2.7	2.9	2.7	2.7	3.2	2.8	2.5
3	2.2	2.5	1.7	1.8	2.3	2.7	3.0	2.7	2.8	3.3	2.8	2.6
4	2.2	2.5	1.8	2.0	2.4	2.6	3.2	2.6	2.8	3.4	2.8	2.6
5	2.2	2.5	1.8	1.9	2.4	2.6	3.2	2.6	2.9	3.3	2.7	2.6
6	2.2	2.5	1.7	2.2	2.5	2.6	3.3	2.6	3.0	3.3	2.7	2.5
7	2.2	2.5	1.6	2.3	2.5	2.6	3.3	2.6	3.0	3.3	3.0	2.5
8	2.2	2.5	1.6	2.3	2.5	2.6	3.3	2.6	3.0	3.3	3.2	2.5
9	2.2	2.5	1.6	2.3	2.5	2.5	3.3	2.6	3.1	3.3	2.9	2.5
10	2.3	2.3	1.7	2.3	2.5	2.5	3.6	2.6	3.0	3.3	2.8	2.5
11	2.3	2.1	1.8	2.4	2.5	2.6	3.6	2.6	3.3	3.3	2.8	2.5
12	2.3	2.0	1.8	2.3	2.5	2.6	3.6	2.6	3.3	3.4	2.8	2.5
13	2.3	1.8	1.9	2.2	2.6	2.6	3.7	2.5	3.3	3.3	2.8	2.5
14	2.3	1.7	1.9	2.1	2.5	2.6	3.4	2.5	3.3	3.2	2.6	2.5
15	2.3	1.6	2.0	2.3	2.4	2.6	3.6	2.5	3.4	3.1	2.6	2.4
16	2.3	1.7	2.0	2.3	2.5	2.8	3.7	2.4	4.2	3.4	2.6	2.4
17	2.3	1.8	2.0	2.3	2.5	2.8	4.1	2.5	3.8	3.1	2.6	2.4
18	2.4	1.8	2.0	2.3	2.5	2.7	4.2	2.6	3.6	3.0	2.6	2.4
19	2.3	1.8	2.0	2.3	2.6	2.7	4.0	2.5	3.5	3.1	2.7	2.3
20	2.3	1.7	1.9	2.3	2.6	2.8	3.7	2.6	3.5	3.0	2.7	2.3
21	2.3	1.7	1.9	2.2	2.6	2.7	3.7	2.6	3.3	3.0	2.7	2.4
22	2.3	1.8	1.9	2.3	2.6	2.7	3.6	2.6	3.3	2.9	2.7	2.4
23	2.3	1.9	1.9	2.2	2.6	2.7	3.6	2.6	3.3	2.9	2.6	2.4
24	2.4	2.0	1.9	2.3	2.6	2.7	3.4	2.5	3.3	2.8	2.6	2.4
25	2.4	2.0	1.9	2.3	2.6	2.7	3.3	2.6	3.2	2.8	2.8	2.4
26	2.4	2.0	1.9	2.3	2.6	2.8	3.1	2.5	3.3	2.7	2.8	2.4
27	2.4	2.0	1.9	2.2	2.7	2.8	3.1	2.5	3.3	2.7	2.7	2.4
28	2.5	1.9	1.8	2.2	2.8	2.9	3.1	2.6	3.3	2.7	2.7	2.4
29	2.5	1.9	1.7	2.1	---	2.9	2.9	2.6	3.3	2.9	2.7	2.4
30	2.5	1.9	1.6	2.2	---	2.9	2.9	2.6	3.3	2.8	2.6	2.5
31	2.5	---	1.5	2.2	---	2.9	---	2.7	---	2.7	2.6	---
TOTAL	71.8	61.9	56.3	67.3	70.3	83.6	102.3	80.1	97.1	95.8	84.7	73.6
MEAN	2.32	2.06	1.82	2.17	2.51	2.70	3.41	2.58	3.24	3.09	2.73	2.45
MAX	2.5	2.5	2.0	2.4	2.8	2.9	4.2	2.8	4.2	3.4	3.2	2.6
MIN	2.2	1.6	1.5	1.4	2.2	2.5	2.9	2.4	2.7	2.7	2.6	2.3
AC-FT	142	123	112	133	139	166	203	159	193	190	168	146

CAL YR 1978 TOTAL 815.74 MEAN 2.23 MAX 6.0 MIN .86 AC-FT 1620
WTR YR 1979 TOTAL 944.80 MEAN 2.59 MAX 4.2 MIN 1.4 AC-FT 1870

CHEYENNE RIVER BASIN

06392950 STOCKADE BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°51'30", long 104°06'23", in SW¼SE¼ sec.19, T.45 N., R.60 W., Weston County, Hydrologic Unit 10120107, on left bank at downstream side of bridge on county highway, 0.6 mi (1.0 km) upstream from South Draw, 2.5 mi (4.0 km) upstream from LAK Reservoir Dam, and 4.7 mi (7.6 km) east of Newcastle.

DRAINAGE AREA.--107 mi² (277 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,455 ft (1,358 m), from topographic map.

REMARKS.--Records good. A few small diversions above station for irrigation.

AVERAGE DISCHARGE.--5 years, 12.8 ft³/s (0.362 m³/s), 9,270 acre-ft/yr (11.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft³/s (3.03 m³/s) June 16, 1977, gage height, 7.54 ft (2.298 m); maximum gage height, 7.91 ft (2.411 m) Jan. 12, 1975 (backwater from ice); minimum daily discharge, 6.2 ft³/s (0.18 m³/s) May 27, 28, 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s (0.62 m³/s) Aug. 7, gage height, 6.75 ft (2.057 m); no peak above base of 50 ft³/s (1.42 m³/s); minimum daily discharge, 9.6 ft³/s (0.27 m³/s) May 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	14	13	12	15	14	10	11	12	11	14
2	13	13	14	13	12	15	13	9.8	11	12	12	14
3	13	13	13	13	12	15	13	9.8	11	12	12	14
4	13	13	13	14	13	15	13	9.8	12	13	12	14
5	13	13	13	14	14	16	13	9.8	11	13	12	14
6	12	13	13	14	14	17	13	9.8	11	13	12	14
7	12	13	13	14	13	17	13	9.6	12	13	14	14
8	12	14	13	14	13	17	13	9.6	12	12	16	14
9	13	14	13	14	13	17	13	10	12	12	15	13
10	13	14	14	14	13	17	13	10	11	12	14	14
11	13	14	14	14	13	17	13	11	11	12	14	14
12	13	14	14	14	13	17	13	11	11	12	14	14
13	12	13	14	13	13	17	13	10	11	12	15	14
14	12	13	14	12	12	17	13	11	11	12	14	14
15	13	15	14	11	12	17	12	11	11	12	14	14
16	13	14	14	12	13	17	12	11	12	13	14	14
17	13	14	14	12	14	17	12	11	13	13	14	13
18	13	14	14	12	14	16	12	11	12	13	15	13
19	13	14	14	13	14	16	11	12	12	12	16	13
20	13	13	14	14	14	16	11	11	12	11	15	13
21	12	12	14	15	15	15	11	11	12	11	14	13
22	13	13	13	14	15	15	11	11	12	11	14	13
23	13	13	13	14	15	15	11	11	12	11	14	13
24	13	13	13	14	15	15	11	11	12	11	14	13
25	13	12	13	13	15	15	11	12	11	11	14	13
26	13	13	13	13	15	14	10	11	12	11	14	13
27	13	13	13	13	15	14	10	11	13	13	14	13
28	13	13	13	13	15	14	10	11	14	12	14	13
29	13	14	13	12	---	14	10	11	13	11	14	13
30	13	13	13	12	---	14	10	11	12	11	14	12
31	13	---	13	12	---	14	---	11	---	11	14	---
TOTAL	398	400	417	409	381	487	358	330.2	353	370	429	404
MEAN	12.8	13.3	13.5	13.2	13.6	15.7	11.9	10.7	11.8	11.9	13.8	13.5
MAX	14	15	14	15	15	17	14	12	14	13	16	14
MIN	12	12	13	11	12	14	10	9.6	11	11	11	12
AC-FT	789	793	827	811	756	966	710	655	700	734	851	801
CAL YR 1978	TOTAL	4614.4	MEAN 12.6	MAX 16	MIN 9.4	AC-FT 9150						
WTR YR 1979	TOTAL	4736.2	MEAN 13.0	MAX 17	MIN 9.6	AC-FT 9390						

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, Hydrologic Unit 10120107, at highway bridge, 2.2 mi (3.5 km) downstream from Sheep Creek, and 23 mi (37 km) south of Newcastle.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft (1,116 m), from topographic map. Prior to Nov. 1, 1945, nonrecording gage at present site and datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s (337 m³/s) June 16, 1962, gage height, 19.98 ft (6.090 m); no flow at times in several years.

Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)

CORRECTION.--Average discharge published in WDR WY-78-1 was incorrect. The correct figure is 33.0 ft³/s (0.935 m³/s), 23,910 acre-ft/yr (29.5 hm³/yr).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	11	14	11	12	19	144	2.5	1.2	1.0	91	1.6
2	8.0	12	13	12	12	17	121	2.5	1.1	1.0	14	1.2
3	8.0	12	12	13	12	16	99	3.6	1.0	1.0	3.2	1.0
4	8.3	12	14	12	13	17	74	3.9	.96	1.1	1.2	.89
5	8.3	13	13	11	14	18	52	3.2	.96	7.3	.72	.89
6	8.0	14	10	12	15	21	31	2.8	.96	18	.72	.89
7	7.3	15	11	12	15	26	28	2.5	1.0	4.1	.60	.86
8	6.7	15	11	12	14	33	37	2.7	1.0	2.4	.67	.89
9	6.7	16	12	12	15	41	46	4.8	1.1	2.8	73	.96
10	6.4	16	13	12	17	49	68	6.7	1.0	1.8	470	.96
11	6.7	15	14	13	18	56	77	5.1	.96	1.2	240	.83
12	6.2	13	15	12	20	49	79	3.9	.89	1.0	31	.89
13	6.2	13	14	11	22	44	72	3.4	1.3	.88	16	1.0
14	6.7	12	15	11	21	39	69	3.2	1.1	.79	9.3	1.0
15	6.7	13	15	12	18	36	58	4.3	.83	.77	8.0	1.0
16	7.0	14	14	13	15	40	87	5.6	3.3	.79	7.0	1.2
17	7.7	15	15	13	16	46	91	8.3	5.9	.91	28	1.2
18	8.0	14	17	14	17	70	67	9.0	1.2	1.0	14	1.2
19	8.6	13	18	14	19	110	48	10	111	1.0	14	1.2
20	8.6	12	17	15	19	150	33	11	175	.88	23	1.2
21	8.3	13	15	15	18	90	24	6.7	53	.75	19	1.2
22	9.3	14	14	14	17	70	20	2.5	25	.72	13	1.2
23	10	15	14	14	15	67	18	2.0	16	.68	7.7	1.3
24	9.3	16	15	14	16	70	15	2.8	13	.72	19	1.3
25	8.6	15	14	14	17	75	13	2.4	7.3	.81	8.6	2.5
26	8.0	15	13	14	19	83	11	1.8	4.3	.79	6.2	3.2
27	8.3	15	14	13	21	91	9.7	2.0	3.0	.65	2.7	3.2
28	8.3	16	14	13	20	101	7.7	1.6	2.2	.75	1.7	4.1
29	8.6	15	13	12	---	122	3.2	1.3	1.7	.66	1.6	4.8
30	9.7	15	10	12	---	147	3.0	1.4	1.2	6.2	1.7	4.1
31	10	---	11	12	---	161	---	1.2	---	20	2.0	---
TOTAL	246.2	419	424	394	467	1974	1505.6	124.7	438.46	82.45	1128.61	47.76
MEAN	7.94	14.0	13.7	12.7	16.7	63.7	50.2	4.02	14.6	2.66	36.4	1.59
MAX	10	16	18	15	22	161	144	11	175	20	470	4.8
MIN	6.2	11	10	11	12	16	3.0	1.2	.83	.65	.60	.83
AC-FT	488	831	841	781	926	3920	2990	247	870	164	2240	95

CHEYENNE RIVER BASIN

06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1950-57, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT												
05...	0945	8.7	--	--	7.5	1700	1600	490	120	620	6.5	5.0
18...	1200	9.9	6500	6.5	11.5	1700	1500	430	140	780	8.4	5.8
NOV												
07...	0930	15	--	--	--	1700	1600	490	120	520	5.5	4.6
JAN												
02...	1320	12	--	--	--	1700	1500	490	120	480	5.0	4.4
FEB												
21...	1545	18	--	--	--	1500	1300	410	110	500	5.7	4.2
MAR												
15...	0925	36	--	--	.5	1300	1100	380	96	600	7.1	6.5
APR												
06...	1045	33	--	--	3.5	530	390	120	55	290	5.5	61
MAY												
10...	0930	6.4	--	--	5.5	1700	1500	390	180	900	9.5	7.7
JUN												
14...	1030	1.1	--	--	21.0	2000	1800	470	200	940	9.2	8.0
JUL												
11...	1800	1.1	--	--	26.5	1800	1700	460	160	660	6.8	12
AUG												
10...	1850	640	--	--	21.0	250	170	72	18	83	2.3	6.8
SEP												
07...	1110	1.0	--	--	21.0	1200	1000	310	110	650	8.1	9.0

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
OCT												
05...	130	0	110	1800	820	1.0	--	--	--	2.76	--	.00
18...	170	0	140	1800	1000	.5	3.6	4590	4240	5.77	88.2	--
NOV												
07...	180	0	150	1700	680	1.1	5.9	--	3610	4.91	146	.00
JAN												
02...	260	0	210	1700	580	1.3	12	--	3520	4.79	114	.97
FEB												
21...	270	0	220	1500	590	1.1	11	--	3260	4.43	158	.97
MAR												
15...	220	0	180	1500	610	.9	7.7	--	3310	4.50	322	.52
APR												
06...	170	0	140	910	130	.9	4.7	--	1650	2.24	147	.00
MAY												
10...	290	0	240	2400	750	1.6	3.1	--	4790	6.51	82.8	4.1
JUN												
14...	240	0	200	2700	800	1.2	4.3	--	5260	7.15	15.6	2.7
JUL												
11...	140	0	120	2100	790	1.0	--	--	--	--	--	1.4
AUG												
10...	100	0	82	330	4.0	.6	4.1	--	603	.82	1040	7.2
SEP												
07...	210	0	170	1700	570	.9	3.5	--	3470	4.72	9.37	1.4

06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT												
05...	--	--	--	--	--	--	.02	--	--	--	--	--
18...	.00	.00	.42	.42	.42	1.9	.01	.00	380	60	4.3	.3
NOV												
07...	--	--	--	--	--	--	.03	--	--	--	--	--
JAN												
02...	--	--	--	--	--	--	.04	--	--	--	--	--
FEB												
21...	--	--	--	--	--	--	.24	--	--	--	--	--
MAR												
15...	--	--	--	--	--	--	.11	--	--	--	--	--
APR												
06...	--	--	--	--	--	--	.16	--	--	--	--	--
MAY												
10...	--	--	--	--	--	--	.01	--	--	--	--	--
JUN												
14...	--	--	--	--	--	--	.03	--	--	--	--	--
JUL												
11...	--	--	--	--	--	--	.07	--	--	--	--	--
AUG												
10...	--	--	--	--	--	--	3.5	--	--	--	--	--
SEP												
07...	--	--	--	--	--	--	.02	--	--	--	--	--

CHEYENNE RIVER BASIN

06395000 CHEYENNE RIVER AT EDGEMONT, SD

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼SE¼SE¼ sec.36, T.8 S., R.2 E., Fall River County, Hydrologic Unit 10120106, on right bank 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.--June 1903 to November 1906 (no winter records), April 1928 to February 1933, October 1946 to current year.

REVISED RECORDS.--WSP 1086: Drainage Area. WSP 1116: 1947.

GAGE.--Water-stage recorder. Datum of gage is 3,414.56 ft (1,040.758 m), National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1906, nonrecording gage 20 ft (6 m) upstream at datum 0.7 ft (0.21 m) lower. Apr. 11, 1928, to Feb. 28, 1933, Oct. 4, 1946, to Oct. 23, 1947, and Jan. 11, 1961, to Apr. 24, 1963, nonrecording gage, and Oct. 24, 1947, to Jan. 10, 1961, and Apr. 25, 1963, to Sept. 30, 1972, water-stage recorder all at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter periods, which are poor. Many small reservoirs above station used for stock and irrigation water, total capacity, about 45,000 acre-ft (55.5 hm³).

AVERAGE DISCHARGE.--38 years, 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr); median of yearly mean discharges, 80 ft³/s (2.27 m³/s), 58,000 acre-ft/yr (72 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s (793 m³/s) May 20, 1978, gage height, 13.65 ft (4.161 m), present datum; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 12, 1920, reached a stage of 13.0 ft (3.96 m) and May 1, 1922, 14.0 ft (4.27 m), present datum, from floodmarks at railroad bridge.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
July 6	1800	1,920 54.4	4.32 1.317
Aug. 11	0200	*3,960 112	5.95 1.814

Minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	23	14	3.5	3.5	6.0	306	40	18	196	165	70
2	16	24	13	3.5	3.5	6.0	293	40	16	129	324	61
3	15	25	12	3.5	3.5	7.0	259	43	13	89	156	52
4	16	27	12	4.0	3.8	8.0	227	42	13	79	112	42
5	15	27	12	4.0	4.0	10	190	39	13	76	89	34
6	14	27	11	4.0	4.0	15	156	35	13	901	55	27
7	14	29	10	4.0	4.0	30	120	33	13	928	43	25
8	14	29	10	4.0	4.5	50	105	38	14	454	113	22
9	14	32	11	4.0	5.0	100	103	44	14	280	200	22
10	14	28	12	4.0	5.5	200	103	45	14	168	1860	21
11	13	24	12	4.5	6.0	300	137	42	14	123	2240	18
12	13	20	12	4.5	6.0	400	153	40	14	85	626	16
13	12	18	13	4.0	6.0	400	150	34	10	61	365	14
14	14	17	13	4.5	6.0	350	140	31	10	46	234	13
15	14	17	13	4.5	5.5	300	118	29	10	32	156	12
16	14	18	14	4.5	5.0	300	96	28	11	23	120	12
17	13	20	14	5.0	5.0	300	120	28	59	17	107	10
18	14	18	15	5.0	5.0	330	118	29	46	18	92	10
19	14	16	15	5.0	5.5	350	98	31	416	11	107	8.6
20	14	14	15	5.5	6.0	450	87	31	425	9.8	329	8.1
21	12	16	15	5.0	6.0	620	68	32	190	9.8	361	8.1
22	18	18	15	5.0	5.5	476	50	32	87	10	399	8.6
23	22	20	15	5.0	5.0	370	49	29	45	11	227	8.1
24	23	22	15	5.0	5.0	361	48	26	33	12	153	7.6
25	21	20	14	4.5	5.5	320	44	27	44	9.8	123	7.0
26	23	19	12	4.0	6.0	298	42	24	35	9.8	107	7.0
27	23	18	10	4.0	6.0	302	40	22	33	16	115	5.8
28	22	18	8.0	3.8	6.0	324	38	22	29	34	87	6.2
29	22	17	5.0	3.5	---	298	39	24	375	134	156	7.0
30	22	16	3.5	3.5	---	284	43	22	311	320	123	7.6
31	22	---	3.0	3.5	---	342	---	22	---	223	85	---
TOTAL	512	637	368.5	132.3	142.3	7907.0	3540	1004	2338	4515.2	9429	570.7
MEAN	16.5	21.2	11.9	4.27	5.08	255	118	32.4	77.9	146	304	19.0
MAX	23	32	15	5.5	6.0	620	306	45	425	928	2240	70
MIN	12	14	3.0	3.5	3.5	6.0	38	22	10	9.8	43	5.8
AC-FT	1020	1260	731	262	282	15680	7020	1990	4640	8960	18700	1130
CAL YR 1978 TOTAL	113405.4			311		24000		3.0	AC-FT	224900		
WTR YR 1979 TOTAL	31096.0			85.2		2240		3.0	AC-FT	61680		

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY

LOCATION.--Lat 43°59'04", long 105°23'16", in NW¼NE¼NE¼ sec.9, T.46 N., R.71 W., Campbell County, Hydrologic Unit 10120201, on right bank 200 ft (61 m) downstream from bridge on county road, 1.2 mi (1.9 km) downstream from Rattlesnake Creek, 10.0 mi (16.1 km) southwest of Piney, 15.5 mi (24.9 km) north of Reno Junction, and 22 mi (35 km) south of Gillette.

DRAINAGE AREA.--495 mi² (1,282 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORD.--WDR WY-78-1.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records poor. No gage-height record Nov. 10 to Feb. 25. No diversions above station. Several small stockwater reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft³/s (116 m³/s) May 18, 1978, gage height, 11.33 ft (3.453 m), caused by dam failure upstream, from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of flow over road and culverts computation of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) June 17, gage height, 6.57 ft (2.003 m), from floodmarks; no flow for many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.34	.30	.06	1.0	3.7	.83	.43	32	.00	.00
2	.00	.00	.32	.31	.05	1.0	3.4	.83	.27	10	.00	.00
3	.00	.00	.30	.33	.07	1.1	3.0	1.0	.16	4.3	.00	.00
4	.00	.01	.43	.33	.06	1.5	2.7	1.2	.23	3.2	.00	.00
5	.00	.00	.42	.30	.06	2.4	2.5	1.2	.10	2.5	.00	.00
6	.00	.00	.40	.30	.09	4.0	2.5	1.4	.19	2.1	.00	.00
7	.00	.01	.34	.30	.11	4.6	3.0	1.4	.19	2.1	.00	.00
8	.00	.03	.31	.32	.16	5.0	3.0	1.2	.16	1.7	.00	.00
9	.00	.02	.31	.30	.14	4.4	3.2	.93	.06	1.6	.00	.00
10	.00	.04	.35	.30	.15	6.0	3.4	.83	.13	1.4	.00	.01
11	.00	.08	.38	.33	.14	8.0	3.4	.74	.06	1.0	.00	.01
12	.00	.07	.40	.30	.15	9.0	3.4	.74	.05	.65	.00	.00
13	.00	.06	.45	.25	.16	8.6	3.7	.83	.04	.43	.00	.00
14	.00	.08	.48	.20	.17	8.0	3.4	.83	.02	.37	.00	.00
15	.00	.10	.50	.20	.12	8.9	3.2	.83	.01	.19	.00	.00
16	.00	.11	.46	.22	.11	10	3.0	.74	.27	.06	.00	.00
17	.00	.14	.60	.22	.20	12	3.0	.50	330	.16	.00	.00
18	.00	.12	.90	.24	.30	9.0	2.3	.57	49	.13	.00	.00
19	.00	.07	1.0	.24	.40	7.2	2.7	.43	16	.01	.00	.00
20	.00	.06	1.0	.27	.40	6.0	2.5	.43	8.1	.02	.00	.00
21	.00	.06	1.0	.28	.38	4.9	2.7	.50	4.0	.03	.00	.00
22	.00	.07	.98	.27	.36	4.3	2.7	.43	2.7	.05	.00	.00
23	.00	.08	.90	.24	.35	4.0	1.9	.37	2.5	.03	.00	.00
24	.00	.08	.94	.20	.44	4.0	1.7	.27	1.6	.03	.00	.00
25	.00	.08	1.0	.16	.80	3.7	1.3	.19	1.3	.02	.00	.00
26	.00	.20	1.1	.16	1.1	3.2	1.2	.27	1.0	.03	.00	.00
27	.00	.30	.90	.14	1.2	4.0	1.2	.16	1.0	.02	.00	.00
28	.00	.40	.87	.12	1.1	4.0	1.0	.19	12	.00	.00	.00
29	.00	.39	.40	.12	---	3.7	.93	.23	8.1	.00	.00	.00
30	.00	.35	.30	.10	---	4.0	.83	.32	27	.00	.00	.00
31	.00	---	.30	.06	---	3.7	---	.43	---	.00	.00	---
TOTAL	.00	3.01	18.38	7.41	8.83	161.2	76.46	20.82	466.67	64.13	.00	.02
MEAN	.000	.10	.59	.24	.32	5.20	2.55	.67	15.6	2.07	.000	.001
MAX	.00	.40	1.1	.33	1.2	12	3.7	1.4	330	32	.00	.01
MIN	.00	.00	.30	.06	.05	1.0	.83	.16	.01	.00	.00	.00
AC-FT	.00	6.0	36	15	18	320	152	41	926	127	.00	.04
CAL YR 1978	TOTAL	3582.51	MEAN 9.82	MAX 1060	MIN .00	AC-FT 7110						
WTR YR 1979	TOTAL	826.93	MEAN 2.27	MAX 330	MIN .00	AC-FT 1640						

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: October 1976 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Sediment pumping sampler since April 1977.

REMARKS.--No flow was observed Oct. 12, Jan. 7, Aug. 15, 28, Sept. 12, 25. The water-quality data for Belle Fourche River below Rattlesnake Creek, near Piney (station no. 06425720), in the report WDR WY-78-1 was incorrectly published as Belle Fourche River above Dry Creek, near Piney (station no. 06425780). The water-quality data for Belle Fourche River above Dry Creek, near Piney (station no. 06425780), was incorrectly published as Belle Fourche River below Rattlesnake Creek, near Piney (station no. 06425720).

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 133 mg/L May 1; minimum daily mean, 0.0 mg/L many days.

SEDIMENT LOAD: Maximum daily, 2,780 tons (2,520 tonnes) May 19, 1978; minimum daily, 0 tons many days each year.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 1,600 mg/L Aug. 22, 1977 (possibly higher in May of 1978); minimum daily mean, 0.0 mg/L many days most years.

SEDIMENT LOAD: Maximum daily, 403 tons (366 tonnes) June 17; minimum daily, 0 tons on many days during year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CaCO3)
OCT 25...	0800	--	E.01	6750	--	2.5	--	--	--	--
NOV 09...	1600	.02	--	6000	7.9	3.0	10	11.0	2.1	2200
DEC 07...	1650	.34	--	6000	7.4	.0	6	10.8	1.6	1800
FEB 01...	1550	.06	--	5500	7.2	.0	10	8.1	1.4	1800
MAR 15...	1600	8.9	--	1700	7.6	1.0	15	10.2	2.4	620
APR 15...	1650	--	3.2	3200	8.0	13.5	15	9.7	2.8	1100
JUN 10...	1610	--	.16	4400	8.0	23.5	9	7.7	2.5	1600
JUL 19...	1700	--	.01	2400	8.0	28.5	5	11.2	2.0	870

E-Estimate.

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS Na)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
OCT 25...	--	--	--	--	--	--	--	--	--
NOV 09...	1800	330	340	710	6.6	--	20	490	0
DEC 07...	1500	330	240	700	7.2	--	25	370	0
FEB 01...	1500	340	230	590	6.1	--	18	420	0
MAR 15...	510	150	60	170	3.0	--	8.6	140	0
APR 15...	880	250	110	300	4.0	310	8.5	240	0
JUN 10...	1400	330	190	500	5.4	520	16	260	0
JUL 19...	680	150	120	280	4.1	290	13	230	0

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALKA- INITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 25...	--	--	--	--	--	--	--	--	--
NOV 09...	400	3500	46	.5	3.7	5190	7.06	.28	.05
DEC 07...	300	2800	34	.4	5.6	4320	5.88	3.97	.07
FEB 01...	340	2800	5.1	.4	9.4	4200	5.71	.68	.05
MAR 15...	110	810	7.3	.2	5.1	1280	1.74	30.8	.10
APR 15...	200	1500	16	.4	1.4	2300	3.13	19.9	.05
JUN 10...	210	2500	22	.5	1.4	3690	5.02	1.59	.04
JUL 19...	190	1100	14	.4	.9	1790	2.43	.05	.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 25...	--	--	--	--	--	--	--	--	--
NOV 09...	.08	--	1.3	1.4	1.5	6.4	.07	--	--
DEC 07...	.07	--	.61	.68	.75	3.3	.04	--	--
FEB 01...	.32	--	.54	.86	.91	4.0	.03	--	--
MAR 15...	.11	--	.43	.54	.64	2.8	.04	--	--
APR 15...	.08	.10	.52	.60	.65	2.9	.04	.12	.12
JUN 10...	.07	.08	.72	.79	.83	3.7	.09	.28	.28
JUL 19...	.06	.07	.82	.88	.93	4.1	.04	--	.12

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
NOV 09...	1600	80	0	1	1	0	0	150	4	2	0	0
DEC 07...	1650	--	--	--	--	--	--	160	--	--	--	--
FEB 01...	1550	450	--	1	--	10	--	140	3	--	10	--
MAR 15...	1600	--	--	--	--	--	--	60	--	--	--	--
APR 15...	1650	390	--	1	--	0	--	90	5	--	10	--
JUN 10...	1610	--	--	--	--	--	--	100	--	--	--	--
JUL 19...	1700	140	--	1	--	0	--	100	5	--	0	--

CHEYENNE RIVER BASIN

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 09...	9	7	870	--	30	9	4	170	160	940	800
DEC 07...	--	--	--	--	180	--	--	--	--	--	--
FEB 01...	2	--	1100	--	310	6	--	170	--	760	--
MAR 15...	--	--	--	--	120	--	--	--	--	--	--
APR 15...	6	--	1100	1100	30	12	--	80	--	370	--
JUN 10...	--	--	--	--	30	--	--	--	--	--	--
JUL 19...	10	--	190	180	10	5	--	70	--	300	--

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 09...	.0	.0	5	3	4	5	1	2	.0	40	40
DEC 07...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	.0	--	2	--	4	--	0	--	--	40	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 15...	.1	--	5	--	5	--	1	--	--	20	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
JUL 19...	.1	--	2	--	3	--	0	--	--	20	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED (PCI/L RADON METHOD AS U)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
NOV 09...	1600	<59	<.4	52	1.8	46	1.9	.08	17

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
JUN 28...	1230	2	23.0	18	18	22	27	34
JUL 11...	1645	2	26.0	.98	14	20	30	41
AUG 06...	1330	2	27.5	.01	14	19	25	37

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JUN 28...	40	48	55	64	70	81	100
JUL 11...	50	57	70	80	84	100	--
AUG 06...	47	66	77	84	100	--	--

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.00	0	.00	.00	0	.00	.34		.06
2	.00	0	.00	.00	0	.00	.32		.06
3	.00	0	.00	.00	0	.00	.30		.06
4	.00	0	.00	.01	---	.00	.43		.08
5	.00	0	.00	.00	0	.00	.42		.08
6	.00	0	.00	.00	0	.00	.40		.08
7	.00	0	.00	.01	---	.00	.34		.06
8	.00	0	.00	.03	---	.00	.31		.06
9	.00	0	.00	.02	---	.00	.31		.06
10	.00	0	.00	.04	---	.01	.35		.07
11	.00	0	.00	.08	---	.01	.38		.07
12	.00	0	.00	.07	---	.01	.40		.08
13	.00	0	.00	.06	---	.01	.45		.09
14	.00	0	.00	.08	---	.01	.48		.09
15	.00	0	.00	.10	---	.02	.50		.10
16	.00	0	.00	.11	---	.02	.46		.09
17	.00	0	.00	.14	---	.02	.60		.12
18	.00	0	.00	.12	---	.02	.90		.18
19	.00	0	.00	.07	---	.01	1.0		.21
20	.00	0	.00	.06	---	.01	1.0		.21
21	.00	0	.00	.06	---	.01	1.0		.21
22	.00	0	.00	.07	---	.01	.98		.20
23	.00	0	.00	.08	---	.01	.90		.18
24	.00	0	.00	.08	---	.01	.94		.19
25	.00	0	.00	.08	---	.01	1.0		.21
26	.00	0	.00	.20	---	.04	1.1		.23
27	.00	0	.00	.30	---	.06	.90		.18
28	.00	0	.00	.40	---	.08	.87		.18
29	.00	0	.00	.39	---	.07	.40		.08
30	.00	0	.00	.35	---	.07	.30		.06
31	.00	0	.00	---	---	---	.30		.06
TOTAL	0.00	---	0.00	3.01	---	0.52	18.38		3.69
JANUARY			FEBRUARY			MARCH			
1	.30		.06	.06		.01	1.0		.21
2	.31		.06	.05		.01	1.0		.21
3	.33		.06	.07		.01	1.1		.23
4	.33		.06	.06		.01	1.5		.32
5	.30		.06	.06		.01	2.4		.53
6	.30		.06	.09		.01	4.0		.93
7	.30		.06	.11		.02	4.6		1.1
8	.32		.06	.16		.03	5.0		1.2
9	.30		.06	.14		.02	4.4		1.0
10	.30		.06	.15		.03	6.0		1.5
11	.33		.06	.14		.02	8.0		2.0
12	.30		.06	.15		.03	9.0		2.3
13	.25		.05	.16		.03	8.6		2.2
14	.20		.04	.17		.03	8.0		2.0
15	.20		.04	.12		.02	8.9		2.2
16	.22		.04	.11		.02	10		2.5
17	.22		.04	.20		.04	12		3.1
18	.24		.04	.30		.06	9.0		2.3
19	.24		.04	.40		.08	7.2		1.8
20	.27		.05	.40		.08	6.0		1.5
21	.28		.05	.38		.07	4.9		1.2
22	.27		.05	.36		.07	4.3		1.0
23	.24		.04	.35		.07	4.0		.93
24	.20		.04	.44		.08	4.0		.93
25	.16		.03	.80		.16	3.7		.86
26	.16		.03	1.1		.23	3.2		.73
27	.14		.02	1.2		.25	4.0		.93
28	.12		.02	1.1		.23	4.0		.93
29	.12		.02	---		---	3.7		.86
30	.10		.02	---		---	4.0		.93
31	.06		.01	---		---	3.7		.86
TOTAL	7.41		1.39	8.83		1.73	161.2		39.29

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
APRIL									
1	3.7	---	.86	.83	133	.30	.43	64	.07
2	3.4	---	.78	.83	81	.18	.27	60	.04
3	3.0	---	.68	1.0	75	.20	.16	77	.03
4	2.7	---	.61	1.2	102	.33	.23	80	.05
5	2.5	---	.56	1.2	116	.38	.10	82	.02
6	2.5	---	.56	1.4	122	.46	.19	87	.04
7	3.0	---	.68	1.4	---	.30	.19	102	.05
8	3.0	---	.68	1.2	122	.40	.16	124	.05
9	3.2	---	.73	.93	128	.32	.06	---	.01
10	3.4	---	.78	.83	98	.22	.13	---	.02
11	3.4	---	.78	.74	84	.17	.06	---	.01
12	3.4	---	.78	.74	85	.17	.05	---	.01
13	3.7	---	.86	.83	94	.21	.04	---	.01
14	3.4	---	.78	.83	95	.21	.02	---	.00
15	3.2	---	.73	.83	102	.23	.01	---	.00
16	3.0	---	.68	.74	109	.22	.27	---	.05
17	3.0	---	.68	.50	74	.10	330	---	403
18	2.3	---	.51	.57	68	.10	49	---	14
19	2.7	---	.61	.43	72	.08	16	---	4.2
20	2.5	---	.56	.43	62	.07	8.1	---	2.0
21	2.7	---	.61	.50	102	.14	4.0	---	.93
22	2.7	---	.61	.43	126	.15	2.7	---	.61
23	1.9	---	.41	.37	126	.13	2.5	---	.56
24	1.7	---	.37	.27	85	.06	1.6	---	.34
25	1.3	80	.28	.19	119	.06	1.3	62	.22
26	1.2	112	.36	.27	71	.05	1.0	82	.22
27	1.2	96	.31	.16	61	.03	1.0	68	.18
28	1.0	108	.29	.19	72	.04	12	66	2.1
29	.93	88	.22	.23	77	.05	8.1	76	1.7
30	.83	119	.27	.32	70	.06	27	108	7.9
31	---	---	.43	.43	99	.11	---	---	---
TOTAL	76.46	---	17.62	20.82	---	5.53	466.67	---	438.42
JULY									
1	32	84	7.3	.00	0	.00	.00	0	.00
2	10	---	2.5	.00	0	.00	.00	0	.00
3	4.3	---	1.0	.00	0	.00	.00	0	.00
4	3.2	45	.39	.00	0	.00	.00	0	.00
5	2.5	52	.35	.00	0	.00	.00	0	.00
6	2.1	84	.48	.00	0	.00	.00	0	.00
7	2.1	65	.37	.00	0	.00	.00	0	.00
8	1.7	74	.34	.00	0	.00	.00	0	.00
9	1.6	45	.19	.00	0	.00	.00	0	.00
10	1.4	34	.13	.00	0	.00	.01	---	.00
11	1.0	50	.14	.00	0	.00	.01	---	.00
12	.65	68	.12	.00	0	.00	.00	0	.00
13	.43	41	.05	.00	0	.00	.00	0	.00
14	.37	31	.03	.00	0	.00	.00	0	.00
15	.19	23	.01	.00	0	.00	.00	0	.00
16	.06	17	.00	.00	0	.00	.00	0	.00
17	.16	13	.01	.00	0	.00	.00	0	.00
18	.13	13	.00	.00	0	.00	.00	0	.00
19	.01	---	.00	.00	0	.00	.00	0	.00
20	.02	---	.00	.00	0	.00	.00	0	.00
21	.03	---	.00	.00	0	.00	.00	0	.00
22	.05	---	.01	.00	0	.00	.00	0	.00
23	.03	60	.00	.00	0	.00	.00	0	.00
24	.03	65	.01	.00	0	.00	.00	0	.00
25	.02	44	.00	.00	0	.00	.00	0	.00
26	.03	65	.01	.00	0	.00	.00	0	.00
27	.02	71	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	.00	0	.00	---	---	---
TOTAL	64.13	---	13.44	0.00	---	0.00	0.02	---	0.00
YEAR	826.93		521.63						
AUGUST									
1	32	84	7.3	.00	0	.00	.00	0	.00
2	10	---	2.5	.00	0	.00	.00	0	.00
3	4.3	---	1.0	.00	0	.00	.00	0	.00
4	3.2	45	.39	.00	0	.00	.00	0	.00
5	2.5	52	.35	.00	0	.00	.00	0	.00
6	2.1	84	.48	.00	0	.00	.00	0	.00
7	2.1	65	.37	.00	0	.00	.00	0	.00
8	1.7	74	.34	.00	0	.00	.00	0	.00
9	1.6	45	.19	.00	0	.00	.00	0	.00
10	1.4	34	.13	.00	0	.00	.01	---	.00
11	1.0	50	.14	.00	0	.00	.01	---	.00
12	.65	68	.12	.00	0	.00	.00	0	.00
13	.43	41	.05	.00	0	.00	.00	0	.00
14	.37	31	.03	.00	0	.00	.00	0	.00
15	.19	23	.01	.00	0	.00	.00	0	.00
16	.06	17	.00	.00	0	.00	.00	0	.00
17	.16	13	.01	.00	0	.00	.00	0	.00
18	.13	13	.00	.00	0	.00	.00	0	.00
19	.01	---	.00	.00	0	.00	.00	0	.00
20	.02	---	.00	.00	0	.00	.00	0	.00
21	.03	---	.00	.00	0	.00	.00	0	.00
22	.05	---	.01	.00	0	.00	.00	0	.00
23	.03	60	.00	.00	0	.00	.00	0	.00
24	.03	65	.01	.00	0	.00	.00	0	.00
25	.02	44	.00	.00	0	.00	.00	0	.00
26	.03	65	.01	.00	0	.00	.00	0	.00
27	.02	71	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	.00	0	.00	---	---	---
TOTAL	64.13	---	13.44	0.00	---	0.00	0.02	---	0.00
YEAR	826.93		521.63						
SEPTEMBER									
1	32	84	7.3	.00	0	.00	.00	0	.00
2	10	---	2.5	.00	0	.00	.00	0	.00
3	4.3	---	1.0	.00	0	.00	.00	0	.00
4	3.2	45	.39	.00	0	.00	.00	0	.00
5	2.5	52	.35	.00	0	.00	.00	0	.00
6	2.1	84	.48	.00	0	.00	.00	0	.00
7	2.1	65	.37	.00	0	.00	.00	0	.00
8	1.7	74	.34	.00	0	.00	.00	0	.00
9	1.6	45	.19	.00	0	.00	.00	0	.00
10	1.4	34	.13	.00	0	.00	.01	---	.00
11	1.0	50	.14	.00	0	.00	.01	---	.00
12	.65	68	.12	.00	0	.00	.00	0	.00
13	.43	41	.05	.00	0	.00	.00	0	.00
14	.37	31	.03	.00	0	.00	.00	0	.00
15	.19	23	.01	.00	0	.00	.00	0	.00
16	.06	17	.00	.00	0	.00	.00	0	.00
17	.16	13	.01	.00	0	.00	.00	0	.00
18	.13	13	.00	.00	0	.00	.00	0	.00
19	.01	---	.00	.00	0	.00	.00	0	.00
20	.02	---	.00	.00	0	.00	.00	0	.00
21	.03	---	.00	.00	0	.00	.00	0	.00
22	.05	---	.01	.00	0	.00	.00	0	.00
23	.03	60	.00	.00	0	.00	.00	0	.00
24	.03	65	.01	.00	0	.00	.00	0	.00
25	.02	44	.00	.00	0	.00	.00	0	.00
26	.03	65	.01	.00	0	.00	.00	0	.00
27	.02	71	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	.00	0	.00	---	---	---
TOTAL	64.13	---	13.44	0.00	---	0.00	0.02	---	0.00
YEAR	826.93		521.63						

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY

LOCATION.--Lat 44°01'30", long 105°19'35", in NW¼SE¼NE¼ sec.25, T.47 N., R.71 W., Campbell County, Hydrologic Unit 10120201, on left bank 4.1 mi (6.6 km) upstream from Dry Creek, 4.8 mi (7.7 km) downstream from Coal Creek, 6.0 mi (9.7 km) southwest of Piney, and 20 mi (32 km) southeast of Gillette.

DRAINAGE AREA.--594 mi² (1,538 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,460 ft (1,359 m), from topographic map.

REMARKS.--Records poor. No gage-height record Dec. 31 to Feb. 11, Mar. 23 to Apr. 2. Several small stockwater and soil conservation reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 5,630 ft³/s (159 m³/s) May 18, 1978, gage height, about 16.3 ft (4.97 m), from floodmarks caused by dam failure; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 ft³/s (22.1 m³/s) June 17, gage height, 9.36 ft (2.853 m); minimum daily, 0.01 ft³/s (<0.001 m³/s) Aug. 28, Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.10	.70	.30	.10	1.2	8.0	1.5	.46	36	.08	.05
2	.97	.10	.88	.30	.10	1.2	7.0	1.4	.46	14	.04	.05
3	.72	.10	.41	.35	.15	1.2	6.2	1.8	.36	7.2	.04	.03
4	.32	.10	.88	.35	.20	1.1	5.9	1.8	.36	5.3	.05	.02
5	.24	.10	.90	.30	.25	3.0	5.6	1.6	.32	3.4	.05	.02
6	.32	.10	.70	.30	.25	5.0	5.3	1.3	.24	4.4	.04	.02
7	1.8	.12	.65	.30	.30	7.0	6.6	1.2	.28	2.1	.04	.03
8	1.5	.10	.65	.35	.20	14	9.6	1.3	.28	1.9	.05	.02
9	.52	.20	.58	.30	.25	20	8.8	1.6	.28	1.8	.04	.01
10	.28	.58	.58	.30	.40	35	8.8	1.5	.32	1.4	.05	.01
11	.17	.32	.58	.35	.50	50	9.9	1.5	.28	1.2	.08	.02
12	.65	.14	.58	.30	.52	48	9.6	1.4	.20	.97	.03	.04
13	.24	.17	.65	.20	.70	46	7.2	1.3	.12	.80	.04	.03
14	.88	.14	.80	.10	.70	42	8.5	1.4	.10	.72	.07	.04
15	.20	.12	.58	.10	.60	44	11	1.4	.10	.52	.04	.03
16	.14	.10	.52	.15	.58	45	9.6	1.5	2.0	.46	.02	.03
17	.14	.10	.46	.15	.80	48	8.5	1.4	253	.41	.10	.03
18	.17	.10	.52	.20	1.8	51	7.2	1.4	81	.24	.12	.02
19	.14	.09	.58	.20	1.1	19	4.7	1.2	40	.20	.12	.03
20	.46	.09	.72	.25	1.4	19	3.7	.80	16	.14	.10	.03
21	2.1	.10	1.3	.25	1.4	16	3.2	.72	8.1	.14	.10	.04
22	.32	.10	1.3	.20	.97	14	3.0	.65	5.9	.12	.08	.05
23	.24	.10	1.3	.10	1.4	13	3.0	.58	4.4	.10	.05	.05
24	.20	.10	1.1	.15	1.2	12	2.4	.58	3.2	.08	.04	.07
25	.24	.10	.80	.10	.88	11	2.1	.46	2.6	.07	.02	.05
26	.52	.10	.88	.10	.88	10	1.9	.46	1.9	.12	.02	.07
27	.36	.20	.88	.10	1.0	11	1.9	.41	1.9	.12	.04	.05
28	.24	.50	.88	.10	1.2	11	1.9	.36	1.6	.07	.01	.05
29	.14	.60	.65	.10	---	11	1.9	.36	6.9	.08	.03	.05
30	.10	.60	.46	.10	---	11	1.6	.41	54	.08	.07	.05
31	.10	---	.30	.10	---	10	---	.41	---	.10	.05	---
TOTAL	15.92	5.47	22.77	6.55	19.83	630.7	174.6	33.70	486.66	84.24	1.71	1.09
MEAN	.51	.18	.73	.21	.71	20.3	5.82	1.09	16.2	2.72	.055	.036
MAX	2.1	.60	1.3	.35	1.8	51	11	1.8	253	36	.12	.07
MIN	.10	.09	.30	.10	.10	1.1	1.6	.36	.10	.07	.01	.01
AC-FT	32	11	45	13	39	1250	346	67	965	167	3.4	2.2
CAL YR 1978 TOTAL	7015.63			19.2		2150		.00		13920		
WTR YR 1979 TOTAL	1483.24			4.06		253		.01		2940		

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: October 1976 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Sediment pumping sampler since April 1977.

REMARKS.--The water-quality data for Belle Fourche River above Dry Creek, near Piney (station no. 06425780), in the report WDR WY-78-1 was incorrectly published as Belle Fourche River below Rattlesnake Creek, near Piney (station no. 06425720). The water-quality data for Belle Fourche River below Rattlesnake Creek, near Piney (station no. 06425720), was incorrectly published as Belle Fourche River above Dry Creek, near Piney (station no. 06425780).

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 2,300 mg/L July 9, 1977 (possibly higher in May of 1978); minimum daily mean observed, 0.0 mg/L some days most years.

SEDIMENT LOAD: Maximum daily, 40,100 tons (36,400 tonnes) May 18, 1978; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 1,550 mg/L June 20; minimum daily mean observed, 19 mg/L Aug. 16.

SEDIMENT LOAD: Maximum daily, 953 tons (865 tonnes) June 17; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT										
12...	1740	--	.36	3500	8.0	8.0	5	11.0	2.2	1500
25...	0930	--	.10	3410	--	4.0	--	--	--	--
NOV										
09...	1520	--	.32	3000	8.0	3.5	9	11.5	2.2	1500
DEC										
07...	1550	--	.65	5500	7.8	.0	10	10.9	2.2	1800
JAN										
07...	1400	.30	--	6000	7.6	.0	7	10.6	2.7	1700
FEB										
01...	1500	.10	--	4100	7.5	.0	8	8.6	1.2	1600
MAR										
15...	1445	44	--	820	7.6	1.0	140	11.0	4.5	290
APR										
15...	1550	--	13	1700	8.1	13.0	50	10.0	3.2	570
JUN										
10...	1500	--	.32	4300	7.9	20.0	10	9.5	2.4	1600
JUL										
19...	1550	--	.24	2800	8.0	26.0	15	9.3	1.6	1000
AUG										
15...	1630	--	.05	3750	8.0	22.0	4	11.2	2.2	1600
SEP										
12...	1515	--	.04	4200	8.0	15.0	8	9.4	2.5	1600

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM AD- DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)
OCT										
12...	1300	340	160	240	2.7	--	37	270	0	220
25...	--	--	--	--	--	--	--	--	--	--
NOV										
09...	1200	350	150	300	3.4	--	32	320	0	260
DEC										
07...	1400	320	240	610	6.3	--	32	520	0	430
JAN										
07...	1600	320	230	550	5.7	--	26	190	0	160
FEB										
01...	1200	340	180	350	3.8	--	28	460	0	380
MAR										
15...	220	71	27	66	1.7	--	6.6	78	0	64
APR										
15...	420	130	60	150	2.7	160	6.9	190	0	160
JUN										
10...	1300	350	180	500	5.4	520	16	340	0	280
JUL										
19...	780	230	110	250	3.4	270	16	300	0	250
AUG										
15...	1300	360	160	320	3.5	340	18	330	0	270
SEP										
12...	1400	390	160	410	4.4	430	24	--	--	280

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 12...	1800	13	.7	14	3150	2740	3.73	2.66	3	25
25...	--	--	--	--	--	--	--	--	--	--
NOV 09...	1800	17	.3	6.0	--	2800	3.81	2.42	--	5.1
DEC 07...	2800	35	.4	8.7	--	4300	5.85	7.55	--	4.7
JAN 07...	2800	32	.4	11	--	4060	5.52	3.29	--	2.2
FEB 01...	1600	14	.4	13	--	2750	3.74	.74	--	4.4
MAR 15...	340	4.7	.2	4.7	--	559	.76	66.4	--	1.0
APR 15...	700	12	.4	4.1	--	1160	1.58	40.7	--	.63
JUN 10...	2300	22	.5	2.5	--	3540	4.81	3.06	--	.30
JUL 19...	1200	22	.4	3.6	--	1980	2.69	1.28	--	.18
AUG 15...	1800	23	.4	1.6	--	2850	3.88	.38	--	.31
SEP 12...	2200	16	.5	1.8	--	3370	4.58	.36	--	.56

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 12...	.09	--	.28	.37	25	110	.01	--	--
25...	--	--	--	--	--	--	--	--	--
NOV 09...	.04	--	1.3	1.3	6.4	28	.02	--	--
DEC 07...	.12	--	1.4	1.5	6.2	27	.05	--	--
JAN 07...	.11	--	1.1	1.2	3.4	15	.04	--	--
FEB 01...	.59	--	.71	1.3	5.7	25	.02	--	--
MAR 15...	.07	--	.69	.76	1.8	7.8	.06	--	--
APR 15...	.12	.15	.98	1.1	1.7	7.7	.05	.15	.15
JUN 10...	.11	.13	.84	.95	1.3	5.5	.06	.18	.18
JUL 19...	.16	.19	2.4	2.6	2.8	12	.05	--	.15
AUG 15...	.09	.11	.62	.71	1.0	4.5	.03	--	.09
SEP 12...	.05	.06	.22	.27	.83	3.7	.02	--	.06

CHEYENNE RIVER BASIN

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCT 12...	1740	100	0	1	1	0	0	1100	1	3	0	0
NOV 09...	1520	--	--	--	--	--	--	470	--	--	--	--
DEC 07...	1550	--	--	--	--	--	--	410	--	--	--	--
JAN 07...	1400	170	--	1	--	10	--	350	2	--	20	--
FEB 01...	1500	--	--	--	--	--	--	570	--	--	--	--
MAR 15...	1445	--	--	--	--	--	--	80	--	--	--	--
APR 15...	1550	1200	--	1	--	0	--	110	6	--	10	--
JUN 10...	1500	--	--	--	--	--	--	180	--	--	--	--
JUL 19...	1550	280	--	1	--	0	--	250	11	--	0	--
AUG 15...	1630	--	--	--	--	--	--	530	--	--	--	--
SEP 12...	1515	--	--	--	--	--	--	550	--	--	--	--

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 12...	3	5	320	--	40	9	31	110	110	250	280
NOV 09...	--	--	--	--	160	--	--	--	--	--	--
DEC 07...	--	--	--	--	70	--	--	--	--	--	--
JAN 07...	5	--	550	--	240	6	--	170	--	820	--
FEB 01...	--	--	--	--	80	--	--	--	--	--	--
MAR 15...	--	--	--	--	190	--	--	--	--	--	--
APR 15...	8	--	1700	1700	40	12	--	10	--	160	--
JUN 10...	--	--	--	--	40	--	--	--	--	--	--
JUL 19...	24	--	300	280	20	7	--	60	--	160	--
AUG 15...	--	--	--	--	70	--	--	--	--	--	--
SEP 12...	--	--	--	--	20	--	--	--	--	--	--

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MU)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 12...	.0	.0	33	28	2	4	25	22	33	40	30
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--	--	--
JAN 07...	.0	--	5	--	5	--	2	--	--	40	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 15...	.1	--	4	--	8	--	1	--	--	50	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
JUL 19...	.1	--	2	--	5	--	1	--	--	40	--
AUG 15...	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED (PCI/L AS METHOD PC/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 12...	1740	<24	.5	30	1.1	27	1.2	.10	11

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
JUL 11...	1310	2	22.0	1.2	8	13	26	35
AUG 06...	1100	2	23.0	.05	6	8	14	22
17...	1030	2	19.5	.11	16	25	39	45
SEP 12...	1320	2	15.5	.07	4	6	15	28

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JUL 11...	42	47	56	67	71	77	100
AUG 06...	34	42	52	69	76	94	100
17...	48	51	56	65	71	82	100
SEP 12...	36	44	54	70	85	100	--

CHEYENNE RIVER BASIN

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	1.5		.73	.10		.02	.70		.28
2	.97		.42	.10		.02	.88		.37
3	.72		.29	.10		.02	.41		.14
4	.32		.10	.10		.02	.88		.37
5	.24		.07	.10		.02	.90		.38
6	.32		.10	.10		.02	.70		.28
7	1.8		.92	.12		.03	.65		.25
8	1.5		.73	.10		.02	.65		.25
9	.52		.19	.20		.06	.58		.22
10	.28		.09	.58		.22	.58		.22
11	.17		.05	.32		.10	.58		.22
12	.65		.25	.14		.04	.58		.22
13	.24		.07	.17		.05	.65		.25
14	.88		.37	.14		.04	.80		.33
15	.20		.06	.12		.03	.58		.22
16	.14		.04	.10		.02	.52		.19
17	.14		.04	.10		.02	.46		.16
18	.17		.05	.10		.02	.52		.19
19	.14		.04	.09		.02	.58		.22
20	.46		.16	.09		.02	.72		.29
21	2.1		1.1	.10		.02	1.3		.61
22	.32		.10	.10		.02	1.3		.61
23	.24		.07	.10		.02	1.3		.61
24	.20		.06	.10		.02	1.1		.49
25	.24		.07	.10		.02	.80		.33
26	.52		.19	.10		.02	.88		.37
27	.36		.12	.20		.06	.88		.37
28	.24		.07	.50		.18	.88		.37
29	.14		.04	.60		.23	.65		.25
30	.10		.02	.60		.23	.46		.16
31	.10		.02	---			.30		.09
TOTAL	15.92		6.63	5.47		1.63	22.77		9.31
JANUARY			FEBRUARY			MARCH			
1	.30		.09	.10		.02			.55
2	.30		.09	.10		.02	1.2		.55
3	.35		.12	.15		.04	1.2		.55
4	.35		.12	.20		.06	1.1		.49
5	.30		.09	.25		.08	3.0		1.8
6	.30		.09	.25		.08	5.0		3.4
7	.30		.09	.30		.09	7.0		5.1
8	.35		.12	.20		.06	14		12
9	.30		.09	.25		.08	20		19
10	.30		.09	.40		.14	35		40
11	.35		.12	.50		.18	50		62
12	.30		.09	.52		.19	48		58
13	.20		.06	.70		.28	46		56
14	.10		.02	.70		.28	42		50
15	.10		.02	.60		.23	44		53
16	.15		.04	.58		.22	45		54
17	.15		.04	.80		.33	48		59
18	.20		.06	1.8		.92	51		64
19	.20		.06	1.1		.49	19		18
20	.25		.08	1.4		.67	19		18
21	.25		.08	1.4		.67	16		15
22	.20		.06	.97		.42	14		12
23	.10		.02	1.4		.67	13		11
24	.15		.04	1.2		.55	12		10
25	.10		.02	.68		.37	11		9.1
26	.10		.02	.88		.37	10		8.1
27	.10		.02	1.0		.44	11		9.1
28	.10		.02	1.2		.55	11		9.1
29	.10		.02	---			11		9.1
30	.10		.02	---			11		9.1
31	.10		.02	---			10		8.1
TOTAL	6.55		1.92	19.83		8.50	630.7		685.14

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL									
1	8.0		6.1	1.5	---	.73	.46	65	.08
2	7.0		5.1	1.4	---	.67	.46	101	.13
3	6.2		4.4	1.8	---	.92	.36	80	.08
4	5.9		4.1	1.8	---	.92	.36	91	.09
5	5.6		3.9	1.6	---	.79	.32	74	.06
6	5.3		3.6	1.3	---	.61	.24	82	.05
7	6.6		4.8	1.2	---	.55	.28	88	.07
8	9.6		7.7	1.3	61	.21	.28	134	.10
9	8.8		6.9	1.6	174	.75	.28	157	.12
10	8.8		6.9	1.5	146	.59	.32	162	.14
11	9.9		8.0	1.5	178	.72	.28	202	.15
12	9.6		7.7	1.4	165	.62	.20	91	.05
13	7.2		5.3	1.3	427	1.5	.12	88	.03
14	8.5		6.6	1.4	373	1.4	.10	79	.02
15	11		9.1	1.4	280	1.1	.10	100	.03
16	9.6		7.7	1.5	351	1.4	2.0	---	1.1
17	8.5		6.6	1.4	278	1.1	253	---	953
18	7.2		5.3	1.4	220	.83	81	---	114
19	4.7		3.1	1.2	220	.71	40	1040	112
20	3.7		2.3	.80	239	.52	16	1550	67
21	3.2		1.9	.72	153	.30	8.1	650	14
22	3.0		1.8	.65	114	.20	5.9	---	4.1
23	3.0		1.8	.58	107	.17	4.4	---	2.9
24	2.4		1.3	.58	102	.16	3.2	---	1.9
25	2.1		1.1	.46	122	.15	2.6	97	.68
26	1.9		.98	.46	124	.15	1.9	61	.31
27	1.9		.98	.41	111	.12	1.9	81	.42
28	1.9		.98	.36	91	.09	1.6	190	.82
29	1.9		.98	.36	133	.13	6.9	178	3.3
30	1.6		.79	.41	177	.20	54	1070	234
31	---			.41	72	.08	---	---	---
TOTAL	174.6		127.81	33.70	---	18.39	486.66	---	1510.73
JULY									
1	36	---	41	.08	105	.02	.05	147	.02
2	14	---	12	.04	94	.01	.05	98	.01
3	7.2	---	5.3	.04	78	.01	.03	89	.01
4	5.3	---	3.6	.05	62	.01	.02	84	.00
5	3.4	---	2.1	.05	106	.01	.02	78	.00
6	4.4	---	2.8	.04	78	.01	.02	58	.00
7	2.1	---	1.1	.04	102	.01	.03	66	.01
8	1.9	---	.98	.05	85	.01	.02	60	.00
9	1.8	---	.92	.04	81	.01	.01	41	.00
10	1.4	---	.67	.05	59	.01	.01	41	.00
11	1.2	182	.59	.08	80	.02	.02	41	.00
12	.97	122	.32	.03	62	.01	.04	106	.01
13	.80	105	.23	.04	36	.00	.03	99	.01
14	.72	74	.14	.07	42	.01	.04	138	.01
15	.52	67	.09	.04	22	.00	.03	83	.01
16	.46	66	.08	.02	19	.00	.03	77	.01
17	.41	75	.08	.10	122	.03	.03	92	.01
18	.24	86	.06	.12	92	.03	.02	117	.01
19	.20	70	.04	.12	82	.03	.03	72	.01
20	.14	56	.02	.10	82	.02	.03	67	.01
21	.14	41	.02	.10	88	.02	.04	67	.01
22	.12	34	.01	.08	109	.02	.05	47	.01
23	.10	153	.04	.05	71	.01	.05	42	.01
24	.08	119	.03	.04	73	.01	.07	27	.01
25	.07	102	.02	.02	44	.00	.05	---	.01
26	.12	120	.04	.02	41	.00	.07	---	.02
27	.12	142	.05	.04	41	.00	.05	---	.01
28	.07	102	.02	.01	67	.00	.05	---	.01
29	.08	107	.02	.03	218	.02	.05	---	.01
30	.08	88	.02	.07	218	.04	.05	---	.01
31	.10	114	.03	.05	153	.02	---	---	---
TOTAL	84.24	---	72.42	1.71	---	0.40	1.09	---	0.25
YEAR	1483.24		2443.13						

CHEYENNE RIVER BASIN

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY

LOCATION.--Lat 44°04'48", long 105°15'59", in NW¼NE¼SE¼ sec.4, T.47 N., R.70 W., Campbell County, Hydrologic Unit 10120201, on left bank 0.1 mi (0.2 km) downstream from bridge on county road, 0.7 mi (1.1 km) southwest of Piney (discontinued post office), 1.3 mi (2.1 km) upstream from mouth, and 18 mi (29 km) southeast of Gillette.

DRAINAGE AREA.--260 mi² (673 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 4,370 ft (1,332 km) from topographic map.

REMARKS.--Records fair except those for winter period and those below 0.5 ft³/s (0.014 m³/s), which are poor. Numerous small reservoirs above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft³/s (61.5 m³/s) May 19, 1978, gage height, 8.66 ft (2.640 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 143 ft³/s (4.05 m³/s) July 26, gage height, 4.54 ft (1.384 m); maximum gage height, 5.35 ft (1.631 m) Mar. 7 (backwater from ice); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	.02	.00	.00	.00	.03	5.4	.20	.25	.00	.02	.00
2	2.9	.01	.00	.00	.00	.01	4.2	.26	.17	.00	.01	.00
3	2.2	.01	.00	.00	.00	.00	3.7	.35	.12	.00	.01	.00
4	1.2	.00	.00	.00	.00	.00	2.8	.35	.07	4.5	.00	.00
5	.74	.00	.00	.00	.00	.20	2.9	.31	.02	2.0	.00	.00
6	.66	.00	.00	.00	.00	2.0	2.5	.27	.00	.00	.00	.00
7	.59	.01	.00	.00	.00	40	3.1	.21	.00	.00	.00	.00
8	.38	.02	.00	.00	.00	35	4.7	.16	.00	.00	12	.00
9	.38	.08	.00	.00	.00	25	4.7	.30	.10	1.4	1.8	.00
10	.46	.06	.00	.00	.00	15	3.7	.46	.12	.00	.00	.00
11	.20	.05	.00	.00	.00	11	6.3	.47	.05	.00	.00	.00
12	.10	.04	.00	.00	.00	15	6.3	.46	.00	.00	.00	.00
13	.05	.02	.00	.00	.01	25	5.8	.42	.00	.00	.29	.00
14	.02	.01	.00	.00	.05	28	3.7	.38	.00	.00	.55	.00
15	.06	.00	.00	.00	.10	30	2.7	.24	.00	.00	.52	.00
16	.13	.00	.00	.00	.03	35	2.4	.21	4.9	.00	2.2	.00
17	.12	.00	.00	.00	.01	30	2.2	.22	1.8	.00	.21	.00
18	.12	.00	.00	.00	.00	25	2.1	.30	.21	.00	.05	.00
19	.10	.00	.00	.00	.00	20	2.4	.39	.04	.00	.28	.00
20	.22	.00	.00	.00	.02	17	1.5	.28	.01	.00	.57	.00
21	.22	.00	.00	.00	.00	12	1.0	.16	.00	.00	2.8	.00
22	.38	.00	.00	.00	.00	8.3	.60	.11	.00	.00	.93	.00
23	.63	.00	.00	.00	.00	4.5	.66	.49	.00	.00	.19	.00
24	.41	.00	.00	.00	.00	5.8	.66	1.1	.00	.00	.03	.00
25	.35	.00	.00	.00	.00	7.1	.60	1.0	.00	.00	.00	.00
26	.31	.00	.00	.00	.00	8.1	.47	.53	.00	6.2	1.2	.00
27	.28	.00	.00	.00	.00	6.1	.36	.21	.00	16	.75	.00
28	.23	.00	.00	.00	.00	7.5	.30	.15	.00	1.2	.38	.00
29	.11	.00	.00	.00	---	10	.30	.16	.00	2.4	.24	.00
30	.06	.00	.00	.00	---	8.1	.26	.31	.09	.07	.18	.00
31	.04	---	.00	.00	---	6.9	---	.37	---	.04	.06	---
TOTAL	16.25	.33	.00	.00	.22	437.64	78.31	10.83	7.95	33.81	25.27	.00
MEAN	.52	.011	.000	.000	.008	14.1	2.61	.35	.27	1.09	.82	.000
MAX	2.9	.08	.00	.00	.10	40	6.3	1.1	4.9	16	12	.00
MIN	.02	.00	.00	.00	.00	.00	.26	.11	.00	.00	.00	.00
AC-FT	32	.7	.00	.00	.4	868	155	21	16	67	50	.00
CAL YR 1978	TOTAL	4113.01	MEAN	11.3	MAX	1500	MIN	.00	AC-FT	8160		
WTR YR 1979	TOTAL	610.61	MEAN	1.67	MAX	40	MIN	.00	AC-FT	1210		

WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

S-Seepage run data (see Explanation of Water-Quality Records).

[illegible]

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)
OCT 25...	0855	0	1	0	1	0	--	0	60	0	--
MAR 07...	1030	10	1	1	--	0	--	0	--	0	--
APR 27...	0850	--	--	--	--	--	--	--	--	--	--
MAY 24...	1300	--	--	--	--	--	--	--	--	--	--
JUN 19...	0840	--	--	--	--	--	--	--	--	--	--
AUG 14...	1315	0	2	2	5	0	0	0	100	10	10

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
OCT 25...	0	0	1100	0	--	1	0	0	--	0	3
MAR 07...	10	--	180	1	--	3	--	0	--	0	--
APR 27...	--	--	350	--	--	--	--	--	--	--	--
MAY 24...	--	--	630	--	--	--	--	--	--	--	--
JUN 19...	--	--	380	--	--	--	--	--	--	--	--
AUG 14...	0	0	670	3	0	3	0	0	0	10	9

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COBALT, FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
OCT 25...	0	--	0	0	4	--	8	13	40	0	--
MAR 07...	3	--	0	--	7	--	2	--	120	19	--
APR 27...	--	--	--	--	--	--	--	--	50	--	--
MAY 24...	--	--	--	--	--	--	--	--	110	--	--
JUN 19...	--	--	--	--	--	--	--	--	10	--	--
AUG 14...	0	0	0	5	6	1	5	11	30	10	2

CHEYENNE RIVER BASIN

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE D RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE D RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 25...	0	12	100	--	110	30	--	30	44	.1
MAR 07...	0	--	20	--	20	700	--	690	--	.0
APR 27...	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--
AUG 14...	8	14	110	0	120	120	10	110	130	.1

DATE	MERCURY SUS- PENDE D RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE D RECOV. (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE D RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)
OCT 25...	--	.0	.05	5	--	2	8	4	--	2
MAR 07...	--	.0	--	0	--	0	--	7	--	0
APR 27...	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--
AUG 14...	.0	.3	.07	1	1	0	0	6	3	3

DATE	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE D RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE D RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
OCT 25...	0	0	--	0	0	.0	10	--	10	27
MAR 07...	--	1	--	0	--	.0	30	--	20	--
APR 27...	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--
AUG 14...	8	1	1	0	0	1.0	10	0	30	38

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 07...	1030	<18	1.2	16	1.4	14	1.4	<12	.8

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAR 07...	1030	2	.0	5.5	72	85	97	100

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 25,78 0855	MAR 7,79 1030	APR 27,79 0850	MAY 24,79 1300	JUN 19,79 0840	AUG 14,79 1315				
TOTAL CELLS/ML	470	200	2200	2400	1000	54000				
DIVERSITY: DIVISION	1.8	1.2	1.7	1.9	1.6	0.4				
..CLASS	1.8	1.2	1.7	1.9	1.6	0.4				
..ORDER	2.3	1.8	1.8	2.4	1.8	0.4				
...FAMILY	2.6	1.8	2.0	2.7	2.5	0.6				
....GENUS	2.6	1.8	2.6	2.9	2.5	0.6				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	*	0
....OOCYSTACEAE										
....ANKISTRODESMUS	22	5	15	8	250	11	330	14	170#	16
....DICTYOSPHAERIUM	--	-	--	-	78	3	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	540#	24	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	26	1	--	-
....TREUBARIA	--	-	--	-	--	-	13	1	--	-
....SCENEDESMACEAE										
....SCENEDESMUS	89#	19	--	-	58	3	210	9	77	7
....VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	110#	24	--	-	--	-	13	1	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCACEAE										
....CYCLOTELLA	--	-	76#	38	140	6	210	9	120	11
....STEPHANODISCUS	--	-	--	-	--	-	90	4	--	-
...PENNALES										
....ACHNANTHACEAE										
....COCCONEIS	22	5	--	-	--	-	--	-	--	-
....FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	19	1	--	-	--	-
....NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	45#	23	--	-	--	-	13	1
....NITZSCHACEAE										
....NITZSCHIA	45	10	--	-	--	-	26	1	13	1
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
....CRYPTOCHRYSIDACEAE										
....CHROMONAS	89#	19	--	-	--	-	--	-	--	-
....CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	26	1	26	2
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	78	3	490#	21	13	1
....HORMOGONALES										
....NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	570#	24	140	14
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIACEAE									50000#	93
....OSCILLATORIA	--	-	--	-	170	8	--	-	450#	43
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
....EUGLENA	--	-	--	-	39	2	26	1	26	2
....TRACHELOMONAS	89#	19	61#	31	850#	38	330	14	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...PERIDINIALES										
....GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

CHEYENNE RIVER BASIN

06425950 RAVEN CREEK NEAR MOORCROFT, WY

LOCATION.--Lat 44°10'04", long 105°05'11", in NW¼SE¼ sec.1, T.48 N., R.69 W., Campbell County, Hydrologic Unit 10120201, on left bank 1.4 mi (2.3 km) upstream from mouth, 9.3 mi (15.0 km) southwest of Moorcroft, and 9.5 mi (15.3 km) southeast of Rozet.

DRAINAGE AREA.--76 mi² (197 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,234 ft (1,290 km), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 293 ft³/s (8.30 m³/s) Mar. 20, 1978, gage height, 5.88 ft (1.792 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s (0.65 m³/s) Aug. 18, gage height, 3.37 ft (1.027 m); maximum gage height, 4.14 ft (1.262 m) Mar. 16 (backwater from ice); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.70	.00	.00	.00	.43	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.38	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.46	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.63	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.78	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.68	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.63	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.30	.50	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.40	.34	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.08	.37	.00	.00	.00	3.3	.00
19	.00	.00	.00	.00	.00	.01	.31	.00	.00	.00	14	.00
20	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	7.0	.00
21	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00	3.6	.00
22	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	1.8	.00
23	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00	1.0	.00
24	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	.44	.00
25	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.16	.00
26	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.03	.00
27	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.50	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.46	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	1.95	9.29	.00	.00	.00	31.33	.00
MEAN	.000	.000	.000	.000	.000	.063	.31	.000	.000	.000	1.01	.000
MAX	.00	.00	.00	.00	.00	.50	.78	.00	.00	.00	14	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	3.9	18	.00	.00	.00	62	.00

CAL YR 1978 TOTAL 1117.16 MEAN 3.06 MAX 213 MIN .00 AC-FT 2220
WTR YR 1979 TOTAL 42.57 MEAN .12 MAX 14 MIN .00 AC-FT 84

CHEYENNE RIVER BASIN

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06425950 RAVEN CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
MAR 19...	1725	.02	500	7.5	.0	10.4	84	K4	410	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR 19...	62	17	16	55	2.3	3.4	59	0	48	170

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
MAR 19...	3.1	.1	4.6	325	299	.41	.02	.10	.02	.55

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
MAR 19...	.57	.67	3.0	.10	.06	8.1	1.3	96	24	.00

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
MAR 19...	1725	80	1	0	19	0	30	170	0	<1

DATE	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
MAR 19...	1	70	10	40	0	10	0	8	3	<3

06425950 RAVEN CREEK NEAR MOORCROFT, WY--Continued

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)
MAR 19 1955	0	10	12	12	140	100	58	10	10	10

DATE	MANGA- NESE, TOTAL RECOV- (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV, FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY FM BOT- TOM MA- TERIAL (UG/G AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	MOLYB- DENUM, RECOV, FM BOT- TOM MA- TERIAL (UG/G)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)
MAR 19...	40	20	170	.0	.1	.20	0	<10	2	6

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	NICKEL REC.OV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL REC.OV. ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, REC.OV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
MAR 19...	3	0	0	0	0	2.0	30	4	36

DATE	TIME	GROSS	GROSS	GROSS	GROSS	GROSS	GROSS	GROSS	GROSS
		ALPHA,	ALPHA,	BETA,	BETA,	BETA,	BETA,	ALPHA,	ALPHA,
		DIS-	SUSP.	DIS-	SUSP.	DIS-	SUSP.	SUSP.	SUSP.
		SOLVED	TOTAL	SOLVED	TOTAL	SOLVED	TOTAL	SOLVED	TOTAL
	(UG/L	(UG/L	(PCI/L	(PCI/L	(PCI/L	(PCI/L	(PCI/L	(PCI/L	(PCI/L
	AS	AS	AS	AS	AS	AS	AS	AS	AS
	U-NAT)	U-NAT)	CS-137)	CS-137)	YT-90)	YT-90)	U-NAT)	U-NAT)	U-NAT)
MAR 19...	1725	45.4	3.5	5.0	2.7	4.7	2.8	43.7	2.4

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAR 19...	1725	2	.0	2.2	22	29	40

	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN	BED MAT. FALL DIAM. % FINER THAN
DATE	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM
MAR 19...	46	50	57	69	86	91	100

06425950 RAVEN CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE	MAR 19, 79
TIME	1725
TOTAL CELLS/ML	96
DIVERSITY: DIVISION	0.9
..CLASS	0.9
..ORDER	1.7
...FAMILY	1.9
....GENUS	1.9

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OOCYSTACEAE		
...ANKISTRODESMUS	25#	26
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS	5	5
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	46#	47
...PENNALES		
...ACHNANTHACEAE		
...CUCCONEIS	10	11
...NITZSCHACEAE		
...NITZSCHIA	10	11

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426400 DONKEY CREEK NEAR MOORCROFT, WY

LOCATION.--Lat 44°16'58", long 105°03'48", in SE&NE&SE& sec.30, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 25 ft (8 m) upstream from county bridge, 1.2 mi (1.9 km) downstream from Well Creek, and 6.0 mi (9.7 km) west of Moorcroft.

DRAINAGE AREA.--246 mi² (637 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,200 ft (1,280 m), from topographic map.

REMARKS.--Records poor. No gage-height record Oct. 6-10, Nov. 11-24, Nov. 30 to Dec. 5, Dec. 7-26, Dec. 31 to Jan. 17. Numerous small reservoirs and diversions for irrigation of hay meadows above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s (112 m³/s) May 19, 1978, gage height, 14.60 ft (4.450 m); minimum daily, 0.02 ft³/s (0.001 m³/s) July 20, 21, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 235 ft³/s (6.66 m³/s) Mar. 17, gage height, 4.75 ft (1.448 m); maximum gage height, 5.35 ft (1.631 m) Mar. 17 (backwater from ice); minimum daily discharge, 0.02 ft³/s (0.001 m³/s) July 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.14	.33	.23	.32	.55	14	2.4	.82	.15	.24	.09
2	.05	.17	.31	.24	.38	.60	12	1.7	.36	.10	.14	.09
3	.06	.21	.30	.26	.45	.50	12	.90	.37	.15	.09	.09
4	.06	.21	.31	.27	.55	.50	11	.80	.47	.27	.06	.09
5	.12	.17	.35	.28	.55	.60	9.0	.70	.35	3.8	.05	.12
6	.15	.19	.37	.30	.53	.75	8.3	.65	.31	4.2	.03	.12
7	.12	.21	.35	.32	.52	1.0	8.8	.60	.86	1.2	.03	.06
8	.10	.22	.30	.33	.50	3.0	9.0	2.4	.64	.44	.03	.07
9	.07	.24	.29	.35	.50	15	8.0	2.3	1.5	3.2	.04	.07
10	.09	.33	.29	.37	.47	13	7.8	2.8	.62	1.5	.04	.07
11	.09	.30	.31	.34	.45	10	10	8.7	.44	.49	.04	.07
12	.10	.25	.32	.30	.42	40	10	9.8	.40	.26	.04	.07
13	.09	.20	.34	.25	.45	75	12	7.3	.35	.17	.14	.07
14	.09	.16	.34	.25	.48	110	12	4.5	.32	.12	.13	.07
15	.10	.18	.35	.27	.50	130	12	3.0	.30	.10	.09	.07
16	.10	.21	.36	.29	.50	100	13	2.0	2.0	.09	.09	.07
17	.11	.23	.38	.30	.50	140	10	1.3	1.0	.05	.12	.07
18	.20	.20	.40	.32	.46	90	8.0	1.8	.50	.04	.12	.07
19	.10	.14	.38	.33	.42	55	11	2.8	.36	.03	.15	.07
20	.12	.16	.37	.35	.40	43	5.9	4.0	.44	.02	.17	.07
21	.09	.23	.35	.36	.38	27	5.4	3.3	.29	.02	.12	.07
22	.10	.28	.35	.34	.35	23	5.2	1.6	.21	.03	.10	.07
23	.07	.33	.34	.30	.32	19	5.0	.62	.16	.04	.10	.07
24	.12	.35	.34	.25	.30	17	5.5	.80	.14	.04	.10	.07
25	.07	.35	.35	.22	.25	18	6.0	.65	.40	.04	.14	.07
26	.09	.33	.36	.20	.30	14	6.0	.50	.50	.05	.14	.07
27	.07	.33	.37	.16	.35	15	5.0	.40	.40	.12	.29	.07
28	.12	.33	.38	.19	.45	17	1.0	.35	.30	.06	.31	.07
29	.17	.35	.33	.22	---	16	.64	.71	.25	.24	.20	.07
30	.15	.35	.28	.25	---	18	3.3	1.4	.20	.95	.10	.07
31	.10	---	.25	.28	---	16	---	1.5	---	.59	.09	---
TOTAL	3.14	7.35	10.45	8.72	12.05	1028.50	246.84	72.28	15.26	18.56	3.53	2.27
MEAN	.10	.25	.34	.28	.43	33.2	8.23	2.33	.51	.60	.11	.076
MAX	.20	.35	.40	.37	.55	140	14	9.8	2.0	4.2	.31	.12
MIN	.05	.14	.25	.16	.25	.50	.64	.35	.14	.02	.03	.06
AC-FT	6.2	15	21	17	24	2040	490	143	30	37	7.0	4.5
CAL YR 1978	TOTAL	13105.06	MEAN	35.9	MAX	2530	MIN	.03	AC-FT	25990		
WTR YR 1979	TOTAL	1428.95	MEAN	3.91	MAX	140	MIN	.02	AC-FT	2830		

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
S27...	1545	E.08	5180	8.5	6.5	10.4	99	23	100	920
NOV										
28...	1515	.35	4650	8.1	.0	10.8	87	K13	150	1300
DEC										
06...	1300	.38	4620	7.9	.0	6.7	53	12	120	1200
JAN										
18...	1520	.32	4450	7.5	.0	4.2	34	7	24	1400
FEB										
13...	1105	.45	4650	7.6	.0	5.0	40	K6	180	1300
MAR										
14...	1305	87	1270	7.8	.0	10.3	83	32	1300	390
20...	1510	34	--	--	1.5	--	--	--	--	--
MAY										
03...	1325	.90	4060	8.3	15.0	7.3	83	K11	K11	1200
22...	1030	2.1	3900	8.1	13.5	9.6	108	46	78	1200
JUN										
19...	1255	.36	4580	8.5	18.5	14.3	179	200	1300	1100
JUL										
17...	1300	.06	5400	8.1	19.5	10.4	135	90	1000	1200
AUG										
14...	0900	.15	6100	8.2	14.0	6.0	67	96	2300	1200
SEP										
11...	0800	.08	6900	8.7	10.0	7.6	75	K820	K1100	750

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT										
27...	180	120	150	1000	14	--	14	880	11	760
NOV										
28...	560	160	210	740	9.1	--	12	860	0	710
DEC										
06...	580	160	200	760	9.5	--	15	790	0	650
JAN										
18...	710	210	210	870	10	--	21	820	0	680
FEB										
13...	610	190	200	700	8.5	--	15	840	0	690
MAR										
14...	250	74	49	130	2.9	--	12	170	0	140
20...	--	--	--	--	--	--	--	--	--	--
MAY										
03...	800	190	180	550	6.9	--	3.2	490	0	400
22...	760	190	170	550	7.0	570	20	540	0	440
JUN										
19...	580	150	180	730	9.5	740	14	620	6	530
JUL										
17...	750	140	200	990	13	1000	17	550	0	450
AUG										
14...	730	100	220	1200	12	1200	4.6	570	0	470
SEP										
11...	170	84	130	1400	22	1400	16	620	44	590

CHEYENNE RIVER BASIN

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 27...	2400	35	1.3	5.7	4210	4170	5.67	.90	.00	.01
NOV 28...	2200	41	.9	8.3	3930	3800	5.17	3.59	.04	.13
DEC 06...	1900	35	.9	8.8	3750	3470	4.72	3.56	.05	.24
JAN 18...	2500	75	.8	13	4390	4300	5.85	3.72	.05	.81
FEB 13...	2100	47	.8	15	4050	3680	5.00	4.47	.08	1.1
MAR 14...	450	56	.4	6.9	880	863	1.17	203	.46	1.3
MAR 20...	--	--	--	--	--	--	--	--	--	--
MAY 03...	1900	87	1.2	4.4	3430	3160	4.30	7.68	.10	.16
MAY 22...	1600	120	1.1	3.0	3180	2920	3.97	16.6	.01	.06
JUN 19...	1900	50	1.1	4.1	3640	3340	4.54	3.25	.02	.01
JUL 17...	2800	79	1.1	1.9	4600	4500	6.12	.73	.01	.03
AUG 14...	3000	53	3.8	1.9	5160	4860	6.61	1.97	.01	.01
SEP 11...	3400	27	1.2	.4	--	5410	7.36	1.17	.10	.10

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT 27...	--	1.2	1.2	1.2	5.3	.07	--	--	.01	9.7
NOV 28...	--	.83	.96	1.0	4.4	.06	--	--	.01	11
DEC 06...	--	1.1	1.3	1.4	6.0	.08	--	--	.03	10
JAN 18...	--	.59	1.4	1.5	6.4	.03	--	--	.02	12
FEB 13...	--	.00	1.1	1.2	5.2	.04	--	--	.03	11
MAR 14...	--	1.2	2.5	3.0	13	.42	--	--	.25	13
MAR 20...	--	--	--	--	--	--	--	--	--	--
MAY 03...	.19	.84	1.0	1.1	4.9	.15	.46	.46	.03	9.9
MAY 22...	.07	1.1	1.2	1.2	5.4	.05	.15	.15	.03	17
JUN 19...	.01	1.3	1.3	1.3	5.8	.10	--	.31	.02	14
JUL 17...	.04	1.8	1.8	1.8	8.0	.06	--	.18	.06	11
AUG 14...	.01	1.5	1.5	1.5	6.7	.17	--	.52	.01	21
SEP 11...	.12	1.0	1.1	1.2	5.3	.04	--	.12	.02	15

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

CHEYENNE RIVER BASIN

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
OCT 27...	0	240	1	2	1	0	0	4	0	0
NOV 28...	--	260	--	--	--	--	--	--	--	--
DEC 06...	--	250	--	--	--	--	--	--	--	--
JAN 18...	--	250	--	--	--	--	--	--	--	--
FEB 13...	--	240	--	--	--	--	--	--	--	--
MAR 14...	1	220	6	10	0	20	0	5	6	0
MAY 03...	--	420	--	--	--	--	--	--	--	--
22...	--	560	--	--	--	--	--	--	--	--
JUN 19...	--	350	--	--	--	--	--	--	--	--
JUL 17...	--	380	--	--	--	--	--	--	--	--
AUG 14...	--	280	--	--	--	--	--	--	--	--
SEP 11...	--	310	--	--	--	--	--	--	--	--

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)
OCT 27...	0	4	7	9	20	0	0	12	50	60
NOV 28...	--	--	--	--	30	--	--	--	--	--
DEC 06...	--	--	--	--	160	--	--	--	--	--
JAN 18...	--	--	--	--	80	--	--	--	--	--
FEB 13...	--	--	--	--	60	--	--	--	--	--
MAR 14...	0	16	4	15	70	100	100	0	30	20
MAY 03...	--	--	--	--	40	--	--	--	--	--
22...	--	--	--	--	10	--	--	--	--	--
JUN 19...	--	--	--	--	30	--	--	--	--	--
JUL 17...	--	--	--	--	20	--	--	--	--	--
AUG 14...	--	--	--	--	30	--	--	--	--	--
SEP 11...	--	--	--	--	20	--	--	--	--	--

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)
OCT 27...	400	230	140	.0	.0	.04	7	4	4	6
NOV 28...	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--
JAN 18...	--	--	--	--	--	--	--	--	--	--
FEB 13...	--	--	--	--	--	--	--	--	--	--
MAR 14...	310	190	110	.1	.0	.20	3	0	2	13
MAY 03...	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	--	--	--	--	--	--	--	--	--	--

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
OCT 27...	4	0	1	0	0	.0	20	10	66
NOV 28...	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--
JAN 18...	--	--	--	--	--	--	--	--	--
FEB 13...	--	--	--	--	--	--	--	--	--
MAR 14...	0	10	1	1	0	1.3	40	20	16
MAY 03...	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--
SEP 11...	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 14...	1305	<16	6.8	13	8.0	12	7.4	<11	4.6

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAR 14...	1305	2	.0	87	68	89	99	100

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 27,78 1545		NOV 28,78 1515		DEC 6,78 1300		JAN 18,79 1520		FEB 13,79 1105		MAR 14,79 1305	
TOTAL CELLS/ML	40000		5600		7000		76		76		140	
DIVERSITY: DIVISION	0.5		1.7		0.5		0.8		1.6		1.1	
..CLASS	0.5		1.7		0.5		0.8		1.6		1.1	
...ORDER	0.5		1.9		0.5		1.7		2.3		1.8	
...FAMILY	0.6		2.2		0.5		2.5		2.5		2.2	
....GENUS	0.6		2.3		0.7		2.5		2.5		2.2	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
....CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	--	-
....MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-	--	-
....OOCYSTACEAE												
....ANKISTRODESMUS	1800	5	630	11	140	2	5	7	15#	20	20	14
....CHODATELLA	--	-	--	-	--	-	--	-	--	-	--	-
....DICHOTOMOCOCCUS	--	-	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	140	2	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	360	1	--	-	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	1600#	29	270	4	--	-	--	-	--	-
....SCENEDESMUS	--	-	*	0	--	-	10	13	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	110	2	--	-	5	7	15#	20	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
....CHAETOCERACEAE												
....CHAETOCEROS	360	1	--	-	--	-	--	-	--	-	--	-
....COSCINODISCACEAE												
....CYCLOTELLA	36000#	91	82	1	--	-	20#	27	10	13	41#	29
...PENNALES												
....ACHNANTHACEAE												
....COCCONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....FRAGILARIACEAE												
....SYNEDRA	--	-	*	0	--	-	--	-	10	13	--	-
....GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-	20	14
....NAVICULACEAE												
....ENTOMONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	*	0	68	1	25#	33	5	7	41#	29
....NITZSCHACEAE												
....NITZSCHIA	--	-	55	1	--	-	5	7	--	-	--	-
....SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	5	7	--	-	--	-
..XANTHOPHYCEAE												
...HETEROCOCCALES												
....CHLOROTHECIACEAE												
....OPHIOCYTIUM	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 27,78 1545		NOV 28,78 1515		DEC 6,78 1300		JAN 18,79 1520		FEB 13,79 1105		MAR 14,79 1305	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CRYPTOPHYTA (CRYPTOMONADS)												
..CRYPTOPHYCEAE												
...CRYPTOMONADALES												
....CRYPTOMONADACEAE												
.....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROOCOCCALES												
....CHROOCOCCACEAE												
.....ANACYSTIS	--	-	1500# 27		--	-	--	-	20# 27		--	-
....HORMOGONALES												
.....NOSTOCACEAE												
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	--	-
.....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
....EUGLENACEAE												
.....EUGLENA	--	-	* 0		68 1		--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-	--	-
.....TRACHELOMONAS	1100	3	1500# 26		6300# 90		--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
..DINOPHYCEAE												
...GYMNODINIALES												
....GYMNODINIACEAE												
.....GYMNODINIUM	--	-	--	-	--	-	--	-	--	-	--	-
...PERIDINIALES												
....GLENODINIACEAE												
.....GLENODINIUM	--	-	--	-	--	-	--	-	--	-	20	14

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	MAY 3,79 1325	MAY 22,79 1030	JUN 19,79 1255	JUL 17,79 1300	AUG 14,79 0900	SEP 11,79 0800				
TOTAL CELLS/ML	6100	9300	19000	15000	74000	460				
DIVERSITY: DIVISION	1.7	1.8	1.0	1.8	0.6	1.5				
..CLASS	1.7	1.8	1.0	1.8	0.6	1.5				
..ORDER	1.7	2.1	1.2	2.4	0.7	1.8				
...FAMILY	2.2	2.8	1.5	3.0	1.4	2.1				
....GENUS	2.9	3.4	1.6	4.0	1.4	2.3				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIACEAE					* 0					
....GOLENKINIA	--	-	200	2	--	-	--	-	--	-
....MICRACTINIUM	310	5	670	7	--	-	--	-	--	-
....OOCYSTACEAE										
....ANKISTRODESMUS	190	3	940	10	260	1	1500	10	1400	2
....CHODATELLA	--	-	--	-	--	-	--	-	* 0	
....DICHOTOMOCOCCUS	2000#	33	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	750	12	800	9	--	-	1600	11	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	120	2	130	1	--	-	360	2	--	-
....SELENASTRUM	--	-	--	-	--	-	180	1	--	-
....TETRAEDRON	--	-	--	-	--	-	* 0		--	-
....TREUBARIA	--	-	67	1	--	-	* 0		--	-
....WESTELLA	--	-	--	-	--	-	730	5	--	-
....SCENEDESMACEAE										
....ACTINASTRUM	120	2	--	-	--	-	490	3	640	1
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	62	1	740	8	320	2	240	2	--	-
....TETRASTRUM	--	-	400	4	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	* 0		* 0		1700	11	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....CHAETOCERACEAE										
....CHAETOCEROS	93	2	--	-	--	-	--	-	--	-
....COSCINODISCEACEAE										
....CYCLOTELLA	960#	16	300	3	1400	7	120	1	* 0	
...PENNALES										
....ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
....FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	--	-	--	-	--	-
....GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
....NAVICULACEAE										
....ENTOMONEIS	--	-	* 0		--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	* 0		--	-
....NAVICULA	--	-	--	-	190	1	670	4	* 0	
....NITZSCHIAEAE										
....NITZSCHIA	--	-	800	9	730	4	730	5	3900	5
....SURIPELLACEAE										
....SURIPELLA	--	-	--	-	--	-	--	-	--	-
..XANTHOPHYCEAE										
...HETEROCOCCALES										
....CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	67	1	* 0		--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	MAY 3,79 1325		MAY 22,79 1030		JUN 19,79 1255		JUL 17,79 1300		AUG 14,79 0900		SEP 11,79 0800	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CRYPTOPHYTA (CRYPTOMONADS)												
..CRYPTOPHYCEAE												
...CRYPTOMONADALES												
....CRYPTOMONADACEAE												
.....CRYPTOMONAS	310	5	--	-	*	0	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROOCOCCALES												
....CHROOCOCCACEAE												
.....ANACYSTIS	960#	16	300	3	190	1	790	5	*	0	--	-
.....HORMOGONALES												
.....NOSTOCACEAE												
.....ANABAENOPSIS	--	-	--	-	860	4	970	6	52000#	70	--	-
....OSCILLATORIA												
.....LYNGBYA	--	-	--	-	--	-	1300	9	--	-	--	-
.....OSCILLATORIA	--	-	2700#	29	14000#	75	2100	14	15000#	20	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
....EUGLENACEAE												
.....EUGLENA	93	2	270	3	260	1	490	3	1100	2	51	11
.....PHACUS	--	-	*	0	--	-	120	1	--	-	13	3
.....TRACHELOMONAS	62	1	800	9	410	2	300	2	--	-	13	3
PYRRHOPHYTA (FIRE ALGAE)												
..DINOPHYCEAE												
...GYMNODINIALES												
....GYMNODINIACEAE												
.....GYMNODINIUM	--	-	--	-	*	0	--	-	--	-	--	-
.....PERIDINIALES												
.....GLENODINIACEAE												
.....GLENODINIUM	--	-	--	-	--	-	420	3	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

CHEYENNE RIVER BASIN

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY

LOCATION.--Lat 44°17'44", long 104°58'35", in SE4SW4 sec.24, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 150 ft (46 m) upstream from Trail Creek, 1.9 mi (3.1 km) downstream from Donkey Creek, and 2.6 mi (4.2 km) northwest of Moorcroft.

DRAINAGE AREA.--1,670 mi² (4,325 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1943 to September 1970, October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,119.2 ft (1,255.53 m), National Geodetic Vertical Datum of 1929 (Water and Power Resources Service bench mark). Prior to Mar. 28, 1947, nonrecording gage, and Mar. 28, 1947, to Jan. 16, 1951, water-stage recorder at site 12 mi (19 km) downstream at different datum. Jan. 17, 1951, to September 1970, at site 50 ft (15 m) downstream at datum 0.8 ft (0.24 m) lower.

REMARKS.--Records fair except those for the winter period, which are poor. Numerous small stockwater and soil conservation reservoirs above station. Diversions for irrigation of about 660 acres (267 hm²) above station.

AVERAGE DISCHARGE.--51 years, 24.1 ft³/s (0.683 m³/s), 17,460 acre-ft/yr (21.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s (433 m³/s) May 19, 1978, gage height, 14.60 ft (4.450 m), from floodmark in gage shelter, from rating curve extended above 11,000 ft³/s (312 m³/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 360 ft³/s (10.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 18	0730	a*400 11.4	b8.94 2.725
June 18	0930	397 11.2	6.59 2.009

a-About.

b-Backwater from ice.

Minimum daily discharge, 0.09 ft³/s (0.003 m³/s) Sept. 20, 22-24, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	3.5	4.6	3.5	2.6	3.6	58	13	6.5	5.8	10	1.1
2	6.7	3.6	4.4	3.7	2.6	3.2	50	11	5.6	40	6.1	1.1
3	5.4	3.6	4.3	3.8	2.7	3.6	41	10	5.6	42	3.8	1.2
4	5.6	3.6	4.8	3.6	2.8	4.0	36	9.2	5.6	26	2.3	1.0
5	5.6	3.3	5.3	3.4	2.9	4.5	31	9.2	4.8	26	2.2	.84
6	5.4	3.5	4.8	3.5	3.1	5.0	28	8.9	4.6	64	1.9	.58
7	5.0	3.6	4.4	3.4	3.2	11	28	8.4	4.6	20	1.4	.43
8	4.2	3.8	4.6	3.5	3.1	22	28	7.7	4.6	11	1.1	.43
9	3.6	3.8	4.8	3.3	3.3	47	32	7.7	4.4	9.4	1.1	.36
10	3.3	4.6	5.0	3.2	3.5	93	39	8.9	4.6	13	29	.30
11	3.1	4.4	4.9	3.3	3.6	197	38	8.9	4.4	21	11	.14
12	3.1	4.4	5.0	3.1	3.8	173	47	15	4.2	7.4	3.6	.24
13	4.0	4.3	4.8	2.9	3.9	207	50	16	4.0	4.6	2.6	.19
14	3.5	4.4	4.9	2.8	3.8	308	48	13	3.3	3.6	2.5	.19
15	3.3	4.5	5.0	2.9	3.5	331	54	9.7	3.0	2.6	1.7	.24
16	3.1	4.8	4.8	3.0	3.2	318	55	8.2	3.5	2.5	1.4	.24
17	3.1	5.2	5.0	3.1	3.3	335	50	7.0	5.4	2.2	1.4	.19
18	3.6	5.1	5.4	3.2	3.5	355	42	7.0	298	1.9	1.5	.14
19	3.6	4.7	5.0	3.2	3.7	288	36	7.7	234	1.7	11	.14
20	3.6	4.6	4.5	3.2	3.5	274	34	6.7	81	1.5	10	.09
21	3.3	4.8	4.9	3.2	3.4	145	26	6.5	49	1.2	6.5	.14
22	3.0	5.0	4.9	3.2	3.3	132	20	7.2	31	1.2	5.2	.09
23	2.8	5.2	4.5	3.0	3.2	136	18	7.0	20	1.1	3.8	.09
24	2.8	5.1	5.2	3.2	3.4	132	17	6.7	14	1.1	4.0	.09
25	3.6	5.0	4.5	3.1	3.7	115	14	6.7	11	1.0	3.5	.14
26	4.8	5.0	4.6	3.0	3.9	90	19	7.2	8.7	1.2	2.8	.14
27	4.0	5.0	4.8	2.9	4.0	64	19	6.5	7.4	39	1.5	.19
28	3.6	4.8	4.8	2.8	3.9	50	16	6.5	7.0	255	2.8	.14
29	3.3	4.7	4.2	2.7	---	60	12	10	8.4	55	2.6	.14
30	3.3	4.6	3.7	2.7	---	74	11	8.2	9.2	147	2.5	.09
31	3.3	---	3.3	2.6	---	68	---	7.4	---	30	1.9	---
TOTAL	122.0	132.5	145.7	98.0	94.4	4048.9	997	273.1	857.4	839.0	142.7	10.39
MEAN	3.94	4.42	4.70	3.16	3.37	131	33.2	8.81	28.6	27.1	4.60	.35
MAX	6.7	5.2	5.4	3.8	4.0	355	58	16	298	255	29	1.2
MIN	2.8	3.3	3.3	2.6	2.6	3.2	11	6.5	3.0	1.0	1.1	.09
AC-FT	242	263	289	194	187	8030	1980	542	1700	1660	283	21

CAL YR 1978	TOTAL	49437.25	MEAN	135	MAX	10300	MIN	.24	AC-FT	98060
WTR YR 1979	TOTAL	7761.09	MEAN	21.3	MAX	355	MIN	.09	AC-FT	15390

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPEK- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 12...	1520	--	3.0	3100	8.1	9.0	16	--	11.8	K8	1000
NOV 09...	1420	--	3.6	3500	8.1	4.0	4	--	10.5	K2	920
DEC 07...	1410	5.0	--	4000	7.8	.0	5	--	10.6	K600	1200
JAN 07...	1115	--	3.4	4000	7.6	.0	2	--	8.3	K600	1100
FEB 01...	1300	--	2.6	4100	7.6	.0	2	--	9.0	290	1200
MAR 15...	1230	--	324	890	7.8	.5	210	--	11.5	K100	270
APR 15...	1330	--	63	2200	8.3	10.0	30	--	10.4	K170	700
JUN 10...	1300	--	4.6	3000	8.2	18.0	--	66	8.8	K60	780
JUL 19...	1330	--	1.7	2000	8.3	25.0	--	130	8.4	K70	450
AUG 15...	1330	--	1.7	1390	8.3	19.5	--	160	8.5	K110	340
SEP 12...	1300	--	.24	2200	8.2	14.5	--	33	8.3	540	570

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT 12...	710	220	110	370	5.1	--	26	360	0	300
NOV 09...	550	210	97	520	7.4	--	19	450	0	370
DEC 07...	650	270	120	520	6.6	--	17	630	0	520
JAN 07...	610	220	140	550	7.1	--	19	630	0	520
FEB 01...	720	280	130	620	7.7	--	19	630	0	520
MAR 15...	200	57	31	78	2.1	--	8.3	90	0	74
APR 15...	470	150	80	230	3.8	240	8.9	280	0	230
JUN 10...	440	160	92	420	6.6	430	14	410	0	340
JUL 19...	160	92	53	280	5.8	290	11	350	0	290
AUG 15...	140	79	35	180	4.2	190	9.8	250	0	210
SEP 12...	250	130	60	290	5.3	300	13	--	--	320

CHEYENNE RIVER BASIN

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT										
12...	1500	52	.7	4.0	2460	3.35	19.9	4.4	.06	--
NOV										
09...	1500	160	.4	3.3	2730	3.71	26.5	1.9	.04	--
DEC										
07...	1600	110	.6	9.2	2960	4.03	40.0	.87	.60	--
JAN										
07...	1600	98	.5	12	2950	4.01	27.1	3.0	.95	--
FEB										
01...	1800	110	.5	13	3280	4.46	23.0	1.0	.58	--
MAR										
15...	320	25	.3	5.2	569	.77	498	.39	.52	--
APR										
15...	860	35	.5	4.4	1510	2.05	257	.27	.33	.40
JUN										
10...	1200	59	.5	3.7	2150	2.92	26.7	.02	.05	.06
JUL										
19...	740	36	.5	7.5	1390	1.89	6.38	.02	.11	.13
AUG										
15...	490	40	.5	8.0	966	1.31	4.43	.01	.01	.01
SEP										
12...	830	41	.5	6.9	1560	2.12	1.01	.06	.04	.05

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT										
12...	1.7	1.8	6.2	27	.06	--	--	--	11	1.4
NOV										
09...	.96	1.0	2.9	13	.14	--	--	--	--	--
DEC										
07...	1.0	1.6	2.5	11	.30	--	--	--	--	--
JAN										
07...	1.4	2.3	5.3	23	.37	--	--	--	--	--
FEB										
01...	.92	1.5	2.5	11	.06	--	--	--	--	--
MAR										
15...	.78	1.3	1.7	7.5	.11	--	--	--	--	--
APR										
15...	.77	1.1	1.4	6.1	.12	.37	.37	55	--	--
JUN										
10...	1.1	1.1	1.1	5.0	.16	.49	.49	--	--	--
JUL										
19...	1.1	1.2	1.2	5.4	.07	--	.21	--	--	--
AUG										
15...	1.5	1.5	1.5	6.7	.26	--	.80	--	--	--
SEP										
12...	.38	.42	.48	2.1	.06	--	.18	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

CHEYENNE RIVER BASIN

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDE RECOV. (UG/L AS MO)
OCT 12...	24	80	0	80	240	40	200	.0	.0	.0	11	1
NOV 09...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 07...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--	--
APR 15...	0	40	0	50	240	80	160	.1	.1	.0	4	2
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE RECOV. (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 12...	10	3	0	4	10	0	13	.0	20	0	30
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--	--	--
JAN 07...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 15...	2	11	11	0	1	0	1	.0	80	50	30
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
JUL 19...	--	--	--	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 10...	1300	.60	0	.00	0	.00	.0
AUG 15...	1330	.00	0	.00	0	.00	.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
JUN 10...	.00	0	.00	0
AUG 15...	.01	0	.00	0

DATE	TIME	TEMPERATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM
OCT 03...	1450	12.0	5.6	40	.60	--	--	--	--
NOV 08...	0850	2.5	3.8	43	.44	--	--	--	--
DEC 27...	1315	.0	4.8	59	.76	--	--	--	--
JAN 25...	0935	.0	3.1	84	.70	--	--	--	--
FEB 13...	1430	.0	3.9	82	.86	--	--	--	--
APR 04...	1455	5.0	35	146	14	--	--	--	--
MAY 07...	1815	13.0	8.7	253	5.9	--	--	2	2
JUN 13...	0740	19.0	4.0	180	1.9	--	--	--	--
20...	1120	14.5	79	2770	591	93	100	--	--
JUL 11...	0740	20.5	23	792	49	--	--	5	7
AUG 09...	1330	23.0	1.1	188	.56	--	--	--	--
SEP 06...	1840	22.0	.50	130	.18	--	--	--	--

[illegible]

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

AUG. 15, 1979

1330 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHRYSTOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
....COCCONEIS	
...CYMBELLACEAE	
....AMPHORA	
....CYMBELLA	
....EPITHEMIA	
...GOMPHONEMACEAE	
....GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
....NAVICULA	
...NITZSCHIACEAE	
....NITZSCHIA	
CYANOPHYTA	BLUE-GREEN ALGAE
.CYANOPHYCEAE	
..HORMOGONALES	FILAMENTOUS BL-GREEN
...NOSTOCACEAE	
....APHANIZOMENON	
...OSCILLATORIAACEAE	
&LYNGBYA	
&OSCILLATORIA	

OCT. 12, 1978

1520 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHRYSTOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
....COCCONEIS	
...CYMBELLACEAE	
....AMPHORA	
...NAVICULACEAE	NAVICULOID
&NAVICULA	
...NITZSCHIACEAE	
&NITZSCHIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
 SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
 ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

06427000 KEYHOLE RESERVOIR NEAR MOORCROFT, WY

LOCATION.--Lat 44°22'55", long 104°46'45", in NW¼NW¼ sec.27, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, at reservoir dam on Belle Fourche River 12 mi (19 km) northeast of Moorcroft.

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

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum). Prior to May 15, 1958, and Oct. 1, 1968 to Mar. 13, 1970, nonrecording gages; May 15, 1958 to Sept. 30, 1968, water-stage recorder; all at present site and datum.

REMARKS.--Reservoir is formed by a zoned earthfill dam completed by the Water and Power Resources Service Oct. 25, 1952. Storage began Feb. 12, 1952. Dead storage, below elevation 4,036.0 ft (1,230.17 m), 1,170 acre-ft (1.44 hm³). Inactive storage, between elevations 4,036.0 ft (1,230.17 m) and 4,051.0 ft (1,234.74 m), 8,310 acre-ft (10.2 hm³). Total capacity below elevation 4,099.3 ft (1,249.47 m), crest of spillway, 199,900 acre-ft (246 hm³). Figures given herein represent total contents. The reservoir provides flood control and water for irrigation in Wyoming and near Belle Fourche, SD.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 210,200 acre-ft (259 hm³) May 21, 1978, elevation, 4,100.38 ft (1,249.796 m); minimum daily (since appreciable storage was attained), 6,030 acre-ft (7.43 hm³) Mar. 8, 9, 1955, elevation, 4,046.35 ft (1,233.327 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 171,600 acre-ft (212 hm³) Apr. 22-24, elevation, 4,096.11 ft (1,248.494 m); minimum daily, 147,800 acre-ft (182 hm³) Sept. 30, elevation, 4,093.07 ft (1,247.568 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,094.51	158,800	-
Oct. 31	4,094.31	157,200	-1,600
Nov. 30	4,094.14	155,900	-1,300
Dec. 31	4,094.24	156,700	+800
CAL YR 1978			+44,500
Jan. 31	4,094.30	157,100	+400
Feb. 28	4,094.36	157,600	+500
Mar. 31	4,095.68	168,100	+10,500
Apr. 30	4,096.08	171,400	+3,300
May 31	4,095.55	167,100	-4,300
June 30	4,094.94	162,100	-5,000
July 31	4,094.39	157,800	-4,300
Aug. 31	4,093.72	152,700	-5,100
Sept. 30	4,093.07	147,800	-4,900
WTR YR 1979			-11,000

LOCATION.--Lat 44°23'18", long 104°46'12", in SE4NE4SW4 sec.22, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, on right bank 0.9 mi (1.4 km) downstream from Keyhole Dam, 1.7 mi (2.7 km) downstream from Mule Creek, 2.9 mi (4.7 km) upstream from Spring Creek, and 12 mi (19 km) northeast of Moorcroft. Prior to Aug. 30, 1979, at site 0.7 mi (1.1 km) upstream.

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map. Prior to Aug. 30, 1979, at site 0.7 mi (1.1 km) upstream at different datum.

REMARKS.--Records fair. No gage-height record Jan. 22, 23, June 26 to July 12, Aug. 9 to Aug. 30. Flow completely regulated by Keyhole Reservoir, 0.9 mi (1.4 km) upstream, since February 1952. (See sta 06427000.) Diversions for irrigation of about 820 acres (3.32 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) May 23, 1978, gage height, 10.65 ft (3.246 m) at present datum; maximum gage height, 6.30 ft (1.920 m) Sept. 5, 1951, site and datum in use; minimum daily discharge since appreciable storage in Keyhole Reservoir, 0.30 ft³/s (0.008 m³/s) Feb. 6-20, 1960; no flow at times in 1951-52.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 132 ft³/s (3.74 m³/s) May 29, gage height, 2.06 ft (0.628 m), site and datum then in use; minimum daily, 2.2 ft³/s (0.062 m³/s) Oct. 1 to May 28, Sept. 14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	40	86	15
2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	40	86	15
3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	40	86	15
4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	40	86	14
5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	40	86	14
6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	40	86	14
7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	112	40	86	14
8	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	40	86	13
9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	40	63	13
10	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	40	44	13
11	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	40	44	13
12	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	70	44	12
13	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	7.4
14	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.2
15	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.3
16	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.7
17	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.8
18	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.7
19	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.6
20	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	108	94	44	2.6
21	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	82	94	44	2.7
22	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	62	94	44	2.7
23	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	62	94	22	2.7
24	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	62	94	3.0	2.6
25	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	62	94	3.0	2.7
26	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	44	89	2.5	2.8
27	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	40	86	2.5	3.0
28	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	40	86	9.3	2.8
29	2.2	2.2	2.2	2.2	2.2	---	2.2	64	40	86	15	2.8
30	2.2	2.2	2.2	2.2	2.2	---	2.2	117	40	86	15	2.8
31	2.2	---	2.2	2.2	---	2.2	---	117	---	86	16	---
TOTAL	68.2	66.0	68.2	68.2	61.6	68.2	66.0	359.6	2752	2251	1411.3	217.9
MEAN	2.20	2.20	2.20	2.20	2.20	2.20	2.20	11.6	91.7	72.6	45.5	7.26
MAX	2.2	2.2	2.2	2.2	2.2	2.2	2.2	117	117	94	86	15
MIN	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	40	40	2.5	2.2
AC-FT	135	131	135	135	122	135	131	713	5460	4460	2800	432
CAL YR 1978	TOTAL	27846.4	MEAN	76.3	MAX	1350	MIN	2.0	AC-FT	55230		
WTR YR 1979	TOTAL	7458.2	MEAN	20.4	MAX	117	MIN	2.2	AC-FT	14790		

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼SE¼SE¼ sec.7, T.53 N., R.65 W., Crook County, Hydrologic Unit 10120201, at bridge 0.2 mi (0.3 km) west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT											
12...	1330	9.3	1550	8.2	11.5	2	610	440	160	48	110
NOV											
09...	1130	10	1650	8.1	4.0	1	950	750	250	76	120
DEC											
07...	1230	E12	2000	7.8	.0	2	1000	770	290	71	99
JAN											
07...	0915	E8.0	2100	7.6	.0	1	1000	810	290	80	100
FEB											
01...	1130	E6.0	2200	7.6	.0	10	1100	890	300	81	93
MAR											
15...	1030	14	1900	7.9	.5	3	830	670	250	51	87
APR											
15...	1145	129	1340	7.9	8.0	200	410	310	96	41	140
MAY											
10...	1630	25	1900	8.1	10.0	3	840	670	220	71	110
JUN											
10...	1130	129	1030	8.3	15.5	15	290	150	68	30	100
JUL											
19...	1140	74	1010	8.3	23.0	20	280	120	66	29	110
AUG											
15...	1140	32	1000	8.5	17.5	15	290	120	69	29	120
SEP											
12...	1100	16	1390	8.2	15.5	10	450	270	110	42	140

E-Estimate.

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)
OCT										
12...	2.0	7.8	210	0	170	610	11	.7	.0	1210
NOV										
09...	1.7	7.6	250	0	200	980	8.8	.8	4.7	1570
DEC										
07...	1.4	7.3	280	0	230	970	6.3	.8	8.5	1590
JAN										
07...	1.3	7.3	230	0	190	1100	6.6	.9	11	1710
FEB										
01...	1.2	7.1	260	0	210	1100	9.2	.8	9.9	1730
MAR										
15...	1.3	7.5	200	0	160	850	6.1	.8	6.8	1360
APR										
15...	3.0	12	120	0	98	600	5.3	.7	1.8	957
MAY										
10...	1.7	7.9	210	0	170	900	9.8	.9	3.5	1420
JUN										
10...	2.5	8.0	170	0	140	390	13	.6	.9	696
JUL										
19...	2.8	7.9	190	0	160	350	14	.6	.0	670
AUG										
15...	3.1	7.2	190	6	170	380	13	.5	1.2	725
SEP										
12...	2.9	8.5	220	0	180	550	12	.7	.0	973

CHEYENNE RIVER BASIN

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	2,4-D, TOTAL (UG/L)	2,4-D, IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, IN BOT- TOM MA- TERIAL (UG/KG)
OCT										
12...	1.65	30.4	.09	.05	--	--	--	--	--	--
NOV										
09...	2.14	42.4	.05	.03	--	--	--	--	--	--
DEC										
07...	2.16	51.5	.07	.00	--	--	--	--	--	--
JAN										
07...	2.33	--	.32	.02	--	--	--	--	--	--
FEB										
01...	2.35	28.0	.29	.03	--	--	--	--	--	--
MAR										
15...	1.85	51.4	.32	.01	--	--	--	--	--	--
APR										
15...	1.30	333	.02	.24	--	--	--	--	--	--
MAY										
10...	1.93	95.9	.00	.01	.00	0	.00	0	.00	.0
JUN										
10...	.95	242	.00	.05	.05	0	.00	0	.00	.0
JUL										
19...	.91	134	.02	.06	.05	0	.00	0	.00	.0
AUG										
15...	.99	62.6	.00	.04	.01	--	.00	--	.00	--
SEP										
12...	1.32	42.0	.00	.10	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
MAY				
10...	.00	0	.00	0
JUN				
10...	.00	0	.00	0
JUL				
19...	.01	0	.03	0
AUG				
15...	.00	--	.00	--
SEP				
12...	.00	0	.09	0

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE¼NW¼NW¼ sec.18, T.9 N., R.1 E., Butte County, Hydrologic Unit 10120202, on left bank 0.3 mi (0.5 km) downstream from State line, 3.7 mi (6.0 km) downstream from Oak Creek, and 11 mi (18 km) northwest of Belle Fourche, SD.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1946 to current year. Records for water year 1947 incomplete, yearly estimate published in WSP 1729.

GAGE.--Water-stage recorder. Datum of gage is 3,095.7 ft (943.57 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 5,400 acres (2,200 hm²). Flow regulated by Keyhole Reservoir, usable contents, 191,600 acre-ft (236 hm³), 143 mi (230 km) upstream since Oct. 25, 1952.

AVERAGE DISCHARGE.--33 years, 91.6 ft³/s (2.594 m³/s), 66,360 acre-ft/yr (81.8 hm³/yr); median of yearly mean discharges, 91 ft³/s (2.58 m³/s), 65,900 acre-ft/yr (81 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s (125 m³/s) June 18, 1962, gage height, 15.59 ft (4.752 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 376 ft³/s (10.6 m³/s) June 20; maximum gage height, 8.16 ft (2.624 m) Mar. 17 (backwater from ice); minimum daily, 4.0 ft³/s (0.11 m³/s) Jan. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	22	6.0	7.5	10	237	72	42	62	83	28
2	29	31	20	5.0	7.5	10	194	69	94	59	77	26
3	28	31	20	5.0	7.0	10	160	66	122	56	73	24
4	28	31	22	5.0	7.0	10	147	62	123	53	72	22
5	29	30	22	5.0	7.0	11	138	59	126	53	72	21
6	29	29	20	4.5	7.5	13	118	58	128	51	71	19
7	30	32	20	4.5	8.0	15	123	56	133	54	69	18
8	29	30	20	4.5	8.0	30	144	55	137	51	90	16
9	27	31	22	5.5	8.5	60	122	56	137	53	86	16
10	26	31	24	6.0	9.0	200	121	58	135	45	77	17
11	26	27	24	6.5	9.0	350	132	60	132	42	105	16
12	26	25	25	6.5	9.0	250	155	61	126	43	96	18
13	27	25	25	5.5	10	300	156	61	122	43	72	20
14	27	25	25	5.0	11	230	200	59	119	44	64	18
15	27	25	25	4.0	9.0	200	195	58	116	47	57	19
16	27	25	22	4.0	8.0	190	192	55	122	86	51	20
17	27	25	20	4.5	8.5	250	224	51	126	84	53	20
18	28	22	22	4.5	9.0	350	192	51	130	79	54	19
19	31	20	22	6.5	9.0	220	168	51	138	73	52	19
20	35	20	22	8.5	9.0	130	150	50	333	70	77	17
21	36	22	25	10	9.0	160	149	46	283	68	65	15
22	35	25	25	10	9.0	170	138	44	196	72	54	15
23	33	25	25	9.0	8.5	135	122	42	161	69	50	14
24	31	25	25	9.0	8.5	175	111	40	131	73	43	14
25	29	25	25	9.0	9.0	200	101	37	111	84	41	12
26	29	25	22	8.5	10	180	93	36	99	99	39	11
27	30	25	20	8.5	10	200	87	37	90	90	39	9.9
28	29	25	15	8.5	10	200	82	36	94	83	135	12
29	30	25	10	8.5	---	200	80	38	83	99	58	11
30	29	25	9.0	8.0	---	240	75	41	68	81	35	11
31	30	---	7.0	8.0	---	240	---	44	---	79	25	---
TOTAL	907	793	652.0	203.5	242.5	4939	4306	1609	3957	2045	2035	517.9
MEAN	29.3	26.4	21.0	6.56	8.66	159	144	51.9	132	66.0	65.6	17.3
MAX	36	32	25	10	11	350	237	72	333	99	135	28
MIN	26	20	7.0	4.0	7.0	10	75	36	42	42	25	9.9
AC-FT	1800	1570	1290	404	481	9800	8540	3190	7850	4060	4040	1030
CAL YR 1978	TOTAL	82763.0	MEAN	227	MAX	1980	MIN	7.0	AC-FT	164200		
WTR YR 1979	TOTAL	22206.9	MEAN	60.8	MAX	350	MIN	4.0	AC-FT	44050		

CHEYENNE RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT										
05...	1230	--	29	1950	--	11.5	--	--	--	--
12...	0900	--	26	1900	8.3	10.0	2	8.9	3.8	K16
NOV										
03...	0800	--	31	2120	--	4.5	--	--	--	--
09...	0910	--	31	1800	8.2	6.5	3	10.8	1.4	K8
DEC										
07...	0900	20	--	2200	7.6	.0	2	11.6	1.0	K12
11...	1530	--	24	2500	--	.0	--	--	--	--
31...	1300	7.0	--	--	--	--	--	--	--	--
JAN										
06...	1430	4.5	--	2800	7.5	.0	50	13.2	3.0	K26
09...	1615	5.5	--	3200	--	.0	--	--	--	--
30...	1630	8.0	--	2500	--	.0	--	--	--	--
FEB										
01...	0900	7.5	--	3000	7.4	.0	20	12.4	1.2	K5
MAR										
07...	0845	--	12	3500	--	.0	--	--	--	--
15...	0810	200	--	1280	7.4	.5	250	13.3	2.6	K30
APR										
10...	1400	--	113	--	--	11.5	--	--	--	--
15...	0830	--	188	1800	7.8	7.0	350	10.8	3.8	210
MAY										
08...	1700	--	54	1970	--	11.5	--	--	--	--
10...	1430	--	58	2000	8.1	8.5	7	10.2	3.1	K12
JUN										
06...	1100	--	128	1910	--	18.5	--	--	--	--
10...	0820	--	135	1310	8.1	14.5	45	8.5	2.9	250
JUL										
11...	0800	--	40	1580	--	20.5	--	--	--	--
19...	0920	--	73	1500	8.0	22.0	70	7.5	3.7	370
AUG										
07...	1645	--	63	1400	--	26.0	--	--	--	--
15...	0915	--	58	1330	8.2	14.5	35	9.3	2.0	K120
SEP										
04...	1130	--	21	1630	--	21.5	--	--	--	--
12...	0800	--	23	2110	8.2	13.5	20	8.4	2.7	210

K-Results based on colony count outside the acceptable range (non-ideal colony count).

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
12...	830	670	240	56	140	2.1	10	190	0	160
NOV										
03...	--	--	--	--	--	--	--	--	--	--
09...	950	790	260	75	160	2.2	8.5	190	0	160
DEC										
07...	1100	860	320	83	120	1.5	8.6	290	0	240
11...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	240
JAN										
06...	1400	1100	370	110	170	2.0	11	330	0	270
09...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
FEB										
01...	1400	1100	430	87	180	2.1	11	390	0	320
MAR										
07...	--	--	--	--	--	--	--	--	--	--
15...	450	410	130	32	88	1.8	7.1	52	0	43
APR										
10...	--	--	--	--	--	--	--	--	--	--
15...	640	540	170	53	140	2.4	4.9	120	0	98
MAY										
08...	--	--	--	--	--	--	--	--	--	--
10...	880	720	240	67	120	1.8	8.7	200	0	160
JUN										
06...	--	--	--	--	--	--	--	--	--	--
10...	430	270	110	37	110	2.3	8.0	190	0	160
JUL										
11...	--	--	--	--	--	--	--	--	--	--
19...	560	410	150	46	130	2.4	9.8	180	0	150
AUG										
07...	--	--	--	--	--	--	--	--	--	--
15...	430	280	110	37	140	2.9	8.0	180	0	150
SEP										
04...	--	--	--	--	--	--	--	--	--	--
12...	830	660	220	65	170	2.6	11	210	0	170

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLU- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
12...	980	12	.8	2.2	1540	2.09	108	--	0	.27
NOV										
03...	--	--	--	--	--	--	--	--	--	--
09...	1100	9.2	.9	--	--	2.31	179	--	11	.07
DEC										
07...	1100	5.9	.9	8.1	1790	2.43	96.7	--	13	.11
11...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	1500	11	1.2	10	2340	3.18	28.4	--	104	.18
09...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
FEB										
01...	1500	14	1.2	13	2430	3.30	49.2	--	44	.41
MAR										
07...	--	--	--	--	--	--	--	--	--	--
15...	590	2.8	.9	4.6	883	1.20	477	--	710	.54
APR										
10...	--	--	--	--	--	--	--	--	--	--
15...	830	6.5	1.0	1.9	1270	1.73	645	--	1170	.54
MAY										
08...	--	--	--	--	--	--	--	--	--	--
10...	990	9.8	1.0	3.8	1540	2.09	241	--	17	.09
JUN										
06...	--	--	--	--	--	--	--	--	--	--
10...	460	14	.8	4.4	838	1.14	305	--	167	.00
JUL										
11...	--	--	--	--	--	--	--	--	--	--
19...	670	12	.8	6.1	1110	1.51	219	--	32	.02
AUG										
07...	--	--	--	--	--	--	--	--	--	--
15...	580	11	.7	4.7	981	1.33	154	--	--	.00
SEP										
04...	--	--	--	--	--	--	--	--	--	--
12...	1000	12	.8	4.4	1590	2.16	98.7	45	--	.00

CHEYENNE RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
12...	.11	.05	--	1.8	1.8	1.9	8.5	.01	3.6	.4
NOV										
03...	--	--	--	--	--	--	--	--	--	--
09...	.03	.02	--	.24	.26	.29	1.3	.01	--	--
DEC										
07...	.08	.01	--	.32	.33	.41	1.8	.00	--	--
11...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	.17	.03	--	.79	.82	.99	4.4	.19	--	--
09...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
FEB										
01...	.33	.07	--	.50	.57	.90	4.0	.02	--	--
MAR										
07...	--	--	--	--	--	--	--	--	--	--
15...	.49	.12	--	.34	.46	.95	4.2	.39	--	--
APR										
10...	--	--	--	--	--	--	--	--	--	--
15...	.26	.15	.18	1.7	1.8	2.1	9.1	.48	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
10...	.03	.10	.12	.46	.56	.59	2.6	.03	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
10...	.20	.06	.07	.92	.98	1.2	5.2	.14	10	1.2
JUL										
11...	--	--	--	--	--	--	--	--	--	--
19...	.02	.18	.22	1.2	1.4	1.4	6.3	.24	--	--
AUG										
07...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	.11	--	--
SEP										
04...	--	--	--	--	--	--	--	--	--	--
12...	.03	.07	.08	.69	.76	.79	3.5	.06	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)
OCT												
12...	0900	70	40	30	1	0	0	0	<1	280	2	0
NOV												
09...	0910	--	--	--	--	--	--	--	--	340	--	--
DEC												
07...	0900	--	--	--	--	--	--	--	--	270	--	--
JAN												
06...	1430	--	--	--	--	--	--	--	--	330	--	--
FEB												
01...	0900	--	--	--	--	--	--	--	--	340	--	--
MAR												
15...	0810	--	--	--	--	--	--	--	--	220	--	--
APR												
15...	0830	--	--	--	--	--	--	--	--	370	--	--
MAY												
10...	1430	--	--	--	--	--	--	--	--	270	--	--
JUN												
10...	0820	2300	2300	20	2	0	0	0	0	230	4	3
JUL												
19...	0920	--	--	--	--	--	--	--	--	400	--	--
SEP												
12...	0800	--	--	--	--	--	--	--	--	260	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

CHEYENNE RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 12...	1	4	1	3	1	0	1	6.5	20	0	20
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--	--	--
JAN 06...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 15...	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	2	13	11	2	1	0	1	--	60	50	10
JUL 19...	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

OCT. 12, 1978
0900 HOURS

PERIPHYTON IDENTIFICATION

ORGANISM NAME	COMMON NAME
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CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
§ ...ACHNANTHACEAE	
§ ...COCCONEIS	
§ ...RHOICOSPHEA	
§ ...CYMBELLACEAE	
§ ...EPITHEMIA	
§ ...RHOPALODIA	
§ ...FRAGILARIACEAE	
§ ...SYNEDRA	
§ ...NITZSCHIA	
§ ...NITZSCHIA	
CYANOPHYTA	BLUE-GREEN ALGAE
.CYANOPHYCEAE	
..HORMOGONALES	FILAMENTOUS BL-GREEN
§ ...OSCILLATORIA	
§ ...OSCILLATORIA	

NOTE: § - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
 SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
 ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MAY 10, 1979

1430 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHRYSTOPHYTA	
..BACILLARIOPHYCEAE	DIATOMS
..CENTRALES	CENTRIC
...CUSCINOIDISACEAE	
& ...MELOSIRA	
..PENNALES	PENNATE
...ACHNANTHACEAE	
...RHUICOSPHEA	
...CYMBELLACEAE	
...EPITHEMIA	
...FRAGILARIACEAE	
& ...SYNEDRA	
...GOMPHONEMACEAE	
...GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
...GYROSIGMA	
& ...NAVICULA	
...NITZSCHACEAE	
...NITZSCHIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
 SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
 ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

AUG. 15, 1979

0915 HOURS

PERIPHYTON IDENTIFICATION

__ORGANISM__NAME__	__COMMON__NAME__
CHRYSTOPHYTA	
..BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
...COCCONEIS	
...NAVICULACEAE	NAVICULOID
& ...NAVICULA	
...NITZSCHACEAE	
...NITZSCHIA	
CYANOPHYTA	
..CYANOPHYCEAE	BLUE-GREEN ALGAE
..HORMOGONALES	
...OSCILLATORACEAE	FILAMENTOUS BL-GREEN
& ...OSCILLATORIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
 ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

CHEYENNE RIVER BASIN

06429500 COLD SPRINGS CREEK AT BUCKHORN, WY

LOCATION.--Lat 44°09'14", long 104°04'39", in NW¼ sec.9, T.48 N., R.60 W., Weston County, Hydrologic Unit 10120303, on right shoulder of Cold Springs Creek road, 155 ft (47 m) upstream from centerline of U.S. Highway 85, and 0.5 mi (0.8 km) northeast of Buckhorn.

DRAINAGE AREA.--19.0 mi² (49.2 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,855 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--5 years, 4.78 ft³/s (0.135 m³/s), 3,460 acre-ft/yr (4.27 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12 ft³/s (0.34 m³/s) July 1, 1978, gage height, 4.91 ft (1.497 m); maximum gage height, 8.61 ft (2.624 m) Jan. 12, 1979 (backwater from ice); minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Mar. 28, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft³/s (0.28 m³/s) July 16, gage height, 4.80 ft (1.463 m); maximum gage height, 8.61 ft (2.624 m) Jan. 12 (backwater from ice); minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.0	5.6	3.2	3.8	4.3	4.7	4.4	5.0	4.8	5.4	5.6
2	4.6	5.2	5.6	3.0	3.6	4.3	4.8	4.6	5.0	5.0	5.4	5.8
3	4.8	5.2	5.4	2.8	4.0	4.1	4.9	4.6	5.0	5.0	5.4	5.8
4	5.0	5.2	5.2	2.8	4.1	3.6	5.0	4.4	5.0	5.4	5.4	5.8
5	4.8	5.2	4.5	2.6	4.1	4.6	5.4	4.3	5.0	4.8	5.4	6.0
6	4.6	5.2	3.6	2.6	4.3	4.1	5.4	4.3	5.2	4.6	5.6	6.0
7	4.6	5.2	4.4	2.6	4.4	4.1	5.4	4.3	5.2	4.8	6.0	5.8
8	4.4	5.2	4.4	2.4	4.3	4.0	5.4	4.3	5.0	5.0	5.8	5.6
9	4.3	5.2	4.4	2.4	4.3	3.9	5.4	4.3	5.0	5.0	5.8	5.4
10	4.3	5.0	4.5	2.4	4.3	3.8	5.4	4.3	5.0	5.0	5.6	5.2
11	4.4	4.0	4.5	2.6	4.1	4.0	5.2	4.5	5.0	5.0	5.8	5.2
12	4.6	3.5	4.5	2.4	4.1	4.0	3.9	4.3	5.0	5.0	5.8	5.2
13	4.6	3.0	5.0	2.4	4.1	3.9	4.4	4.1	5.0	5.0	6.0	5.2
14	4.6	2.8	5.0	2.2	4.1	3.9	5.0	4.1	5.0	5.0	5.8	5.2
15	4.6	2.8	5.0	2.4	3.8	4.1	5.6	4.1	5.2	5.2	5.8	4.8
16	4.6	2.9	4.5	2.8	3.8	4.0	5.4	4.0	5.8	6.3	5.6	4.8
17	4.8	3.0	5.0	2.6	4.3	4.1	5.8	4.0	5.6	5.2	5.6	4.8
18	4.8	3.2	5.4	2.8	4.3	4.0	5.6	4.1	5.0	5.2	5.6	5.0
19	4.8	3.5	5.6	3.0	4.3	4.0	5.0	4.0	5.0	5.2	5.6	4.8
20	4.8	4.5	5.8	3.0	4.2	3.6	5.0	4.0	5.2	5.2	5.6	4.8
21	4.8	5.5	5.6	3.2	4.0	3.9	5.0	4.0	5.2	5.2	5.4	4.8
22	4.8	6.0	5.6	3.2	4.3	4.0	5.0	4.0	5.2	5.2	5.4	5.0
23	4.8	6.0	5.6	3.0	4.3	4.0	5.0	4.1	5.0	5.2	5.6	5.0
24	5.0	5.8	5.4	3.0	4.2	4.2	5.0	4.3	5.0	5.2	5.6	4.8
25	5.0	5.8	4.6	3.0	4.2	4.2	4.8	4.8	4.8	5.4	5.6	4.8
26	5.0	5.8	5.0	3.5	4.3	4.2	4.8	4.8	5.2	5.4	5.6	4.8
27	5.0	5.8	4.5	3.5	4.3	4.2	4.8	4.8	5.2	5.4	5.6	4.8
28	5.0	5.8	4.3	3.5	4.3	4.2	4.8	4.8	5.0	5.2	5.6	4.6
29	5.0	5.8	4.0	3.8	---	4.3	4.8	4.8	5.0	5.6	5.6	4.6
30	5.0	5.8	3.8	4.0	---	4.5	4.6	4.8	5.0	5.4	5.6	4.6
31	5.0	---	3.5	4.0	---	4.6	---	5.0	---	5.4	5.6	---
TOTAL	147.0	142.9	149.8	90.7	116.2	126.7	151.3	135.2	152.8	160.3	174.2	154.6
MEAN	4.74	4.76	4.83	2.93	4.15	4.09	5.04	4.36	5.09	5.17	5.62	5.15
MAX	5.0	6.0	5.8	4.0	4.4	4.6	5.8	5.0	5.8	6.3	6.0	6.0
MIN	4.3	2.8	3.5	2.2	3.6	3.6	3.9	4.0	4.8	4.6	5.4	4.6
AC-FT	292	283	297	180	230	251	300	268	303	318	346	307
CAL YR 1978	TOTAL	1785.0	MEAN	4.89	MAX	6.5	MIN	2.8	AC-FT	3540		
WTR YR 1979	TOTAL	1701.7	MEAN	4.66	MAX	6.3	MIN	2.2	AC-FT	3380		

06429905 SAND CREEK NEAR RANCH A, NEAR BEULAH, WY

LOCATION.--Lat 44°31'13", long 104°05'00", in SE¼SW¼ sec.5, T.52 N., R.60 W., Crook County, Hydrologic Unit 10120303, on left bank 1.0 mi (1.6 km) upstream from Bear Gulch, and 1.6 mi (2.6 km) south of Beulah.

DRAINAGE AREA.--267 mi² (692 km²).

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,600 ft (1,100 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96 ft³/s (2.72 m³/s) Apr. 29, 1978, gage height, 5.73 ft (1.746 m); minimum daily, 16 ft³/s (0.45 m³/s) Apr. 15-21, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 700 ft³/s (19.8 m³/s) June 15, 1976, gage height, 7.77 ft (2.368 m), from slope-area measurement of peak flow at site 3 mi (4.8 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s (0.96 m³/s) Oct. 15, 16, gage height, 5.23 ft (1.594 m); minimum daily, 16 ft³/s (0.45 m³/s) Apr. 15-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	27	27	25	24	22	24	25	26	24	21
2	28	27	27	27	25	24	22	24	25	26	24	21
3	28	28	26	26	25	23	22	24	25	26	23	21
4	28	27	26	27	25	24	22	24	25	26	23	21
5	28	27	26	26	26	24	22	24	24	27	23	21
6	28	27	26	26	26	24	23	24	24	27	23	21
7	28	27	26	26	26	25	23	24	24	27	23	21
8	29	27	26	26	25	25	22	24	24	26	23	21
9	28	27	26	27	25	24	23	24	24	26	23	21
10	29	27	26	26	26	24	22	24	24	26	23	21
11	29	27	26	27	26	24	20	24	24	26	23	21
12	28	27	26	27	25	25	20	24	24	25	23	22
13	28	27	26	27	25	25	19	24	25	26	22	21
14	28	27	26	27	26	23	17	23	24	25	22	21
15	29	27	26	26	25	24	16	23	24	25	22	21
16	29	27	26	25	24	24	16	24	27	25	23	21
17	29	26	26	25	24	24	16	24	28	25	23	21
18	29	26	26	25	24	24	16	24	26	25	23	21
19	29	26	26	25	24	23	16	24	26	25	23	21
20	29	26	26	25	24	23	16	24	26	25	23	21
21	29	26	26	26	24	23	16	24	26	24	23	21
22	29	26	26	27	24	23	18	24	24	24	22	21
23	29	26	26	26	24	23	22	24	24	24	22	21
24	29	26	26	25	24	23	22	24	25	24	22	22
25	29	26	27	25	24	23	22	24	26	25	23	22
26	28	27	26	25	24	23	22	25	26	24	22	22
27	28	27	27	25	24	23	22	25	26	24	23	22
28	28	27	27	25	24	23	23	25	26	24	22	22
29	28	27	27	25	---	23	23	25	26	25	21	22
30	28	27	27	25	---	23	23	26	26	24	21	21
31	28	---	27	25	---	23	---	26	---	24	21	---
TOTAL	882	803	814	802	693	733	608	750	753	781	701	637
MEAN	28.5	26.8	26.3	25.9	24.8	23.6	20.3	24.2	25.1	25.2	22.6	21.2
MAX	29	28	27	27	26	25	23	26	28	27	24	22
MIN	28	26	26	25	24	23	16	23	24	24	21	21
AC-FT	1750	1590	1610	1590	1370	1450	1210	1490	1490	1550	1390	1260
CAL YR 1978	TOTAL	10750	MEAN 29.5	MAX 73	MIN 22	AC-FT	21320					
WTR YR 1979	TOTAL	8957	MEAN 24.5	MAX 29	MIN 16	AC-FT	17770					

06430000 MURRAY DITCH AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°02'58", in SW¼SW¼ sec.7, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on right bank 15 ft (5 m) downstream from State line and 12 mi (19 km) southwest of Belle Fourche, SD.

PERIOD OF RECORD.--June 1954 to current year (irrigation seasons only prior to October 1959).

GAGE.--Water-stage recorder. Altitude of gage is 3,440 ft (1,050 m), from topographic map.

REMARKS.--Records fair. Ditch diverts water from left bank of Redwater Creek, 2.0 mi (3.2 km) upstream, for irrigation of about 700 acres (283 hm²). Flow maintained during irrigation season only.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s (1.05 m³/s) July 17, 1973; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 27 ft³/s (0.76 m³/s) July 13, gage height, 2.45 ft (0.747 m); no flow for long periods.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	.21
2	7.0	.00	.00	.00	.00	.00	.00	.00	3.0	.00	4.6	.21
3	9.5	.00	.00	.00	.00	.00	.00	.00	8.7	1.9	7.9	.18
4	11	.00	.00	.00	.00	.05	.00	.00	8.7	12	8.5	.15
5	9.7	.00	.00	.00	.00	.15	.00	.00	15	15	6.7	.15
6	9.2	.00	.00	.00	.00	.05	.00	.00	20	8.0	7.6	1.9
7	9.1	.00	.00	.00	.00	.00	.00	.00	21	10	13	3.0
8	11	.00	.00	.00	.00	.00	.00	.00	22	15	16	6.2
9	17	.00	.00	.00	.00	.00	.00	.00	22	18	17	6.3
10	12	.00	.00	.00	.00	.00	.00	.00	17	20	17	6.4
11	12	.00	.00	.00	.00	.00	.00	.00	24	20	17	6.9
12	13	.00	.00	.00	.00	.00	.00	.00	16	18	18	7.8
13	13	.00	.00	.00	.00	.00	.00	.00	14	27	14	6.9
14	12	.00	.00	.00	.00	.00	.00	.00	17	16	9.7	4.2
15	12	.00	.00	.00	.00	.00	.00	.00	19	12	9.5	1.4
16	12	.00	.00	.00	.00	.00	.00	.00	24	13	9.4	1.1
17	11	.00	.00	.00	.00	.00	.00	.00	24	12	8.9	1.0
18	11	.00	.00	.00	.00	.00	.00	.00	22	11	8.9	.37
19	11	.00	.00	.00	.00	.00	.00	.00	21	11	10	.01
20	12	.00	.00	.00	.00	.00	.00	.00	23	12	11	.36
21	13	.00	.00	.00	.00	.00	.00	.00	22	11	11	4.3
22	11	.00	.00	.00	.00	.00	.00	.00	15	11	11	7.3
23	.21	.00	.00	.00	.00	.00	.00	.00	.30	9.4	3.6	7.2
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.5	3.2	6.8
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	2.3	6.6
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.86	6.3
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.75	6.3
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	.50	7.2
29	.00	.00	.00	.00	---	.00	.00	.00	.00	16	.40	7.4
30	.00	.00	.00	.00	---	.00	.00	.00	.00	19	.30	7.9
31	.00	---	.00	.00	---	.00	---	.00	---	22	.24	---
TOTAL	247.01	.00	.00	.00	.00	.25	.00	.00	378.70	406.80	270.85	122.04
MEAN	7.97	.000	.000	.000	.000	.008	.000	.000	12.6	13.1	8.74	4.07
MAX	17	.00	.00	.00	.00	.15	.00	.00	24	27	22	7.9
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.01
AC-FT	490	.00	.00	.00	.00	.5	.00	.00	751	807	537	242
CAL YR 1978	TOTAL	1269.63	MEAN	3.48	MAX	19	MIN	.00	AC-FT	2520		
WTR YR 1979	TOTAL	1425.65	MEAN	3.91	MAX	27	MIN	.00	AC-FT	2830		

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, SD, Hydrologic Unit 10120203, on left bank 800 ft (244 m) downstream from State line, 5.7 mi (9.2 km) upstream from Crow Creek, and 12 mi (19 km) southwest of Belle Fourche, SD.

DRAINAGE AREA.--471 mi² (1,220 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to September 1931 and February 1936 to July 1937 (published as "near Beulah, WY"), June 1954 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1936-37(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft (1,040 m), from topographic map. Apr. 25, 1929, to Sept. 30, 1931, and Feb. 28, 1936, to July 31, 1937, nonrecording gage at site 2 mi (3 km) upstream at different datum.

REMARKS.--Records good. Large diversions for irrigation above station. Total flow passing State line may be obtained by adding flow of Murray ditch (see sta 06430000).

AVERAGE DISCHARGE.--27 years, 36.9 ft³/s (1.045 m³/s), 26,730 acre-ft/yr (33.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s (69.1 m³/s) Aug. 22, 1973, gage height, 12.19 ft (3.716 m), from rating curve extended above 1,000 ft³/s (27 m³/s) on basis of slope-area measurement at gage height 11.95 ft (3.662 m); no flow Aug. 13-15, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft³/s (2.63 m³/s) Mar. 7, gage height, 3.04 ft (0.927 m); maximum gage height, 3.85 ft (1.173 m) Jan. 6 (backwater from ice); no peak above base of 150 ft³/s (4.25 m³/s); minimum daily discharge, 5.4 ft³/s (0.15 m³/s) June 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	35	40	36	41	39	38	39	38	49	25	37
2	30	39	40	36	41	39	38	39	29	48	36	37
3	31	39	41	38	41	38	40	40	21	46	29	37
4	32	39	42	40	41	38	45	40	21	31	26	37
5	32	40	41	40	41	40	44	40	16	30	31	36
6	29	40	41	42	41	42	43	41	11	31	28	33
7	26	40	40	42	41	54	43	40	11	28	22	32
8	27	40	40	42	41	47	41	39	11	23	19	27
9	24	41	40	42	41	44	38	41	11	17	21	26
10	20	43	40	41	41	41	39	41	10	8.7	19	27
11	20	40	39	39	41	45	40	41	5.4	7.9	19	27
12	24	41	40	37	40	44	39	40	6.0	7.7	19	29
13	23	41	39	37	41	44	39	40	5.6	13	20	28
14	23	41	40	38	42	43	39	39	5.9	12	21	31
15	23	41	39	38	41	43	39	40	6.5	18	21	36
16	24	41	38	38	41	44	40	41	8.5	18	25	36
17	24	42	39	37	40	43	40	41	9.0	16	26	35
18	24	39	38	35	39	40	41	41	8.0	16	26	36
19	24	39	39	35	39	39	46	41	7.4	17	27	36
20	24	40	38	35	39	39	47	41	7.3	16	25	36
21	24	39	38	35	39	39	47	41	13	17	24	31
22	27	40	37	36	40	40	47	41	29	19	25	24
23	43	39	37	35	38	39	47	41	46	18	34	24
24	43	39	38	36	38	39	43	39	47	11	34	24
25	43	39	36	36	38	38	38	36	51	21	38	25
26	41	40	35	35	39	38	38	36	54	21	41	25
27	40	40	36	36	39	38	38	37	53	28	42	24
28	40	38	36	38	39	38	39	37	52	27	39	22
29	39	38	36	40	---	38	39	38	50	26	38	23
30	39	40	36	42	---	38	39	39	50	26	37	23
31	39	---	36	42	---	39	---	38	---	24	36	---
TOTAL	931	1193	1195	1179	1123	1270	1234	1228	693.6	691.3	873	904
MEAN	30.0	39.8	38.5	38.0	40.1	41.0	41.1	39.6	23.1	22.3	28.2	30.1
MAX	43	43	42	42	42	54	47	41	54	49	42	37
MIN	20	35	35	35	38	38	38	36	5.4	7.7	19	22
AC-FT	1850	2370	2370	2340	2230	2520	2450	2440	1380	1370	1730	1790

CAL YR 1978 TOTAL 16342.0 MEAN 44.8 MAX 264 MIN 20 AC-FT 32410
WTR YR 1979 TOTAL 12514.9 MEAN 34.3 MAX 54 MIN 5.4 AC-FT 24820

CHEYENNE RIVER BASIN

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-70, 1972 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT								
04...	0910	--	32	10	.86	--	--	--
NOV								
07...	1045	--	40	34	3.7	--	--	--
DEC								
27...	1530	--	36	46	4.5	--	--	--
JAN								
24...	1230	--	36	33	3.2	--	--	--
FEB								
14...	1245	--	42	39	4.4	--	--	--
MAR								
05...	1600	8.0	41	30	3.3	--	--	--
APR								
10...	1100	10.0	39	46	4.8	--	--	--
MAY								
07...	1630	13.0	39	47	4.9	--	--	--
JUN								
04...	1550	20.0	21	8	.45	--	--	--
JUL								
11...	1130	19.5	8.3	44	.99	2	4	10
AUG								
07...	1430	21.0	24	42	2.7	--	--	--

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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT								
04...	--	--	--	--	--	--	--	--
NOV								
07...	--	--	--	--	--	--	--	--
DEC								
27...	--	--	--	--	--	--	--	--
JAN								
24...	--	--	--	--	--	--	--	--
FEB								
14...	--	--	--	--	--	--	--	--
MAR								
05...	--	--	--	--	--	--	--	--
APR								
10...	--	--	--	--	--	--	--	--
MAY								
07...	--	--	--	--	--	--	--	--
JUN								
04...	--	--	--	--	--	--	--	--
JUL								
11...	23	34	43	52	64	73	86	100
AUG								
07...	--	--	--	--	--	--	--	--

LOCATION.--Lat 42°39'33", long 104°03'54", in SE¼SW¼ sec.15, T.31 N., R.60 W., Niobrara County, WY, Hydrologic Unit 10150002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, WY.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres (19.0 km²) above station.

AVERAGE DISCHARGE.--24 years, 4.08 ft³/s (0.116 m³/s), 2,960 acre-ft/yr (3.65 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Aug. 16, 1977, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s (0.015 m³/s) Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.3 ft³/s (0.15 m³/s) Mar. 7 at 1900, gage height, 1.38 ft (0.421 m); no peak above base of 20 ft³/s (0.57 m³/s); minimum daily, 1.0 ft³/s (0.028 m³/s) Jan. 23.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	2.4	2.1	2.2	2.4	3.4	3.1	2.5	2.2	2.0	2.3
2	1.9	2.2	2.4	2.1	2.4	2.5	3.2	3.2	2.5	2.2	1.8	2.2
3	1.9	2.2	2.2	2.2	2.4	2.3	3.4	3.2	2.5	2.1	1.7	2.2
4	2.0	2.3	2.1	2.2	2.4	2.2	3.3	3.2	2.4	2.1	1.5	2.1
5	1.9	2.4	2.1	2.2	2.5	2.3	3.3	3.2	2.2	2.7	1.5	2.1
6	1.9	2.1	2.0	2.1	2.6	2.5	3.2	3.2	2.1	1.9	1.5	2.2
7	1.9	2.1	1.9	2.1	2.6	3.9	3.3	3.2	2.2	1.7	1.5	2.3
8	1.9	2.1	1.9	2.2	2.6	3.7	3.2	3.3	2.2	1.7	1.7	2.4
9	1.9	2.1	1.9	2.1	2.8	3.2	3.2	3.4	2.5	1.6	2.3	2.4
10	1.9	2.1	1.9	2.1	2.8	3.6	3.3	3.6	2.2	1.6	2.1	2.3
11	1.9	2.1	1.9	2.0	2.8	3.5	3.5	4.0	2.2	1.5	2.0	2.3
12	2.0	2.1	2.0	2.0	2.8	3.6	3.9	4.3	2.2	1.4	2.0	2.4
13	2.1	2.2	2.0	2.0	2.9	3.4	3.7	3.8	2.2	1.4	2.1	2.4
14	2.4	2.0	2.0	2.0	3.1	3.7	3.6	3.7	2.1	1.5	2.2	2.5
15	2.2	1.9	2.0	2.0	2.4	3.6	3.5	3.7	2.2	1.5	2.3	2.5
16	2.2	1.9	2.0	1.9	2.4	3.5	3.4	3.4	2.7	1.5	2.4	2.4
17	2.2	1.9	2.0	1.9	2.4	3.6	3.3	3.3	2.4	1.8	2.5	2.4
18	2.0	1.9	2.0	1.9	2.4	3.5	3.2	3.1	2.1	1.8	2.9	2.4
19	2.1	1.9	2.0	1.9	2.4	3.3	3.1	3.1	2.1	1.6	2.9	2.4
20	2.1	1.9	2.0	1.9	2.5	3.4	3.1	3.1	1.9	1.6	2.7	2.4
21	2.1	1.9	2.1	1.8	2.5	3.5	3.0	2.9	1.8	1.6	2.6	2.2
22	2.1	1.9	2.0	1.8	2.4	3.3	3.1	2.9	1.8	1.6	2.6	2.2
23	2.1	2.4	2.0	1.0	2.4	3.2	2.9	2.9	2.6	1.6	2.6	2.2
24	2.1	2.8	2.0	1.4	2.4	3.4	2.9	2.7	2.9	1.7	2.6	2.2
25	2.1	2.7	2.0	2.0	2.3	3.3	2.9	2.7	2.4	1.6	3.4	2.2
26	2.1	2.7	2.0	2.4	2.2	3.3	2.9	2.7	2.4	1.8	3.5	2.0
27	2.1	2.7	1.9	2.1	2.3	3.3	3.1	2.5	2.4	1.7	3.6	2.0
28	2.1	2.7	1.9	2.2	2.3	3.3	3.1	2.7	2.2	2.2	3.7	2.0
29	2.1	2.5	2.0	2.1	---	3.5	3.2	2.7	2.2	1.9	3.7	2.0
30	2.1	2.5	2.0	2.2	---	3.6	3.1	2.6	2.1	1.9	3.1	2.0
31	2.1	---	2.1	2.2	---	3.5	---	2.7	---	2.0	2.5	---
TOTAL	63.3	66.3	62.7	62.1	70.2	100.9	97.3	98.1	68.2	55.0	75.5	67.6
MEAN	2.04	2.21	2.02	2.00	2.51	3.25	3.24	3.16	2.27	1.77	2.44	2.25
MAX	2.4	2.8	2.4	2.4	3.1	3.9	4.3	4.3	2.9	2.7	3.7	2.5
MIN	1.8	1.9	1.9	1.0	2.2	2.2	2.9	2.5	1.8	1.4	1.5	2.0
AC-FT	126	132	124	123	139	200	193	195	135	109	150	133

CAL YR 1978	TOTAL 952.73	MEAN 2.61	MAX 8.2	MIN .61	AC-FT 1890
WTR YR 1979	TOTAL 887.20	MEAN 2.43	MAX 4.3	MIN 1.0	AC-FT 1760

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft (2,380.607 m), National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder at site 0.8 mi (1.3 km) downstream at datum 3.36 ft (1.024 m) lower.

REMARKS.--Records good except those for winter period and period of no gage-height record, Jan. 27 to Mar. 22, which are poor. Diversions for irrigation of about 130,000 acres (526 km²) of hay meadows above station. Transbasin diversions above Cache la Poudre River basin (see elsewhere in this report).

AVERAGE DISCHARGE.--64 years, 431 ft³/s (12.21 m³/s), 312,300 acre-ft/yr (385 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s (190 m³/s) June 11, 1923, gage height, 6.24 ft (1.902 m), site and datum then in use; maximum gage height recorded, 8.84 ft (2.694 m) Apr. 9, 1962, ice jam; minimum daily discharge, 19 ft³/s (0.54 m³/s) July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,890 ft³/s (110 m³/s) May 31, gage height, 6.40 ft (1.951 m); maximum gage height, 8.52 ft (2.597 m) Apr. 19 (ice jam); minimum daily discharge, 55 ft³/s (1.56 m³/s) Dec. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	115	70	80	85	90	120	1490	3110	1630	460	221
2	88	118	65	80	90	90	110	1570	2290	1740	422	202
3	85	116	65	80	90	90	110	1560	1690	1680	394	185
4	83	111	65	80	90	90	120	1430	1340	1720	365	171
5	78	107	60	80	90	90	130	1290	1250	1630	342	161
6	75	105	55	80	90	90	150	1420	1340	1420	319	150
7	73	101	55	80	90	90	150	1650	1590	1300	298	144
8	73	102	60	80	90	90	160	1730	2250	1180	286	137
9	78	108	60	80	90	90	170	1570	3090	1090	285	133
10	79	99	65	80	90	90	180	1250	3470	1060	312	127
11	77	100	70	80	90	90	200	1080	2890	996	326	124
12	81	90	70	80	90	90	220	939	1970	931	332	121
13	80	90	70	80	90	90	250	825	1600	862	336	116
14	72	80	70	80	90	90	300	832	1620	831	324	120
15	72	70	70	80	90	95	450	991	1890	782	365	124
16	73	70	70	80	90	100	700	1210	2300	798	426	118
17	73	75	70	80	90	100	1000	1440	2550	854	437	115
18	75	75	75	80	90	100	1500	1690	2350	987	459	108
19	79	80	80	80	90	100	2500	1870	2120	986	515	101
20	81	80	80	80	90	110	1830	2130	2080	905	535	95
21	80	80	80	80	90	110	1840	2290	1890	824	577	94
22	92	80	80	80	90	110	2070	2310	1520	800	623	100
23	122	80	80	80	90	110	2130	2220	1320	778	537	97
24	117	80	80	80	90	110	2060	2200	1300	865	442	90
25	124	80	80	80	90	110	2140	2170	1350	941	380	80
26	130	80	80	80	90	120	1980	2260	1410	800	344	79
27	115	75	80	80	90	130	1570	2460	1450	674	309	81
28	117	70	80	80	90	130	1530	2470	1510	658	274	91
29	122	70	80	80	---	120	1540	2750	1530	621	242	93
30	121	70	80	80	---	120	1450	3490	1530	549	231	88
31	120	---	80	80	---	120	---	3750	---	493	229	---
TOTAL	2826	2657	2225	2480	2515	3155	28660	56337	57600	31385	11726	3666
MEAN	91.2	88.6	71.8	80.0	89.8	102	955	1817	1920	1012	378	122
MAX	130	118	80	80	90	130	2500	3750	3470	1740	623	221
MIN	72	70	55	80	85	90	110	825	1250	493	229	79
AC-FT	5610	5270	4410	4920	4990	6260	56850	111700	114200	62250	23260	7270

CAL YR 1978 TOTAL 183342 MEAN 502 MAX 2810 MIN 55 AC-FT 363700
WTR YR 1979 TOTAL 205232 MEAN 562 MAX 3750 MIN 55 AC-FT 407100

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD---Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT										
24...	0815	114	270	8.1	.5	2	10.6	36	110	0
NOV										
21...	0815	E80	280	7.9	.0	4	10.4	23	110	20
DEC										
17...	0815	E70	270	7.5	.0	3	8.4	K17	120	5
JAN										
16...	0830	E80	250	7.1	.0	3	8.0	39	96	0
FEB										
20...	0815	E90	270	7.2	.0	3	7.8	52	100	0
MAR										
28...	0810	E120	295	7.3	.0	3	9.0	K6	100	0
APR										
25...	0800	E150	290	7.6	4.0	25	9.4	21	89	0
MAY										
30...	0800	3550	230	7.5	7.5	15	7.3	96	68	0
JUN										
20...	0730	2090	230	7.7	8.0	6	8.1	84	88	0
JUL										
31...	0730	504	220	8.0	14.0	4	7.2	52	83	1
AUG										
21...	0800	558	205	7.9	10.5	7	7.9	86	78	0
SEP										
18...	0830	105	245	8.0	8.5	2	8.1	68	86	0

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT									
24...	33	7.7	16	.7	1.9	140	0	120	33
NOV									
21...	29	8.5	10	.4	.2	110	0	90	33
DEC									
17...	33	8.2	9.1	.4	1.9	140	0	120	26
JAN									
16...	27	6.9	11	.5	2.1	130	0	110	15
FEB									
20...	28	8.0	14	.6	1.8	130	0	110	17
MAR									
28...	30	6.7	12	.5	2.8	130	0	110	12
APR									
25...	24	7.1	25	1.2	4.5	110	0	90	44
MAY									
30...	17	6.2	16	.8	3.0	93	0	76	26
JUN									
20...	24	6.8	13	.6	1.3	120	0	98	21
JUL									
31...	23	6.1	11	.5	1.0	100	0	82	16
AUG									
21...	21	6.1	10	.5	1.5	98	0	80	17
SEP									
18...	24	6.4	14	.7	1.5	130	0	110	8.2

PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 24...	2.6	.5	3.7	166	.23	51.1	.02	--	.03
NOV 21...	.4	.5	9.3	146	.20	--	.09	--	.02
DEC 17...	.0	.6	12	159	.22	--	.34	--	.04
JAN 16...	1.8	.5	11	137	.19	--	.18	--	.02
FEB 20...	8.1	.5	13	155	.21	--	.11	--	.04
MAR 28...	3.7	.8	12	137	.19	--	.45	--	.15
APR 25...	5.4	.4	9.9	175	.24	70.9	.11	--	.14
MAY 30...	2.9	.5	8.7	126	.17	1210	.00	--	.12
JUN 20...	.0	.4	9.0	134	.18	756	.02	--	.04
JUL 31...	.9	.5	6.2	116	.16	158	.05	--	.02
AUG 21...	.0	.4	8.4	112	.15	169	.00	--	.05
SEP 18...	1.7	.5	6.3	129	.18	36.6	--	.00	.02

		PCB, TOTAL IN BOT- TOM MA- TERIAL	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL	DDD, TOTAL IN BOT- TOM MA- TERIAL	DDE, TOTAL
DATE	TIME	(UG/L)	(UG/KG)	(UG/L)	(UG/KG)	(UG/L)
MAY 30...	0800	.0	0	.00	.0	.0
JUN 20...	0730	--	--	--	--	--
JUL 31...	0730	--	--	--	--	--
AUG 21...	0800	--	--	--	--	--
SEP 18...	0830	--	--	--	--	--

[illegible]

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
MAY 30...	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00
JUN 20...	--	--	--	--	--	--	--	--	--	--
JUL 31...	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
MAY 30...	.00	0	0	.00	.00	0	.00	0	.00	.0
JUN 20...	--	--	--	--	.00	0	.00	0	.00	.0
JUL 31...	--	--	--	--	.00	0	.00	0	.00	.0
AUG 21...	--	--	--	--	.00	--	.00	--	.00	--
SEP 18...	--	--	--	--	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
MAY 30...	.00	0	.00	0
JUN 20...	.10	0	.00	0
JUL 31...	.00	0	--	0
AUG 21...	--	--	.00	--
SEP 18...	.00	0	.00	0

06622700 NORTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°22'10", long 106°31'22", in NE¼SE¼NW¼ sec.8, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 10 ft (3 m) downstream from logging road bridge, 0.7 mi (1.1 km) downstream from Lincoln Creek, 1.6 mi (2.6 km) upstream from South Brush Creek, and 16 mi (26 km) southeast of Saratoga.

DRAINAGE AREA.--37.4 mi² (96.9 km²).

PERIOD OF RECORD.--May 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,020 ft (2,444 m), from topographic map. Prior to June 17, 1971, at site 110 ft (34 m) downstream at different datum. June 17 to Sept. 21, 1971, at site 10 ft (3 m) downstream at present datum.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Nov. 16-19, Nov. 23 to Apr. 8, which are poor. No diversion above station.

AVERAGE DISCHARGE.--19 years, 50.0 ft³/s (1.416 m³/s), 36,220 acre-ft/yr (44.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s (31.7 m³/s) June 7, 1964, gage height, 5.75 ft (1.753 m), site and datum then in use, from rating curve extended above 480 ft³/s (13.6 m³/s); minimum daily, 4.7 ft³/s (0.13 m³/s) Oct. 27-29, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 28	2200	*530 15.0	3.14 0.957	June 14	2230	525 14.9	3.07 0.936
June 5	2100	*530 15.0	3.12 .951				

Minimum daily discharge, 6.5 ft³/s (0.18 m³/s) Jan. 1, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	9.9	8.9	6.5	7.2	9.0	8.7	29	124	100	12	15
2	8.4	10	8.4	6.9	7.5	9.0	8.0	32	143	84	12	14
3	8.4	9.9	8.0	7.3	7.7	8.9	8.6	29	224	73	11	13
4	8.4	9.6	8.5	7.4	7.8	8.2	9.1	28	312	70	11	12
5	8.4	9.3	8.2	7.3	7.3	8.4	9.7	42	402	60	10	12
6	8.4	8.0	7.8	7.0	7.4	8.6	11	50	450	51	10	12
7	8.7	8.6	7.4	6.5	7.6	8.8	12	37	398	45	11	12
8	8.7	9.0	7.0	7.0	7.8	9.0	12	32	258	39	11	12
9	8.7	9.4	7.4	7.4	8.0	9.2	13	27	162	35	17	11
10	8.4	7.8	7.7	7.9	8.2	9.3	12	24	159	32	18	12
11	8.4	7.0	7.9	8.3	8.4	9.4	10	22	254	28	13	13
12	8.1	7.3	7.8	8.4	8.6	9.6	10	22	352	25	12	12
13	8.1	7.6	7.5	7.8	8.8	9.7	10	22	425	23	15	12
14	8.1	7.4	7.9	8.2	9.0	9.7	11	32	450	22	39	12
15	8.4	7.2	8.3	8.7	9.0	9.8	14	43	430	20	25	12
16	8.1	7.1	8.8	8.9	8.9	9.7	19	56	344	20	20	12
17	8.4	7.5	9.4	9.2	8.8	9.6	22	72	276	21	18	11
18	8.7	8.0	9.9	9.4	8.6	9.4	27	95	204	19	56	11
19	8.7	8.6	9.9	9.6	8.5	9.3	26	124	156	17	72	11
20	8.4	9.0	9.7	9.6	8.4	9.0	22	162	140	16	43	11
21	11	8.9	9.6	9.6	8.3	8.9	21	179	146	16	35	12
22	14	8.5	9.6	9.3	8.2	8.7	22	204	162	18	26	12
23	11	8.2	9.6	9.0	8.2	8.6	25	254	172	17	20	11
24	11	7.8	9.8	9.2	8.4	8.6	28	294	165	20	18	11
25	10	8.0	9.9	9.6	8.6	8.7	24	290	153	16	17	15
26	9.9	8.2	10	9.4	8.7	9.0	22	339	131	15	16	18
27	11	8.3	10	9.1	8.9	9.4	22	393	137	15	15	20
28	10	8.5	9.8	8.7	9.0	9.6	24	445	126	16	14	17
29	10	8.8	9.3	8.2	---	9.5	25	420	118	14	14	16
30	9.9	9.0	8.4	7.6	---	9.4	28	254	111	13	14	15
31	9.9	---	7.5	7.0	---	9.2	---	156	---	12	18	---
TOTAL	286.0	252.4	269.9	256.0	231.8	283.2	516.1	4208	7084	972	643	389
MEAN	9.23	8.41	8.71	8.26	8.28	9.14	17.2	136	236	31.4	20.7	13.0
MAX	14	10	10	9.6	9.0	9.8	28	445	450	100	72	20
MIN	8.1	7.0	7.0	6.5	7.2	8.2	8.0	22	111	12	10	11
AC-FT	567	501	535	508	460	562	1020	8350	14050	1930	1280	772
CAL YR 1978	TOTAL	20658.6	MEAN	56.6	MAX	585	MIN	7.0	AC-FT	40980		
WTR YR 1979	TOTAL	15391.4	MEAN	42.2	MAX	450	MIN	6.5	AC-FT	30530		

06622900 SOUTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°20'38", long 106°31'33", in NE¼NW¼ sec.20, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 300 ft (91 m) upstream from culvert on State Highway 130, 1.6 mi (2.6 km) upstream from North Brush Creek, and 17 mi (27.4 km) southeast of Saratoga.

DRAINAGE AREA.--22.8 mi² (59.1 km²).

PERIOD OF RECORD.--May 1960 to September 1974, May 1976 to September 1977, May to September 1979 (no winter records since 1972).

GAGE.--Water-stage recorder. Altitude of gage is 8,100 ft (2,469 m), from topographic map.

REMARKS.--Transbasin diversion 0.3 mi (0.5 km) above station for irrigation in North Brush Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1961-72), 31.8 ft³/s (0.901 m³/s), 23,040 acre-ft/yr (28.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft³/s (15.8 m³/s) June 10, 1965, gage height, 4.09 ft (1.247 m); minimum daily, 0.80 ft³/s (0.023 m³/s) Aug. 15-20, 28, 29, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 308 ft³/s (8.72 m³/s) June 14, gage height, 3.47 ft (1.058 m); minimum daily during period of operation, 7.9 ft³/s (0.22 m³/s) Sept. 25.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	96	86	15	12
2								---	90	72	12	9.8
3								---	109	62	13	9.2
4								---	122	58	13	8.2
5								---	165	52	11	9.5
6								---	194	51	11	12
7								---	171	49	10	10
8								---	150	45	10	10
9								---	112	47	13	9.8
10								---	73	51	16	9.8
11								---	99	47	10	11
12								---	149	49	8.8	9.8
13								---	202	45	10	9.5
14								---	245	42	37	9.8
15								---	266	38	23	9.5
16								---	199	36	17	9.2
17								---	159	36	14	8.8
18								---	127	33	44	8.2
19								---	89	31	62	7.9
20								106	76	30	39	9.8
21								109	81	32	34	14
22								112	90	34	23	10
23								123	102	31	18	8.8
24								136	106	32	16	8.5
25								144	97	26	16	7.9
26								155	89	22	15	8.5
27								161	96	21	14	12
28								171	94	21	12	9.5
29								179	90	18	11	8.8
30								136	87	16	12	8.2
31								112	---	15	16	---
TOTAL								---	3825	1228	575.8	290.0
MEAN								---	128	39.6	18.6	9.67
MAX								---	266	86	62	14
MIN								---	73	15	8.8	7.9
AC-FT								---	7590	2440	1140	575

LOCATION.--Lat 41°01'25", long 106°49'27", in NE¼SW¼ sec.10, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 0.6 mi (1.0 km) upstream from Hog Park Creek and 13 mi (21 km) south of Encampment.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (212 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 28	2030	956	27.1	4.30	1.311	June 15	2030	*1,380	39.1	4.94	1.506
June 6	2200	1,000	28.3	4.38	1.335						

Minimum daily discharge, 14 ft³/s (0.40 m³/s) Nov. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	19	19	16	18	16	16	64	512	962	72	35
2	23	19	19	17	18	17	17	63	522	884	68	32
3	23	19	20	18	17	17	15	63	605	788	62	31
4	23	19	20	19	17	15	18	56	722	722	56	30
5	23	20	20	18	17	16	18	72	830	620	50	29
6	23	14	20	16	17	16	19	100	938	571	45	27
7	23	16	20	18	17	16	21	95	950	540	45	27
8	23	18	20	19	16	16	22	78	830	494	47	26
9	23	19	20	20	16	16	23	65	698	454	52	26
10	22	18	20	20	16	16	24	57	655	406	62	27
11	22	16	20	20	17	16	23	50	764	375	60	29
12	21	17	20	20	17	17	23	47	896	340	50	26
13	20	17	20	19	17	18	22	53	1030	310	45	25
14	20	16	20	19	17	15	22	76	1160	280	50	26
15	20	15	20	19	16	17	23	112	1280	250	53	24
16	20	15	20	19	16	17	25	155	1180	228	52	23
17	20	16	21	20	17	18	26	192	1090	217	58	23
18	22	18	20	20	16	17	28	240	1010	198	71	22
19	22	19	20	19	17	18	30	298	908	176	117	22
20	21	20	20	18	17	17	32	337	812	161	80	22
21	21	20	20	19	17	17	35	400	812	150	69	23
22	22	20	20	20	17	17	39	466	878	161	56	22
23	17	19	20	17	17	17	42	512	926	143	49	20
24	17	18	20	18	17	17	46	576	956	184	45	20
25	18	18	20	18	16	17	49	630	986	142	42	20
26	18	19	20	18	17	17	52	692	1000	120	40	21
27	19	20	20	18	18	17	54	770	1020	114	39	29
28	19	20	20	18	18	15	55	854	992	112	38	25
29	20	20	20	18	---	15	52	866	980	94	35	23
30	20	20	19	18	---	16	57	710	962	83	35	22
31	19	---	18	18	---	17	---	580	---	78	39	---
TOTAL	648	544	616	574	473	513	928	9329	26904	10357	1682	757
MEAN	20.9	18.1	19.9	18.5	16.9	16.5	30.9	301	897	334	54.3	25.2
MAX	24	20	21	20	18	18	57	866	1280	962	117	35
MIN	17	14	18	16	16	15	15	47	512	78	35	20
AC-FT	1290	1080	1220	1140	938	1020	1840	18500	53360	20540	3340	1500
CAL YR 1978	TOTAL	53386	MEAN 146	MAX	1180	MIN 14	AC-FT	105900				
WTR YR 1979	TOTAL	53325	MEAN 146	MAX	1280	MIN 14	AC-FT	105800				

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
OCT 26...	1200	--	25	63	7.3	.0	10.0	16	1	1	27	0
JAN 09...	1230	20	--	<50	7.5	.0	10.6	7	<1	<1	27	0
MAR 09...	1200	--	15	110	7.3	.0	9.7	9	3	<1	30	2
MAY 04...	1130	--	65	85	8.8	1.5	10.4	5	1	<1	29	11
JUN 27...	1400	--	956	<50	7.1	9.5	8.5	32	1	88	10	3
JUL 20...	1230	--	164	<50	7.9	12.0	8.7	27	2	5	16	3
AUG 17...	1330	--	54	58	8.8	12.5	7.8	44	7	18	20	0
SEP 27...	1200	--	33	73	7.8	7.5	8.9	40	17	16	26	7

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 26...	8.1	1.7	2.3	.2	--	.9	28	4.5	.8	.1	12
JAN 09...	9.2	1.0	3.0	.3	--	.7	30	7.3	.4	.1	14
MAR 09...	8.7	1.9	3.0	.2	--	.7	28	5.9	.6	.1	12
MAY 04...	9.1	1.6	2.0	.2	--	.9	18	3.4	1.3	.1	9.3
JUN 27...	3.8	.0	1.3	.2	1.8	.5	7	4.5	.6	.1	6.5
JUL 20...	4.6	1.0	1.5	.2	2.1	.6	13	5.9	.2	.1	8.8
AUG 17...	6.5	.8	2.5	.2	3.2	.7	23	6.2	.4	.1	9.4
SEP 27...	7.7	1.7	2.4	.2	3.3	.9	19	7.3	.4	.1	11

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TUNS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	CYANIDE TOTAL (MG/L AS CN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 26...	51	47	.06	3.17	.02	.01	--	--	--	3	.20
JAN 09...	42	54	.07	2.92	.05	.01	--	--	--	4	.22
MAR 09...	50	50	.07	2.03	.05	.00	--	--	--	3	.12
MAY 04...	43	39	.05	6.84	.04	.02	.06	.06	--	6	1.1
JUN 27...	30	22	.03	56.8	.01	.01	.03	.03	--	16	41
JUL 20...	30	31	.04	13.7	.02	.01	--	.03	.00	2	.89
AUG 17...	38	40	.05	5.83	.01	.02	--	.06	--	--	--
SEP 27...	39	43	.06	3.83	.01	--	--	--	--	2	.18

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL RECOV- ERABLE (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
JUL 20...	1230	0	0	0	0	18	90

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 20...	10	10	.1	0	0	10

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼NW¼ sec.3, T.15 N., R.83 W., Carbon County, Hydrologic Unit 10180002, on left bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,970 ft (2,124 m), from topographic map. Prior to June 28, 1961, water-stage recorder at site 660 ft (201 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Dec. 5-19, Dec. 31 to Jan. 16, Jan. 16 to Feb. 13, which are poor. Five small reservoirs above station for irrigation, total capacity, about 400 acre-ft (0.493 hm³). Slight regulation by Hog Park Creek Reservoir, capacity, about 2,970 acre-ft (3.66 hm³). Diversions for irrigation of about 8,800 acres (35.6 km²) above station. Transbasin diversion above station into Hog Park Creek (tributary to Encampment River) from North Fork Little Snake River for municipal, industrial, and irrigation uses began September 1964.

AVERAGE DISCHARGE.--39 years, 240 ft³/s (6.80 m³/s), 173,900 acre-ft/yr (214 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft³/s (128 m³/s) June 1, 1943, gage height, 10.25 ft (3.124 m), present datum; maximum gage height, 10.33 ft (3.149 m) June 4, 1952, present datum; minimum daily discharge, 5.2 ft³/s (0.15 m³/s) Aug. 15, 16, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	0600	2,380 67.4	5.83 1.777	June 15	0630	*3,180 90.1	6.71 2.045
June 7	0700	2,320 65.7	5.77 1.759				

Minimum daily discharge, 29 ft³/s (0.82 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	80	76	33	39	57	68	288	1220	1590	113	58
2	46	80	73	34	39	58	68	304	1070	1410	100	53
3	46	82	69	35	39	60	68	304	1140	1280	89	48
4	48	80	70	36	40	61	71	264	1320	1160	75	49
5	48	82	73	36	41	64	73	308	1530	1030	65	45
6	46	71	71	35	41	68	82	409	1910	924	64	44
7	46	66	66	35	42	73	93	418	2180	892	65	45
8	49	80	64	36	43	76	93	379	1890	808	64	45
9	48	78	64	36	44	71	94	337	1580	736	85	44
10	45	75	66	37	44	75	100	296	1300	636	106	45
11	45	75	69	38	45	75	96	256	1360	588	104	52
12	44	89	71	39	46	71	89	233	1600	546	75	49
13	53	80	72	40	47	71	83	233	2030	507	71	48
14	59	68	73	41	47	71	94	284	2540	462	91	46
15	54	67	74	42	48	73	102	392	2940	431	96	43
16	56	64	75	42	48	85	113	517	2730	409	93	40
17	59	68	76	43	49	91	129	653	2430	400	102	39
18	60	71	77	44	49	95	147	778	2150	366	106	38
19	68	74	78	45	49	66	180	959	1790	341	174	36
20	71	76	78	45	49	65	158	1040	1510	316	183	36
21	80	76	79	46	49	66	155	1090	1350	325	152	38
22	119	78	79	46	49	65	171	1160	1430	337	122	36
23	94	78	79	46	49	64	197	1270	1540	245	106	34
24	93	77	79	46	50	68	245	1430	1630	268	98	33
25	100	77	79	45	50	71	252	1590	1690	241	82	33
26	85	76	79	44	52	73	229	1680	1720	190	65	32
27	87	75	79	43	53	78	237	1790	1720	174	60	34
28	85	75	69	41	55	91	252	1960	1670	186	58	35
29	82	76	54	40	---	82	248	2260	1630	152	54	32
30	82	76	40	39	---	78	264	1870	1560	134	56	29
31	82	---	34	39	---	78	---	1510	---	122	59	---
TOTAL	2029	2270	2185	1247	1296	2220	4251	26262	52160	17206	2833	1239
MEAN	65.5	75.7	70.5	40.2	46.3	71.6	142	847	1739	555	91.4	41.3
MAX	119	89	79	46	55	91	264	2260	2940	1590	183	58
MIN	44	64	34	33	39	57	68	233	1070	122	54	29
AC-FT	4020	4500	4330	2470	2570	4400	8430	52090	103500	34130	5620	2460
CAL YR 1978 TOTAL	114235		MEAN 313	MAX 2690	MIN 28	AC-FT 226600						
WTR YR 1979 TOTAL	115198		MEAN 316	MAX 2940	MIN 29	AC-FT 228500						

PLATTE RIVER BASIN

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT											
24...	0945	--	104	320	7.6	3.0	110	12	34	5.6	19
NOV											
21...	1000	--	76	300	7.8	1.0	120	13	40	6.0	17
DEC											
17...	1000	76	--	280	7.5	.0	100	10	34	4.9	15
JAN											
16...	1015	42	--	540	7.5	.0	200	110	67	8.5	27
FEB											
20...	1000	49	--	360	7.7	.5	130	32	41	6.1	18
MAR											
28...	1000	--	89	325	7.8	2.0	93	0	35	4.9	19
APR											
25...	0910	--	252	135	7.5	3.0	45	0	14	2.5	7.0
MAY											
30...	1000	--	1890	<50	7.5	2.5	13	0	3.2	1.1	2.0
JUN											
20...	0915	--	1550	<50	7.5	4.0	23	8	7.0	1.3	2.5
JUL											
31...	0915	--	124	195	7.7	13.0	68	1	22	3.2	11
AUG											
21...	0915	--	164	185	7.6	10.5	67	0	21	3.6	11
SEP											
18...	1000	--	38	390	7.9	10.0	160	0	53	7.0	24

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT											
24...	.8	2.8	120	0	98	48	8.1	.4	21	197	.27
NOV											
21...	.7	.2	130	0	110	49	7.7	.4	9.6	192	.26
DEC											
17...	.6	1.8	110	0	90	37	7.4	.4	19	174	.24
JAN											
16...	.8	4.0	110	0	90	150	19	.4	35	368	.50
FEB											
20...	.7	2.3	120	0	98	60	5.4	.4	22	214	.29
MAR											
28...	.8	3.0	120	0	98	41	11	.4	16	172	.23
APR											
25...	.5	1.2	56	0	46	11	3.9	.3	11	78	.11
MAY											
30...	.2	.5	18	0	15	3.3	.0	.2	6.8	26	.04
JUN											
20...	.2	.0	18	0	15	7.4	3.9	.2	7.7	39	.05
JUL											
31...	.6	1.4	82	0	67	12	17	.3	17	124	.17
AUG											
21...	.6	1.8	83	0	68	16	4.3	.3	16	115	.16
SEP											
18...	.8	3.5	210	0	170	34	8.6	.4	29	260	.35

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT										
24...	55.3	.14	--	.03	--	--	--	--	--	--
NOV										
21...	39.4	.18	--	.01	--	--	--	--	--	--
DEC										
17...	35.7	.18	--	.03	--	--	--	--	--	--
JAN										
16...	41.7	.47	--	.03	--	--	--	--	--	--
FEB										
20...	28.3	.29	--	.02	--	--	--	--	--	--
MAR										
28...	41.3	.14	--	.05	--	--	--	--	--	--
APR										
25...	53.1	.07	--	.02	--	--	--	--	--	--
MAY										
30...	133	.00	--	.01	.00	0	.00	0	.00	.0
JUN										
20...	163	.02	--	.01	.00	0	.00	0	.00	.0
JUL										
31...	41.5	.05	--	.01	.00	0	.00	0	.00	.0
AUG										
21...	50.9	.05	--	.04	.00	--	.00	--	.00	--
SEP										
18...	26.7	--	.18	.02	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
MAY				
30...	.00	0	.00	0
JUN				
20...	.11	0	.00	0
JUL				
31...	.00	0	--	0
AUG				
21...	.00	--	.00	--
SEP				
18...	.00	0	--	0

PLATTE RIVER BASIN

06628800 SAGE CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°34'53", long 106°59'17", in SE¼NE¼NW¼ sec.32, T.19 N., R.85 W., Carbon County, Hydrologic Unit 10180002, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 6,650 ft (2,027 m), from topographic map.

REMARKS.--Records poor. Several small reservoirs above station, total capacity, about 3,000 acre-ft (3.70 hm³). Diversions for irrigation of about 1,560 acres (6.31 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 462 ft³/s (13.1 m³/s) July 25, 1977, gage height, 10.12 ft (3.085 m); no flow some days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1972, reached a discharge of 1,800 ft³/s (51.0 m³/s), gage height, 11.71 ft (3.569 m) from floodmarks, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 309 ft³/s (8.75 m³/s) Aug. 18, gage height, 8.68 ft (2.646 m); no flow Sept. 4-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.27				---	8.0	37	57	18	5.4	.05
2	.05	.41				---	6.0	46	52	18	5.1	.02
3	.05	.55				---	6.5	64	47	18	4.8	.02
4	.05	.48				---	7.0	28	45	18	4.5	.00
5	.08	.55				---	8.5	33	47	18	4.3	.00
6	.11	.34				---	11	63	47	17	4.0	.00
7	.11	.36				---	18	131	52	16	3.8	.00
8	.11	.43				---	40	67	54	16	3.5	.00
9	.11	.52				---	70	51	65	14	3.2	.00
10	.11	.47				---	104	47	56	13	4.0	.00
11	.11	.36				---	52	39	44	13	4.4	.02
12	.08	.40				---	30	38	39	12	3.8	.05
13	.05	.37				---	21	43	37	12	4.5	.02
14	.08	.42				---	20	55	37	11	4.0	.05
15	.11	.49				---	52	76	38	9.6	3.8	.05
16	.11	.60				---	108	96	40	9.6	3.8	.08
17	.14	.74				---	122	109	39	10	4.8	.08
18	.14	.90				---	122	112	37	10	6.3	.05
19	.17	1.2				---	120	92	37	10	5.4	.05
20	.14	1.3				---	53	83	41	9.8	4.7	.08
21	.17	1.2				---	45	81	37	9.4	4.0	.11
22	.69	1.1				---	59	83	31	9.1	2.4	.14
23	.55	---				---	69	79	28	8.7	2.5	.14
24	.20	---				---	74	81	29	8.4	1.4	.17
25	.27	---				---	58	82	27	8.0	1.6	.20
26	.48	---				---	37	82	25	7.7	.83	.34
27	.34	---				12	41	76	22	7.3	.41	.69
28	.20	---				12	43	72	22	6.9	.34	.62
29	.20	---				12	36	76	21	6.5	.14	.41
30	.27	---				11	34	81	20	6.1	.08	.41
31	.34	---				11	---	66	---	5.7	.14	---
TOTAL	5.67	---				---	1475.0	2169	1173	356.8	158.64	3.85
MEAN	.18	---				---	49.2	70.0	39.1	11.5	5.12	.13
MAX	.69	---				---	122	131	65	18	6.3	.69
MIN	.05	---				---	6.0	28	20	5.7	.08	.00
AC-FT	11	---				---	2930	4300	2330	708	315	7.6

06628800 SAGE CREEK NEAR SARATOGA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEDUS (CFS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT									
24...	1345	--	.20	5.5	2800	2500	270	510	2300
NOV									
22...	0845	1.1	--	.0	1200	900	240	150	320
MAR									
27...	1200	12	--	.0	470	300	110	48	130
APR									
25...	1230	--	69	7.0	310	210	79	28	58
MAY									
22...	1150	--	81	20.5	250	130	46	32	38
JUN									
21...	1500	--	35	18.0	390	220	82	44	130
JUL									
18...	1800	--	11	24.0	690	530	82	120	280
AUG									
15...	1515	--	38	17.0	1200	1100	150	210	400
SEP									
25...	1545	--	.27	16.0	3000	2800	480	430	850

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT									
24...	19	18	330	0	270	6900	150	1.4	1.0
NOV									
22...	4.0	.9	370	0	300	1500	44	.9	8.3
MAR									
27...	2.6	54	210	0	170	600	16	.5	6.3
APR									
25...	1.4	4.2	120	0	98	320	8.3	.5	7.0
MAY									
22...	1.1	3.8	150	0	120	200	7.3	.5	11
JUN									
21...	2.9	4.5	200	6	170	460	13	.5	4.8
JUL									
18...	4.6	8.3	180	6	160	1100	34	.6	4.2
AUG									
15...	4.9	12	170	0	140	1900	54	.8	.9
SEP									
25...	6.8	15	260	0	210	4500	110	1.1	.0

PLATTE RIVER BASIN

06628800 SAGE CREEK NEAR SARATOGA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 24...	10300	14.0	5.56	1.1	--	.03	22	.01
NOV 22...	2450	3.33	7.28	.43	--	.06	152	.45
MAR 27...	1070	1.46	34.7	.25	--	.67	741	24
APR 25...	564	.77	105	.11	--	.84	1360	253
MAY 22...	411	.56	89.9	.00	--	.74	727	159
JUN 21...	845	1.15	79.9	.00	--	.12	172	16
JUL 18...	741	1.01	22.0	.00	--	.07	88	2.6
AUG 15...	2810	3.82	288	.00	--	.06	30	3.1
SEP 25...	6516	8.86	4.75	--	.03	.03	12	.01

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
AUG 15...	1515	2	17.0	38	11	17	27	40
SEP 25...	1545	2	16.0	.27	3	6	10	17

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG 15...	47	54	64	77	82	95	100
SEP 25...	22	30	43	62	74	98	100

06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

LOCATION.--Lat 41°35'10", long 106°36'37", in SW¼SW¼ sec.27, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 235 ft (72 m) downstream from Lone Tree Creek, 1,000 ft (305 m) upstream from Brush Creek, 12 mi (19 km) southwest of Elk Mountain, and 14 mi (23 km) northeast of Saratoga.

DRAINAGE AREA.--91.5 mi² (237.0 km²). Area at mouth, 279 mi² (723 km²).

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,230 ft (2,204 m), from topographic map. Prior to Oct. 6, 1966, 15 ft (5 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 6,300 acres (25.5 km²) above station. Diversion to Kerr ditch 7.5 mi (12.1 km) upstream.

AVERAGE DISCHARGE.--22 years, 40.0 ft³/s (1.133 m³/s), 28,980 acre-ft/yr (35.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s (33.4 m³/s) May 9, 1973, gage height, 6.27 ft (1.911 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Sept. 11, 12, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 29	0330	*384 10.9	3.29 1.003

Minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	12	10	6.6	7.4	12	14	118	120	33	11	4.3
2	13	12	9.5	7.2	7.7	12	13	120	105	33	11	3.2
3	14	10	8.0	7.7	7.9	12	14	98	115	49	10	2.6
4	14	9.4	9.0	7.9	7.8	11	15	79	138	41	8.7	2.6
5	14	8.7	9.0	7.8	7.7	13	17	134	170	44	8.7	3.5
6	11	8.7	8.5	7.3	8.0	14	20	162	192	49	7.5	3.2
7	10	8.7	8.0	6.8	8.4	14	25	102	182	31	8.7	3.2
8	10	11	7.0	7.1	8.8	14	34	83	141	44	8.0	3.2
9	9.4	10	7.5	7.6	9.2	13	49	68	124	29	12	3.2
10	9.4	8.0	8.0	8.0	9.7	13	47	60	107	24	17	3.2
11	9.4	7.8	8.4	8.2	10	13	46	54	105	22	13	3.9
12	8.7	8.2	8.6	8.1	11	14	46	65	110	17	11	4.7
13	8.7	8.6	8.2	7.7	11	15	54	91	124	11	14	4.3
14	8.7	8.4	9.0	8.5	11	16	38	120	124	9.4	30	5.5
15	9.4	8.2	9.8	9.3	11	18	46	151	124	8.0	24	5.5
16	9.4	8.0	11	10	11	19	70	166	120	11	22	5.1
17	9.4	8.2	12	10	11	20	113	200	107	12	17	4.3
18	10	8.6	12	11	10	16	145	220	86	7.5	24	4.3
19	11	9.6	11	10	10	14	149	238	74	7.0	40	4.7
20	10	11	11	10	11	12	108	246	74	5.1	28	4.7
21	11	11	11	10	11	11	96	254	59	7.5	26	4.7
22	22	11	11	9.6	11	9.8	103	244	46	14	18	5.1
23	17	11	10	9.2	11	9.0	129	238	49	12	10	5.5
24	17	11	10	9.4	11	11	138	246	42	18	7.0	6.5
25	18	10	10	9.6	11	13	132	248	39	12	6.5	7.0
26	15	10	11	9.2	12	15	120	262	40	8.0	5.5	7.5
27	14	9.5	11	8.6	12	16	108	258	34	10	4.3	12
28	13	10	11	7.8	12	16	107	287	33	14	3.5	10
29	12	10	9.8	7.0	---	16	107	295	36	13	3.2	8.0
30	12	10	8.6	6.7	---	15	117	170	36	11	2.9	4.7
31	12	---	7.2	7.0	---	15	---	154	---	11	4.7	---
TOTAL	376.5	288.6	296.1	260.9	280.6	431.8	2220	5231	2856	617.5	417.2	150.2
MEAN	12.1	9.62	9.55	8.42	10.0	13.9	74.0	169	95.2	19.9	13.5	5.01
MAX	22	12	12	11	12	20	149	295	192	49	40	12
MIN	8.7	7.8	7.0	6.6	7.4	9.0	13	54	33	5.1	2.9	2.6
AC-FT	747	572	587	517	557	856	4400	10380	5660	1220	828	298
CAL YR 1978	TOTAL	18607.8	MEAN	51.0	MAX	393	MIN	7.0	AC-FT	36910		
WTR YR 1979	TOTAL	13426.4	MEAN	36.8	MAX	295	MIN	2.6	AC-FT	26630		

PLATTE RIVER BASIN

06630000 NORTH PLATTE RIVER ABOVE SEMINOLE RESERVOIR, NEAR SINCLAIR, WY

LOCATION.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., Carbon County, Hydrologic Unit 10180002, on left bank 6.5 mi (10.5 km) northeast of Sinclair and 14 mi (22.5 km) upstream from high-water line of Seminole Reservoir at elevation 6,357 ft (1,938 m).

DRAINAGE AREA.--4,175 mi² (10,813 km²), of which 114 mi² (295 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year. Prior to October 1943, published as "near Parco."

REVISED RECORDS.--WDR-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,400.75 ft (1,950.949 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 215,000 acres (870 km²) above station. Transbasin diversions above station.

COOPERATION.--Eight discharge measurements furnished by Water and Power Resources Service.

AVERAGE DISCHARGE.--40 years, 1,106 ft³/s (31.32 m³/s), 801,300 acre-ft/yr (988 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s (411 m³/s) June 15, 1957, gage height, 9.72 ft (2.963 m); minimum daily, 70 ft³/s (1.98 m³/s) Sept. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,150 ft³/s (231 m³/s) May 30, gage height, 7.35 ft (2.240 m); minimum daily, 217 ft³/s (6.15 m³/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	366	430	230	255	380	440	2420	7410	4150	797	486
2	259	366	390	245	260	385	420	2520	6070	4170	743	470
3	245	366	340	260	270	390	435	2680	5170	4020	689	430
4	238	366	350	270	275	395	446	2580	4660	3660	635	382
5	238	366	345	265	280	400	462	2380	4590	3570	582	358
6	252	358	315	255	285	405	486	2440	5040	3230	526	336
7	259	343	290	250	295	410	542	2920	5890	2950	494	322
8	245	315	265	255	300	415	671	3030	6510	2730	478	294
9	238	329	275	265	305	420	725	2980	6850	2490	478	280
10	238	305	285	275	315	425	797	2740	6830	2220	502	231
11	238	265	290	280	320	430	900	2330	6470	2040	608	245
12	238	275	295	285	325	435	851	2040	6000	1900	599	266
13	238	290	305	295	330	445	779	1850	5650	1740	608	301
14	224	300	310	305	335	450	725	1700	5890	1580	599	287
15	252	295	320	310	340	455	797	1910	6630	1460	635	287
16	245	310	325	315	340	465	930	2360	7570	1330	680	273
17	245	330	330	320	345	475	1170	2860	7610	1370	761	252
18	252	365	335	330	350	480	1500	3390	7310	1370	870	238
19	259	415	335	335	355	490	2120	4020	6450	1420	1050	224
20	259	450	335	340	355	500	2860	4510	5730	1430	1240	217
21	266	468	335	345	360	510	2760	4930	5130	1370	1260	224
22	301	465	335	350	360	525	2660	5240	4660	1330	1080	231
23	358	455	335	350	365	535	2890	5370	4340	1300	1060	238
24	382	445	335	350	365	545	3030	5510	4250	1240	982	238
25	366	430	330	345	370	560	3050	5710	4300	1400	842	238
26	390	420	330	340	370	575	3060	6030	4320	1380	752	238
27	398	415	330	325	375	590	2860	6330	4390	1230	662	231
28	366	420	330	295	380	580	2570	6750	4410	1100	608	231
29	374	430	315	265	---	565	2470	7250	4360	1050	558	266
30	366	435	285	240	---	525	2460	8050	4290	971	510	259
31	366	---	245	250	---	485	---	7950	---	890	478	---
TOTAL	8875	11158	9970	9140	9180	14645	45866	122780	168780	62091	22366	8573
MEAN	286	372	322	295	328	472	1529	3961	5626	2003	721	286
MAX	398	468	430	350	380	590	3060	8050	7610	4170	1260	486
MIN	224	265	245	230	255	360	420	1700	4250	890	478	217
AC-FT	17600	22130	19780	18130	18210	29050	90980	243500	334800	123200	44360	17000
CAL YR 1978	TOTAL	504780	MEAN	1383	MAX	9300	MIN	186	AC-FT	1001000		
WTR YR 1979	TOTAL	493424	MEAN	1352	MAX	8050	MIN	217	AC-FT	978700		

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1978 to October 1978 (discontinued).

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records furnished by Wyoming Game and Fish Commission.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum during period of operation, 22.0°C Sept. 7, 1978; minimum during period of operation, 1.5°C Apr. 18, 19, 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT										
24...	1115	--	382	500	8.3	6.0	2	10.3	21	190
NOV										
21...	1130	468	--	560	8.2	.0	2	10.8	28	240
DEC										
17...	1145	330	--	530	7.9	.0	2	10.6	K11	210
JAN										
16...	1130	315	--	460	7.7	.0	2	10.8	27	180
FEB										
20...	1200	355	--	550	8.1	.0	3	12.2	K3	190
MAR										
28...	1130	580	--	600	8.4	.0	10	11.2	K11	200
APR										
25...	1100	--	2950	330	7.8	7.5	45	9.4	K16	110
MAY										
30...	1140	--	8070	220	7.6	8.0	20	8.6	140	75
JUN										
20...	1100	--	5740	225	7.8	10.0	6	8.6	K36	76
JUL										
31...	1120	--	890	300	8.7	19.0	3	7.5	K2	110
AUG										
21...	1100	--	1240	395	8.0	14.0	90	7.5	K230	140
SEP										
18...	1230	--	231	470	8.6	16.0	3	8.9	K14	180

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CU3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
24...	51	53	14	35	1.1	2.8	170	0	140	120
NOV										
21...	84	66	17	41	1.2	.3	190	0	160	150
DEC										
17...	71	59	15	32	1.0	2.7	170	0	140	110
JAN										
16...	49	51	12	23	.8	3.5	160	0	130	68
FEB										
20...	59	52	16	36	1.1	3.4	160	0	130	130
MAR										
28...	93	52	17	41	1.3	3.1	130	0	110	160
APR										
25...	12	32	8.2	23	.9	4.5	120	0	98	59
MAY										
30...	23	21	5.5	11	.6	.8	63	0	52	39
JUN										
20...	5	21	5.8	12	.6	1.3	86	0	71	33
JUL										
31...	12	31	8.4	18	.7	2.2	120	0	98	38
AUG										
21...	33	36	11	26	1.0	3.3	130	0	110	86
SEP										
18...	36	50	13	34	1.1	2.8	170	3	140	88

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 24...	11	.6	13	331	.45	341	.00	--	.03
NOV 21...	14	.6	19	402	.55	508	.05	--	.01
DEC 17...	11	.7	19	334	.45	298	.18	--	.02
JAN 16...	11	.5	17	266	.36	226	.20	--	.01
FEB 20...	11	.5	15	342	.47	328	.09	--	.03
MAR 28...	18	.5	10	354	.48	554	.05	--	.06
APR 25...	7.3	.4	11	206	.28	1640	.20	--	.19
MAY 30...	7.3	.4	11	127	.17	2770	.00	--	.07
JUN 20...	1.2	.3	9.9	127	.17	1970	.00	--	.03
JUL 31...	5.2	.5	3.1	167	.23	401	.02	--	.01
AUG 21...	7.8	.4	13	246	.33	824	.02	--	.24
SEP 18...	11	.5	9.7	299	.41	186	--	.00	.01

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)
OCT 24...	1115	.0	1	.00	.00	.0	.0	0	.00	.1	.00
MAY 30...	1140	.0	2	--	.00	.0	.0	0	.00	.8	.00
SEP 18...	1230	.0	0	--	.00	.0	.0	0	.00	.0	.00

DATE	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRI- N, TOTAL (UG/L)	ENDRI- N, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
OCT 24...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00	.00
MAY 30...	.1	.00	1.5	.00	.00	.1	.00	.00	.0	.00	.00
SEP 18...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00	.00

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
OCT 24...	.0	.00	.0	.00	.0	.00	--	--	.00	.00	.00
MAY 30...	.0	.00	.0	.00	.1	.00	--	--	.00	.00	.00
SEP 18...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.00	.00

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY

LOCATION.--Lat 41°56'07", long 106°48'01", in SE&SE&NW¼ sec.30, T.23 N., R.83 W., Carbon County, Hydrologic Unit 10180003, on right bank 140 ft (43 m) downstream from Medicine Bow Mine Company road, 1.2 mi (1.9 km) upstream from high-water line of Seminole Reservoir at elevation 6,358 ft (1,938 m), 11 mi (18 km) north of Coyote Springs, and 14 mi (23 km) west of Hanna.

DRAINAGE AREA.--110 mi² (285 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,380 ft (1,945 m), from topographic map.

REMARKS.--Records poor. No gage-height record Apr. 26 to May 30, Aug. 19 to Sept. 24. Strip mining operation 2 mi (3 km) upstream pumps water into a stilling pond which empties into Big Ditch. This pumping occurs at irregular intervals, depending on dewatering needs of the mine.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 396 ft³/s (11.2 m³/s) July 16, 1975, gage height, 7.37 ft (2.246 m), on basis of flow-through-culverts measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 139 ft³/s (3.94 m³/s) Aug. 9, gage height, 4.86 ft (1.481 m), from estimated gage-height trace, rating curve extended above 14 ft³/s (0.40 m³/s) on basis of flow-through-culverts measurement at gage height 7.37 ft (2.246 m) and step-backwater analysis; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.60	.00	1.5	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.62	.00	1.3	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.57	.00	.42	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.8	.00
7	.00	.00	.00	.00	.00	.00	.55	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	3.0	.00	3.3	.00	9.2	.00
10	.00	.00	.00	.00	.00	.00	4.4	.00	.00	.00	4.7	.00
11	.00	.00	.00	.00	1.1	.00	5.0	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	3.5	.00	5.3	.01	.00	.00	.00	.00
13	.00	.00	.00	.00	3.7	.00	4.7	.01	.00	.00	3.4	.00
14	.00	.00	.00	.00	2.1	.00	3.7	.01	.00	.00	.00	.00
15	.00	.00	.00	.00	.06	.00	3.6	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	3.9	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	5.0	.02	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	5.8	.06	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	6.0	.18	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	6.5	.48	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	6.0	1.8	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	5.3	1.7	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	4.9	1.6	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	4.4	1.5	.00	.00	1.0	.00
25	.00	.00	.00	.00	.00	.00	4.4	1.5	.00	.00	.02	.00
26	.00	.00	.00	.00	.00	.00	.24	1.5	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.30	.01	1.4	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.70	.00	1.2	.00	.00	.00	.00
29	.00	.00	.00	.00	---	1.5	.00	1.3	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.74	.00	1.6	.00	.00	.00	.00
31	.00	---	.00	.00	---	1.2	---	1.7	---	.00	.00	---
TOTAL	.00	.00	.00	.00	10.46	4.44	87.06	17.57	6.52	.00	22.12	.00
MEAN	.000	.000	.000	.000	.37	.14	2.90	.57	.22	.000	.71	.000
MAX	.00	.00	.00	.00	3.7	1.5	6.5	1.8	3.3	.00	9.2	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	21	8.8	173	35	13	.00	44	.00
CAL YR 1978	TOTAL	275.34	MEAN	.75	MAX	42	MIN	.00	AC-FT	546		
WTR YR 1979	TOTAL	148.17	MEAN	.41	MAX	9.2	MIN	.00	AC-FT	294		

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 23...	1800	4.3	2360	13.0	140	--	8.2	400	91	140	13	380
MAY 21...	1600	1.9	3000	21.0	--	78	7.0	1000	650	130	170	470

DATE	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
APR 23...	8.2	390	7.9	380	310	930	30	.5	3.0	1690	2.30	19.6
MAY 21...	6.4	--	10	460	380	1600	66	.7	.5	2670	3.63	13.7

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
APR 23...	.17	.03	.04	1.8	1.8	2.0	8.7	.29	.89	.89	534	6.2
MAY 21...	.10	.08	.10	1.2	1.3	1.4	6.2	.06	.18	.18	1440	7.4

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)
APR 23...	1800	8200	8200	20	3	1	0	0	0	160	2	1
MAY 21...	1600	4000	--	--	2	--	0	--	--	180	0	--

	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
APR 23...	1	20	20	0	9	7	2	10000	10000	40	35	33
MAY 21...	--	10	--	--	10	--	--	5900	5800	60	10	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENIUM, TOTAL RECOV- ERABLE (UG/L AS MO)
APR 23...	2	50	10	40	330	290	40	.7	.6	.1	0
MAY 21...	--	60	--	--	230	--	--	.2	--	--	2

	MOLYB- DENUM, SUS- PENDE RECOV- (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DATE											
APR 23...	0	2	13	11	2	0	0	1	90	70	20
MAY 21...	--	--	10	--	--	1	--	--	40	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	RADIUM 226, DIS- SOLVED (PCI/L AS METHOD)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
APR 23...	1800	<45	24	<14	15	<12	13	.17	14	<31	16

LOCATION.--Lat 41°56'44", long 106°48'06", in NE4SE4SW4 sec.19, T.23 N., R.83 W., Carbon County, Hydrologic Unit 101800003, on right bank 0.8 mi (1.3 km) upstream from high-water line of Seminole Reservoir at elevation 6,358 ft (1,938 m) and 11 mi (18 km) north of Coyote Springs.

WATER-DISCHARGE RECORDS

REMARKS. -- Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49 ft³/s (1.39 m³/s) about Mar. 5, 1978, gage height, 2.46 ft (0.750 m), from rating curve extended above 15 ft³/s (0.42 m³/s) on basis of step-backwater analysis; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft³/s (0.74 m³/s) about May 15, gage height, 2.02 ft (0.616 m); from rating curve extended as explained above; no flow most of year.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
11	.00	.00	.00	.00	4.3	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	7.9	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	5.1	.00	.00	.00	.00	.00	5.8	.00
14	.00	.00	.00	.00	2.2	.00	.00	.00	.00	.00	9.4	.00
15	.00	.00	.00	.00	2.6	.00	.00	.00	.00	.00	.12	.00
16	.00	.00	.00	.00	1.5	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.84	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	24.46	.00	.00	.00	.00	.00	15.41	.00
MEAN	.000	.000	.000	.000	.87	.000	.000	.000	.000	.000	.50	.000
MAX	.00	.00	.00	.00	7.9	.00	.00	.00	.00	.00	9.4	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	49	.00	.00	.00	.00	.00	31	.00
CAL YR 1978	TOTAL 69.04		MEAN .19	MAX 10	MIN .00	AC-FT 137						
WTR YR 1979	TOTAL 39.87		MEAN .11	MAX 9.4	MIN .00	AC-FT 79						

PLATTE RIVER BASIN

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
AUG 13...	1710	9.2	498	8.4	17.0	160	6.0	120	53	25	15	50
DATE		SODIUM+ AD- SORP- TION RATIO	POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
AUG 13...		2.0	55	5.2	87	0	71	160	7.8	.3	3.8	310
DATE		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)
AUG 13...		.42	7.70	.66	.09	.11	9.9	10	11	47	5.5	17
DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)
AUG 13...	1710	140000	140000	40	11	2	10	10	0	0	6	2
DATE		CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)
AUG 13...	4	300	280	20	350	340	7	250000	250000	250	210	210

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)
AUG 13...	0	240	240	0	7000	7000	20	.6	.1	.5	3
DATE	MOLYB- DENUM, SUS- PENDE RECOV. (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 13...	3	0	220	220	4	7	5	2	1300	1300	10
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)				
AUG 14...	1845	.64	16.0	<5.2	52	8.1	46				
DATE	TIME	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)				
AUG 14...		7.5	46	.09	1.4	<3.5	35				
DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM				
AUG 13...	1730	58	74	88	96	100	2				
DATE	TIME	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			
AUG 13...		7	67	89	96	98	99	100			

06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY

LOCATION.--Lat 41°35'07", long 106°13'20", in SE¼SW¼ sec.25, T.19 N., R.79 W., Carbon County, Hydrologic Unit 10180004, on left bank 200 ft (61 m) upstream from point of diversion to King Canyon Canal, 0.4 mi (0.6 km) downstream from Overland Creek, 1.0 mi (1.6 km) southwest of Arlington, and 6.9 mi (11.1 km) southwest of McFadden.

DRAINAGE AREA.--62.9 mi² (162.9 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,790 ft (2,374 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Minor regulation by Sand Lake, capacity, 1,100 acre-ft (1.36 hm³) on Deep Creek, 12 mi (19 km) upstream. No diversion above station.

AVERAGE DISCHARGE.--25 years (water years 1955-79) 82.3 ft³/s (2.331 m³/s), 59,630 acre-ft/yr (73.5 hm³/yr), includes records for station 06632500 Rock Creek at Arlington for water years 1955-65, adjusted for diversions by King Canyon Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft³/s (73.3 m³/s) June 19, 1971, gage height, 5.83 ft (1.777 m); minimum daily, 5.5 ft³/s (0.16 m³/s) Dec. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 28	2230	984 27.9	4.07 1.241	June 14	2100	1,250 35.4	4.30 1.311
June 6	2330	*1,260 35.7	4.38 1.335				

Minimum daily discharge, 13 ft³/s (0.37 m³/s) Nov. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	15	16	14	18	14	35	344	452	35	34
2	14	16	17	16	14	18	14	34	319	395	34	49
3	13	16	17	16	14	18	15	29	405	331	32	46
4	14	16	19	16	15	18	15	28	556	303	31	43
5	13	15	16	17	15	17	16	37	722	254	31	42
6	13	14	16	17	15	18	16	52	913	229	31	39
7	13	16	17	16	16	19	16	42	836	215	31	43
8	13	16	17	15	16	18	16	38	573	196	33	55
9	13	14	16	15	16	18	16	33	420	185	53	53
10	14	13	16	15	16	17	17	29	385	172	49	52
11	14	12	16	15	16	18	17	28	480	155	35	52
12	14	12	16	16	17	17	17	26	649	145	30	49
13	14	13	16	15	17	16	17	26	815	136	34	46
14	14	13	18	15	17	15	16	33	944	126	78	44
15	14	13	18	15	17	15	16	52	944	119	65	33
16	14	14	17	15	17	14	21	76	822	110	69	25
17	14	14	17	15	17	14	24	110	715	112	46	23
18	14	14	16	14	18	14	29	148	655	97	80	20
19	14	14	16	14	18	14	32	180	507	86	99	18
20	14	14	16	14	18	15	29	226	410	80	71	17
21	15	14	16	15	18	14	26	267	446	74	63	17
22	19	14	17	15	18	14	27	307	490	78	55	16
23	17	14	17	14	17	14	33	362	502	74	42	15
24	18	13	17	14	17	14	37	420	529	82	37	14
25	17	13	17	14	18	14	38	474	507	65	33	14
26	16	14	17	14	17	14	32	601	480	58	31	14
27	16	14	17	14	17	14	28	661	512	47	28	16
28	16	14	17	14	18	14	30	774	502	49	26	15
29	16	15	16	13	---	14	31	829	468	43	24	14
30	16	15	16	13	---	14	34	613	458	40	23	13
31	15	---	16	13	---	14	---	436	---	38	31	---
TOTAL	455	425	515	460	463	485	689	7006	17308	4546	1360	931
MEAN	14.7	14.2	16.6	14.8	16.5	15.6	23.0	226	577	147	43.9	31.0
MAX	19	16	19	17	18	19	38	829	944	452	99	55
MIN	13	12	15	13	14	14	14	26	319	38	23	13
AC-FT	902	843	1020	912	918	962	1370	13900	34330	9020	2700	1850
CAL YR 1978 TOTAL	41278.5			113		1180	MIN 9.2	AC-FT 81880				
WTR YR 1979 TOTAL	34643.0			MEAN 94.9		MAX 944	MIN 12	AC-FT 68710				

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'12", long 106°09'38", in NW¼SW¼NE¼ sec.22, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 1.6 mi (2.6 km) upstream from State 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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft (2,012 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Nov. 15 to Apr. 1, Apr. 11-14, which are poor. Diversions for irrigation of about 5,200 acres (21.0 km²) above station.

AVERAGE DISCHARGE.--6 years, 60.2 ft³/s (1.705 m³/s), 43,610 acre-ft/yr (53.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft³/s (269 m³/s) May 17, 1978, computed from slope-area study, gage height, 14.10 ft (4.298 m) in gage well; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 19	0430	*620 17.6	4.95 1.509

No flow Jan. 1 to Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	17	2.6	.00	.00	5.5	32	175	132	8.0	3.3	7.5
2	9.5	17	2.3	.00	.00	5.8	32	184	130	7.5	3.1	6.9
3	9.5	17	.25	.00	.00	6.1	39	195	119	7.5	3.1	6.1
4	9.5	17	.26	.00	.00	6.4	47	171	102	8.0	3.3	6.1
5	10	16	.26	.00	.00	6.7	60	152	84	7.5	3.1	5.8
6	10	10	.25	.00	.00	7.2	78	154	68	6.1	3.1	5.5
7	10	11	.22	.00	.00	7.6	100	179	61	6.1	3.0	5.5
8	10	12	.19	.00	.00	8.0	140	175	62	5.8	3.0	5.5
9	10	12	.19	.00	.00	8.5	200	160	68	5.8	3.1	5.2
10	10	8.6	.21	.00	.00	9.2	300	164	72	5.8	5.8	5.0
11	9.0	2.3	.23	.00	.25	9.8	280	135	74	5.0	6.1	5.0
12	9.5	2.4	.25	.00	.95	10	230	126	79	4.7	6.4	5.8
13	10	2.6	.24	.00	1.4	11	200	125	84	4.4	6.4	5.8
14	10	2.8	.26	.00	1.8	12	180	128	82	3.5	8.0	5.8
15	11	2.7	.28	.00	2.1	13	252	128	64	3.3	8.0	5.8
16	11	2.6	.30	.00	2.4	14	255	132	51	3.5	8.0	5.8
17	11	2.9	.32	.00	2.7	15	336	145	41	3.8	11	5.5
18	11	3.1	.33	.00	3.0	15	309	162	34	3.5	13	5.5
19	13	3.2	.33	.00	3.3	16	528	173	30	3.5	13	4.7
20	13	3.3	.34	.00	3.6	17	434	171	29	3.8	22	5.2
21	14	3.1	.34	.00	3.8	17	321	168	28	3.8	18	5.2
22	18	2.9	.33	.00	4.0	18	258	164	24	4.1	14	5.0
23	19	2.6	.33	.00	4.2	19	220	154	21	4.1	11	4.7
24	19	2.3	.33	.00	4.4	21	230	152	23	4.1	9.6	4.7
25	17	2.3	.34	.00	4.5	22	230	150	18	4.4	9.6	4.7
26	14	2.3	.34	.00	4.7	24	222	152	15	4.4	11	5.2
27	15	2.3	.34	.00	5.0	26	195	152	14	4.4	13	5.2
28	15	2.4	.34	.00	5.2	28	181	147	13	4.1	18	5.2
29	15	2.4	.32	.00	---	30	184	141	11	3.5	13	5.5
30	15	2.5	.17	.00	---	31	173	141	9.1	3.3	11	5.8
31	18	---	.10	.00	---	32	---	143	---	3.5	8.0	---
TOTAL	385.0	190.6	12.89	.00	57.30	471.8	6246	4798	1642.1	150.8	272.0	165.2
MEAN	12.4	6.35	.42	.0000	2.05	15.2	208	155	54.7	4.86	8.77	5.51
MAX	19	17	2.6	.00	5.2	32	528	195	132	8.0	22	7.5
MIN	9.0	2.3	.10	.00	.00	5.5	32	125	9.1	3.3	3.0	4.7
AC-FT	764	378	26	.00	114	936	12390	9520	3260	299	540	328
CAL YR 1978	TOTAL	32118.59	MEAN	88.0	MAX	4790	MIN	.10	AC-FT	63710		
WTR YR 1979	TOTAL	14391.69	MEAN	39.4	MAX	528	MIN	.00	AC-FT	28550		

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT										
11...	1310	--	9.0	6.0	290	130	83	20	89	2.3
NOV										
20...	1045	3.3	--	.0	410	200	120	29	140	3.0
DEC										
18...	1045	.33	--	.0	400	230	120	25	87	1.9
FEB										
20...	1100	3.6	--	.0	330	130	96	22	100	2.4
MAR										
13...	0915	11	--	.0	270	110	81	16	77	2.0
APR										
23...	1230	--	214	8.0	180	57	49	15	44	1.4
MAY										
15...	1630	--	128	17.0	210	79	52	19	33	1.0
JUN										
19...	1130	--	29	10.0	360	220	94	31	67	1.5
JUL										
16...	1300	--	3.5	27.5	410	300	110	33	110	2.4
AUG										
13...	1400	--	6.4	20.5	420	280	120	30	130	2.8
SEP										
18...	1315	--	5.5	19.0	390	230	110	27	130	2.9

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)
OCT										
11...	4.9	190	0	160	300	13	.4	11	700	615
NOV										
20...	5.0	260	0	210	480	19	.6	9.6	--	934
DEC										
18...	3.4	210	0	170	400	17	.6	9.0	--	763
FEB										
20...	4.5	240	0	200	330	13	.5	14	--	702
MAR										
13...	3.5	190	0	160	250	9.9	.5	13	--	544
APR										
23...	4.9	150	0	120	150	6.4	.4	11	--	355
MAY										
15...	4.8	160	0	130	140	5.4	.4	11	--	341
JUN										
19...	3.8	160	6	140	340	6.4	.5	10	--	640
JUL										
16...	5.9	140	0	120	510	19	.6	13	--	871
AUG										
13...	5.8	170	0	140	540	20	.6	14	--	941
SEP										
18...	5.0	180	6	160	450	16	.5	12	--	850

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 11...		.84	14.9	10	.02	--	.04	36	.87	--
NOV 20...		1.27	8.32	--	.16	--	.05	100	.89	--
DEC 18...		1.04	.68	--	.14	--	.03	54	.05	--
FEB 20...		.95	6.82	--	.38	--	.07	36	.35	--
MAR 13...		.74	16.2	--	.18	--	.04	44	1.3	--
APR 23...		.48	205	--	.09	--	1.5	763	441	81
MAY 15...		.46	118	--	.00	--	.09	220	76	81
JUN 19...		.87	50.1	--	.00	--	.02	56	4.4	--
JUL 16...		1.18	8.25	--	.00	--	.02	15	.14	--
AUG 13...		1.28	16.3	--	.00	--	.01	8	.14	--
SEP 18...		1.16	12.6	--	--	.00	.02	64	.95	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 11...	1310	390	370	20	1	1	0	0	0	1	0	1
APR 23...	1230	9000	9000	40	3	1	0	0	0	4	3	1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 11...	0	0	0	4	0	4	410	390	20	20	18	2
APR 23...	20	20	0	20	19	1	12000	12000	60	39	35	4

DATE	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDED RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDED RECOV- ERABLE (UG/L AS MO)
OCT 11...	40	10	30	20	20	0	.2	.1	.1	11	4
APR 23...	30	10	20	230	220	10	.2	.0	.3	2	2

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDED RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 11...	7	3	0	4	2	0	.3	20	10	10	
APR 23...	0	16	14	2	3	1	2.2	70	50	20	

PLATTE RIVER BASIN

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	
OCT 11...	1310	220	1.6	29	11	26	11	.30	156	--	--	
JUL 16...	1300	120	<.4	22	11	20	12	.41	102	82	<.3	
					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 16.0 MM
DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)								
APR 23...	1230	2	8.0	214	0	1	16	43	65	88	98	100
AUG 13...	1400	2	20.5	6.4	0	1	42	68	92	100	--	--

06634990 HANNA DRAW NEAR HANNA, WY

LOCATION.--Lat 42°00'22", long 106°30'30", in SE¼SW¼NE¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 0.2 mi (0.3 km) upstream from mouth and 9.5 mi (15.3 km) north of Hanna.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 385 ft³/s (10.9 m³/s) Aug. 1, 1976, gage height, 4.08 ft (1.244 m); no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s (2.15 m³/s) Mar. 7, gage height, 2.44 ft (0.744 m); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	1.2	.00	.35	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	1.3	.00	.30	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	1.3	.00	.25	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	1.7	.00	.21	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	1.4	.00	.25	.00	.00	.00
6	.00	.00	.00	.00	.00	.08	6.0	.00	.21	.00	.00	.00
7	.00	.00	.00	.00	.00	24	6.4	.00	.21	.00	.00	.00
8	.00	.00	.00	.00	.00	34	9.1	.00	.35	.00	.00	.00
9	.00	.00	.00	.00	.00	4.2	11	.00	.50	.00	.73	.00
10	.00	.00	.00	.00	.00	1.4	7.7	.00	.10	.00	.08	.00
11	.00	.00	.00	.00	.00	1.3	5.2	.00	.02	.00	.00	.00
12	.00	.00	.00	.00	.00	6.2	2.6	.01	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	5.7	2.6	.01	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	6.2	2.9	.01	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	6.2	7.2	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	5.7	9.9	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	3.8	8.3	.05	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	2.0	8.3	.03	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	2.0	7.2	.06	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	2.2	5.2	.25	.00	.00	.01	.00
21	.00	.00	.00	.00	.00	1.6	4.7	.65	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	1.2	5.0	.65	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	1.2	5.4	.52	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	2.4	4.7	.46	.00	.00	1.0	.00
25	.00	.00	.00	.00	.00	2.9	4.0	.46	.00	.00	.17	.00
26	.00	.00	.00	.00	.00	2.0	.40	.46	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	4.0	.01	.46	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	3.3	.00	.46	.00	.00	.00	.00
29	.00	.00	.00	.00	---	2.6	.00	.46	.00	.00	.00	.00
30	.00	.00	.00	.00	---	3.3	.00	.46	.00	.00	.00	.00
31	.00	---	.00	.00	---	1.9	---	.40	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	131.38	130.71	5.86	2.75	.00	1.99	.00
MEAN	.000	.000	.000	.000	.000	4.24	4.36	.19	.092	.000	.064	.000
MAX	.00	.00	.00	.00	.00	34	11	.65	.50	.00	1.0	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	261	259	12	5.5	.00	3.9	.00
CAL YR 1978	TOTAL	202.69	MEAN	.56	MAX	23	MIN	.00	AC-FT	402		
WTR YR 1979	TOTAL	272.69	MEAN	.75	MAX	34	MIN	.00	AC-FT	541		

PLATTE RIVER BASIN

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
MAR										
13...	1230	2.9	1310	7.9	2.0	860	--	10.7	760	560
26...	1300	1.2	1830	8.0	6.5	130	--	9.7	1000	730
APR										
24...	1000	4.2	1230	8.2	8.0	50	--	9.2	590	370
MAY										
21...	1000	.58	2250	--	10.5	--	2.2	9.6	1200	810

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR										
13...	140	100	130	2.1	--	7.6	240	0	200	800
26...	170	140	170	2.3	--	8.0	330	0	270	1100
APR										
24...	120	70	77	1.4	82	5.4	260	0	210	520
MAY										
21...	200	160	190	2.4	200	8.0	430	--	350	1200

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)
MAR									
13...	10	.4	6.0	1310	1.78	10.3	.34	.20	--
26...	15	.4	6.7	1770	2.41	5.73	.34	.16	--
APR									
24...	31	.4	6.3	958	1.30	10.9	.05	.02	.02
MAY									
21...	8.2	.4	6.0	1980	2.69	3.10	.03	.07	.08

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
MAR									
13...	.40	.60	.94	4.2	.59	--	--	1220	9.6
26...	1.6	1.8	2.1	9.5	.10	--	--	244	.79
APR									
24...	.69	.71	.76	3.4	.05	.15	.15	144	1.6
MAY									
21...	.49	.56	.59	2.6	.01	.03	.03	36	.06

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)
MAR 13...	1230	9200	100	4	1	0	10	70	2	2	30
MAR 26...	1300	--	--	--	--	--	--	70	--	--	--
APR 24...	1000	--	--	--	--	--	--	70	--	--	--
MAY 21...	1000	120	--	1	--	0	--	80	1	--	0

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
MAR 13...	0	29	4	27000	--	30	38	5	50	30	860
MAR 26...	--	--	--	--	--	260	--	--	--	--	--
APR 24...	--	--	--	--	--	30	--	--	--	--	--
MAY 21...	--	5	--	170	130	40	9	--	50	--	220

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 13...	140	.2	.0	3	0	29	2	1	1	110	30
MAR 26...	--	--	--	--	--	--	--	--	--	--	--
APR 24...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	--	.2	--	3	--	2	--	1	--	20	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	RADIUM 226, DIS- SOLVED (PCI/L METHOD AS U)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 26...	1300	<42	15	15	10	13	9.3	.16	26	

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
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MAR 26...	1300	2	6.5	1.2	5	6	15
APR 24...	1000	2	8.0	4.2	6	8	16

DATE	TIME	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
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MAR 26...		44	55	68	81	95	100	--
APR 24...		43	55	67	83	94	98	100

06635000 MEDICINE BOW RIVER ABOVE SEMINOLE RESERVOIR, NEAR HANNA, WY

LOCATION.--Lat 42°00'35", long 106°30'45", in SE¼NW¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 15 ft (5 m) downstream from county highway bridge, 2.0 mi (3.2 km) upstream from Troublesome Creek, 9.0 mi (14.5 km) upstream from high-water line of Seminole 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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 956: 1941(M). WSP 1440: 1940(M), 1941. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,415.40 ft (1,955.414 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Dec. 8-17, Dec. 31 to Jan. 12, Jan. 30 to Feb. 19, which are poor. Many small reservoirs above station, total capacity, about 6,000 acre-ft (7.40 hm³), for irrigation. Diversions for irrigation of about 43,000 acres (174 km²) above station.

COOPERATION.--Nine discharge measurements furnished by Water and Power Resources Service.

AVERAGE DISCHARGE.--40 years, 178 ft³/s (5.041 m³/s), 129,000 acre-ft/yr (159 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,590 ft³/s (187 m³/s) Mar. 29, 1943, gage height, 5.23 ft (1.594 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s); maximum gage height, 6.74 ft (2.054 m)

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft³/s (30.3 m³/s) May 31, gage height, 2.92 ft (0.890 m); maximum gage height, 3.52 ft (1.073 m) Mar. 2, 3 (backwater from ice); minimum daily discharge, 6.0 ft³/s (0.17 m³/s) Dec. 8, Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	68	17	6.4	7.5	34	250	418	990	270	41	56
2	30	65	13	6.7	7.8	36	244	424	902	250	43	51
3	28	65	8.8	6.9	8.1	39	260	424	828	240	40	45
4	27	63	9.3	7.1	8.0	42	285	424	716	226	37	40
5	27	58	9.2	7.0	7.7	45	323	382	639	217	34	37
6	28	58	8.6	6.7	8.1	48	370	376	646	194	28	34
7	31	49	7.7	6.3	8.8	52	400	424	695	182	25	31
8	33	65	6.0	6.0	9.5	56	448	448	842	154	22	30
9	33	60	6.3	6.5	10	60	660	406	950	132	25	28
10	34	47	6.8	7.4	12	65	765	370	878	118	65	27
11	33	25	7.5	8.2	13	71	716	340	786	109	60	26
12	33	26	8.0	7.8	15	77	639	329	765	85	63	25
13	34	29	7.3	7.2	16	84	534	318	751	75	40	25
14	33	28	7.9	7.6	18	91	466	334	625	63	51	25
15	33	26	8.2	8.0	19	100	514	364	632	52	49	25
16	33	26	8.5	8.4	20	110	555	400	730	52	54	24
17	34	28	8.8	8.6	21	115	632	424	842	54	63	24
18	34	31	9.0	8.9	22	120	765	448	835	51	73	25
19	35	33	8.9	9.1	23	124	926	496	786	45	100	25
20	35	36	8.8	9.2	24	127	902	555	751	43	103	24
21	38	34	8.7	9.2	25	132	751	597	688	51	132	24
22	49	31	8.8	9.0	26	138	625	632	555	51	132	25
23	56	27	8.8	8.7	26	148	562	660	400	45	136	23
24	60	23	8.9	8.8	27	157	562	674	346	47	132	23
25	58	20	9.0	8.8	28	168	583	695	358	47	125	23
26	60	19	9.1	8.6	29	182	576	723	364	49	109	22
27	60	19	9.2	8.3	30	200	514	744	364	54	97	22
28	63	19	9.0	7.7	32	217	460	772	340	54	85	22
29	65	20	8.4	7.3	---	226	448	870	312	51	83	23
30	68	20	7.6	7.1	---	240	430	950	290	49	73	22
31	68	---	6.6	7.2	---	248	---	1040	---	43	65	---
TOTAL	1284	1118	269.7	240.7	501.5	3552	16165	16461	19606	3153	2185	856
MEAN	41.4	37.3	8.70	7.76	17.9	115	539	531	654	102	70.5	28.5
MAX	68	68	17	9.2	32	248	926	1040	990	270	136	56
MIN	27	19	6.0	6.0	7.5	34	244	318	290	43	22	22
AC-FT	2550	2220	535	477	995	7050	32060	32650	38890	6250	4330	1700
CAL YR 1978 TOTAL	85595.7			235	4110	MIN 6.0	AC-FT 169800					
WTR YR 1979 TOTAL	65391.9			179	1040	MIN 6.0	AC-FT 129700					

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO
OCT										
12...	1330	--	35	10.0	530	370	130	49	130	2.5
NOV										
20...	1520	36	--	.0	620	430	140	67	150	2.6
DEC										
18...	1430	9.0	--	.0	660	470	170	56	120	2.0
JAN										
17...	1530	8.6	--	.0	470	260	120	44	88	1.7
FEB										
20...	1715	24	--	.0	550	370	140	49	97	1.8
MAR										
14...	1430	91	--	.0	430	310	110	36	81	1.7
APR										
24...	1245	--	555	13.0	330	190	76	34	77	1.8
MAY										
21...	1230	--	590	13.0	200	120	31	29	34	1.1
JUN										
20...	1430	--	744	12.0	180	82	45	17	35	1.1
JUL										
17...	1215	--	54	22.5	540	330	98	72	200	3.7
AUG										
10...	1345	--	40	19.5	470	370	120	41	93	1.9
10...	1600	--	54	19.5	--	--	--	--	--	--
SEP										
13...	1145	--	24	12.0	610	450	150	55	110	2.0

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)
OCT										
12...	4.3	190	0	160	600	5.9	.6	4.1	1190	1020
NOV										
20...	3.6	230	0	190	700	40	.7	.0	--	1220
DEC										
18...	2.9	230	0	190	660	41	.7	5.7	--	1170
JAN										
17...	.7	260	0	210	380	27	.6	.0	--	792
FEB										
20...	3.1	220	0	180	540	40	.6	8.0	--	990
MAR										
14...	2.9	150	0	120	440	24	.5	6.8	--	779
APR										
24...	4.0	170	0	140	340	15	.5	7.7	--	639
MAY										
21...	1.5	99	0	81	170	8.7	.4	6.3	--	332
JUN										
20...	1.5	120	0	98	150	5.4	.4	6.4	--	269
JUL										
17...	3.6	260	0	210	680	39	.6	3.9	--	1230
AUG										
10...	7.8	120	0	98	540	26	.4	4.5	--	896
10...	--	--	--	--	--	--	--	--	--	--
SEP										
13...	3.5	200	0	160	600	42	.5	4.5	--	1060

PLATTE RIVER BASIN

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 12...	1.39	98.6	38	.02	--	.09	76	7.3	--
NOV 20...	1.66	119	--	.88	--	.04	98	9.5	--
DEC 18...	1.59	28.4	--	.61	--	.02	94	2.3	--
JAN 17...	1.08	18.4	--	.86	--	.03	111	2.6	--
FEB 20...	1.35	64.2	--	.54	--	.06	58	3.8	--
MAR 14...	1.06	191	--	.68	--	.04	106	26	95
APR 24...	.87	958	--	.20	--	1.4	673	1010	87
MAY 21...	.45	529	--	.00	--	2.2	877	1400	85
JUN 20...	.37	540	--	.00	--	.11	393	789	76
JUL 17...	1.67	180	--	.00	--	.04	68	10	--
AUG 10...	1.22	96.8	--	.43	--	1.6	1710	185	99
10...	--	--	--	--	--	--	1070	156	94
SEP 13...	1.44	68.7	--	--	.00	.02	49	3.2	94

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 12...	1330	670	600	70	1	1	0	0	0	0	0	0
APR 24...	1245	9200	9200	20	2	0	0	0	0	1	0	1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 12...	0	0	0	3	0	10	910	880	30	2	0	2
APR 24...	20	20	0	18	17	1	12000	12000	20	43	41	2

DATE	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDED RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDED RECOV. (UG/L AS MO)
OCT 12...	70	0	70	60	40	20	.2	.2	.0	9	3
APR 24...	50	10	40	280	270	10	.2	.1	.1	4	2

06635000 MEDICINE BOW RIVER ABOVE SEMINOLE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MD)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 12...	6	3	0	4	6	0	6	.0	20	0	20
APR 24...	2	15	13	2	5	1	4	.0	70	50	20
DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 12...	1330	67	3.0	18	6.4	17	6.2	.42	47	--	--
JAN 17...	1530	26	1.0	5.7	2.9	5.3	2.9	.25	30	--	--
FEB 20...	1715	240	.8	52	9.6	48	9.7	.12	161	--	--
JUL 17...	1215	35	.6	11	2.5	9.8	2.6	.27	20	24	.4

PLATTE RIVER BASIN

06635500 SEMINOE RESERVOIR NEAR LEO, WY

LOCATION.--Lat 42°09'21", long 106°54'29", in NW¼NE¼ sec.8, T.25 N., R.84 W., Carbon County, Hydrologic Unit 10180003, on upstream side near center of 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.

DRAINAGE AREA.--7,230 mi² (18,726 km²), of which 589 mi² (1,526 km²) is probably noncontributing.

PERIOD OF RECORD.--February 1939 to current year. Monthend figures only for February, March 1939, October 1940 to September 1950, published in WSP 1310

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,190.00 ft (1,886.712 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to Apr. 20, 1939, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began Apr. 1, 1939, but some regulation for power development during period Jan. 1 to Mar. 31, 1939. Capacity, 1,017,000 acre-ft (1,254 hm³) below elevation 6,357 ft (1,937.6 m), top of spillway gates. Figures given herein represent total contents, of which 31,700 acre-ft (39.1 hm³), capacity below elevation 6,239 ft (1,901.6 m), minimum operating level for power development, are not available for power development and 533 acre-ft (0.657 hm³), below elevation 6,185.09 ft (1,885.215 m), penstock invert, is dead storage. Water is used for irrigation and power development.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,073,000 acre-ft (1,320 hm³) June 20, 1949, elevation 6,359.29 ft (1,938.312 m); minimum daily (since appreciable storage was attained), 19,040 acre-ft (23.5 hm³) Sept. 1, 1939, elevation, 6,228.00 ft (1,898.294 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 911,000 acre-ft (1,120 hm³) July 26-28, elevation, 6,351.55 ft (1,935.952 m) July 26, 27; minimum daily contents, 330,000 acre-ft (407 hm³) Apr. 10, elevation, 6,306.67 ft (1,922.273 m).

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,322	480,000	6,340	716,000
6,325	514,000	6,345	796,000
6,330	575,000	6,350	883,000
6,335	642,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	774000	733000	696000	600000	498000	397000	339000	387000	592000	862000	908000	889000
2	773000	731000	694000	597000	495000	393000	338000	390000	602000	867000	907000	889000
3	771000	730000	691000	594000	491000	391000	336000	393000	611000	873000	905000	888000
4	769000	729000	688000	592000	487000	389000	334000	397000	620000	877000	904000	887000
5	768000	728000	684000	590000	483000	387000	332000	400000	625000	883000	903000	885000
6	767000	727000	680000	587000	480000	385000	331000	402000	632000	886000	900000	883000
7	766000	725000	676000	585000	475000	383000	331000	406000	641000	890000	900000	882000
8	764000	724000	673000	582000	471000	381000	331000	411000	654000	893000	900000	881000
9	763000	722000	669000	578000	468000	379000	331000	415000	667000	896000	898000	880000
10	761000	720000	665000	574000	463000	376000	330000	419000	679000	898000	897000	879000
11	761000	719000	662000	571000	459000	374000	331000	422000	692000	900000	897000	879000
12	758000	718000	657000	569000	456000	372000	331000	424000	702000	901000	896000	876000
13	757000	716000	654000	567000	452000	370000	331000	426000	712000	902000	896000	874000
14	756000	714000	650000	565000	448000	367000	331000	428000	722000	903000	895000	871000
15	755000	713000	647000	562000	443000	366000	332000	430000	733000	904000	894000	869000
16	753000	711000	643000	559000	439000	364000	332000	432000	747000	905000	894000	866000
17	752000	709000	640000	557000	436000	362000	333000	437000	760000	905000	893000	863000
18	751000	708000	637000	553000	432000	360000	335000	441000	774000	907000	894000	860000
19	750000	706000	634000	549000	429000	358000	338000	447000	784000	907000	894000	858000
20	748000	705000	631000	545000	426000	357000	342000	455000	793000	908000	895000	855000
21	747000	705000	629000	541000	422000	354000	346000	463000	801000	908000	894000	854000
22	746000	704000	626000	537000	419000	353000	350000	472000	809000	909000	896000	852000
23	744000	703000	623000	533000	415000	351000	355000	481000	814000	910000	894000	851000
24	742000	703000	620000	529000	412000	350000	360000	491000	820000	910000	896000	850000
25	742000	702000	617000	525000	408000	348000	365000	501000	826000	910000	896000	847000
26	740000	702000	614000	521000	406000	347000	369000	512000	832000	911000	896000	846000
27	739000	701000	612000	518000	403000	346000	374000	524000	838000	911000	895000	844000
28	737000	701000	609000	514000	400000	345000	378000	536000	844000	911000	893000	843000
29	736000	700000	607000	509000	---	343000	382000	549000	850000	910000	893000	841000
30	734000	699000	604000	506000	---	342000	385000	564000	856000	910000	891000	839000
31	734000	---	603000	502000	---	341000	---	579000	---	909000	890000	---
MAX	774000	733000	696000	600000	498000	397000	385000	579000	856000	911000	908000	889000
MIN	734000	699000	603000	502000	400000	341000	330000	387000	592000	862000	890000	839000

(†) 6,341.16 6,338.87 6,332.22 6,324.32 6,314.37 6,307.87 6,312.75 6,330.27 6,348.52 6,351.42 6,350.40 6,347.45
(‡) -42,000 -35,000 -96,000 -101,000 -102,000 -59,000 +44,000 +194,000 +277,000 +53,000 -19,000 -51,000

CAL YR 1978 MAX 877000 MIN 244000 ‡+178,000

WTR YR 1979 MAX 911000 MIN 330000 ‡ +63,000

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet, at end of month.

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WY

LOCATION.--Lat 42°10'42", long 106°52'33", in NW¼NE¼SW¼ sec.34, T.26 N., R.84 W., Carbon County, Hydrologic Unit 10180003, at Bureau of Reclamation gaging station, 1,800 ft (549 m) downstream from Kortess 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.--7,241 mi² (18,754 km²), of which 589 mi² (1,526 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1969 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
18...	1130	860	320	7.6	12.0	20	7.5
NOV							
15...	1100	1040	300	8.0	6.0	10	9.0
DEC							
13...	1050	2160	330	8.2	1.0	8	10.8
JAN							
13...	1100	2110	380	8.1	1.0	5	10.8
MAR							
21...	1000	1640	470	7.8	2.5	3	10.0
APR							
21...	1000	1580	520	7.7	4.0	3	10.4
JUN							
16...	0900	1150	540	7.9	9.0	3	9.0
JUL							
24...	1130	1000	420	7.8	13.0	7	7.3
AUG							
21...	1230	900	410	7.6	13.0	8	6.1
SEP							
18...	1420	1370	390	7.5	14.0	10	4.8

06637750 ROCK CREEK ABOVE ROCK CREEK RESERVOIR, WY

LOCATION.--Lat 42°32'59", long 108°46'26", in NW¼NW¼ sec.27, T.30 N., R.100 W., Fremont County, Hydrologic Unit 10180006, Shoshone National Forest, on left bank 200 ft (61 m) upstream from high-water line of Rock Creek Reservoir, 2.7 mi (4.3 km) downstream from Little Rock Creek, and 4.3 mi (6.9 km) northwest of Atlantic City.

DRAINAGE AREA.--9.2 mi² (23.8 km²), approximately.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,330 ft (2,539 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. No diversions above station.

AVERAGE DISCHARGE.--17 years, 8.51 ft³/s (0.241 m³/s), 6,170 acre-ft/yr (7.61 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s (6.06 m³/s) June 9, 1965, gage height, 7.26 ft (2.213 m); maximum gage height, 8.54 ft (2.603 m) Apr. 22, 1965 (backwater from ice); minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Jan. 12-14, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 24	2330	104	2.95	6.66	2.030
May 28	1830	*122	3.46	6.78	2.067

Minimum daily discharge, 1.00 ft³/s (0.028 m³/s) Nov. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.0	1.7	1.4	1.3	1.2	1.2	8.8	49	11	3.2	2.9
2	1.8	2.0	1.7	1.4	1.3	1.2	1.2	8.1	48	10	3.0	2.8
3	1.8	1.9	1.7	1.4	1.3	1.2	1.2	8.0	49	10	2.8	2.6
4	1.9	1.8	1.6	1.4	1.3	1.1	1.2	8.0	50	9.6	2.7	2.6
5	1.8	1.9	1.6	1.4	1.3	1.1	1.2	9.6	52	9.0	2.5	2.5
6	1.8	1.8	1.7	1.3	1.3	1.1	1.2	13	54	9.1	2.5	2.5
7	1.8	1.7	1.8	1.4	1.3	1.2	1.2	11	46	9.7	2.5	2.4
8	1.8	1.6	1.9	1.4	1.3	1.2	1.2	10	41	7.9	2.7	2.3
9	1.8	1.4	1.8	1.4	1.2	1.2	1.3	8.4	43	7.2	2.8	2.3
10	1.8	1.1	1.7	1.4	1.2	1.2	1.3	7.6	37	6.9	3.2	2.4
11	1.8	1.0	1.8	1.3	1.2	1.2	1.3	6.6	36	6.4	2.8	2.3
12	1.8	1.1	1.7	1.3	1.2	1.2	1.3	8.0	35	6.0	2.5	2.3
13	1.8	1.6	1.7	1.3	1.2	1.3	1.3	9.6	36	5.6	7.4	2.4
14	1.8	1.7	1.7	1.3	1.2	1.3	1.4	13	35	5.3	16	2.5
15	1.8	1.7	1.6	1.3	1.2	1.2	1.6	18	31	5.3	9.5	2.4
16	1.8	1.7	1.6	1.3	1.2	1.3	1.9	24	28	5.3	5.0	2.3
17	1.9	1.7	1.6	1.3	1.2	1.3	3.0	30	26	5.4	4.8	2.2
18	2.0	1.8	1.6	1.4	1.2	1.3	4.1	35	24	5.9	8.5	2.2
19	1.9	1.8	1.6	1.4	1.2	1.2	3.4	41	23	5.7	9.3	2.2
20	1.8	1.8	1.5	1.3	1.2	1.2	3.2	45	21	5.6	15	2.3
21	1.8	1.8	1.6	1.3	1.2	1.2	3.2	52	20	5.1	9.3	2.4
22	2.0	1.8	1.6	1.3	1.2	1.3	3.9	61	19	5.4	6.4	2.2
23	1.9	1.8	1.6	1.3	1.2	1.2	4.8	65	18	6.0	5.2	2.1
24	2.1	1.7	1.6	1.3	1.2	1.2	5.0	69	17	6.3	4.7	2.1
25	2.0	1.7	1.6	1.3	1.2	1.2	4.6	80	16	4.4	4.4	2.1
26	1.9	1.7	1.6	1.3	1.2	1.2	4.9	77	15	4.0	3.9	2.1
27	1.9	1.7	1.5	1.2	1.2	1.2	5.2	79	14	4.3	3.7	2.1
28	2.0	1.7	1.5	1.2	1.2	1.2	6.2	93	14	5.0	3.4	2.1
29	2.0	1.7	1.5	1.3	---	1.2	6.9	89	13	3.7	3.2	2.0
30	1.9	1.7	1.4	1.3	---	1.2	8.0	67	12	3.4	2.9	2.0
31	1.9	---	1.4	1.3	---	1.2	---	57	---	3.2	3.2	---
TOTAL	58.0	50.4	50.5	41.2	34.4	37.5	87.4	1111.7	922	197.7	159.0	69.6
MEAN	1.87	1.68	1.63	1.33	1.23	1.21	2.91	35.9	30.7	6.38	5.13	2.32
MAX	2.1	2.0	1.9	1.4	1.3	1.3	8.0	93	54	11	16	2.9
MIN	1.8	1.0	1.4	1.2	1.2	1.1	1.2	6.6	12	3.2	2.5	2.0
AC-FT	115	100	100	82	68	74	173	2210	1830	392	315	138

CAL YR 1978 TOTAL 3352.60 MEAN 9.19 MAX 78 MIN .80 AC-FT 6650
WTR YR 1979 TOTAL 2819.40 MEAN 7.72 MAX 93 MIN 1.0 AC-FT 5590

06638090 SWEETWATER RIVER NEAR SWEETWATER STATION, WY

LOCATION.--Lat 42°30'17", long 108°14'59", in SW¼SE¼NE¼ sec.12, T.29 N., R.96 W., Fremont County, Hydrologic Unit 10180006, on left bank 1.4 mi (2.3 km) downstream from Alkali Creek and 4.4 mi (7.1 km) southwest of Sweetwater Station.

DRAINAGE AREA.--849 mi² (2,199 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,590 ft (2,009 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Jan. 1 to Feb. 1, Apr. 3-20, which are poor. Transbasin diversion by Continental Divide ditch diverts water from Little Sandy Creek to land along Lander Creek (tributary to Sweetwater River). A transbasin diversion diverts water from Sweetwater River into Pacific Creek (tributary to Big Sandy River in Green River basin).

AVERAGE DISCHARGE.--6 years, 128 ft³/s (3.625 m³/s), 92,740 acre-ft/yr (114 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft³/s (83.5 m³/s) Apr. 27, 1974, gage height, 9.78 ft (2.981 m), from floodmark; minimum daily, 5.6 ft³/s (0.16 m³/s) Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 31	1400	*908 25.7	5.73 1.747

Minimum daily discharge, 8.5 ft³/s (0.24 m³/s) Nov. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	38	17	16	17	32	58	457	702	129	36	39
2	26	36	17	16	17	32	58	502	580	122	32	36
3	24	33	17	16	18	32	64	490	524	118	26	33
4	24	34	16	16	19	32	70	437	502	113	25	31
5	26	33	15	16	20	33	80	482	506	113	23	30
6	29	28	16	16	21	34	84	634	510	100	22	29
7	28	23	17	17	22	35	80	614	522	109	19	28
8	27	21	18	17	23	35	78	472	508	109	19	25
9	27	18	19	17	24	36	83	374	457	105	20	24
10	29	12	20	17	26	37	90	329	408	91	24	24
11	28	9.0	21	16	28	44	93	327	372	77	28	23
12	25	8.5	21	16	30	50	90	315	356	71	27	26
13	26	9.0	21	16	31	52	88	360	346	66	28	28
14	27	10	21	16	32	52	90	450	356	59	40	29
15	27	12	21	16	31	52	100	512	367	56	172	32
16	29	14	21	16	30	52	140	568	356	53	124	31
17	29	15	21	16	30	52	190	634	300	53	79	29
18	32	16	20	17	29	52	280	655	275	56	56	25
19	33	16	19	18	28	50	340	672	243	53	64	25
20	32	17	18	18	28	50	280	658	225	53	264	26
21	32	18	18	18	28	50	241	652	217	56	212	26
22	35	19	18	17	28	54	341	655	199	54	275	24
23	35	19	18	17	28	58	353	678	186	54	163	24
24	33	19	18	17	28	60	363	670	181	61	102	22
25	36	18	18	17	29	62	376	692	168	58	83	22
26	39	18	18	17	30	62	374	728	158	50	71	23
27	40	17	17	17	31	64	376	748	158	47	64	25
28	38	17	17	17	32	64	441	778	145	53	54	27
29	36	17	16	17	---	64	448	812	143	47	51	25
30	36	17	16	17	---	63	433	835	133	44	47	26
31	36	---	16	17	---	60	---	878	---	42	40	---
TOTAL	952	581.5	566	517	738	1505	6182	18068	10103	2272	2290	817
MEAN	30.7	19.4	18.3	16.7	26.4	48.5	206	583	337	73.3	73.9	27.2
MAX	40	38	21	18	32	64	448	878	702	129	275	39
MIN	24	8.5	15	16	17	32	58	315	133	42	19	22
AC-FT	1890	1150	1120	1030	1460	2990	12260	35840	20040	4510	4540	1620
CAL YR 1978 TOTAL	49519.5		MEAN 136	MAX 902	MIN 7.6	AC-FT 98220						
WTR YR 1979 TOTAL	44591.5		MEAN 122	MAX 878	MIN 8.5	AC-FT 88450						

PLATTE RIVER BASIN

06639000 SWEETWATER RIVER NEAR ALCOVA, WY

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼NE¼ sec.25, T.29 N., R.87 W., Natrona County, Hydrologic Unit 10180006, on left bank 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 Alcova.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974, 1975, and since 1976). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft (1,804 m), from topographic map. Aug. 28, 1913, to Sept. 30, 1924, nonrecording gages at site 0.4 mi (0.6 km) upstream at different datums.

REMARKS.--Records good. Several small reservoirs above station, combined capacity, about 5,000 acre-ft (6.16 hm³), for irrigation. Diversions for irrigation of about 24,000 acres (97.1 km²) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey. Four discharge measurements were made by Water and Power Resources Service.

AVERAGE DISCHARGE.--47 years (water years 1914-24, 1939-73, 1976), 126 ft³/s (3.568 m³/s), 91,290 acre-ft/yr (113 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,290 ft³/s (121 m³/s) Apr. 13, 1924, gage height, 8.36 ft (2.548 m), site and datum then in use; minimum daily, 0.5 ft³/s (0.014 m³/s) July 30 to Aug. 12, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 696 ft³/s (19.7 m³/s) June 4, gage height, 5.28 ft (1.609 m); minimum daily during period of operation, 35 ft³/s (0.99 m³/s) July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	402	657	109	53	75
2							---	424	663	109	55	68
3							---	427	675	106	57	62
4							---	458	660	107	57	57
5							---	463	521	106	57	57
6							---	445	453	104	53	53
7							---	427	445	98	52	52
8							---	468	455	88	53	50
9							---	538	487	84	55	50
10							---	546	497	70	55	48
11							---	453	487	59	52	47
12							---	402	445	61	46	46
13							---	373	397	59	46	46
14							---	354	364	50	40	46
15							---	349	336	46	43	45
16							---	361	320	46	45	45
17							---	385	306	42	47	46
18							---	409	295	40	53	47
19							---	437	276	39	86	46
20							---	481	250	38	107	47
21							---	508	234	39	115	48
22							---	521	220	36	116	47
23							---	513	198	36	141	46
24							---	513	180	35	170	46
25							---	347	538	166	206	46
26							---	347	573	150	170	45
27							---	359	582	145	133	45
28							---	369	591	130	116	43
29							---	359	631	116	100	42
30							---	378	640	113	93	41
31							---	652	---	47	82	---
TOTAL							---	14864	10641	1939	2554	1482
MEAN							---	479	355	62.5	82.4	49.4
MAX							---	652	675	109	206	75
MIN							---	349	113	35	40	41
AC-FT							---	29480	21110	3850	5070	2940

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 18...	1430	58	460	8.3	10.5	2	10.0	K2	150	11	46
NOV 15...	1415	70	450	7.9	.0	4	11.4	21	160	0	47
DEC 13...	1320	27	480	8.0	.0	3	10.5	K14	170	6	53
JAN 13...	1300	E25	530	7.6	.0	2	10.6	K13	160	0	49
FEB 07...	1220	E20	560	7.6	.0	2	10.8	K17	180	16	52
MAR 21...	1200	80	380	8.0	.0	6	11.2	K3	120	5	36
APR 21...	1300	238	400	7.8	9.0	180	9.9	--	91	0	28
JUN 16...	1100	320	265	8.0	17.0	15	8.4	K36	85	0	25
JUL 24...	1430	40	430	8.5	24.0	2	8.1	33	140	1	42
AUG 24...	1430	170	320	8.2	19.5	45	8.5	24	96	0	29
SEP 20...	1400	47	460	8.4	16.5	10	9.7	46	150	0	47

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 18...	8.5	37	1.3	5.4	170	0	140	66	20	.4	22
NOV 15...	9.6	41	1.4	6.1	200	0	160	71	18	.5	28
DEC 13...	10	36	1.2	5.9	200	0	160	67	16	.5	25
JAN 13...	10	39	1.3	6.7	200	0	160	44	25	.5	41
FEB 07...	11	48	1.6	6.7	200	0	160	82	23	.5	33
MAR 21...	6.5	27	1.1	5.0	140	0	120	47	13	.4	18
APR 21...	5.2	52	2.4	5.2	130	0	110	72	14	.4	10
JUN 16...	5.5	17	.8	3.0	120	0	98	23	4.4	.3	17
JUL 24...	8.3	37	1.4	6.7	170	0	140	53	19	.4	20
AUG 24...	5.8	26	1.2	6.0	140	0	120	35	8.6	.3	15
SEP 20...	8.5	41	1.4	7.3	200	0	160	51	20	.4	26

PLATTE RIVER BASIN

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 18...	263	290	.39	45.4	<1	.07	--	.010	2.5	--	--
NOV 15...	--	318	.43	60.1	--	.09	--	.030	--	--	--
DEC 13...	--	314	.43	22.9	--	.25	--	.030	--	--	--
JAN 13...	--	316	.43	--	--	.14	--	.010	--	--	--
FEB 07...	--	356	.48	19.2	--	.23	--	.040	--	--	--
MAR 21...	--	205	.28	44.3	--	.07	--	.030	--	--	--
APR 21...	--	254	.35	163	--	.18	--	.130	--	--	--
JUN 16...	--	155	.21	134	--	.00	--	.040	--	9.7	.7
JUL 24...	--	271	.37	29.3	--	.02	--	.010	--	--	--
AUG 24...	--	194	.26	89.0	--	.00	--	.200	--	--	--
SEP 20...	--	300	.41	38.1	--	--	.02	.040	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 18...	1430	130	80	50	5	5	0	0	0	0	0	0
JUN 16...	1100	930	930	0	4	3	0	0	0	2	1	1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 18...	0	0	0	4	0	5	210	190	20	4	0	4
JUN 16...	10	10	0	4	4	0	1300	1300	20	7	7	0

DATE	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDED RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDED RECOV- ERABLE (UG/L AS MO)
OCT 18...	30	10	20	40	30	10	.0	.0	.0	6	3
JUN 16...	20	10	8	40	40	0	.0	.0	.0	0	0

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 18...	3	1	0	2	0	0	1	--	10	0	10
JUN 16...	0	8	6	2	0	0	0	2.0	20	10	10

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 18...	1430	25	<.4	8.7	1.7	8.2	1.8	.09	19	--	--
FEB 07...	1220	50	<.4	13	1.2	12	1.2	.07	26	--	--
APR 21...	1300	8.4	23	5.7	17	5.4	16	.10	10	5.7	16
JUL 24...	1430	17	<.4	10	1.9	9.5	2.0	.05	12	12	<.3

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
OCT 18...	1430	10.5	58	9	1.4	--	--	--	--	--
NOV 15...	1415	.0	70	18	3.4	--	--	--	--	--
DEC 13...	1320	.0	27	18	1.3	--	--	--	--	--
JAN 13...	1300	.0	E25	44	--	--	--	--	--	--
FEB 07...	1220	.0	E20	8	.04	--	--	--	--	--
MAR 21...	1200	.0	80	16	3.5	--	--	--	--	--
APR 21...	1300	9.0	238	--	--	47	59	81	94	100
JUN 16...	1100	17.0	320	98	85	--	--	--	--	--
JUL 24...	1430	24.0	40	8	.86	--	--	--	--	--
AUG 24...	1430	19.5	170	150	69	--	--	--	--	--
SEP 20...	1400	16.5	47	24	3.0	--	--	--	--	--

E-Estimate.

PLATTE RIVER BASIN

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY

LOCATION.--Lat 42°28'06", long 106°51'12", in NW¼SW¼ sec.24, T.29 N., R.84 W., Natrona County, Hydrologic Unit 10180003, in gatehouse near left end of dam on North Platte River and 9.0 mi (14.5 km) southwest of Alcovia.

DRAINAGE AREA.--10,711 mi² (27,741 km²), of which 700 mi² (1,813 km²) is probably noncontributing.

PERIOD OF RECORD.--January 1909 to current year. Monthend figures only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,678.1 ft (1,730.68 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 12, 1950, nonrecording gages near present site, and Apr. 12 to Sept. 30, 1950, water-stage recorder at present site, all at Water and Power Resources Service datum which was 1.9 ft (0.58 m) lower.

REMARKS.--Reservoir is formed by masonry dam. Storage began in April 1909. Capacity, 1,016,000 acre-ft (1,250 hm³) between elevations 5,668.1 ft (1,727.64 m), north outlet trashrack sill, and 5,850.1 ft (1,783.11 m), crest of spillway. No dead storage. Figures given herein represent total contents. Water is used to irrigate lands in Wyoming and Nebraska under the North Platte project. Since December 1960, the water has been diverted directly through a tunnel to Fremont Canyon Powerplant, bypassing a section of river channel immediately below Pathfinder Dam.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,182,000 acre-ft (1,460 hm³) June 25-27, 1917, elevation 5,858.86 ft (1,785.781 m), present datum; no storage at times during 1909-12, 1931, 1958-59.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 811,000 acre-ft (1,000 hm³) May 22-24, elevation, 5,840.10 ft (1,780.062 m) May 23; minimum daily contents, 469,000 acre-ft (578 hm³) Oct. 17, elevation, 5,817.60 ft (1,773.204 m).

Capacity table (elevation in feet,
and contents, in acre-feet)

5,793	244,000	5,810	387,000	5,830	638,000
5,795	259,000	5,815	439,000	5,835	720,000
5,800	297,000	5,820	498,000	5,838	773,000
5,805	340,000	5,825	564,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472000	476000	480000	543000	610000	681000	733000	768000	806000	773000	697000	568000
2	471000	476000	481000	545000	613000	683000	735000	771000	807000	771000	695000	565000
3	471000	477000	483000	547000	616000	685000	737000	775000	807000	769000	693000	562000
4	471000	476000	484000	548000	618000	687000	738000	777000	807000	767000	691000	559000
5	471000	477000	487000	549000	621000	688000	740000	780000	806000	766000	688000	557000
6	471000	477000	487000	551000	623000	689000	742000	782000	805000	762000	684000	556000
7	471000	477000	492000	552000	626000	691000	744000	785000	805000	761000	678000	553000
8	471000	477000	494000	555000	629000	692000	746000	789000	805000	758000	672000	550000
9	471000	477000	496000	557000	631000	694000	748000	791000	804000	756000	666000	547000
10	471000	477000	499000	560000	634000	696000	749000	794000	802000	753000	661000	547000
11	471000	477000	503000	562000	638000	698000	751000	796000	801000	750000	655000	545000
12	471000	478000	506000	564000	640000	699000	752000	798000	800000	748000	649000	544000
13	470000	477000	509000	567000	643000	701000	752000	799000	798000	745000	643000	543000
14	470000	477000	511000	569000	645000	702000	752000	800000	798000	742000	638000	542000
15	470000	478000	514000	572000	649000	704000	753000	802000	795000	739000	632000	541000
16	470000	479000	516000	574000	651000	705000	754000	802000	794000	736000	626000	541000
17	469000	480000	519000	576000	654000	707000	755000	804000	791000	733000	621000	540000
18	470000	481000	521000	579000	656000	709000	754000	807000	790000	731000	615000	540000
19	470000	480000	523000	582000	659000	710000	756000	807000	788000	728000	611000	539000
20	470000	480000	525000	583000	661000	711000	758000	808000	787000	726000	605000	538000
21	470000	481000	526000	585000	664000	713000	759000	810000	786000	723000	600000	537000
22	470000	481000	528000	587000	666000	715000	760000	811000	786000	720000	595000	535000
23	470000	482000	529000	590000	669000	717000	761000	811000	784000	717000	589000	533000
24	471000	481000	530000	592000	670000	719000	761000	811000	784000	715000	586000	531000
25	472000	481000	532000	594000	672000	720000	763000	810000	782000	712000	584000	531000
26	472000	481000	535000	596000	675000	722000	764000	810000	781000	710000	581000	530000
27	474000	481000	536000	599000	676000	723000	764000	810000	779000	706000	579000	529000
28	474000	480000	537000	600000	679000	724000	764000	809000	779000	705000	577000	528000
29	475000	479000	539000	603000	---	727000	764000	808000	777000	703000	575000	528000
30	475000	478000	541000	605000	---	730000	765000	807000	775000	700000	573000	526000
31	476000	---	542000	607000	---	732000	---	807000	---	699000	571000	---
MAX	476000	482000	542000	607000	679000	732000	765000	811000	807000	773000	697000	568000
MIN	469000	476000	480000	543000	610000	681000	733000	768000	775000	699000	571000	526000
(†)	5,818.12	5,818.36	5,823.40	5,828.00	5,832.56	5,835.70	5,837.60	5,839.84	5,838.14	5,833.80	5,825.46	5,822.16
(‡)	+3,000	+2,000	+64,000	+65,000	+72,000	+53,000	+33,000	+42,000	-32,000	-76,000	-128,000	-45,000

CAL YR 1978 MAX 647000 MIN 364000 †+181,000

WTR YR 1979 MAX 811000 MIN 469000 † +53,000

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet, at end of month.

06641500 ALCOVA RESERVOIR AT ALCOVA, WY

LOCATION.--Lat 42°32'52", long 106°43'08", in SE4SE4 sec.24, T.30 N., R.83 W., Natrona County, Hydrologic Unit 10180007, in elevator shaft at right end of dam on North Platte River and 0.2 mi (0.3 km) southwest of Alcovia.

DRAINAGE AREA.--10,766 mi² (27,884 km²), of which 700 mi² (1,813 km²) is probably noncontributing.

PERIOD OF RECORD.--February 1938 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 5,447.00 ft (1,660.246 m). Datum of gage is 5,320 ft (1,621.5 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to June 27, 1955, nonrecording gages near present site at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in January 1938; storage began Feb. 8, 1938. Capacity, 184,300 acre-ft (227 hm³) at elevation 5,500.00 ft (1,676.400 m), top of spillway gates. Dead storage, 100 acre-ft (0.123 hm³). Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in North Platte River basin.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 190,300 acre-ft (235 hm³) Aug. 14, 15, 1952, elevation, 5,499.92 ft (1,676.376 m); minimum daily (since appreciable storage was attained), 1,980 acre-ft (2.44 hm³) Sept. 30, 1940, elevation, 5,353.56 ft (1,631.765 m). No usable storage prior to February 1938.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 182,000 acre-ft (224 hm³) Aug. 6-9, elevation, 5,498.93 ft (1,676.074 m) Aug. 7, 8; minimum daily contents, 154,000 acre-ft (190 hm³) Oct. 29 to Nov. 5, Mar. 10-12, elevation, 5,487.08 ft (1,672.462 m) Nov. 2.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,487	154,000	5,495	172,000
5,490	160,000	5,500	184,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179000	154000	156000	156000	157000	156000	157000	180000	178000	180000	181000	180000
2	178000	154000	156000	156000	156000	156000	157000	181000	178000	180000	181000	180000
3	177000	154000	156000	156000	157000	156000	157000	181000	178000	180000	181000	180000
4	176000	154000	156000	157000	156000	155000	157000	181000	178000	180000	181000	180000
5	175000	154000	156000	157000	157000	155000	157000	180000	178000	180000	181000	180000
6	175000	155000	156000	157000	156000	155000	157000	179000	179000	180000	182000	180000
7	174000	155000	157000	157000	157000	155000	157000	179000	179000	180000	182000	180000
8	172000	155000	157000	157000	157000	155000	157000	178000	179000	180000	182000	181000
9	171000	155000	158000	156000	156000	155000	157000	178000	179000	180000	182000	181000
10	170000	155000	157000	156000	156000	154000	158000	178000	179000	180000	181000	179000
11	169000	155000	157000	156000	156000	154000	159000	178000	180000	180000	181000	178000
12	167000	156000	156000	156000	156000	154000	160000	179000	180000	180000	181000	177000
13	167000	156000	156000	156000	155000	155000	160000	179000	179000	180000	180000	177000
14	166000	157000	156000	156000	156000	155000	162000	180000	180000	180000	180000	177000
15	165000	157000	156000	155000	155000	155000	162000	180000	180000	179000	180000	177000
16	165000	157000	155000	155000	156000	156000	163000	181000	181000	179000	180000	177000
17	164000	157000	155000	155000	156000	156000	164000	181000	181000	179000	180000	177000
18	163000	156000	155000	155000	155000	156000	164000	180000	180000	179000	180000	178000
19	162000	156000	155000	155000	155000	156000	165000	180000	180000	179000	180000	178000
20	161000	156000	156000	155000	155000	156000	166000	180000	180000	179000	180000	178000
21	160000	156000	156000	155000	155000	156000	167000	178000	180000	179000	180000	178000
22	159000	156000	156000	156000	156000	156000	169000	177000	180000	179000	181000	179000
23	158000	156000	157000	156000	156000	155000	170000	177000	180000	179000	181000	179000
24	157000	156000	157000	156000	156000	156000	171000	177000	180000	179000	181000	179000
25	156000	156000	157000	155000	156000	156000	172000	177000	180000	180000	181000	179000
26	156000	155000	157000	155000	156000	156000	173000	177000	180000	180000	181000	179000
27	155000	156000	156000	155000	156000	156000	175000	177000	180000	180000	181000	179000
28	155000	156000	156000	155000	156000	156000	176000	177000	180000	180000	180000	179000
29	154000	156000	157000	157000	---	156000	178000	178000	180000	180000	179000	179000
30	154000	156000	156000	157000	---	156000	179000	178000	180000	180000	179000	179000
31	154000	---	156000	157000	---	156000	---	177000	---	180000	179000	---
MAX	179000	157000	158000	157000	157000	156000	179000	181000	181000	180000	182000	181000
MIN	154000	154000	155000	155000	155000	154000	157000	177000	178000	179000	179000	177000

(+)	5,487.14	5,488.03	5,488.06	5,488.42	5,488.00	5,488.22	5,497.70	5,497.03	5,498.35	5,498.38	5,498.03	5,497.85
(#)	-24,000	+2,000	0	+1,000	-1,000	0	+23,000	-2,000	+3,000	0	-1,000	0

CAL YR 1978 MAX 181000 MIN 141000 \$+10,000

WTR YR 1979 MAX 182000 MIN 154000 \$+1,000

(+) Elevation, in feet, at end of month.

(#) Change in contents, in acre-feet, at end of month.

LOCATION.--Lat 42°34'27", long 106°41'31", in NW¼NE¼NW¼ sec.17, T.30 N., R.82 W., Natrona County, Hydrologic Unit 10180007, on left bank 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 Alcola, and 3.8 mi (6.1 km) downstream from Alcola Dam.

WATER-DISCHARGE RECORDS

GAGE.--water-stage recorder. Datum of gage is 5,299.40 ft (1,615.257 m), National Geodetic Vertical Datum of 1929. Feb. 19, 1904, to Dec. 31, 1905, nonrecording gage at site 3.7 mi (6.0 km) upstream at different datum. June 1, 1935, to Apr. 27, 1961, water-stage recorder at site 3.5 mi (5.6 km) upstream at different datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,710 ft³/s (105 m³/s) Aug. 6, gage height, 4.60 ft (1.402 m); maximum gage height, 4.62 ft (1.408 m) Aug. 20; minimum daily discharge, 502 ft³/s (14.2 m³/s) Apr. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	891	948	892	911	936	903	514	1760	1910	1730	2040
2	1420	902	934	894	903	928	903	514	1770	1920	1750	2070
3	1420	906	932	900	897	936	911	514	1770	1920	1740	2040
4	1420	901	930	897	910	936	903	514	1770	1930	1740	2050
5	1430	898	909	892	911	928	903	508	1760	1920	1740	2040
6	1420	908	884	898	911	928	911	508	1740	1920	2420	2030
7	1430	920	882	900	903	928	903	532	1760	1900	3670	2040
8	1420	921	885	905	911	928	903	532	1740	1900	3650	2030
9	1440	913	889	895	911	928	911	538	1740	1910	3660	2030
10	1430	907	882	895	911	928	911	532	1760	1900	3660	1900
11	1420	907	894	903	912	920	903	538	1770	1910	3660	1780
12	1430	916	888	895	910	944	911	538	1800	1910	3660	1640
13	1430	887	884	903	916	936	920	538	1770	1900	3670	1540
14	1430	777	891	903	920	936	920	538	1710	1900	3680	1550
15	1420	713	886	903	909	936	911	538	1710	1880	3680	1560
16	1430	716	892	895	916	936	777	538	1740	1890	3650	1550
17	1430	775	896	903	920	936	740	619	1910	1890	3670	1550
18	1430	812	890	903	928	936	785	1000	1900	1790	3660	1460
19	1430	818	900	895	912	936	777	1140	1900	1770	3670	1340
20	1430	826	899	895	919	936	732	1140	1890	1680	3670	1370
21	1360	824	900	895	920	944	662	1350	1890	1700	3670	1360
22	1370	819	889	903	925	944	668	1760	1890	1710	3660	1340
23	1360	821	893	895	923	936	675	1950	1880	1710	3670	1360
24	1360	880	897	903	925	953	621	1960	1880	1740	2760	1370
25	1200	923	903	903	922	944	520	1950	1890	1750	2020	1390
26	963	928	905	911	928	944	508	1940	1890	1750	2180	1400
27	874	921	897	903	929	944	514	1950	1910	1750	2460	1420
28	876	927	898	911	917	944	508	1950	1920	1760	2420	1420
29	873	929	904	895	---	928	502	1940	1920	1770	2130	1410
30	878	935	899	903	---	903	502	1920	1910	1760	2070	1410
31	878	---	890	911	---	903	---	1910	---	1730	2070	---
TOTAL	40522	26121	27870	27899	25630	28943	23118	32913	54640	56780	91540	49490
MEAN	1307	871	899	900	915	934	771	1062	1821	1832	2953	1650
MAX	1440	935	948	911	929	953	920	1960	1920	1930	3680	2070
MIN	873	713	882	892	897	903	502	508	1710	1680	1730	1340
AC-FT	80380	51810	55280	55340	50840	57410	45850	65280	108400	112600	181600	98160
CAL YR 1978	TOTAL	404034	MEAN	1107	MAX	3610	MIN	390	AC-FT	801400		
WTR YR 1979	TOTAL	485466	MEAN	1330	MAX	3680	MIN	502	AC-FT	962900		

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 18...	1000	1440	530	8.3	12.0	10	9.8	<1	210	87	56
NOV 15...	0945	732	520	8.5	5.0	9	12.2	K4	210	87	56
DEC 13...	0910	862	540	8.5	.5	7	12.4	K3	200	77	53
JAN 13...	0915	920	530	8.2	.5	5	12.6	>1	180	57	47
FEB 07...	0920	911	570	8.2	1.0	4	12.8	K1	190	67	53
MAR 21...	0840	928	540	8.1	2.0	5	12.6	K1	180	57	48
APR 21...	0850	668	530	8.4	6.0	4	12.8	--	180	65	49
JUN 16...	0740	1700	470	8.2	8.0	2	11.4	K9	160	53	42
26...	1100	1900	450	--	9.5	--	--	--	200	85	42
JUL 24...	1100	1850	460	8.1	13.0	6	9.6	K16	160	37	43
AUG 21...	1400	3670	460	8.0	15.0	7	8.0	24	160	53	42
SEP 18...	1350	1430	470	8.3	18.0	10	9.6	K8	160	29	41

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 18...	16	36	1.1	3.2	150	0	120	150	12	.4
NOV 15...	17	38	1.1	3.3	150	0	120	160	14	.6
DEC 13...	16	36	1.1	3.0	150	0	120	150	9.6	.6
JAN 13...	15	34	1.1	4.0	150	0	120	110	13	.5
FEB 07...	13	38	1.2	3.2	150	0	120	140	10	.5
MAR 21...	14	34	1.1	3.0	150	0	120	120	9.5	.5
APR 21...	14	36	1.2	4.0	140	0	120	120	11	.5
JUN 16...	13	29	1.0	2.5	130	0	110	110	9.3	.5
26...	23	23	.7	--	140	0	120	120	7.7	.4
JUL 24...	13	28	1.0	2.6	150	0	120	82	8.6	.4
AUG 21...	13	30	1.0	3.0	130	0	110	110	6.9	.4
SEP 18...	13	31	1.1	3.5	160	0	130	91	7.8	.4

PLATTE RIVER BASIN

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 18...	4.3	352	.48	1370	.27	--	--	.05	--	--
NOV 15...	3.7	366	.50	723	.29	--	--	.05	--	--
DEC 13...	7.5	353	.48	822	.20	--	--	.04	--	--
JAN 13...	11	311	.42	773	.36	--	--	.03	--	--
FEB 07...	9.0	344	.47	846	.23	--	--	.05	--	--
MAR 21...	9.4	303	.41	759	.20	--	--	.03	--	--
APR 21...	10	315	.43	568	.36	--	--	.03	--	--
JUN 16...	9.4	280	.38	1290	.09	--	--	.01	--	--
26...	--	--	--	--	--	.04	.31	.04	.12	.12
JUL 24...	10	261	.36	1300	.11	--	--	.01	--	--
AUG 21...	10	282	.38	2790	.14	--	--	.04	--	--
SEP 18...	11	277	.38	1070	--	.11	--	.06	--	--

06643000 BATES CREEK NEAR ALCOVA, WY

LOCATION.--Lat 42°40'34", long 106°36'09", in SE4SE4 sec.1, T.31 N., R.82 W., Natrona County, Hydrologic Unit 10180007, 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.--Water years 1957-58, 1970 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT 18...	0930	15	1400	8.1	6.5	4	9.7
NOV 15...	0915	22	1300	8.2	.0	7	12.0
DEC 13...	0815	8.2	1400	7.6	.0	7	12.2
JAN 13...	0820	E5.0	1400	7.8	.0	10	11.8
FEB 07...	0830	E5.0	1300	7.9	.0	4	12.6
MAR 21...	0800	22	1300	8.1	2.5	15	11.6
APR 21...	0800	21	880	7.8	6.5	80	10.7
JUN 16...	0700	5.0	1800	7.9	11.5	3	8.9
JUL 24...	1040	3.8	1750	8.0	19.0	10	9.0
AUG 21...	1515	7.2	1660	8.0	18.0	350	7.3
SEP 18...	1650	3.8	1700	8.0	20.0	10	8.7

E-Estimate.

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY

LOCATION.--Lat 42°46'18", long 106°31'48", in NW¼SW¼NE¼ sec.3, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, at bridge on county road, 0.3 mi (0.5 km) upstream from Poison Spider Creek, and 2.4 mi (3.9 km) west of Goose Egg.

PERIOD OF RECORD.--November 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT												
03...	1030	1510	600	8.1	11.0	8	--	10.0	32	58	11	--
12...	1040	1330	600	7.8	11.0	5	--	9.4	44	55	8	--
26...	1020	1160	650	8.0	9.0	6	--	10.8	61	67	2	--
NOV												
09...	1020	940	600	7.0	8.0	6	--	9.9	22	53	12	--
21...	1040	860	625	8.8	2.0	2	--	11.4	18	--	<1	--
DEC												
07...	1320	810	650	8.2	.0	8	--	12.0	18	<1	2	230
19...	1210	900	590	8.4	.0	3	--	10.5	28	12	5	--
JAN												
04...	1030	900	560	8.5	.0	5	--	6.4	32	58	3	--
18...	1055	930	580	8.5	1.0	6	--	13.8	18	2	2	--
FEB												
01...	1125	920	580	8.5	.0	7	--	14.5	25	11	12	--
15...	1055	930	600	8.0	1.0	8	--	12.2	28	380	--	--
MAR												
01...	1040	950	590	8.9	2.5	14	--	11.6	41	130	2	220
15...	1000	930	500	8.9	4.5	17	--	10.7	25	58	3	--
27...	1040	950	610	8.8	7.0	--	--	11.1	--	230	11	--
APR												
12...	1030	890	600	8.9	4.0	12	--	10.8	19	13	3	--
24...	1020	675	590	8.0	12.0	18	--	11.3	53	170	1	--
MAY												
10...	1025	600	625	8.9	5.0	--	5.2	11.7	19	580	9	--
24...	1015	2050	540	--	10.0	--	4.2	7.0	30	130	77	--
JUN												
07...	1015	1800	520	--	9.0	--	8.7	10.0	18	--	10	--
21...	1015	2040	490	--	14.0	--	8.2	9.2	19	--	12	180
27...	1050	--	470	8.3	13.0	--	--	--	--	--	--	180
JUL												
05...	1000	2040	490	--	14.0	--	7.6	8.8	22	230	11	--
18...	1240	1900	470	--	16.5	--	10	6.0	16	120	3	--
31...	1030	1760	440	--	17.0	--	8.3	7.4	17	53	13	--
AUG												
16...	1030	3850	440	--	15.5	--	14	6.6	16	35	12	--
30...	1020	2200	480	--	17.0	--	12	7.2	24	150	9	--
SEP												
13...	1025	1440	510	--	14.5	--	--	8.0	15	35	17	--
27...	1045	1350	510	--	15.5	--	--	8.4	20	43	8	180

PLATTE RIVER BASIN

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
09...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
07...	95	61	20	42	1.2	--	4.2	170	0	140	180
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
04...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
FEB											
01...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	77	57	18	36	1.1	--	3.6	160	5	140	150
15...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
MAY											
10...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
21...	65	47	14	29	1.0	32	2.9	--	--	110	120
27...	75	46	17	29	.9	32	2.7	--	--	110	120
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
AUG											
16...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
13...	--	--	--	--	--	--	--	--	--	--	--
27...	64	49	15	33	1.1	36	3.2	--	--	120	110

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 100 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TUNS PER AC-FT)	SOLIDS, DIS- SOLVED (TUNS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
UCT											
03...	--	--	--	389	--	.53	1590	--	25	.18	--
12...	--	--	--	391	--	.53	1400	--	31	.13	--
26...	--	--	--	415	--	.56	1300	--	22	.11	--
NOV											
09...	--	--	--	416	--	.57	1060	--	34	.11	--
21...	--	--	--	417	--	.57	968	--	10	.36	--
DEC											
07...	12	--	11	441	414	.56	905	--	36	.23	--
19...	--	--	--	374	--	.51	909	--	5	.21	--
JAN											
04...	--	--	--	364	--	.50	885	--	12	.25	--
18...	--	--	--	365	--	.50	917	--	10	.27	--
FEB											
01...	--	--	--	379	--	.52	941	--	13	.26	--
15...	--	--	--	396	--	.54	994	--	28	.32	--
MAR											
01...	12	--	11	393	371	.50	952	--	52	.20	--
15...	--	--	--	382	--	.52	959	--	41	.11	--
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	--	--	--	371	--	.50	892	--	26	.12	--
24...	--	--	--	372	--	.51	678	--	26	.07	--
MAY											
10...	--	--	--	391	--	.53	633	--	0	.11	--
24...	--	--	--	--	--	.42	1700	--	68	.15	--
JUN											
07...	--	--	--	324	--	.44	1570	--	19	.10	--
21...	7.5	--	8.8	302	295	.40	1620	--	20	.07	--
27...	7.6	.4	12	--	301	.41	--	--	--	--	.02
JUL											
05...	--	--	--	291	--	.40	1600	--	26	.08	--
18...	--	--	--	297	--	.40	1520	--	25	.05	--
31...	--	--	--	300	--	.41	1430	--	16	.06	--
AUG											
16...	--	--	--	299	--	.41	3110	--	31	.12	--
30...	--	--	--	313	--	.43	1860	--	17	.16	--
SEP											
13...	--	--	--	330	--	.45	1280	14	--	.15	--
27...	8.3	--	11	334	302	.41	1100	15	--	.15	--

PLATTE RIVER BASIN

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
03...	.02	--	.76	.78	.96	4.3	.05	--	--	--	6.1
12...	.00	--	.44	.44	.57	2.5	.04	--	--	--	6.0
26...	.01	--	.31	.32	.43	1.9	.04	--	--	--	--
NOV											
09...	.01	--	.46	.47	.58	2.6	.02	--	--	--	--
21...	.01	--	.51	.52	.88	3.9	.02	--	--	--	5.2
DEC											
07...	.01	--	.37	.38	.61	2.7	.03	--	--	--	6.2
19...	.01	--	.44	.45	.66	2.9	.01	--	--	--	--
JAN											
04...	.01	--	.37	.38	.63	2.8	.05	--	--	--	--
18...	.00	--	.08	.08	.35	1.6	.04	--	--	--	5.2
FEB											
01...	.02	--	.37	.39	.65	2.9	.04	--	--	--	5.0
15...	.05	--	.37	.42	.74	3.3	.06	--	--	--	5.9
MAR											
01...	.02	--	.44	.46	.66	2.9	.04	--	--	--	7.2
15...	.01	--	.24	.25	.36	1.6	.01	--	--	--	6.4
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	.01	.01	.25	.26	.38	1.7	.01	.03	.03	--	4.8
24...	.02	.02	.36	.38	.45	2.0	.03	.09	.09	--	5.2
MAY											
10...	.01	.01	.35	.36	.47	2.1	.02	.06	.06	--	5.0
24...	.04	.05	.45	.49	.64	2.8	.05	.15	.15	--	6.7
JUN											
07...	.03	.04	.58	.61	.71	3.1	--	--	--	--	4.6
21...	.02	.02	.57	.59	.66	2.9	.04	--	.12	--	15
27...	--	--	--	.17	--	--	.02	.06	.06	1	--
JUL											
05...	.01	.01	.22	.23	.31	1.4	.03	.09	.09	--	5.0
18...	.04	.05	.61	.65	.70	3.1	.04	--	.12	--	7.3
31...	.01	.01	.40	.41	.47	2.1	.10	--	.31	--	--
AUG											
16...	.01	.01	.45	.46	.58	2.6	.04	--	.12	--	8.4
30...	.01	.01	.47	.48	.64	2.8	.05	--	.15	--	6.9
SEP											
13...	.01	.01	.87	.88	1.0	4.6	.02	--	.06	--	5.8
27...	.08	.10	.48	.56	.71	3.1	.03	--	.09	--	--

06644085 NORTH PLATTE RIVER AT MILLS, WY

LOCATION.--Lat 42°50'31", long 106°21'33", in NW¼NE¼SE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, 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.--Water years 1970 to current year.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
26...	1500	1100	710	8.0	9.0	7	10.8
NOV							
22...	1245	730	700	8.1	2.0	9	10.6
JAN							
04...	1310	900	550	8.8	.0	8	--
FEB							
02...	0820	920	625	7.9	.0	7	10.4
MAR							
15...	1425	930	700	8.9	7.0	6	10.0
APR							
24...	1430	675	700	8.8	13.0	20	10.4
MAY							
10...	1450	600	900	8.9	7.0	8	11.5
17...	1025	600	800	9.0	14.0	20	8.8
24...	1400	2050	570	--	14.0	30	8.4
31...	1100	2000	575	--	8.0	15	10.1
JUN							
07...	1420	1800	560	--	12.0	9	9.8
14...	1320	1830	540	--	16.0	10	8.8
21...	1400	2040	540	--	15.5	9	9.5
27...	1345	2020	580	--	17.5 *	8	9.0
JUL							
05...	1340	2040	510	--	17.0	7	8.9
12...	1400	1940	500	--	17.0	8	7.8
19...	1410	1900	530	--	18.0	15	8.2
26...	1115	1740	505	--	17.0	9	8.6
31...	1435	1760	500	--	18.0	7	8.2
AUG							
06...	1100	1780	480	--	17.0	5	8.1
16...	1400	3850	490	--	16.0	15	6.4
23...	1140	3700	480	--	16.5	20	7.5
30...	1340	2200	520	--	18.0	15	7.7
SEP							
06...	1105	2020	540	--	17.0	10	8.2
13...	1340	1440	565	--	15.5	10	8.6
20...	1145	1540	600	--	16.0	10	8.3
27...	1440	1350	600	--	16.5	10	8.8

PLATTE RIVER BASIN

06644500 CASPER CREEK AT CASPER, WY

LOCATION.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, 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.--Water years 1970 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CUN- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
26...	1440	11	>8000	7.5	12.0	3	10.0
NOV							
22...	1340	8.6	7500	8.4	.0	10	9.2
JAN							
04...	1350	8.0	5000	8.3	.0	3	--
FEB							
02...	0930	6.0	5000	8.0	.0	4	--
MAR							
15...	1405	17	>8000	8.4	12.0	25	8.2
APR							
24...	1410	22	7000	8.5	17.0	10	7.5
MAY							
10...	1405	49	>8000	8.6	8.0	30	10.2
17...	1125	32	6000	--	14.5	15	9.1
24...	1345	24	6100	--	24.0	10	8.0
31...	1030	19	7000	--	11.5	7	10.3
JUN							
07...	1405	17	7000	--	20.0	6	9.2
14...	1305	19	5000	--	24.5	15	8.0
21...	1345	18	6000	--	25.5	7	7.9
27...	1245	18	3500	8.6	26.5	--	--
27...	1315	18	3700	--	27.5	15	6.5
JUL							
05...	1320	11	5500	--	27.5	5	6.6
12...	1340	7.6	3100	--	27.0	4	7.6
19...	1400	12	3900	--	29.5	4	8.3
26...	0950	14	3300	--	19.5	7	8.0
31...	1420	12	3500	--	29.0	20	8.9
AUG							
06...	1015	14	3200	--	19.5	6	8.4
16...	1345	21	2800	--	20.0	15	7.9
23...	1115	68	1700	--	19.5	20	7.2
30...	1315	17	4500	--	8.0	6	--
SEP							
06...	1045	12	4750	--	17.5	5	7.7
13...	1440	14	4750	--	16.0	8	8.5
20...	1125	10	5200	--	17.5	4	7.9
27...	1420	11	5800	--	20.0	6	7.4

06644500 CASPER CREEK AT CASPER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT							
26...	--	--	--	--	--	--	--
NOV							
22...	--	--	--	--	--	--	--
JAN							
04...	--	--	--	--	--	--	--
FEB							
02...	--	--	--	--	--	--	--
MAR							
15...	--	--	--	--	--	--	--
APR							
24...	--	--	--	--	--	--	--
MAY							
10...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
JUN							
07...	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--
27...	2.5	1.3	.11	.34	.34	.06	54
27...	--	--	--	--	--	--	--
JUL							
05...	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
AUG							
06...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
SEP							
06...	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--

PLATTE RIVER BASIN

06644550 NORTH PLATTE RIVER AT CASPER, WY

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, Hydrologic Unit 10180007, 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.--Water years 1972 to current year.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
26...	1500	1100	780	8.0	9.0	7	9.5
NOV							
22...	1425	730	750	8.6	2.0	8	10.9
JAN							
04...	1430	900	650	8.7	.0	25	--
FEB							
02...	1020	920	650	8.2	.0	8	--
MAR							
15...	1300	930	850	7.7	6.0	8	10.2
APR							
24...	1300	675	850	8.7	13.0	20	9.2
MAY							
10...	1250	600	1300	8.9	5.0	10	10.9
17...	1315	600	1020	--	14.5	15	10.8
24...	1240	2050	640	--	13.5	40	8.6
31...	0900	2000	625	--	8.0	15	9.6
JUN							
07...	1250	1800	610	--	11.5	10	9.2
14...	1225	1830	600	--	15.5	7	8.7
21...	1240	2040	600	--	15.0	10	9.1
27...	1030	2020	580	--	16.0	10	8.1
JUL							
05...	1230	2040	550	--	17.0	6	8.1
12...	1240	1940	500	--	17.0	8	8.3
19...	1300	1900	490	--	18.0	9	8.5
26...	0830	1740	530	--	16.5	9	7.6
31...	1325	1760	530	--	18.0	9	8.0
AUG							
06...	0930	1780	500	--	17.0	7	7.8
16...	1240	3850	490	--	16.0	15	7.5
23...	0935	3700	520	--	16.0	20	7.5
30...	1215	2200	480	--	17.0	15	7.8
SEP							
06...	0940	2020	545	--	17.0	15	7.6
13...	1310	1440	600	--	15.5	9	8.5
20...	0930	1540	625	--	15.5	9	8.1
27...	1315	1350	610	--	15.5	10	8.0

06644550 NORTH PLATTE RIVER AT CASPER, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT								
27...	0855	9.0	935	30	76	--	--	--
NOV								
29...	0845	.0	950	32	82	--	--	--
MAR								
29...	1400	6.0	960	--	--	69	88	100
APR								
27...	1000	13.0	575	22	34	--	--	--
MAY								
31...	0900	8.0	2000	111	599	--	--	--
JUN								
27...	1030	16.0	2020	79	431	--	--	--
JUL								
26...	0830	16.5	1740	56	263	--	--	--
AUG								
06...	0930	17.0	1780	53	255	--	--	--
SEP								
20...	0930	15.5	1540	35	146	--	--	--

PLATTE RIVER BASIN

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

LOCATION.--Lat 42°51'40", long 106°12'53", in SE¼NW¼NW¼ sec.4, T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi (0.2 km) upstream from Claude Creek, 0.6 mi (1.0 km) north of U.S. Highways 20 and 87, 5.8 mi (9.3 km) east of city hall in Casper, and 9.5 mi (15.3 km) downstream from Casper Creek.

DRAINAGE AREA.--12,574 mi² (32,567 km²), of which 831 mi² (2,152 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CaCO3)
OCT												
03...	0830	1510	650	8.4	11.0	20	--	8.7	11	2300	460	--
12...	0855	1330	690	8.1	11.0	10	--	8.1	39	2300	320	230
26...	0810	1200	720	8.0	8.0	15	--	8.6	130	6700	2200	--
NOV												
09...	0815	940	775	7.5	6.5	6	--	9.1	28	15000	4700	280
21...	0830	860	750	--	.0	3	--	10.9	21	--	550	--
DEC												
07...	1100	810	850	8.1	.0	6	--	11.2	29	2300	800	280
19...	1415	900	700	8.3	.0	5	--	--	20	--	--	--
JAN												
04...	0830	900	580	7.4	.0	4	--	11.4	15	18000	10000	220
18...	0845	930	650	7.8	1.0	6	--	13.4	11	54	71	--
FEB												
01...	0930	920	600	8.7	.0	8	--	11.4	22	690	560	240
15...	0900	930	675	8.6	.0	15	--	16.1	30	1400	--	--
MAR												
01...	0840	950	700	8.5	.5	10	--	11.2	26	3700	1500	220
15...	0815	930	650	8.8	4.5	20	--	10.4	28	6900	3800	--
27...	0825	950	800	8.9	5.0	25	--	11.2	22	1000	580	--
APR												
12...	0830	890	800	8.5	3.0	50	--	10.9	23	790	380	--
24...	0835	675	880	8.9	11.0	20	--	9.4	17	1900	510	270
MAY												
10...	0810	600	1150	8.7	5.0	--	20	10.4	26	740	280	--
24...	0830	2050	600	--	12.0	--	--	8.5	--	1400	220	210
JUN												
07...	0820	1800	590	--	11.0	--	10	8.8	13	--	120	--
21...	0835	2040	600	--	13.5	--	15	8.2	20	--	67	180
27...	1500	--	530	8.5	17.0	--	--	--	--	--	--	200
JUL												
05...	0820	2040	545	--	16.0	--	10	7.8	19	2700	270	--
18...	1005	1900	500	--	17.0	--	20	7.9	21	1200	11	180
31...	0830	1760	510	--	17.0	--	15	7.6	20	670	120	--
AUG												
16...	0845	3850	480	--	17.0	--	20	6.9	19	580	170	170
30...	0745	2200	540	--	17.0	--	20	7.2	22	600	62	--
SEP												
13...	0845	1440	580	--	14.5	--	--	8.5	14	740	150	--
27...	0850	1350	590	--	15.5	--	--	8.3	22	870	130	210

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT												
03...	--	--	--	--	--	--	--	--	--	--	--	--
12...	99	60	20	52	1.5	--	3.4	160	0	130	200	14
26...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
09...	140	70	25	59	1.5	--	3.3	170	0	140	220	16
21...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
07...	120	73	24	66	1.7	--	4.0	190	0	160	240	18
19...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
04...	81	57	19	43	1.3	--	3.3	170	0	140	140	17
18...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
01...	100	61	20	48	1.4	--	2.4	170	0	140	190	12
15...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
01...	89	58	19	56	1.6	--	3.1	160	0	130	190	15
15...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
24...	130	69	23	84	2.2	--	4.5	160	6	140	280	27
MAY												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	87	42	25	40	1.2	--	2.5	150	0	120	160	10
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
21...	57	49	15	39	1.3	--	2.3	150	0	120	150	4.9
27...	91	49	19	43	1.3	46	3.0	--	--	110	150	8.7
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	57	46	16	34	1.1	--	2.8	150	0	120	130	9.3
31...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
16...	55	46	14	35	1.2	--	3.3	140	0	120	120	12
30...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
13...	--	--	--	--	--	--	--	--	--	--	--	--
27...	87	56	17	39	1.2	--	3.0	150	0	120	160	11

PLATTE RIVER BASIN

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT											
03...	--	--	448	--	.61	1830	--	30	--	.33	--
12...	.4	8.3	446	519	.71	1860	--	35	.27	.26	--
26...	--	--	476	--	.65	1540	--	24	--	.22	--
NOV											
09...	.6	6.6	507	488	.66	1240	--	31	.50	.37	--
21...	--	--	535	--	.73	1240	--	3	--	.42	--
DEC											
07...	.6	9.9	552	528	.72	1150	--	14	.47	.47	--
19...	--	--	459	--	.62	1120	--	22	--	.41	--
JAN											
04...	.4	11	426	373	.51	906	--	18	.43	.38	--
18...	--	--	427	--	.58	1070	--	20	--	.45	--
FEB											
01...	.5	9.8	448	428	.58	1060	--	14	.52	.51	--
15...	--	--	473	--	.64	1190	--	34	--	.63	--
MAR											
01...	.5	9.2	469	433	.59	1110	--	26	.54	.52	--
15...	--	--	563	--	.77	1410	--	51	--	.71	--
27...	--	--	518	--	.70	1330	--	46	--	.44	--
APR											
12...	--	--	534	--	.73	1280	--	87	--	.62	--
24...	.6	6.6	558	587	.80	1070	--	35	.43	.35	--
MAY											
10...	--	--	798	--	1.09	1290	--	75	--	1.2	--
24...	.5	8.1	--	360	.49	1990	--	112	.02	--	--
JUN											
07...	--	--	376	--	.51	1830	--	39	--	.22	--
21...	.4	8.2	353	342	.47	1880	--	40	.27	.18	--
27...	.4	10	--	350	.48	--	--	--	--	--	.13
JUL											
05...	--	--	335	--	.46	1850	--	34	--	.13	--
18...	.4	7.8	339	319	.43	1640	--	40	.05	.10	--
31...	--	--	338	--	.46	1610	--	32	--	.11	--
AUG											
16...	.4	11	324	312	.42	3240	--	43	.07	.16	--
30...	--	--	359	--	.49	2130	--	32	--	.25	--
SEP											
13...	--	--	384	--	.52	1490	31	--	--	.24	--
27...	.4	9.4	396	371	.50	1350	16	--	--	.33	.37

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
03...	.05	--	.49	.54	.87	3.9	.06	--	--	--	5.9
12...	.04	--	.56	.60	.86	3.8	.11	--	--	--	6.1
26...	.00	--	.89	.89	1.1	4.9	.06	--	--	--	6.2
NOV											
09...	.04	--	.67	.71	1.1	4.8	.08	--	--	--	5.8
21...	.09	--	.48	.57	.99	4.4	.08	--	--	--	5.3
DEC											
07...	.15	--	.68	.83	1.3	5.8	.08	--	--	--	7.0
19...	.13	--	.62	.75	1.2	5.1	.11	--	--	--	5.5
JAN											
04...	.06	--	.41	.47	.85	3.8	.10	--	--	--	--
18...	.18	--	.04	.22	.67	3.0	.10	--	--	--	5.3
FEB											
01...	.15	--	.35	.50	1.0	4.5	.09	--	--	--	5.3
15...	.13	--	.46	.59	1.2	5.4	.10	--	--	--	5.2
MAR											
01...	.12	--	.41	.53	1.1	4.6	.08	--	--	--	6.1
15...	.11	--	.31	.42	1.1	5.0	.04	--	--	--	6.8
27...	.08	--	.43	.51	.95	4.2	.06	--	--	--	6.8
APR											
12...	.09	.11	.33	.42	1.0	4.6	.03	.09	.09	--	5.7
24...	.07	.08	.39	.46	.81	3.6	.07	.21	.21	--	7.8
MAY											
10...	.12	.15	.55	.67	1.9	8.3	.09	.28	.28	--	13
24...	--	.05	.93	--	1.3	5.7	.00	.28	.28	--	8.4
JUN											
07...	.04	.05	.42	.46	.68	3.0	.03	.09	.09	--	--
21...	.02	.02	.45	.47	.65	2.9	.03	--	.09	--	8.1
27...	--	--	--	.14	--	--	.10	.31	.31	3	--
JUL											
05...	.03	.04	.45	.48	.61	2.7	.02	.06	.06	--	5.0
18...	.03	.04	.51	.54	.64	2.8	.06	--	.18	--	7.1
31...	.03	.04	.34	.37	.48	2.1	.13	--	.40	--	--
AUG											
16...	.02	.02	.18	.20	.36	1.6	.05	--	.15	--	9.6
30...	.02	.02	.19	.21	.46	2.0	.02	--	.06	--	7.5
SEP											
13...	.04	.05	.44	.48	.72	3.2	.03	--	.09	--	6.5
27...	.04	.05	.66	.70	1.0	4.6	.05	--	.15	--	7.1

06645150 SMITH CREEK ABOVE OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°39'00", long 106°10'44", in SW¼SE¼SW¼ sec.15, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.2 mi (1.9 km) upstream from Otter Creek and 16 mi (26 km) southeast of Casper.

DRAINAGE AREA.--9.91 mi² (25.7 km²).

PERIOD OF RECORD.--October 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,550 ft (1,996 m), from topographic map. Prior to Oct. 1, 1976, at site 200 ft (61 m) downstream at datum 7.22 ft (2.201 m) lower.

REMARKS.--Records good except those for winter period, which are fair. No diversion above station.

AVERAGE DISCHARGE.--5 years, 3.13 ft³/s (0.089 m³/s), 2,270 acre-ft/yr (2.80 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s (1.16 m³/s) May 20, 1978, gage height, 1.98 ft (0.604 m); maximum gage height, 11.25 ft (3.429 m) May 7, 1975 (backwater from snow), present datum, minimum daily discharge, 0.35 ft³/s (0.010 m³/s) Mar. 3, 1977.

Peak discharges for the water years 1975-78 above base of 9.0 ft³/s (0.26 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 26, 1975	1630	9.0	0.25	Apr. 26, 1977	2030	*31	0.88
May 4, 1975	2300	17	.48	May 16, 1977	1700	25	.71
May 13, 1975	1930	*40	1.13	Apr. 30, 1978	1930	21	.59
May 28, 1975	1930	22	.62	May 10, 1978	1830	34	.96
June 18, 1975	0400	12	.34	May 17, 1978	0630	18	.51
				May 20, 1978	1800	*41	1.16
May 4, 1976	1900	19	.54				
May 23, 1976	0130	19	.54				
June 15, 1976	2200	11	.31				
July 20, 1976	2200	*20	.57				
July 31, 1976	2400	10	.28				

a-present datum.

b-from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.8 ft³/s (0.25 m³/s) Apr. 18, gage height, 1.00 ft (0.305 m); maximum gage height, 1.14 ft (0.347 m) Nov. 11 (backwater from ice); no peak above base of 9.0 ft³/s (0.26 m³/s); minimum daily discharge, 1.2 ft³/s (0.034 m³/s) Jan. 22.

CORRECTIONS.--The maximum discharge for water year 1976 is 20 ft³/s (0.57 m³/s) July 20, 1976, gage height, 10.24 ft (3.121 m) present datum; the previously published figure was not the maximum.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.8	1.5	1.5	1.4	1.5	1.7	3.0	3.8	2.4	1.8	1.7
2	1.8	1.8	1.4	1.4	1.4	1.5	1.7	4.4	3.7	2.3	1.8	1.7
3	1.9	1.7	1.3	1.4	1.4	1.4	1.7	3.5	3.5	2.3	1.8	1.7
4	1.9	1.6	1.5	1.4	1.4	1.5	1.8	4.1	3.4	2.5	1.7	1.6
5	1.9	1.6	1.5	1.4	1.3	1.5	2.0	4.5	3.3	2.3	1.7	1.6
6	1.9	1.8	1.4	1.4	1.4	1.5	2.5	4.2	3.3	2.2	1.7	1.6
7	1.9	1.7	1.4	1.4	1.4	1.6	2.6	3.7	3.4	2.2	1.7	1.5
8	1.9	1.8	1.3	1.4	1.5	1.5	2.5	3.4	3.9	2.2	1.7	1.5
9	1.8	1.8	1.5	1.4	1.5	1.5	2.7	3.4	4.8	2.2	1.8	1.5
10	1.8	1.6	1.6	1.4	1.5	1.5	2.3	3.4	4.2	2.2	1.8	1.7
11	1.8	1.3	1.6	1.5	1.5	1.5	2.0	3.5	3.5	2.2	1.8	1.7
12	1.8	1.4	1.6	1.5	1.5	1.6	2.2	4.2	3.3	2.0	1.7	1.6
13	1.8	1.5	1.6	1.5	1.3	1.5	2.2	4.6	3.2	2.1	1.8	1.6
14	1.8	1.4	1.6	1.5	1.6	1.7	2.5	4.2	3.0	2.0	2.0	1.7
15	1.8	1.6	1.7	1.5	1.5	1.7	3.2	4.5	3.2	2.1	1.8	1.7
16	1.8	1.6	1.6	1.6	1.5	1.8	3.0	4.8	3.0	2.1	1.8	1.6
17	1.8	1.7	1.6	1.5	1.5	1.8	3.8	4.8	3.3	2.1	1.8	1.5
18	1.8	1.6	1.7	1.5	1.5	1.8	4.2	4.6	3.2	2.0	1.9	1.5
19	1.8	1.6	1.8	1.4	1.5	1.7	3.8	4.6	2.9	1.9	2.3	1.5
20	1.8	1.5	1.5	1.4	1.5	1.6	3.0	4.5	2.8	1.8	2.2	1.5
21	1.8	1.3	1.5	1.4	1.4	1.6	3.0	4.5	2.7	1.9	2.0	1.5
22	2.1	1.6	1.5	1.2	1.4	1.6	3.3	4.4	2.7	1.9	1.8	1.5
23	2.0	1.7	1.6	1.5	1.4	1.6	3.5	4.4	2.7	2.0	1.8	1.5
24	2.0	1.6	1.6	1.5	1.4	1.7	3.5	4.4	2.6	2.1	1.8	1.5
25	2.0	1.5	1.6	1.5	1.4	1.8	3.0	4.4	2.5	2.0	1.9	1.5
26	2.0	1.5	1.6	1.4	1.5	1.8	2.8	4.4	2.5	2.0	1.8	1.6
27	2.0	1.4	1.6	1.4	1.5	2.2	2.7	4.4	2.5	1.9	1.7	1.7
28	2.0	1.4	1.6	1.4	1.5	2.1	2.7	4.4	2.4	1.9	1.7	1.6
29	1.8	1.5	1.6	1.4	---	1.9	2.7	4.4	2.3	1.8	1.7	1.5
30	1.8	1.5	1.5	1.4	---	1.8	2.8	4.2	2.4	1.8	1.6	1.5
31	1.8	---	1.5	1.4	---	1.8	---	3.8	---	1.9	1.6	---
TOTAL	58.0	47.4	47.9	44.5	40.6	51.6	81.4	129.6	94.0	64.3	56.0	47.4
MEAN	1.87	1.58	1.55	1.44	1.45	1.66	2.71	4.18	3.13	2.07	1.81	1.58
MAX	2.1	1.8	1.8	1.6	1.6	2.2	4.2	4.8	4.8	2.5	2.3	1.7
MIN	1.8	1.3	1.3	1.2	1.3	1.4	1.7	3.0	2.3	1.8	1.6	1.5
AC-FT	115	94	95	88	81	102	161	257	186	128	111	94
CAL YR 1978	TOTAL	1089.1	MEAN 2.98	MAX 22	MIN 1.3	AC-FT 2160						
WTR YR 1979	TOTAL	762.7	MEAN 2.09	MAX 4.8	MIN 1.2	AC-FT 1510						

06645160 SMITH CREEK AT OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°39'24", long 106°09'40", in NE¼NW¼SW¼ sec.14, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 0.2 mi (0.3 km) upstream from Otter Creek and 16 mi (26 km) southeast of Casper.

DRAINAGE AREA.--10.9 mi² (28.2 km²).

PERIOD OF RECORD.--October 1974 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,360 ft (1,939 m), from topographic map. Prior to Mar. 31, 1976, at site 80 ft (24 m) downstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. No gage-height records, Oct. 1-4, Dec. 19 to Jan. 20. No diversion above station.

AVERAGE DISCHARGE.--5 years, 2.63 ft³/s (0.074 m³/s), 1,910 acre-ft/yr (2.36 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s (1.16 m³/s) May 20, 1978, gage height, 3.24 ft (0.988 m); minimum daily, 0.42 ft³/s (0.012 m³/s) Sept. 7, 1979.

Peak discharges for the water years 1975-78 above base of 8.5 ft³/s (0.24 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 26, 1975	1900	11	0.31	1.28	0.390	Apr. 26, 1977	2000	*30	0.85	3.07	0.936
May 4, 1975	2300	16	.45	1.38	.421	May 16, 1977	1730	20	.57	2.95	.899
May 13, 1975	2000	*39	1.10	1.54	.469						
May 28, 1975	2030	22	.62	1.43	.436	Apr. 30, 1978	2000	20	.57	2.89	.881
June 18, 1975	0500	13	.37	1.30	.396	May 10, 1978	1830	36	1.02	3.13	.954
July 7, 1975	2300	10	.28	1.24	.378	May 20, 1978	1800	*41	1.16	3.24	.988
May 4, 1976	2030	*18	.51	2.88	.878						
May 23, 1976	0130	*18	.51	2.84	.866						
July 20, 1976	2230	16	.45	2.84	.866						
Aug. 1, 1976	0030	9.0	.25	2.62	.799						

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.4 ft³/s (0.18 m³/s) Apr. 18, gage height, 2.48 ft (0.756 m); no peak above base of 8.5 ft³/s (0.24 m³/s); minimum daily discharge, 0.42 ft³/s (0.012 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.2	1.0	.97	.98	1.3	2.4	2.5	1.4	.89	.49
2	1.3	1.2	1.1	1.0	.96	.99	1.3	3.8	2.4	1.4	.89	.49
3	1.2	1.1	1.1	.98	.94	.98	1.3	2.8	2.3	1.4	.82	.47
4	1.3	1.1	1.2	.96	.95	.94	1.3	3.0	2.2	1.4	.76	.45
5	1.4	1.1	1.1	.98	.89	.94	1.4	3.5	2.1	1.3	.76	.45
6	1.3	1.2	1.1	.97	.95	.98	1.9	3.4	2.2	1.3	.72	.45
7	1.3	1.1	1.1	.98	.97	1.0	1.9	2.9	2.2	1.2	.76	.42
8	1.2	1.1	1.1	.96	1.0	1.1	1.8	2.8	2.6	1.2	.72	.43
9	1.3	1.2	1.1	.97	1.0	1.0	2.1	2.7	2.8	1.2	.76	.47
10	1.3	.98	1.2	.99	1.0	1.0	1.9	2.5	2.7	1.2	.79	.58
11	1.3	.81	1.2	1.0	1.0	1.0	1.6	2.6	2.2	1.2	.72	.58
12	1.3	.85	1.2	1.0	1.0	1.1	1.7	2.9	2.1	1.2	.72	.58
13	1.3	.91	1.2	1.0	.89	1.1	1.7	3.2	1.9	1.2	.82	.58
14	1.3	.85	1.2	1.0	1.1	1.0	1.8	3.0	1.9	1.1	.86	.56
15	1.2	.90	1.2	1.0	1.0	1.1	2.4	3.2	1.9	1.2	.69	.54
16	1.2	.96	1.1	1.1	.98	1.2	2.6	3.4	1.9	1.2	.56	.54
17	1.3	1.0	1.2	1.0	1.0	1.2	3.3	3.6	1.9	1.1	.56	.54
18	1.3	1.1	1.2	.99	1.0	1.2	3.7	3.6	1.9	1.1	.61	.51
19	1.2	1.0	1.2	.97	1.0	1.1	3.2	3.5	1.8	1.1	.93	.47
20	1.2	.90	1.1	.97	.99	1.1	2.4	3.4	1.8	1.0	.72	.49
21	1.3	.90	1.1	.94	.94	1.1	2.3	3.0	1.6	1.0	.71	.49
22	1.5	1.0	1.1	.84	.94	1.2	2.5	2.8	1.6	1.0	.63	.47
23	1.4	1.1	1.1	.97	.92	1.1	2.7	2.8	1.6	1.0	.60	.51
24	1.4	1.1	1.1	1.0	.86	1.2	2.8	2.8	1.6	1.0	.64	.51
25	1.5	1.0	1.1	1.0	.89	1.2	2.5	2.9	1.6	.96	.64	.51
26	1.4	1.0	1.1	.96	.94	1.2	2.1	2.9	1.6	.95	.56	.51
27	1.4	1.0	1.1	.93	.97	1.5	2.1	2.7	1.5	.92	.51	.56
28	1.3	1.0	1.1	.92	.97	1.5	2.1	2.8	1.5	.96	.49	.56
29	1.3	1.1	1.1	.94	---	1.4	2.0	2.9	1.4	.92	.49	.54
30	1.2	1.2	1.0	.95	---	1.3	2.1	2.9	1.3	.90	.45	.54
31	1.2	---	1.0	.96	---	1.3	---	2.7	---	.93	.47	---
TOTAL	40.3	30.96	35.0	30.23	27.02	35.01	63.8	93.4	58.6	34.94	21.25	15.29
MEAN	1.30	1.03	1.13	.98	.97	1.13	2.13	3.01	1.95	1.13	.69	.51
MAX	1.5	1.2	1.2	1.1	1.1	1.5	3.7	3.8	2.8	1.4	.93	.58
MIN	1.2	.81	1.0	.84	.86	.94	1.3	2.4	1.3	.90	.45	.42
AC-FT	80	61	69	60	54	69	127	185	116	69	42	30

CAL YR 1978 TOTAL 909.22 MEAN 2.49 MAX 20 MIN .81 AC-FT 1800
WTR YR 1979 TOTAL 485.80 MEAN 1.33 MAX 3.8 MIN .42 AC-FT 964

PLATTE RIVER BASIN

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY

LOCATION.--Lat 42°51'50", long 105°51'56", in NW¼NW¼ sec.4, T.33 N., R.75 W., Converse County, Hydrologic Unit 10180007, on right bank 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1961 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map.

REMARKS.--Records fair except those for Nov. 14 to Apr. 20, which are poor. No gage-height records, Oct. 1, 2, Nov. 14-21, Dec. 9-12, Dec. 30 to Jan. 11, Feb. 1-12, Mar. 23-26, Apr. 1-4, 9-11. One small reservoir above station, capacity, about 60 acre-ft (0.074 hm³) for irrigation. Diversions above station for irrigation of about 3,700 acres (15.0 km²), of which about 400 acres (1.62 km²) are below station. Water is diverted to Millar ditch 0.3 mi (0.5 km) upstream and bypasses station.

AVERAGE DISCHARGE.--18 years, 73.8 ft³/s (2.090 m³/s), 53,470 acre-ft/yr (65.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s (402 m³/s) June 12, 1970, gage height, 9.45 ft (2.880 m); no flow at times in 1961-63, 1965, 1977, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 435 ft³/s (12.3 m³/s) Apr. 19, gage height, 4.72 ft (1.439 m); no peak above base of 450 ft³/s (12.7 m³/s); minimum daily discharge, 0.04 ft³/s (0.001 m³/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	21	19	19	21	24	14	96	37	.98	.74	3.0
2	9.0	21	18	20	21	24	13	204	28	.98	.54	3.0
3	17	21	18	20	21	24	12	173	20	.74	.54	2.6
4	17	21	19	20	22	24	11	126	12	.74	.37	2.2
5	17	20	19	19	22	25	10	136	14	.74	.37	3.0
6	17	22	18	19	22	25	9.3	188	15	.54	.24	2.6
7	16	22	17	20	21	22	10	153	13	.54	.24	3.0
8	15	22	18	21	21	25	21	134	23	.54	.24	1.9
9	15	22	19	22	21	24	30	124	53	.37	.24	.15
10	16	22	20	22	22	24	40	107	39	.37	.54	.04
11	17	21	21	23	23	24	37	86	31	.24	.74	.09
12	17	20	22	21	24	25	27	84	25	.37	.98	.98
13	17	19	21	19	24	26	23	88	19	.37	1.6	.74
14	17	19	21	20	24	25	25	88	15	.37	1.9	2.2
15	18	20	21	20	22	25	25	84	15	.37	1.2	5.5
16	17	21	22	21	20	26	41	96	14	.54	.98	6.1
17	15	21	22	22	20	26	63	109	10	.74	1.6	5.5
18	15	21	23	23	21	26	214	122	7.3	.74	1.9	5.0
19	16	20	22	22	22	26	318	119	6.1	.98	2.6	3.4
20	18	19	21	21	22	24	217	116	6.7	.98	1.6	.74
21	18	20	20	22	22	22	176	110	4.4	.98	2.2	.98
22	25	21	20	22	22	22	159	103	1.9	.98	3.0	1.6
23	21	21	20	22	22	22	176	90	2.6	1.2	5.0	3.0
24	20	18	21	22	22	23	173	68	3.9	1.2	5.5	3.9
25	21	18	21	21	22	24	170	72	3.9	1.2	5.0	3.9
26	21	18	20	21	23	23	129	76	2.2	.98	6.1	4.4
27	21	17	20	20	24	22	105	65	.98	2.6	6.1	5.0
28	20	17	19	20	25	24	86	55	.98	.98	4.4	5.0
29	17	18	18	20	---	24	76	55	.98	.37	3.0	5.5
30	21	19	18	20	---	16	88	55	.98	.37	4.1	4.4
31	21	---	18	21	---	15	---	46	---	.54	3.4	---
TOTAL	537.0	602	616	645	618	731	2498.3	3228	425.92	23.64	66.96	89.42
MEAN	17.3	20.1	19.9	20.8	22.1	23.6	83.3	104	14.2	.76	2.16	2.98
MAX	25	22	23	23	25	26	318	204	53	2.6	6.1	6.1
MIN	5.0	17	17	19	20	15	9.3	46	.98	.24	.24	.04
AC-FT	1070	1190	1220	1280	1230	1450	4960	6400	845	47	133	177
CAL YR 1978	TOTAL	23483.29	MEAN	64.3	MAX	2720	MIN	.11	AC-FT	46580		
WTR YR 1979	TOTAL	10081.24	MEAN	27.6	MAX	318	MIN	.04	AC-FT	20000		

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT										
03...	1245	19	--	--	11.0	510	260	110	58	57
NOV										
22...	1500	21	--	--	1.0	430	210	97	46	54
DEC										
15...	1430	21	--	--	.0	410	160	93	43	47
JAN										
31...	1600	21	--	--	.0	390	150	89	42	42
FEB										
20...	1500	22	--	--	.5	360	150	80	39	48
APR										
04...	1900	11	--	--	13.5	400	170	84	45	47
MAY										
14...	1410	90	--	--	15.0	240	92	53	25	23
JUN										
04...	1015	15	--	--	16.5	390	160	84	43	40
21...	1115	4.5	--	--	18.0	450	200	96	51	70
28...	0915	4.5	1080	8.1	18.0	490	190	95	62	90
JUL										
04...	0845	.74	--	--	16.0	410	98	90	46	130
AUG										
02...	1550	.60	--	--	27.0	450	120	100	48	130
30...	1550	4.7	--	--	23.0	530	250	110	61	80
SEP										
28...	1520	5.4	--	--	17.0	490	270	93	62	71

DATE	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT										
03...	1.1	--	2.4	310	0	250	370	8.1	.5	10
NOV										
22...	1.1	--	.2	270	0	220	290	6.6	.4	8.1
DEC										
15...	1.0	--	1.3	300	0	250	270	6.3	.6	13
JAN										
31...	.9	--	.9	290	0	240	220	7.1	.5	12
FEB										
20...	1.1	--	1.6	260	0	210	250	5.0	.5	9.8
APR										
04...	1.0	--	3.3	280	0	230	260	6.4	.5	8.1
MAY										
14...	.7	--	1.5	180	0	150	120	3.4	.4	11
JUN										
04...	.9	--	.4	280	0	230	250	4.9	.5	15
21...	1.4	--	2.3	310	0	250	340	8.3	.5	17
28...	1.8	93	3.0	--	--	300	330	8.4	.4	16
JUL										
04...	2.8	--	2.5	380	0	310	360	15	.6	17
AUG										
02...	2.7	--	3.5	400	0	330	340	24	.7	15
30...	1.5	--	2.5	340	0	280	400	8.3	.6	13
SEP										
28...	1.4	--	3.8	270	0	220	380	8.6	.5	15

PLATTE RIVER BASIN

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT										
03...	766	1.04	39.3	.05	--	--	.02	--	--	--
NOV										
22...	636	.87	36.1	.09	--	--	.00	--	--	--
DEC										
15...	625	.85	35.4	.09	--	--	.03	--	--	--
JAN										
31...	555	.75	31.5	.29	--	--	.02	--	--	--
FEB										
20...	565	.77	33.6	.20	--	--	.01	--	--	--
APR										
04...	594	.81	17.6	.00	--	--	.00	--	--	--
MAY										
14...	323	.44	78.5	.00	--	--	.02	--	--	--
JUN										
04...	578	.79	23.4	.00	--	--	.04	--	--	--
21...	736	1.00	8.94	.20	--	--	.02	--	--	--
28...	785	1.07	9.54	--	.04	.51	.01	.03	.03	1
JUL										
04...	852	1.16	1.70	.14	--	--	.01	--	--	--
AUG										
02...	852	1.16	1.38	.23	--	--	.01	--	--	--
30...	846	1.15	10.7	.07	--	--	.01	--	--	--
SEP										
28...	764	1.04	11.1	--	.10	--	.01	--	--	--

06646780 SAND CREEK NEAR GLENROCK, WY

LOCATION.--Lat 42°51'27", long 105°46'01", in SE¼NW¼SW¼ sec.5, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 2.2 mi (3.5 km) upstream from mouth and 5.4 mi (8.7 km) east of Glenrock.

DRAINAGE AREA.--79.9 mi² (206.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,000 ft (1,524 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 546 ft³/s (15.5 m³/s) Aug. 17, 1979, gage height, 4.20 ft (1.280 m), from rating curve extended above 13 ft³/s (0.37 m³/s) on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 546 ft³/s (15.5 m³/s) Aug. 17, gage height, 4.20 ft (1.280 m), from rating curve extended above 13 ft³/s (0.37 m³/s) on basis of slope-measurement of peak flow; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.00	.01	.00	.05	.02	.02	.00	.00	.00	.00
2	.00	.10	.01	.01	.00	.04	.02	.02	.00	.00	.00	.00
3	.00	.13	.02	.01	.00	.02	.02	.02	.00	.00	.00	.00
4	.00	.08	.03	.01	.00	.02	.03	.01	.00	.00	.00	.00
5	.00	.09	.02	.00	.00	.04	.04	.00	.00	.00	.00	.00
6	.00	.11	.00	.00	.00	.05	.04	.00	.00	.00	.00	.00
7	.00	.13	.00	.00	.00	.06	.05	.00	.00	.00	.00	.00
8	.00	.07	.00	.00	.00	.07	.06	.02	.04	.00	.00	.00
9	.00	.10	.00	.00	.01	.08	.07	.03	.03	.00	.00	.00
10	.00	.08	.01	.00	.01	.40	.05	.02	.02	.00	.00	.00
11	.00	.06	.01	.00	.02	1.0	.04	.01	.00	.00	.00	.00
12	.00	.03	.02	.00	.02	.30	.02	.01	.00	.00	.00	.00
13	.00	.01	.02	.00	.02	.06	.02	.00	.00	.00	.00	.00
14	.00	.00	.03	.00	.02	.06	.03	.00	.00	.00	.00	.00
15	.00	.00	.02	.00	.01	.07	.04	.00	.01	.00	.00	.00
16	.00	.00	.01	.00	.01	.08	.04	.00	.01	.00	.00	.00
17	.00	.00	.01	.00	.02	.06	.05	.00	.01	.00	.32	.00
18	.00	.00	.02	.00	.02	.04	.05	.00	.01	.00	.71	.00
19	.00	.00	.02	.00	.02	.03	.06	.00	.00	.00	.05	.00
20	.00	.00	.01	.00	.01	.03	.06	.00	.00	.00	.05	.00
21	.00	.02	.01	.00	.01	.03	.05	.00	.00	.00	.07	.00
22	.13	.03	.00	.00	.01	.03	.05	.00	.00	.00	.03	.00
23	.02	.02	.00	.00	.01	.03	.05	.00	.01	.00	6.3	.00
24	.01	.01	.00	.00	.01	.03	.04	.01	.01	.00	2.2	.00
25	.09	.00	.00	.00	.03	.03	.04	.01	.00	.00	.07	.00
26	.06	.00	.01	.00	.02	.04	.03	.01	.00	.00	.02	.00
27	.03	.00	.01	.00	.02	.06	.02	.00	.00	.24	.02	.00
28	.00	.00	.00	.00	.04	.05	.02	.00	.00	.34	.01	.00
29	.04	.00	.00	.00	---	.04	.02	.02	.00	.04	.02	.00
30	.00	.00	.00	.00	---	.04	.02	.01	.00	.01	.02	.00
31	.05	---	.00	.00	---	.03	---	.00	---	.00	.04	---
TOTAL	.43	1.17	.29	.04	.34	2.97	1.15	.22	.15	58.05	111.90	.00
MEAN	.014	.039	.009	.001	.012	.096	.038	.007	.005	1.87	3.61	.000
MAX	.13	.13	.03	.01	.04	1.0	.07	.03	.04	.34	.71	.00
MIN	.00	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	.00
AC-FT	.9	2.3	.6	.08	.7	5.9	2.3	.4	.3	115	222	.00

CAL YR 1978 TOTAL 542.19 MEAN 1.49 MAX 278 MIN .00 AC-FT 1080
WTR YR 1979 TOTAL 176.71 MEAN .48 MAX 71 MIN .00 AC-FT 351

PLATTE RIVER BASIN

06646780 SAND CREEK NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
FEB 13...	0945	.02	1390	8.4	.0	11.3	94	K13	2200	390	240	80
MAR 08...	1100	.07	1600	7.9	.0	10.5	88	K1	650	590	340	130
MAY 05...	1045	.01	2210	8.2	22.0	7.9	110	K2	78	730	440	180
JUN 27...	1730	.14	3000	7.4	16.5	--	--	--	--	1700	1500	530

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
FEB 13...	46	170	3.8	--	8.3	170	2	150	540	26	.3
MAR 08...	65	200	3.6	--	7.4	300	0	250	730	31	.4
MAY 05...	68	250	4.0	--	8.8	360	0	290	920	37	.6
JUN 27...	80	170	1.8	180	11	--	--	140	1700	54	1.1

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
FEB 13...	5.6	1050	962	1.31	.05	.40	--	.01	--	.57	.58
MAR 08...	7.5	1400	1320	1.80	.25	.05	--	.09	--	.36	.45
MAY 05...	8.6	1750	1650	2.24	.04	.02	--	.04	.05	.26	.30
JUN 27...	11	--	2640	3.59	1.00	--	.00	--	--	--	.29

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
FEB 13...	.98	4.3	.07	--	--	.04	9.8	.8	650	21	.00
MAR 08...	.50	2.2	.01	--	--	.00	3.1	--	290	116	.02
MAY 05...	.32	1.4	.00	.00	.00	.00	3.7	1.7	1300	131	.00
JUN 27...	--	--	.02	.06	.06	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

PLATTE RIVER BASIN

06646780 SAND CREEK NEAR GLENROCK, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	NICKEL, FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, FM BOT- TOM MA- TERIAL (UG/G AS ZN)
FEB 13...	--	--	--	--	--	--	--	--	--
MAR 08...	0	10	1	1	0	.0	30	10	7
MAY 05...	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	0	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 08...	1100	48	1.6	11	3.5	9.9	3.4	33	1.1

DATE	TIME	TYPE	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (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
MAR 08...	1100	2	.0	.07	2	9	40
MAY 05...	1045	2	22.0	.01	2	5	35

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
MAR 08...	69	80	85	89	93	96	100
MAY 05...	73	90	94	96	98	100	--

06646780 SAND CREEK NEAR GLENROCK, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON ANALYSES

DATE TIME	MAR 8,79 1100	MAY 5,79 1045
TOTAL CELLS/ML	290	1300
DIVERSITY: DIVISION	1.7	0.6
..CLASS	1.7	0.6
..ORDER	1.8	0.9
...FAMILY	2.1	1.7
....GENUS	2.1	1.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)				
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
....CHARACIACEAE				
.....CHARACIUM	--	-	620#	47
....OUCYSTACEAE				
.....ANKISTRODESMUS	5	2	--	-
...SCENEDESMACEAE				
....SCENEDESMUS	10	3	450#	34
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CARTERIA	--	-	72	5
CHRYSOPHYTA				
..BACILLARIOPHYCEAE				
...PENNALES				
....NAVICULACEAE				
.....NAVICULA	60#	21	--	-
...NITZSCHIACEAE				
....NITZSCHIA	25	9	--	-
CRYPTOPHYTA (CRYPTOMONADS)				
..CRYPTOPHYCEAE				
...CRYPTOMONADALES				
....CRYPTOMONADACEAE				
.....CRYPTOMONAS	15	5	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)				
..CYANOPHYCEAE				
...CHROOCOCCALES				
....CHROOCOCCACEAE				
.....ANACYSTIS	--	-	170	13
....COCCOCHLORIS	10	3	--	-
..HORMOGONIALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	150#	52	--	-
EUGLENOPHYTA (EUGLENOIDS)				
..EUGLENOPHYCEAE				
...EUGLENALES				
....EUGLENACEAE				
.....TRACHELOMONAS	15	5	--	-
NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%				

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PLATTE RIVER BASIN

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY

LOCATION.--Lat 42°50'10", long 105°45'30", in NW¼NE¼ sec.17, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.8 mi (1.3 km) downstream from Sand Creek, 1.0 mi (1.6 km) downstream from Dave Johnston powerplant, and 5.8 mi (9.3 km) east of Glenrock city limits.

DRAINAGE AREA.--13,538 mi² (35,063 km²), of which 1,173 mi² (3,038 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,920 ft (1,500 m), from topographic map. Prior to Oct. 1, 1965, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Slight regulation 1.0 mi (1.6 km) upstream by storage pond for Dave Johnston powerplant, capacity, 755 acre-ft (0.931 hm³). Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) May 14, 1965, gage height, 7.10 ft (2.164 m), present datum; minimum daily, 176 ft³/s (4.98 m³/s) Dec. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,260 ft³/s (121 m³/s) Aug. 18, gage height, 4.02 ft (1.225 m); minimum daily, 520 ft³/s (14.7 m³/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	952	1090	861	973	1180	1100	709	1930	1910	1750	2060
2	1480	955	873	846	1000	1200	1060	806	1800	1910	1720	2050
3	1440	972	655	842	1000	1110	1050	898	1760	1900	1740	2040
4	1430	975	687	912	988	1120	1030	818	1740	1940	1710	2020
5	1420	961	891	925	994	1160	1010	798	1720	1940	1710	2010
6	1420	962	839	913	1000	1240	1010	834	1720	1960	1700	2010
7	1420	954	702	919	1010	1310	992	793	1720	1920	2140	2010
8	1420	952	561	915	1030	1310	1040	788	1840	1900	3420	2000
9	1410	964	520	926	1020	1350	1040	810	2010	1880	3540	1970
10	1430	981	587	953	1030	1310	1040	782	1870	1900	3560	1980
11	1410	852	785	961	1040	1270	1080	760	1850	1900	3560	1930
12	1410	737	872	992	1070	1180	1070	757	1810	1900	3580	1800
13	1420	969	873	983	1110	1180	1010	754	1790	1900	3600	1690
14	1420	924	905	959	1240	1180	1010	751	1770	1880	3700	1560
15	1420	822	910	964	1220	1170	1010	753	1720	1900	3660	1560
16	1430	788	970	982	998	1170	1040	746	1720	1880	3620	1550
17	1430	770	941	1010	1080	1190	1050	743	1750	1900	3680	1540
18	1450	847	907	1000	1150	1210	1030	758	1910	1900	3780	1540
19	1450	851	1140	1020	1120	1190	1180	947	1900	1800	3770	1530
20	1440	789	1100	1010	1110	1140	1150	1170	1890	1770	3970	1370
21	1450	720	992	1000	1090	1130	1080	1200	1890	1670	3940	1380
22	1450	825	921	1010	1120	1130	950	1280	1880	1680	3800	1370
23	1400	1050	864	997	1090	1120	936	1660	1890	1700	3740	1360
24	1390	1020	966	975	1090	1100	910	1940	1880	1750	3740	1350
25	1410	973	1050	998	1090	1090	891	1940	1890	1720	3030	1370
26	1350	1040	1060	1000	1130	1080	833	1960	1910	1750	2180	1380
27	1120	1090	967	975	1160	1080	778	1950	1890	1750	2220	1370
28	980	1020	912	989	1150	1120	736	1940	1900	1840	2490	1410
29	952	952	995	1010	---	1170	710	1980	1900	1780	2450	1410
30	946	1000	859	992	---	1190	700	1970	1930	1780	2190	1390
31	951	---	847	953	---	1110	---	1960	---	1780	2060	---
TOTAL	42049	27667	27241	29792	30103	36490	29526	35955	55180	57090	91750	50010
MEAN	1356	922	879	961	1075	1177	984	1160	1839	1842	2960	1667
MAX	1500	1090	1140	1020	1240	1350	1180	1980	2010	1960	3970	2060
MIN	946	720	520	842	973	1080	700	709	1720	1670	1700	1350
AC-FT	83400	54880	54030	59090	59710	72380	58560	71320	109400	113200	182000	99190
CAL YR 1978 TOTAL	472908				1296	5970	MIN 520	AC-FT	938000			
WTR YR 1979 TOTAL	512853				1405	3970	MIN 520	AC-FT	1017000			

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT										
02...	1200	1480	--	--	17.5	260	120	67	22	55
NOV										
22...	1410	825	--	--	9.5	300	140	78	25	74
DEC										
15...	1310	942	--	--	9.0	270	120	70	23	60
FEB										
20...	1430	1110	--	--	7.5	250	110	67	21	66
APR										
04...	1645	1020	--	--	13.5	280	130	69	25	71
MAY										
08...	1240	797	--	--	9.0	300	160	69	30	140
JUN										
29...	1000	1880	550	8.7	18.5	190	84	48	18	42
30...	1110	1910	--	--	23.0	190	92	49	16	39
JUL										
31...	1130	1800	--	--	22.0	200	77	53	17	40
AUG										
20...	1115	3970	--	--	16.0	190	67	48	18	41
SEP										
28...	1210	1420	--	--	20.0	240	110	66	19	48

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
OCT										
02...	1.5	3.5	170	0	140	220	21	.5	4.2	476
NOV										
22...	1.9	.4	190	0	160	280	18	.6	3.9	575
DEC										
15...	1.6	3.5	180	0	150	240	16	.7	7.0	509
FEB										
20...	1.8	3.4	170	0	140	220	17	.6	8.0	491
APR										
04...	1.9	3.3	180	0	150	270	16	.5	6.0	548
MAY										
08...	3.5	3.5	170	3	140	380	20	.7	6.9	755
JUN										
29...	1.3	3.0	--	--	110	170	10	.4	8.9	367
30...	1.2	2.3	120	0	98	160	11	.3	9.4	350
JUL										
31...	1.2	3.2	150	0	120	140	13	.4	7.2	350
AUG										
20...	1.3	3.0	150	0	120	160	9.5	.4	11	363
SEP										
28...	1.3	4.0	160	0	130	190	13	.5	7.9	428

PLATTE RIVER BASIN

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT									
02...	.65	1900	.34	--	--	.09	--	--	--
NOV									
22...	.78	1280	.43	--	--	.07	--	--	--
DEC									
15...	.69	1290	.43	--	--	.09	--	--	--
FEB									
20...	.67	1470	.54	--	--	.15	--	--	--
APR									
04...	.75	1510	.05	--	--	.08	--	--	--
MAY									
08...	1.03	1620	3.2	--	--	.12	--	--	--
JUN									
29...	.50	1860	--	.12	.29	.05	.15	.15	3
30...	.48	1810	.45	--	--	.06	--	--	--
JUL									
31...	.48	1700	.23	--	--	.05	--	--	--
AUG									
20...	.49	3890	.00	--	--	.24	--	--	--
SEP									
28...	.58	1640	--	.20	--	.02	--	--	--

06647500 BOX ELDER CREEK AT BOXELDER, WY

LOCATION.--Lat 42°36'44", long 105°51'29", in NE¼NE¼SW¼ sec.32, T.31 N., R.75 W., Converse County, Hydrologic Unit 10180007, on left bank at Hiser Ranch (old Boxelder Post Office), 0.8 mi (1.3 km) downstream from Snowshoe Creek, and 17 mi (27 km) south of Glenrock.

DRAINAGE AREA.--63.0 mi² (163.2 km²).

PERIOD OF RECORD.--April 1946 to September 1951, October 1961 to September 1967, October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,710 ft (2,045 m), from topographic map. Prior to June 7, 1946, nonrecording gage, and June 8, 1946, to July 21, 1976, water-stage recorder at site 400 ft (122 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 60 acres (24 hm²), of which about 40 acres (16 hm²) are below station.

AVERAGE DISCHARGE.--19 years, 38.1 ft³/s (1.079 m³/s), 27,600 acre-ft/yr (34.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 ft³/s (128 m³/s) May 14, 1965, gage height, 8.58 ft (2.615 m), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft³/s (5.61 m³/s) May 20, gage height, 3.14 ft (0.957 m); no peak above base of 250 ft³/s (7.08 m³/s); minimum daily discharge, 0.03 ft³/s (<0.001 m³/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	1.5	1.2	1.2	1.3	2.1	4.6	100	83	7.5	.25	.31
2	.43	1.9	1.1	1.2	1.3	2.0	4.5	125	69	7.3	.23	.29
3	.49	1.9	1.2	1.2	1.3	1.9	4.5	102	59	6.5	.21	.25
4	.53	1.6	1.3	1.2	1.4	1.9	4.6	97	52	7.3	.18	.21
5	.53	1.6	1.2	1.3	1.4	2.1	4.9	120	46	6.8	.13	.18
6	.57	1.6	1.1	1.3	1.4	2.4	9.0	137	42	5.4	.14	.14
7	.57	1.6	1.0	1.4	1.4	2.8	16	117	41	4.6	.10	.14
8	.57	1.5	1.0	1.5	1.5	3.2	18	109	48	3.7	.10	.13
9	.57	1.5	1.0	1.6	1.5	3.1	19	100	54	3.0	.13	.08
10	.61	1.4	1.1	1.6	1.6	2.9	19	90	55	2.5	.12	.06
11	.61	1.3	1.2	1.7	1.6	2.8	17	82	46	1.9	.12	.09
12	.65	1.2	1.3	1.7	1.7	2.8	16	85	37	1.6	.12	.12
13	.65	1.1	1.4	1.6	1.8	2.9	16	90	32	1.3	.14	.09
14	.65	1.0	1.5	1.6	1.8	3.2	17	93	28	1.1	.16	.12
15	.75	1.1	1.6	1.6	1.8	3.5	24	105	27	.93	.18	.12
16	.80	1.1	1.7	1.5	1.7	3.7	37	125	26	.93	.23	.10
17	.80	1.1	1.8	1.5	1.7	3.8	76	152	25	.99	.25	.08
18	.86	1.1	1.9	1.4	1.7	3.9	115	172	23	.80	.40	.06
19	.86	1.0	2.0	1.4	1.7	3.9	114	185	21	.65	.49	.07
20	.86	1.0	2.0	1.4	1.7	3.9	91	181	19	.61	.70	.06
21	.93	1.1	1.9	1.4	1.8	3.8	86	172	18	.57	1.8	.06
22	2.8	1.2	1.8	1.3	1.8	3.7	93	169	16	.53	2.8	.06
23	2.6	1.3	1.7	1.3	1.9	3.6	110	165	17	.49	1.6	.04
24	2.2	1.4	1.6	1.3	1.9	3.7	121	160	16	.57	.93	.03
25	2.5	1.5	1.5	1.3	2.0	3.9	117	160	14	.49	.86	.04
26	2.2	1.5	1.5	1.3	2.1	4.5	101	148	12	.46	1.4	.05
27	2.1	1.5	1.4	1.3	2.2	5.0	93	136	11	.43	.75	.06
28	1.8	1.4	1.4	1.3	2.2	5.6	92	125	9.8	.37	.57	.08
29	1.8	1.4	1.4	1.3	---	5.5	87	121	8.6	.34	.49	.06
30	1.6	1.3	1.3	1.3	---	5.2	93	107	7.8	.31	.43	.07
31	1.6	---	1.3	1.3	---	4.8	---	96	---	.29	.37	---
TOTAL	34.86	40.7	44.4	43.3	47.2	108.1	1620.1	3926	963.2	70.26	16.38	3.25
MEAN	1.12	1.36	1.43	1.40	1.69	3.49	54.0	127	32.1	2.27	.53	.11
MAX	2.8	1.9	2.0	1.7	2.2	5.6	121	185	83	7.5	2.8	.31
MIN	.37	1.0	1.0	1.2	1.3	1.9	4.5	82	7.8	.29	.10	.03
AC-FT	69	81	88	86	94	214	3210	7790	1910	139	32	6.4

CAL YR 1978 TOTAL 14774.00 MEAN 40.5 MAX 1470 MIN .13 AC-FT 29300
WTR YR 1979 TOTAL 6917.75 MEAN 19.0 MAX 185 MIN .03 AC-FT 13720

PLATTE RIVER BASIN

06647890 LITTLE BOX ELDER CREEK NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'04", long 105°44'25", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.8, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 4.6 mi (7.4 km) southwest of Barber Ranch and 7.6 mi (12.2 km) southwest of Careyhurst.

DRAINAGE AREA.--7.18 mi² (18.6 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,670 ft (1,728 m), from topographic map.

REMARKS.--Records good except those for November to Apr. 20, which are poor. No gage-height record Oct. 1-6, Dec. 30 to Feb. 6, Apr. 16-20. No diversion above station.

AVERAGE DISCHARGE.--5 years, 1.38 ft³/s (0.039 m³/s), 1,000 acre-ft/yr (1.23 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83 ft³/s (2.35 m³/s) May 11, 1978, gage height, 2.04 ft (0.622 m); minimum daily, 0.38 ft³/s (0.011 m³/s) Nov. 27, 1976.

Peak discharges for the water years 1975-1978 above base of 8.0 ft³/s (0.23 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 25, 1975	1900	19 0.54	1.24 0.378	Apr. 16, 1977	1815	*8.9 0.25	0.93 0.283
May 4, 1975	2000	13 .37	1.12 .341				
May 10, 1975	2000	9.3 .26	1.02 .311	Apr. 28, 1978	2230	15 .42	1.10 .335
May 28, 1975	2130	11 .31	1.05 .320	May 11, 1978	1600	*83 2.35	2.04 .622
June 18, 1975	2000	*26 .74	1.31 .399	May 18, 1978	0230	54 1.53	1.69 .515
				July 9, 1978	0400	15 .42	1.05 .320
Apr. 22, 1976	2030	9.1 .26	.91 .277				
May 23, 1976	1230	*19 .54	1.23 .375				

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8.0 ft³/s (0.23 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 18	unknown	*20 0.57	al.19 0.363

a-from floodmark.

Minimum daily discharge, 0.40 ft³/s (0.011 m³/s) Nov. 10.

CORRECTION.--The minimum daily, in m³/s, published in the WDR WY-78-1 report is incorrect. The correct figure is 0.011 m³/s.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.47	.66	.68	.69	.66	1.5	4.3	1.5	.87	.63	.69
2	.62	.47	.66	.71	.67	.66	1.4	4.6	1.5	.87	.63	.68
3	.66	.47	.66	.72	.69	.65	1.3	3.1	1.4	.87	.63	.61
4	.66	.47	.66	.70	.70	.68	1.2	3.8	1.4	.87	.62	.62
5	.66	.47	.66	.68	.72	.72	1.3	4.8	1.3	.87	.61	.63
6	.66	.47	.63	.68	.72	.75	2.0	4.6	1.3	.87	.62	.63
7	.66	.47	.60	.70	.72	1.0	2.5	3.1	1.3	.80	.62	.61
8	.66	.47	.60	.72	.72	1.0	2.5	2.8	2.2	.80	.64	.60
9	.66	.47	.63	.74	.72	.92	2.7	2.8	2.3	.77	.63	.53
10	.66	.40	.68	.75	.72	.82	2.7	2.6	1.4	.76	.62	.58
11	.66	.42	.71	.75	.72	.80	2.5	2.6	1.3	.75	.60	.58
12	.72	.42	.75	.74	.72	.87	2.2	2.7	1.2	.74	.59	.60
13	.72	.42	.73	.72	.80	.87	2.5	3.1	1.2	.73	.64	.59
14	.72	.53	.76	.72	.91	.87	3.6	3.3	1.1	.71	.63	.59
15	.72	.66	.80	.72	.87	.95	5.0	3.5	1.1	.70	.63	.52
16	.72	.70	.78	.74	.82	1.0	6.0	3.3	1.1	.72	.60	.51
17	.80	.74	.72	.75	.81	1.0	8.0	3.0	1.1	.70	.67	.51
18	.72	.78	.78	.76	.80	1.0	10	3.0	1.0	.69	.67	.51
19	.72	.72	.78	.76	.80	.95	9.0	2.7	1.0	.69	.85	.51
20	.59	.65	.73	.76	.80	.95	8.0	2.4	1.0	.68	.98	.54
21	.66	.68	.71	.78	.80	.87	7.2	2.5	.98	.69	.72	.50
22	.80	.74	.72	.77	.80	.84	7.4	2.2	1.0	.67	.64	.50
23	.53	.80	.72	.76	.80	.80	7.4	2.1	1.1	.72	.63	.51
24	.59	.82	.72	.72	.80	1.0	6.8	2.1	1.0	.70	.68	.54
25	.59	.80	.72	.71	.80	1.0	5.4	2.0	.95	.67	.66	.54
26	.53	.75	.72	.69	.80	.95	4.5	2.0	.95	.66	.64	.58
27	.47	.74	.75	.68	.72	1.0	4.4	1.9	.95	.65	.63	.53
28	.47	.74	.75	.67	.66	1.5	4.3	1.9	.95	.64	.63	.54
29	.47	.72	.72	.66	---	1.5	4.2	1.8	.87	.64	.64	.55
30	.47	.69	.69	.65	---	1.5	4.2	1.7	.87	.68	.64	.55
31	.47	---	.66	.67	---	1.5	---	1.5	---	.66	.65	---
TOTAL	19.68	18.15	21.86	22.26	21.30	29.58	131.7	87.8	36.32	22.84	20.27	16.98
MEAN	.63	.61	.71	.72	.76	.95	4.39	2.83	1.21	.74	.65	.57
MAX	.80	.82	.80	.78	.91	1.5	10	4.8	2.3	.87	.98	.69
MIN	.47	.40	.60	.65	.66	.65	1.2	1.5	.87	.64	.59	.50
AC-FT	39	36	43	44	42	59	261	174	72	45	40	34
CAL YR 1978	TOTAL 599.94			MEAN 1.64		MAX 34	MIN .39	AC-FT 1190				
WTR YR 1979	TOTAL 448.74			MEAN 1.23		MAX 10	MIN .40	AC-FT 890				

06647900 LITTLE BOX ELDER CREEK AT LITTLE BOX ELDER CAVE, NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'38", long 105°43'33", in NE¼SE¼NW¼ sec.9, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi (0.5 km) southwest of Little Box Elder Cave, 3.6 mi (5.8 km) southwest of Barber Ranch, and 6.6 mi (10.6 km) southwest of Careyhurst.

DRAINAGE AREA.--8.47 mi² (21.9 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,480 ft (1,670 m), from topographic map.

REMARKS.--Records good. One small detention reservoir above station.

AVERAGE DISCHARGE.--5 years, 0.31 ft³/s (0.009 m³/s), 225 acre-ft/yr (277,400 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s (1.16 m³/s) May 18, 1978, gage height, 2.07 ft (0.631 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft³/s (0.42 m³/s) Aug. 17, gage height, 1.76 ft (0.536 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	1.9	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.75	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.60	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.60	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.65	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.50	.93	.00	.00	.37	.00
18	.00	.00	.00	.00	.00	.00	2.3	.65	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	3.8	.65	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	4.2	.36	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	4.2	.20	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	3.5	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	2.8	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	43.30	24.13	.00	.00	.37	.00
MEAN	.000	.000	.000	.000	.000	.000	1.44	.78	.000	.000	.012	.000
MAX	.00	.00	.00	.00	.00	.00	4.2	2.1	.00	.00	.37	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	86	48	.00	.00	.7	.00
CAL YR 1978	TOTAL	187.18	MEAN	.51	MAX	30	MIN	.00	AC-FT	371		
WTR YR 1979	TOTAL	67.80	MEAN	.19	MAX	4.2	MIN	.00	AC-FT	134		

PLATTE RIVER BASIN

06649000 LA PRELE CREEK NEAR DOUGLAS, WY

LOCATION.--Lat 42°40'52", long 105°37'48", in SW¼NE¼SW¼ sec.5, T.31 N., R.73 W., Converse County, Hydrologic Unit 10180007, on right bank 0.8 mi (1.3 km) upstream from La Prele Reservoir and 13.5 mi (21.7 km) southwest of Douglas.

DRAINAGE AREA.--135 mi² (350 km²).

PERIOD OF RECORD.--August 1919 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WSP 1918: 1920(M), 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is about 5,600 ft (1,707 m), from nearby line of levels.

REMARKS.--Records good. Several small reservoirs above station, combined capacity, about 140 acre-ft (0.173 hm³) for irrigation. Diversions for irrigation of about 4,600 acres (18.6 km²) above station. Water is imported from La Bonte Creek and Wagon Hound Creek basins into Little La Prele Creek, upstream from the station, for irrigation below La Prele Reservoir.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1920-71), 40.4 ft³/s (1.144 m³/s), 29,270 acre-ft/yr (36.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s (490 m³/s) June 12, 1970, gage height, 13.01 ft (3.965 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; no flow at times in 1936, 1939-40, 1943.

EXTREMES FOR CURRENT YEAR.--Water year 1978: Maximum discharge, 1,700 ft³/s (48.1 m³/s) May 17, gage height, 10.66 ft (3.249 m); minimum daily during period of operation, 0.54 ft³/s (0.015 m³/s) Sept. 28, 29.

Water year 1979: Maximum discharge, 141 ft³/s (3.99 m³/s) Apr. 19, May 18, gage height 5.41 ft (1.649 m) Apr. 19; minimum daily during period of operation, 0.70 ft³/s (0.020 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						7.2	60	65	112	4.4	7.9	2.6
2						8.0	65	56	98	4.5	5.5	.98
3						4.4	54	60	84	4.4	6.6	.88
4						4.7	43	85	95	4.5	6.6	.88
5						6.0	43	112	93	3.6	6.6	.78
6						8.7	35	129	80	2.3	7.6	.88
7						8.0	33	142	78	1.2	7.9	.88
8						7.2	33	136	80	.88	5.8	.78
9						8.0	34	173	70	1.7	5.5	.98
10						8.3	19	346	65	2.8	5.5	.98
11						7.2	22	668	57	1.1	5.3	.98
12						8.3	22	584	53	.98	5.1	.98
13						8.0	8.3	406	47	1.1	5.1	.98
14						6.9	3.2	351	36	1.2	6.0	1.1
15						8.0	3.8	308	24	1.1	6.0	1.2
16						7.2	5.1	305	22	1.1	6.3	1.1
17						8.0	5.5	1090	26	1.4	6.9	.88
18						9.5	4.2	1090	26	2.0	7.6	1.1
19						10	3.6	577	18	2.0	7.2	1.2
20						9.5	3.0	428	16	2.7	5.5	1.4
21						9.5	3.0	396	12	20	5.1	1.6
22						14	2.3	358	9.9	6.9	4.7	1.6
23						14	2.2	318	8.0	5.5	4.4	1.2
24						14	2.0	294	8.7	4.4	4.2	1.2
25						14	2.2	266	8.0	3.5	4.0	1.2
26						14	2.2	224	5.5	5.5	3.8	.78
27						14	2.3	208	4.9	6.3	3.6	.62
28						18	9.1	195	4.7	6.9	3.5	.54
29						20	66	161	6.6	7.2	3.4	.54
30						26	72	148	6.6	7.6	3.4	.62
31						38	---	127	---	7.6	3.0	---
TOTAL						348.6	663.0	9806	1254.9	126.36	169.6	31.44
MEAN						11.2	22.1	316	41.8	4.08	5.47	1.05
MAX						38	72	1090	112	20	7.9	2.6
MIN						4.4	2.0	56	4.7	.88	3.0	.54
AC-FT						691	1320	19450	2490	251	336	62

06649000 LA PRELE CREEK NEAR DOUGLAS, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						5.5	12	28	56	5.1	1.0	.88
2						5.8	10	43	42	4.9	2.4	.88
3						6.6	10	33	35	4.7	3.4	.78
4						7.2	10	30	32	4.5	2.7	.78
5						8.0	10	46	22	4.0	1.7	.78
6						6.9	10	65	13	4.0	2.2	.78
7						7.6	14	49	14	3.8	4.2	.70
8						10	23	48	31	3.8	5.3	.78
9						7.2	25	74	46	3.5	4.7	.78
10						6.6	30	82	41	3.5	3.8	.88
11						6.9	31	74	28	3.5	2.0	1.1
12						7.2	28	71	21	3.8	1.2	.98
13						8.3	27	75	14	3.4	1.2	.98
14						6.9	30	69	11	3.6	1.3	1.1
15						7.2	39	73	9.1	3.5	1.6	1.1
16						8.3	58	84	9.1	3.5	1.5	.98
17						9.1	38	117	8.0	4.0	1.5	.98
18						10	103	118	9.1	2.7	1.3	.88
19						8.7	104	122	7.6	1.7	1.2	.98
20						7.2	82	125	7.2	1.6	1.2	.88
21						8.0	73	115	6.9	1.4	1.1	.88
22						7.6	73	109	6.9	1.4	1.1	.88
23						7.2	80	102	7.6	1.2	.98	.98
24						6.9	86	103	6.3	1.3	1.1	.98
25						8.0	82	104	6.0	1.2	1.1	.98
26						7.6	66	104	5.8	1.4	1.1	.98
27						8.7	58	96	5.8	1.4	1.1	1.1
28						11	57	89	6.0	1.2	1.1	1.1
29						14	46	81	5.5	.98	1.1	1.1
30						15	37	79	5.3	1.0	.98	.98
31						14	---	69	---	.98	.88	---
TOTAL						259.2	1352	2477	518.2	86.56	57.04	27.94
MEAN						8.36	45.1	79.9	17.3	2.79	1.84	.93
MAX						15	104	125	56	5.1	5.3	1.1
MIN						5.5	10	28	5.3	.98	.88	.70
AC-FT						514	2680	4910	1030	172	113	55

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY

LOCATION.--Lat 42°39'02", long 105°09'46", in SE4SW4SW4 sec.17, T.31 N., R.69 W., Converse County, Hydrologic Unit 10180008, on right bank 630 ft (192 m) downstream from bridge on U.S. Highway 87, 0.2 mi (0.3 km) upstream from Shawnee Creek, and 1.5 mi (2.4 km) east of Orin.

DRAINAGE AREA.--14,888 mi² (38,560 km²), of which 1,193 mi² (3,090 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,660 ft (1,420 m), from topographic map. Jan. 1, 1895, to Nov. 30, 1899, and May 1 to Sept. 30, 1924, nonrecording gage at railroad bridge just upstream from U.S. Highway 87 at different datum. Apr. 1, 1917, to Sept. 30, 1918, nonrecording gage at site 2.2 mi (3.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Twenty-nine discharge measurements furnished by Water and Power Resources Services.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s (674 m³/s) May 15, 1965, gage height, 10.00 ft (3.048 m); maximum gage height, 10.45 ft (3.185 m) June 12, 1970; minimum daily discharge determined, 170 ft³/s (4.81 m³/s) Sept. 11-14, 1899.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,000 ft³/s (142 m³/s) Aug. 9, gage height, 5.28 ft (1.609 m); maximum gage height, 6.33 ft (1.929 m) Dec. 7 (backwater from ice); minimum daily discharge, 640 ft³/s (18.1 m³/s) Dec. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	980	1150	845	1080	1070	1200	986	2010	1860	1700	2130
2	1400	986	1210	865	1070	1090	1190	1030	1950	1860	1650	2110
3	1410	991	890	895	1090	1070	1150	1210	1810	1830	1610	2110
4	1410	988	693	925	1100	986	1130	1260	1770	1870	1640	2080
5	1420	995	744	930	1100	1010	1110	1160	1710	2140	1580	2050
6	1420	993	730	955	1110	1070	1090	1130	1680	1850	1610	2050
7	1420	1010	680	970	1120	1170	1100	1210	1680	1850	1610	2050
8	1420	1010	640	980	1120	1240	1110	1160	1760	1830	2570	2050
9	1420	1020	680	1000	1140	1230	1160	1200	1920	1800	3810	2040
10	1390	1050	760	1010	1120	1270	1180	1250	1960	1730	3560	2040
11	1400	1080	850	1050	1140	1250	1260	1190	1850	1730	3580	2050
12	1390	916	915	1090	1150	1230	1300	1140	1790	1730	3580	1960
13	1410	890	965	1080	1310	1170	1260	1120	1750	1730	3580	1870
14	1440	1200	970	1070	1400	1170	1240	1110	1730	1720	3580	1760
15	1460	1110	1030	1050	1290	1180	1230	1050	1750	1720	3610	1650
16	1480	1010	1000	1070	1190	1180	1240	1030	1700	1750	3600	1650
17	1480	956	1030	1100	1150	1190	1300	1030	1700	1730	3630	1630
18	1460	828	1060	1130	1230	1210	1440	1020	1750	1730	3770	1600
19	1480	939	1020	1140	1230	1250	1540	1030	1860	1700	3710	1600
20	1490	929	1110	1150	1200	1230	1680	1260	1850	1620	3850	1560
21	1490	920	1100	1180	1200	1190	1570	1480	1850	1610	3890	1420
22	1600	877	1070	1170	1190	1180	1450	1480	1850	1560	3810	1420
23	1530	955	1050	1120	1150	1180	1350	1530	1860	1610	3710	1390
24	1480	1190	1050	1140	1150	1170	1370	1900	1860	1650	3650	1350
25	1460	1170	1100	1160	1190	1140	1360	2050	1840	1650	3620	1350
26	1480	1160	1070	1170	1230	1160	1320	2080	1850	1800	2690	1390
27	1390	1210	1090	1140	1310	1160	1210	2080	1870	1770	2300	1420
28	1160	1240	1050	1120	1210	1170	1110	2070	1860	2430	2410	1400
29	1010	1160	870	1100	---	1180	1040	2020	1850	1950	2540	1430
30	980	1130	910	1090	---	1250	996	2040	1850	1800	2440	1440
31	975	---	875	1090	---	1270	---	2020	---	1770	2200	---
TOTAL	43165	30893	29362	32785	32970	36316	37686	43326	54520	55380	91090	52050
MEAN	1392	1030	947	1058	1178	1171	1256	1398	1817	1786	2938	1735
MAX	1600	1240	1210	1180	1400	1270	1680	2080	2010	2430	3890	2130
MIN	975	828	640	845	1070	986	996	986	1680	1560	1580	1350
AC-FT	85620	61280	58240	65030	65400	72030	74750	85940	108100	109800	180700	103200
CAL YR 1978 TOTAL	535065			MEAN 1466	MAX 9140	MIN 560	AC-FT 1061000					
WTR YR 1979 TOTAL	539543			MEAN 1478	MAX 3890	MIN 640	AC-FT 1070000					

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May to September 1979 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: May to September 1979 (discontinued).

REMARKS.--Water samples were collected by a local observer on a once-daily basis at the bridge on Highway 87.
Daily temperatures are considered poor.

COOPERATION.--Twelve concentration and particle-size analyses furnished by the Water and Power Resources Service.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum observed, 28.0°C June 11; minimum observed, 9.0°C May 24.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,010 mg/L Aug. 9; minimum daily mean, 42 mg/L Sept. 24, 25.

SEDIMENT LOADS: Maximum daily, 20,700 tons (18,800 tonnes) Aug. 9; minimum daily, 133 tons (121 tonnes) May 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
10...	1500	--	1370	700	8.8	14.0	4	11.0	K8	260	120	68
NOV												
07...	1330	--	1010	780	8.8	8.0	4	11.4	K4	300	150	74
DEC												
05...	1240	--	749	850	8.6	.0	4	10.6	K190	290	130	77
JAN												
05...	1400	930	--	750	8.0	.0	2	10.5	K600	270	110	68
30...	1100	1090	--	730	8.0	.0	4	12.8	K180	260	100	69
MAR												
13...	1100	--	1180	850	8.6	5.0	8	11.0	48	260	110	66
APR												
13...	1100	--	1260	820	8.3	5.0	25	10.8	96	240	92	60
MAY												
08...	1120	--	1130	920	8.3	6.0	15	10.2	K64	260	150	59
22...	1730	1480	--	--	--	22.0	30	--	--	--	--	--
JUN												
08...	1100	--	1720	620	8.2	12.0	20	8.8	K60	200	77	50
19...	1500	--	1860	--	--	17.5	40	--	--	--	--	--
29...	1130	--	1860	590	8.5	21.5	--	--	--	200	81	51
JUL												
17...	1115	--	1760	570	8.4	19.0	10	8.2	54	180	49	43
23...	1115	--	1580	--	--	23.0	8	--	--	--	--	--
AUG												
13...	1430	--	3560	510	8.0	19.5	30	6.9	100	180	57	48
SEP												
10...	1700	--	2050	585	8.5	20.0	15	8.7	260	200	80	54

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SURP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 10...	21	64	1.7	4.6	170	0	140	230	16	.4	4.9	517
NOV 07...	28	68	1.7	4.4	170	9	150	250	16	.6	3.5	--
DEC 05...	25	72	1.8	4.1	200	0	160	250	17	.6	6.7	--
JAN 05...	23	61	1.6	4.2	200	0	160	200	17	.4	11	--
30...	21	60	1.6	3.5	190	0	160	210	14	.5	9.7	--
MAR 13...	22	73	2.0	3.7	180	0	150	250	15	.6	7.8	--
APR 13...	22	75	2.1	5.4	180	0	150	240	14	.6	5.5	--
MAY 08...	26	88	2.4	3.2	130	0	110	310	17	.6	7.1	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	18	42	1.3	4.5	150	0	120	160	8.8	.5	8.9	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
29...	18	46	1.4	3.3	--	--	120	170	11	.4	8.9	--
JUL 17...	18	50	1.6	3.3	160	0	130	150	11	.5	5.8	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	15	34	1.1	3.1	150	0	120	120	6.9	.4	11	--
SEP 10...	16	41	1.3	2.8	140	3	120	150	10	.5	6.8	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 10...	498	.68	1840	10	1.3	--	--	.03	--	--	13	.6
NOV 07...	547	.74	1490	--	.27	--	--	.07	--	--	--	--
DEC 05...	554	.75	1120	--	.36	--	--	.02	--	--	--	--
JAN 05...	488	.66	1230	--	.93	--	--	.07	--	--	--	--
30...	483	.66	1420	--	.61	--	--	.09	--	--	--	--
MAR 13...	533	.72	1700	--	.79	--	--	.09	--	--	--	--
APR 13...	604	.82	2050	--	.43	--	--	.08	--	--	--	--
MAY 08...	592	.81	1810	--	4.1	--	--	.05	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	367	.50	1700	--	.02	--	--	.11	--	--	6.2	.6
19...	--	--	--	--	--	--	--	--	--	--	--	--
29...	381	.52	1910	--	--	.06	.26	.07	.21	.21	--	--
JUL 17...	358	.49	1700	--	.07	--	--	.06	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	314	.43	3020	--	.23	--	--	.16	--	--	--	--
SEP 10...	359	.49	1990	--	.09	--	--	.05	--	--	--	--

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDE RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 10...	1500	350	330	20	2	2	0	0	0	3	1	2
JUN 08...	1100	660	640	20	3	1	0	0	0	4	1	3
29...	1130	--	--	--	--	--	--	--	--	--	--	--

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)
OCT 10...	0	0	0	7	0	8	410	400	10	26	0
JUN 08...	10	10	0	7	3	4	920	900	20	6	6
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDE RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)
OCT 10...	26	40	0	40	40	40	0	.0	.0	.0	5
JUN 08...	0	30	0	30	50	50	0	.0	.0	.0	1
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB- DENUM, SUS- PENDE RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, SUS- PENDE RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 10...	3	2	3	0	4	6	2	4	20	10	10
JUN 08...	1	0	4	2	2	4	0	4	30	20	10
29...	--	--	--	--	--	--	--	3	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L AS U)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 10...	1500	17	.5	7.5	1.5	6.9	1.6	.32	13	--	--
JAN 05...	1400	21	4.4	7.4	1.2	6.9	1.3	.16	16	--	--
APR 13...	1100	25	4.3	5.9	3.7	5.4	3.7	.14	15	17	2.9
JUL 17...	1115	26	2.6	5.1	3.4	4.7	3.2	.12	8.7	18	1.8

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 26...	1445	1490	9.0	.0	1	.00	.00	.0	.0	0	.00	.0
MAY 08...	1120	1130	6.0	.0	4	--	.00	.0	.0	1	.00	.2
SEP 10...	1700	2050	20.0	.0	0	--	.00	.0	.0	0	.00	.1

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
OCT 26...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00	.00
MAY 08...	.00	.0	.00	.7	.00	.00	.1	.00	.00	.0	.00	.00
SEP 10...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00	.00

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
OCT 26...	.0	.00	.0	.00	.0	.00	--	--	.00	.00	.00
MAY 08...	.0	.00	.0	.00	.0	.00	--	--	.00	.00	.00
SEP 10...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.00	.00

DATE	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 26...	.00	.00	0	0	.00	.00	0	.00	0	.00	.0
MAY 08...	.00	.00	0	0	.00	.00	0	.00	0	.00	.0
SEP 10...	.00	.00	0	0	.00	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
OCT 26...	--	1.7	--	0
MAY 08...	.00	0	.00	0
SEP 10...	.00	0	.01	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	---	20.0	---	19.5	---
2							---	---	---	22.0	20.0	---
3							---	---	24.0	21.0	23.5	---
4							---	---	---	24.0	22.0	---
5							---	15.5	23.0	23.0	24.5	---
6							10.0	13.5	---	22.0	25.0	---
7							---	---	---	21.0	23.0	---
8							---	---	---	23.0	24.0	---
9							---	---	11.0	24.5	21.0	---
10							---	---	23.0	24.5	23.5	---
11							---	10.0	28.0	25.5	21.0	---
12							---	10.5	27.5	25.0	19.5	---
13							---	15.0	---	24.5	20.0	---
14							---	12.5	---	24.0	16.5	---
15							---	18.5	---	20.0	18.5	---
16							---	12.5	---	23.5	19.5	---
17							---	13.0	---	23.5	20.0	20.0
18							---	17.5	---	23.0	---	18.0
19							---	13.0	17.5	24.0	---	---
20							---	15.5	---	24.0	---	---
21							---	23.0	---	22.5	17.0	---
22							---	18.5	---	23.5	18.5	---
23							---	18.0	19.0	24.0	19.0	---
24							---	9.0	---	23.5	18.5	---
25							---	18.0	20.0	22.0	19.5	---
26							---	18.0	---	24.0	20.0	---
27							---	18.5	---	22.0	18.0	---
28							---	18.5	---	21.0	18.5	---
29							---	15.0	23.0	22.0	18.0	---
30							---	13.0	---	22.0	19.0	---
31							---	10.0	---	20.5	---	---
MEAN							10.0	15.0	21.5	23.0	20.5	19.0
MAX							10.0	23.0	28.0	25.5	25.0	20.0
MIN							10.0	9.0	11.0	20.0	16.5	18.0
WTR YR 1979	MEAN	20.0		MAX	28.0		MIN	9.0				

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	1410			980			1150		
2	1400			986			1210		
3	1410			991			890		
4	1410			988			693		
5	1420			995			744		
6	1420			993			730		
7	1420			1010			680		
8	1420			1010			640		
9	1420			1020			680		
10	1390			1050			760		
11	1400			1080			850		
12	1390			916			915		
13	1410			890			965		
14	1440			1200			970		
15	1460			1110			1030		
16	1480			1010			1000		
17	1480			956			1030		
18	1460			828			1060		
19	1480			939			1020		
20	1490			929			1110		
21	1490			920			1100		
22	1600			877			1070		
23	1530			955			1050		
24	1480			1190			1050		
25	1460			1170			1100		
26	1480			1160			1070		
27	1390			1210			1090		
28	1160			1240			1050		
29	1010			1160			870		
30	980			1130			910		
31	975			---			875		
TOTAL	43165			30893			29362		
JANUARY			FEBRUARY			MARCH			
1	845			1080			1070		
2	865			1070			1090		
3	895			1090			1070		
4	925			1100			986		
5	930			1100			1010		
6	955			1110			1070		
7	970			1120			1170		
8	980			1120			1240		
9	1000			1140			1230		
10	1010			1120			1270		
11	1050			1140			1250		
12	1090			1150			1230		
13	1080			1310			1170		
14	1070			1400			1170		
15	1050			1290			1180		
16	1070			1190			1180		
17	1100			1150			1190		
18	1130			1230			1210		
19	1140			1230			1250		
20	1150			1200			1230		
21	1180			1200			1190		
22	1170			1190			1180		
23	1120			1150			1180		
24	1140			1150			1170		
25	1160			1190			1140		
26	1170			1230			1160		
27	1140			1310			1160		
28	1120			1210			1170		
29	1100			---			1180		
30	1090			---			1250		
31	1090			---			1270		
TOTAL	32785			32970			36316		

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1200		986	---	---	2010	272	1480	
2	1190		1030	---	---	1950	249	1310	
3	1150		1210	---	---	1810	229	1120	
4	1130		1260	108	367	1770	237	1130	
5	1110		1160	82	257	1710	187	863	
6	1090		1130	79	241	1680	208	943	
7	1100		1210	100	327	1680	250	1130	
8	1110		1160	85	266	1760	292	1390	
9	1160		1200	107	347	1920	286	1480	
10	1180		1250	116	391	1960	302	1600	
11	1260		1190	97	312	1850	201	1000	
12	1300		1140	70	215	1790	187	904	
13	1260		1120	70	212	1750	176	832	
14	1240		1110	61	183	1730	176	822	
15	1230		1050	56	159	1750	165	780	
16	1240		1030	48	133	1700	165	757	
17	1300		1030	49	136	1700	166	762	
18	1440		1020	68	187	1750	166	784	
19	1540		1030	64	178	1860	169	849	
20	1680		1260	151	514	1850	144	719	
21	1570		1480	251	1000	1850	133	664	
22	1450		1480	201	803	1850	133	664	
23	1350		1530	302	1250	1860	123	618	
24	1370		1900	517	2650	1860	112	562	
25	1360		2050	483	2670	1840	106	527	
26	1320		2080	461	2590	1850	102	509	
27	1210		2080	408	2290	1870	113	571	
28	1110		2070	387	2160	1860	125	628	
29	1040		2020	364	1990	1850	118	589	
30	996		2040	337	1860	1850	125	624	
31	---		2020	258	1410	---	---	---	
TOTAL	37686		43326	---	25098	54520	---	26611	
JULY			AUGUST			SEPTEMBER			
1	1860	154	773	1700	203	932	2130	142	817
2	1860	157	788	1650	236	1050	2110	136	775
3	1830	181	894	1610	244	1060	2110	132	752
4	1870	326	1650	1640	268	1190	2080	125	702
5	2140	1900	12500	1580	177	755	2050	120	664
6	1850	959	4790	1610	206	895	2050	116	642
7	1850	389	1940	1610	210	913	2050	112	620
8	1830	307	1520	2570	1530	11200	2050	108	598
9	1800	279	1360	3810	2010	20700	2040	103	567
10	1730	193	902	3560	697	6700	2040	99	545
11	1730	172	803	3580	450	4350	2050	96	531
12	1730	187	873	3580	398	3850	1960	86	455
13	1730	195	911	3580	407	3930	1870	79	399
14	1720	207	961	3580	460	4450	1760	69	328
15	1720	205	952	3610	442	4310	1650	61	272
16	1750	188	888	3600	357	3470	1650	58	258
17	1730	192	897	3630	1100	10800	1630	51	224
18	1730	190	887	3770	---	5500	1600	50	216
19	1700	186	854	3710	---	4500	1600	49	212
20	1620	167	730	3850	---	4100	1560	51	215
21	1610	197	856	3890	522	5480	1420	45	173
22	1560	167	703	3810	932	9590	1420	45	173
23	1610	173	752	3710	533	5340	1390	43	161
24	1650	227	1010	3650	488	4810	1350	42	153
25	1650	316	1410	3620	353	3450	1350	42	153
26	1800	1600	7780	2690	229	1660	1390	43	161
27	1770	1020	4870	2300	220	1370	1420	45	173
28	2430	1210	8250	2410	191	1240	1400	44	166
29	1950	298	1570	2540	167	1150	1430	45	174
30	1800	303	1470	2440	167	1100	1440	45	175
31	1770	318	1520	2200	144	855	---	---	---
TOTAL	55380	---	66064	91090	---	130700	52050	---	11454
YEAR	539543		259927						

06652700 GLENDO RESERVOIR NEAR GLENDO, WY

LOCATION.--Lat 42°28'21", long 104°57'28", in SW¼NE¼ sec.24, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on right bank in gate shaft house on North Platte River, 0.5 mi (0.8 km) southwest of Glendo Dam, and 5.0 mi (8.0 km) southeast of Glendo.

DRAINAGE AREA.--15,545 mi² (40,262 km²), of which 1,215 mi² (3,147 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 4,543.50 ft (1,384.859 m). Datum of gage is 4,543.50 ft (1,384.859 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1957. Storage began Oct. 17, 1957. Capacity, 789,400 acre-ft (973 hm³) at elevation 4,653.00 ft (1,418.234 m), spillway crest. Dead storage, 11,030 acre-ft (13.6 hm³). Figures given herein represent total contents. Water is used for irrigation in North Platte River basin, and for development of power.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 758,800 acre-ft (936 hm³) May 28, 1973, elevation, 4,650.94 ft (1,417.607 m); minimum daily (since appreciable storage was attained), 15,140 acre-ft (18.7 hm³) Sept. 28, 1966, elevation, 4,548.10 ft (1,386.261 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 496,000 acre-ft (612 hm³) May 13, elevation, 4,633.20 ft (1,412.199 m); minimum daily, 61,300 acre-ft (75.6 hm³) Oct. 1, elevation, 4,569.40 ft (1,392.753 m).

Capacity table (elevation in feet,
and contents, in acre-feet)

4,570	63,100	4,610	274,000
4,580	98,800	4,620	358,000
4,590	144,000	4,630	459,000
4,600	202,000	4,634	505,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61300	154000	215000	269000	333000	400000	472000	493000	446000	428000	263000	132000
2	64400	156000	218000	270000	335000	402000	473000	493000	444000	424000	252000	128000
3	67500	159000	219000	272000	337000	405000	474000	492000	442000	421000	242000	125000
4	70600	161000	220000	274000	339000	407000	475000	492000	439000	418000	231000	122000
5	73600	163000	222000	275000	341000	409000	476000	493000	437000	416000	219000	119000
6	76600	165000	223000	277000	343000	411000	477000	494000	434000	411000	208000	115000
7	79700	167000	224000	279000	345000	414000	478000	493000	432000	406000	197000	112000
8	82800	170000	226000	282000	348000	417000	478000	493000	429000	401000	191000	108000
9	85900	172000	226000	284000	350000	419000	479000	493000	428000	395000	188000	105000
10	89000	174000	227000	286000	352000	422000	481000	494000	429000	387000	186000	102000
11	92100	176000	228000	288000	354000	424000	482000	494000	429000	380000	184000	98200
12	95100	178000	230000	290000	356000	427000	483000	495000	429000	372000	182000	94500
13	98200	179000	232000	292000	359000	429000	485000	496000	429000	364000	179000	91000
14	101000	181000	234000	295000	364000	432000	486000	495000	430000	358000	175000	87900
15	104000	183000	236000	296000	366000	434000	487000	494000	430000	358000	171000	84900
16	108000	185000	238000	299000	369000	436000	488000	492000	431000	359000	167000	82100
17	111000	187000	240000	301000	371000	439000	489000	489000	431000	360000	163000	79200
18	114000	188000	242000	303000	373000	441000	490000	486000	431000	358000	162000	76400
19	117000	190000	245000	305000	376000	443000	491000	484000	432000	351000	160000	73700
20	120000	192000	247000	308000	378000	445000	492000	481000	433000	344000	159000	71300
21	123000	193000	249000	310000	380000	448000	493000	479000	434000	337000	158000	69400
22	127000	195000	251000	312000	383000	450000	494000	477000	435000	329000	158000	67500
23	130000	196000	253000	314000	385000	452000	494000	475000	436000	321000	157000	65600
24	134000	199000	255000	316000	387000	454000	494000	473000	437000	314000	156000	63500
25	137000	202000	257000	318000	390000	456000	494000	471000	437000	306000	155000	62200
26	140000	204000	260000	320000	392000	458000	495000	468000	438000	300000	153000	63500
27	143000	207000	261000	323000	395000	460000	495000	464000	438000	294000	149000	65900
28	145000	209000	264000	325000	397000	463000	494000	460000	436000	289000	145000	68600
29	148000	211000	265000	327000	---	465000	494000	456000	434000	284000	142000	71600
30	150000	213000	267000	329000	---	467000	493000	452000	431000	278000	139000	74600
31	152000	---	268000	331000	---	470000	---	449000	---	272000	135000	---
MAX	152000	213000	268000	331000	397000	470000	495000	496000	446000	428000	263000	132000
MIN	61300	154000	215000	269000	333000	400000	472000	449000	428000	272000	135000	62200
(†)	4,591.50	4,601.60	4,609.25	4,616.90	4,624.05	4,630.95	4,632.97	4,629.05	4,627.40	4,609.75	4,588.22	4,573.50
(‡)	-93,800	+61,000	+55,000	+63,000	+66,000	+73,000	+23,000	-44,000	-18,000	-159,000	-137,000	-60,400

CAL YR 1978 MAX 571000 MIN 51100 †-17,000

WTR YR 1979 MAX 496000 MIN 61300 †+16,400

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet, at end of month.

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY

LOCATION.--Lat 42°27'25", long 104°56'50", in SW¼SW¼NW¼ sec.30, T.29 N., R.67 W., Platte County, Hydrologic Unit 10180008, on right bank 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.--15,548 mi² (40,269 km²), of which 1,215 mi² (3,147 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,488.94 ft (1,368.229 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good except those for October to March, which are fair. Flow completely regulated by Glendo Reservoir since Oct. 17, 1957. (See sta 06652700.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-eight discharge measurements furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s (275 m³/s) June 1, 6, 1973; maximum gage height, 10.97 ft (3.344 m) June 1, 1973; minimum daily discharge, 0.41 ft³/s (0.012 m³/s) Oct. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,380 ft³/s (209 m³/s) Aug. 6, gage height, 9.93 ft (3.027 m); minimum daily, 8.2 ft³/s (0.23 m³/s) Nov. 17-19, Dec. 7, 26, 27, 30, Jan. 1, 9, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	13	9.3	8.2	11	11	13	1230	3230	3530	5920	3890
2	8.4	13	9.3	8.6	11	11	335	1250	3020	3620	7060	3760
3	8.8	14	8.7	9.0	11	10	568	1250	3010	3600	7050	3580
4	9.4	14	9.3	8.8	11	10	598	1220	3030	3600	7050	3520
5	9.7	14	9.1	8.6	11	10	600	1180	2990	4040	7000	3650
6	10	13	8.6	8.4	11	10	616	1070	2960	4390	7100	3770
7	11	10	8.2	8.6	11	10	608	1410	3050	4570	7140	3770
8	11	9.8	8.6	8.4	11	10	607	1340	3070	4670	5860	3750
9	12	9.7	8.9	8.2	11	10	602	986	2490	4870	4440	3740
10	13	9.8	9.2	8.5	11	9.7	605	867	1790	5360	4440	3730
11	13	9.3	9.3	9.0	12	9.7	605	607	1680	5600	4440	3770
12	14	9.2	9.3	8.7	12	9.6	596	673	1650	5590	4440	3740
13	13	8.4	9.7	8.2	12	9.3	597	1070	1570	5580	5030	3650
14	13	8.3	9.7	8.6	12	9.7	594	1310	1520	4710	5410	3340
15	13	8.6	9.3	9.4	12	9.6	598	1700	1520	1730	5420	3180
16	14	8.4	9.0	10	12	9.3	584	2360	1520	992	5450	3080
17	14	8.2	9.3	11	12	9.3	656	2380	1510	994	5090	3070
18	13	8.2	9.3	11	12	9.3	907	2380	1510	2990	4860	3060
19	13	8.2	9.3	11	12	11	751	2360	1370	5070	4700	3040
20	13	8.5	9.3	11	12	19	1040	2360	1310	5050	4380	2740
21	13	8.4	9.3	11	11	15	1100	2360	1390	5240	4110	2410
22	16	8.5	8.9	11	11	16	1100	2430	1390	5540	4100	2400
23	14	8.4	8.4	11	11	17	1110	2580	1390	5520	4100	2440
24	13	8.4	8.4	11	11	19	1180	2830	1390	5380	4100	2410
25	12	9.0	8.4	11	11	19	1240	3310	1430	5200	4100	2140
26	12	9.4	8.2	11	11	19	1250	4040	1560	5050	4090	881
27	13	9.0	8.2	11	11	29	1250	4190	2120	4740	4090	295
28	13	9.0	8.8	11	11	26	1260	4190	2700	4570	4080	212
29	13	8.8	8.6	11	---	13	1240	4190	3040	4740	4070	12
30	13	9.3	8.2	11	---	13	1230	3930	3200	5000	4030	13
31	14	---	8.4	11	---	13	---	3580	---	5090	3980	---
TOTAL	380.7	293.8	276.5	304.2	318	406.5	24040	66633	63410	136626	157130	83043
MEAN	12.3	9.79	8.92	9.81	11.4	13.1	801	2149	2114	4407	5069	2768
MAX	16	14	9.7	11	12	29	1260	4190	3230	5600	7140	3890
MIN	8.4	8.2	8.2	8.2	11	9.3	13	607	1310	992	3980	12
AC-FT	755	583	548	603	631	806	47680	132200	125800	271000	311700	164700
CAL YR 1978	TOTAL	549599.92	MEAN	1506	MAX	7050	MIN	.82	AC-FT	1090000		
WTR YR 1979	TOTAL	532861.70	MEAN	1460	MAX	7140	MIN	8.2	AC-FT	1057000		

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT									
10...	1315	11	710	8.5	15.0	3	11.4	K1	260
NOV									
07...	1200	10	710	8.5	9.5	3	10.9	<1	280
DEC									
05...	1100	9.1	740	8.4	3.0	2	10.2	K1	260
JAN									
05...	1230	8.6	790	7.9	1.5	2	8.8	--	280
30...	1000	11	890	7.9	1.0	1	10.1	<1	310
MAR									
13...	1000	9.3	860	7.7	3.5	1	6.5	<1	280
APR									
13...	1000	595	800	8.3	4.0	2	11.6	K1	250
MAY									
08...	1010	1500	780	8.3	8.0	2	9.3	<1	250
JUN									
08...	1000	3320	770	8.1	10.0	2	7.5	K1	240
JUL									
17...	1030	994	750	8.0	16.0	4	4.5	--	260
AUG									
13...	1330	5360	650	8.4	21.5	4	6.1	<1	210
SEP									
10...	1550	3720	610	8.4	20.0	4	6.2	K1	200

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CAC03)
OCT									
10...	120	71	20	64	1.7	4.8	170	0	140
NOV									
07...	140	70	26	61	1.6	4.6	170	3	140
DEC									
05...	110	67	22	63	1.7	4.1	180	0	150
JAN									
05...	120	69	25	68	1.8	4.4	200	0	160
30...	130	79	27	67	1.7	4.3	220	0	180
MAR									
13...	110	73	23	71	1.9	4.4	210	0	170
APR									
13...	97	63	23	71	1.9	5.6	180	3	150
MAY									
08...	120	63	23	58	1.6	4.0	150	6	130
JUN									
08...	92	61	22	56	1.6	4.5	180	0	150
JUL									
17...	110	68	23	57	1.5	4.4	180	0	150
AUG									
13...	71	54	19	50	1.5	4.2	170	0	140
SEP									
10...	77	53	16	44	1.4	4.3	150	0	120

PLATTE RIVER BASIN

06652800 NORTH PLATTE RIVER BELOW GLENDON RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT									
10...	230	17	.4	6.1	584	.79	17.3	.23	.06
NOV									
07...	230	15	.6	5.0	504	.69	13.6	.18	.04
DEC									
05...	230	17	.6	6.8	501	.68	12.3	.18	.01
JAN									
05...	250	14	.4	8.7	541	.74	12.6	.43	.04
30...	260	16	.6	8.3	574	.78	17.0	.41	.05
MAR									
13...	240	15	.6	8.0	538	.73	13.5	.70	.03
APR									
13...	230	15	.6	3.2	506	.69	813	.32	.03
MAY									
08...	220	19	.6	5.3	480	.65	1940	.61	.03
JUN									
08...	190	19	.6	5.9	449	.61	4020	.00	.05
JUL									
17...	220	15	.5	2.2	478	.65	1280	.09	.05
AUG									
13...	180	6.9	.4	6.1	405	.55	5860	.00	.03
SEP									
10...	150	10	.5	9.5	363	.49	3650	.05	.04

06655500 GUERNSEY RESERVOIR NEAR GUERNSEY, WY

LOCATION.--Lat 42°17'23", long 104°45'48", in NE¼NW¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on gate structure at right end of dam on North Platte River and 1.2 mi (1.9 km) northwest of Guernsey.

DRAINAGE AREA.--16,224 mi² (42,020 km²), of which 1,216 mi² (3,149 km²) is probably noncontributing.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.00 ft (1,331.976 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations of National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1966, nonrecording gages at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in July 1927. Capacity, 45,230 acre-ft (55.8 hm³) at elevation 4,420 ft (1,347.2 m), top of spillway gate. Dead storage is negligible. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in eastern Wyoming and western Nebraska and for development of power.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 73,240 acre-ft (90.3 hm³) Oct. 17, 1929, elevation, 4,420.95 ft (1,347.506 m); minimum daily, 30 acre-ft (0.0370 hm³) Oct. 5, 6, 1958, elevation, 4,361.50 ft (1,329.385 m), and Oct. 18 to Nov. 3, 1969, elevation, 4,367.70 ft (1,331.275 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 36,100 acre-ft (44.5 hm³) June 1, elevation, 4,415.95 ft (1,345.982 m); minimum daily, 553 acre-ft (0.68 hm³) Oct. 15, elevation, 4,375.74 ft (1,333.726 m).

Capacity table (elevation, in feet,
and contents, in acre-feet)

4,378	807	4,395	5,870	4,410	24,100
4,380	1,060	4,400	9,840	4,415	34,000
4,385	2,010	4,405	15,900	4,417	38,400
4,390	3,530				

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17200	2450	4320	5850	7460	9300	11100	32800	36100	34100	3740	31100
2	15300	2510	4360	5870	7520	9360	11200	33200	35800	34100	9670	31500
3	13400	2590	4420	5860	7570	9420	12100	33600	35600	34000	14100	31400
4	11500	2670	4480	5850	7620	9470	13300	34000	35300	33600	18900	31100
5	9540	2740	4550	5900	7680	9520	14400	34300	34900	33300	23100	30700
6	7440	2810	4610	5920	7720	9580	15700	34300	33800	33500	27600	30500
7	5370	2880	4670	5960	7760	9680	16900	34400	32900	33800	32100	30100
8	3470	2960	4710	5950	7820	9750	18100	34600	33600	33800	34800	29800
9	1740	3020	4750	5940	7870	9790	19300	34600	34200	33700	33500	29400
10	1100	3080	4790	5950	7930	9840	20500	34600	34400	33800	32200	29200
11	970	3120	4840	5950	7980	9900	22100	34600	34400	34600	30800	29100
12	852	3200	4890	5970	8050	9980	23200	34300	34300	35000	29400	29100
13	749	3250	4950	5980	8150	10000	24400	34100	34300	35500	28700	29500
14	648	3310	5000	5980	8260	10100	25600	34200	34200	35600	29300	29900
15	553	3370	5060	5980	8350	10100	26900	34000	34000	29600	30000	30000
16	602	3430	5110	5980	8420	10200	28000	34200	34000	21000	31000	30300
17	805	3480	5160	6620	8510	10300	28700	34600	33800	12200	31700	30300
18	938	3530	5210	6680	8580	10400	29400	34900	33800	4600	31800	30300
19	1070	3590	5260	6740	8660	10400	29600	35100	33900	3810	32100	30500
20	1200	3630	5320	6800	8720	10400	29500	35000	33700	2990	32100	30300
21	1340	3690	5360	6860	8780	10500	29700	35000	33900	2150	32100	29200
22	1510	3760	5420	6900	8850	10600	29900	35000	34200	2400	31900	27800
23	1650	3820	5470	6960	8880	10700	30100	34900	34600	2790	30900	26600
24	1780	3890	5510	7010	8960	10700	30300	34900	34900	2990	30100	25700
25	1870	3960	5570	7070	9030	10700	30700	34300	35100	2970	29400	25600
26	1960	4020	5620	7120	9110	10800	31100	33900	35300	2890	29300	24700
27	2050	4080	5680	7180	9170	10900	31400	33800	34900	3030	29200	22300
28	2140	4140	5720	7210	9230	10900	31700	34100	34500	2640	29500	20300
29	2230	4200	5760	7290	---	11000	32100	34800	34600	1820	29800	18600
30	2300	4260	5800	7340	---	11000	32400	35300	34400	1950	30300	16700
31	2380	---	5830	7410	---	11000	---	35700	---	2480	30700	---
MAX	17200	4260	5830	7410	9230	11000	32400	35700	36100	35600	34800	31500
MIN	553	2450	4320	5850	7460	9300	11100	32800	32900	1820	3740	16700

(†) 4,386.40 4,391.80 4,394.92 4,397.26 4,399.37 4,401.13 4,414.20 4,415.79 4,415.15 4,386.78 4,413.39 4,405.50
(‡) -16,620 +1,880 +1,570 +1,580 +1,820 +1,770 +21,400 +3,300 -1,300 -31,920 +28,220 -14,000

CAL YR 1978 MAX 37100 MIN 553 †-8,170
WTR YR 1979 MAX 36100 MIN 553 †-2,300

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet, at end of month.

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY

LOCATION.--Lat 42°16'50", long 104°45'15", in SE4SE4 sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on right bank 1.0 mi (1.6 km) northwest of Guernsey and 1.1 mi (1.8 km) downstream from Guernsey Dam.

DRAINAGE AREA.--16,237 mi² (42,054 km²), of which 1,216 mi² (3,149 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1900 to current year (no winter records prior to 1903). Monthly discharge only for some periods, published in WSP 1310. Published as "near Guernsey" 1900-1901, 1904; as "at Guernsey" 1902-3, 1905-8, March to October 1912; as "at Whalen" 1909; as North Platte River and Interstate Canal at Whalen 1910-11, 1913-16; and as "above Whalen" 1917-27.

REVISED RECORDS.--WSP 1310: 1903-4, 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,340 ft (1,323 m), from topographic map. Prior to Nov. 17, 1908, and Mar. 30 to Oct. 31, 1912, nonrecording gages downstream at several sites within 0.8 mi (1.3 km) at different datums. May 1, 1909, to Dec. 31, 1927, nonrecording gages at different datums on river and diversion canals at Whalen Dam about 9.0 mi (14.5 km) downstream. Jan. 1, 1928, to Sept. 30, 1964, water-stage recorder at present site and datum 1.50 ft (0.457 m) higher.

REMARKS.--Records good except those below 10 ft³/s (0.28 m³/s), which are poor. Flow completely regulated by Guernsey Reservoir since 1927. (See sta 06655500.) Small diversions for irrigation between this station and diversion dam at Whalen. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-four discharge measurements furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 2 or 3, 1908, gage height, 11.5 ft (3.51 m), from floodmark, site and datum then in use, from rating curve extended above 13,000 ft³/s (368 m³/s); no flow Feb. 28, 1927, Nov. 19 to Dec. 8, Dec. 10-12, 14, 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,830 ft³/s (193 m³/s) July 12, gage height, 6.85 ft (2.088 m); minimum daily, 2.1 ft³/s (0.059 m³/s) Dec. 15, 16, 23, 24, 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	7.9	2.4	2.4	2.6	3.3	3.6	1030	3190	3590	4870	3790
2	989	7.9	2.4	2.4	2.6	3.3	4.4	1040	3160	3690	4720	3720
3	976	7.9	2.4	2.4	3.0	3.3	6.8	1030	3130	3710	4700	3730
4	979	7.9	2.4	2.4	3.0	3.6	10	1030	3140	3940	4760	3770
5	1040	6.8	2.6	2.6	3.0	8.5	13	1010	3270	4210	4950	3830
6	1070	6.8	2.6	2.6	3.3	8.5	16	1020	3480	4390	4990	3890
7	1040	7.3	2.4	2.6	3.6	6.8	18	1200	3460	4500	5080	3930
8	986	7.3	2.4	2.4	3.3	6.2	20	1400	2910	4690	5150	3920
9	899	6.2	2.4	2.4	3.3	5.7	22	1030	2400	5010	5160	3900
10	400	6.2	2.4	2.4	3.3	5.2	21	950	1870	5230	5130	3880
11	72	5.7	2.6	2.4	3.6	5.2	12	647	1720	5360	5150	3740
12	60	5.7	2.6	2.4	4.0	5.7	9.8	741	1670	5480	5130	3670
13	54	6.2	2.4	2.4	4.0	5.2	10	1010	1590	5420	5190	3490
14	59	5.2	2.4	2.6	3.6	5.7	9.8	1120	1570	5450	5150	3240
15	55	5.7	2.1	2.6	3.3	5.7	9.8	1590	1570	5430	5130	3110
16	45	4.8	2.1	3.0	3.0	5.7	9.8	2090	1560	5460	5120	2990
17	7.3	4.4	2.4	3.0	3.3	6.2	233	2150	1560	5480	5100	2980
18	7.3	4.8	2.4	2.6	3.3	5.2	541	2190	1570	5460	5060	3000
19	7.3	4.8	2.4	3.0	3.3	4.0	711	2270	1400	5530	4960	2990
20	7.3	4.1	2.4	3.0	3.3	4.8	997	2390	1290	5460	4810	2990
21	8.5	3.0	2.4	3.0	3.0	5.2	1040	2390	1230	5530	4520	3000
22	9.2	2.6	2.4	3.3	3.3	4.8	1050	2410	1200	5540	4650	3030
23	9.2	2.6	2.1	3.3	3.3	4.4	1040	2530	1200	5530	4770	3050
24	8.5	2.6	2.1	3.0	3.3	4.8	1050	2730	1230	5510	4680	2840
25	7.9	2.4	2.4	3.0	3.3	4.8	1060	3290	1240	5380	4480	2420
26	8.5	2.6	2.1	3.0	3.6	4.8	1060	4080	1420	5260	4400	1740
27	8.5	2.4	2.1	2.6	3.3	6.8	1080	4140	2190	4980	4250	1560
28	7.9	2.4	2.4	3.0	3.3	4.0	1040	3990	2740	4870	4040	1310
29	7.9	2.4	2.4	3.0	---	3.3	1030	3810	3010	4960	4010	953
30	8.5	2.4	2.4	3.0	---	3.0	1030	3710	3320	4960	3950	947
31	9.2	---	2.4	2.6	---	3.0	---	3480	---	4910	3880	---
TOTAL	9877.0	149.0	73.4	84.4	92.1	156.7	13158.0	63498	64290	154920	147940	91410
MEAN	319	4.97	2.37	2.72	3.29	5.05	439	2048	2143	4997	4772	3047
MAX	1070	7.9	2.6	3.3	4.0	8.5	1080	4140	3480	5540	5190	3930
MIN	7.3	2.4	2.1	2.4	2.6	3.0	3.6	647	1200	3590	3880	947
AC-FT	19590	296	146	167	183	311	26100	125900	127500	307300	293400	181300
CAL YR 1978 TOTAL	566014.7			1551	MAX 5580	MIN 2.1	AC-FT 1123000					
WTR YR 1979 TOTAL	545648.6			1495	MAX 5540	MIN 2.1	AC-FT 1082000					

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1951 to September 1958, October 1965 to September 1968, May to September 1979 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: April 1947 to June 1953, May to September 1979 (discontinued).

REMARKS.--Water samples were collected by a local observer on a once-daily basis at a bridge on Highway 26.

COOPERATION.--Twenty-six concentration and particle-size analyses furnished by the Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 32°C Aug. 20, 1955; minimum, freezing point on many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 5,720 ppm June 1, 1953; minimum daily, no flow on many days during November and December 1951.

SEDIMENT LOADS: Maximum daily, 52,000 tons (47,000 tonnes) June 1, 1953; minimum daily, 0 tons on many days during November and December 1951.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25°C Aug. 6, 8, 9; minimum, 14.0°C June 8.

SEDIMENT CONCENTRATIONS: Maximum daily, 732 mg/L July 30; minimum, 98 mg/L June 14, 15.

SEDIMENT LOADS: Maximum daily, 9,800 tons (8,900 tonnes) July 30; minimum, 34 tons (31 tonnes) June 14, 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT 25...	1100	7.9	--	--	270	73	66	26	57	1.5	4.8	240
NOV 27...	1505	2.4	--	--	280	95	71	25	38	1.0	.2	220
DEC 19...	1030	2.4	--	--	290	77	73	25	56	1.4	4.9	260
JAN 19...	1140	3.0	--	--	280	17	73	23	60	1.6	5.6	320
FEB 21...	1445	3.0	--	--	290	77	75	24	64	1.6	5.1	260
MAR 14...	1120	5.2	8.0	--	290	85	81	22	55	1.4	4.8	250
APR 27...	1400	1040	13.0	--	280	130	70	25	67	1.7	5.3	180
MAY 25...	1530	3860	15.5	--	260	110	66	23	65	1.8	2.8	180
JUN 21...	1515	1180	17.5	--	260	140	67	22	59	1.6	2.3	130
JUL 13...	1450	5420	21.0	6	--	--	--	--	--	--	--	--
JUL 17...	1215	5520	20.0	--	250	100	65	21	59	1.6	4.1	180
AUG 15...	1540	5100	20.0	--	230	91	62	18	49	1.4	.0	170
SEP 18...	1630	3000	18.0	--	220	89	60	17	41	1.2	3.8	160

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 25...	0	200	180	13	.5	12	484	.66	10.3	.97	--	.03
NOV 27...	3	180	160	13	.5	7.1	430	.58	2.79	.38	--	.02
DEC 19...	0	210	190	13	.7	12	508	.69	3.29	.47	--	.03
JAN 19...	0	260	110	14	.6	.0	448	.61	3.63	.43	--	.02
FEB 21...	0	210	200	14	.5	12	527	.72	4.27	.47	--	.02
MAR 14...	0	200	200	11	.5	13	509	.69	7.15	.34	--	.00
APR 27...	3	150	230	15	.6	6.9	516	.70	1450	.11	--	.02
MAY 25...	0	150	240	13	.5	3.8	503	.68	5240	.16	--	.01
JUN 21...	6	120	240	16	.5	4.4	487	.66	1550	.02	--	.02
JUL 13...	--	--	--	--	--	--	--	--	--	--	--	--
17...	0	150	210	14	.5	2.9	464	.63	6920	.05	--	.03
AUG 15...	0	140	190	13	.5	6.3	420	.57	5780	.00	--	.03
SEP 18...	0	130	160	11	.4	11	384	.52	3110	--	.25	.04

[illegible]

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	17.0	20.0	23.0	20.0
2								---	18.0	20.0	20.5	20.0
3								---	18.0	21.0	23.0	20.0
4								14.5	18.0	20.0	23.0	21.0
5								---	18.0	20.0	24.0	21.0
6								---	17.0	19.0	25.0	20.0
7								---	15.0	19.0	23.0	20.0
8								---	14.0	20.0	25.0	21.0
9								---	15.0	20.0	25.0	20.0
10								---	16.0	21.0	23.0	20.0
11								---	16.0	21.0	22.0	20.0
12								---	18.0	21.0	22.0	18.0
13								---	17.0	21.0	22.0	17.0
14								---	17.0	22.0	21.0	17.0
15								---	18.0	22.0	22.0	17.0
16								---	17.0	22.0	22.0	18.0
17								---	18.0	20.0	22.0	17.0
18								---	18.0	22.0	21.0	19.5
19								---	17.0	22.0	20.0	17.0
20								---	18.0	21.0	20.0	17.0
21								---	18.5	21.0	19.5	17.0
22								---	19.0	22.0	20.0	17.0
23								16.0	19.0	23.0	21.0	17.0
24								19.0	20.0	23.0	20.0	17.0
25								18.0	20.0	23.0	20.0	17.0
26								18.0	20.0	23.0	20.0	17.0
27								18.0	19.0	20.5	21.0	17.0
28								18.0	20.0	22.0	20.0	---
29								18.0	19.0	23.0	20.0	---
30								17.0	19.0	22.0	20.0	---
31								18.0	---	23.0	20.0	---
MEAN								17.5	18.0	21.5	21.5	18.5
MAX								19.0	20.0	23.0	25.0	21.0
MIN								14.5	14.0	19.0	19.5	17.0
WTR YR 1979	MEAN	19.5	MAX	25.0	MIN	14.0						

PLATTE RIVER BASIN

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	1030			7.9			2.4		
2	989			7.9			2.4		
3	976			7.9			2.4		
4	979			7.9			2.4		
5	1040			6.8			2.6		
6	1070			6.8			2.6		
7	1040			7.3			2.4		
8	986			7.3			2.4		
9	899			6.2			2.4		
10	400			6.2			2.4		
11	72			5.7			2.6		
12	60			5.7			2.6		
13	54			6.2			2.4		
14	59			5.2			2.4		
15	55			5.7			2.1		
16	45			4.8			2.1		
17	7.3			4.4			2.4		
18	7.3			4.8			2.4		
19	7.3			4.8			2.4		
20	7.3			4.1			2.4		
21	8.5			3.0			2.4		
22	9.2			2.6			2.4		
23	9.2			2.6			2.1		
24	8.5			2.6			2.1		
25	7.9			2.4			2.4		
26	8.5			2.6			2.1		
27	8.5			2.4			2.1		
28	7.9			2.4			2.4		
29	7.9			2.4			2.4		
30	8.5			2.4			2.4		
31	9.2			---			2.4		
TOTAL	9877.0			149.0			73.4		
JANUARY			FEBRUARY			MARCH			
1	2.4			2.6			3.3		
2	2.4			2.6			3.3		
3	2.4			3.0			3.3		
4	2.4			3.0			3.6		
5	2.6			3.0			8.5		
6	2.6			3.3			8.5		
7	2.6			3.6			6.8		
8	2.4			3.3			6.2		
9	2.4			3.3			5.7		
10	2.4			3.3			5.2		
11	2.4			3.6			5.2		
12	2.4			4.0			5.7		
13	2.4			4.0			5.2		
14	2.6			3.6			5.7		
15	2.6			3.3			5.7		
16	3.0			3.0			5.7		
17	3.0			3.3			6.2		
18	2.6			3.3			5.2		
19	3.0			3.3			4.0		
20	3.0			3.3			4.8		
21	3.0			3.0			5.2		
22	3.3			3.3			4.8		
23	3.3			3.3			4.4		
24	3.0			3.3			4.8		
25	3.0			3.3			4.8		
26	3.0			3.6			4.8		
27	2.6			3.3			6.8		
28	3.0			3.3			4.0		
29	3.0			---			3.3		
30	3.0			---			3.0		
31	2.6			---			3.0		
TOTAL	84.4			92.1			156.7		

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	3.6			1030	---	---	3190	51	439
2	4.4			1040	---	---	3160	41	350
3	6.8			1030	---	---	3130	32	270
4	10			1030	32	89	3140	32	271
5	13			1010	30	82	3270	40	353
6	16			1020	30	83	3480	39	366
7	18			1200	58	188	3460	35	327
8	20			1400	51	193	2910	23	181
9	22			1030	30	83	2400	16	104
10	21			950	25	64	1870	15	76
11	12			647	25	44	1720	13	60
12	9.8			741	24	48	1670	13	59
13	10			1010	21	57	1590	13	56
14	9.8			1120	20	60	1570	8	34
15	9.8			1590	66	308	1570	8	34
16	9.8			2090	113	638	1560	14	59
17	233			2150	120	697	1560	12	51
18	541			2190	111	656	1570	16	68
19	711			2270	95	582	1400	14	53
20	997			2390	70	452	1290	14	49
21	1040			2390	72	465	1230	16	53
22	1050			2410	58	377	1200	14	45
23	1040			2530	51	348	1200	14	45
24	1050			2730	56	413	1230	13	43
25	1060			3290	162	1440	1240	11	37
26	1060			4080	263	2900	1420	15	58
27	1080			4140	268	3000	2190	37	260
28	1040			3990	224	2410	2740	35	259
29	1030			3810	118	1210	3010	27	219
30	1030			3710	90	902	3320	48	430
31	---			3480	61	573	---	---	---
TOTAL	13158.0			63498	---	18362	64290	---	4709
JULY			AUGUST			SEPTEMBER			
1	3590	61	591	4870	267	3510	3790	12	123
2	3690	69	687	4720	106	1350	3720	14	141
3	3710	69	691	4700	40	508	3730	16	161
4	3940	68	723	4760	26	334	3770	17	173
5	4210	58	659	4950	22	294	3830	15	155
6	4390	59	699	4990	22	296	3890	15	158
7	4500	50	607	5080	22	302	3930	13	138
8	4690	71	899	5150	22	306	3920	12	127
9	5010	85	1150	5160	23	320	3900	19	200
10	5230	91	1290	5130	23	319	3880	20	210
11	5360	97	1400	5150	23	320	3740	20	202
12	5480	243	3600	5130	24	332	3670	19	188
13	5420	100	1460	5190	24	336	3490	15	141
14	5450	68	1000	5150	24	334	3240	13	114
15	5430	62	909	5130	25	346	3110	14	118
16	5460	58	855	5120	23	318	2990	13	105
17	5480	44	651	5100	21	289	2980	16	129
18	5460	66	973	5060	22	301	3000	19	154
19	5530	174	2600	4960	21	281	2990	20	161
20	5460	280	4130	4810	20	260	2990	15	121
21	5530	342	5110	4520	19	232	3000	12	97
22	5540	496	7420	4650	16	201	3030	15	123
23	5530	350	5230	4770	15	193	3050	17	140
24	5510	236	3510	4680	14	177	2840	17	130
25	5380	196	2850	4480	15	181	2420	19	124
26	5260	202	2870	4400	17	202	1740	20	94
27	4980	228	3070	4250	16	184	1560	20	84
28	4870	239	3140	4040	13	142	1310	20	71
29	4960	399	5340	4010	14	152	953	20	51
30	4960	732	9800	3950	14	149	947	20	51
31	4910	472	6260	3880	13	136	---	---	---
TOTAL	154920	---	80174	147940	---	12605	91410	---	3984
YEAR	545648.6		119834						

06657500 LARAMIE RIVER NEAR GLENDEVEY, CO

LOCATION.--Lat 40°48'02", long 105°52'40", in NW¼NW¼ sec.36, T.10 N., R.76 W., Larimer County, Hydrologic Unit 10180010, on left bank 200 ft (61 m) downstream from bridge on county road, 350 ft (110 m) downstream from Nunn Creek, 1,300 ft (400 m) upstream from Stub Creek, and 3.0 mi (4.8 km) east of Glendevy.

DRAINAGE AREA.--101 mi² (262 km²).

PERIOD OF RECORD.--June 1904 to October 1905, August 1910 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Glendevy" 1905, 1910-18.

REVISED RECORDS.--WSP 469: 1911-12. WSP 506: Drainage area. WSP 1310: 1905, 1914. WSP 1918: 1918 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (2,509 m), from topographic map. See WSP 1730 for history of changes prior to Sept. 20, 1935.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 700 acres (2.83 km²) of hay meadows above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

AVERAGE DISCHARGE.--70 years, 73.2 ft³/s (2.073 m³/s), 53,030 acre-ft/yr (65.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,240 ft³/s (63.4 m³/s) June 9, 1923, gage height, 4.55 ft (1.387 m), site and datum then in use, from floodmarks, from rating curve extended above 1,400 ft³/s (40 m³/s); minimum daily recorded, 5.0 ft³/s (0.14 m³/s) Feb. 14, 15, 1911, but may have been less during winter periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 950 ft³/s (26.9 m³/s) June 7, gage height, 3.50 ft (1.067 m); minimum daily, 13 ft³/s (0.37 m³/s) Feb. 23 to Mar. 5, Mar. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	19	15	14	14	13	15	48	365	368	30	16
2	23	19	15	14	14	13	15	49	339	300	29	16
3	23	19	15	14	14	14	15	45	380	282	28	16
4	22	19	15	14	14	13	15	43	440	227	27	15
5	22	18	15	14	14	13	15	57	508	198	27	15
6	22	16	14	14	14	14	15	73	626	172	26	15
7	22	16	14	14	14	14	17	73	880	133	27	15
8	22	18	14	14	14	14	18	60	620	110	28	15
9	21	17	14	14	14	14	19	53	466	87	25	15
10	21	16	14	14	14	14	20	48	406	68	28	15
11	20	16	15	14	14	14	19	44	410	59	23	15
12	20	16	15	14	14	14	18	47	448	54	22	15
13	19	16	15	14	14	14	17	54	570	48	22	18
14	19	14	15	14	15	14	18	63	695	45	33	45
15	19	14	15	14	14	14	21	73	774	42	29	44
16	19	14	15	14	14	14	27	98	692	40	42	40
17	19	14	15	14	14	14	33	127	616	44	35	37
18	20	14	16	14	14	13	39	157	566	46	30	35
19	20	15	16	14	14	14	47	204	496	42	36	34
20	19	15	16	14	14	16	46	244	387	34	33	34
21	20	16	16	14	14	14	46	266	386	33	31	42
22	26	16	16	14	14	14	47	273	409	40	26	36
23	23	16	16	14	13	14	53	305	437	39	23	34
24	24	16	16	14	13	14	64	369	466	39	22	33
25	24	16	16	14	13	15	60	433	458	35	21	32
26	22	15	15	14	13	15	46	467	468	32	20	33
27	23	15	16	14	13	14	48	529	472	32	20	41
28	22	15	16	14	13	15	49	685	469	37	19	34
29	21	15	15	14	---	15	46	818	431	35	18	32
30	20	15	15	14	---	15	48	641	352	32	18	31
31	19	---	14	14	---	15	---	452	---	31	19	---
TOTAL	660	480	469	434	387	437	956	6898	15032	2784	817	818
MEAN	21.3	16.0	15.1	14.0	13.8	14.1	31.9	223	501	89.8	26.4	27.3
MAX	26	19	16	14	15	16	64	818	880	368	42	45
MIN	19	14	14	14	13	13	15	43	339	31	18	15
AC-FT	1310	952	930	861	768	867	1900	13680	29820	5520	1620	1620
CAL YR 1978	TOTAL	28825	MEAN 79.0	MAX 786	MIN 12	AC-FT	57170					
WTR YR 1979	TOTAL	30172	MEAN 82.7	MAX 880	MIN 13	AC-FT	59850					

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY

LOCATION.--River: Lat 41°08'17", long 105°58'49", in NW&SE& sec.36, T.14 N., R.77 W., Albany County, Hydrologic Unit 10180010, on left bank 100 ft (30 m) upstream from diversion dam for Pioneer Canal, 2.2 mi (3.5 km) downstream from Fox Creek, 2.5 mi (4.0 km) northeast of Woods, and 23 mi (37 km) southwest of Laramie.

Canal: Lat 41°08'21", long 105°58'45", in SE&NE& sec.36, T.14 N., R.77 W., Albany County, on left bank 400 ft (122 m) downstream from headgate.

DRAINAGE AREA.--434 mi² (1,124 km²). Drainage area at mouth, 4,565 mi² (11,823 km²).

PERIOD OF RECORD.--April 1912 to September 1924, October 1926 to September 1927, October 1931 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1918-20, 1922, 1924. WSP 1710: Drainage area.

GAGE.--River: Water-stage recorder and concrete control. Datum of gage is 7,388.99 ft (2,252.164 m), National Geodetic Vertical Datum of 1929. Apr. 16 to Nov. 15, 1912, nonrecording gage and Nov. 16, 1912, to Sept. 22, 1915, water-stage recorder 90 ft (27 m) downstream between dam crest and canal headgates at datum 1.00 ft (0.305 m) higher. Sept. 23, 1915, to Sept. 30, 1924, Apr. 19 to Sept. 30, 1927, and Apr. 11, 1932, to Sept. 30, 1935, water-stage recorder at site 50 ft (15 m) downstream at datum 1.00 ft (0.305 m) higher. Oct. 1, 1935, to July 13, 1950, water-stage recorder at site 50 ft (15 m) downstream at present datum.

Canal: Water-stage recorder and Parshall flume. Altitude of gage is 7,390 ft (2,250 m), from topographic map. Apr. 16, 1912, to Apr. 10, 1923, nonrecording gage; Apr. 11, 1923, to Sept. 30, 1924, and Apr. 19 to June 9, 1927, water-stage recorder; June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938, nonrecording gage; May 9, 1938, to Apr. 26, 1966, water-stage recorder at site 1.5 mi (2.4 km) downstream at different datums. Apr. 27, 1966, to May 8, 1967, at present site, at datum 0.06 ft (0.018 m) lower.

REMARKS.--Records good. Pioneer Canal diverts from left bank of river at diversion dam 100 ft (30 m) downstream for irrigation in vicinity of Laramie. Records show combined flow of river and canal. Three small reservoirs above station in Wyoming, total capacity, about 600 acre-ft (0.740 hm³) for irrigation, stock water, and domestic use. Diversions for irrigation of about 5,200 acres (21.0 km²) above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD (combined flow river and canal).--Maximum discharge, 5,060 ft³/s (143 m³/s) June 10, 1923 (river discharge by computation of peak flow over dam); minimum daily (1950-72), 10 ft³/s (0.28 m³/s) Aug. 30, Sept. 2-5, 1954.

EXTREMES FOR CURRENT YEAR (combined flow river and canal).--Maximum discharge, 2,220 ft³/s (62.9 m³/s) May 30; minimum daily during period of operation, 33 ft³/s (0.93 m³/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							67	226	1140	751	84	51
2							62	227	1010	652	85	45
3							57	207	1010	601	81	43
4							51	186	1060	507	75	40
5							49	215	1110	435	70	36
6							50	293	1250	350	65	43
7							66	334	1590	305	64	44
8							85	289	1830	251	65	34
9							115	248	1440	214	74	34
10							138	217	1210	187	135	33
11							120	201	1130	167	108	35
12							98	195	1100	154	87	35
13							88	203	1220	144	78	37
14							96	239	1340	132	81	38
15							124	293	1490	123	101	58
16							181	373	1550	120	150	61
17							205	495	1400	129	137	56
18							240	626	1280	127	116	53
19							252	835	1220	204	125	51
20							224	1000	1060	138	151	52
21							216	1050	974	114	134	56
22							211	1070	954	117	111	62
23							221	1090	952	132	84	56
24							256	1180	937	152	76	55
25							264	1360	931	134	73	51
26							234	1470	927	107	69	53
27							216	1480	919	101	60	58
28							221	1560	904	101	56	64
29							203	1890	875	95	50	56
30							212	1890	772	85	47	53
31							---	1460	---	79	50	---
TOTAL							4622	22402	34585	6908	2742	1443
MEAN							154	723	1153	223	88.5	48.1
MAX							264	1890	1830	751	151	64
MIN							49	186	772	79	47	33
AC-FT							9170	44430	68600	13700	5440	2860

06659580 SAND CREEK AT COLORADO-WYOMING STATE LINE

LOCATION.--Lat 40°59'37", long 105°45'35", in NW¼NW¼SW¼ sec.24, T.12 N., R.75 W., Larimer County, CO, Hydrologic Unit 10180010, on right bank 1,200 ft (370 m) south of Colorado-Wyoming State line and 17 mi (27 km) southwest of Tie Siding, WY.

DRAINAGE AREA.--29.2 mi² (75.6 km²).

PERIOD OF RECORD.--October 1968 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Altitude of gage is 7,580 ft (2,310 m), from topographic map. Prior to July 19, 1977, gage at site 700 ft (210 m) upstream at different datum.

REMARKS.--Records good. Natural flow affected by diversion above station to Cache la Poudre River basin through Wilson Supply ditch (see sta 06750500). Water imported above station from Deadman Creek in Laramie River basin is rediverted through Wilson Supply ditch but is wasted down Sand Creek at times. Diversions for irrigation of about 170 acres (69 hm²) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,710 ft³/s (190 m³/s) July 19, 1977, from slope-area measurement of peak flow, gage height, 6.65 ft (2.027 m), from floodmarks, present site and datum; minimum daily during period of operation, 0.13 ft³/s (0.004 m³/s) July 26-28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 249 ft³/s (7.05 m³/s) June 7, gage height, 2.19 ft (0.668 m); minimum daily during period of operation, 0.56 ft³/s (0.016 m³/s) Sept. 9-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							2.2	17	72	12	1.5	1.5
2							2.5	19	60	11	1.4	1.4
3							2.5	15	66	9.1	1.3	1.3
4							3.2	14	84	8.8	1.2	1.1
5							2.3	21	92	8.8	1.0	.77
6							2.7	32	116	7.8	.85	.77
7							4.1	33	181	7.6	.77	.70
8							5.1	28	112	6.6	1.0	.63
9							5.6	24	90	6.1	1.5	.56
10							5.6	21	73	4.9	7.6	.56
11							4.9	18	90	4.1	4.6	.56
12							4.6	18	88	3.7	3.2	.56
13							5.1	21	88	4.1	2.5	.63
14							3.9	26	92	4.6	2.2	.85
15							7.1	26	60	4.4	2.8	1.0
16							11	34	60	4.4	4.4	1.1
17							16	39	70	4.4	5.1	1.1
18							21	49	65	4.9	4.9	1.0
19							20	56	58	5.1	6.3	.93
20							17	60	52	5.1	5.1	.85
21							14	64	45	4.9	4.6	.85
22							14	68	38	4.6	3.7	.85
23							15	59	33	4.6	3.4	.85
24							18	58	32	4.9	3.0	.93
25							18	58	28	4.4	2.7	.93
26							15	65	23	3.4	2.3	.93
27							16	116	20	3.0	2.2	.93
28							16	130	18	2.7	2.0	.93
29							14	148	16	2.7	1.7	.93
30							16	123	14	2.2	1.5	.93
31							---	88	---	1.8	1.5	---
TOTAL							302.4	1548	1936	166.7	87.82	26.93
MEAN							10.1	49.9	64.5	5.38	2.83	.90
MAX							21	148	181	12	7.6	1.5
MIN							2.2	14	14	1.8	.77	.56
AC-FT							600	3070	3840	331	174	53

PLATTE RIVER BASIN

06660100 LARAMIE RIVER AT HOWELL, WY

LOCATION.--Lat 41°24'50", long 105°36'56", in NE&SE&SE& sec.30, T.17 N., R.73 W., Albany County, Hydrologic Unit 10180010, 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.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	CULI- FORM, FECAL, 0.7 UM-MF (CULS./ 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT										
23...	1520	28	950	8.3	7.0	8	10.3	124	390	230
NOV										
20...	1545	40	600	8.4	.5	6	12.8	K12	240	120
DEC										
16...	1630	20	650	7.7	.0	5	10.3	140	250	150
JAN										
15...	1500	E30	530	7.3	.0	3	8.0	K1400	210	83
FEB										
19...	1400	E40	550	7.5	.5	4	7.6	K160	220	89
MAR										
27...	1415	E45	680	7.9	.5	10	10.4	<1	260	140
APR										
24...	1445	161	390	8.3	10.0	7	10.0	K4	140	61
MAY										
29...	1240	E600	575	7.6	14.0	10	6.7	180	140	73
JUN										
19...	1400	E600	450	7.8	12.0	7	7.8	K52	180	86
JUL										
30...	1500	31	1030	8.8	22.0	4	12.2	K10	380	230
AUG										
20...	1330	E60	950	8.1	15.5	15	7.4	170	370	250
SEP										
17...	1500	14	2000	8.4	17.0	6	12.0	220	790	590

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM+ AD- SORP- TION RATIO	POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT										
23...	84	43	63	1.4	--	5.3	190	0	160	310
NOV										
20...	56	25	35	1.0	--	3.4	150	0	120	180
DEC										
16...	60	25	29	.8	--	3.7	130	0	110	170
JAN										
15...	53	20	24	.7	--	3.1	160	0	130	120
FEB										
19...	57	19	25	.7	--	3.1	160	0	130	130
MAR										
27...	57	28	42	1.1	--	2.9	140	0	110	210
APR										
24...	35	13	16	.6	--	2.6	97	0	80	94
MAY										
29...	36	11	18	.7	21	3.2	82	0	67	100
JUN										
19...	46	17	26	.8	28	2.4	120	0	98	140
JUL										
30...	79	45	73	1.6	77	4.4	180	3	150	380
AUG										
20...	80	42	75	1.7	79	3.7	150	0	120	360
SEP										
17...	160	94	170	2.6	180	7.8	--	--	200	920

06660100 LARAMIE RIVER AT HOWELL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 23...	29	.5	11	641	.87	48.5	.42	.91	--	--
NOV 20...	15	.3	12	402	.55	43.4	.27	.58	--	--
DEC 16...	19	.4	14	386	.53	20.8	.28	.87	--	--
JAN 15...	19	.3	14	333	.45	27.0	.16	.74	--	--
FEB 19...	14	.3	12	340	.46	36.7	.14	.77	--	--
MAR 27...	18	.3	10	438	.60	53.2	.13	.47	--	--
APR 24...	6.4	.2	10	226	.31	98.2	.11	.21	.64	.64
MAY 29...	5.8	.4	11	226	.31	366	.04	.11	.34	.34
JUN 19...	6.2	.3	11	308	.42	499	.06	.07	.21	.21
JUL 30...	20	.6	4.4	699	.95	58.5	.19	.71	--	2.2
AUG 20...	20	.4	9.9	666	.91	108	.20	.01	--	.03
SEP 17...	55	.8	7.5	1540	2.09	58.2	.58	1.1	--	3.4

PLATTE RIVER BASIN

06660500 LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼NE¼SW¼ sec.5, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, 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.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT								
23...	1430	28	1250	8.6	6.0	520	350	120
NOV								
20...	1450	40	750	8.6	.5	320	170	75
DEC								
16...	1550	20	670	7.9	.0	270	130	66
JAN								
15...	1245	E30	600	7.3	.0	230	82	60
FEB								
19...	1300	E40	610	7.4	.0	230	91	58
MAR								
27...	1300	E45	560	8.0	.5	210	100	53
APR								
24...	1350	161	430	8.5	10.0	170	80	44
MAY								
29...	1145	E600	385	7.6	15.0	130	73	33
JUN								
19...	1300	E600	465	7.7	12.5	170	80	44
JUL								
30...	1400	31	1030	8.6	22.0	420	250	100
AUG								
20...	1210	E60	910	8.3	14.5	330	230	68
SEP								
17...	1350	14	1800	9.3	16.5	740	560	150

E-Estimate.

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
23...	53	97	1.9	4.7	210	0	170	500	41
NOV									
20...	32	55	1.3	3.4	180	0	150	270	20
DEC									
16...	26	35	.9	3.0	170	0	140	180	19
JAN									
15...	21	29	.8	3.0	180	0	150	110	16
FEB									
19...	21	31	.9	3.1	170	0	140	140	13
MAR									
27...	18	29	.9	2.2	130	0	110	140	12
APR									
24...	14	23	.8	2.5	110	0	90	110	8.8
MAY									
29...	12	18	.7	2.8	70	0	57	100	6.4
JUN									
19...	15	26	.9	1.8	110	0	90	130	4.4
JUL									
30...	40	66	1.4	3.1	200	3	170	360	22
AUG									
20...	38	64	1.5	3.8	120	0	98	330	18
SEP									
17...	89	160	2.6	6.0	200	12	180	770	57

06660500 LARAMIE RIVER AT TWO RIVERS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	.7	1.6	923	1.26	69.8	.77	--	1.2
NOV 20...	.7	5.2	551	.75	59.5	.41	--	.73
DEC 16...	.7	10	426	.58	23.0	.36	--	.84
JAN 15...	.5	11	339	.46	--	.20	--	.16
FEB 19...	.5	11	362	.49	39.1	.14	--	.73
MAR 27...	.5	6.9	319	.43	--	.11	--	.34
APR 24...	.4	8.4	266	.36	116	.16	--	.20
MAY 29...	.4	10	217	.30	352	.00	--	.14
JUN 19...	.4	11	287	.39	465	.02	--	.07
JUL 30...	.7	2.2	696	.95	58.3	.02	--	.24
AUG 20...	.5	6.7	590	.80	95.6	.16	--	.44
SEP 17...	.9	.3	1400	1.90	52.9	--	.00	.57

06661000 LITTLE LARAMIE RIVER NEAR FILMORE, WY

LOCATION.--Lat 41°17'42", long 106°02'03", in SE&NE&SE& sec.4, T.15 N., R.77 W., Albany County, Hydrologic Unit 10180010, on right bank 40 ft (12 m) downstream from State Highway 130, 1.2 mi (1.9 km) west of Filmore, and 4.4 mi (7.1 km) downstream from North Fork.

DRAINAGE AREA.--157 mi² (407 km²). Area at site used prior to Sept. 8, 1976, 156 mi² (404 km²).

PERIOD OF RECORD.--July 1902 to September 1903 (published as "near Hatton"), May 1911 to November 1926, October 1932 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1903, 1914, 1922-26. WSP 1440: 1902. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,610 ft (2,320 m), from topographic map. Prior to Sept. 16, 1938, nonrecording gages, and Sept. 16, 1938 to Sept. 7, 1976, water-stage recorder, at sites 0.7 mi (1.1 km) upstream at different datums.

REMARKS.--Records good except those for periods of no gage-height record Apr. 1-9, 12-14, May 25 to June 11, July 29-30, which are poor. Ten small reservoirs above station, combined capacity, about 160 acre-ft (0.20 hm³), for irrigation, stock water, recreation, and domestic use. Diversions above station for irrigation of about 11,020 acres (44.6 km²), of which about 20 acres (8.1 hm²) are below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years (water years 1903, 1912-26, 1933-71), 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,450 ft³/s (97.7 m³/s) June 10, 1965, gage height, 5.33 ft (1.625 m), site and datum then in use; minimum daily determined, 1.0 ft³/s (0.028 m³/s) Sept. 17-20, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,480 ft³/s (41.9 m³/s) June 15, gage height, 4.21 ft (1.283 m); minimum daily during period of operation, 24 ft³/s (0.68 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							30	104	590	644	82	46
2							32	124	530	570	78	42
3							34	110	535	510	74	42
4							38	114	617	486	67	41
5							40	120	736	436	61	38
6							44	124	1010	368	60	38
7							55	124	1290	349	61	35
8							61	118	1150	326	67	35
9							93	116	936	304	81	33
10							118	98	683	284	126	35
11							68	106	639	252	81	39
12							61	108	678	230	67	38
13							57	104	887	221	67	39
14							70	97	1120	203	79	41
15							91	112	1360	189	108	40
16							122	133	1280	178	146	37
17							149	163	1140	191	100	34
18							154	203	1000	178	116	32
19							146	243	820	176	149	31
20							110	281	661	166	114	31
21							98	277	639	168	97	37
22							97	318	683	156	86	34
23							95	368	683	144	76	29
24							100	427	724	156	70	28
25							102	520	730	131	67	29
26							86	612	666	118	64	29
27							88	661	650	110	62	32
28							95	754	672	112	55	31
29							93	929	644	106	50	26
30							98	844	628	89	49	24
31							---	706	---	86	53	---
TOTAL							2525	9118	24381	7637	2513	1046
MEAN							84.2	294	813	246	81.1	34.9
MAX							154	929	1360	644	149	46
MIN							30	97	530	86	49	24
AC-FT							5010	18090	48360	15150	4980	2070

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'07", long 105°43'56", in SE¼SE¼SE¼ sec.6, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, 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.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT								
23...	1300	28	410	8.0	4.0	160	29	40
NOV								
20...	1315	26	500	7.9	.5	210	54	55
DEC								
16...	1415	2.2	570	7.5	.0	230	58	62
JAN								
15...	1145	3.4	470	7.4	.0	180	24	46
FEB								
19...	1200	2.0	680	7.3	.0	250	86	62
MAR								
27...	1200	39	520	7.5	.5	190	59	48
APR								
24...	1220	76	520	7.9	8.5	200	61	52
MAY								
29...	1115	200	600	7.6	13.0	210	79	46
JUN								
19...	1230	E500	400	7.7	12.0	150	2	37
JUL								
30...	1230	31	330	8.3	20.5	120	5	32
AUG								
20...	1130	100	340	8.1	14.5	130	15	34
SEP								
17...	1220	8.3	375	8.4	14.0	150	2	38

E-Estimate.

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
23...	15	24	.8	3.1	160	0	130	89	2.6
NOV									
20...	18	39	1.2	2.1	190	0	160	122	14
DEC									
16...	19	36	1.0	2.2	210	0	170	110	16
JAN									
15...	15	25	.8	2.6	190	0	160	51	15
FEB									
19...	23	44	1.2	5.3	200	0	160	160	19
MAR									
27...	16	33	1.1	2.6	160	0	130	110	12
APR									
24...	16	35	1.1	3.0	170	0	140	110	7.3
MAY									
29...	22	36	1.1	3.3	160	0	130	140	7.1
JUN									
19...	15	24	.8	1.5	180	0	150	61	2.9
JUL									
30...	11	20	.8	1.4	140	0	120	45	4.3
AUG									
20...	12	17	.6	1.8	140	0	120	49	2.6
SEP									
17...	14	23	.8	2.3	180	0	150	49	3.4

PLATTE RIVER BASIN

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	.4	1.0	252	.34	19.1	.02	--	.08
NOV 20...	.5	2.5	346	.47	24.3	.05	--	.07
DEC 16...	.5	7.6	355	.48	2.11	.29	--	.04
JAN 15...	.4	.7	249	.34	2.29	.07	--	.05
FEB 19...	.5	11	424	.58	2.29	.14	--	.14
MAR 27...	.5	6.7	303	.41	31.9	.07	--	.02
APR 24...	.5	6.5	315	.43	64.6	.05	--	.05
MAY 29...	.7	12	343	.47	185	.02	--	.10
JUN 19...	.5	10	239	.33	323	.05	--	.04
JUL 30...	.3	2.8	186	.25	15.6	.09	--	.06
AUG 20...	.3	8.0	194	.26	52.4	.00	--	.03
SEP 17...	.4	4.2	223	.30	5.00	--	.00	.01

06661585 LARAMIE RIVER NEAR BOSLER, WY

LOCATION.--Lat 41°33'17", long 105°40'58", in NW¼NW¼NE¼ sec.10, T.18 N., R.74 W., Albany County, Hydrologic Unit 10180010, on left bank 50 ft (15 m) upstream from bridge on U.S. Highways 30 and 287, 0.2 mi (0.3 km) northwest of Bosler Junction, 1.7 mi (2.7 km) south of Bosler, and 2.0 mi (3.2 km) downstream from Soil Bank Boughton Canal diversion dam.

DRAINAGE AREA.--1,790 mi² (4,636 km²), of which 283 mi² (733 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,030 ft (2,140 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record Oct. 1-10, Dec. 29 to Mar. 8, Apr. 2-6, 7-9, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion above station for irrigation of about 54,700 acres (221 km²), of which about 2,300 acres (9.31 km²) are below station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 152 ft³/s (4.305 m³/s), 110,100 acre-ft/yr (136 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft³/s (51.5 m³/s) June 12, 1979, gage height, 6.83 ft (2.082 m); maximum gage height, 8.40 ft (2.560 m) Apr. 22, 1973 (backwater from ice jam); minimum daily discharge, 0.86 ft³/s (0.024 m³/s) Sept. 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,820 ft³/s (51.5 m³/s) June 12, gage height, 6.83 ft (2.082 m); minimum daily, 8.4 ft³/s (0.24 m³/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	44	26	27	30	72	200	79	1340	379	59	66
2	14	43	29	27	30	74	156	48	1440	370	61	55
3	13	50	29	28	32	79	148	44	1480	373	52	47
4	13	55	26	29	32	84	140	50	1290	382	42	41
5	13	55	27	30	33	88	160	44	1050	367	37	36
6	13	55	27	30	33	89	175	35	897	351	33	32
7	13	56	26	32	35	91	180	30	873	304	29	29
8	12	55	26	34	36	115	190	34	985	261	30	26
9	12	54	27	35	37	120	198	41	1320	221	34	20
10	12	56	25	35	37	128	217	46	1700	188	56	13
11	12	61	25	36	39	135	241	47	1780	163	73	17
12	12	43	29	36	40	136	198	44	1780	145	84	28
13	12	43	29	38	44	130	228	35	1500	124	64	21
14	12	42	28	38	45	138	224	30	1140	112	66	21
15	12	42	28	36	47	160	206	29	905	98	61	21
16	12	41	25	36	47	175	203	28	857	86	71	21
17	11	41	29	35	49	165	212	26	945	78	95	21
18	8.4	40	30	35	52	165	230	25	1100	79	110	19
19	15	40	31	39	56	150	245	26	1180	71	136	15
20	14	45	31	39	58	125	245	36	1100	88	170	14
21	17	46	30	42	60	145	231	56	941	102	179	16
22	24	46	30	38	60	141	206	134	761	115	165	21
23	39	43	31	38	59	129	213	308	605	129	154	20
24	44	40	31	36	59	117	208	385	521	131	141	19
25	48	36	29	36	61	117	206	418	481	143	138	17
26	56	32	29	35	62	124	208	493	433	129	129	15
27	61	30	30	36	69	150	197	713	400	117	110	15
28	62	30	30	38	69	180	132	877	379	107	96	16
29	59	31	27	32	---	204	103	937	397	83	91	16
30	55	29	26	32	---	204	98	1010	394	76	81	16
31	50	---	26	31	---	215	---	1180	---	66	71	---
TOTAL	764.4	1324	872	1069	1311	4145	5798	7288	29974	5438	2718	734
MEAN	24.7	44.1	28.1	34.5	46.8	134	193	235	999	175	87.7	24.5
MAX	62	61	31	42	69	215	245	1180	1780	382	179	66
MIN	8.4	29	25	27	30	72	98	25	379	66	29	13
AC-FT	1520	2630	1730	2120	2600	8220	11500	14460	59450	10790	5390	1460
CAL YR 1978	TOTAL	58053.1	MEAN 159	MAX 1560	MIN 2.2	AC-FT 115100						
WTR YR 1979	TOTAL	61435.4	MEAN 168	MAX 1780	MIN 8.4	AC-FT 121900						

PLATTE RIVER BASIN

06662000 LARAMIE RIVER NEAR LOOKOUT, WY

LOCATION.--Lat 41°45'44", long 105°41'16", in NE¼NW¼SE¼ sec.27, T.21 N., R.74 W., Albany County, Hydrologic Unit 10180010, on right bank 155 ft (47 m) downstream from bridge on county road, 1.0 mi (1.6 km) upstream from Wheatland Reservoir No. 2, and 9.0 mi (14.5 km) northeast of Lookout.

DRAINAGE AREA.--2,174 mi² (5,631 km²), of which 603 mi² (1,562 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to December 1917, January 1921 to December 1927, April 1932 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1913-17. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,962.68 ft (2,122.225 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1915, nonrecording gage and Apr. 22, 1915, to Aug. 31, 1917, water-stage recorder, at bridge 155 ft (47 m) upstream at same datum. Oct. 14, 1931, to Sept. 17, 1938, at site 125 ft (38 m) upstream at same datum.

REMARKS.--Records good. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 108,000 acres (437 km²) above station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1913-17, 1922-27, 1933-72), 131 ft³/s (3.710 m³/s), 94,910 acre-ft/yr (117 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft³/s (94.6 m³/s) June 17, 1957, gage height, 6.41 ft (1.954 m); maximum gage height, about 8.0 ft (2.4 m), occurred in 1973 (backwater from ice); no flow at times in 1934-35, 1939-40, 1954-55, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) June 13, gage height, 5.09 ft (1.551 m); minimum daily during period of operation, 18 ft³/s (0.51 m³/s) Sept. 29.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							210	119	1100	430	87	71
2							205	111	1250	414	78	68
3							190	99	1360	410	77	64
4							170	95	1350	430	68	66
5							162	93	1130	430	61	61
6							172	84	900	422	58	58
7							198	71	800	396	56	54
8							200	68	825	354	50	51
9							210	64	960	308	54	50
10							230	61	1300	261	56	45
11							230	61	1650	231	68	40
12							250	66	1770	213	80	43
13							220	64	1740	192	86	51
14							245	70	1430	172	77	51
15							250	58	1050	164	77	48
16							258	48	885	164	75	46
17							249	45	870	159	82	43
18							255	40	970	150	97	42
19							270	42	1100	145	105	36
20							280	51	1160	143	124	26
21							288	63	1080	154	147	21
22							267	89	920	167	150	20
23							249	180	751	172	141	24
24							255	326	643	180	134	25
25							240	378	576	180	126	24
26							234	414	530	180	119	20
27							240	517	499	162	111	19
28							204	697	458	150	99	19
29							143	805	446	130	91	18
30							126	870	442	113	86	19
31							---	965	---	99	80	---
TOTAL							6700	6714	29945	7275	2800	1223
MEAN							223	217	998	235	90.3	40.8
MAX							288	965	1770	430	150	71
MIN							126	40	442	99	50	18
AC-FT							13290	13320	59400	14430	5550	2430

06662000 LARAMIE RIVER NEAR LOOKOUT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR- TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)
OCT 23...	0845	E25	1.0	.0	4	.00	.00	.0	.0	0	.00
JUN 11...	0730	1650	13.0	.0	36	--	.00	.0	.0	0	.00

E-Estimate.

DATE	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 23...	.2	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0
JUN 11...	.3	.00	.0	.00	1.0	.00	.00	.0	.00	.00	.7

DATE	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
OCT 23...	.00	.00	.0	.00	.0	.00	.3	.00	.00	.00	.00
JUN 11...	.00	.00	.0	.00	.0	.00	.1	.00	.00	.00	.00

DATE	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 23...	.00	.00	0	0	.00	.00	0	.01	0	.00	.0
JUN 11...	.00	.00	0	0	.00	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
OCT 23...	.00	0	.00	0
JUN 11...	.00	0	.00	0

PLATTE RIVER BASIN

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY

LOCATION.--Lat 41°50'39", long 105°13'15", in NE¼SW¼SE¼ sec.27, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank just upstream from bridge on U.S. Highway 34, 900 ft (274 m) upstream from Mule Creek, 2.9 mi (4.7 km) upstream from Bluegrass Creek, and 20 mi (32 km) southwest of Wheatland.

DRAINAGE AREA.--194 mi² (502 km²).

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft (1,628 m), from topographic map.

REMARKS.--Records good. Seven small reservoirs above station, combined capacity, about 400 acre-ft (0.493 hm³), for irrigation. Diversions above station for irrigation of about 2,020 acres (8.17 km²), of which about 80 acres (32.4 hm²) lies below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 502 ft³/s (14.2 m³/s) July 24, 1977, gage height, 4.83 ft (1.472 m), from rating curve extended above 60 ft³/s (1.70 m³/s) on basis of slope-conveyance study; minimum daily, 0.49 ft³/s (0.014 m³/s) Sept. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 275 ft³/s (7.79 m³/s) Aug. 26, gage height, 3.58 ft (1.091 m), from rating curve extended above 70 ft³/s (1.98 m³/s); minimum daily during period of operation, 2.1 ft³/s (0.059 m³/s) Sept. 23, 24, 29, 30.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							8.0	47	27	8.0	4.5	5.3
2							8.0	48	23	8.0	4.1	4.9
3							10	48	21	7.6	3.7	4.5
4							10	44	20	6.4	3.4	4.1
5							12	43	18	7.2	3.0	3.4
6							17	48	17	8.0	2.7	3.4
7							19	46	17	8.0	2.7	3.0
8							22	37	20	8.0	19	3.0
9							25	36	24	7.2	24	2.7
10							30	33	24	9.4	9.9	3.0
11							32	32	23	8.5	7.2	3.7
12							28	35	21	8.5	6.4	3.0
13							24	36	20	8.0	6.0	2.7
14							24	40	17	8.5	6.0	3.0
15							29	43	17	8.0	6.4	3.0
16							42	45	18	8.0	5.7	2.7
17							54	46	19	8.5	5.3	2.4
18							68	43	18	8.9	8.9	2.2
19							72	41	17	7.6	8.9	2.2
20							64	38	17	6.8	8.0	2.2
21							56	36	15	7.2	7.2	2.4
22							51	34	14	7.2	6.8	2.2
23							53	32	15	6.8	6.0	2.1
24							56	30	15	5.7	5.7	2.1
25							53	30	14	4.5	7.2	2.2
26							51	30	14	4.5	29	2.2
27							48	30	12	4.9	21	2.2
28							47	30	9.9	4.5	9.4	2.2
29							47	30	8.9	4.5	7.2	2.1
30							47	29	8.5	4.1	6.4	2.1
31							---	30	---	4.5	6.0	---
TOTAL							1107.0	1170	524.3	217.5	257.7	86.2
MEAN							36.9	37.7	17.5	7.02	8.31	2.87
MAX							72	48	27	9.4	29	5.3
MIN							8.0	29	8.5	4.1	2.7	2.1
AC-FT							2200	2320	1040	431	511	171

06664900 BLUEGRASS CREEK NEAR WHEATLAND, WY

LOCATION.--Lat 41°52'14", long 105°12'51", in NE¼NE¼NE¼ sec.22, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank 150 ft (46 m) upstream from State Highway 34, 0.2 mi (0.3 km) upstream from Sybille Creek, and 18.2 mi (29.3 km) southwest of Wheatland.

DRAINAGE AREA.--139 mi² (360 km²).

PERIOD OF RECORD.--August 1958 to September 1963, October 1968 to September 1979 (discontinued). No winter records since 1972.

GAGE.--Water-stage recorder. Altitude of gage is 5,250 ft (1,600 m), from topographic map.

REMARKS.--Records fair. Most of flow during irrigation season is water released from Wheatland Reservoir No 2, capacity, 98,930 acre-ft (122 hm³), and Wheatland Reservoir No. 3, capacity, 90,870 acre-ft (112 hm³), on the Laramie River and diverted through a tunnel 15 mi (24 km) upstream. Diversions for irrigation of about 210 acres (85 km²) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft³/s (73.3 m³/s) May 9, 1973, gage height, 5.92 ft (1.804 m), from rating curve extended above 700 ft³/s (19.8 m³/s); minimum daily, 0.35 ft³/s (0.010 m³/s) Jan. 8, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1968, reached a discharge of about 3,400 ft³/s (96.3 m³/s), from comparison of flow at stations on Sybille Creek above and below Bluegrass Creek.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 540 ft³/s (15.3 m³/s) July 21, gage height, 3.39 ft (1.033 m); minimum daily during period of operation, 1.2 ft³/s (0.034 m³/s) Apr. 6.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							9.7	31	121	299	440	279
2							8.9	36	115	299	456	269
3							8.1	35	107	328	480	269
4							3.5	25	210	348	496	266
5							1.8	24	360	372	492	282
6							1.2	26	408	392	484	313
7							47	170	424	387	496	316
8							146	263	436	382	496	313
9							163	256	444	378	492	313
10							118	226	400	408	496	313
11							59	211	360	424	492	336
12							31	208	356	420	476	356
13							21	217	356	436	460	336
14							19	217	356	456	456	302
15							24	220	360	456	456	269
16							94	223	356	460	456	250
17							104	223	292	464	456	247
18							88	214	223	464	452	247
19							71	187	208	476	452	244
20							53	152	211	516	432	241
21							38	138	211	532	400	247
22							32	132	211	524	382	244
23							32	129	232	512	364	244
24							32	127	247	508	332	232
25							32	124	250	504	328	208
26							29	124	256	500	320	199
27							31	121	259	508	302	196
28							30	124	259	508	279	193
29							30	124	282	504	279	190
30							31	121	299	472	275	132
31							---	121	---	436	279	---
TOTAL							1388.2	4549	8609	13673	12956	7846
MEAN							46.3	147	287	441	418	262
MAX							163	263	444	532	496	356
MIN							1.2	24	107	299	275	132
AC-FT							2750	9020	17080	27120	25700	15560

PLATTE RIVER BASIN

06667060 LARAMIE RIVER ABOVE NORTH LARAMIE RIVER, NEAR UVA, WY

LOCATION.--Lat 42°07'12", long 104°56'09", in SW₄SW₄SE₄ sec.19, T.25 N., R.67 W., Platte County, Hydrologic Unit 10180011, on right bank 75 ft (23 m) downstream from bridge on U.S. Highway 87, 0.8 mi (1.3 km) upstream from North Laramie River, 1.1 mi (1.8 km) southwest of Uva, and 4.6 mi (7.4 km) north of Wheatland.

DRAINAGE AREA.--3,131 mi² (8,109 km²), of which 611 mi² (1,582 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (1,372 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, groundwater withdrawals, diversion for irrigation of about 157,000 acres (635 km²) above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--6 years, 36.6 ft³/s (1.037 m³/s), 26,520 acre-ft/yr (32.7 hm³/yr).

EXTREMES FOR PERIOD OR RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Aug. 1, 1976, gage height, 7.42 ft (2.262 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Aug. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 187 ft³/s (5.30 m³/s) Apr. 19, gage height, 3.57 ft (1.088 m); minimum daily, 5.0 ft³/s (0.14 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	35	28	25	33	48	57	47	8.3	35	17	25
2	24	34	26	26	37	47	57	45	9.3	34	16	24
3	26	33	24	27	38	43	52	55	8.0	32	15	22
4	28	32	24	27	41	43	49	74	6.3	34	13	20
5	28	31	26	26	40	45	46	66	5.5	34	13	18
6	28	30	25	25	46	50	45	63	14	36	12	17
7	29	31	23	24	44	46	48	56	24	32	14	18
8	30	28	22	23	43	50	67	49	39	24	14	6.8
9	27	28	24	25	46	49	124	64	96	23	18	6.0
10	26	28	28	27	48	42	156	73	112	17	28	5.7
11	24	30	32	32	49	43	145	71	76	15	20	5.7
12	22	31	35	34	52	44	108	69	42	18	18	6.3
13	22	32	32	32	50	44	90	69	32	16	14	6.6
14	22	32	34	30	58	43	83	62	24	14	16	10
15	22	30	37	29	53	43	78	60	22	11	17	14
16	22	26	35	32	50	45	94	52	30	8.3	15	13
17	22	30	33	33	54	47	134	45	48	11	14	9.6
18	22	32	34	32	56	48	174	41	70	12	24	8.9
19	22	30	36	34	57	52	162	38	70	7.3	57	10
20	22	26	37	37	57	50	155	37	56	9.6	52	7.4
21	22	31	38	41	52	49	126	37	50	11	56	10
22	27	35	37	39	51	52	102	34	43	11	41	8.9
23	33	36	38	36	52	49	88	31	44	13	35	8.9
24	30	34	36	39	54	48	84	29	65	15	34	6.6
25	31	34	37	44	46	48	82	26	55	13	32	6.6
26	32	37	34	41	51	51	77	21	47	13	32	5.0
27	34	35	32	38	48	54	69	22	43	14	39	5.5
28	32	26	33	37	45	52	57	23	38	17	43	6.9
29	35	25	31	35	---	55	48	22	38	22	31	5.7
30	35	27	28	34	---	57	48	20	35	18	28	5.2
31	33	---	26	31	---	58	---	19	---	18	26	---
TOTAL	831	929	965	995	1351	1495	2705	1420	1250.4	588.2	804	323.3
MEAN	26.8	31.0	31.1	32.1	48.3	48.2	90.2	45.8	41.7	19.0	25.9	10.8
MAX	35	37	38	44	58	58	174	74	112	36	57	25
MIN	19	25	22	23	33	42	45	19	5.5	7.3	12	5.0
AC-FT	1650	1840	1910	1970	2680	2970	5370	2820	2480	1170	1590	641
CAL YR 1978	TOTAL	11036.6	MEAN 30.2	MAX 214	MIN 2.2	AC-FT 21890						
WTR YR 1979	TOTAL	13656.9	MEAN 37.4	MAX 174	MIN 5.0	AC-FT 27090						

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

LOCATION.--Lat 42°12'02", long 104°32'16", in NE¼SE¼NE¼ sec.28, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, on right bank 600 ft (183 m) upstream from bridge on county road, 0.6 mi (1.0 km) upstream from mouth, and 1.1 mi (1.8 km) southwest of Fort Laramie.

DRAINAGE AREA.--4,564 mi² (11,821 km²), of which 631 mi² (1,634 km²) is probably noncontributing. Drainage area at mouth, 4,565 mi² (11,823 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310. Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie."

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (1,286 m), from topographic map. Apr. 4, 1915, to Mar. 31, 1925, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum. Apr. 1, 1925, to Sept. 30, 1932, nonrecording gage and Oct. 1, 1932, to Aug. 20, 1935, water-stage recorder at site 4.3 mi (6.9 km) upstream at different datum. Aug. 21, 1935, to Nov. 2, 1970, water-stage recorder at site 0.3 mi (0.5 km) upstream at different datum. Nov. 3, 1970, to May 9, 1973, water-stage recorder 0.1 mi (0.2 km) downstream at different datum. May 10, 1973, to Apr. 5, 1977, water-stage recorder 4.3 mi (6.9 km) upstream at different datum.

REMARKS.--Records fair except those for November to February, which are poor. Diversion, at times, to Gering-Fort Laramie Canal, 5.4 mi (8.7 km) upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres (710 km²) above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--23 years (water years 1957-79), 136 ft³/s (3.767 m³/s), 96,360 acre-ft/yr (119 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft³/s (177 m³/s) May 10, 1973, gage height, 9.40 ft (2.865 m) site and datum then in use; no flow Jan. 31 to Mar. 20, Oct. 24 to Dec. 17, 1926, Mar. 1-26, 1927, Apr. 14, 1938 (all flow diverted by Gering-Fort Laramie Canal).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 258 ft³/s (7.31 m³/s) Apr. 20, gage height, 4.39 ft (1.338 m); maximum gage height, 5.14 ft (1.567 m) Dec. 21 (backwater from ice); minimum daily discharge, 17 ft³/s (0.48 m³/s) Aug. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	70	75	80	62	102	131	137	68	79	34	79
2	21	70	74	80	62	100	137	131	65	77	32	77
3	30	72	70	79	62	100	140	134	61	77	32	72
4	39	72	63	78	61	92	140	149	57	72	30	70
5	45	72	71	77	61	89	140	158	55	72	29	59
6	47	70	83	76	61	89	134	152	50	72	23	50
7	47	70	86	75	62	94	128	140	45	70	20	48
8	47	70	86	74	62	94	125	137	47	70	17	48
9	47	70	83	73	63	94	125	137	61	59	17	43
10	47	68	81	73	63	97	158	143	105	52	20	39
11	47	68	81	79	68	97	185	149	140	50	23	36
12	47	68	80	82	74	97	189	149	131	47	21	36
13	47	67	80	78	102	97	162	149	102	39	23	36
14	47	66	80	76	105	97	152	149	82	34	23	36
15	47	66	82	74	120	97	140	149	77	34	24	36
16	47	65	83	72	130	100	134	143	72	36	24	37
17	47	65	82	71	125	100	137	137	70	32	23	39
18	48	64	82	70	120	105	168	131	74	30	26	37
19	48	63	82	69	119	113	232	128	94	29	27	37
20	48	62	81	68	122	113	254	125	102	29	45	37
21	50	62	80	68	128	119	246	119	100	29	59	36
22	57	62	78	74	105	125	221	108	92	29	68	36
23	59	65	77	72	105	128	196	100	84	29	72	36
24	68	68	82	67	116	128	185	89	84	29	63	34
25	70	75	79	63	110	128	178	82	84	30	59	36
26	68	80	82	69	108	128	185	74	84	30	65	36
27	70	80	86	66	108	131	189	70	82	32	65	32
28	70	78	84	63	110	128	175	68	122	34	63	30
29	70	77	83	62	---	128	158	68	94	30	72	30
30	70	79	82	62	---	128	143	65	82	30	72	32
31	70	---	81	62	---	131	---	68	---	32	77	---
TOTAL	1588	2084	2479	2232	2594	3369	4987	3738	2466	1394	1248	1290
MEAN	51.2	69.5	80.0	72.0	92.6	109	166	121	82.2	45.0	40.3	43.0
MAX	70	80	86	82	130	131	254	158	140	79	77	79
MIN	21	62	63	62	61	89	125	65	45	29	17	30
AC-FT	3150	4130	4920	4430	5150	6680	9890	7410	4890	2760	2480	2560
CAL YR 1978	TOTAL	36280	MEAN	99.4	MAX	861	MIN	15	AC-FT	71960		
WTR YR 1979	TOTAL	29469	MEAN	80.7	MAX	254	MIN	17	AC-FT	58450		

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CaCO3)
OCT										
10...	1100	--	47	800	8.2	11.0	5	10.6	K16	330
25...	1350	--	70	--	--	--	--	--	--	--
NOV										
07...	1000	--	70	800	8.2	6.0	4	11.6	20	290
17...	1110	65	--	--	--	--	--	--	--	--
DEC										
05...	0830	71	--	850	8.1	.0	10	11.8	--	330
11...	1515	81	--	--	--	--	--	--	--	--
JAN										
05...	0940	77	--	840	7.9	.0	2	11.2	68	300
18...	1050	70	--	--	--	--	--	--	--	--
30...	0800	62	--	850	7.9	.0	3	11.4	78	340
FEB										
21...	0935	--	146	--	--	--	--	--	--	--
MAR										
13...	0800	--	97	790	8.3	5.0	5	10.3	K6	280
21...	1525	--	122	--	--	--	--	--	--	--
APR										
13...	0820	--	162	650	8.1	6.0	20	10.5	120	230
27...	0850	--	189	--	--	--	--	--	--	--
MAY										
08...	0830	--	137	630	8.2	8.0	15	9.3	42	230
16...	1415	--	143	--	--	--	--	--	--	--
JUN										
08...	0800	--	57	780	7.9	10.0	3	8.2	K200	280
20...	1510	--	102	--	--	--	--	--	--	--
JUL										
17...	0830	--	32	800	7.7	15.0	4	7.0	K330	310
27...	1515	--	30	--	--	--	--	--	--	--
AUG										
13...	1120	--	23	790	8.0	16.5	4	9.0	92	280
SEP										
10...	1400	--	39	820	8.2	17.0	2	10.3	K36	290
19...	1200	--	34	--	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

PLATTE RIVER BASIN

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		DATE		TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)						
		MAR 13...		0800	360	3	0	4	0	5						
		DATE		TIME	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)					
		MAR 13...		270	9	30	.1	4	1	20						
DATE	TIME	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/L)		PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)				
		PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)													
MAY 08...	0830	.0	0	.00	.0	.0	.0	0	.00	.4	.00	.2				
SEP 10...	1400	.0	0	.00	.0	.0	.0	0	.00	.3	.00	.2				
DATE	TIME	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/L)		DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	
		DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)													
MAY 08...	.00	.0	.00	.00	.00	.1	.00	.00	.0	.00	.00	.00	.00	.00	.0	
SEP 10...	.00	.0	.00	.00	.00	.0	.00	.00	.0	.00	.00	.00	.00	.00	.0	
DATE	TIME	HEPTA- CHLOR EPOXIDE TUT. IN BOTTOM MATL. (UG/L)		HEPTA- CHLOR EPOXIDE TUT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
		HEPTA- CHLOR EPOXIDE TUT. IN BOTTOM MATL. (UG/L)	HEPTA- CHLOR EPOXIDE TUT. IN BOTTOM MATL. (UG/KG)													
MAY 08...	.00	.0	.00	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SEP 10...	.00	.0	.00	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DATE	TIME	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/L)		TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TOTAL TRI- THION (UG/KG)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
		PER- THANE TOTAL (UG/L)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)													
MAY 08...	.00	0	0	.00	.00	.00	.00	0	.00	0	.00	.0	.00	.0	.00	.0
SEP 10...	.00	0	0	.00	.00	.00	.00	0	.00	0	.00	.0	.00	.0	.00	.0

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

			DICAMBA IN BOTTOM MA- TERIAL (UG/KG)			PICLORAM IN BOTTOM MA- TERIAL (UG/KG)		
DATE			TOTAL DICAMBA (UG/L)	TOTAL PICLORAM (UG/L)				
MAY 08...			.00	0	.00	0		
SEP 10...			.00	0	.00	0		
			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	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	
DATE	TIME	TYPE						
OCT 25...	1350	2	1	1	2	5	10	
APR 27...	0850	2	4	10	12	18	24	
			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	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
DATE	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM		
OCT 25...	14	21	32	46	67	100		
APR 27...	30	40	49	66	97	100		

06671000 RAWHIDE CREEK NEAR LINGLE, WY

LOCATION.--Lat 42°07'32", long 104°19'36", in SE¼NE¼ sec.20, T.25 N., R.62 W., Goshen County, Hydrologic Unit 10180009, on right bank 200 ft (61 m) upstream from bridge on U.S. Highway 26, 1.0 mi (1.6 km) east of Lingle, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--522 mi² (1,352 km²).

PERIOD OF RECORD.--May 1928 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1440: 1932, 1936(M). WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,160 ft (1,268 m), from topographic map. See WSP 1918 for history of changes prior to May 16, 1955.

REMARKS.--Records good. Low flow represents return water from lands irrigated by Interstate Canal in Rawhide Creek basin. Six small reservoirs above station, combined capacity, about 460 acre-ft (0.567 hm³), for irrigation. Diversions for irrigation of about 1,600 acres (6.48 km²) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--43 years (water years 1929-71), 21.5 ft³/s (0.609 m³/s), 15,580 acre-ft/yr (19.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft³/s (112 m³/s) Sept. 7, 1946, gage height, 11.76 ft (3.584 m); no flow July 5-7, 1961, Apr. 12, 29, 1966, Mar. 20-28, 1967, Apr. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 587 ft³/s (16.6 m³/s) June 18, gage height, 7.88 ft (2.402 m); minimum daily during period of operation, 2.0 ft³/s (0.057 m³/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							15	36	41	12	8.9	20
2							16	37	38	10	8.6	24
3							16	39	39	8.2	7.8	26
4							16	38	37	7.1	6.1	23
5							15	34	30	8.9	5.8	19
6							14	27	23	9.6	6.8	16
7							14	27	18	10	4.4	14
8							13	35	24	7.8	5.5	22
9							13	39	25	5.5	5.5	28
10							14	41	25	3.5	4.1	31
11							16	39	35	2.0	3.1	36
12							16	36	33	2.8	3.8	40
13							17	34	28	2.6	7.5	40
14							17	34	26	2.2	6.1	37
15							16	30	27	1.7	5.2	30
16							16	18	29	2.4	8.2	26
17							16	12	30	3.5	8.2	23
18							15	16	85	4.4	16	23
19							15	19	84	5.2	19	21
20							16	18	89	3.5	22	21
21							16	17	25	5.0	24	22
22							16	16	84	4.1	28	25
23							17	16	53	5.0	17	27
24							18	17	38	11	22	29
25							32	25	24	14	36	32
26							41	30	12	8.6	31	37
27							39	25	14	16	33	42
28							36	29	14	33	34	31
29							38	45	12	51	26	25
30							36	46	16	29	18	21
31							---	45	---	14	20	---
TOTAL							595	920	1058	303.6	451.6	811
MEAN							19.8	29.7	35.3	9.79	14.6	27.0
MAX							41	46	89	51	36	42
MIN							13	12	12	1.7	3.1	14
AC-FT							1180	1820	2100	602	896	1610

06672000 NORTH PLATTE RIVER AT TORRINGTON, WY

LOCATION.--Lat 42°03'13", long 104°12'29", in SE¼SE¼NE¼ sec.17, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, 1.5 mi (2.4 km) upstream from former discharge station, 1.5 mi (2.4 km) upstream from bridge on U.S. Highway 85, and 1.5 mi (2.4 km) southwest of Torrington.

PERIOD OF RECORD.--November 1975 to January 1979 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1975 to January 1979 (discontinued).

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records furnished by Wyoming Game and Fish Commission.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.0°C June 26, 1977; minimum, -0.5°C Nov. 27, 28, 1976, Jan. 9-11, 1977.

EXTREMES FOR PERIOD OCTOBER 1978 TO JANUARY 1979.--

WATER TEMPERATURES: Maximum, 14.5°C Oct. 19; minimum, 0.0°C Dec. 31, Jan. 1.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	11.5	6.5	5.5	.0	-1.0	-1.5				
2	---	---	11.5	7.0	3.0	-0.5	2.0	-1.0				
3	---	---	13.0	7.5	6.5	-0.5	.0	-1.0				
4	---	---	13.0	8.0	8.0	1.0	-1.0	-1.0				
5	---	---	11.5	7.0	6.5	1.5	-0.5	-1.0				
6	---	---	11.5	5.5	5.5	.0	-0.5	-1.0				
7	---	---	10.5	5.5	3.5	-1.0	-0.5	-1.0				
8	---	---	11.0	7.5	1.5	-0.5	-0.5	-1.0				
9	---	---	11.5	7.0	2.0	.5	-0.5	-1.0				
10	---	---	11.0	6.0	4.0	.5	-0.5	-1.0				
11	---	---	5.5	3.0	5.5	.5	.0	-0.5				
12	---	---	3.5	1.5	7.0	1.5	1.5	.0				
13	---	---	4.5	2.0	6.5	.5	1.0	-0.5				
14	---	---	5.5	2.0	6.5	1.5	1.5	-0.5				
15	---	---	5.5	1.0	7.0	1.0	3.0	-0.5				
16	14.0	9.0	6.0	1.0	5.5	.5	---	---				
17	13.5	9.5	6.0	2.0	3.5	.5	---	---				
18	14.0	8.5	5.5	2.0	6.5	3.0	---	---				
19	14.5	9.0	6.5	2.0	7.0	2.0	---	---				
20	13.0	10.5	1.0	-0.5	5.5	.5	---	---				
21	14.5	7.0	4.0	.0	3.5	.5	---	---				
22	10.0	6.0	6.5	3.0	5.5	.5	---	---				
23	12.0	7.5	7.0	3.5	4.5	2.0	---	---				
24	13.0	8.0	7.0	3.0	6.0	2.5	---	---				
25	10.0	6.0	7.0	3.5	6.0	1.0	---	---				
26	12.0	7.0	5.0	3.0	4.5	-0.5	---	---				
27	12.0	7.5	6.0	3.0	2.0	-0.5	---	---				
28	13.0	7.0	8.0	2.5	3.5	-0.5	---	---				
29	13.0	8.0	6.0	2.0	.5	-1.0	---	---				
30	11.5	6.0	7.5	2.5	1.0	-1.0	---	---				
31	11.5	6.5	---	---	-1.0	-1.5	---	---				
MONTH	14.5	6.0	13.0	-0.5	8.0	-1.5	3.0	-1.5				

06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY

LOCATION.--Lat 42°02'22", long 104°10'07", in SW¼NW¼ sec.23, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) downstream from bridge on county road, 0.6 mi (1.0 km) upstream from mouth, and 2.0 mi (3.2 km) southeast of Torrington.

DRAINAGE AREA.--356 mi² (922 km²).

PERIOD OF RECORD.--May to September 1931, May to September 1932, May 1935 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft (1,244 m), from topographic map. Prior to June 12, 1935, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum. June 12, 1935, to Sept. 30, 1945, water-stage recorder at site 100 ft (30 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1945, to Nov. 27, 1950, water-stage recorder at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records poor. Flow is mainly return water from irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1936-71), 21.6 ft³/s (0.612 m³/s), 15,650 acre-ft/yr (19.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s (68.5 m³/s) June 27, 1955, gage height, 10.31 ft (3.142 m) from floodmark; minimum daily, 0.40 ft³/s (0.011 m³/s) Jan. 28, 29, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142 ft³/s (4.02 m³/s) June 28, gage height, 2.62 ft (0.799 m); minimum daily during period of operation, 4.5 ft³/s (0.13 m³/s) May 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							7.4	5.5	57	57	60	74
2							7.9	5.0	55	57	60	73
3							7.4	5.0	63	59	57	75
4							6.9	5.5	64	56	54	74
5							6.4	5.0	54	55	50	79
6							6.4	5.0	49	55	50	76
7							6.0	5.0	49	53	49	76
8							6.4	6.9	61	50	47	79
9							6.9	9.9	69	47	45	82
10							7.9	12	55	43	45	86
11							10	8.9	48	40	48	95
12							10	6.0	40	37	56	89
13							9.9	5.5	35	35	60	89
14							8.9	4.5	30	34	67	90
15							8.4	5.0	28	33	65	85
16							7.9	5.0	28	32	53	84
17							7.0	5.5	31	31	52	78
18							7.0	5.5	32	34	59	69
19							7.0	5.5	34	32	69	68
20							7.0	6.0	33	32	76	68
21							6.0	7.9	27	30	65	71
22							6.0	8.4	27	33	59	69
23							6.0	14	36	36	67	69
24							6.0	18	36	39	69	69
25							5.0	21	36	42	75	72
26							5.0	35	40	44	78	65
27							5.0	39	53	47	81	50
28							5.0	40	96	51	84	41
29							5.5	50	63	54	79	35
30							5.5	56	56	58	78	34
31							---	58	---	63	76	---
TOTAL							207.7	469.5	1385	1369	1933	2164
MEAN							6.92	15.1	46.2	44.2	62.4	72.1
MAX							10	58	96	63	84	95
MIN							5.0	4.5	27	30	45	34
AC-FT							412	931	2750	2720	3830	4290

06673500 KATZER DRAIN NEAR HENRY, NE

LOCATION.--Lat 41°58'45", long 104°04'15", in NW¼NW¼SW¼ sec.10, T.23 N., R.60 W., Goshen County, WY, Hydrologic Unit 10180009, on left bank 0.2 mi (0.3 km) upstream from bridge on county road, 0.8 mi (1.3 km) upstream from mouth, and 1.7 mi (2.7 km) southwest of Henry.

DRAINAGE AREA.--45.9 mi² (118.9 km²), of which 8.2 mi² (21.2 km²) is probably noncontributing.

PERIOD OF RECORD.--May 1928 to current year (no winter records prior to 1932 and since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WDR WY-77-1: 1975(M), 1976 (M).

GAGE.--Water-stage recorder. Altitude of gage is 4,040 ft (1,231 m), from topographic map. See WSP 1918 for history of changes prior to Dec. 1, 1950. Dec. 1, 1950, to Sept. 30, 1969, at site 1.0 mi (1.6 km) upstream at different datum. Oct. 1, 1969, to Mar. 31, 1974, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. Flow is mainly return water from land irrigated by Fort Laramie Canal.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1932-71), 19.6 ft³/s (0.555 m³/s), 14,200 acre-ft/yr (17.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft³/s (41.3 m³/s) June 11, 1977, gage height, 8.56 ft (2.609 m), from rating curve extended above 130 ft³/s (3.68 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s (0.014 m³/s) Jan. 14, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 559 ft³/s (15.8 m³/s) June 19, gage height, 4.84 ft (1.475 m); minimum daily during period of operation, 5.2 ft³/s (0.15 m³/s) Apr. 28, 29, May 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							7.4	5.8	37	73	65	71
2							7.0	5.5	38	71	70	73
3							7.0	5.2	38	67	59	75
4							6.7	5.2	40	66	52	76
5							6.4	6.1	44	68	52	74
6							6.4	6.1	44	55	48	75
7							6.4	7.7	48	52	47	78
8							6.4	6.7	65	48	44	89
9							7.4	6.1	73	47	43	93
10							8.1	5.8	68	40	45	98
11							8.9	7.0	53	32	45	103
12							8.9	10	52	31	40	90
13							7.7	10	58	41	37	82
14							7.4	14	65	41	43	83
15							6.7	24	61	39	48	79
16							6.7	37	54	37	38	77
17							6.4	24	54	34	36	70
18							6.4	20	52	32	41	62
19							6.1	29	174	31	50	57
20							6.1	35	58	30	53	59
21							6.1	37	56	29	55	58
22							5.8	40	52	28	53	52
23							5.8	42	48	29	53	48
24							5.8	44	49	35	59	49
25							5.8	45	49	36	63	52
26							5.8	46	46	48	64	56
27							5.5	40	58	68	66	53
28							5.2	31	104	57	66	33
29							5.2	33	85	61	60	15
30							5.8	33	69	58	58	12
31							---	36	---	61	69	---
TOTAL							197.3	697.2	1792	1445	1622	1992
MEAN							6.58	22.5	59.7	46.6	52.3	66.4
MAX							8.9	46	174	73	70	103
MIN							5.2	5.2	37	28	36	12
AC-FT							391	1380	3550	2870	3220	3950

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, NE, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on NE State Highway 86, 700 ft (213 m) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA.--22,218 mi² (57,545 km²), of which 1,929 mi² (4,996 km²), is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft (1,225.707 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder at site 0.5 mi (0.8 km) upstream at datum 4.42 ft (1.347 m) higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder at site 0.5 mi (0.8 km) upstream at datum 3.42 ft (1.042 m) higher.

REMARKS.--Records fair except those for period of no gage-height record, Jan. 1-17, Jan. 22 to Feb. 21, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft³/s (507 m³/s) June 2, 1929, gage height 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft³/s (45.6 m³/s) July 25; gage height, 3.50 ft (1.067 m); minimum daily, 98 ft³/s (2.78 m³/s) May 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	411	369	319	250	230	269	245	311	698	1170	1170	672
2	396	374	310	250	230	269	245	299	647	1190	1150	634
3	387	365	310	250	230	262	248	303	634	1170	1030	598
4	369	365	303	250	230	262	245	311	616	1110	971	580
5	356	365	303	240	225	262	238	311	653	1170	971	580
6	356	365	300	240	225	262	235	307	725	1200	1060	604
7	392	365	300	240	230	269	231	295	839	1300	1120	666
8	568	365	300	240	230	276	225	303	939	1270	1240	712
9	846	361	300	240	235	269	225	331	996	1260	1300	725
10	907	361	300	240	245	266	225	356	947	1370	1310	753
11	795	356	300	250	250	266	269	361	955	1400	1340	781
12	545	356	299	250	260	262	288	299	892	1470	1360	718
13	465	352	295	250	270	252	295	319	824	1520	1320	732
14	420	348	291	245	280	252	288	311	781	1500	1400	712
15	396	348	291	245	295	252	276	303	788	1450	1440	634
16	374	339	291	250	290	252	269	288	809	1380	1420	592
17	361	335	291	250	280	252	269	169	809	1370	1370	551
18	352	335	284	250	280	248	266	126	861	1400	1360	480
19	335	331	288	245	290	252	291	116	1010	1390	1350	470
20	365	330	284	238	295	252	335	103	854	1420	1290	465
21	401	330	284	241	291	255	376	101	725	1440	1160	439
22	420	327	284	255	291	258	361	113	622	1520	907	420
23	420	335	273	250	273	255	352	116	598	1540	846	415
24	411	339	280	250	276	252	339	121	557	1590	996	439
25	406	339	284	245	276	252	331	98	512	1560	1080	454
26	406	339	284	245	276	248	344	174	475	1500	1110	449
27	392	335	288	240	276	241	356	640	517	1470	1080	387
28	396	327	280	240	273	248	348	854	802	1470	996	323
29	387	331	276	240	---	255	339	915	1110	1370	861	280
30	376	323	270	235	---	255	319	884	1090	1240	795	262
31	376	---	260	235	---	248	---	802	---	1210	753	---
TOTAL	13787	10410	9022	7589	7332	7976	8673	10340	23285	42420	35556	16527
MEAN	445	347	291	245	262	257	289	334	776	1368	1147	551
MAX	907	374	319	255	295	276	376	915	1110	1590	1440	781
MIN	335	323	260	235	225	241	225	98	475	1110	753	262
AC=FT	27350	20650	17900	15050	14540	15820	17200	20510	46190	84140	70530	32780
CAL YR 1978	TOTAL	206745	MEAN	566	MAX	2170	MIN	195	AC=FT	410100		
WTR YR 1979	TOTAL	192917	MEAN	529	MAX	1590	MIN	98	AC=FT	382700		

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT 10...	0900	--	900	825	8.2	10.5	10	--	K650	280
NOV 07...	0815	--	365	900	8.2	6.0	2	9.7	88	280
DEC 05...	0630	--	303	950	8.1	1.0	4	11.1	59	280
JAN 05...	0800	240	--	960	7.8	.0	3	11.4	K450	290
29...	1530	240	--	850	8.1	.0	3	10.9	22	290
MAR 12...	1630	--	258	940	8.3	12.0	7	10.5	K7	250
APR 12...	1520	--	291	880	8.1	9.0	9	10.4	45	240
MAY 07...	1700	--	288	840	8.1	11.0	6	9.4	28	250
JUN 07...	1345	--	854	820	8.2	17.5	20	8.0	K220	260
JUL 16...	1700	--	1380	800	8.1	21.0	20	8.5	K64	270
AUG 13...	1000	--	1310	720	8.2	20.0	20	7.7	100	240
SEP 10...	1130	--	774	750	8.1	19.0	15	8.3	220	240

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)
OCT 10...	100	79	20	75	2.0	5.5	220	0	180
NOV 07...	42	78	19	96	2.5	7.6	290	0	240
DEC 05...	34	83	19	110	2.8	7.7	300	0	250
JAN 05...	36	83	20	110	2.8	8.1	310	0	250
29...	44	82	19	100	2.6	6.6	300	0	250
MAR 12...	12	72	17	99	2.7	8.1	290	0	240
APR 12...	19	66	18	97	2.7	8.9	270	0	220
MAY 07...	78	68	19	68	1.9	6.7	210	0	170
JUN 07...	110	67	22	64	1.7	6.0	180	0	150
JUL 16...	110	70	23	63	1.7	5.5	200	0	160
AUG 13...	79	62	20	59	1.7	5.4	190	--	160
SEP 10...	68	67	18	60	1.7	7.3	210	0	170

PLATTE RIVER BASIN

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT									
10...	230	18	.5	13	664	.90	1610	.70	.09
NOV									
07...	220	18	.5	23	618	.84	609	3.6	.02
DEC									
05...	230	21	.5	23	653	.89	534	2.1	.15
JAN									
05...	250	28	.4	28	689	.94	446	2.5	.03
29...	230	19	.5	24	640	.87	415	2.0	.04
MAR									
12...	210	17	.6	20	591	.80	412	1.7	.12
APR									
12...	200	19	.6	19	565	.77	444	1.4	.14
MAY									
07...	190	19	.6	19	515	.70	400	5.6	.08
JUN									
07...	240	17	.6	9.8	514	.70	1190	.02	.08
JUL									
16...	220	16	.5	6.4	505	.69	1880	.23	.15
AUG									
13...	190	14	.4	9.8	460	.63	1630	.25	.14
SEP									
10...	180	12	.5	16	464	.63	970	.66	.06

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	NUMBER OF SAM- PLING POINTS	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM
OCT								
25...	1015	--	--	--	--	4	--	0
25...	1635	--	401	31	34	--	--	--
NOV								
17...	1340	--	335	45	41	--	--	--
DEC								
12...	1000	--	291	70	55	--	--	--
JAN								
17...	1410	250	--	41	28	--	--	--
FEB								
21...	1400	--	295	56	45	--	--	--
MAR								
22...	1000	--	258	26	18	4	9	16
APR								
26...	1850	--	356	94	90	--	--	--
MAY								
16...	1000	--	331	139	124	--	--	--
JUN								
20...	1145	--	846	111	254	--	--	--
JUL								
27...	1815	--	1460	357	1410	--	--	--
AUG								
14...	1900	--	1390	156	585	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

06675850 HORSE CREEK NEAR JOHNSON RANCH, NEAR LA GRANGE, WY

LOCATION.--Lat 41°34'33", long 104°08'44", in SE¼NW¼NW¼ sec.36, T.19 N., R.61 W., Goshen County, Hydrologic Unit 10180012, on right bank 0.8 mi (1.3 km) downstream from culvert on farm road at Johnson ranch, 4.0 mi (6.4 km) southeast of La Grange, and 10.8 mi (17.4 km) north of Albin.

DRAINAGE AREA.--595 mi² (1,541 km²).

PERIOD OF RECORD.--March 1978 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (1,417 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 263 ft³/s (7.45 m³/s) June 17, 1979, gage height, 4.03 ft (1.228 m), from rating curve extended above 50 ft³/s (1.42 m³/s); maximum gage height, 4.17 ft (1.271 m) backwater from ice; minimum daily, 4.8 ft³/s (0.14 m³/s) Sept. 27, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 263 ft³/s (7.45 m³/s) June 17, gage height, 4.03 ft (1.228 m), from rating curve extended above 50 ft³/s (1.42 m³/s); maximum gage height, 4.17 ft (1.271 m) backwater from ice; minimum daily, 4.8 ft³/s (0.14 m³/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	17	9.2	20	16	45	45	29	18	23	12	18
2	12	18	7.6	22	20	44	43	29	17	21	12	15
3	12	16	7.2	23	24	45	41	31	19	21	12	14
4	12	16	8.0	22	30	45	40	31	18	19	11	13
5	12	17	8.7	21	33	43	38	31	17	19	10	13
6	11	17	7.9	20	37	44	38	29	18	19	10	12
7	12	18	7.3	20	40	50	38	29	23	19	10	9.6
8	12	18	7.0	21	42	51	37	30	30	17	12	8.2
9	13	17	11	22	44	43	37	34	35	17	15	6.9
10	12	17	16	22	46	40	36	37	31	16	16	5.2
11	13	16	20	23	47	41	38	37	25	16	16	6.4
12	13	15	22	22	49	40	40	35	21	16	15	6.9
13	13	12	23	21	50	40	41	36	17	15	13	6.9
14	13	12	23	21	50	37	40	36	15	13	15	9.2
15	13	13	23	22	40	38	39	34	13	13	18	10
16	14	13	24	23	30	38	37	33	15	14	19	12
17	14	14	24	23	33	39	36	32	157	15	18	13
18	14	14	24	24	36	41	36	29	170	14	20	9.2
19	15	13	24	25	39	42	35	26	76	15	22	7.8
20	15	12	24	25	38	46	32	24	59	15	21	13
21	15	12	25	24	38	46	34	23	48	16	20	14
22	16	13	25	23	37	47	34	23	42	15	16	15
23	17	13	25	20	38	45	34	22	41	14	20	12
24	17	13	25	15	40	46	33	22	38	14	20	9.6
25	19	13	23	12	42	50	33	21	36	14	24	6.9
26	16	13	20	11	44	54	31	21	34	16	24	6.9
27	18	13	21	10	45	50	32	21	31	17	27	4.8
28	20	13	22	10	45	50	31	20	34	17	21	7.4
29	17	12	20	11	---	47	29	19	43	15	35	8.7
30	16	11	18	12	---	46	29	19	32	14	29	9.6
31	17	---	17	13	---	45	---	18	---	13	21	---
TOTAL	445	431	561.9	603	1073	1378	1087	861	1173	502	554	304.2
MEAN	14.4	14.4	18.1	19.5	38.3	44.5	36.2	27.8	39.1	16.2	17.9	10.1
MAX	20	18	25	25	50	54	45	37	170	23	35	18
MIN	11	11	7.0	10	16	37	29	18	13	13	10	4.8
AC-FT	883	855	1110	1200	2130	2730	2160	1710	2330	996	1100	603
WTR YR 1979	TOTAL	8973.1	MEAN	24.6	MAX	170	MIN	4.8	AC-FT	17800		

06676550 HORSE CREEK AT WYCROSS RANCH, NEAR LA GRANGE, WY

LOCATION.--Lat 41°40'35", long 104°12'11", in SW¼NW¼ sec.28, T.20 N., R.61 W., Goshen County, Hydrologic Unit 10180012, on right bank 0.3 mi (0.5 km) upstream from Hawk Springs ditch, 1.4 mi (2.3 km) downstream from WyCross ditch, 2.7 mi (4.3 km) upstream from Bear Creek, and 3.3 mi (5.3 km) northwest of La Grange.

DRAINAGE AREA.--651 mi² (1,686 km²).

PERIOD OF RECORD.--October 1965 to December 1973, March 1978 to September 1979 (discontinued).

REVISED RECORDS.--WDR WY-78-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,490 ft (1,369 m), from topographic map.

REMARKS.--Records fair except those for October to February, which are poor. Diversions above station for irrigation of about 9,000 acres (36.4 km²). Except for extreme high flow, WyCross ditch diverts all water from Bear Creek to Horse Creek 1.4 mi (2.3 km) upstream.

AVERAGE DISCHARGE.--8 years (water years 1966-73), 26.5 ft³/s (0.750 m³/s), 19,200 acre-ft/yr (23.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480 ft³/s (13.6 m³/s) June 11, 1967, gage height, 6.27 ft (1.911 m); minimum daily, 0.14 ft³/s (0.004 m³/s) Aug. 29, Sept. 7, 8, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 347 ft³/s (9.83 m³/s) June 18, gage height, 5.46 ft (1.664 m); minimum daily, 0.23 ft³/s (0.007 m³/s) Oct. 19, Nov. 4.

CORRECTION.--The drainage area is 651 mi² (1,686 km²), superseding figures published in the 1978 report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	.45	1.4	1.3	4.6	43	20	3.0	2.3	5.0	1.8	.78
2	3.2	.45	1.3	1.4	6.2	48	17	3.0	3.2	4.9	1.8	.71
3	2.2	.34	1.1	1.6	9.4	39	12	3.3	3.0	6.0	1.1	.85
4	.56	.23	1.1	1.5	20	34	7.1	3.5	2.8	13	1.5	.71
5	.45	1.1	1.2	1.5	16	34	4.5	3.3	2.9	10	1.8	.64
6	.45	2.3	1.1	1.4	14	42	3.2	3.2	3.3	8.6	1.3	.64
7	.45	2.1	1.0	1.4	13	69	3.2	2.9	3.2	8.9	1.7	.57
8	.45	2.6	1.0	1.5	13	76	3.0	4.9	4.0	10	2.1	.64
9	.45	1.7	1.1	1.6	13	55	3.0	15	4.7	7.5	2.1	.71
10	.45	1.8	1.2	1.7	14	34	3.0	20	5.8	5.2	1.2	.71
11	2.3	1.2	1.4	1.8	15	25	3.8	20	6.0	4.5	1.1	.71
12	3.6	1.0	1.5	1.8	19	18	20	13	5.0	4.1	1.9	.85
13	.67	.95	1.5	1.8	22	15	28	10	4.5	6.2	1.4	.99
14	.45	1.0	1.6	1.7	40	14	30	6.7	3.3	4.3	1.1	1.4
15	.45	1.0	1.6	1.9	36	6.9	22	3.0	3.2	4.9	1.1	2.8
16	.67	1.1	1.6	2.1	40	3.2	20	2.8	3.5	4.0	1.1	4.3
17	.67	1.1	1.6	2.4	32	3.2	11	2.6	160	4.5	1.1	1.9
18	.34	1.0	1.6	2.7	40	4.0	2.9	2.5	272	4.1	1.3	1.2
19	.23	.90	1.6	3.1	42	12	2.6	2.5	231	3.5	2.5	.92
20	.45	.85	1.7	3.4	44	20	2.5	2.3	99	3.3	4.7	1.1
21	2.3	1.0	1.7	3.7	39	28	2.6	2.2	63	3.3	11	1.5
22	2.6	1.3	1.7	3.8	41	43	2.6	2.2	44	6.4	9.1	2.1
23	3.0	1.4	1.7	3.7	37	58	2.8	2.2	39	4.3	4.3	1.7
24	2.8	1.4	1.6	3.6	29	62	3.2	2.1	31	3.0	3.6	1.6
25	4.1	1.4	1.5	3.7	34	43	3.3	2.1	27	2.8	1.2	1.8
26	2.8	1.3	1.4	3.7	44	43	3.2	2.1	12	1.7	.92	1.6
27	.67	1.3	1.4	3.5	48	36	3.3	2.0	10	12	1.3	2.6
28	1.1	1.3	1.5	3.3	43	34	3.2	2.0	12	5.5	13	2.2
29	1.2	1.3	1.4	3.3	---	26	2.9	2.1	9.6	2.6	7.1	2.5
30	1.4	1.4	1.3	3.5	---	24	3.0	2.1	6.9	1.7	3.2	1.9
31	1.4	---	1.2	3.7	---	21	---	2.2	---	1.6	1.1	---
TOTAL	44.96	36.27	43.6	77.1	768.2	1013.3	248.9	150.8	1077.2	167.4	89.52	42.63
MEAN	1.45	1.21	1.41	2.49	27.4	32.7	8.30	4.86	35.9	5.40	2.89	1.42
MAX	4.1	2.6	1.7	3.8	48	76	30	20	272	13	13	4.3
MIN	.23	.23	1.0	1.3	4.6	3.2	2.5	2.0	2.3	1.6	.92	.57
AC-FT	89	72	86	153	1520	2010	494	299	2140	332	178	85
WTR YR 1979	TOTAL	3759.88	MEAN	10.3	MAX	272	MIN	.23	AC-FT	7460		

PLATTE RIVER BASIN

06676900 BEAR CREEK NEAR LA GRANGE, WY

LOCATION.--Lat 41°38'22", long 104°14'28", in SW¼NE¼SW¼ sec.6, T.19 N., R.61 W., Goshen County, Hydrologic Unit 10180012, on right bank 300 ft (91 m) upstream from bridge on State Highway 85, 4.5 mi (7.2 km) west of La Grange, 7.5 mi (12.1 km) upstream from mouth, and 10.0 mi (16.1 km) southeast of Hawk Springs.

DRAINAGE AREA.--516 mi² (1,340 km²), of which 72.4 mi² (187 km²) is probably noncontributing.

PERIOD OF RECORD.--March 1978 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,600 ft (1,402 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 134 ft³/s (3.79 m³/s) July 6, 1978, gage height, 4.31 ft (1.314 m), from floodmarks; minimum daily, 4.2 ft³/s (0.12 m³/s) Dec. 8, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 123 ft³/s (3.48 m³/s) Feb. 12, gage height, 4.14 ft (1.262 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	9.7	7.8	7.5	11	35	22	14	8.5	10	12	7.8
2	9.1	8.3	6.8	9.4	12	33	21	13	9.0	9.9	11	7.7
3	9.1	7.8	5.0	11	13	28	18	15	8.5	14	9.6	10
4	9.3	7.7	6.0	11	14	30	16	17	7.8	9.0	8.4	10
5	9.7	11	6.4	9.5	15	32	14	16	7.2	8.9	6.6	10
6	9.7	12	5.5	8.2	16	35	14	15	8.1	9.4	6.4	10
7	10	12	4.6	7.0	18	40	13	12	7.7	9.2	7.2	9.7
8	11	12	4.2	8.4	18	36	12	14	8.7	6.8	7.2	9.2
9	11	12	4.4	9.4	19	32	13	18	11	6.3	8.1	9.0
10	12	13	4.8	10	20	28	13	20	16	6.1	7.3	7.9
11	12	11	5.2	11	41	27	17	19	16	5.8	8.1	8.5
12	12	9.0	5.6	8.7	81	26	28	9.7	14	5.6	8.1	8.7
13	12	8.3	6.1	7.8	85	25	34	8.7	13	5.5	7.4	8.9
14	11	8.6	6.6	7.4	73	24	38	8.4	9.9	5.6	7.7	9.6
15	11	9.0	7.1	7.9	60	13	30	8.1	9.0	6.6	8.5	9.7
16	10	9.4	7.8	8.9	52	11	27	8.7	11	6.6	9.7	10
17	11	9.6	8.4	10	47	10	15	7.9	23	6.7	8.9	9.7
18	10	9.2	9.0	11	45	10	6.2	8.2	29	6.9	8.7	8.5
19	10	8.7	9.6	13	46	9.0	5.9	7.9	30	6.5	10	7.8
20	10	8.7	10	14	42	10	6.4	7.7	15	6.4	14	7.7
21	10	8.9	11	15	37	29	7.8	8.4	12	6.4	14	8.5
22	11	9.0	11	16	32	29	8.4	8.5	11	7.8	11	9.0
23	12	9.1	12	16	28	27	10	8.5	13	7.0	8.4	8.7
24	12	9.2	12	17	31	28	13	8.0	13	6.9	9.2	8.2
25	12	9.3	11	17	34	31	13	8.0	14	7.9	7.9	8.1
26	10	9.3	11	15	36	34	13	8.0	14	6.9	7.2	7.9
27	9.3	9.0	9.8	13	36	32	14	7.5	15	23	8.1	7.2
28	9.3	8.8	8.6	11	35	32	14	7.5	18	14	23	7.0
29	9.1	8.5	7.5	10	---	29	15	7.8	14	14	14	7.2
30	9.5	8.3	6.6	10	---	28	15	8.0	12	12	9.9	7.2
31	9.5	---	6.0	10	---	22	---	8.2	---	12	8.7	---
TOTAL	322.6	286.4	237.4	341.1	997	815.0	486.7	336.7	398.4	269.7	296.3	259.4
MEAN	10.4	9.55	7.66	11.0	35.6	26.3	16.2	10.9	13.3	8.70	9.56	8.65
MAX	12	13	12	17	85	40	38	20	30	23	23	10
MIN	9.0	7.7	4.2	7.0	11	9.0	5.9	7.5	7.2	5.5	6.4	7.0
AC-FT	640	568	471	677	1980	1620	965	668	790	535	588	515
WTR YR 1979	TOTAL	5046.7	MEAN	13.8	MAX	85	MIN	4.2	AC-FT	10010		

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE¼NE¼ sec.33, T.33 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel on downstream side of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA.--24,300 mi² (62,900 km²), approximately, of which about 2,000 m² (5,180 km²) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m), National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s (779 m³/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s (481 m³/s); minimum daily observed, 25 ft³/s (0.71 m³/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,080 ft³/s (58.9 m³/s) July 27, gage height, 4.80 ft (1.463 m); minimum daily, 202 ft³/s (5.72 m³/s) May 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	895	706	613	440	432	531	470	491	436	535	495	432
2	846	706	604	430	436	526	465	482	400	513	448	408
3	803	696	590	420	436	513	461	482	368	487	384	384
4	777	701	595	440	440	513	457	482	357	432	301	364
5	751	691	590	453	440	513	453	487	345	396	260	330
6	746	686	595	450	440	517	444	482	330	380	247	319
7	757	681	585	450	440	517	444	474	327	380	237	323
8	873	676	558	450	440	522	432	439	380	376	224	334
9	1100	671	517	453	444	513	432	282	495	357	230	360
10	1220	666	544	450	478	504	428	243	535	316	237	400
11	1240	656	571	450	581	504	461	263	504	291	253	461
12	1030	661	571	450	681	504	482	298	487	250	263	500
13	912	656	571	450	726	495	482	267	448	263	260	540
14	846	652	576	450	746	482	470	250	420	243	277	604
15	809	647	576	453	681	482	461	243	400	230	327	618
16	777	637	571	461	544	478	453	234	416	230	334	613
17	757	632	553	457	540	478	453	230	453	237	338	599
18	741	628	553	461	562	482	500	247	496	256	338	576
19	721	618	553	474	562	482	522	280	652	262	420	535
20	716	599	544	478	571	482	531	384	553	260	526	522
21	741	595	531	478	562	487	531	396	522	267	487	500
22	777	604	522	474	544	491	517	334	531	280	400	482
23	788	609	526	444	522	487	535	301	526	330	345	508
24	777	604	526	453	522	487	526	260	487	457	355	567
25	772	604	535	465	522	487	517	227	412	470	531	661
26	751	613	522	461	526	482	513	215	353	494	576	746
27	736	604	513	453	526	482	517	202	396	1260	522	890
28	731	599	513	440	526	474	517	319	502	841	504	979
29	721	599	474	444	---	482	513	470	766	767	522	945
30	711	613	460	453	---	482	500	513	517	585	465	819
31	706	---	450	436	---	474	---	478	---	517	432	---
TOTAL	25528	19310	17002	14021	14870	15353	14487	10755	13814	12962	11538	16319
MEAN	823	644	548	452	531	495	483	347	460	418	372	544
MAX	1240	706	613	478	746	531	535	513	766	1260	576	979
MIN	706	595	450	420	432	474	428	202	327	230	224	319
AC-FT	50630	38300	33720	27810	29490	30450	28730	21330	27400	25710	22890	32370
CAL YR 1978	TOTAL	203492	MEAN 558	MAX	2030	MIN 208	AC-FT	403600				
WTR YR 1979	TOTAL	185959	MEAN 509	MAX	1260	MIN 202	AC-FT	368800				

PLATTE RIVER BASIN

06679500 NORTH PLATTE RIVER AT MITCHELL, NE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER- ATURE (DEG C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)
MAY											
07...	1800	11.0	.0	0	.00	.1	.0	0	.00	.6	.00
SEP											
10...	1230	20.0	.0	2	.00	.2	.0	1	.00	1.1	.00

DATE	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
MAY											
07...	1.4	.00	.5	.00	.00	.4	.00	.00	.1	.00	.00
SEP											
10...	5.6	.00	1.2	.00	.00	1.0	.00	.00	.2	.00	.00

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
MAY											
07...	.0	.00	.0	.00	.0	.00	--	--	.00	.00	.00
SEP											
10...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.00	.00

DATE	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
MAY											
07...	.00	.00	0	12	.00	.00	0	.00	0	.00	.0
SEP											
10...	.00	.00	0	0	.00	.00	0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
MAY				
07...	.00	0	.00	0
SEP				
10...	.00	0	.01	0

TRANSBASIN DIVERSIONS FROM NORTH PLATTE RIVER BASIN TO
CACHE LA POUDRE RIVER BASIN IN COLORADO

The following seven diversions, which are equipped with water-stage recorders, divert water from tributaries of the North Platte River to the Cache la Poudre River or its tributaries. Records furnished by Colorado Division of Water Resources.

06745500 Cameron Pass ditch diverts water from tributaries of Michigan River in sec.10, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746000 Michigan ditch diverts water from Michigan River, headgate in sec.12, T.6 N., R.76 W., and many small tributaries and Agnes Creek (tributary to Michigan River), headgate in sec.15, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746500 Skyline ditch diverts water from West Branch Laramie River (tributary to Laramie River), headgate in sec.14, T.8 N., R.76 W., to Chambers Lake (tributary to Cache la Poudre River) in sec.31, T.8 N., R.75 W.

06747000 Laramie-Poudre tunnel diverts water from Laramie River in sec.7, T.8 N., R.75 W., and Rawah Creek (tributary to Laramie River) in sec.14, T.9 N., R.76 W., to Cache la Poudre River in sec.9, T.8 N., R.75 W.

06747200 Bob Creek ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.9, T.9 N., R.75 W., to Roaring Creek (tributary to Cache la Poudre River) in sec.11, T.9 N., R.75 W.

06750000 Columbine ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.3, T.9 N., R.75 W., to North Fork Cache la Poudre River (tributary to Cache la Poudre River) in sec.25, T.10 N., R.75 W.

06750500 Wilson supply ditch diverts water from Sand Creek in sec.22, T.11 N., R.75 W., and at times includes water diverted from tributaries of Deadman Creek in sec.9, T.10 N., R.75 W. Diversion is from the Laramie River basin to Sheep Creek (tributary to North Fork Cache la Poudre River) in sec.23, T.11 N., R.75 W., in the Cache la Poudre River basin. Records represent total flow diverted from the Laramie River basin by Wilson supply ditch.
REVISED RECORDS.--WSP 1310: 1945, 1947.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Month	06745500 Cameron Pass ditch	06746000 Michigan ditch	06746500 Skyline ditch	06747000 Laramie- Poudre tunnel	06747200 Bob Creek ditch	06750000 Columbine ditch	06750500 Wilson supply ditch
October.....	0	0	0	0	0	0	0
November.....	0	0	0	0	0	0	0
December.....	0	0	0	0	0	0	0
January.....	0	0	0	0	0	0	0
February.....	0	0	0	0	0	0	0
March.....	0	0	0	0	0	0	0
April.....	0	0	0	0	0	0	0
May.....	0	0	0	0	0	0	252
June.....	119	0	0	313	0	0	122
July.....	114	394	424	9,040	0	0	0
August.....	.30	307	0	4,770	0	0	0
September.....	0	25	0	914	0	0	0
Water year 1979....	234	726	424	15,040	0	0	375

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Yellowstone River basin							
06218700	Wagon Gulch near Dubois, WY	Lat 43°34'42", long 109°44'13", in NE¼NE¼ sec.30, T.42 N., R.107 W., Fremont County, 600 ft upstream from U.S. Highways 26 and 287 and 6.2 miles northwest of Dubois. Prior to Oct. 1, 1970, at site 600 ft downstream at different datum.	4.89	1961-79	8-13-79	14.66	27
06223800	Wind River tributary No. 2 near Crowheart, WY	Lat 43°14'18", long 109°01'52", in SE¼NE¼ sec.18, T.3 N., R.2 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 26 and 9.6 miles southeast of Crowheart.	3.16	1961-79	1979		(a)
06226200	Little Dry Creek near Crowheart, WY	Lat 43°32'10", long 109°05'20", in SW¼ sec.35, T.7 N., R.3 W., Fremont County, Wind River Indian Reservation, 800 ft upstream from Blue Draw Road and 16.5 miles north of Crowheart. Prior to June 16, 1965, at site 800 ft downstream at different datum.	10.5	1961-79	8-19-79	4.96	400
06226300	Dry Creek near Crowheart, WY	Lat 43°23'40", long 109°02'25", in NW¼SE¼ sec.19, T.5 N., R.2 W., Fremont County, Wind River Indian Reservation, on left bank 9.7 miles northeast of Crowheart.	97.9	1959, 1961-79	8-19-79	10.47	540
06229700	Norkok Meadows Creek near Fort Washakie, WY	Lat 43°04'56", long 108°54'12", in NE¼NW¼ sec.8, T.1 N., R.1 W., Fremont County, Wind River Indian Reservation, 100 ft downstream from culvert on U.S. Highway 287 and 5.5 miles north of Fort Washakie.	15.4	1965-79	5-11-79	5.49	3
06229800	Sand Draw near Fort Washakie, WY	Lat 43°03'42", long 108°54'44", in NE¼SE¼ sec.18, T.1 N., R.1 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 287 and 4.3 miles north of Fort Washakie.	.99	1961-79	1979		(a)
06229900	Trout Creek near Fort Washakie, WY	Lat 42°57'04", long 108°56'54", in NW¼NW¼ sec.25, T.1 S., R.2 W., Fremont County, Wind River Indian Reservation, 100 ft upstream from Blue Trail and 5.0 miles southwest of Fort Washakie. Prior to Oct. 1, 1968, at site 100 ft downstream at same datum.	16.1	1961-68, 1970-79	5-27-79	5.92	170
06233360	Monument Draw at lower station, near Hudson, WY	Lat 42°49'15", long 108°34'59", in SW¼NW¼ sec.21, T.33 N., R.98 W., Fremont County, on left bank 225 ft upstream from dirt road crossing and 5.8 miles south of Hudson.	8.38	1965-79	8-19-79	1.36	18
06234800	Bobcat Draw near Sand Draw, WY	Lat 42°49'34", long 108°13'18", in NW¼NW¼ sec.21, T.33 N., R.95 W., Fremont County, about 500 ft upstream from culvert on Sand Draw Road, 0.3 mile upstream from mouth, and 5.0 miles north of Sand Draw.	62.89	1969, 1971-79	8-19-79	6.38	100

See footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Yellowstone River basin--Continued							
06236000	Kirby Draw near Riverton, WY	Lat 43°05'29", long 108°16'06", in NW¼SE¼ sec.3, T.1 N., R.5 E., Fremont County, Wind River Indian Reservation, on left bank 1.5 miles upstream from mouth and 7.0 miles northeast of Riverton.	129	1951-53, 1961-79	8-19-79	3.24	125
06238760	West Fork Dry Cheyenne Creek at upper station, near Riverton, WY	Lat 42°57'12", long 108°06'16", in NE¼NW¼ sec.4, T.34 N., R.94 W., Fremont County, on left bank 45 ft upstream from dim trail, 2.2 miles south of Ohio Road, and about 14 miles east of Riverton.	.69	1965-79	4-10-79	1.75	32
06255300	Poison Creek tributary near Shoshoni, WY	Lat 43°13'26", long 107°59'59", in NW¼NE¼ sec.33, T.38 N., R.93 W., Fremont County, at culvert on old U.S. Highways 20 and 26 and 5.2 miles east of Shoshoni.	.39	1959-79	5-29-79	4.48	6
06256600	Red Creek near Arminto, WY	Lat 43°14'44", long 107°19'38", in SW¼SE¼ sec.19, T.38 N., R.87 W., Natrona County, at culvert on Lost Cabin-Arminto Road and 5.9 miles northwest of Arminto.	7.15	1963-79	4-11-79	3.86	<3
06256700	South Bridger Creek near Lysite, WY	Lat 43°26'40", long 107°45'22", in SE¼SE¼ sec.9, T.40 N., R.91 W., Fremont County, 600 ft downstream from bridge on Bridger Creek Road and 12.5 miles northwest of Lysite. Prior to Oct. 1, 1968, at site 600 ft upstream at different datum.	10.0	1960-79	8-20-79	7.19	96
06257300	Shotgun Creek tributary near Pavillion, WY	Lat 43°27'35", long 108°44'37", in SW¼SE¼ sec.27, T.6 N., R.1 E., Fremont County, Wind River Indian Reservation, at bridge on dirt road, about 1 mile west of Shotgun Butte, and 15.2 miles north of Pavillion.	2.57	1961-79	1979		(a)
06265200	Sand Draw near Thermopolis, WY	Lat 43°48'30", long 108°28'00", in SW¼ sec.2, T.44 N., R.97 W., Hot Springs County, at culvert on State Highway 120 and about 17 miles northwest of Thermopolis.	6.33	1960-79	8-27-79	4.09	(†)
06265600	Tie Down Gulch near Worland, WY	Lat 43°53'15", long 108°07'45", in NW¼NW¼ sec.10, T.45 N., R.94 W., Washakie County, at culvert on U.S. Highway 20 and 12.3 miles southwest of Worland.	1.78	1961-79	7-27-79	5.31	67
06266460	Murphy Draw near Grass Creek, WY	Lat 44°00'52", long 108°30'08", in SE¼NW¼ sec.28, T.47 N., R.97 W., Hot Springs County, on left bank 0.4 mile upstream from State Secondary Highway 2200 and 8.9 miles northeast of Grass Creek.	2.32	1965-79	5- 8-79	1.68	2
06267260	North Prong East Fork Nowater Creek near Worland, WY	Lat 43°57', long 107°49', in SW¼SE¼ sec.18, T.46 N., R.91 W., Washakie County, on right bank 0.3 mile upstream from South Fork-Sand Creek Oil Field Road and 8.7 miles southeast of Worland.	3.77	1964-79	8-15-79	2.80	45
06269750	Nowood River tributary near Ten Sleep, WY	Lat 43°58'30", long 107°23'20", in NE¼NE¼ sec.11, T.46 N., R.88 W., Washakie County, at culvert on paved county road and 5.1 miles southeast of Ten Sleep.	.42	1960-79	8-14-79	4.71	<2

See footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Yellowstone River basin--Continued							
06274190	Nowood River tributary No. 2 near Basin, WY	Lat 44°16'42", long 107°54'33", in SE¼NE¼ sec.28, T.50 N., R.92 W., Big Horn County, on right bank 0.2 mile upstream from State Secondary Highway 0201, 2.7 miles east of Manderson, and 9.3 miles southeast of Basin.	1.51	1965-79	11-10-78	cl.69	(†)
06274250	Elk Creek near Basin, WY	Lat 44°18'30", long 108°01'50", in NE¼ sec.16, T.50 N., R.93 W., Big Horn County, at bridge on Orchard Bench Road and 5.1 miles south of Basin.	96.9	1959-79	5-29-79	7.52	960
06277700	Twentyfour Mile Creek near Emblem, WY	Lat 44°27'32", long 108°36'30", in SE¼SW¼ sec.23, T.52 N., R.98 W., Park County, 300 ft downstream from culvert on U.S. Highways 14 and 20 and 10.0 miles southwest of Emblem.	12.8	1960-79	5-29-79	11.37	(†)
06277750	Dry Creek tributary near Emblem, WY	Lat 44°27'42", long 108°34'12", in NW¼SW¼ sec.19, T.52 N., R.97 W., Big Horn County, at culvert on U.S. Highways 14 and 20 and 8.8 miles southwest of Emblem.	.65	1960-68, 1970-79	8-20-79	3.85	34
06279020	Red Gulch near Shell, WY	Lat 44°32'04", long 107°50'06", in NE¼NW¼ sec.32, T.53 N., R.91 W., Big Horn County, 0.2 mile downstream from bridge on old section of U.S. Highway 14, 0.3 mile upstream from mouth, and 2.7 miles west of Shell. Prior to Oct. 1, 1971, at site 400 ft upstream at different datum.	47.8	1967, 1970-79	5-29-79	4.04	117
06299900	Slater Creek near Monarch, WY	Lat 44°54'32", long 107°02'49", in SE¼SW¼ sec.18, T.57 N., R.84 W., Sheridan County, 30 ft upstream from bridge on U.S. Highways 14 and 87, 0.2 mile upstream from mouth, and 0.9 mile northwest of Monarch.	18.0	1967-79	7- 4-79	56.77	117
06312700	South Fork Powder River near Powder River, WY	Lat 43°02'00", long 107°01'00", in SE¼NW¼ sec.3, T.35 N., R.85 W., Natrona County, 800 ft downstream from bridge on U.S. Highways 20 and 26 and 1.6 miles west of Powder River. Prior to July 11, 1973, at site 800 ft upstream at different datum.	262	1961-79	7-23-79	8.43	1,550
06312795	Sanchez Creek above reservoir, near Arminto, WY	Lat 43°20'23", long 107°10'48", in NE¼NE¼ sec.20, T.39 N., R.86 W., Natrona County, 0.9 mile upstream from Buffalo Creek Road, 1.0 mile upstream from mouth, and 12.3 miles northeast of Arminto.	5.53	1970-79	5-16-79	14.15	*3
06313020	Bobcat Creek near Edgerton, WY	Lat 43°11'55", long 106°05'25", in NW¼NW¼ sec.10, T.37 N., R.77 W., Natrona County, on left bank about 300 ft upstream from jeep road, about 600 ft south of Seven L Ranch Headquarters, and 16.7 miles southeast of Edgerton.	8.29	1965-79	7-27-79	1.83	56
06313050	East Teapot Creek near Edgerton, WY (station discontinued)	Lat 43°10'50", long 106°12'40", in SE¼NE¼ sec.16, T.37 N., R.78 W., Natrona County, on right bank about 2 miles southwest of light duty road and 16.2 miles southeast of Edgerton.	5.44	1965-79	7- 3-79	1.16	d30
06313100	Coal Draw near Midwest, WY	Lat 43°27'00", long 106°14'00", in NE¼SE¼ sec.8, T.40 N., R.78 W., Natrona County, at bridge on State Highway 387 and 3.4 miles northeast of Midwest.	11.4	1961-79	7-30-79	7.19	350

See footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Yellowstone River basin--Continued							
06313630	Van Houten Draw near Buffalo, WY	Lat 44°10'40", long 106°07'25", in NE¼ sec.33, T.49 N., R.77 W., Johnson County, about 300 ft upstream from dirt road, 0.4 mile upstream from mouth, and 31 miles southeast of Buffalo.	10.8	1971-79	7-26-79	11.96	3,510
06316700	Powder River tributary near Buffalo, WY	Lat 44°30', long 106°08', in NE¼NW¼ sec.9, T.52 N., R.77 W., Johnson County, on right bank 0.5 mile upstream from bridge on Crazy Woman Creek-Arvada Road and about 30 miles northeast of Buffalo.	1.64	1965-79	7- 3-79	2.80	168
06317050	Rucker Draw near Spotted Horse, WY	Lat 44°43'10", long 105°53'10", in NW¼NE¼ sec.28, T.55 N., R.75 W., Campbell County, at culvert on U.S. Highways 14 and 16 and 2.7 miles west of Spotted Horse.	3.98	1961-79	8-13-79	7.36	d7
06319100	Bull Creek near Buffalo, WY	Lat 44°16'38", long 106°44'42", in SW¼NE¼ sec.29, T.50 N., R.82 W., Johnson County, 3.5 miles upstream from bridge on U.S. Highway 87 and 5.5 miles southwest of Buffalo.	10.8	1969-79	6- 7-77 6-16-79	4.43 4.25	e52 35
06324800	Little Powder River tributary near Gillette, WY	Lat 44°26'50", long 105°27'40", in NE¼ sec.36, T.52 N., R.72 W., Campbell County, 145 ft upstream from culvert on State Secondary Highway 0301 and 10.6 miles north of Gillette. Prior to Oct. 1, 1969, at site 125 ft downstream at same datum.	.81	1960-79	5-18-78 7- 4-79	7.97 7.25	f19 2
06324900	Cedar Draw near Gillette, WY	Lat 44°31'00", long 105°26'40", in NW¼ sec.6, T.52 N., R.71 W., Campbell County, at culvert on State Secondary Highway 0301 and 15.3 miles north of Gillette.	3.45	1959-79	7- 4-79	5.63	76
06324910	Cow Creek tributary near Weston, WY	Lat 44°32'35", long 105°21'40", in SE¼ sec.26, T.53 N., R.71 W., Campbell County, at culvert on dirt road, about 0.4 mile upstream from mouth, and about 6.6 miles south of Weston.	.72	1971-79	7- 4-79	6.03	56
Cheyenne River basin							
06379600	Box Creek near Bill, WY	Lat 43°06'20", long 105°15'35", in SW¼SE¼ sec.9, T.36 N., R.70 W., Converse County, on left bank 12 ft downstream from bridge on State Highway 59 and 8.8 miles south of Bill.	112	1956-58; [†] 1959, 1961-79	7-27-79	5.36	305
06382200	Pritchard Draw near Lance Creek, WY	Lat 43°12', long 104°41', in SW¼NE¼ sec.8, T.37 N., R.65 W., Niobrara County, on right bank 200 ft upstream from unmaintained road, 4.1 miles west of Lance Creek-Cow Creek Road, and 11.9 miles north of Lance Creek.	g5.1	1964-79	6-17-79	6.64	658
06385400	Cottonwood Creek at Hat Creek, WY (station discontinued)	Lat 42°56'15", long 104°21'55", in NE¼ sec.12, T.34 N., R.63 W., Niobrara County, at culvert on county road and 0.1 mile east of Hat Creek.	h14.5	1972-79	8- 9-79	6.22	52
06387500	Turner Creek near Osage, WY	Lat 44°01'10", long 104°30'10", in SW¼SE¼ sec.26, T.47 N., R.64 W., Weston County, at bridge on U.S. Highway 16 and 4.7 miles northwest of Osage.	47.8	1959-79	8- 8-79	17.47	5,660

See footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drain- age area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (cfs)
Cheyenne River basin--Continued							
06388800	Blacktail Creek tributary near Newcastle, WY	Lat 43°47'53", long 104°10'52", in NE½NE½ sec.16, T.44 N., R.61 W., Weston County, at culvert on U.S. Highway 85 and 4.1 miles south of Newcastle.	.25	1960-79	8- 7-79	7.37	55
06426195	Donkey Creek tri- butary above reservoir, near Gillette, WY	Lat 44°16'57", long 105°25'38", in NW½SW½ sec.29, T.50 N., R.71 W., Campbell County, 0.1 mile upstream from culvert on U.S. Highways 14 and 16, 0.2 mile upstream from mouth, and 3.8 miles east of Gillette.	.2	1970-79	7-26-79	16.26	57
06427700	Inyan Kara Creek near Upton, WY	Lat 44°13'45", long 104°26'45", in S½ sec.17, T.49 N., R.63 W., Crook County, at bridge on State Highway 116 and 13.0 miles northeast of Upton.	96.5	1959-79	6-17-79	6.71	112
06428100	Belle Fourche River tributary No. 2 near Hulett, WY	Lat 44°41'35", long 104°32'10", in SW½SW½ sec.3, T.54 N., R.64 W., Crook County, at culvert on State Highway 24 and 3.2 miles east of Hulett.	10.2	1962-79	unknown	c2.48	(†)
06429300	Ogden Creek near Sundance, WY	Lat 44°27'30", long 104°21'10", in SW½SW½ sec.30, T.52 N., R.62 W., Crook County, on left bank 225 ft up- stream from bridge on Sundance- Farrall Road and 3.9 miles northeast of Sundance. Prior to 1967, station Nos. 06429299 and 06429300 published as separate stations.	8.42	1962-79	1979		(a)
Platte River basin							
06629150	Coal Bank Draw tributary near Walcott, WY	Lat 41°44'05", long 106°43'18", in SE½NW½ sec.3, T.20 N., R.83 W., Carbon County, on right bank 60 ft downstream from dirt road and 6.6 miles southeast of Walcott.	3.65	1962-79	4-10-79	6.47	52
06629200	Coal Bank Draw tributary No. 2 near Walcott, WY	Lat 41°44'19", long 106°43'36", in NE½NE½ sec.4, T.20 N., R.83 W., Carbon County, on left bank 6.3 miles southeast of Walcott.	2.41	1962-79	8-13-79	6.26	33
06629800	Coal Creek near Rawlins, WY	Lat 41°45'44", long 107°16'07", in NW½SW½ sec.30, T.21 N., R.87 W., Carbon County, 0.2 mile upstream from State Secondary Highway 0402 and 2 miles southwest of Rawlins. Prior to June 25, 1970, at site 0.2 mile downstream at different datum.	7.32	1959-79	2-14-79	16.35	37
06630200	Big Ditch tribu- tary near Hanna, WY	Lat 41°51'45", long 106°31'35", in SE½ sec.21, T.22 N., R.81 W., Carbon County, at culvert on U.S. Highway 30 and 2 miles southeast of Hanna.	7.42	1959-79	4-30-79	4.47	e2
06631150	Third Sand Creek near Medicine Bow, WY	Lat 41°45', long 106°19', in SE½SE½ sec.29, T.21 N., R.79 W., Carbon County, on right bank 60 ft upstream from bridge on Medicine Bow-Elk Mountain Road and 11.0 miles south- west of Medicine Bow.	10.8	1965-79	8-10-79	7.58	1,540

See footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Platte River basin--Continued							
06634200	Sheep Creek near Marshall, WY	Lat 42°16'48", long 105°53'06", in NW¼SW¼ sec.30, T.27 N., R.75 W., Albany County, 500 ft downstream from culverts on Marshall Road and 2.4 miles southwest of Marshall. Prior to Oct. 1, 1969, at site 500 ft upstream at different datum.	61.0	1961-79	4-17-79	4.77	113
06634300	Sheep Creek near Medicine Bow, WY	Lat 42°07'48", long 106°00'19", in NW¼NW¼ sec.19, T.25 N., R.76 W., Albany County, at bridge on Marshall Road and 19.5 miles northeast of Medicine Bow.	174	1961-79	4-17-79	7.41	445
06634910	Medicine Bow River tributary near Hanna, WY	Lat 42°00'32", long 106°29'32", in SE¼NW¼ sec.35, T.24 N., R.81 W., Carbon County, on left bank 0.2 mile upstream from dirt road, 1.0 mile east of North Road, and 10.2 miles north-east of Hanna.	3.01	1965-79	8- 9-79	1.43	44
06637550	Sweetwater River near South Pass City, WY	Lat 44°22'30", long 108°52'56", in NW¼NW¼ sec.28, T.28 N., R.101 W., Fremont County, on left bank 100 ft downstream from small tributary, 0.8 mile downstream from Fog Gulch, 1.2 miles downstream from State Highway 28, and 7.6 miles southwest of South Pass City.	177	1958-73; 1974-79	5-29-79	6.51	783
06638300	West Fork Crooks Creek near Jeffrey City, WY	Lat 42°20'56", long 107°51'45", in SE¼SW¼ sec.31, T.28 N., R.92 W., Fremont County, at culvert on dirt road and 10.1 miles south of Jeffrey City.	11.6	1961-79	4-20-79	2.93	3
06638350	Coal Creek near Muddy Gap, WY	Lat 42°20'23", long 107°28'02", in NE¼SE¼ sec.4, T.27 N., R.89 W., Carbon County, 500 ft upstream from culvert on U.S. Highway 287 and 1.0 mile southwest of Muddy Gap. Prior to Oct. 1, 1970, at site 500 ft downstream at different datum.	6.08	1961-79	8-19-79	16.99	235
06641400	Bear Springs Creek near Alcova, WY	Lat 42°31'57", long 106°41'56", in SE¼SE¼ sec.30, T.30 N., R.82 W., Natrona County, 250 ft upstream from culvert on Kortess Road and 1.6 miles southeast of Alcova. Prior to Oct. 1, 1970, at site 250 ft downstream at same datum.	9.33	1960-79	5- 5-79	11.63	51
06642700	Lawn Creek near Alcova, WY	Lat 42°29'21", long 106°27'28", in SW¼SW¼ sec.8, T.29 N., R.80 W., Natrona County, at bridge on State Highway 487 and 13.9 miles southeast of Alcova.	11.5	1961-79	3-16-79	5.18	32
06642760	Stinking Creek near Alcova, WY	Lat 42°32'31", long 106°27'32", in SE¼NE¼ sec.30, T.30 N., R.80 W., Natrona County, at bridge on Bates Hole Stock Trail and 13.2 miles east of Alcova.	117	1961-79	8-14-79	5.26	300
06643300	Coal Creek near Goose Egg, WY	Lat 42°42'47", long 106°32'13", in SW¼NW¼ sec.27, T.32 N., R.81 W., Natrona County, 0.2 mile upstream from culvert on State Highway 220 and 4.2 miles southwest of Goose Egg. Prior to Oct. 1, 1970, at site 0.2 mile downstream at different datums.	5.39	1960-79	8-19-79	6.23	41

see footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Platte River basin--Continued							
06644840	McKenzie Draw tributary near Casper, WY	Lat 43°06'20", long 106°09'05", in SW¼NE¼ sec.12, T.36 N., R.78 W., Natrona County, on right bank about 2,000 ft northwest of Ormsby Road and about 22 miles northeast of Casper.	2.02	1965-79	4- -79 7-27-79	c1.09 .74	2
06646700	East Fork Dry Creek tributary near Glenrock, WY	Lat 42°47'37", long 105°49'40", in SW¼SW¼ sec.26, T.33 N., R.75 W., Converse County, at culvert on Boxelder Road and 4.9 miles southeast of Glenrock.	2.60	1961-79	3- 8-79	c7.71	d15
06648780	Sage Creek tributary near Orpha, WY	Lat 43°00'35", long 105°40'00", in NE¼NW¼ sec.18, T.35 N., R.73 W., Converse County, on right bank 600 ft upstream from culvert on Ross Road and about 14 miles northwest of Orpha.	1.38	1965-79	7-27-79	1.11	76
06649900	North Platte River tributary near Douglas, WY	Lat 42°41'22", long 105°23'30", in SW¼NE¼ sec.5, T.31 N., R.71 W., Converse County, at culvert on Esterbrook Road and 4.2 miles south of Douglas.	8.53	1961-79	7- 4-79	5.17	121
06651800	Sand Creek near Orin, WY	Lat 42°40'09", long 105°12'44", in NE¼SE¼ sec.11, T.31 N., R.70 W., Converse County, at bridge on old U.S. Highway 87 and 1.6 miles northwest of Orin.	27.8	1955, 1961-79	7- 4-79	19.89	1,550
06652400	Watson Draw near Lost Springs, WY	Lat 42°45'20", long 104°57'30", in SW¼SE¼ sec.12, T.32 N., R.68 W., Converse County, 350 ft downstream from culvert on U.S. Highway 20 and 2.1 miles southwest of Lost Springs. Prior to Sept. 30, 1963, at site 250 ft upstream at different datum.	6.95	1960-79	1979		(a)
06661580	Sevenmile Creek near Centennial, WY	Lat 41°27'29", long 106°00'36", in NW¼SE¼ sec.11, T.17 N., R.77 W., Albany County, at culvert on county road and 12.7 miles northeast of Centennial.	11.2	1962-79	4-17-79	5.93	140
06668040	Rabbit Creek near Wheatland, WY	Lat 42°12'57", long 105°13'43", in NW¼NE¼ sec.22, T.26 N., R.70 W., Platte County, on right bank 200 ft east of Fletcher Park Road and about 17 miles northwest of Wheatland.	g1.3	1965-79	8-18-79	.32	25
06670100	Laramie River tributary near Guernsey, WY	Lat 42°09'08", long 104°42'25", in N¼SW¼ sec.7, T.25 N., R.65 W., Platte County, at culvert on county road, 0.4 mile upstream from mouth, and 9.4 miles south of Guernsey.	1.97	1971-79	8-20-79	7.30	(†)
06670985	Dry Rawhide Creek near Lingle, WY	Lat 42°18'14", long 104°18'18", in NE¼NE¼ sec.21, T.27 N., R.62 W., Goshen County, 400 ft upstream from culvert on U.S. Highway 85, 0.6 mile upstream from mouth, and 11.5 miles north of Lingle.	20	1969-79	7-28-79	6.80	99
06675300	Horse Creek tributary near Little Bear, WY	Lat 41°27'21", long 104°53'00", in NW¼SW¼ sec.10, T.17 N., R.67 W., Laramie County, at culvert on U.S. Highway 87 and 6.1 miles south of Little Bear. Prior to Sept. 30, 1966, at different datum.	8.16	1961-79	8-19-79	6.66	75

See footnotes at end of table, p. 555

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drain- age area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (cfs)
Platte River basin--Continued							
06761900	Lodgepole Creek tributary near Pine Bluffs, WY	Lat 41°15'23", long 104°04'50", in NE¼NE¼ sec.21, T.15 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 5.0 miles north of Pine Bluffs.	.44	1960-79	8-20-79	9.10	105
06762600	Lodgepole Creek tributary No. 2 near Albin, WY	Lat 41°19'11", long 104°04'49", in SE¼SE¼ sec.28, T.16 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 6.8 miles south of Albin.	5.69	1960-79	2-13-79	6.06	78

‡ Operated as a continuous-record gaging station.

† Discharge not determined.

*.About.

a No evidence of flow.

b Of which 0.50 mi² is probably noncontributing.

c Backwater from ice and snow.

d Estimated.

e Not previously published.

f Revised.

g Approximately.

h Of which 2.5 mi² is probably noncontributing.

i Backwater from temporary roadfill.

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Dis-charge (cfs)
Yellowstone River Basin						
Heart Mountain Canal Site No. 1	Big Sand Coulee	Lat 44°31'14", long 109°07'29", in NW¼NE¼ sec.4, T.52 N., R.102 W., Park County, at mile 0, 900 ft (274 m) downstream from end of diversion tunnel and 3.3 mi (5.3 km) west of Cody.			7-17-79	856
					7-18-79	870
					7-19-79	855
					7-19-79	864
Heart Mountain Canal Site No. 2	Big Sand Coulee	Lat 44°32'41", long 109°06'23", in SW¼NE¼ sec.26, T.53 N., R.102 W., Park County, at mile 2.6 (4.2 km), 300 ft (91 m) upstream from Dry Creek siphon, and 2.7 mi (4.3 km) northwest of Cody.			7-19-79	868
					7-19-79	863
Heart Mountain Canal Site No. 3	Big Sand Coulee	Lat 44°33'18", long 109°05'20", in NE¼SW¼ sec.24, T.53 N., R.102 W., Park County, at mile 4.1 (6.6 km), at State Highway 120 bridge, and 2.5 mi (4.0 km) northwest of Cody.			7-19-79	798
					7-19-79	793
Heart Mountain Canal Site No. 4	Big Sand Coulee	Lat 44°34'24", long 109°04'47", in SE¼NE¼ sec.13, T.53 N., R.102 W., Park County, at mile 5.4 (8.7 km), 250 ft (76 m) upstream from North Fork Cottonwood Creek siphon, and 3.5 mi (5.6 km) northwest of Cody.			7-19-79	841
					7-19-79	835
Heart Mountain Canal Site No. 6	Big Sand Coulee	Lat 44°35'00", long 109°04'10", in NE¼SW¼ sec.7, T.53 N., R.101 W., Park County, at mile 6.7 (10.8 km), 100 ft (30 m) upstream from ditch No. H-41, and 4.0 mi (6.4 km) north of Cody.			7-19-79	787
					7-19-79	797
Heart Mountain Canal Site No. 7	Big Sand Coulee	Lat 44°35'30", long 109°02'48", in NW¼NE¼ sec.8, T.53 N., R.101 W., Park County, at mile 8.0 (12.9 km), at private bridge, and 4.6 mi (7.4 km) north of Cody.			7-19-79	756
					7-19-79	746
Heart Mountain Canal Site No. 8	Big Sand Coulee	Lat 44°36'15", long 109°00'43", in SW¼NW¼ sec.3, T.53 N., R.101 W., Park County, at mile 10.7 (17.2 km), 50 ft (15 m) upstream from ditch No. H-65, and 6.0 mi (9.6 km) north of Cody.			7-19-79	766
					7-19-79	775
Heart Mountain Canal Site No. 9	Big Sand Coulee	Lat 44°36'59", long 109°00'34", in SE¼NW¼ sec.34, T.54 N., R.101 W., Park County, at mile 11.6 (18.7 km), 400 ft (122 m) upstream from ditch No. H-71, and 6.8 mi (10.9 km) north of Cody.			7-19-79	670
					7-19-79	657
Heart Mountain Canal Site No. 10	Big Sand Coulee	Lat 44°38'01", long 109°00'58", in NW¼NW¼ sec.27, T.54 N., R.101 W., Park County, at mile 13.3 (21.4 km), 100 ft (30 m) upstream from ditch No. H-79, and 7.8 mi (12.6 km) north of Cody.			7-19-79	655
					7-19-79	672
Heart Mountain Canal Site No. 11	Big Sand Coulee	Lat 44°38'16", long 109°01'12", in SE¼SE¼ sec.21, T.54 N., R.101 W., Park County, at mile 13.7 (22.0 km), 1,500 ft (457 m) upstream from Iron Creek siphon, and 8.0 mi (12.9 km) north of Cody.			7-17-79	599
					7-19-79	603
					7-19-79	606
Heart Mountain Canal Site No. 12	Big Sand Coulee	Lat 44°39'55", long 109°01'19", in NW¼NE¼ sec.16, T.54 N., R.101 W., Park County, at mile 15.9 (25.6 km), 1,500 ft (457 m) upstream from Buck Springs Creek siphon, and 9.9 mi (15.9 km) north of Cody.			7-19-79	562
					7-19-79	553
Heart Mountain Canal Site No. 13	Big Sand Coulee	Lat 44°41'15", long 109°01'27", in NW¼SE¼ sec.4, T.54 N., R.101 W., Park County, at mile 17.7 (28.5 km), 100 ft (30 m) upstream from ditch No. H-105, and 11.4 mi (18.3 km) north of Cody.			7-19-79	495
					7-19-79	503

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre-viously (water years)	Measurements	
					Date	Dis-charge (cfs)
Yellowstone River Basin--Continued						
Heart Mountain Canal Site No. 15	Big Sand Coulee	Lat 44°41'42", long 109°01'46", in NE¼NW¼ sec.4, T.54 N., R.101 W., Park County, at mile 18.3 (29.4 km), 1,200 ft (366 m) upstream from South Eaglenest Creek siphon, and 11.9 mi (19.1 km) north of Cody.			7-19-79	448
					7-19-79	443
Heart Mountain Canal Site No. 16	Big Sand Coulee	Lat 44°42'34", long 109°02'13", in NE¼NE¼ sec.32, T.55 N., R.101 W., Park County, at mile 19.5 (31.4 km), 0.4 mi (0.6 km) downstream from Eaglenest tunnel, and 12.8 mi (20.6 km) north of Cody.			7-17-79	423
					7-19-79	413
					7-19-79	410
Heart Mountain Canal Site No. 17	Big Sand Coulee	Lat 44°43'35", long 109°01'17", in SE¼SE¼ sec.21, T.55 N., R.101 W., Park County, at mile 21.3 (34.3 km), 200 ft (61 m) upstream from Ralston Lateral, and 14.1 mi (22.7 km) north of Cody.			7-19-79	411
					7-19-79	412
Heart Mountain Canal Site No. 18	Big Sand Coulee	Lat 44°44'18", long 109°01'34", in SW¼SE¼ sec.16, T.55 N., R.101 W., Park County, at mile 22.2 (35.7 km) 0.8 mi (1.3 km) upstream from Alkali Creek, and 14.9 mi (24.0 km) north of Cody.			7-19-79	57.1
					7-19-79	52.7
Little Wind River at Fort Washakie	Wind River	Lat 43°00'37", long 108°52'52", in NE¼NW¼NE¼ sec.4, T.1 S., R.1 W., Fremont County, Wind River Indian Reservation, at bridge on U.S. Highway 287, 150 ft (45.7 m) downstream from confluence of North Fork Little Wind River and South Fork Little Wind River, and 0.5 mi (0.8 km) north of Fort Washakie post office.	1978		10-03-78	67.6
					11-06-78	44.9
					11-28-78	51.9
					1-12-79	44.9
					2- 9-79	39.6
					3- 1-79	46.3
					4- 5-79	27.4
					4-18-79	48.2
					5- 3-79	73.4
					5-15-79	73.1
					6- 1-79	516
					6-18-79	583
					7- 5-79	214
					7-27-79	103
					8- 7-79	57.9
South Tributary to Five Springs Creek near forest boundary	Bighorn River	Lat 44°47'46", long 107°57'48", in SE¼SE¼SE¼ sec.30, T.56 N., R.92 W., Big Horn County, 1.2 mi (1.9 km) upstream from mouth, 3.0 mi (4.8 km) southwest of Medicine Wheel, and 12.2 mi (19.6 km) southeast of Kane.	1.07	1977-78	11- 7-78	.33
					5-21-79	1.55
					6-12-79	1.27
					7- 9-79	1.22
					8- 9-79	.44
South Tributary to Five Springs Creek near mouth	Bighorn River	Lat 44°47'42", long 107°58'09", in NW¼NW¼NE¼ sec.31, T.56 N., R.92 W., Big Horn County, 0.9 mi (1.4 km) upstream from mouth, 3.2 mi (5.2 km) southwest of Medicine Wheel, and 11.9 mi (19.2 km) southeast of Kane.	1.28	1977-78	9- 6-79	.46
					11- 7-78	.32
					5-21-79	1.64
					6-12-79	1.41
					7- 9-79	1.09
					8- 9-79	.51
					9- 6-79	.27

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Cheyenne River Basin						
Sand Creek	Antelope Creek	Lat 43°21'40", long 105°46'20", in NW¼NW¼ sec.17, T.39 N., R.74 W., Converse County, at bridge on Ross Road, 6.4 mi (10.3 km) north of Bear Creek, and 25 mi (40 km) east of Midwest.			8-13-79	.32
Platte River Basin						
Hog Park Creek 06623820	Encampment River	Lat 41°02'01", long 106°51'33", in SW¼SE¼ sec.5, T.14 N., R.84 W., Carbon County, about 800 ft (240 m) downstream from Hog Park Creek Dam and 13.2 mi (21.2 km) southwest of Encampment.		1967-78	10-26-78 6-27-79 7-20-79 8-17-79 9-27-79	2.95 172 28 9.16 4.28

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

442715110504001 IRON SPRING CREEK ABOVE OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 15 LONG 110 50 40)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
AUG 29...	0920	130	7.3	16.0	17	0	5.3	.8	
DATE		SODIUM AD- SORP- TION RATIO (MG/L AS NA)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
AUG 29...	20	2.1	24	3.5	31	4.2	9.2	4.7	66
DATE		SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 29...	132	.18	.01	4.8	.01	.03	20	2.1	

442726110504801 IRON SPRING CREEK BELOW OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 26 LONG 110 50 48)

DATE	TIME	SPE- CIFIC CON- DUCTY- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)		
AUG 29...	1250	180	7.2	22.0	16	0	5.1	.7		
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
AUG 29...	30		3.3	35	4.6	41	6.2	21	5.1	77
DATE	TIME	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 29...	175		.24	.09	.16	.05	.15	20	3.0	

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

443400110225001 YELLOWSTONE RIVER AT FISHING BRIDGE, YNP (LAT 44 34 00 LONG 110 22 50)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
AUG 22...	0850	90	6.9	15.5	24	1	5.3	2.7	10

DATE	TIME	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
AUG 22...	.9	12	1.8	28	0	23	12	5.4	.6	

DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 22...	10	62	.08	.03	1.2	.06	.18	20	2.4	

443446110223001 YELLOWSTONE RIVER BELOW FISHING BRIDGE, YNP (LAT 44 34 46 LONG 110 22 30)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
AUG 22...	1300	90	6.9	15.5	23	0	5.1	2.5	10

DATE	TIME	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
AUG 22...	.9	12	1.6	28	0	23	13	6.2	.5	

DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 22...	10	63	.09	.03	.04	.05	.15	30	2.5	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

443835110515001 MADISON RIVER NEAR MADISON JUNCTION, YNP (LAT 44 38 35 LONG 110 51 50)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	
AUG 24...	1415	470	7.9	20.0	18	0	6.2	.7	91	
DATE	TIME	SODIUM+ POTASSIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	
AUG 24...	9.2	100	9.7	120	0	98	19	64	3.5	
DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
AUG 24...	120	374	.51	.20	.38	.03	.09	80	1.3	

443832110522801 MADISON RIVER BELOW MADISON JUNCTION, YNP (LAT 44 38 32 LONG 110 52 28)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	
AUG 24...	1300	490	7.2	19.5	20	0	6.6	.9	96	
DATE	TIME	SODIUM ADSORPTION RATIO	SODIUM+ POTASSIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
AUG 24...	9.3	110	10	130	0	110	20	65	3.5	
DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
AUG 24...	150	416	.57	.06	.39	.03	.09	90	2.0	

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

445258106591301 GOOSE CREEK NEAR MOUTH, NEAR KLEENBURN, WY (LAT 44 52 58 LONG 106 59 13)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	1005	172	560	8.5	7.0	260	68	50	32	22	.6	2.4

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 19...	230	0	190	110	3.7	.3	7.0	338	341	.46	158

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT 19...	.12	.06	.43	.49	.61	2.7	.08	.10	100	110	8.9

445700106563101 ASH CREEK AT MOUTH, NEAR ACME, WY (LAT 44 57 00 LONG 106 56 31)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	1145	1.1	1900	7.7	7.0	820	430	130	120	140	2.1	19

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 19...	470	0	390	670	79	.6	20	1350	1410	1.92	4.19	.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 19...	.01	.33	.34	.39	1.7	.01	.00	310	40	8.1	.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

445832106551401 YOUNGS CREEK NEAR MOUTH, NEAR DECKER, MT (LAT 44 58 32 LONG 106 55 14)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	1520	7.0	950	8.1	8.0	480	140	78	70	39	.8	8.0

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 19...	400	9	340	220	3.9	.7	18	606	644	.88	12.2	.02

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 19...	.04	.38	.42	.44	1.9	.02	.01	150	60	4.5	.6

450047106514201 SQUIRREL CREEK ABOVE MOUTH, AT DECKER, MT (LAT 45 00 47 LONG 106 51 42)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT S19...	0930	2.2	2000	5.0	870	410	110	140	170	2.5	9.6	560

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 19...	0	460	790	5.5	.8	6.5	1500	2.04	8.91	.07	.01

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

445130106511601 PRAIRIE DOG CREEK ABOVE BATES DRAW, NEAR WAKELEY, WY (LAT 44 51 30 LONG 106 51 16)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	1120	39	900	8.5	8.0	470	220	98	55	29	.6	5.3

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 19...	310	1	260	260	3.5	.2	9.6	650	615	.84	64.8	.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 19...	.03	.89	.92	.97	4.3	.02	.01	120	40	8.4	.4

444732106452801 DUTCH CREEK ABOVE DOW PRONG, NEAR WYARNO, WY (LAT 44 47 32 LONG 106 45 28)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	0920	2.9	2900	8.8	5.0	1400	1000	230	210	220	2.5	15

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 19...	540	0	440	1400	10	.5	9.6	2520	2360	3.21	18.5	.15

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 19...	.03	.76	.79	.94	4.2	.02	.01	280	60	13	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

444708106452201 DOW PRONG CREEK AT MOUTH, NEAR WYARNO, WY (LAT 44 47 08 LONG 106 45 22)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	0830	4.5	1800	8.5	4.0	840	420	140	120	160	2.4	14

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 19...	520	0	430	730	9.6	.5	14	1460	1440	1.96	17.5	.13

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEO TOTAL (MG/L AS C)
OCT 19...	.02	.74	.76	.89	3.9	.05	.01	200	80	8.5	.5

444947106482201 DUTCH CREEK ABOVE PLUM CREEK, NEAR WYARNO, WY (LAT 44 49 47 LONG 106 48 22)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	1005	7.3	2400	8.8	7.0	1200	720	180	170	190	2.4	2.5

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 19...	520	0	430	1100	9.2	.5	9.8	1990	1920	2.61	37.8	.06

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEO TOTAL (MG/L AS C)
OCT 19...	.04	.93	.97	1.0	4.6	.04	.01	250	440	11	.9

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

445943106473801 BADGER CREEK NEAR MOUTH, NEAR DECKER, MT (LAT 44 59 43 LONG 106 47 38)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT S19...	1010	.03	7500	5.0	2600	2000	330	440	1200	10	18	770

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	TIME	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 19...		0	630	4500	27	1.5	.0	6900	9.38	.56	.02	.00

432508106381901 SOUTH FORK POWDER RIVER BELOW LONE BEAR CREEK, NEAR MIDWEST, WY (LAT 43 25 08 LONG 106 38 19)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S20...	1000	.06	7000	7.4	7.0	1400	1200	380	110	1600	19	9.8

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	TIME	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 20...	290	0	240	4400	22	1.7	.0	6660	9.06	1.08	.00	.16	

432848106415301 WILLOW CREEK BELOW POODLE DOG CREEK, NEAR KAYCEE, WY (LAT 43 28 48 LONG 106 41 53)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S20...	0900	6.5	1900	7.6	6.0	950	830	290	56	90	1.3	3.6

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	TIME	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 20...	150	0	120	1000	13	.9	1.1	1530	2.08	26.9	.00	.06	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

433742106342001 SOUTH FORK POWDER RIVER ABOVE MOUTH, NEAR KAYCEE, WY (LAT 43 37 42 LONG 106 34 20)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S20...	1555	5.0	3740	8.4	13.0	1100	960	300	88	460	6.0

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 20...	10	160	5	140	1700	160	.7	4.5	3110	2810	3.82

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 20...	37.9	.36	.06	2.1	2.2	2.6	11	.00	.00	370	10

434134106315401 SUSSEX IRRIGATION CANAL AT DIVERSION, NEAR KAYCEE, WY (LAT 43 41 34 LONG 106 31 54)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	0940	14	1120	7.0

S-Seepage run data (see Explanation of Water-Quality Records).

432912106171001 SALT CREEK BELOW SHERWOOD CREEK, NEAR MIDWEST, WY (LAT 43 29 12 LONG 106 17 10)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	1345	33	7650	15.0

S-Seepage run data (see Explanation of Water-Quality Records).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

433315106223801 DUGOUT CREEK NEAR MOUTH, NEAR MIDWEST, WY (LAT 43 33 15 LONG 106 22 38)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S19...	1515	.01	7100	8.6	14.0	1300	1000	280	160	1200	14	13

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 19...	340	0	280	3500	38	1.4	.0	5360	7.29	.14	.00	.03

433605106161301 MEADOW CREEK ABOVE MOUTH, NEAR LINCH, WY (LAT 43 36 05 LONG 106 16 13)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT S20...	0910	1.1	4400	10.0	670	390	170	58	770	13	20	340

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 20...	0	280	1300	610	5.2	13	3120	4.24	9.27	.00	.00

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

434000106211601 SALT CREEK NEAR MOUTH, NEAR SUSSEX, WY (LAT 43 40 00 LONG 106 21 16)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S20...	1230	32	7200	8.4	9.0	300	0	51	42	1600	40
S-Seepage run data (see Explanation of Water-Quality Records).											

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 20...	18	930	8	770	870	1400	2.3	20	4340	4470	6.08

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 20...	386	.01	.06	1.3	1.4	1.4	6.2	.70	.00	2200	30

435005106131701 POWDER RIVER ABOVE LITTLE WILLOW CREEK, NEAR SUSSEX, WY (LAT 43 50 05 LONG 106 13 17)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S17...	1230	167	2690	8.4	8.5	480	200	110	50	410	8.1
S-Seepage run data (see Explanation of Water-Quality Records).											

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 17...	6.4	300	19	280	600	360	.8	9.4	1690	1710	2.33

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 17...	771	.03	.01	.81	.82	.85	3.8	.28	.02	580	40

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

441252106090801 POWDER RIVER ABOVE DEAD HORSE CREEK, NEAR BUFFALO, WY (LAT 44 12 52 LONG 106 09 08)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S17...	1530	161	2730	8.4	10.5	470	200	100	54	410	8.2

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 17...	7.0	310	10	270	650	330	.8	9.0	1730	1720	2.34

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 17...	748	.08	.06	2.1	2.2	2.3	10	.41	.01	550	20

442829106081601 POWDER RIVER ABOVE CRAZY WOMAN CREEK, NEAR ARVADA, WY (LAT 44 28 29 LONG 106 08 16)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S17...	0830	154	2630	8.2	6.5	500	210	110	55	400	7.8

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 17...	7.0	360	0	300	660	340	.6	8.3	1780	1760	2.39

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 17...	732	.05	.03	1.4	1.4	1.5	6.4	.52	.01	540	40

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

441148106460601 NORTH FORK CRAZY WOMAN CREEK BELOW LITTLE NORTH FORK CRAZY WOMAN CREEK, NEAR BUFFALO, WY
(LAT 44 11 48 LONG 106 46 06)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S 20...	0925	E12	280	5.0

S-Seepage run data (see Explanation of Water-Quality Records).
E-Estimate.

441023106414801 NORTH FORK CRAZY WOMAN CREEK BELOW KELLEY CREEK, NEAR BUFFALO, WY
(LAT 44 10 23 LONG 106 41 48)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	1110	14	870	7.0

S-Seepage run data (see Explanation of Water-Quality Records).

440756106423401 MUDDY CREEK NEAR MOUTH, NEAR BUFFALO, WY (LAT 44 07 56 LONG 106 42 34)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	0805	3.0	2100	7.5

S-Seepage run data (see Explanation of Water-Quality Records).

440740106423801 BILLY CREEK AT MOUTH, NEAR BUFFALO, WY (LAT 44 07 40 LONG 106 42 38)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	0845	.57	854	8.5

S-Seepage run data (see Explanation of Water-Quality Records).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

440507106424201 POISON CREEK NEAR OMALLEY DRAW, NEAR BUFFALO, WY (LAT 44 05 07 LONG 106 42 42)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S20...	0930	.24	3380	9.0

S-Seepage run data (see Explanation of Water-Quality Records).

440508106401701 NORTH FORK CRAZY WOMAN CREEK BELOW POISON CREEK, NEAR BUFFALO, WY
(LAT 44 05 08 LONG 106 40 17)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S20...	1155	18	1090	10.0

S-Seepage run data (see Explanation of Water-Quality Records).

440306106413901 MIDDLE FORK CRAZY WOMAN CREEK BELOW SEVENTYSIX CREEK, NEAR MAYOWORTH, WY
(LAT 44 03 06 LONG 106 41 39)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S20...	1040	15	500	8.5

S-Seepage run data (see Explanation of Water-Quality Records).

440428106375701 NORTH FORK CRAZY WOMAN CREEK BELOW MIDDLE FORK CRAZY WOMAN CREEK, NEAR MAYOWORTH, WY
(LAT 44 04 28 LONG 106 37 57)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S20...	1315	27	888	10.0

S-Seepage run data (see Explanation of Water-Quality Records).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

435920106422601 BEAVER CREEK BELOW BEAVER TOOTH DITCH DIVERSION, NEAR MAYOWORTH, WY
(LAT 43 59 20 LONG 106 42 26)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	0830	.14	4310	6.5

S-Seepage run data (see Explanation of Water-Quality Records).

435906106404401 BEAVER CREEK AT MOUTH, NEAR MAYOWORTH, WY (LAT 43 59 06 LONG 106 40 44)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	0905	.25	3540	7.0

S-Seepage run data (see Explanation of Water-Quality Records).

440321106380201 SOUTH FORK CRAZY WOMAN CREEK NEAR MOUTH, NEAR MAYOWORTH, WY (LAT 44 03 21 LONG 106 38 02)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	1005	.26	3740	8.5

S-Seepage run data (see Explanation of Water-Quality Records).

440516106315701 CRAZY WOMAN CREEK BELOW TRABING DRAW, NEAR BUFFALO, WY (LAT 44 05 16 LONG 106 31 57)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S20...	1145	.27	1110	10.0

S-Seepage run data (see Explanation of Water-Quality Records).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

441500106254601 CRAZY WOMAN CREEK BELOW TIMBER DRAW, NEAR BUFFALO, WY (LAT 44 15 00 LONG 106 25 46)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S20...	1345	28	1410	11.5

S-Seepage run data (see Explanation of Water-Quality Records).

442348106221001 CRAZY WOMAN CREEK ABOVE DRY CREEK, NEAR BUFFALO, WY (LAT 44 23 48 LONG 106 22 10)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S20...	1350	27	1550	10.0

S-Seepage run data (see Explanation of Water-Quality Records).

443852106080501 COAL DRAW AT MOUTH, AT ARVADA, WY (LAT 44 38 52 LONG 106 08 05)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S17...	1420	.01	5400	11.0

S-Seepage run data (see Explanation of Water-Quality Records).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

443902106071701 WILD HORSE CREEK AT MOUTH, AT ARVADA, WY (LAT 44 39 02 LONG 106 07 17)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT 20...	0845	.08	6900	10.0	2000	1600	350	260	580	5.7	37	450

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 20...	0	370	2800	18	1.3	8.6	4280	5.82	.92	.05	.03

445249106034201 POWDER RIVER ABOVE CLEAR CREEK, NEAR ARVADA, WY (LAT 44 52 49 LONG 106 03 42)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 17...	1215	174	2520	8.4	8.0	580	310	130	62	360	6.5

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 17...	6.6	320	6	270	750	270	.6	7.1	1740	1750	2.38

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 17...	822	.08	.02	1.5	1.5	1.6	7.0	.63	.01	450	50

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

442314106420201 ROCK CREEK NEAR MOUTH, NEAR BUFFALO, WY (LAT 44 23 14 LONG 106 42 02)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S 21...	1030	19	1120	7.5

S-Seepage run data (see Explanation of Water-Quality Records).

06320000 ROCK CREEK NEAR BUFFALO, WY (LAT 44 27 22 LONG 106 52 42)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S 21...	0840	10	702	4.5

S-Seepage run data (see Explanation of Water-Quality Records).

442652106344101 CLEAR CREEK ABOVE WAEGLE DRAW, NEAR BUFFALO, WY (LAT 44 26 52 LONG 106 34 41)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S 21...	0805	47	950	4.5

S-Seepage run data (see Explanation of Water-Quality Records).

444258106165601 CLEAR CREEK BELOW BIG CORRAL DRAW, AT LEITER, WY (LAT 44 42 58 LONG 106 16 56)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S 21...	0850	93	1020	7.5

S-Seepage run data (see Explanation of Water-Quality Records).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

444631106274601 BUFFALO CREEK ABOVE GRIFFITH DRAW, NEAR LEITER, WY (LAT 44 46 31 LONG 106 27 46)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT S 18...	1440	.05	4000	12.0	2000	1500	390	250	330	3.2	12	610

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 18...	0	500	2200	8.5	1.1	12	3500	4.76	.47	.00	.01

444821106155001 BUFFALO CREEK BELOW GARDNER GULCH, NEAR LEITER, WY (LAT 44 48 21 LONG 106 15 50)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
OCT S 18...	1540	.02	6900	10.0	1800	1200	370	220	1300	13	11	700

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 18...	0	570	3800	5.5	1.4	2.5	6050	8.23	.33	.29	.04

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

442609105272000 DRY FORK LITTLE POWDER RIVER NEAR HIGHWAY 59 BRIDGE, NEAR GILLETTE, WY
(LAT 44 26 09 LONG 105 27 20)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 11...	0900	1400	7.5	750	190	65	53	.8	29	760

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUD- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 11...	4.4	.9	14	1300	1.77	.03	.03	30	1

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 11...	20	<1	990	1	0	<1	30	<10	4

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 11...	100	20	.0	15	3	15	0	2900	5

445150106043301 KENDRICK DITCH BELOW DIVERSION, NEAR ARVADA, WY (LAT 44 51 50 LONG 106 04 33)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S21...	1200	.01	1100	8.0

S-Seepage run data (see Explanation of Water-Quality Records).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

YELLOWSTONE RIVER BASIN

443640105171801 COTTONWOOD CREEK NEAR MOUTH, NEAR WESTON, WY (LAT 44 36 40 LONG 105 17 18)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S 20...	1410	.38	4250	10.0

S-Seepage run data (see Explanation of Water-Quality Records).

444836105215601 LITTLE POWDER RIVER ABOVE ANTELOPE CREEK, NEAR WESTON, WY (LAT 44 48 36 LONG 105 21 56)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S 21...	0810	1.5	4820	7.0

S-Seepage run data (see Explanation of Water-Quality Records).

LITTLE MISSOURI RIVER BASIN

444328105004801 PRAIRIE CREEK BELOW HORSE CREEK, NEAR STRONER, WY (LAT 44 43 28 LONG 105 00 48)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 26...	0810	.10	2030	8.4	5.0	180	0	30	26	440	14

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 26...	6.6	930	12	780	350	6.5	.5	7.7	1360	1340	1.82

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 26...	.36	.01	.01	1.2	1.2	1.2	5.4	.17	.04	260	20

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

LITTLE MISSOURI RIVER BASIN

444513104561201 PRAIRIE CREEK NEAR MOUTH, NEAR NEW HAVEN, WY (LAT 44 45 13 LONG 104 56 12)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT 26...	1110	.71	2360	5.0

CHEYENNE RIVER BASIN

433022104522001 CHEYENNE RIVER BELOW FROG CREEK, NEAR DULL CENTER, WY (LAT 43 30 22 LONG 104 52 20)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS, (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S17...	1530	.20	2700	8.1	11.0	2.0	850	550	200	85	300	4.5

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 17...	14	370	0	300	1100	24	.6	11	1970	1920	2.61	1.04

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT 17...	.02	.04	.31	.35	.37	1.6	.00	.00	120	40	8.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

433240104431001 CHEYENNE RIVER ABOVE BLACK THUNDER CREEK, NEAR HAMPSHIRE, WY (LAT 43 32 40 LONG 104 43 10)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S17...	1430	.18	3200	8.1	13.0	2.0	1200	930	280	120	310	3.9

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 17...	15	320	0	260	1500	39	.4	12	2630	2430	3.30	1.18

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 17...	.01	.00	.57	.57	.58	2.6	.00	.00	120	60	12	.5

432526104293501 CHEYENNE RIVER BELOW SNYDER CREEK, NEAR MORRISSEY, WY (LAT 43 25 26 LONG 104 29 35)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	1510	1.3	3300	7.8	14.0	620	200	140	65	560	9.8	11

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLU- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	510	2	420	1400	35	1.0	11	2370	2480	3.37	8.70	.02

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 17...	.08	.76	.84	.86	3.8	.01	.01	140	60	9.3	.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

432140104195501 CHEYENNE RIVER ABOVE LANCE CREEK, NEAR MULE CREEK JUNCTION, WY
(LAT 43 21 40 LONG 104 19 55)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	1130	1.6	2550	7.7	12.0	610	210	140	64	580	10	11

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CACU3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	490	1	400	1400	35	.7	10	2410	2480	3.37	10.7	.01

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 17...	.01	.50	.51	.52	2.3	.01	.01	120	50	11	.9

430452104372801 LANCE CREEK BELOW LITTLE LIGHTNING CREEK, NEAR LANCE CREEK, WY
(LAT 43 04 52 LONG 104 37 28)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S11...	1205	2.5	4200	14.5

S-Seepage run data (see Explanation of Water-Quality Records).

431230104360401 LANCE CREEK ABOVE LIGHTNING CREEK, NEAR COW CREEK, WY (LAT 43 12 30 LONG 104 36 04)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S11...	1325	2.2	4100	15.0

S-Seepage run data (see Explanation of Water-Quality Records).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

430718105002301 LIGHTNING CREEK BELOW BOX CREEK, NEAR JANET, WY (LAT 43 07 18 LONG 105 00 23)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S12...	1015	.12	1400	9.5

S-Seepage run data (see Explanation of Water-Quality Records).

431346104372201 LIGHTNING CREEK NEAR MOUTH, NEAR COW CREEK, WY (LAT 43 13 46 LONG 104 37 22)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT				
S11...	1355	.36	3200	15.5

S-Seepage run data (see Explanation of Water-Quality Records).

431512104232001 LANCE CREEK BELOW CRAZY WOMAN CREEK, AT BRIGHT, WY (LAT 43 15 12 LONG 104 23 20)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HAR- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT												
S11...	1635	1.3	3500	--	15.5	--	--	--	--	--	--	--
S17...	1625	2.2	3600	7.3	12.0	820	520	190	85	520	7.9	13

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUD- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT												
11...	--	--	--	--	--	--	--	--	--	--	--	--
17...	370	0	300	1400	140	.8	11	2600	2540	3.45	15.1	.00

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT											
11...	--	--	--	--	--	--	--	--	--	--	--
17...	.00	.60	.60	.60	2.7	.01	.00	190	70	8.8	3.1

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

432542104114601 CHEYENNE RIVER ABOVE WILD CAT CREEK, AT RIVERVIEW, WY (LAT 43 25 42 LONG 104 11 46)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACU3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	0915	3.4	3700	7.5	8.0	870	610	190	96	680	10	13

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	320	0	260	2000	75	.6	9.5	3260	3220	4.38	29.6	.01

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 17...	.02	.66	.68	.69	3.1	.01	.00	210	20	13	.2

435710104294201 BEAVER CREEK ABOVE POISON CREEK, NEAR OSAGE, WY (LAT 43 57 10 LONG 104 29 42)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACU3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S18...	0910	.61	2600	8.1	8.0	450	71	120	36	470	9.7	5.6

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 18...	460	0	380	840	170	1.1	4.6	1820	1870	2.54	3.08	.00

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 18...	.01	.63	.64	.64	2.8	.02	.00	700	50	9.1	.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

440630104225201 SKULL CREEK BELOW WEST FORK, AT SKULL CREEK, WY (LAT 44 06 30 LONG 104 22 52)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S18...	1020	3.2	2800	8.1	6.0	1800	1500	480	140	62	.6	19
S-Seepage run data (see Explanation of Water-Quality Records).												

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 18...	350	0	290	1600	14	.2	14	2820	2500	3.40	21.6	.00

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 18...	.00	1.3	1.3	1.3	5.8	.12	.05	570	200	19	1.0

433959104155101 BEAVER CREEK BELOW OIL CREEK, NEAR MORRISEY, WY (LAT 43 39 59 LONG 104 15 51)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S17...	0915	<.01	3500	8.6	5.5	1.0	1200	1100	290	110	380	4.8
S-Seepage run data (see Explanation of Water-Quality Records).												

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 17...	11	120	1	100	1800	50	.5	.5	2940	2700	3.67	.07

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 17...	.01	.03	.48	.51	.52	2.3	.03	.02	590	60	6.6	.6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

434546104312001 SOUTH BEAVER CREEK ABOVE LONE TREE CREEK, NEAR CLARETON, WY
(LAT 43 45 46 LONG 104 51 20)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT S 18...	0915	.12	4600	8.9	8.0	2.0	120	0	24	15	1100	43

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 18...	15	1390	1	1140	900	240	1.0	5.2	3140	2990	4.07	.97

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 18...	.04	.18	2.0	2.2	2.2	9.9	.33	.16	300	580	22	4.7

434731104091401 STOCKADE BEAVER CREEK BELOW SALT CREEK, NEAR NEWCASTLE, WY (LAT 43 47 31 LONG 104 09 14)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S 18...	0945	10	5800	7.1	9.0	1500	1300	430	93	690	7.9	6.0

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 18...	180	0	150	1500	980	.5	9.5	3960	3800	5.17	103	.04

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 18...	.00	.57	.57	.61	2.7	.02	.00	250	100	4.7	.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

433403104083601 STOCKADE BEAVER CREEK AT MOUTH, NEAR CLIFTON, WY (LAT 43 34 03 LONG 104 08 36)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S18...	1040	9.0	6500	7.5	11.0	1700	1600	430	150	790	8.4	7.8

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINIT (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUD- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 18...	170	0	140	1800	900	.5	4.6	4480	4170	5.67	102	.00

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 18...	.06	.38	.40	.40	1.8	.01	.00	350	70	7.4	.4

440734105072201 BELLE FOURCHE RIVER ABOVE FOUR HORSE CREEK, NEAR PINEY, WY (LAT 44 07 34 LONG 105 07 22)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S25...	1155	2.2	3180	6.0

S-Seepage run data (see Explanation of Water-Quality Records).

441126105034701 BELLE FOURCHE RIVER BELOW RAVEN CREEK, NEAR MOORCROFT, WY (LAT 44 11 26 LONG 105 03 47)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S25...	1410	3.2	3920	7.0

S-Seepage run data (see Explanation of Water-Quality Records).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441630104583601 BELLE FOURCHE RIVER ABOVE DONKEY CREEK, NEAR MOORCROFT, WY (LAT 44 16 30 LONG 104 58 36)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT S25...	1600	4.9	3200	7.0

S-Seepage run data (see Explanation of Water-Quality Records).

441610105310500 GILLETTE FISHING LAKE NEAR GILLETTE, WY (LAT 44 16 10 LONG 105 31 04)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 10...	0900	2900	11.0	1500	240	210	150	1.7	20	1600

DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (MG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 10...	240		.5	3.8	2660	3.62	.09	.04	40	2

DATE	TIME	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 10...	200		0	150	1	0	0	170	50	7

DATE	TIME	LITHIUM, DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY, DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 10...	130		10	.0	6	4	1	0	4000	30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441610105310400 GILLETTE FISHING LAKE OUTLET NEAR GILLETTE, WY (LAT 44 16 10 LONG 105 31 04)

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 10...	1000	2800	11.0	1400	210	210	150	1.8	21	1600

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC, DIS-SOLVED (UG/L AS AS)
OCT 10...	13	.4	3.6	2620	3.56	.14	.03	40	2

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 10...	0	0	210	0	0	0	60	20	8

DATE	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 10...	130	60	.0	6	4	1	0	4000	20

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441650105233000 DONKEY CREEK 0.5 MILE BELOW LEE DRAW, ABOVE WYODAK MINE, WY
(LAT 44 16 50 LONG 105 23 30)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 10...	1400	2600	14.5	350	63	46	390	9.1	15	390

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TUNS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 10...	250	2.5	17	1470	2.00	.26	12	20	2

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 10...	0	0	620	1	0	0	28	50	13

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 10...	50	150	.0	1	6	1	0	1100	20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441650105203000 DONKEY CREEK BELOW WYODAK MINE, NEAR GILLETTE, WY (LAT 44 16 50 LONG 105 20 30)

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 10...	1600	3300	15.0	670	140	77	410	6.9	20	1000

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (MG/L AS AL)	ARSENIC, DIS-SOLVED (MG/L AS AS)
OCT 10...	200	1.4	13	2120	2.88	2.7	2.1	100	2

DATE	BARIUM, DIS-SOLVED (UG/L AS Ba)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS Cd)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 10...	100	0	630	0	8	0	50	20	9

DATE	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 10...	70	20	.0	5	3	4	0	2600	20

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
 CHEYENNE RIVER BASIN

441630105120000 DONKEY CREEK NEAR ROZET, WY (LAT 44 16 30 LONG 105 12 00)

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO_3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO_4)
OCT 10...	1700	3700	11.0	870	150	120	480	7.1	23	1300

DATE	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO_2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO_2+NO_3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (MG/L AS Al)	ARSENIC DIS-SOLVED (MG/L AS As)
OCT 10...	240	1.5	.9	2620	3.56	.04	.16	40	2

DATE	BARIUM, DIS-SOLVED (UG/L AS Ba)	BERYLLIUM, DIS-SOLVED (UG/L AS Be)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS Cd)	CHROMIUM, DIS-SOLVED (UG/L AS Cr)	COBALT, DIS-SOLVED (UG/L AS Co)	COPPER, DIS-SOLVED (UG/L AS Cu)	IRON, DIS-SOLVED (UG/L AS Fe)	LEAD, DIS-SOLVED (UG/L AS Pb)
OCT 10...	200	0	760	1	0	0	46	20	15

DATE	LITHIUM, DIS-SOLVED (UG/L AS Li)	MANGANESE, DIS-SOLVED (UG/L AS Mn)	MERCURY, DIS-SOLVED (UG/L AS Hg)	MOLYBDENUM, DIS-SOLVED (UG/L AS Mo)	NICKEL, DIS-SOLVED (UG/L AS Ni)	SELENIUM, DIS-SOLVED (UG/L AS Se)	SILVER, DIS-SOLVED (UG/L AS Ag)	STRONTIUM, DIS-SOLVED (UG/L AS Sr)	ZINC, DIS-SOLVED (UG/L AS Zn)
OCT 10...	80	40	.0	6	7	1	0	2800	20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441639105084001 DONKEY CREEK BELOW BUCK CREEK, NEAR ROZET, WY (LAT 44 16 39 LONG 105 08 40)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
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OCT				
S26...	1505	E.01	4050	9.0

E-Estimate.

S-Seepage run data (see Explanation of Water-Quality Records).

441645104592001 DONKEY CREEK NEAR MOUTH, NEAR MOORCROFT, WY (LAT 44 16 45 LONG 104 59 20)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
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OCT				
S26...	1350	.35	4130	7.5

S-Seepage run data (see Explanation of Water-Quality Records).

442443104445001 ARCH CREEK NEAR MOUTH, NEAR CARLILE, WY (LAT 44 24 43 LONG 104 44 50)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT												
S17...	1100	.02	1600	8.0	6.0	500	280	120	48	230	4.5	6.1

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT											
17...	260	0	210	720	6.3	.8	4.5	1310	1260	1.71	.07

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT											
17...	.00	.00	.35	.35	.35	1.6	.02	.01	200	90	4.3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441548104311601 INYAN KARA CREEK ABOVE MASON CREEK, NEAR UPTON, WY (LAT 44 15 48 LONG 104 31 16)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	1615	3.2	2400	8.1	8.0	1500	1300	410	120	53	.6	9.5

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	210	0	170	1400	6.2	.2	8.9	2370	2110	2.87	18.2	.13

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 17...	.04	.48	.52	.65	2.9	.01	.00	450	30	4.2	.3

441838104365001 INYAN KARA CREEK ABOVE HOUSTON CREEK, NEAR THORNTON, WY (LAT 44 18 38 LONG 104 36 50)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	1500	2.5	1900	8.0	8.0	1100	890	310	81	40	.5	9.5

S-Seepage run data (see Explanation of Water-Quality Records).

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	260	0	210	960	14	.4	9.2	1740	1550	2.11	10.5	.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 17...	.05	.39	.44	.49	2.2	.01	.01	290	80	5.9	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEYENNE RIVER BASIN

441844104365501 HOUSTON CREEK AT MOUTH, NEAR THORNTON, WY (LAT 44 18 44 LONG 104 36 55)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	1430	.68	1300	8.2	7.0	710	450	180	63	25	.4	11
S-Seepage run data (see Explanation of Water-Quality Records).												

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	320	0	260	510	6.5	.4	11	1020	965	1.31	1.77	.04

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 17...	.04	.68	.72	.76	3.4	.02	.00	190	20	7.0	.4

442724104440801 INYAN KARA CREEK AT MOUTH, NEAR CARLILE, WY (LAT 44 27 24 LONG 104 44 08)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT S17...	1235	3.5	2400	8.3	7.0	1200	1000	340	87	100	1.3	9.3
S-Seepage run data (see Explanation of Water-Quality Records).												

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 17...	200	0	160	1200	7.1	.3	3.9	2160	1850	2.52	17.5	.00

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 17...	.00	.45	.45	.45	2.0	.01	.00	370	50	4.9	.2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

423609106380901 SCHRADER GULCH AT MOUTH, NEAR ALCOVA, WY (LAT 42 36 09 LONG 106 38 09)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
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JUN 26...	1240	1.2	1800	8.3	24.5	550	260	130	54
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DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
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JUN 26...	230	4.3	240	12	290	660	27	.5	38
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DATE	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
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JUN 26...	1340	1.82	4.45	4.1	.66	.02	.06	.06	17
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424132106365201 BATES CREEK AT MOUTH, NEAR ALCOVA, WY (LAT 42 41 32 LONG 106 36 52)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
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JUN 26...	1430	.97	1600	8.4	32.0	810	660	210	69
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DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
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JUN 26...	150	2.3	160	9.9	150	820	11	.4	29
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DATE	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
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JUN 26...	1390	1.89	3.64	.02	.24	.02	.06	.06	4
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WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

424217106343301 POISON SPRING CREEK AT MOUTH, NEAR GOOSE EGG, WY (LAT 42 42 17 LONG 106 34 33)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
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JUN 26...	1350	.35	5300	8.7	28.5	980	650	180	130
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DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
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JUN 26...	940	13	950	12	330	2500	56	1.4	12
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DATE	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
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JUN 26...	4080	5.55	3.86	11	1.9	.02	.06	.06	200
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424442106314301 GOOSE EGG SPRING OUTFALL TO NORTH PLATTE RIVER, NEAR GOOSE EGG, WY
(LAT 42 44 42 LONG 106 31 43)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
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JUN 26...	1740	2.3	620	8.5	16.0	290	96	75	24
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DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
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JUN 26...	23	.6	25	2.4	190	78	31	.3	15
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DATE	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
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JUN 26...	365	.50	2.32	.51	.00	.01	.03	.03	1
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ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

424522106314101 WASTE FROM FISH HATCHERY SYPHON, NEAR GOOSE EGG, WY (LAT 42 45 22 LONG 106 31 41)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPEH- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 27...	1000	.50	650	7.4	16.0	280	110	76	22
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SURP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
JUN 27...	24	.6	36	2.6	190	81	31	.4	15
DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	381	.52	.51	.46	.21	.04	.12	.12	0

06644000 POISON SPIDER CREEK NEAR GOOSE EGG, WY (LAT 42 46 44 LONG 106 31 46)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
JUN 26...	1900	20	2200	8.6	21.0	750	510	150	90	
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
JUN 26...	290	4.6	300	7.4	240	990	23	.6	8.8	
DATE	TIME	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 26...	1730	2.35	95.3	6.5	.76	.02	.06	.06	74	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

424839106245101 NORTH PLATTE RIVER AT PARADISE VALLEY, WY (LAT 42 48 39 LONG 106 24 51)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 27...	1130	460	8.6	14.5	190	80	48	17

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
JUN 27...	33		1.0	36	2.9	110	130	7.9	.4	12

DATE	TIME	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	318		.43	.09	.36	.03	.09	.09	2

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 27...	1200	12	1800	8.6	22.0	570	360	130	59

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
JUN 27...	200		3.7	210	6.3	210	760	21	.6	13

DATE	TIME	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	1330		1.81	43.5	2.1	1.0	.14	.43	.43	45

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

06644080 GARDEN CREEK AT CASPER, WY (LAT 42 50 15 LONG 106 21 37)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 27...	1400	2.4	1150	9.1	22.0	430	230	68	64

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
JUN 27...	110	2.3	110	4.8	200	430	19	.3	12	

DATE	TIME	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	829	1.13	5.37	.17	.53	.03	.09	.09	6	

06646610 NORTH PLATTE RIVER BELOW DEER CREEK, NEAR GLENROCK, WY (LAT 42 52 20 LONG 105 50 42)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)
JUN 27...	1615	530	8.5	19.0	180	72	45	17	39	1.3	3.0	110

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
JUN 27...	150	9.3	.4	9.1	339	.46	.09	.27	.05	.15	.15	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

425053105391601 BOX ELDER CREEK AT MOUTH, NEAR CAREYHURST, WY (LAT 42 50 53 LONG 105 39 16)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 28...	1200	570	8.4	22.5	190	0	50	17

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
JUN 28...	39	1.2	43	4.4	210	84	3.9	.3	22

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	347	.47	.00	.36	.04	.12	.12	0

425036105335101 ALKALI GULCH AT MOUTH, NEAR ORPHA, WY (LAT 42 50 36 LONG 105 33 51)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 28...	1500	4.9	1200	8.9	26.0	150	0	45	9.3

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM+ POTAS- SIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
JUN 28...	220	7.8	240	18	360	280	9.5	.6	44

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	843	1.15	11.2	.00	.92	.16	.49	.49	3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

425058105291601 LA PRELE CREEK AT MOUTH, AT ORPHA, WY (LAT 42 50 58 LONG 105 29 16)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 28...	1600	8.9	610	8.6	23.0	200	59	50	18

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
JUN 28...	51	1.6	4.4	140	170	10	.4	12	400	

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	.54	9.64	.03	.51	.05	.15	.15	2

06650500 WAGONHOUND CREEK NEAR LA BONTE, WY (LAT 42 39 35 LONG 105 22 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)
JUN 28...	1915	1650	8.2	19.5	940	700	290	52	57	.8	8.0	240

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
JUN 28...	810	8.7	.3	27	1400	1.90	.34	.26	.02	.06	.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN

06651000 WEST FORK LA BONTE CREEK NEAR LA BONTE, WY (LAT 42 28 00 LONG 105 41 00)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 28...	1830	15	650	8.5	25.0	230	5	67	14

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
JUN 28...	58	1.7	6.2	220	140	5.1	.3	30	453

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	.62	18.7	.02	.32	.02	.06	.06	0

GROUND-WATER LEVELS

ALBANY COUNTY

410847105585201. Local number, 14N 077W 25dcd01.

LOCATION.--Lat 41°08'47", long 105°58'52", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.25, T.14 N., R.77 W., Hydrologic Unit 10180010.

Owner: Wm. D. Embree.

AQUIFER.--Gravel of terrace deposits.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 8 in (20 cm), depth 75 ft (22.9 m), cased.

DATUM.--Altitude of land-surface datum is about 7,424 ft (2,263 m). Measuring point: Top of casing 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--July 1948 to September 1953, April 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.92 ft (7.60 m) below land-surface datum, Sept. 21, 1951;

lowest, 35.79 ft (10.91 m) below land-surface datum, April 19, 1965.

REVISIONS.--The lowest water level has been revised to 35.79 ft (10.91 m) below land-surface datum, April 19, 1965, superceding the figure published in reports for 1976, 1977, and 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

No measurement in 1979.

413816105325601. Local number, 19N 073W 02cdd01.

LOCATION.--Lat 41°38'16", long 105°32'56", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.2, T.19 N., R.73 W., Hydrologic Unit 10180010.

Owner: Gil Smith.

AQUIFER.--Forelle limestone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter unknown, depth 100 ft (30.4 m), cased.

DATUM.--Altitude of land-surface datum is about 7,300 ft (2,225 m). Measuring point: Bolt hole in pump base, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--October 1965 to October 1968, March 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.26 ft (17.76 m) below land-surface datum, June 19, 1974;

lowest, 71.83 ft (21.89 m) below land-surface datum, May 8, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
JAN 19	69.22

CAMPBELL COUNTY

444611105295001. Local number, 44N 072W 22cc01.

LOCATION.--Lat 44°46'11", long 105°29'50", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.44 N., R.72 W., Hydrologic Unit 10120201.

Owner: Durham Meat Co.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 14 in (36 cm), depth 189 ft (57.6 m), cased.

DATUM.--Altitude of land-surface datum is about 4,890 ft (1,490 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.80 ft (13.35 m) below land-surface datum, Oct. 7, 1968;

lowest, 47.87 ft (14.59 m) below land-surface datum, Sept. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 9	(M)
MAR 12	(M)

M-Obstruction in well above water level.

CARBON COUNTY

414104106442801. Local number, 20N 083W 28bab01.

LOCATION.--Lat 41°41'04", long 106°44'28", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.20 N., R.83 W., Hydrologic Unit 10180002.

Owner: State of Wyoming.

AQUIFER.--Sand of North Park Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 3 in (8 cm), depth 33 ft (10.0 m), cased.

DATUM.--Altitude of land-surface datum is about 6,762 ft (2,061 m). Measuring point: Top of casing 2.70 ft (0.82 m) above land-surface datum.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.13 ft (4.61 m) below land-surface datum, Nov. 18, 1975;

lowest, 22.00 ft (6.71 m) below land-surface datum, Sept. 22, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 24	16.39
MAR 27	16.64

CONVERSE COUNTY

424229105242901. Local number, 32N 071W 31aaa01.

LOCATION.--Lat 42°42'29", long 105°24'29", in NE¼NE¼NE¼ sec.31, T.32 N., R.71 W., Hydrologic Unit 10180008.

Owner: Mrs. Sallie Edwards.

AQUIFER.--Siltstone of White River Group.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in (15 cm), depth 84 ft (25.6 m), cased.

DATUM.--Altitude of land-surface datum is about 4,837 ft (1,474 m). Measuring point: Hole in pump housing, 1.70 ft (0.52 m) above land-surface datum.

PERIOD OF RECORD.--July 1950 to September 1956, May 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.17 ft (3.71 m) below land-surface datum, Dec. 15, 1970; lowest, 31.15 ft (9.49 m) below land-surface datum, Feb. 22, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 7	23.14
MAR 5	28.16

CROOK COUNTY

443503104425101. Local number, 53N 065W 18bac01.

LOCATION.--Lat 44°35'03", long 104°42'51", in SW¼NE¼NW¼ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.

Owner: National Park Service.

AQUIFER.--Minnekahta Limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (15 cm), depth 468 ft (142.6 m), cased to 448 ft

(136.6 m), open hole below.

DATUM.--Altitude of land-surface datum is about 3,865 ft (1,178 m). Measuring point: Top of casing, 1.10 ft

(0.34 m) above land-surface datum.

PERIOD OF RECORD.--July 1955, April 1960, May 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.95 ft (3.64 m) below land-surface datum, Oct. 8, 1975; lowest, 26.10 ft (7.96 m) below land-surface datum, Apr. 23, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 7	12.29
MAR 14	13.06

443459104425601. Local number, 53N 065W 18bbd02.

LOCATION.--Lat 44°34'59", long 104°42'56", in SE¼NW¼NW¼ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.

Owner: National Park Service.

AQUIFER.--Pahasapa Limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in (20 cm), depth 1,341 ft (408.7 m), perforated casing

1,315-1,341 ft (400.8-408.7 m).

DATUM.--Altitude of land-surface datum is about 3,865 ft (1,178 m). Measuring point: Top of casing 2.30 ft

(0.70 m) above land-surface datum.

PERIOD OF RECORD.--September 1962 to current year.

REVISED RECORDS.--WDR WY-77-1: 1977 (water levels).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.90 ft (1.19 m) below land-surface datum, Sept. 1, 1976; lowest, 22.24 ft (6.78 m) below land-surface datum, May 8, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 7	6.20
MAR 14	7.56

FREMONT COUNTY

431327108311101. Local number, 03N 003E 21ada02.

LOCATION.--Lat 43°13'27", long 108°31'11", in NW¼SE¼NE¼ sec.21, T.3 N., R.3 E., Hydrologic Unit 10080005.

Owner: H. W. Roland.

AQUIFER.--Sandstone of Wind River Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 425 ft (129.5 m), cased to

403 ft (122.8 m).

DATUM.--Altitude of land-surface datum is about 5,273 ft (1,607 m). Measuring point: Top of casing at land-surface datum.

PERIOD OF RECORD.--December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 146.29 ft (44.59 m) below land-surface datum, Dec. 1, 1950;

lowest, 171.48 ft (52.27 m) below land-surface datum, Jan. 12, 1976.

REVISIONS.--The highest water level has been revised to 146.29 ft (44.59 m) below land-surface datum, Dec. 1, 1950, superceding the figure published in reports for 1976, 1977, and 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 6	150.57
MAR 13	148.32

GROUND-WATER LEVELS

FREMONT COUNTY--Continued

431253108284401. Local Number, 03N 003E 25bbb01.

LOCATION.--Lat 43°12'53", long 108°28'44", in NW¼NW¼NW¼ sec.25, T.3 N., R.3 E., Hydrologic Unit 10080005.

Owner: U.S. Bureau of Reclamation.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 3 in (8 cm), depth 28 ft (8.5 m), casing perforated 0-28 ft (0-8.5 m).

DATUM.--Altitude of land-surface datum is about 5,150 ft (1,570 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--October 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.81 ft (0.55 m) below land-surface datum, Aug. 29, 1974; lowest, 15.38 ft (4.69 m) below land-surface datum, May 10, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 6	9.77
MAR 13	12.66

GOSHEN COUNTY

413816104094901. Local number, 19N 061W 02ccd01.

LOCATION.--Lat 41°38'16", long 104°09'49", in SE¼SW¼SW¼ sec.2, T.19 N., R.61 W., Hydrologic Unit 10180012.

Owner: City of LaGrange.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (10 cm), depth 30 ft (9.1 m), galvanized casing.

DATUM.--Altitude of land-surface datum is 4,577.2 ft (1,395.1 m). Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--May 1943 to July 1943, April 1949 to October 1969, May 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.26 ft (3.43 m) below land-surface datum, Aug. 29, 1973; lowest, 21.20 ft (6.46 m) below land-surface datum, Oct. 5, 1964.

CORRECTION.--The date for the lowest water level below land-surface datum is Oct. 5, 1964, superceding the date in the 1978 report.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	20.65	JAN 9	14.15	JUL 6	13.56
OCT 27	20.82	APR 6	13.32	AUG 10	14.72
NOV 29	18.36	MAY 30	14.49	SEP 19	15.49

413813104115501. Local number, 19N 061W 04cdd02.

LOCATION.--Lat 41°38'13", long 104°11'55", in SE¼SE¼SW¼ sec.4, T.19 N., R.61 W., Hydrologic Unit 10180012.

Owner: Frank Sanders.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 4 ft (1.2 m), depth 33 ft (10.1 m), cased.

DATUM.--Altitude of land-surface datum is about 4,557 ft (1,389 m). Measuring point: Top of casing, north side, 0.20 ft (0.06 m) above land-surface datum.

PERIOD OF RECORD.--June 1943, November 1948 to October 1969, May 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.07 ft (1.24 m) below land-surface datum, June 4, 1949; lowest, 16.18 ft (4.93 m) below land-surface datum, Oct. 27, 1975; maximum low, 29.94 ft (9.13 m) below land-surface datum (nearby well being pumped), Sept. 21, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	11.40	NOV 29	11.76	JUL 6	25.40
OCT 27	16.18	JAN 9	11.46	AUG 10	28.42
NOV 21	11.98	MAY 30	8.75	SEP 19	10.08

415902104031601. Local number, 23N 060W 10aac01.

LOCATION.--Lat 41°59'02", long 104°03'16", in SW¼NE¼NE¼ sec.10, T.23 N., R.60 W., Hydrologic Unit 10180009.

Owner: French Ditch Irrigation Co.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm) depth 50 ft (15.2 m), cased.

DATUM.--Altitude of land-surface datum is 4,030.8 ft (1,228.6 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.34 ft (1.32 m) below land-surface datum, May 20, 1971; lowest, 9.08 (2.77 m) below land-surface datum, Mar. 19, 1975; maximum low, 16.43 ft (5.01 m) below land-surface datum (well being pumped), Aug. 10, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	7.96
JAN 17	7.95
MAY 18	8.40

GOSHEN COUNTY--Continued

420449104133401. Local number, 24N 061W 05cbb02.

LOCATION.--Lat 42°04'49", long 104°13'34", in NW¼NW¼SW¼ sec.5, T.24 N., R.61 W., Hydrologic Unit 10180009.

Owner: U.S. Geological Survey.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (3 cm), depth 27 ft (8.2 m), cased to 27 ft (8.2 m), sand point.

DATUM.--Altitude of land-surface datum is about 4,121 ft (1,256 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum. Prior to June 1962 top of casing was 4.50 ft (1.37 m) above land-surface datum. Prior to October 1955 top of casing was 2.60 ft (0.79 m) above land-surface datum.

PERIOD OF RECORD.--October 1951 to current year. Prior to June 1962 well was located 3.0 ft (0.9 m) east of present location.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.28 ft (5.57 m) below land-surface datum, July 10, 1973; lowest, 26.20 ft (7.99 m) below land-surface datum, Apr. 18, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	20.40
JAN 17	24.02
MAY 18	23.43

420426104100601. Local number, 24N 061W 11bbb01.

LOCATION.--Lat 42°04'26", long 104°10'06", in NW¼NW¼NW¼ sec.11, T.24 N., R.61 W., Hydrologic Unit 10180009.

Owner: Bill Ring.

AQUIFER.--Terrace deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 118 ft (36.0 m), cased with 10 gauge steel.

DATUM.--Altitude of land-surface datum is about 4,207 ft (1,282 m). Measuring point: Top edge of hole in pump base, 0.75 ft (0.23 m) above land-surface datum.

PERIOD OF RECORD.--August 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.32 ft (21.13 m) below land-surface datum, Oct. 8, 1974; lowest, 87.85 ft (26.78 m) below land-surface datum, May 18, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	74.34
JAN 17	75.43
MAY 18	87.85

420626104114501. Local number, 25N 061W 28dbc01.

LOCATION.--Lat 42°06'26", long 104°11'45", in SW¼NW¼SE¼ sec.28, T.25 N., R.61 W., Hydrologic Unit 10180009.

Owner: M. W. Berry

AQUIFER.--Gravel of terrace deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 m), depth 108 ft (32.9 m) cased, gravel packed.

DATUM.--Altitude of land-surface datum is 4,223.1 ft (1,287.2 m). Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--May 1943, October 1948 to May 1952, June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.58 ft (11.15 m) below land-surface datum, Oct. 16, 1951; lowest, 59.60 ft (18.17 m) below land-surface datum, Sept. 3, 1964.

REVISIONS.--The highest water level has been revised to 36.58 ft (11.15 m) below land-surface datum, Oct. 16, 1951; superceding those published in reports for 1975, 1976, 1977, and 1978. The lowest water level has been revised to 59.60 ft (18.17 m) below land-surface datum, Sept. 3, 1964, superceding those published in reports for 1976, 1977, and 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	49.50
JAN 17	49.66
MAY 18	52.88

421031104170001. Local number, 25N 062W 02bbb01.

LOCATION.--Lat 42°10'31", long 104°17'00", in NW¼NW¼NW¼ sec.2, T.25 N., R.62 W., Hydrologic Unit 10180009.

Owner: U.S. Geological Survey.

AQUIFER.--Terrace deposits.

WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (3 cm), depth 28 ft (8.5 m), cased.

DATUM.--Altitude of land-surface datum is about 4,230 ft (1,289 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--June 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.15 ft (2.79 m) below land-surface datum, Sept. 7, 1966; lowest, 12.99 ft (3.96 m) below land-surface datum, Apr. 7, 1965.

REVISIONS.--The date for the highest water level has been revised to Sept. 7, 1966, superceding the date published in reports for 1976, 1977, and 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	10.46
JAN 18	11.93
MAY 18	11.96

GOSHEN COUNTY--Continued

420753104204701. Local number, 25N 062W 19aab01

LOCATION.--Lat 42°07'53", long 104°20'47", in NW¼NE¼NE¼ sec.19, T.25 N., R.62 W., Hydrologic Unit 10180009.

Owner: Homer Stroud.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 83 ft (25.3 m), cased.

DATUM.--Altitude of land-surface datum is about 4,172 ft (1,272 m). Measuring point: Top of pump base, 0.60 ft

(0.18 m) above land-surface datum.

PERIOD OF RECORD.--October 1948 to September 1953, April 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.07 ft (5.51 m) below land-surface datum, Sept. 26, 1952; lowest, 27.23 ft (8.30 m) below land-surface datum, May 21, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	21.26
JAN 18	24.81
MAY 18	26.21

420900104262201. Local number, 25N 063W 09ccb01.

LOCATION.--Lat 42°09'00", long 104°26'22", in NW¼SW¼SW¼ sec.9, T.25 N., R.63 W., Hydrologic Unit 10180009.

Owner: Emery Bright.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm), depth 61 ft (18.6 m),

galvanized casing, gravel packed.

DATUM.--Altitude of land-surface datum is 4,196.8 ft (1,279.2 m). Measuring Point: Top of casing, 1.50 ft

(0.46 m) above land-surface datum.

PERIOD OF RECORD.--August 1943, November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.34 ft (4.98 m) below land-surface datum (water in nearby channel), Sept. 26, 1952; lowest, 24.85 ft (7.57 m) below land-surface datum, Oct. 8, 1962; maximum low, 31.80 ft (9.69 m) below land-surface datum (well being pumped), July 17, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	20.14
JAN 18	21.97
MAY 18	22.94

421357104165001. Local number, 26N 062W 14bba01.

LOCATION.--Lat 42°13'57", long 104°16'50", in NE¼NW¼NW¼ sec.14, T.26 N., R.62 W., Hydrologic Unit 10180009.

Owner: Arthur Damrow.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), reported depth 39 ft (11.9 m),

galvanized iron casing, gravel packed.

DATUM.--Altitude of land-surface datum is 4,274.4 ft (1,302.8 m). Measuring point: Hole in wood cover, 0.20 ft

(0.06 m) above land-surface datum.

PERIOD OF RECORD.--October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.78 ft (3.29 m) below land-surface datum, June 30, 1971;

lowest, 18.03 ft (5.50 m) below land-surface datum, Sept. 21, 1961.

REVISIONS.--The date for the highest water level has been revised to June 30, 1971, superceding the date published in reports for 1975, 1976, 1977, and 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	15.63
JAN 18	14.29
MAY 18	13.72

421044104263201. Local number, 26N 063W 32dac01.

LOCATION.--Lat 42°10'44", long 104°26'32", in SW¼NE¼SE¼ sec.32, T.26 N., R.63 W., Hydrologic Unit 10180009.

Owner: Joseph Speckner.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 80 ft (24.4 m), cased

to 80 ft (24.4 m).

DATUM.--Altitude of land-surface datum is 4,204.6 ft (1,281.6 m). Measuring point: Top of casing through hole

in pump base at land-surface datum.

PERIOD OF RECORD.--October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.97 ft (5.48 m) below land-surface datum, Sept. 26, 1952;

lowest, 27.32 ft (8.48 m) below land-surface datum, Feb. 26, 1970; maximum low, 28.51 ft (8.69 m) below land-surface datum (well being pumped), Oct. 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	21.53
JAN 18	24.66
MAY 18	24.74

GOSHEN COUNTY--Continued

421216104332301. Local number, 26N 064W 28bbb01.

LOCATION.--Lat 42°12'16", long 104°33'23", in NW¼NW¼NW¼ sec.28, T.26 N., R.64 W., Hydrologic Unit 10180009.

Owner: National Park Service.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 18 in (46 cm), depth 29 ft (8.8 m), cased to 29 ft (8.8 m).

DATUM.--Altitude of land-surface datum is 4,245.9 ft (1,294.2 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD.--July 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.72 ft (3.27 m) below land-surface datum, May 15, 1973; lowest, 17.80 ft (5.43 m) below land-surface datum, Oct. 16, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	17.09	JAN 4	17.06	APR 4	16.94	JUL 5	16.15
NOV 6	17.62	FEB 6	16.97	MAY 4	16.73	AUG 3	16.00
DEC 5	17.10	MAR 6	16.94	JUN 4	17.70	SEP 4	16.37

421205104333001. Local number, 26N 064W 29ada01.

LOCATION.--Lat 42°12'05", long 104°33'30", in NE¼SE¼NE¼ sec.29, T.26 N., R.64 W., Hydrologic Unit 10180011.

Owner: National Park Service.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (91 cm), depth 43 ft (13.1 m), cribbed with rock.

DATUM.--Altitude of land-surface datum is 4,248.8 ft (1,295.0 m). Measuring point: Top of platform, 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--September 1942 to February 1943, August 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.40 ft (3.78 m) below land-surface datum, May 17, 1971; lowest, 19.17 ft (5.84 m) below land-surface datum, Feb. 20, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	18.33	JAN 4	18.20	APR 4	18.02	JUL 5	17.83
NOV 6	17.34	FEB 6	17.43	MAY 4	17.81	AUG 3	18.13
DEC 5	18.35	MAR 6	18.05	JUN 4	16.97	SEP 4	18.08

JOHNSON COUNTY

442427106494001. Local number, 51N 083W 10acb01.

LOCATION.--Lat 44°24'27", long 106°49'40", in NW¼SW¼NE¼ sec.10, T.51 N., R.83 W., Hydrologic Unit 10090206.

Owner: Helen Rauch.

AQUIFER.--Kingsbury Conglomerate member of Wasatch Formation.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 6 in (15 cm), depth 275 ft (83.8 m), cased to 205 ft (62.5 m).

DATUM.--Altitude of land-surface datum is about 5,240 ft (1,597 m). Measuring point: Top of casing, 1.60 ft (0.49 m) above land-surface datum.

PERIOD OF RECORD.--January 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.90 ft (9.42 m) below land-surface datum, Apr. 11, 1960; lowest, 35.86 ft (10.93 m) below land-surface datum (surface water on ground near well), May 28, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL
SEP 7	35.36

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
JAN 17	35.28
MAY 15	35.35

LARAMIE COUNTY

410322104071701. Local number, 13N 060W 31aaa01.

LOCATION.--Lat 41°03'22", long 104°07'17", in NE¼NE¼NE¼ sec.31, T.13 N., R.60 W., Hydrologic Unit 101290015.

Owner: W. T. Young, Jr.

AQUIFER.--Siltstone of Brule Formation.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 20 in (51 cm), depth 100 ft (30.5 m), galvanized iron casing.

DATUM.--Altitude of land-surface datum is 5,184.8 ft (1,580.3 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--November 1940 to October 1969, September 1970 to January 1979 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.10 ft (10.70 m) below land-surface datum, Mar. 28, 1974; lowest, 44.10 ft (13.44 m) below land-surface datum, Sept. 13, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 11	44.04
NOV 13	42.13
DEC 13	40.80

LARAMIE COUNTY--Continued

410534105002401. Local number, 13N 068W 16dbd01.

LOCATION.--Lat 41°05'34", long 105°00'24", in SE¼NW¼SE¼ sec.16, T.13 N., R.68 W., Hydrologic Unit 10190008.

Owner: City of Cheyenne.

AQUIFER.--Gravel of Ogallala Formation.

WELL CHARACTERISTICS.--Drilled municipal water-table well, diameter 10 to 8 in (25 to 20 cm), depth 300 ft (91.4 m), cased.

DATUM.--Altitude of land-surface datum is 6,641.9 ft (2,024.5 m). Measuring point: Top of auxiliary pipe, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--September 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.16 ft (31.75 m) below land-surface datum, Nov. 30, 1949; lowest, 157.95 ft (48.14 m) below land-surface datum, Mar. 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
APR 18	151.22

411238104070801. Local number, 14N 060W 05bcb01.

LOCATION.--Lat 41°12'38", long 104°07'08", in NW¼SW¼NW¼ sec.5, T.14 N., R.60 W., Hydrologic Unit 10190015.

Owner: C. C. Gross.

AQUIFER.--Siltstone of Brule Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 18 in (46 cm), reported depth 100 ft (30.5 m), cased.

DATUM.--Altitude of land-surface datum is about 5,082 ft (1,549 m). Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--October 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.40 ft (8.96 m) below land-surface datum, July 9, 10, 1967; lowest, 56.62 ft (17.26 m) below land-surface datum, July 30, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Highest water level for the day, from recorder graph

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.94	39.05	.....	.....	.....	36.26	.....	35.55	50.73	52.41	54.34	41.41
10	39.81	38.72	.....	.....	.....	36.20	.....	35.57	38.45	51.69	55.48	42.50
15	39.78	37.48	.....	.....	.....	36.07	.....	35.51	39.55	43.55	46.07	41.57
20	39.45	.....	.....	.....	.....	36.01	.....	35.49	38.56	55.42	44.50	41.25
25	39.30	.....	.....	.....	36.35	.....	35.70	35.44	52.53	45.58	42.93	53.95
EOM	39.11	.....	.....	.....	.....	.....	35.63	35.73	39.76	43.93	41.81	43.29

WTR YEAR 1979 MAX 35.44 MAY 24, 25 MIN 56.42 AUG 12

411034104554001. Local number, 14N 067W 18ddc01.

LOCATION.--Lat 41°10'34", long 104°55'40", in SW¼SE¼SE¼ sec.18, T.14 N., R.67 W., Hydrologic Unit 10190009.

Owner: City of Cheyenne.

AQUIFER.--Gravel of Brule Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm), depth 229 ft (69.8 m), cased.

DATUM.--Altitude of land-surface datum is about 6,248 ft (1,904 m). Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.48 ft (3.80 m) below land-surface datum, Sept. 26, Oct. 28, 1957; lowest, 49.18 ft (14.99 m) below land-surface datum, Aug. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Highest water level for the day, from recorder graph

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.83	.....	30.88	30.85	35.88	41.89	39.18	30.52	33.74	31.08	33.49	30.25
10	34.59	.....	30.80	30.55	37.29	42.61	37.36	30.28	31.20	31.07	32.07	30.59
15	33.30	.....	30.88	30.36	37.03	42.83	39.15	31.60	31.52	31.99	32.40	30.43
20	33.16	.....	30.70	30.50	40.14	42.27	38.23	32.33	32.34	32.06	31.70	30.26
25	33.44	31.61	30.43	30.45	40.41	37.18	32.09	33.34	31.94	32.18	31.37	29.49
EOM	.....	30.80	30.91	30.15	42.62	39.05	31.43	35.58	31.63	30.90	30.11	28.74

WTR YEAR 1979 MAX 28.74 SEP 30 MIN 43.27 MAR 13

411050104584701. Local number, 14N 068W 14cbb01.

LOCATION.--Lat 41°10'50", long 104°58'47", in NW¼NW¼SW¼ sec.14, T.14N., R.68 W., Hydrologic Unit 10190009.

Owner: City of Cheyenne.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (30 cm), depth 188 ft (57.3 m), cased.

DATUM.--Altitude of land-surface datum is about 6,310 ft (1,923 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--September 1941 to February 1948, February 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.09 ft (2.16 m) below land-surface datum, Feb. 26, 1944; lowest, 65.34 ft (19.92 m) below land-surface datum, Apr. 18, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
APR 18	65.34

LARAMIE COUNTY--Continued

410836105002801. Local number, 14N 068W 33abc01.

LOCATION.--Lat 41°08'36", long 105°00'28", in SW¼NW¼NE¼ sec.33, T.14 N., R.68 W., Hydrologic Unit 10190009.

Owner: City of Cheyenne.

AQUIFER.--Gravel of Ogallala Formation.

WELL CHARACTERISTICS.--Drilled municipal water-table well, diameter 10 in (25 cm), depth 230 ft (70.1 m), perforated casing.

DATUM.--Altitude of land-surface datum is about 6,568 ft (2,002 m). Measuring point: Top of auxiliary pipe, south side of well, 2.30 ft (0.70 m) above land-surface datum.

PERIOD OF RECORD.--January 1947 to September 1970, April 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft (36.62 m) below land-surface datum, Feb. 11, 1950; lowest, 192.56 ft (58.69 m) below land-surface datum, July 5, 1957.

REVISIONS.--Revised figures of water-level, in feet below land-surface datum, for the water year 1978, superseding those published in WDR WY-78-1 are given below.

DATE	WATER LEVEL
MAR 20	176.56

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
APR 18	168.50

411750104510901. Local number, 15N 067W 02dba01.

LOCATION.--Lat 41°17'50", long 104°51'09", in NE¼NW¼SE¼ sec.2, T.15 N., R.67 W., Hydrologic Unit 10190015.

Owner: Ervin A. Mueller.

AQUIFER.--Gravel of Ogallala Formation.

WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in (41 cm), depth 182 ft (55.5 m), cased, perforated 78-84 ft (23.8-25.6 m), 123-132 ft (37.5-40.2 m), 139-152 ft (42.4-46.3 m).

DATUM.--Altitude of land-surface datum is about 6,240 ft (1,902 m). Measuring point: Hole in side of casing, at land-surface datum.

PERIOD OF RECORD.--June 1961 to December 1970, September 1972, May 1975 to current year.

REVISED RECORDS.--WDR WY-78-1: (water level).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.14 ft (21.99 m) below land-surface datum, May 5, 1964; lowest, 77.06 ft (23.49 m) below land-surface datum, Oct. 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
MAY 10	74.50

NATRONA COUNTY

432633106115201. Local number, 40N 078W 15aab01.

LOCATION.--Lat 43°26'33", long 106°11'52", in NW¼NE¼NE¼ sec.15, T.40 N., R.78 W., Hydrologic Unit 10090204.

Owner: Town of Edgerton.

AQUIFER.--Mesaverde (?) Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 7 in (18 cm), depth 317 ft (96.6 m), cased.

DATUM.--Altitude of land-surface datum is about 5,080 ft (1,548 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--April 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.89 ft (22.22 m) below land-surface datum, Aug. 12, 1965; lowest, 82.22 ft (25.06 m) below land-surface datum, Oct. 20, 1975.

REVISIONS.--The highest water level has been revised to 72.89 ft (22.22 m) below land-surface datum, Aug. 12, 1965, superseding those published in reports for 1976, 1977, and 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 2	73.73
MAR 8	74.20

NIOBRARA COUNTY

423940104031201. Local number, 31N 060W 15da01.

LOCATION.--Lat 42°39'40", long 104°03'12", in NE¼SE¼ sec.15, T.31 N., R.60 W., Hydrologic Unit 10150002.

Owner: U.S. Geological Survey.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.5 in (3.8 cm), depth 110 ft (33.5 m), cased.

DATUM.--Altitude of land-surface datum is about 4,740 ft (1,445 m). Measuring point: Top of casing, 3.90 ft (1.19 m) above land-surface datum.

PERIOD OF RECORD.--September 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.34 ft (10.77 m) below land-surface datum, Mar. 21, 1974; lowest, 37.05 ft (11.29 m) below land-surface datum, Oct. 13, 1964.

CORRECTION.--The lowest water level has been corrected to 37.05 ft (11.29 m) below land-surface datum, Oct. 13, 1964, superseding the figure published in the 1978 report.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 16	36.31
MAR 21	35.89

NIOBRARA COUNTY--Continued

424232104261001. Local number, 32N 063W 33bbb01.
 LOCATION.--Lat 42°42'32", long 104°26'10", in NW¼NW¼NW¼ sec.33, T.32 N., R.63 W., Hydrologic Unit 10150002.
 Owner: Earl Quigley.
 AQUIFER.--Sandstone of Arikaree Formation.
 WELL CHARACTERISTICS.--Drilled test hole for irrigation water-table well, diameter 6 in (15 cm), depth 205 ft (62.5 m), cased to 10 ft (3 m).
 DATUM.--Altitude of land-surface datum is about 4,990 ft (1,521 m). Measuring point: Top of casing at land-surface datum.
 PERIOD OF RECORD.--November 1957 to current year.
 REVISED RECORDS.--WDR WY-78-1: (water level).
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.25 ft (12.27 m) below land-surface datum, June 26, 1972; lowest, 42.48 ft (12.95 m) below land-surface datum, Dec. 15, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
NOV 16	41.54
MAR 20	41.73

PLATTE COUNTY

415730104585601. Local number, 23N 068W 15ddd01.
 LOCATION.--Lat 41°57'30", long 104°58'56", in SE¼SE¼SE¼ sec.15, T.23 N., R.68 W., Hydrologic Unit 10180011.
 Owner: U.S. Bureau of Reclamation.
 AQUIFER.--Arikaree Formation.
 WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.75 in (4 cm), depth 602 ft (183.5 m), cased to 232 ft (70.7 m).
 DATUM.--Altitude of land-surface datum is 5,087.8 ft (1,550.8 m). Measuring point: Top of casing, 2.90 ft (0.88 m) above land-surface datum.
 PERIOD OF RECORD.--December 1958 to December 1970, September 1972, March 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.15 ft (15.90 m) below land-surface datum, Sept. 13, 1960; lowest, 71.12 ft (21.68 m) below land-surface datum, June 21, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 13	69.59
JAN 15	69.56

420441104585801. Local number, 24N 068W 03dad01.
 LOCATION.--Lat 42°04'41", long 104°58'58", in SE¼NE¼SE¼ sec.3, T.24 N., R.68 W., Hydrologic Unit 10180011.
 Owner: U.S. Bureau of Reclamation.
 AQUIFER.--Arikaree Formation.
 WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (5 cm), depth 600 ft (182.9 m), cased, screened.
 DATUM.--Altitude of land-surface datum is 4,713.07 ft (1,436.54 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
 PERIOD OF RECORD.--October 1958 to December 1970, September 1972, March 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.86 ft (3.61 m) below land-surface datum, Sept. 19, 1972; lowest, 17.36 ft (5.29 m) below land-surface datum, Oct. 12, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
OCT 10	15.19
JAN 15	15.07

SHERIDAN COUNTY

443915106352202. Local number, 54N 081W 14bc02.
 LOCATION.--Lat 44°39'15", long 106°35'22", in SW¼NW¼ sec.14, T.54 N., R.81 W., Hydrologic Unit 10090206.
 Owner: Ulm School.
 AQUIFER.--Coal of Wasatch Formation.
 WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (10 cm), depth 121 ft (36.9 m). Casing information not available.
 DATUM.--Altitude of land-surface datum is about 4,500 ft (1,372 m). Measuring point: Hole in plate over casing, 1.30 ft (0.40 m) above land-surface datum.
 PERIOD OF RECORD.--June 1961 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.57 ft (16.63 m) below land-surface datum, May 7, 1979; lowest, 64.00 ft (19.51 m) below land-surface datum, July 18, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL
MAY 12	57.50
SEP 7	59.25

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
JAN 8	56.94
MAY 7	54.57

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMPLING DEPTH (FT)	DEPTH OF WELL, TOTAL (FEET)	STREAM-FLOW, INSTANTANEOUS (CFS)	FLOW RATE, INSTANTANEOUS (GPM)
CAMPBELL COUNTY									
440346105334901	47N 072W 07CBD01	124WSTC	GW	79-03-22	1740	--	156	--	--
440346105334902	47N 072W 07CBD02	124WSTC	GW	78-11-30	1545	--	156	--	--
440346105334904	47N 072W 07CBD04	124WSTC	GW	78-11-30	1500	--	156	--	--
		124WSTC	GW	79-03-22	1830	--	156	--	--
440346105334905	47N 072W 07CBD05	124WSTC	GW	78-11-30	1355	--	156	--	--
440346105334914	47N 072W 07CBD14	124WSTC	GW	78-11-30	1310	--	172	--	--
440346105334915	47N 072W 07CBD15	124WSTC	GW	78-11-30	1150	--	172	--	--
440346105334923	47N 072W 07CBD23	124WSTC	GW	78-11-30	1050	--	--	--	--
440346105334927	47N 072W 07CBD27	124WSTC	GW	79-03-21	1330	--	--	--	--
440346105334928	47N 072W 07CBD28	124WSTC	GW	79-03-21	1455	--	--	--	--
440346105334929	47N 072W 07CBD29	124WSTC	GW	79-03-21	1100	--	156	--	--
440346105334930	47N 072W 07CBD30	124WSTC	GW	79-03-22	1210	--	--	--	--
440346105334931	47N 072W 07CBD31	124WSTC	GW	79-03-22	1410	--	156	--	--
440346105334932	47N 072W 07CBD32	124WSTC	GW	79-03-22	1640	--	156	--	--
440346105334936	47N 072W 07CBD36	124WSTC	GW	79-03-21	1145	--	156	--	--
440346105334937	47N 072W 07CBD37	--	GW	78-12-01	0845	--	--	--	--
		--	GW	79-03-22	1100	--	--	--	--
440346105334938	47N 072W 07CBD38	124WSTC	GW	79-03-22	1500	--	--	--	--
440346105334939	47N 072W 07CBD39	--	GW	78-12-01	1440	--	--	--	--
		--	GW	79-03-22	1600	--	--	--	--
440346105334940	47N 072W 07CBD40	124WSTC	GW	79-07-11	1720	--	--	--	--
440346105334941	47N 072W 07CBD41	124WSTC	GW	79-07-11	1000	--	--	--	--
440337105335201	47N 072W 07CCA01	124WSTC	GW	79-07-10	1340	--	--	--	--
440337105335203	47N 072W 07CCA03	124WSTC	GW	79-03-23	1245	--	--	--	--
		124WSTC	GW	79-07-10	1245	--	--	--	--
440337105335204	47N 072W 07CCA04	124WSTC	GW	79-03-23	1350	--	--	--	--
		124WSTC	GW	79-07-10	1115	--	--	--	--
440337105335206	47N 072W 07CCA06	124WSTC	GW	79-07-10	0945	--	--	--	--
440337105335207	47N 072W 07CCA07	124WSTC	GW	79-07-11	1415	--	--	--	--
440337105335208	47N 072W 07CCA08	124WSTC	GW	79-07-11	1500	--	--	--	--
440337105335210	47N 072W 07CCA10	124WSTC	GW	79-07-11	1315	--	--	--	--
440337105335211	47N 072W 07CCA11	124WSTC	GW	79-07-10	1500	--	--	--	--
440337105335212	47N 072W 07CCA12	124WSTC	GW	79-03-23	1130	--	--	--	--
		124WSTC	GW	79-07-10	1430	--	--	--	--
440337105335213	47N 072W 07CCA13	124WSTC	GW	79-03-23	1530	--	--	--	--
		124WSTC	GW	79-07-10	1020	--	--	--	--
440351105324101	47N 072W 08CBB01	--	GW	79-07-10	1530	--	--	--	--
CARBON COUNTY									
415209106340301	22N 081W 19BAA01	124HANN	GW	79-06-14	1200	350	--	--	350
CONVERSE COUNTY									
423954105234001	31N 071W 08CDD01	317CSPR	GW	79-06-29	0900	--	--	--	278
NATRONA COUNTY									
423156106430002	30N 083W 24DDA02	--	GW	79-06-26	1030	--	--	1.2	476
424720106294101	33N 081W 36AAD01	317TSLP	GW	79-06-26	2015	--	3600	--	--

1/ GEOLOGIC UNIT

111ALVM Holocene Alluvium
 111LCTN Lacustrine Deposits
 112GLCL Glacial Deposits
 124HANN Hanna Formation
 124WSTC Wasatch Formation
 125LEBO Lebo Shale Member of
 Fort Union Formation

125TGRV Tongue River member of
 Fort Union Formation
 125TULK Tullock Member of
 Fort Union Formation
 211FXHL Fox Hills Formation
 211LNCE Lance Formation
 317CSPR Casper Formation
 317TSLP Tensleep Formation

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	SODIUM+POTASSIUM DIS-SOLVED (MG/L AS Na)
CAMPBELL COUNTY--Continued											
440346105334901	79-03-22	1650	7.5	11.5	340	0	92	26	320	7.6	--
440346105334902	78-11-30	1600	7.5	10.5	240	0	68	17	330	9.3	--
440346105334904	78-11-30	1450	8.4	11.0	96	0	17	13	350	16	--
	79-03-22	1550	7.9	12.5	200	0	54	17	320	9.7	--
440346105334905	78-11-30	1600	7.2	13.5	290	0	82	21	350	8.9	--
440346105334914	78-11-30	1400	7.4	14.5	410	0	91	44	260	5.6	--
440346105334915	78-11-30	1450	7.9	14.0	320	0	64	39	280	6.8	--
440346105334923	78-11-30	1750	7.2	13.5	640	56	160	58	240	4.1	--
440346105334927	79-03-21	1040	8.9	23.5	36	0	10	2.7	200	14	--
440346105334928	79-03-21	940	8.8	28.0	37	0	9.2	3.3	200	14	--
440346105334929	79-03-21	1400	7.3	23.5	190	0	55	12	290	9.2	--
440346105334930	79-03-22	1140	7.8	15.0	110	0	31	8.8	260	11	--
440346105334931	79-03-22	--	--	--	210	0	58	15	340	10	--
440346105334932	79-03-22	1560	7.8	11.0	230	0	58	20	360	10	--
440346105334936	79-03-21	1220	8.8	33.5	74	0	19	6.5	180	9.1	--
440346105334937	78-12-01	1700	6.8	24.0	690	0	190	53	130	2.2	--
	79-03-22	1450	7.3	25.0	460	0	120	38	120	2.4	--
440346105334938	79-03-22	1580	7.1	11.5	730	0	200	55	140	2.3	--
440346105334939	78-12-01	1780	6.7	10.0	920	330	240	79	140	2.0	--
	79-03-22	1540	6.9	10.5	780	9	210	61	110	1.7	--
440346105334940	79-07-11	1200	7.7	12.5	120	0	34	8.4	250	10	260
440346105334941	79-07-11	1400	6.7	10.0	720	120	190	60	78	1.3	85
440337105335201	79-07-10	--	--	--	420	130	120	30	370	7.8	380
440337105335203	79-03-23	2500	7.8	10.5	960	710	350	20	290	4.1	--
	79-07-10	1850	7.7	11.5	410	71	140	14	290	6.3	300
440337105335204	79-03-23	2500	7.3	10.5	740	360	230	40	410	6.6	--
	79-07-10	2600	7.3	11.5	740	320	230	40	390	6.2	400
440337105335206	79-07-10	1100	7.7	11.5	98	0	27	7.4	250	11	250
440337105335207	79-07-11	1050	8.0	11.5	100	0	28	7.4	220	9.6	230
440337105335208	79-07-11	2300	7.4	11.5	550	150	160	37	390	7.2	400
440337105335210	79-07-11	2250	7.7	10.5	490	150	140	34	370	7.3	380
440337105335211	79-07-10	850	7.9	--	68	0	19	5.1	200	11	200
440337105335212	79-03-23	1370	7.8	10.5	150	0	43	11	280	9.9	--
	79-07-10	--	--	--	140	0	39	9.9	280	10	290
440337105335213	79-03-23	1200	7.8	11.0	170	0	56	6.9	230	7.7	--
	79-07-10	1200	7.7	12.5	130	0	42	6.4	250	9.5	250
440351105324101	79-07-10	1450	7.6	13.5	400	0	110	31	160	3.5	170
CARBON COUNTY--Continued											
415209106340301	79-06-14	4270	6.9	11.5	880	110	220	80	640	9.4	650
CONVERSE COUNTY--Continued											
423954105234001	79-06-29	940	7.2	29.5	280	130	74	24	83	2.1	92
NATRONA COUNTY--Continued											
423156106430002	79-06-26	1700	7.3	46.0	440	360	140	22	190	4.6	200
424720106294101	79-06-26	4400	7.8	27.0	1800	1700	510	120	160	1.7	180

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	DATE OF SAMPLE	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)
CAMPBELL COUNTY--Continued											
440346105334901	79-03-22	7.5	830	0	680	.0	370	9.4	.2	9.3	1250
440346105334902	78-11-30	7.7	660	0	540	2.2	380	10	--	9.5	1150
440346105334904	78-11-30	8.3	620	8	520	2.3	300	11	--	9.4	1020
	79-03-22	7.4	650	0	540	.0	360	13	.3	13	1110
440346105334905	78-11-30	11	690	0	570	.3	450	9.4	--	19	1290
440346105334914	78-11-30	22	750	0	610	14	370	15	--	18	1200
440346105334915	78-11-30	21	680	0	560	3.1	360	10	--	16	1130
440346105334923	78-11-30	19	710	0	580	1.1	580	9.1	--	23	1440
440346105334927	79-03-21	31	300	36	310	12	230	16	3.8	12	703
440346105334928	79-03-21	19	470	34	440	6.9	58	17	3.1	7.7	590
440346105334929	79-03-21	14	820	0	670	5.4	140	13	1.2	16	951
440346105334930	79-03-22	12	740	0	600	.0	89	19	1.2	13	802
440346105334931	79-03-22	6.8	800	0	650	.3	310	16	.3	10	1150
440346105334932	79-03-22	7.0	1120	0	920	.0	94	11	.2	8.6	1110
440346105334936	79-03-21	46	240	40	270	57	280	17	8.9	36	780
440346105334937	78-12-01	9.2	1140	0	940	28	.4	.2	--	23	1030
	79-03-22	8.9	950	0	780	20	10	28	1.0	20	816
440346105334938	79-03-22	7.9	990	0	810	5.2	240	15	.2	22	1170
440346105334939	78-12-01	8.5	730	0	600	1.9	690	9.4	--	24	1590
	79-03-22	7.2	940	0	770	4.2	240	8.4	.2	26	1130
440346105334940	79-07-11	5.4	790	0	650	.4	41	8.9	.3	8.3	746
440346105334941	79-07-11	6.6	730	0	600	.6	310	5.0	.2	41	1050
440337105335201	79-07-10	6.5	360	0	300	.3	890	7.5	.2	10	1610
440337105335203	79-03-23	13	300	0	250	.2	1200	57	.2	12	2090
	79-07-10	7.9	410	0	340	1.0	640	54	.3	11	1360
440337105335204	79-03-23	9.3	460	0	380	.2	1200	8.6	.1	12	2140
	79-07-10	7.8	510	0	420	.9	1100	8.2	.1	12	2040
440337105335206	79-07-10	4.2	510	0	420	.6	200	50	.3	7.2	799
440337105335207	79-07-11	6.7	530	0	440	1.1	130	30	.3	8.7	693
440337105335208	79-07-11	9.6	490	0	400	.1	980	7.8	.1	11	1840
440337105335210	79-07-11	10	420	0	340	.1	940	7.8	.1	15	1730
440337105335211	79-07-10	4.0	570	0	470	.8	25	15	.4	8.5	558
440337105335212	79-03-23	5.1	430	0	350	.2	320	67	.3	7.9	948
	79-07-10	5.0	390	0	320	.7	370	69	.3	6.9	974
440337105335213	79-03-23	27	510	0	420	.0	160	61	.3	8.8	802
	79-07-10	4.6	500	0	410	.8	170	73	.3	8.7	802
440351105324101	79-07-10	8.1	590	0	480	.8	330	9.0	.1	11	952
CARBON COUNTY--Continued											
415209106340301	79-06-14	11	940	0	770	.0	1700	9.7	.4	11	3140
CONVERSE COUNTY--Continued											
423954105234001	79-06-29	8.8	--	--	150	--	260	55	1.2	31	628
NATRONA COUNTY--Continued											
423156106430002	79-06-26	11	100	0	82	--	400	250	2.5	38	1100
424720106294101	79-06-26	23	--	--	89	--	2000	56	3.0	11	2930

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION	NUMBER	DATE OF SAMPLE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
CAMPBELL COUNTY--Continued												
440346105334901	79-03-22	1.70	--	.00	1.0	1.3	--	--	--	--	--	--
440346105334902	78-11-30	1.56	--	.00	1.2	1.5	--	--	--	--	--	--
440346105334904	78-11-30	1.39	--	.00	.70	.90	--	--	--	--	--	--
	79-03-22	1.51	--	.00	1.0	1.3	--	--	--	--	--	--
440346105334905	78-11-30	1.75	--	.01	.82	1.1	--	--	--	--	--	--
440346105334914	78-11-30	1.63	--	.09	8.0	10	--	--	--	--	--	--
440346105334915	78-11-30	1.54	--	.14	4.3	5.5	--	--	--	--	--	--
440346105334923	78-11-30	1.96	--	.01	1.6	2.1	--	--	--	--	--	--
440346105334927	79-03-21	.96	--	.04	9.0	12	--	--	--	--	--	--
440346105334928	79-03-21	.80	--	.01	4.8	6.2	--	--	--	--	--	--
440346105334929	79-03-21	1.29	--	.01	3.0	3.9	--	--	--	--	--	--
440346105334930	79-03-22	1.09	--	.00	2.2	2.8	--	--	--	--	--	--
440346105334931	79-03-22	1.56	--	.00	.89	1.1	--	--	--	--	--	--
440346105334932	79-03-22	1.51	--	.01	.83	1.1	--	--	--	--	--	--
440346105334936	79-03-21	1.06	--	.02	20	26	--	--	--	--	--	--
440346105334937	78-12-01	--	--	.04	46	59	--	--	--	--	--	--
	79-03-22	1.11	--	.03	--	--	--	--	--	--	--	--
440346105334938	79-03-22	1.59	--	.00	1.9	2.4	--	--	--	--	--	--
440346105334939	78-12-01	2.16	--	9.3	.45	.58	--	--	--	--	--	--
	79-03-22	1.54	--	.00	1.7	2.2	--	--	--	--	--	--
440346105334940	79-07-11	1.01	--	.01	.82	1.1	--	--	--	--	--	--
440346105334941	79-07-11	1.43	--	.00	2.5	3.2	--	--	--	--	--	--
440337105335201	79-07-10	2.19	--	.00	.81	1.0	--	--	--	--	--	--
440337105335203	79-03-23	2.84	--	.00	.84	1.1	--	--	--	--	--	--
	79-07-10	1.85	--	.00	.44	.57	--	--	--	--	--	--
440337105335204	79-03-23	2.91	--	.00	1.2	1.5	--	--	--	--	--	--
	79-07-10	2.77	--	.00	.91	1.2	--	--	--	--	--	--
440337105335206	79-07-10	1.09	--	.00	.30	.39	--	--	--	--	--	--
440337105335207	79-07-11	.94	--	.00	.42	.54	--	--	--	--	--	--
440337105335208	79-07-11	2.50	--	.00	1.2	1.5	--	--	--	--	--	--
440337105335210	79-07-11	2.35	--	.04	1.1	1.4	--	--	--	--	--	--
440337105335211	79-07-10	.76	--	.00	.21	.27	--	--	--	--	--	--
440337105335212	79-03-23	1.29	--	.00	.67	.86	--	--	--	--	--	--
	79-07-10	1.32	--	.00	.47	.61	--	--	--	--	--	--
440337105335213	79-03-23	1.09	--	.00	.53	.68	--	--	--	--	--	--
	79-07-10	1.09	--	.00	.28	.36	--	--	--	--	--	--
440351105324101	79-07-10	1.29	--	.00	.78	1.0	--	--	--	--	--	--
CARBON COUNTY--Continued												
415209106340301	79-06-14	4.27	--	.00	1.4	1.8	.30	--	1.7	1.7	--	--
CONVERSE COUNTY--Continued												
423954105234001	79-06-29	.85	--	.07	--	--	--	.05	--	--	--	.01
NATRONA COUNTY--Continued												
423156106430002	79-06-26	1.50	3.65	.00	--	--	--	--	--	--	--	--
424720106294101	79-06-26	3.98	--	.12	--	--	--	.13	--	--	--	.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION	NUMBER	DATE OF SAMPLE	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
CAMPBELL COUNTY--Continued								
440346105334901		79-03-22	--	--	--	2.3	.00	2
440346105334902		78-11-30	--	--	--	3.1	.01	2
440346105334904		78-11-30	--	--	--	2.2	.05	4
		79-03-22	--	--	--	1.8	.02	4
440346105334905		78-11-30	--	--	--	1.7	.01	5
440346105334914		78-11-30	--	--	--	5.0	.05	230
440346105334915		78-11-30	--	--	--	2.8	.02	37
440346105334923		78-11-30	--	--	--	4.0	.04	3
440346105334927		79-03-21	--	--	--	8.9	.09	320
440346105334928		79-03-21	--	--	--	17	.08	880
440346105334929		79-03-21	--	--	--	10	.09	370
440346105334930		79-03-22	--	--	--	5.6	.10	1
440346105334931		79-03-22	--	--	--	4.8	.05	17
440346105334932		79-03-22	--	--	--	3.7	.00	11
440346105334936		79-03-21	--	--	--	3.7	.09	82
440346105334937		78-12-01	--	--	--	.33	.23	37000
		79-03-22	--	--	--	140	.12	39000
440346105334938		79-03-22	--	--	--	21	.04	3800
440346105334939		78-12-01	--	--	--	--	.02	190
		79-03-22	--	--	--	24	.04	2300
440346105334940		79-07-11	--	--	.01	--	.00	0
440346105334941		79-07-11	--	--	.02	2.7	.00	10
440337105335201		79-07-10	--	--	.01	3.1	.00	0
440337105335203		79-03-23	--	--	--	13	.01	74
		79-07-10	--	--	.01	6.3	.00	4
440337105335204		79-03-23	--	--	--	18	.00	7
		79-07-10	--	--	.01	6.3	.00	2
440337105335206		79-07-10	--	--	.01	3.0	.00	3
440337105335207		79-07-11	--	--	.02	3.4	.00	0
440337105335208		79-07-11	--	--	.01	3.2	.00	0
440337105335210		79-07-11	--	--	.01	9.7	.00	0
440337105335211		79-07-10	--	--	.03	26	.00	0
440337105335212		79-03-23	--	--	--	4.4	.00	12
		79-07-10	--	--	.00	4.8	.00	1
440337105335213		79-03-23	--	--	--	4.3	.00	0
		79-07-10	--	--	.03	4.9	.00	2
440351105324101		79-07-10	--	--	.00	--	.00	1
CARBON COUNTY--Continued								
415209106340301		79-06-14	--	--	--	--	.00	0
CONVERSE COUNTY--Continued								
423954105234001		79-06-29	.03	.03	--	--	--	--
NATRONA COUNTY--Continued								
423156106430002		79-06-26	--	--	--	--	--	--
424720106294101		79-06-26	.03	.03	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
PARK COUNTY									
443432110214001	WELL FB 1 YNP	111LCTN	GW	78-10-25	1100	48	75	--	4.0
		111LCTN	GW	79-05-01	1330	48	75	7.2	4.0
		111LCTN	GW	79-07-18	1025	48	80	--	10.0
443437110214601	WELL FB 2 YNP	111LCTN	GW	78-10-24	1430	51	70	--	6.0
		111LCTN	GW	79-05-05	1315	51	70	6.9	3.5
		111LCTN	GW	79-07-18	1820	51	70	--	11.0
		111LCTN	GW	79-08-21	1530	51	75	7.2	5.0
443440110215201	WELL FB 3 YNP	111LCTN	GW	78-10-24	1400	51	400	--	10.0
		111LCTN	GW	79-05-05	1330	51	410	6.5	8.5
		111LCTN	GW	79-07-18	1455	51	280	--	14.0
		111LCTN	GW	79-08-21	1610	51	285	6.9	10.0
443443110215001	WELL FB 4 YNP	111LCTN	GW	78-10-24	1400	49	360	--	10.0
		111LCTN	GW	79-05-05	1340	49	300	6.5	6.5
		111LCTN	GW	79-07-18	1420	49	280	--	16.0
		111LCTN	GW	79-08-22	1430	49	305	6.9	10.0
443448110213101	WELL FB 7 YNP	111LCTN	GW	78-10-25	1200	47	60	--	5.0
		111LCTN	GW	79-05-06	1030	47	60	6.6	3.5
		111LCTN	GW	79-07-18	1740	47	70	--	14.0
443441110213801	WELL FB 8 YNP	111LCTN	GW	79-05-05	1430	48	95	6.6	4.5
		111LCTN	GW	79-07-18	1655	48	110	--	13.0
443431110215001	WELL FB 9 YNP	111LCTN	GW	78-10-24	0900	51	280	--	7.0
		111LCTN	GW	79-05-01	1045	51	200	6.7	4.0
		111LCTN	GW	79-07-18	1140	51	240	--	13.0
443452110220401	WELL FB10 YNP	111LCTN	GW	78-10-24	1300	40	80	--	7.0
		111LCTN	GW	79-05-05	1200	40	75	6.9	3.5
		111LCTN	GW	79-07-18	1350	40	80	--	14.0
443436110214301	WELL FB11 YNP	111LCTN	GW	78-10-24	1000	49	120	--	6.0
		111LCTN	GW	79-05-01	1345	49	185	6.9	5.0
		111LCTN	GW	79-07-18	1950	49	160	--	12.0
443435110214401	WELL FB12 YNP	111LCTN	GW	78-10-24	1100	49	190	--	6.0
		111LCTN	GW	79-05-01	1400	49	200	6.9	4.0
		111LCTN	GW	79-07-18	1955	49	220	--	12.0
		111LCTN	GW	79-08-21	1300	49	200	6.9	6.5
443435110220401	WELL FB13 YNP	111LCTN	GW	78-10-25	1000	6.0	75	--	10.0
		111LCTN	GW	79-05-01	1100	6.0	70	6.9	3.5
		111LCTN	GW	79-07-18	1230	6.0	170	--	18.0

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
PARK COUNTY--Continued											
443432110214001	78-10-25	--	4.7	1.0	--	--	--	--	--	--	--
	79-05-01	--	7.2	1.3	--	--	--	--	--	--	--
	79-07-18	--	7.5	1.8	--	--	--	--	--	--	--
443437110214601	78-10-24	--	5.9	.8	--	--	--	--	--	--	--
	79-05-05	--	6.6	.9	--	--	--	--	--	--	--
	79-07-18	--	4.8	1.0	--	--	--	--	--	--	--
443440110215201	79-08-21	27	7.4	1.0	.1	47	89	.12	.31	2.7	.21
	78-10-24	--	27	29	--	--	--	--	--	--	--
	79-05-05	--	20	26	--	--	--	--	--	--	--
	79-07-18	--	12	12	--	--	--	--	--	--	--
443443110215001	79-08-21	98	13	21	.5	43	201	.27	1.0	.86	.44
	78-10-24	--	34	28	--	--	--	--	--	--	--
	79-05-05	--	19	22	--	--	--	--	--	--	--
	79-07-18	--	18	26	--	--	--	--	--	--	--
	79-08-22	56	21	27	.1	48	216	.29	7.7	.29	.34
443448110213101	78-10-25	--	10	1.1	--	--	--	--	--	--	--
	79-05-06	--	10	.9	--	--	--	--	--	--	--
	79-07-18	--	13	1.5	--	--	--	--	--	--	--
443441110213801	79-05-05	--	7.7	1.8	--	--	--	--	--	--	--
	79-07-18	--	7.2	1.3	--	--	--	--	--	--	--
443431110215001	78-10-24	--	12	15	--	--	--	--	--	--	--
	79-05-01	--	13	10	--	--	--	--	--	--	--
	79-07-18	--	11	8.8	--	--	--	--	--	--	--
443452110220401	78-10-24	--	8.9	4.6	--	--	--	--	--	--	--
	79-05-05	--	5.5	3.3	--	--	--	--	--	--	--
443436110214301	79-07-18	--	5.5	5.8	--	--	--	--	--	--	--
	78-10-24	--	8.0	6.6	--	--	--	--	--	--	--
	79-05-01	--	10	8.0	--	--	--	--	--	--	--
	79-07-18	--	11	5.5	--	--	--	--	--	--	--
443435110214401	78-10-24	--	10	9.0	--	--	--	--	--	--	--
	79-05-01	--	10	8.4	--	--	--	--	--	--	--
	79-07-18	--	11	7.7	--	--	--	--	--	--	--
	79-08-21	66	13	9.7	.1	44	161	.22	3.6	1.1	.23
443435110220401	78-10-25	--	9.6	1.5	--	--	--	--	--	--	--
	79-05-01	--	6.9	3.3	--	--	--	--	--	--	--
	79-07-18	--	18	3.0	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	DATE OF SAMPLE	PHOS- PHORUS TOTAL (MG/L AS PO4)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
PARK COUNTY--Continued				
443432110214001	78-10-25	--	--	--
	79-05-01	--	--	--
	79-07-18	--	--	--
443437110214601	78-10-24	--	--	--
	79-05-05	--	--	--
	79-07-18	--	--	--
443440110215201	79-08-21	.64	20	4.9
	78-10-24	--	--	--
	79-05-05	--	--	--
	79-07-18	--	--	--
443443110215001	79-08-21	1.4	20	11
	78-10-24	--	--	--
	79-05-05	--	--	--
	79-07-18	--	--	--
	79-08-22	1.0	40	15
443448110213101	78-10-25	--	--	--
	79-05-06	--	--	--
	79-07-18	--	--	--
443441110213801	79-05-05	--	--	--
	79-07-18	--	--	--
443431110215001	78-10-24	--	--	--
	79-05-01	--	--	--
	79-07-18	--	--	--
443452110220401	78-10-24	--	--	--
	79-05-05	--	--	--
	79-07-18	--	--	--
443436110214301	78-10-24	--	--	--
	79-05-01	--	--	--
	79-07-18	--	--	--
443435110214401	78-10-24	--	--	--
	79-05-01	--	--	--
	79-07-18	--	--	--
	79-08-21	.71	30	7.7
443435110220401	78-10-25	--	--	--
	79-05-01	--	--	--
	79-07-18	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
SHERIDAN COUNTY									
445444106054101	55N 077W 11BA 01	211FXHL	GW	78-10-18	1400	4497	4340	4220	4802
		211LNCE	GW	78-10-22	0100	4497	3352	3338	2850
		211LNCE	GW	78-10-22	1000	4497	3810	3748	3296
		125TULK	GW	78-10-22	1430	4497	2486	2460	4163
		125TULK	GW	78-10-22	1435	4497	2486	2460	3000
		125TGRV	GW	78-10-24	0730	4497	1400	1344	4183
		125TGRV	GW	78-10-24	1830	4497	806	774	3000
		125TGRV	GW	78-10-24	1835	4497	806	774	2872
		125LEBO	GW	78-10-25	--	4497	1740	1718	3450

STATION NUMBER	DATE OF SAMPLE	PH (UNITS)	TEMPER- ATURE (DEG C)	DENSITY (GM/ML AT 20 C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
445444106054101	78-10-18	8.2	31.5	1.000	16	0	4.3	1.1	1200	134	11
	78-10-22	8.5	--	--	18	0	4.0	2.0	849	87	10
	78-10-22	8.5	26.0	1.001	15	0	4.0	1.1	740	85	7.2
	78-10-22	7.8	27.5	1.000	35	0	8.0	3.6	1100	81	14
	78-10-22	7.8	27.5	1.000	39	0	9.2	3.7	1200	84	14
	78-10-24	7.7	26.5	1.000	29	0	5.0	4.0	650	53	9.4
	78-10-24	7.8	16.5	--	43	--	8.1	5.4	730	49	13
	78-10-24	7.8	16.5	1.002	43	0	8.2	5.3	760	51	12
	78-10-25	7.9	25.0	--	45	0	18	.0	1069	69	17

STATION NUMBER	DATE OF SAMPLE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)
445444106054101	78-10-18	1007	0	826	40	610	3.7	5.0	1.3
	78-10-22	1586	84	1440	.0	310	6.2	3.0	.50
	78-10-22	824	0	676	5.1	250	6.0	2.7	.25
	78-10-22	1415	0	1160	3.5	100	2.3	1.5	.10
	78-10-22	1440	0	1180	32	290	5.8	4.5	.03
	78-10-24	1427	0	1170	1.0	110	2.5	1.4	.00
	78-10-24	--	0	--	2.0	53	3.7	.3	.00
	78-10-24	976	0	801	23	72	3.6	1.5	.00
	78-10-25	2708	48	2300	24	100	5.0	--	--

STATION NUMBER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
445444106054101	78-10-18	13	2390	.06
	78-10-22	--	--	--
	78-10-22	19	1440	.01
	78-10-22	10	1940	.06
	78-10-22	21	2290	.06
	78-10-24	11	1500	.05
	78-10-24	13	--	.03
	78-10-24	18	1390	.01
	78-10-25	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
TETON COUNTY									
442324110315701	WELL GV 1 YNP	111LCTN	GW	78-10-18	1200	16	310	--	6.0
		111LCTN	GW	79-05-10	1130	16	95	7.1	3.5
		111LCTN	GW	79-07-16	1145	50	230	--	13.0
442323110321101	WELL GV 2 YNP	111LCTN	GW	78-10-18	1000	50	230	--	7.0
		111LCTN	GW	79-05-07	1315	50	260	6.3	4.0
442322110321002	WELL GV 3AYNP	111LCTN	GW	79-07-16	1320	50	290	--	13.0
		111LCTN	GW	78-10-18	1130	38	150	--	6.0
		111LCTN	GW	79-05-07	1330	38	75	6.7	4.5
		111LCTN	GW	79-07-16	1425	38	50	--	12.0
		111LCTN	GW	79-08-23	1500	38	200	6.3	6.5
442321110321901	WELL GV 4 YNP	111LCTN	GW	78-10-18	1000	58	150	--	8.0
		111LCTN	GW	79-05-07	1400	58	410	6.7	6.0
		111LCTN	GW	79-07-16	1515	58	510	--	14.0
		111LCTN	GW	79-08-23	1330	58	235	6.4	8.5
442319110320401	WELL GV 5 YNP	111LCTN	GW	78-10-19	1430	54	160	--	6.0
		111LCTN	GW	79-05-09	1100	54	140	7.5	3.0
		111LCTN	GW	79-07-17	1700	54	150	--	12.0
442320110320801	WELL GV 6 YNP	111LCTN	GW	78-10-19	1500	43	70	--	7.0
		111LCTN	GW	79-07-17	1610	43	80	--	12.0
442317110321601	WELL GV 7 YNP	111LCTN	GW	78-10-19	1000	105	320	--	8.0
		111LCTN	GW	79-05-08	1400	105	390	7.0	5.0
		111LCTN	GW	79-07-16	1700	105	490	--	16.0
		111LCTN	GW	79-08-23	1640	105	400	6.8	9.0
442315110321201	WELL GV 8 YNP	111LCTN	GW	78-10-19	1100	97	90	--	6.0
		111LCTN	GW	79-05-08	1440	97	70	7.2	4.0
442316110320901	WELL GV 9 YNP	111LCTN	GW	79-07-16	1755	97	100	--	12.0
		111LCTN	GW	78-10-19	1700	57	50	--	7.0
		111LCTN	GW	79-05-08	1530	57	65	7.2	3.5
		111LCTN	GW	79-07-17	1210	57	100	--	12.0
442318110320301	WELL GV10 YNP	111LCTN	GW	78-10-19	1300	53	110	--	6.0
		111LCTN	GW	79-05-09	1130	53	115	7.7	4.0
		111LCTN	GW	79-07-17	1425	53	130	--	13.0
442318110320302	WELL GV10AYNP	111LCTN	GW	78-10-19	1200	20	160	--	6.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION	NUMBER	DATE OF SAMPLE	ALKA- LITY (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
TETON COUNTY--Continued												
442324110315701		78-10-18	--	15	1.7	--	--	--	--	--	--	--
		79-05-10	--	4.2	1.0	--	--	--	--	--	--	--
		79-07-16	--	8.0	1.7	--	--	--	--	--	--	--
442323110321101		78-10-18	--	13	16	--	--	--	--	--	--	--
		79-05-07	--	6.5	20	--	--	--	--	--	--	--
		79-07-16	--	10	15	--	--	--	--	--	--	--
442322110321002		78-10-18	--	21	5.9	--	--	--	--	--	--	--
		79-05-07	--	3.8	3.6	--	--	--	--	--	--	--
		79-07-16	--	4.8	1.2	--	--	--	--	--	--	--
		79-08-23	11	12	21	.1	30	134	.18	4.8	.93	.42
442321110321901		78-10-18	--	12	7.0	--	--	--	--	--	--	--
		79-05-07	--	15	26	--	--	--	--	--	--	--
		79-07-16	--	22	24	--	--	--	--	--	--	--
		79-08-23	64	11	9.7	.1	45	170	.23	4.4	1.5	.30
442319110320401		78-10-19	--	7.9	1.4	--	--	--	--	--	--	--
		79-05-09	--	4.1	1.8	--	--	--	--	--	--	--
		79-07-17	--	6.7	1.5	--	--	--	--	--	--	--
442320110320801		78-10-19	--	4.0	.9	--	--	--	--	--	--	--
		79-07-17	--	3.4	1.1	--	--	--	--	--	--	--
442317110321601		78-10-19	--	24	17	--	--	--	--	--	--	--
		79-05-08	--	19	26	--	--	--	--	--	--	--
		79-07-16	--	23	31	--	--	--	--	--	--	--
		79-08-23	120	17	33	.1	46	269	.37	4.1	1.4	.13
442315110321201		78-10-19	--	10	1.2	--	--	--	--	--	--	--
		79-05-08	--	2.3	1.8	--	--	--	--	--	--	--
		79-07-16	--	5.0	1.3	--	--	--	--	--	--	--
442316110320901		78-10-19	--	4.3	1.7	--	--	--	--	--	--	--
		79-05-08	--	2.1	1.3	--	--	--	--	--	--	--
		79-07-17	--	8.0	9.7	--	--	--	--	--	--	--
442318110320301		78-10-19	--	11	1.1	--	--	--	--	--	--	--
		79-05-09	--	2.6	.9	--	--	--	--	--	--	--
		79-07-17	--	4.7	1.1	--	--	--	--	--	--	--
442318110320302		78-10-19	--	22	1.7	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION	NUMBER	DATE OF SAMPLE	PHOS- PHORUS TOTAL (MG/L AS PO4)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
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TETON COUNTY--Continued

442324110315701	78-10-18	--	--	--
	79-05-10	--	--	--
	79-07-16	--	--	--
442323110321101	78-10-18	--	--	--
	79-05-07	--	--	--
	79-07-16	--	--	--
442322110321002	78-10-18	--	--	--
	79-05-07	--	--	--
	79-07-16	--	--	--
	79-08-23	1.3	30	4.3
442321110321901	78-10-18	--	--	--
	79-05-07	--	--	--
	79-07-16	--	--	--
	79-08-23	.92	50	2.0
442319110320401	78-10-19	--	--	--
	79-05-09	--	--	--
	79-07-17	--	--	--
442320110320801	78-10-19	--	--	--
	79-07-17	--	--	--
442317110321601	78-10-19	--	--	--
	79-05-08	--	--	--
	79-07-16	--	--	--
	79-08-23	.40	20	3.6
442315110321201	78-10-19	--	--	--
	79-05-08	--	--	--
	79-07-16	--	--	--
442316110320901	78-10-19	--	--	--
	79-05-08	--	--	--
	79-07-17	--	--	--
442318110320301	78-10-19	--	--	--
	79-05-09	--	--	--
	79-07-17	--	--	--
442318110320302	78-10-19	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
TETON COUNTY--Continued									
442318110320302	WELL GV10AYNP	111LCTN	GW	79-05-09	1150	20	85	7.7	3.0
		111LCTN	GW	79-07-17	1445	20	100	--	11.0
443844110522501	WELL MJ 1 YNP	111ALVM	GW	78-10-17	1430	35	180	--	13.0
		111ALVM	GW	79-05-02	1300	35	180	6.6	12.0
		111ALVM	GW	79-07-13	1320	35	200	--	17.0
443844110521901	WELL MJ 3 YNP	111ALVM	GW	78-10-17	1300	60	330	--	12.0
		111ALVM	GW	79-05-02	1310	60	300	6.5	11.0
		111ALVM	GW	79-07-16	0945	60	370	--	15.0
		111ALVM	GW	79-08-24	1630	60	225	6.5	12.0
443843110522101	WELL MJ 4 YNP	111ALVM	GW	78-10-17	1430	40	160	--	13.0
		111ALVM	GW	79-05-02	1450	40	190	6.5	10.0
		111ALVM	GW	79-07-13	1205	40	190	--	14.0
443842110522201	WELL MJ 5 YNP	111ALVM	GW	78-10-17	1700	40	210	--	14.0
		111ALVM	GW	79-05-02	1410	40	200	6.4	11.0
		111ALVM	GW	79-07-13	1125	40	210	--	15.0
443842110522101	WELL MJ 6 YNP	111ALVM	GW	79-08-27	1445	40	165	6.8	12.0
		111ALVM	GW	78-10-17	1400	35	210	--	15.0
		111ALVM	GW	79-05-02	1500	35	200	6.3	12.5
		111ALVM	GW	79-07-13	1045	35	200	--	18.0
443843110522001	WELL MJ 7 YNP	111ALVM	GW	78-10-17	1400	50	265	--	11.0
		111ALVM	GW	79-05-02	1400	50	210	6.7	11.0
		111ALVM	GW	79-07-13	1405	50	340	--	15.0
		111ALVM	GW	79-08-27	1300	50	400	6.5	12.0
442717110504601	WELL OF 1 YNP	112GLCL	GW	78-10-23	1600	29	110	--	18.0
		112GLCL	GW	79-05-03	1330	29	110	7.1	15.0
		112GLCL	GW	79-07-10	1240	29	110	--	18.0
442720110504101	WELL OF 2 YNP	112GLCL	GW	78-10-23	1530	48	500	--	18.0
		112GLCL	GW	79-05-03	1340	48	290	5.9	17.0
		112GLCL	GW	79-07-09	1305	48	110	--	21.0
		112GLCL	GW	79-08-28	1315	48	300	6.3	14.0
442722110504401	WELL OF 3 YNP	112GLCL	GW	78-10-23	1400	65	410	--	14.0
		112GLCL	GW	79-05-03	1400	65	220	6.1	7.0
		112GLCL	GW	79-07-09	1410	65	270	--	23.0
		112GLCL	GW	79-08-28	1530	65	370	6.4	19.0
442723110504601	WELL OF 4 YNP	112GLCL	GW	78-10-23	1230	49	390	--	13.0
		112GLCL	GW	79-05-03	1415	49	260	6.2	7.5
		112GLCL	GW	79-07-10	1105	49	300	--	20.0
		112GLCL	GW	79-08-28	1610	49	435	6.7	19.0
442724110504801	WELL OF 5 YNP	112GLCL	GW	78-10-23	1100	49	350	--	13.0
		112GLCL	GW	79-05-04	1330	49	165	6.6	14.0
		112GLCL	GW	79-07-10	1155	49	260	--	16.0
		112GLCL	GW	79-08-29	1430	49	255	6.0	17.0
442726110505001	WELL OF 6 YNP	112GLCL	GW	78-10-23	1030	36	250	--	12.0
		112GLCL	GW	79-05-04	1350	36	190	6.5	21.5
		112GLCL	GW	79-07-10	1415	36	370	--	27.0
442723110505203	WELL OF 7BYNP	112GLCL	GW	78-10-23	1000	30	380	--	11.0
		112GLCL	GW	79-05-04	1410	30	180	6.5	16.5
		112GLCL	GW	79-07-10	1455	30	260	--	18.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITROGEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
TETON COUNTY--Continued											
442318110320302	79-05-09	--	7.4	1.8	--	--	--	--	--	--	--
	79-07-17	--	7.2	1.2	--	--	--	--	--	--	--
443844110522501	78-10-17	--	5.2	2.5	--	--	--	--	--	--	--
	79-05-02	--	4.5	2.1	--	--	--	--	--	--	--
	79-07-13	--	3.3	2.5	--	--	--	--	--	--	--
443844110521901	78-10-17	--	28	18	--	--	--	--	--	--	--
	79-05-02	--	9.5	18	--	--	--	--	--	--	--
	79-07-16	--	11	26	--	--	--	--	--	--	--
	79-08-24	42	9.4	19	2.0	30	149	.20	4.2	1.4	.04
443843110522101	78-10-17	--	14	2.7	--	--	--	--	--	--	--
	79-05-02	--	5.5	2.2	--	--	--	--	--	--	--
	79-07-13	--	7.3	2.7	--	--	--	--	--	--	--
443842110522201	78-10-17	--	6.0	2.6	--	--	--	--	--	--	--
	79-05-02	--	6.9	2.1	--	--	--	--	--	--	--
	79-07-13	--	3.9	2.4	--	--	--	--	--	--	--
	79-08-27	66	6.6	2.5	9.0	65	167	.23	.28	.97	.09
443842110522101	78-10-17	--	12	4.1	--	--	--	--	--	--	--
	79-05-02	--	6.6	2.2	--	--	--	--	--	--	--
	79-07-13	--	3.3	3.1	--	--	--	--	--	--	--
443843110522001	78-10-17	--	11	20	--	--	--	--	--	--	--
	79-05-02	--	7.6	13	--	--	--	--	--	--	--
	79-07-13	--	12	13	--	--	--	--	--	--	--
442717110504601	79-08-27	75	18	21	5.1	57	254	.35	5.8	1.6	.23
	78-10-23	--	6.5	3.4	--	--	--	--	--	--	--
	79-05-03	--	5.5	3.5	--	--	--	--	--	--	--
	79-07-10	--	6.3	2.8	--	--	--	--	--	--	--
442720110504101	78-10-23	--	13	34	--	--	--	--	--	--	--
	79-05-03	--	11	21	--	--	--	--	--	--	--
	79-07-09	--	11	8.6	--	--	--	--	--	--	--
	79-08-28	25	17	17	2.2	55	200	.27	7.8	5.0	.96
442722110504401	78-10-23	--	14	34	--	--	--	--	--	--	--
	79-05-03	--	12	30	--	--	--	--	--	--	--
	79-07-09	--	11	34	--	--	--	--	--	--	--
	79-08-28	65	12	40	3.5	47	238	.32	4.6	11	6.4
442723110504601	78-10-23	--	15	35	--	--	--	--	--	--	--
	79-05-03	--	12	26	--	--	--	--	--	--	--
	79-07-10	--	8.6	34	--	--	--	--	--	--	--
442724110504801	79-08-28	100	9.1	40	3.7	48	268	.36	3.3	11	8.9
	78-10-23	--	17	35	--	--	--	--	--	--	--
	79-05-04	--	8.2	9.2	--	--	--	--	--	--	--
	79-07-10	--	11	34	--	--	--	--	--	--	--
	79-08-29	3	22	38	2.7	59	190	.26	4.0	3.4	1.5
442726110505001	78-10-23	--	13	17	--	--	--	--	--	--	--
	79-05-04	--	11	13	--	--	--	--	--	--	--
	79-07-10	--	23	26	--	--	--	--	--	--	--
442723110505203	78-10-23	--	15	42	--	--	--	--	--	--	--
	79-05-04	--	9.8	14	--	--	--	--	--	--	--
	79-07-10	--	16	27	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STATION	NUMBER	DATE OF SAMPLE	PHOS- PHURUS TOTAL (MG/L AS PO ₄)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
TETON COUNTY--Continued					
442318110320302		79-05-09	--	--	--
		79-07-17	--	--	--
443844110522501		78-10-17	--	--	--
		79-05-02	--	--	--
		79-07-13	--	--	--
443844110521901		78-10-17	--	--	--
		79-05-02	--	--	--
		79-07-16	--	--	--
		79-08-24	.12	40	6.2
443843110522101		78-10-17	--	--	--
		79-05-02	--	--	--
		79-07-13	--	--	--
443842110522201		78-10-17	--	--	--
		79-05-02	--	--	--
		79-07-13	--	--	--
		79-08-27	.28	380	6.7
443842110522101		78-10-17	--	--	--
		79-05-02	--	--	--
		79-07-13	--	--	--
443843110522001		78-10-17	--	--	--
		79-05-02	--	--	--
		79-07-13	--	--	--
		79-08-27	.71	50	5.6
442717110504601		78-10-23	--	--	--
		79-05-03	--	--	--
		79-07-10	--	--	--
442720110504101		78-10-23	--	--	--
		79-05-03	--	--	--
		79-07-09	--	--	--
		79-08-28	2.9	70	7.6
442722110504401		78-10-23	--	--	--
		79-05-03	--	--	--
		79-07-09	--	--	--
		79-08-28	20	3700	7.6
442723110504601		78-10-23	--	--	--
		79-05-03	--	--	--
		79-07-10	--	--	--
		79-08-28	27	1600	10
442724110504801		78-10-23	--	--	--
		79-05-04	--	--	--
		79-07-10	--	--	--
		79-08-29	4.6	70	6.0
442726110505001		78-10-23	--	--	--
		79-05-04	--	--	--
		79-07-10	--	--	--
442723110505203		78-10-23	--	--	--
		79-05-04	--	--	--
		79-07-10	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

TRACE METALS ANALYSES

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)
CAMPBELL COUNTY										
440346105334901	47N 072W 07C8D01		124WSTC	GW	79-03-22	1740	--	--	--	1
440346105334902	47N 072W 07C8D02		124WSTC	GW	78-11-30	1545	--	--	--	1
440346105334904	47N 072W 07C8D04		124WSTC	GW	78-11-30	1500	--	--	--	0
			124WSTC	GW	79-03-22	1830	--	--	--	1
440346105334905	47N 072W 07C8D05		124WSTC	GW	78-11-30	1355	--	--	--	0
440346105334914	47N 072W 07C8D14		124WSTC	GW	78-11-30	1310	--	--	--	1
440346105334915	47N 072W 07C8D15		124WSTC	GW	78-11-30	1150	--	--	--	1
440346105334923	47N 072W 07C8D23		124WSTC	GW	78-11-30	1050	--	--	--	2
440346105334927	47N 072W 07C8D27		124WSTC	GW	79-03-21	1330	--	--	--	7
440346105334928	47N 072W 07C8D28		124WSTC	GW	79-03-21	1455	--	--	--	3
440346105334929	47N 072W 07C8D29		124WSTC	GW	79-03-21	1100	--	--	--	2
440346105334930	47N 072W 07C8D30		124WSTC	GW	79-03-22	1210	--	--	--	2
440346105334931	47N 072W 07C8D31		124WSTC	GW	79-03-22	1410	--	--	--	1
440346105334932	47N 072W 07C8D32		124WSTC	GW	79-03-22	1640	--	--	--	1
440346105334936	47N 072W 07C8D36		124WSTC	GW	79-03-21	1145	--	--	--	8
440346105334937	47N 072W 07C8D37		--	GW	78-12-01	0845	--	--	--	1
			--	GW	79-03-22	1100	--	--	--	2
440346105334938	47N 072W 07C8D38		124WSTC	GW	79-03-22	1500	--	--	--	1
440346105334939	47N 072W 07C8D39		--	GW	78-12-01	1440	--	--	--	1
			--	GW	79-03-22	1600	--	--	--	1
440346105334940	47N 072W 07C8D40		124WSTC	GW	79-07-11	1720	--	--	--	1
440346105334941	47N 072W 07C8D41		124WSTC	GW	79-07-11	1000	--	--	--	1
440337105335201	47N 072W 07CCA01		124WSTC	GW	79-07-10	1340	--	--	--	10
440337105335203	47N 072W 07CCA03		124WSTC	GW	79-03-23	1245	--	--	--	0
			124WSTC	GW	79-07-10	1245	--	--	--	0
440337105335204	47N 072W 07CCA04		124WSTC	GW	79-03-23	1350	--	--	--	1
			124WSTC	GW	79-07-10	1115	--	--	--	0
440337105335206	47N 072W 07CCA06		124WSTC	GW	79-07-10	0945	--	--	--	0
440337105335207	47N 072W 07CCA07		124WSTC	GW	79-07-11	1415	--	--	--	1
440337105335208	47N 072W 07CCA08		124WSTC	GW	79-07-11	1500	--	--	--	1
440337105335210	47N 072W 07CCA10		124WSTC	GW	79-07-11	1315	--	--	--	1
440337105335211	47N 072W 07CCA11		124WSTC	GW	79-07-10	1500	--	--	--	1
440337105335212	47N 072W 07CCA12		124WSTC	GW	79-03-23	1130	--	--	--	0
			124WSTC	GW	79-07-10	1430	--	--	--	2
440337105335213	47N 072W 07CCA13		124WSTC	GW	79-03-23	1530	--	--	--	0
			124WSTC	GW	79-07-10	1020	--	--	--	0
440351105324101	47N 072W 08C8B01		--	GW	79-07-10	1530	--	--	--	0
CARBON COUNTY										
415209106340301	22N 081W 19BAA01		124HANN	GW	79-06-14	1200	--	1	0	1
CONVERSE COUNTY										
423954105234001	31N 071W 08CDD01		317C8PR	GW	79-06-29	0900	--	--	--	--
NATRONA COUNTY										
423156106430002	30N 083W 24DDA02		--	GW	79-06-26	1030	--	--	--	--
424720106294101	33N 081W 36AAD01		317T8LP	GW	79-06-26	2015	--	--	--	--
SHERIDAN COUNTY										
445444106054101	55N 077W 11BA 01		211FXHL	GW	78-10-18	1400	140	--	--	1
			211LNCE	GW	78-10-22	1000	30	--	--	1
			125TULK	GW	78-10-22	1430	0	--	--	1
			125TULK	GW	78-10-22	1435	0	--	--	1
			125TGRV	GW	78-10-24	0730	60	--	--	2
			125TGRV	GW	78-10-24	1830	0	--	--	1
			125TGRV	GW	78-10-24	1835	0	--	--	1

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

TRACE METALS ANALYSES

STATION	NUMBER	DATE OF SAMPLE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV- ERABLE (UG/L AS CR)
CAMPBELL COUNTY--Continued												
440346105334901	79-03-22	--	--	--	100	--	80	--	--	0	--	--
440346105334902	78-11-30	--	--	--	50	--	60	--	--	<1	--	--
440346105334904	78-11-30	--	--	--	40	--	60	--	--	<1	--	--
	79-03-22	--	--	--	0	--	70	--	--	0	--	--
440346105334905	78-11-30	--	--	--	80	--	90	--	--	1	--	--
440346105334914	78-11-30	--	--	--	80	--	520	--	--	4	--	--
440346105334915	78-11-30	--	--	--	70	--	370	--	--	2	--	--
440346105334923	78-11-30	--	--	--	60	--	760	--	--	1	--	--
440346105334927	79-03-21	--	--	--	0	--	1100	--	--	0	--	--
440346105334928	79-03-21	--	--	--	100	--	660	--	--	0	--	--
440346105334929	79-03-21	--	--	--	600	--	310	--	--	0	--	--
440346105334930	79-03-22	--	--	--	100	--	230	--	--	0	--	--
440346105334931	79-03-22	--	--	--	100	--	80	--	--	0	--	--
440346105334932	79-03-22	--	--	--	200	--	80	--	--	0	--	--
440346105334936	79-03-21	--	--	--	100	--	2100	--	--	0	--	--
440346105334937	78-12-01	--	--	--	400	--	140	--	--	2	--	--
	79-03-22	--	--	--	600	--	220	--	--	0	--	--
440346105334938	79-03-22	--	--	--	0	--	80	--	--	0	--	--
440346105334939	78-12-01	--	--	--	30	--	80	--	--	1	--	--
	79-03-22	--	--	--	0	--	90	--	--	0	--	--
440346105334940	79-07-11	--	--	--	--	<1	60	--	--	<1	--	--
440346105334941	79-07-11	--	--	--	--	<1	100	--	--	<1	--	--
440337105335201	79-07-10	--	--	--	--	0	70	--	--	0	--	--
440337105335203	79-03-23	--	--	--	0	--	130	--	--	0	--	--
	79-07-10	--	--	--	--	<1	80	--	--	3	--	--
440337105335204	79-03-23	--	--	--	0	--	260	--	--	0	--	--
	79-07-10	--	--	--	--	0	370	--	--	0	--	--
440337105335206	79-07-10	--	--	--	--	<1	70	--	--	1	--	--
440337105335207	79-07-11	--	--	--	--	<1	60	--	--	<1	--	--
440337105335208	79-07-11	--	--	--	--	0	50	--	--	0	--	--
440337105335210	79-07-11	--	--	--	--	0	50	--	--	0	--	--
440337105335211	79-07-10	--	--	--	--	<1	70	--	--	<1	--	--
440337105335212	79-03-23	--	--	--	100	--	90	--	--	0	--	--
	79-07-10	--	--	--	--	1	70	--	--	3	--	--
440337105335213	79-03-23	--	--	--	100	--	260	--	--	0	--	--
	79-07-10	--	--	--	--	<1	50	--	--	<1	--	--
440351105324101	79-07-10	--	--	--	--	<1	100	--	--	<1	--	--
CARBON COUNTY--Continued												
415209106340301	79-06-14	0	0	0	0	--	50	0	0	0	10	0
CONVERSE COUNTY--Continued												
423954105234001	79-06-29	--	--	--	--	--	--	--	--	--	--	--
NATRONA COUNTY--Continued												
423156106430002	79-06-26	--	--	--	--	--	--	--	--	--	--	--
424720106294101	79-06-26	--	--	--	--	--	--	--	--	--	--	--
SHERIDAN COUNTY--Continued												
445444106054101	78-10-18	--	--	--	700	--	220	--	--	1	--	--
	78-10-22	--	--	--	700	--	910	--	--	2	--	--
	78-10-22	--	--	--	700	--	790	--	--	3	--	--
	78-10-22	--	--	--	600	--	820	--	--	2	--	--
	78-10-24	--	--	--	500	--	220	--	--	3	--	--
	78-10-24	--	--	--	500	--	210	--	--	1	--	--
	78-10-24	--	--	--	400	--	210	--	--	2	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

TRACE METALS ANALYSES

STATION	NUMBER	DATE OF SAMPLE	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
CAMPBELL COUNTY--Continued												
440346105334901	79-03-22	0	--	--	--	--	--	--	1800	--	--	0
440346105334902	78-11-30	0	--	--	--	--	--	--	3900	--	--	0
440346105334904	78-11-30	0	--	--	--	--	--	--	140	--	--	2
	79-03-22	0	--	--	--	--	--	--	950	--	--	0
440346105334905	78-11-30	0	--	--	--	--	--	--	1200	--	--	0
440346105334914	78-11-30	0	--	--	--	--	--	--	380	--	--	0
440346105334915	78-11-30	0	--	--	--	--	--	--	620	--	--	0
440346105334923	78-11-30	0	--	--	--	--	--	--	2100	--	--	1
440346105334927	79-03-21	0	--	--	--	--	--	--	170	--	--	0
440346105334928	79-03-21	0	--	--	--	--	--	--	180	--	--	0
440346105334929	79-03-21	0	--	--	--	--	--	--	890	--	--	0
440346105334930	79-03-22	0	--	--	--	--	--	--	590	--	--	0
440346105334931	79-03-22	10	--	--	--	--	--	--	1300	--	--	0
440346105334932	79-03-22	0	--	--	--	--	--	--	600	--	--	0
440346105334936	79-03-21	20	--	--	--	--	--	--	150	--	--	0
440346105334937	78-12-01	0	--	--	--	--	--	--	720	--	--	30
	79-03-22	20	--	--	--	--	--	--	1300	--	--	0
440346105334938	79-03-22	10	--	--	--	--	--	--	860	--	--	0
440346105334939	78-12-01	0	--	--	--	--	--	--	1700	--	--	2
	79-03-22	10	--	--	--	--	--	--	1900	--	--	0
440346105334940	79-07-11	0	--	--	--	0	--	--	20	--	--	0
440346105334941	79-07-11	0	--	--	--	0	--	--	3200	--	--	0
440337105335201	79-07-10	0	--	--	--	0	--	--	510	--	--	0
440337105335203	79-03-23	10	--	--	--	--	--	--	220	--	--	0
	79-07-10	10	--	--	--	0	--	--	120	--	--	2
440337105335204	79-03-23	10	--	--	--	--	--	--	600	--	--	0
	79-07-10	10	--	--	--	0	--	--	470	--	--	2
440337105335206	79-07-10	0	--	--	--	0	--	--	1200	--	--	0
440337105335207	79-07-11	0	--	--	--	0	--	--	480	--	--	0
440337105335208	79-07-11	10	--	--	--	0	--	--	1600	--	--	0
440337105335210	79-07-11	0	--	--	--	0	--	--	9100	--	--	0
440337105335211	79-07-10	10	--	--	--	0	--	--	170	--	--	0
440337105335212	79-03-23	0	--	--	--	--	--	--	730	--	--	0
	79-07-10	0	--	--	--	0	--	--	1500	--	--	0
440337105335213	79-03-23	10	--	--	--	--	--	--	110	--	--	0
	79-07-10	0	--	--	--	0	--	--	90	--	--	0
440351105324101	79-07-10	10	--	--	--	0	--	--	10	--	--	2
CARBON COUNTY--Continued												
415209106340301	79-06-14	10	1	1	0	4300	1400	2900	3	3	0	
CONVERSE COUNTY--Continued												
423954105234001	79-06-29	--	--	--	--	--	--	--	--	--	--	--
NATRONA COUNTY--Continued												
423156106430002	79-06-26	--	--	--	--	--	--	--	--	--	--	--
424720106294101	79-06-26	--	--	--	--	--	--	--	--	--	--	--
SHERIDAN COUNTY--Continued												
445444106054101	78-10-18	10	--	--	30	--	--	300	--	--	--	4
	78-10-22	0	--	--	1	--	--	70	--	--	--	9
	78-10-22	0	--	--	0	--	--	40	--	--	--	26
	78-10-22	0	--	--	0	--	--	70	--	--	--	10
	78-10-24	0	--	--	3	--	--	70	--	--	--	17
	78-10-24	10	--	--	0	--	--	90	--	--	--	29
	78-10-24	10	--	--	0	--	--	70	--	--	--	24

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

TRACE METALS ANALYSES

STATION	NUMBER	DATE OF SAMPLE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECUV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECUV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECUV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)
CAMPBELL COUNTY--Continued												
440346105334901	79-03-22	--	--	--	--	--	--	.1	--	--	--	--
440346105334902	78-11-30	--	--	--	--	--	--	.0	--	--	--	--
440346105334904	78-11-30	--	--	--	--	--	--	.0	--	--	--	--
440346105334905	79-03-22	--	--	--	--	--	--	.0	--	--	--	--
440346105334905	78-11-30	--	--	--	--	--	--	.0	--	--	--	--
440346105334914	78-11-30	--	--	--	--	--	--	.0	--	--	--	--
440346105334915	78-11-30	--	--	--	--	--	--	.0	--	--	--	--
440346105334923	78-11-30	--	--	--	--	--	--	.0	--	--	--	--
440346105334927	79-03-21	--	--	--	--	--	--	.1	--	--	--	--
440346105334928	79-03-21	--	--	--	--	--	--	.0	--	--	--	--
440346105334929	79-03-21	--	--	--	--	--	--	.0	--	--	--	--
440346105334930	79-03-22	--	--	--	--	--	--	.1	--	--	--	--
440346105334931	79-03-22	--	--	--	--	--	--	.1	--	--	--	--
440346105334932	79-03-22	--	--	--	--	--	--	.0	--	--	--	--
440346105334936	79-03-21	--	--	--	--	--	--	.3	--	--	--	--
440346105334937	78-12-01	--	--	--	--	--	--	.1	--	--	--	--
440346105334938	79-03-22	--	--	--	--	--	--	.0	--	--	--	--
440346105334938	79-03-22	--	--	--	--	--	--	.0	--	--	--	--
440346105334939	78-12-01	--	--	--	--	--	--	.0	--	--	--	--
440346105334939	79-03-22	--	--	--	--	--	--	.0	--	--	--	--
440346105334940	79-07-11	40	--	110	--	--	--	.0	--	0	--	--
440346105334941	79-07-11	60	--	380	--	--	--	.0	--	3	--	--
440337105335201	79-07-10	60	--	240	--	--	--	.0	--	1	--	--
440337105335203	79-03-23	--	--	--	--	--	--	.0	--	--	--	--
440337105335203	79-07-10	40	--	170	--	--	--	.1	--	3	--	--
440337105335204	79-03-23	--	--	--	--	--	--	.0	--	--	--	--
440337105335204	79-07-10	80	--	230	--	--	--	.0	--	2	--	--
440337105335206	79-07-10	30	--	230	--	--	--	.0	--	2	--	--
440337105335207	79-07-11	40	--	90	--	--	--	.1	--	0	--	--
440337105335208	79-07-11	80	--	180	--	--	--	.0	--	3	--	--
440337105335210	79-07-11	70	--	190	--	--	--	.0	--	14	--	--
440337105335211	79-07-10	20	--	90	--	--	--	.0	--	3	--	--
440337105335212	79-03-23	--	--	--	--	--	--	.1	--	--	--	--
440337105335213	79-07-10	40	--	190	--	--	--	.0	--	1	--	--
440337105335213	79-03-23	--	--	--	--	--	--	.0	--	--	--	--
440337105335213	79-07-10	30	--	80	--	--	--	.0	--	3	--	--
440351105324101	79-07-10	60	--	190	--	--	--	.0	--	3	--	--
CARBON COUNTY--Continued												
415209106340301	79-06-14	--	10	--	.1	.1	.0	--	--	--	0	0
CONVERSE COUNTY--Continued												
423954105234001	79-06-29	--	--	--	--	--	--	--	--	--	--	--
NATRONA COUNTY--Continued												
423156106430002	79-06-26	--	--	--	--	--	--	--	--	--	--	--
424720106294101	79-06-26	--	--	--	--	--	--	--	--	--	--	--
SHERIDAN COUNTY--Continued												
445444106054101	78-10-18	120	--	70	--	--	--	.0	4	--	--	--
445444106054101	78-10-22	60	--	40	--	--	--	.0	6	--	--	--
445444106054101	78-10-22	250	--	70	--	--	--	.0	1	--	--	--
445444106054101	78-10-22	250	--	70	--	--	--	.0	1	--	--	--
445444106054101	78-10-24	70	--	30	--	--	--	.0	12	--	--	--
445444106054101	78-10-24	160	--	90	--	--	--	.0	0	--	--	--
445444106054101	78-10-24	160	--	80	--	--	--	.0	1	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

TRACE METALS ANALYSES

STATION	NUMBER	DATE OF SAMPLE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
CAMPBELL COUNTY--Continued										
440346105334901		79-03-22	0	--	--	--	--	--	--	--
440346105334902		78-11-30	0	--	--	--	--	--	--	--
440346105334904		78-11-30	0	--	--	--	--	--	--	--
		79-03-22	0	--	--	--	--	--	--	--
440346105334905		78-11-30	0	--	--	--	--	--	--	--
440346105334914		78-11-30	0	--	--	--	--	--	--	--
440346105334915		78-11-30	0	--	--	--	--	--	--	--
440346105334923		78-11-30	0	--	--	--	--	--	--	--
440346105334927		79-03-21	0	--	--	--	--	--	--	--
440346105334928		79-03-21	0	--	--	--	--	--	--	--
440346105334929		79-03-21	0	--	--	--	--	--	--	--
440346105334930		79-03-22	0	--	--	--	--	--	--	--
440346105334931		79-03-22	0	--	--	--	--	--	--	--
440346105334932		79-03-22	0	--	--	--	--	--	--	--
440346105334936		79-03-21	0	--	--	--	--	--	--	--
440346105334937		78-12-01	0	--	--	--	--	--	--	--
		79-03-22	0	--	--	--	--	--	--	--
440346105334938		79-03-22	0	--	--	--	--	--	--	--
440346105334939		78-12-01	0	--	--	--	--	--	--	--
		79-03-22	0	--	--	--	--	--	--	--
440346105334940		79-07-11	0	--	--	--	--	--	--	<3
440346105334941		79-07-11	0	--	--	--	--	--	--	4
440337105335201		79-07-10	0	--	--	--	--	--	--	40
440337105335203		79-03-23	0	--	--	--	--	--	--	--
		79-07-10	0	--	--	--	--	--	--	140
440337105335204		79-03-23	0	--	--	--	--	--	--	--
		79-07-10	0	--	--	--	--	--	--	80
440337105335206		79-07-10	0	--	--	--	--	--	--	20
440337105335207		79-07-11	0	--	--	--	--	--	--	7
440337105335208		79-07-11	0	--	--	--	--	--	--	30
440337105335210		79-07-11	0	--	--	--	--	--	--	30
440337105335211		79-07-10	0	--	--	--	--	--	--	7
440337105335212		79-03-23	0	--	--	--	--	--	--	--
		79-07-10	0	--	--	--	--	--	--	9
440337105335213		79-03-23	0	--	--	--	--	--	--	--
		79-07-10	0	--	--	--	--	--	--	4
440351105324101		79-07-10	0	--	--	--	--	--	--	1100
CARBON COUNTY--Continued										
415209106340301		79-06-14	0	0	0	0	--	40	10	30
CONVERSE COUNTY--Continued										
423954105234001		79-06-29	0	--	--	--	--	--	--	--
NATRONA COUNTY--Continued										
423156106430002		79-06-26	0	--	--	--	--	--	--	--
424720106294101		79-06-26	0	--	--	--	--	--	--	--
SHERIDAN COUNTY--Continued										
445444106054101		78-10-18	0	--	--	--	390	--	--	20
		78-10-22	0	--	--	--	130	--	--	20
		78-10-22	0	--	--	--	150	--	--	20
		78-10-22	0	--	--	--	150	--	--	20
		78-10-24	0	--	--	--	150	--	--	10
		78-10-24	0	--	--	--	90	--	--	20
		78-10-24	0	--	--	--	80	--	--	20

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1978

OCTOBER

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1979

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