

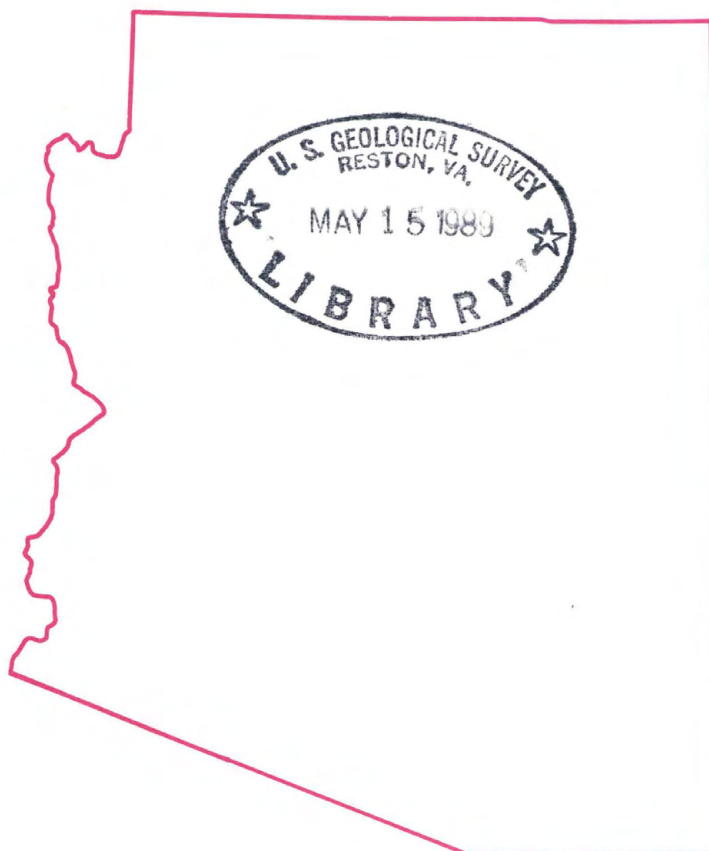
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ARIZONA



Water Resources Data Arizona

Water Year 1987



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT AZ-87-1
Prepared in cooperation with the State of Arizona
and with other agencies

CALENDAR FOR WATER YEAR 1987

1986

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1987

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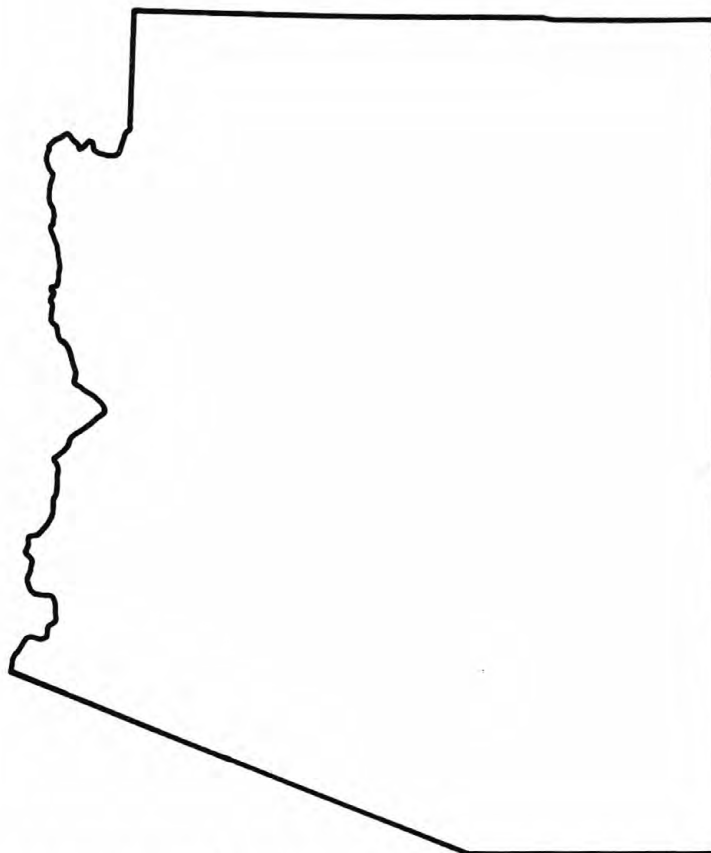
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Water Resources Data Arizona

Water Year 1987

by Richard P. Wilson and W.B. Garrett



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT AZ-87-1
Prepared in cooperation with the State of Arizona
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Arizona write to
District Chief, Water Resources Division
U.S. Geological Survey
300 W. Congress Street, FB-44
Tucson, Arizona 85701-1393

1989

PREFACE

This volume of the annual hydrologic data report of Arizona is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

G. L. Pope
Robert J. Hart

Edmund G. Nassar
Howard F. McCormack

Patricia D. Rigas typed the text of the report.

This report was prepared in cooperation with the State of Arizona and with other agencies under the general supervision of R. D. Mac Nish, District Chief, Arizona.

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

[Letters after station name designate type of data: (c) chemical; (d) discharge; (e) elevation; (g) gage height; (m) microbiological (bacteria); (p) pesticide; (q) specific conductance (daily); (r) radio-chemical; (s) suspended sediment; (t) water temperature (daily); (v) contents]

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WATER RESOURCES DATA FOR ARIZONA, WATER YEAR 1987

INTRODUCTION

Water resources data for the 1987 water year for Arizona consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; measurements of ground-water levels; and quality of water from selected wells. Also included are discharge data for crest-stage partial-record stations and water-quality data for partial-record stations. Locations of the gaging stations are shown in figures 4, 6, and 7, and of water-quality stations in figures 5 and 6. Additional water data were collected at various sites, which are not part of the systematic data-collection program, and are published as miscellaneous measurements or miscellaneous water-quality analyses. 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 Arizona.

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." These water-supply papers were in an annual series through water year 1960 and then in a 5-year series for 1961-65 and 1966-65 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-quality papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the University of Arizona, Arizona State University, and the State of Arizona in Phoenix; principal cities in the United States; or may be purchased from the U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, Colorado 80225.

For water years 1961-74, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. For water years 1964-74, water-quality records 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 in official Survey reports 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 AZ-87-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

Information for ordering specific reports and data retrievals may be obtained from the district chief at the address given on the back of the title page or by telephone (602) 629-6671, FTS 762-6671.

NATIONAL WATER INFORMATION SYSTEM

Several components of the National Water Information System (NWIS) were installed on the Arizona District computer. Many of the data published in this report and much additional information can be retrieved from the data bases. The Ground Water Site Inventory (GWSI) data base contains station numbers, well and miscellaneous site numbers, local well numbers, locations, and other descriptive data for all Geological Survey data-collection sites. GWSI contains most of the data collected for wells except for chemical analyses. The Automated Data Processing System (ADAPS) contains most surface-water data except for site descriptions and chemical analyses. The Water Quality Data Processing System (QW) contains chemical analyses of water from ground-water and surface-water sites.

Data retrievals from the three data bases are available at cost on paper or nine-track computer tape. Some of the retrievals produce data in a format suitable for machine reading that does not contain blank lines or page headers.

COOPERATION

The U.S. Geological Survey and organizations of the State of Arizona have had cooperative agreements for the systematic collection of surface-water records since 1912, for ground-water levels since 1939, and for water-quality records since 1969. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Arizona Department of Health Services, R. L. Miller,
chief, Bureau of Water Quality Control.
Arizona Department of Water Resources, Alan Kleinmann,
director.
City of Tucson, Lewis Murphy, mayor, J. D. Valdez,
manager.
Flood Control District of Maricopa County, D. E.
Sagranso, chief engineer and general manager.
Gila Valley Irrigation District, S. L. Pace, president.
Maricopa County Municipal Water Conservation District
No. 1, H. S. Raymond, president, and J. A. Falbo,
general-manager.
Metropolitan Water District of Southern California,
Carl Boronkay, general manager.
Pima County Flood Control District, Sam Lena, chairman,
board of directors.
Salt River Valley Water Users' Association, John R.
Lassen, president, and David S. Wilson, associate
general manager-water.
San Carlos Irrigation and Drainage District, E. R.
Wildermuth, president.
Show Low Irrigation Company, Chester Adams,
secretary-treasurer.

Assistance in the form of funds or services was given by the Bureau of Land Management, Bureau of Reclamation, and National Park Service, U.S. Department of the Interior; by the Corps of Engineers, U.S. Army; by the Forest Service, U.S. Department of Agriculture; by the International Boundary and Water Commission, U.S. Department of State; and by the Federal Power Commission. Assistance in collecting records was furnished by the Arizona Public Service Co. Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

As is common in Arizona, streamflow varied greatly in the 1987 water year--from month to month throughout the year and from place to place in the State. The variations are related to differences in precipitation, temperature, topography, and geology. The yearly discharge at six key gaging stations ranged from 61 to 207 percent of the median of yearly discharges. The median of the yearly discharges is defined as the middle value of discharge when arranged in order of size. For the index stations, the median is computed from the yearly discharges for the 1951-80 period of record.

The yearly discharge for the 1987 water year was excessive at one index station, within the normal range at four stations, and deficient at one station. Excessive discharge is defined as a discharge greater than the 75 percent quartile, i.e., greater than 75 percent of the values arranged in order of magnitude; deficient discharge is less than the 25 percent quartile.

The yearly discharge for the 1987 water year and the relation to the median of yearly discharges for the period 1951-80 for the six index gaging stations are given below.

<u>Station</u>	<u>Discharge (acre-feet)</u>	<u>Percent of median</u>
Little Colorado River near Cameron	162,000	109
Virgin River at Littlefield	130,400	113
Gila River at head of Safford Valley, near Solomon	387,800	*196
San Pedro River at Charleston	15,560	**61
Salt River near Roosevelt	754,900	207
Verde River below Tangle Creek, above Horseshoe Dam	351,300	115

*Excessive

**Deficient

The discharge of the Colorado River near Grand Canyon was 13,680,000 acre-ft; the flow of the Colorado River at this point is affected by storage in upstream reservoirs, and this gaging station is no longer used as an index station.

The discharge of the San Pedro River at Charleston was 15,560 acre-ft for the 1987 water year, which is about 45 percent of the median flow for the period of record, 1905, 1913-87. The San Pedro River is a stream

that is subject to large variations in flow--from place to place along the river and from time to time. For example, the flow for 1962 was only about 38 percent of median but for 1926 was about 353 percent of median.

Storage decreased in four of the major reservoirs and increased in one during the 1987 water year. Change in contents during the year and percentage of average contents on September 30 for the period of record for several reservoirs are given below.

<u>Reservoir</u>	<u>Change in contents, 1987 water year (acre-feet)</u>	<u>Average contents on September 30 (percent)</u>
Lake Powell	-256,000	---
Lakes Mead-Mohave	+195,000	125
San Carlos Reservoir.....	-106,000	276
Salt-Verde system	-12,000	196
Lake Pleasant	-7,700	129

Diversions of streamflow for irrigation of Arizona lands in the 1987 water year was 3,544,000 acre-ft. About 2,091,000 acre-ft was diverted from the Colorado River for use by the Colorado River Indian Reservation, the Gila Project, and the Yuma Project. About 614,000 acre-ft of the water diverted from the Colorado River was returned to the river or was discharged across the Arizona-Sonora international boundary. About 1,453,000 acre-ft of streamflow was diverted from the Gila River basin for use in Safford Valley, the San Carlos Project, and the Salt River Project.

Figure 1 shows the discharge for the 1987 water year compared with the median runoff for the period 1951-80 at three representative gaging stations for which long-term records are available.

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 "Factors for conversion of inch-pound units to International System (SI) Units" 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.

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

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.

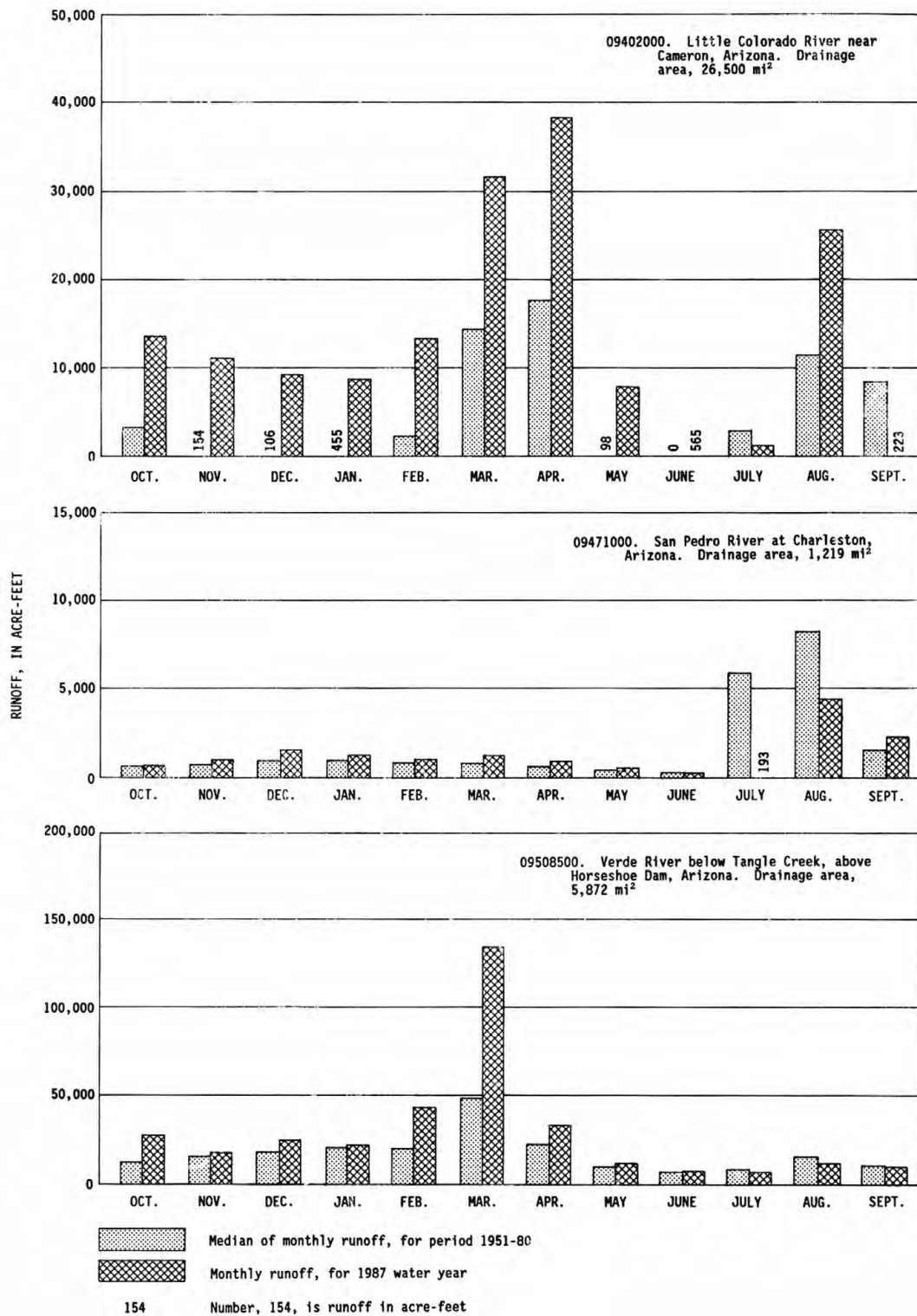


Figure 1.--Runoff during 1987 water year compared with median runoff for period 1951-80 for three representative gaging stations.

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 that produce colonies within 24 hours when incubated at 35°C±1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

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 the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for the ash mass and dry mass.

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

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism that are 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 a 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.

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.

Cubic foot per second (ft³/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.

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.

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.

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 micrometer 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:

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

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 stream above the specified point. Figures of drainage area are given herein include all closed basins, or noncontributing areas within the area unless otherwise noted.

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.

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.

Miscellaneous site is a location other than continuous- or partial-record stations where random discharge measurements are made or samples are collected to give better areal coverage of unusual flow events or water-quality conditions in a river basin.

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, phytoplankten, or zooplankten.

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.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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 either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

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.

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. Periphyton is a useful indicator of water quality.

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.

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 algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (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 rotifiers.

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.

Recoverable from bottom material is 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 digestive 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.

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 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).

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

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 by 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 quantity of suspended sediment passing a section in a specified period.

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.

Seston is the total suspended particulate matter in water. The concentration of particulate matter has profound effect upon the optical properties of the water, and upon the concentration of dissolved materials in the water. Their concentrations are expressed as number of colonies per 100 mL of sample.

Sodium-adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens 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 microsiemens). This relation is not constant from stream to stream, and it may even 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 lives.

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 multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Suspended, recoverable is 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-micrometer 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, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer 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.

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	<u>Hexagenia</u>
Species	<u>Hexagenia limbata</u>

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

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 a substance in solution or suspension that passes a stream section during a 24-hour day.

Total is 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 in bottom material is 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."

Total, recoverable is 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.

WRD is used as an abbreviation for "Water Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

DOWNSTREAM ORDER AND STATION NUMBERS

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 09402500, which appears just to the left of the station name, includes the 2-digit part number "09" plus the 6-digit downstream order number "402500."

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 fig. 2). In addition to the well number based on latitude and longitude, a local well number is given based on the Gila and Salt River meridian and base line (see fig. 3). A different numbering system is used on the Navajo and Hopi Indian Reservations. The Navajo Indian Reservation is divided into 17 administrative districts, numbered 1 to 5 and 7 to 18, and the Hopi Indian Reservation comprises district 6. The area is further divided into 15-minute quadrangles arbitrarily numbered from 1 to 151 starting in the northeast corner of the area and numbering consecutively in rows from east to west. Within the 15-minute quadrangle the well is located in miles south and west from the northeast corner of the quadrangle. The first two numbers in the well number represent the district, the next three numbers are the quadrangle, the decimal numbers are miles west by (X) miles south of the northeast corner of the quadrangle. Thus, the number 02 021-05.28X10.68 states that the well is in district 2, quadrangle 21, and is 5.28 miles west by 10.68 miles south of the northeast corner of the quadrangle.

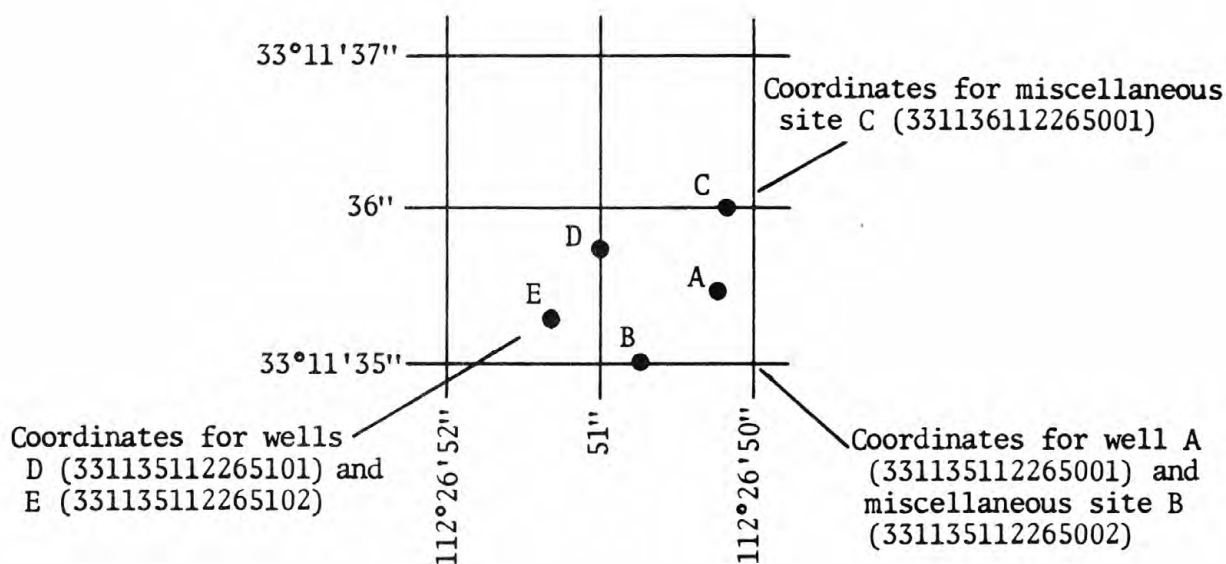
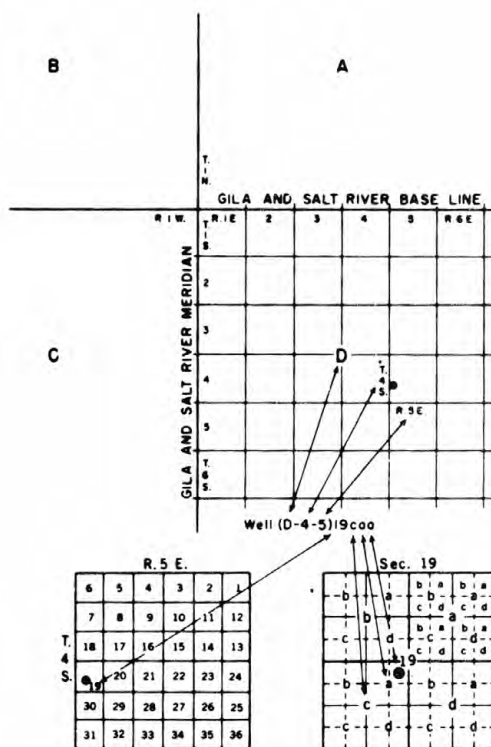


Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude)



The well numbers used by the Geological Survey in Arizona are in accordance with the Bureau of Land Management's system of land subdivision. The land survey in Arizona is based on the Gila and Salt River meridian and base line, which divide the State into four quadrants. These quadrants are designated counterclockwise by the capital letters A, B, C, and D. All land north and east of the point of origin is in A quadrant, that north and west in B quadrant, that south and west in C quadrant, and that south and east in D quadrant. The first digit of a well number indicates the township, the second the range, and the third the section in which the well is situated. The lowercase letters a, b, c, and d after the section number indicate the well location within the section. The first letter denotes a particular 160-acre tract, the second the 40-acre tract, and the third the 10-acre tract. These letters also are assigned in a counterclockwise direction, beginning in the northeast quarter. If the location is known within the 10-acre tract, three lowercase letters are shown in the well number. In the example shown, well number (D-4-5)19caa designates the well as being in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 4 S., R. 5 E. Where more than one well is within a 10-acre tract, consecutive numbers beginning with 1 are added as suffixes.

Figure 3.--Well-numbering system in Arizona.

SPECIAL NETWORKS AND PROGRAMS

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

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Included in this program in Arizona is station 09508300, Wet Bottom Creek near Childs.

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 in 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. The stations included in this network in Arizona are labeled in the text of this report.

Arizona fixed station network is part of the State water-pollution control program and includes a network of water-quality stations that build upon the NASQAN network. This network provides essential data for State water-quality assessment programs including the biennial report required by the Federal Clean Water Act. Included in this network of nine stations are six NASQAN stations with expanded parametric coverage. The stations are: 09380000, Colorado River at Lees Ferry (expanded NASQAN); 09427520, Colorado River below Parker Dam; 09466500, Gila River at Calva (expanded NASQAN); 09498500, Salt River near Roosevelt (expanded NASQAN); 09502000, Salt River below Stewart Mountain Dam; 09508500, Verde River below Tangle Creek, above Horseshoe Dam (expanded NASQAN); 09510000, Verde River below Bartlett Dam; 09518000, Gila River above diversions, at Gillespie Dam (expanded NASQAN); and 09522000, Colorado River at northerly international boundary, above Morelos Dam, near Andrade, CA (expanded NASQAN).

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, however, there were no Arizona stations operated in this network during 1985.

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

conterminous United States. Included in this network in Arizona are stations 09522000, Colorado River at Northerly International Boundary above Morelos Dam, near Andrade, CA.; and 09508300, Wet Bottom Creek near Childs.

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. Included in this network in Arizona is station 09429490, Colorado River above Imperial Dam, AZ-CA.

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 Geographical Survey. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A-6.

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 hydrologists 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 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 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 the 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.

Publication of data

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 or 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 the 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, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were 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 of 1929; and a 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 of 1929 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 non-recording 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.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

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 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. 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 change 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

cubic 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 records of discharge not published by the Geological Survey. 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 a 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, maximum, minimum, and mean 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 the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection and publication 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 (see figure 2) and (2) a local number that is provided for local needs (see figure 3).

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 land-surface datum (lsd). 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 referenced to National Geodetic Vertical Datum of 1929 (NGVD) is given. National Geodetic Vertical Datum of 1929 is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada.

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 larger unit.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting 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) pertains to 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, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for 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-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 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-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 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-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 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. Greeson, 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-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 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.
- 7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 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-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 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.

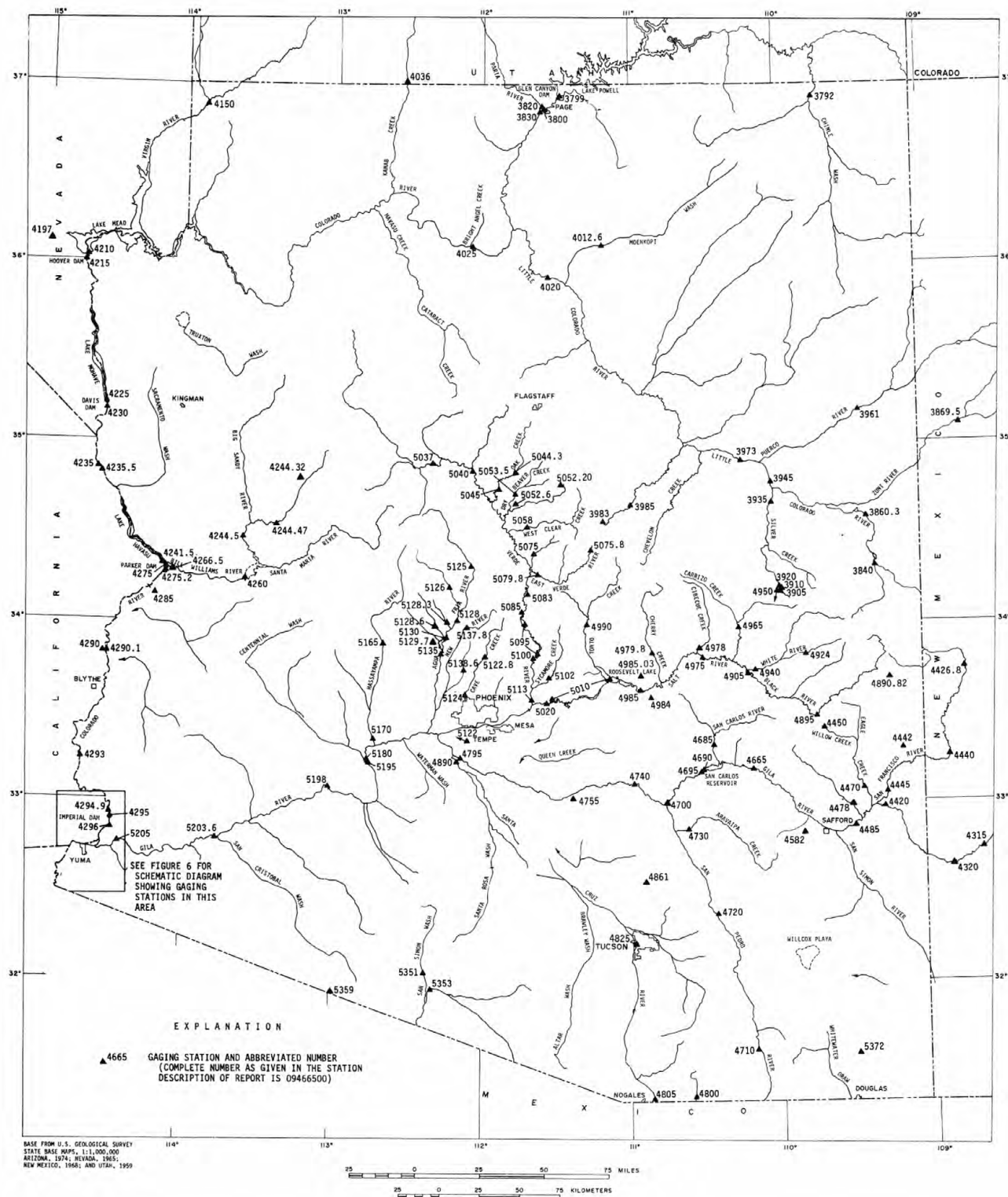


Figure 4.--Map of Arizona showing location of gaging stations.

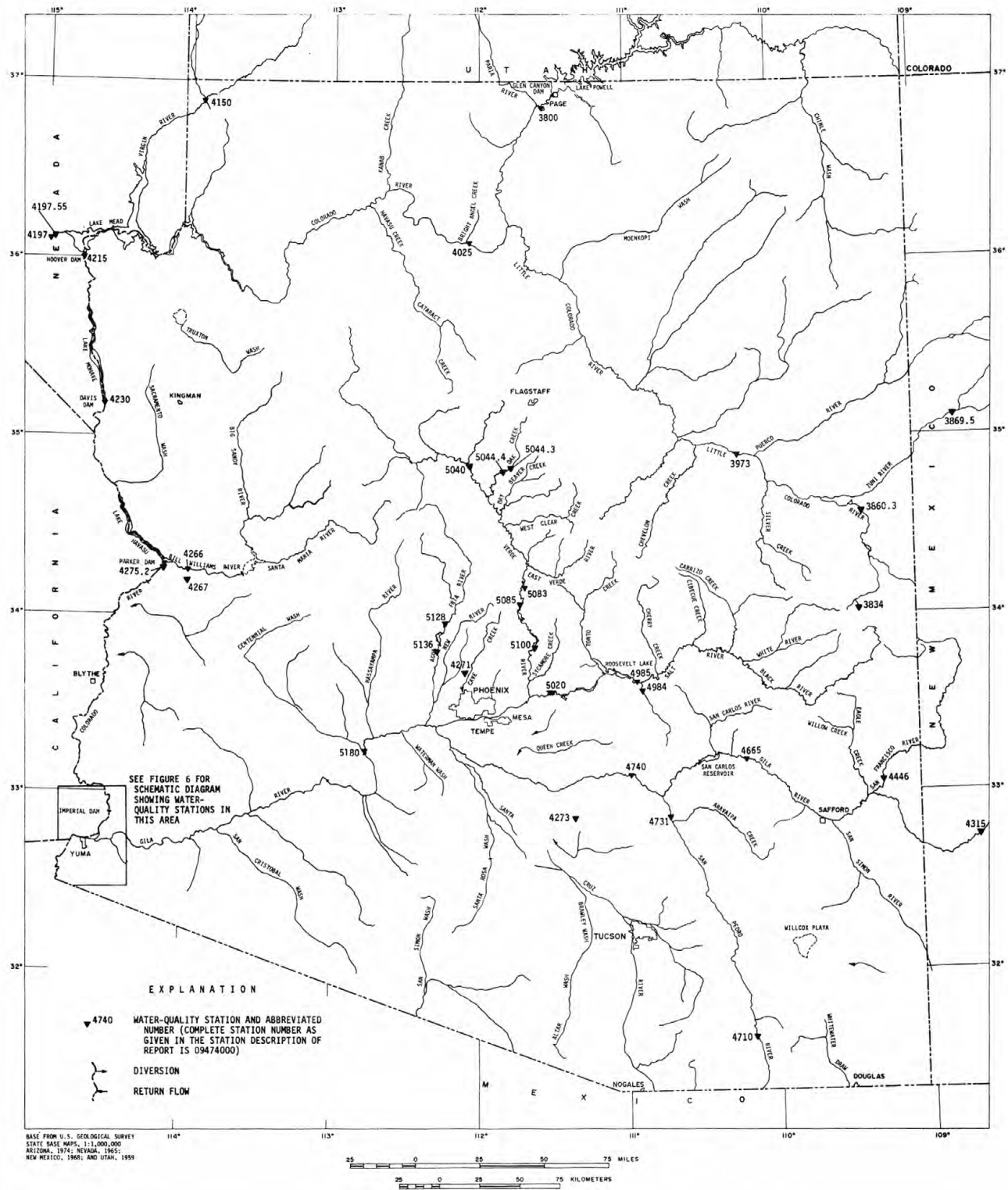


Figure 5.--Map of Arizona showing location of water-quality stations.

SAN JUAN RIVER BASIN

09379200 CHINLE CREEK NEAR MEXICAN WATER, AZ

LOCATION.--Lat 36°56'38", long 109°42'36", in sec.19, T.41 N., R.25 E. (unsurveyed), Apache County, Hydrologic Unit 1400204, in Navajo Indian Reservation, on right bank 150 ft upstream from bridge on U.S. Highway 160, 3 mi upstream from Walker Creek, 4 mi southwest of Mexican Water, 5 mi downstream from confluence of Chinle Wash and Laguna Creek, and 6 mi upstream from Arizona-Utah State line.

DRAINAGE AREA.--3,660 mi², approximately, of which 360 mi² is noncontributing.

PERIOD OF RECORD.--October 1964 to current year (monthly discharge only for 1979). Prior to October 1970 published as Chinle Wash near Mexican Water.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 4,720 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Some diversions upstream for irrigation, stock tanks and domestic use. Many Farms Reservoir, above 25 mi upstream, was built in 1939 with an original capacity of 25,000 acre-ft and provides off-channel storage for irrigation of about 1,600 acres.

AVERAGE DISCHARGE.--23 years, 32.2 ft³/s, 23,330 acre-ft/yr; median of yearly mean discharges, 25 ft³/s, 18,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s Aug. 24, 1982, gage height, 13.87 ft, from rating curve extended above 3,100 ft³/s on basis of slope-area measurement at gage height 12.50 ft; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 5	1100	550	4.55	Aug. 8	1530	2,080	6.74
Nov. 19	1100	*5,800	9.96	Aug. 13	2200	1,400	5.95
Apr. 19	0900	633	4.72	Aug. 24	1000	1,290	5.80

No flow June 4, 14, 15, 18, 20-28, July 2-30, Aug. 4-6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.6	11	e5.0	17	e12	.46	5.1	.14	.04	38	e.70
2	7.2	286	7.2	e5.0	17	e10	.69	13	.10	.00	36	e.70
3	3.7	188	e6.2	e5.0	11	e9.0	.50	39	.11	.00	2.2	e.70
4	1.8	84	e4.8	e7.0	18	8.0	1.4	12	.00	.00	.00	e.70
5	1.5	184	e3.7	e10	18	11	75	7.2	.11	.00	.00	e.70
6	1.5	77	3.1	e15	27	20	59	2.2	.15	.00	.00	e.70
7	1.5	99	6.2	e15	31	60	39	.84	.11	.00	270	e.80
8	1.8	233	152	e10	24	25	11	.61	.17	.00	657	e1.0
9	1.4	104	116	e7.0	14	23	5.3	.53	5.6	.00	169	e.80
10	1.8	59	106	e5.0	14	17	2.5	.53	19	.00	23	e.70
11	81	44	9.6	e4.0	11	11	1.5	.46	21	.00	11	e.60
12	138	28	e5.0	e4.0	23	11	1.2	.46	3.0	.00	6.5	e.60
13	160	25	e5.0	e4.0	22	30	10	.40	.09	.00	313	e.60
14	93	20	e6.0	e10	e15	12	11	.46	.00	.00	298	e.70
15	45	18	e10	e7.0	e10	7.6	5.3	5.5	.00	.00	69	e.90
16	34	18	e13	e5.0	e9.0	4.8	3.4	35	.14	.00	10	e.80
17	29	18	e14	e5.0	e8.0	3.7	59	22	.02	.00	4.5	e.70
18	21	117	e15	e1.0	e7.0	11	317	9.6	.00	.00	1.2	e.80
19	17	404	e14	e2.0	e6.0	10	413	6.9	.03	.00	.49	e.70
20	4.4	48	e5.0	e2.5	e5.0	8.0	433	2.4	.00	.00	.38	e.70
21	3.4	36	e6.0	e3.0	e5.0	7.2	351	.78	.00	.00	.84	e.60
22	2.5	21	e7.0	e4.0	e5.0	8.0	236	1.1	.00	.00	40	e.50
23	2.2	14	e10	e5.0	e5.0	8.4	147	.87	.00	.00	145	e.40
24	2.5	11	e10	e6.0	e7.0	8.0	55	.78	.00	.00	1160	.28
25	3.1	13	e9.0	e7.0	e10	5.7	103	.36	.00	.00	584	.30
26	3.4	11	e8.0	e8.0	e15	1.1	159	.38	.00	.00	45	.36
27	2.8	12	e7.0	e9.0	e20	1.1	75	2.6	.00	.00	47	.72
28	1.2	16	e6.0	e10	e15	.61	11	2.2	.00	.00	12	.87
29	2.5	12	e5.0	14	---	.46	8.0	.38	18	.00	.88	.40
30	3.4	11	e5.0	13	---	.98	5.0	.36	2.6	.00	e.80	.53
31	4.8	---	e5.0	28	---	.53	---	.18	---	11	e.70	---
TOTAL	687.4	2218.6	590.8	235.5	389.0	346.18	2599.25	174.18	70.37	11.04	3945.49	19.56
MEAN	22.2	74.0	19.1	7.60	13.9	11.2	86.6	5.62	2.35	.36	127	.65
MAX	160	404	152	28	31	60	433	39	21	11	1160	1.0
MIN	1.2	7.6	3.1	1.0	5.0	.46	.46	.18	.00	.00	.00	.28
AC-FT	1360	4400	1170	467	772	687	5160	345	140	22	7830	39
CAL YR	1986	TOTAL	11181.20	MEAN	30.6	MAX	771	MIN	.00	AC-FT	22180	
WTR YR	1987	TOTAL	11287.37	MEAN	30.9	MAX	1160	MIN	.00	AC-FT	22390	

e Estimated

COLORADO RIVER MAIN STEM

09379900 LAKE POWELL AT GLEN CANYON DAM, AZ

LOCATION.--Lat 36°56'12", long 111°29'00", in sec.24, T.41 N., R.8 E., Coconino County, Hydrologic Unit 14070006, at Glen Canyon Dam on Colorado River, 900 ft upstream from bridge on U.S. Highway 89, 1.4 mi downstream from Wahweap Creek, 2 mi northwest of Page, and 12 mi downstream from Utah-Arizona State line.

DRAINAGE AREA.--111,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1964, nonrecording gage at same site and datum.

REMARKS.--No estimated daily contents. Reservoir is formed by concrete-arch gravity dam; storage began Mar. 13, 1963; dam completed September 1963. Total capacity, 27,000,000 acre-ft consisting of the following: dead storage, 1,998,000 acre-ft below elevation 3,370 ft-sill of outlet gates; usable contents, 25,002,000 acre-ft between elevations 3,370 ft and 3,700 ft-top of conservation pool. Reservoir is used for power development, to provide storage replacement for upstream irrigation development, and to meet downstream requirements under the Colorado River Compact of 1922. Figures given herein represent usable contents; prior to Oct. 1, 1968, figures of total contents were published (prior to sealing of diversion tunnel July 7, 1965, all storage was usable).

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 26,373,000 acre-ft July 14, 1983, elevation, 3,708.34 ft; minimum since power pool level was reached (Aug. 16, 1964), 4,166,000 acre-ft Mar. 18, 1965, elevation, 3,490.76 ft.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 24,755,000 acre-ft June 25, elevation, 3,698.46 ft; minimum, 21,544,000 acre-ft Mar. 5, elevation, 3,677.47 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

3,675	21,187,000	3,690	23,424,000
3,680	21,916,000	3,695	24,204,000
3,685	22,662,000	3,700	25,002,000

RESERVOIR STORAGE, IN THOUSANDS OF ACRE FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23362	23294	23107	22534	21765	21575	21840	22632	24151	24732	24353	23657
2	23354	23292	23084	22510	21744	21567	21856	22714	24167	24732	24334	23640
3	23355	23297	23058	22480	21730	21556	21856	22774	24189	24726	24317	23623
4	23352	23297	23034	22456	21714	21551	21883	22838	24206	24729	24301	23603
5	23348	23294	23022	22432	21692	21544	21891	22898	24236	24729	24282	23587
6	23342	23294	23006	22407	21676	21547	21905	22953	24273	24723	24254	23575
7	23342	23291	22991	22386	21664	21550	21916	23002	24309	24718	24246	23555
8	23342	23302	22970	22365	21656	21553	21933	23050	24355	24707	24236	23530
9	23342	23302	22958	22337	21649	21560	21945	23093	24374	24696	24220	23510
10	23329	23295	22932	22307	21643	21575	21958	23145	24417	24689	24205	23494
11	23354	23289	22909	22289	21636	21601	21974	23188	24461	24692	24197	23474
12	23355	23285	22898	22262	21635	21613	21993	23225	24512	24691	24165	23454
13	23357	23269	22866	22235	21629	21642	22026	23268	24557	24673	24149	23445
14	23362	23256	22848	22211	21627	21658	22054	23315	24592	24659	24116	23408
15	23365	23240	22825	22185	21632	21687	22079	23363	24627	24651	24083	23371
16	23360	23229	22810	22167	21632	21708	22097	23419	24652	24644	24055	23351
17	23360	23217	22789	22137	21624	21719	22118	23493	24675	24624	24021	23325
18	23354	23220	22774	22104	21624	21728	22136	23570	24700	24611	23986	23303
19	23357	23208	22757	22097	21627	21744	22176	23644	24721	24604	23945	23277
20	23357	23202	22735	22057	21611	21766	22222	23711	24734	24593	23909	23259
21	23349	23191	22727	22029	21605	21781	22254	23770	24742	24573	23867	23233
22	23349	23190	22698	22004	21599	21797	22284	23833	24745	24560	23841	23220
23	23346	23183	22683	21967	21594	21809	22317	23911	24748	24544	23823	23203
24	23340	23174	22676	21937	21576	21815	22340	23952	24752	24528	23788	23194
25	23337	23171	22674	21915	21570	21815	22378	24002	24755	24512	23792	23173
26	23332	23159	22662	21891	21569	21816	22408	24030	24752	24475	23747	23153
27	23325	23151	22649	21871	21567	21827	22447	24057	24752	24464	23721	23150
28	23317	23154	22634	21844	21570	21840	22486	24082	24752	24441	23707	23130
29	23308	23142	22611	21825	---	21846	22522	24107	24750	24420	23697	23121
30	23300	23125	22587	21805	---	21835	22578	24124	24739	24398	23686	23109
31	23303	---	22564	21778	---	21830	---	24135	---	24375	23672	---
MAX	23365	23302	23107	22534	21765	21846	22578	24135	24755	24732	24353	23657
MIN	23300	23125	22564	21778	21567	21544	21840	22632	24151	24375	23672	23109
(*)	3689.22	3688.06	3684.36	3679.07	3677.65	3679.42	3684.45	3694.57	3698.37	3696.09	3691.61	3687.95
(**)	-62000	-178000	-561000	-786000	-208000	+260000	+748000	+1557000	+604000	-364000	-703000	-563000

CAL YR 1986 MAX 25004 MIN 22015 ** -429000
WTR YR 1987 MAX 24755 MIN 21544 ** -256000

* Elevation, in feet, at end of month.

** Change in contents, in acre-feet.

COLORADO RIVER MAIN STEM

33

09380000 COLORADO RIVER AT LEES FERRY, AZ
(National stream-quality accounting network)

LOCATION.--Lat 36°51'53", long 111°35'15", in NE¼ sec.13, T.40 N., R.7 E., Coconino County, Hydrologic Unit 14070006, in Navajo Indian Reservation, on left bank at head of Marble Gorge at Lees Ferry, just upstream from Paria River, 16 mi downstream from Glen Canyon Dam, 28 mi downstream from Utah-Arizona State line, and 61.5 mi upstream from Little Colorado River.

DRAINAGE AREA.--111,800 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1895 to current year. Estimates of monthly and annual discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 859: 1921-23. WSP 1313: 1914-21.

GAGE.--Water-stage recorder. Datum of gage is 3,106.16 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 19, 1923, nonrecording gages or reference points within 400 ft of present gage, at different datums.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Mar. 13, 1963, by Lake Powell, 16 mi upstream. Many diversions above Lake Powell for irrigation, municipal, and industrial use. No diversions or inflow between Lake Powell and the gage.

AVERAGE DISCHARGE.--51 years (water years 1912-62), 17,850 ft³/s, 12,923,000 acre-ft/yr; 23 years (water years 1965-87), 14,770 ft³/s, 10,701,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1895-1962: Maximum discharge, 220,000 ft³/s June 18, 1921, gage height, 26.5 ft, from floodmarks, from rating curve extended above 120,000 ft³/s on basis of discharge computed for station near Grand Canyon; minimum, 750 ft³/s Dec. 27, 1924.
1963-87: Maximum discharge, 97,300 ft³/s June 29, 1983, gage height, 18.14 ft; minimum daily, 700 ft³/s Jan. 23, 24, 1963, result of closing coffer dam at Glen Canyon Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1868, about 300,000 ft³/s July 7, 1884, gage height, 31.5 ft, present site and datum, from floodmark at mouth of Paria River, from rating curve extended above 120,000 ft³/s on basis of discharge computed for flood of June 18, 1921, for station near Grand Canyon.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,500 ft³/s Dec. 3, gage height, 12.21 ft; minimum daily, 7,310 ft³/s May 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20000	20300	25300	26100	25400	11500	10500	12000	20200	18100	20500	18000
2	17100	17300	27200	28200	26200	19300	10300	8770	12300	17700	22300	18800
3	18600	20000	29300	28900	24400	18900	9560	10000	12700	18400	20700	18000
4	18400	20100	27000	28000	25700	17500	7960	12400	14800	13800	20100	15100
5	19600	20100	25100	27600	26000	18300	8130	11700	13000	13100	20600	13700
6	21200	19600	26800	25100	24700	16400	10500	12500	11600	17500	20400	14000
7	17700	18500	26900	27600	24600	14900	10700	13800	9640	17900	19900	18200
8	19900	17700	25800	28300	19900	13900	10200	13600	12800	18100	18100	17800
9	16600	14800	26600	28800	20500	16300	11800	12300	13300	17700	18200	16700
10	20400	19500	26200	28300	19600	12300	13100	10300	14200	14600	19700	15900
11	17900	19000	26800	26400	19600	12300	13300	14100	11900	15500	17900	17400
12	18500	19100	25900	26700	18600	12200	13700	14600	12200	12500	16600	15200
13	19500	24100	26300	27200	19300	10700	13300	16600	12800	16700	18000	18500
14	18700	22500	25400	25400	19100	9670	14500	15200	13900	18800	19500	20000
15	18500	22600	25400	26300	17300	7880	12900	13300	16000	19200	21500	19400
16	18900	22200	23400	25300	19000	12500	15200	10200	17200	18300	21400	20200
17	18400	23500	25000	26100	21200	11800	13400	7310	19600	15600	25200	19900
18	19000	22300	24200	25000	16700	12600	14500	8320	19100	14300	22800	18600
19	16600	23000	24600	20500	17900	10800	13100	8590	19200	15300	25600	18900
20	18900	22700	26300	25100	22800	10700	14400	11300	20900	19500	26000	16000
21	19400	23500	25000	26500	20700	9150	14700	12000	19900	19400	26000	20900
22	18700	21000	25300	22400	18200	12400	14600	11800	21000	18500	22600	12600
23	19200	22000	24500	25800	22200	13300	16700	9280	20700	19200	20000	12400
24	19000	24700	20400	26700	21200	13800	15900	8180	21100	18500	22800	14700
25	18700	22100	17500	25200	19200	14100	18300	9210	19100	18000	20100	14700
26	18400	23100	21900	25700	15900	15600	18000	16500	19900	19200	22400	13300
27	19400	22700	21700	26000	14200	14100	18200	16500	19200	20400	23800	12100
28	19300	17300	22000	26700	12600	11900	15600	16000	19400	20800	19900	14700
29	18200	20000	23100	26200	---	11800	14400	15700	20300	21000	19400	11500
30	18700	26800	26800	26000	---	17600	15300	16300	19900	21300	16100	13400
31	18100	---	27900	26300	---	18600	---	15800	---	20800	18000	---
TOTAL	581500	632100	775600	814400	572700	422800	402750	384160	497840	549700	646100	490600
MEAN	18760	21070	25020	26270	20450	13640	13420	12390	16590	17730	20840	16350
MAX	21200	26800	29300	28900	26200	19300	18300	16600	21100	21300	26000	20900
MIN	16600	14800	17500	20500	12600	7880	7960	7310	9640	12500	16100	11500
AC-FT	1153000	1254000	1538000	1615000	1136000	838600	798900	762000	987500	1090000	1282000	973100
CAL YR	1986	TOTAL	9424010	MEAN	25820	MAX	52400	MIN	8020	AC-FT	18690000	
WTR YR	1987	TOTAL	6770250	MEAN	18550	MAX	29300	MIN	7310	AC-FT	13430000	

COLORADO RIVER MAIN STEM

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to July 1926, October 1926 to June 1927, October 1928 to December 1933, November 1942 to October 1945, October 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1981, February 1982 to current year.

WATER TEMPERATURE: July 1949 to September 1981, February 1982 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1928 to December 1933, November 1942 to September 1944, October 1947 to September 1965.

INSTRUMENTATION.--Specific conductance and water temperature recorder March 1977 to September 1981, February 1982 to current year.

REMARKS.--Unpublished daily specific conductance measurements for period November 1942 to October 1945, October 1947 to September 1964 available from district office in Tucson, Ariz.

Because of the permanent change in stream characteristics owing to the regulation of flow by Glen Canyon Dam since Mar. 13, 1963, and the subsequent initial filling of Lake Powell, extreme values for the period of daily record now include only those obtained after July 31, 1965, at which time a normal flow release pattern was begun.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (August 1965 to September 1981, February 1982 to current year): Maximum, 1,260 microsiemens Apr. 20, 21, 1967; minimum, 460 microsiemens Aug. 10, 1965,

WATER TEMPERATURES (August 1965 to September 1981, February 1982 to current year): Maximum 21.0°C on several days during August, September, and October, 1965, 1967, 1968; minimum, 2.0°C on Jan. 29, 30, 1970.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 788 microsiemens Apr. 14; minimum recorded, 531 microsiemens Dec. 8.

WATER TEMPERATURE: Maximum recorded, 12.5°C Dec. 7; minimum recorded, 7.5°C Apr. 14.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1986											
24...	0900	16500	657	8.20	7.5	11.5	0.40	--	9.3	--	<1
30...	1630	21800	670	8.10	--	12.0	0.30	680	7.5	78	<1
DEC											
02...	1445	28600	650	8.30	--	12.0	1.0	688	7.3	75	<1
JAN 1987											
09...	1015	29400	660	8.20	1.5	10.0	1.1	694	7.9	77	--
FEB											
05...	1400	25800	710	8.20	10.0	9.0	0.50	694	8.5	81	K2
MAR											
05...	1000	19400	720	8.10	10.5	8.5	1.0	693	8.4	79	<10
APR											
23...	1400	18100	780	8.25	27.0	9.0	0.50	683	9.8	95	<10
MAY											
20...	1130	13000	790	8.10	21.0	9.0	1.6	680	8.6	84	21
JUN											
17...	1345	22500	765	8.20	31.0	9.0	0.90	685	9.2	89	16
JUL											
15...	1330	24500	715	8.22	36.5	9.5	1.5	681	9.4	92	13
AUG											
26...	1415	26700	710	8.30	25.5	9.5	0.50	679	8.8	87	<10
SEP											
23...	1500	17600	700	8.20	28.0	10.0	0.50	686	9.6	95	28

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

WATER QUALITY DATA

DATE	STREP- TOCOCCHI FECAL KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARE WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986												
24...	<1	230	130	58	21	49	1	2.9	131	0	107	160
30...	<1	220	100	57	20	50	2	2.9	--	--	--	170
DEC 02...	<1	230	110	56	22	52	2	2.7	151	0	124	160
JAN 1987 09...	--	230	120	57	22	52	2	2.9	143	0	117	170
FEB 05...	K3	240	120	58	22	54	2	2.9	145	0	119	180
MAR 05...	<1	250	130	62	24	61	2	2.9	156	0	128	190
APR 23...	K6	270	130	66	25	60	2	2.7	170	0	139	200
MAY 20...	K4	260	130	63	24	61	2	3.0	157	0	129	210
JUN 17...	K2	240	110	60	23	56	2	2.9	162	0	133	200
JUL 15...	K4	250	120	62	23	59	2	2.9	164	0	134	190
AUG 26...	25	250	120	62	22	57	2	2.9	154	0	126	190
SEP 23...	K3	240	110	60	21	52	2	3.2	155	0	127	180

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT 1986												
24...	26	0.20	9.0	426	392	0.58	1	<0.010	0.400	0.500	<0.010	<0.010
30...	28	0.30	--	423	403	0.58	1	--	0.400	--	<0.010	--
DEC 02...	28	0.30	9.2	406	406	0.55	5	<0.010	0.300	0.330	<0.020	0.020
JAN 1987 09...	32	0.20	--	409	406	0.56	5	--	0.300	--	<0.010	--
FEB 05...	34	0.30	8.9	429	434	0.58	1	<0.010	0.400	0.350	<0.010	<0.010
MAR 05...	39	0.20	--	467	456	0.64	1	--	0.400	--	<0.010	--
APR 23...	40	0.30	9.2	493	489	0.67	--	<0.010	0.400	0.350	0.020	<0.010
MAY 20...	44	0.30	--	504	482	0.69	3	--	0.400	--	0.040	--
JUN 17...	40	0.40	8.7	493	473	0.67	<1	<0.010	0.400	0.370	0.020	0.020
JUL 15...	35	0.30	--	470	452	0.64	12	--	0.300	--	0.020	--
AUG 26...	33	0.30	9.3	470	456	0.64	4	<0.010	0.300	0.310	<0.020	0.020
SEP 23...	23	0.30	--	446	414	0.61	3	--	0.300	--	0.010	--

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1986											
24...	--	0.60	1.0	4.4	0.020	0.020	<0.010	--	0.02	0.02	20
30...	--	0.50	0.90	4.0	<0.010	--	--	--	--	--	--
DEC 02...	--	0.40	0.70	3.1	<0.010	0.010	<0.010	--	--	0.01	--
JAN 1987 09...	--	0.70	1.0	4.4	0.020	--	--	--	0.02	--	--
FEB 05...	--	0.60	1.0	4.4	<0.010	0.010	<0.010	--	--	0.01	<10
MAR 05...	--	<0.20	--	--	0.010	--	--	--	0.01	--	--
APR 23...	0.38	0.40	0.80	3.5	0.010	0.010	<0.010	--	0.01	0.01	<10
MAY 20...	0.96	1.0	1.4	6.2	0.230	--	--	--	0.23	--	--
JUN 17...	0.18	0.20	0.60	2.7	0.020	0.010	0.010	0.03	0.02	0.0	--
JUL 15...	0.38	0.40	0.70	3.1	0.100	--	--	--	0.10	--	--
AUG 26...	--	<0.20	--	--	0.050	0.050	0.010	0.03	0.05	0.04	<10
SEP 23...	0.39	0.40	0.70	3.1	0.020	--	--	--	0.02	--	--

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM
09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued
WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1986											
24...	1	1	89	<0.5	60	<1	<1	<1	<1	<3	--
30...	1	1	77	--	60	<1	<1	<1	<1	--	4
DEC 02...	2	2	100	--	70	<1	<1	4	<1	--	9
JAN 1987 09...	2	2	85	--	60	<1	1	15	<1	--	24
FEB 05...	2	1	76	<0.5	80	<1	<1	5	<1	<3	12
MAR 05...	1	2	76	--	70	<1	<1	6	<1	--	8
APR 23...	1	1	76	<0.5	80	<1	<1	<1	<1	<3	21
MAY 20...	1	1	74	--	80	5	2	6	<1	--	40
JUN 17...	1	1	<100	--	80	5	4	16	1	--	40
JUL 15...	2	1	81	--	80	13	6	3	<1	--	42
AUG 26...	1	1	79	<0.5	70	<1	<1	3	<1	<3	16
SEP 23...	2	1	78	--	60	1	<1	25	<1	--	27

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1986											
24...	7	--	4	6	<5	27	20	<1	<0.10	--	<10
30...	3	110	<3	<5	<5	--	20	2	<0.10	--	--
DEC 02...	2	80	<10	11	<5	--	<10	<10	<0.10	--	--
JAN 1987 09...	7	80	6	<5	<5	--	<10	5	<0.10	--	--
FEB 05...	4	20	<3	<5	<5	25	<10	<1	<0.10	0.3	10
MAR 05...	3	30	<3	<5	6	--	<10	<1	<0.10	--	--
APR 23...	7	30	<3	<5	<5	39	<10	<1	0.20	0.2	<10
MAY 20...	8	90	4	<5	<5	--	<10	1	0.20	--	--
JUN 17...	10	130	20	10	<5	--	<10	<10	<0.10	--	--
JUL 15...	21	750	6	10	<5	--	50	1	<0.10	--	--
AUG 26...	5	60	11	<5	<5	27	<10	<1	<0.10	<0.1	<10
SEP 23...	7	40	8	<5	<5	--	10	2	<0.10	--	--

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1986											
24...	3	2	3	<1.0	630	<6	170	14	75	3	134
30...	--	2	2	<1.0	--	--	20	13	--	--	--
DEC 02...	--	2	2	<1.0	--	--	<10	<10	70	5	386
JAN 1987 09...	--	3	2	<1.0	--	--	40	43	53	14	1110
FEB 05...	<1	3	2	<1.0	630	<6	<10	12	81	3	209
MAR 05...	--	2	2	<1.0	--	--	<10	6	57	6	314
APR 23...	1	3	2	<1.0	700	<6	<10	10	--	10	489
MAY 20...	--	3	2	<1.0	--	--	60	19	--	4	140
JUN 17...	--	3	3	<1.0	--	--	40	20	--	9	547
JUL 15...	--	<1	2	<1.0	--	--	20	9	--	--	--
AUG 26...	<1	2	2	<1.0	690	<6	<10	12	52	3	216
SEP 23...	--	2	2	<1.0	--	--	<10	8	--	5	238

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	749	741	743	722	706	716	710	702	705	702	690	696
2	---	---	---	---	---	---	714	698	705	706	694	701
3	---	---	---	725	714	719	722	710	714	706	690	699
4	---	---	---	---	---	---	722	698	712	---	---	---
5	---	---	---	---	---	---	710	690	700	---	---	---
6	---	---	---	---	---	---	725	698	703	---	---	---
7	---	---	---	---	---	---	714	690	702	706	690	697
8	---	---	---	---	---	---	714	706	711	706	686	697
9	---	---	---	---	---	---	733	698	713	702	694	698
10	---	---	---	---	---	---	725	694	709	698	690	693
11	---	---	---	---	---	---	702	694	700	698	686	693
12	---	---	---	---	---	---	---	---	---	694	686	690
13	---	---	---	---	---	---	---	---	---	698	682	691
14	---	---	---	---	---	---	---	---	---	706	682	695
15	---	---	---	725	710	715	722	686	710	706	682	695
16	---	---	---	725	702	714	722	690	711	702	686	694
17	749	725	741	---	---	---	714	686	698	706	694	699
18	737	718	730	---	---	---	718	694	705	702	686	696
19	---	---	---	---	---	---	718	706	713	698	686	692
20	737	725	732	733	694	716	710	698	704	---	---	---
21	---	---	---	710	694	700	716	698	706	698	686	692
22	737	722	726	---	---	---	710	682	697	---	---	---
23	741	725	733	---	---	---	698	690	694	---	---	---
24	---	---	---	714	702	711	702	690	696	---	---	---
25	---	---	---	718	702	706	---	---	---	---	---	---
26	725	714	720	725	694	707	706	686	697	---	---	---
27	725	714	720	714	694	705	706	690	697	---	---	---
28	729	718	724	718	694	709	702	690	695	---	---	---
29	729	710	721	714	710	712	706	698	704	---	---	---
30	725	702	716	714	702	708	706	686	693	---	---	---
31	---	---	---	718	698	707	702	686	694	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	11.9	11.5	11.8	12.0	11.4	11.7	10.8	10.6	10.8
2	---	---	---	12.2	11.6	12.0	12.0	11.8	11.9	10.8	10.6	10.6
3	---	---	---	12.2	11.8	12.1	12.2	11.8	12.0	10.8	10.6	10.7
4	---	---	---	12.2	11.7	11.9	12.2	11.8	12.0	10.8	10.6	10.6
5	---	---	---	12.1	11.6	11.9	12.2	12.0	12.1	10.6	10.4	10.6
6	---	---	---	11.9	11.6	11.8	12.4	12.2	12.2	10.4	10.2	10.3
7	---	---	---	11.6	11.3	11.5	12.5	12.2	12.3	10.6	10.4	10.5
8	---	---	---	11.5	11.0	11.3	12.3	12.0	12.1	10.4	10.2	10.3
9	---	---	---	---	---	---	12.0	11.4	11.7	10.2	10.0	10.1
10	---	---	---	12.1	11.4	11.7	12.2	11.8	12.0	10.2	10.0	10.1
11	---	---	---	11.9	11.4	11.7	12.2	11.8	12.0	10.2	10.0	10.1
12	---	---	---	12.0	11.3	11.7	12.0	11.8	11.9	10.2	10.0	10.1
13	---	---	---	12.1	11.6	11.9	11.8	11.6	11.8	10.2	10.0	10.0
14	---	---	---	12.2	11.6	11.9	12.0	11.6	11.8	10.2	9.8	10.0
15	---	---	---	12.2	11.8	12.0	12.0	11.8	11.9	10.0	9.8	9.9
16	---	---	---	12.0	11.8	11.9	12.0	11.6	11.8	9.8	9.4	9.6
17	12.4	11.7	12.0	12.0	11.6	11.8	11.8	11.6	11.8	9.6	9.4	9.5
18	12.2	11.5	11.9	11.8	11.6	11.7	11.8	11.6	11.7	9.6	9.2	9.4
19	11.8	11.2	11.5	11.8	11.4	11.6	11.8	11.6	11.7	9.6	9.2	9.4
20	11.6	11.2	11.4	11.6	11.2	11.4	11.8	11.6	11.6	9.6	9.2	9.3
21	11.8	11.1	11.5	11.8	11.4	11.6	11.6	11.4	11.6	9.4	9.0	9.2
22	11.7	11.3	11.5	11.6	11.2	11.4	11.8	11.4	11.6	9.2	9.0	9.1
23	11.9	11.4	11.6	12.0	11.0	11.4	11.6	11.4	11.4	9.4	9.0	9.1
24	11.8	11.3	11.6	12.0	11.6	11.8	11.4	11.0	11.2	9.2	9.0	9.1
25	12.0	11.4	11.7	12.0	11.6	11.8	11.2	11.0	11.1	9.2	9.0	9.1
26	12.0	11.5	11.7	12.2	11.8	12.0	11.2	10.8	11.1	9.2	9.0	9.1
27	11.9	11.4	11.6	12.2	11.6	11.9	11.2	10.8	10.9	9.2	9.0	9.1
28	11.9	11.4	11.7	12.0	11.8	11.9	11.0	10.6	10.9	9.4	8.8	9.1
29	12.0	11.5	11.7	12.0	11.6	11.8	11.0	10.6	10.9	9.2	8.6	8.9
30	11.9	11.4	11.7	11.8	11.2	11.4	11.0	10.8	10.9	9.2	8.8	9.1
31	11.8	11.6	11.7	---	---	---	11.0	10.6	10.8	9.2	9.0	9.2
MONTH	---	---	---	---	---	---	12.5	10.6	11.6	10.8	8.6	9.7

PARIA RIVER BASIN

09382000 PARIA RIVER AT LEES FERRY, AZ

LOCATION.--Lat 36°52'20", long 111°35'38", in NW¼NE¼ sec.13, T.40 N., R.7 E., Coconino County, Hydrologic Unit 14070007, on left bank 0.6 mi northwest of Lees Ferry, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--1,410 mi².

PERIOD OF RECORD.--October 1923 to current year.

REVISED RECORDS.--WSP 1925: 1958(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,123.68 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 5, 1925 nonrecording gage at site 2,000 ft upstream at different datum. Oct. 13, 1925, to Sept. 11, 1929, nonrecording gage at present site and datum.

REMARKS.--Records fair. Diversions above station for irrigation of about 3,300 acres, mostly in southern Utah.

AVERAGE DISCHARGE.--64 years, 29.6 ft³/s, 21,450 acre-ft/yr; median of yearly mean discharges, 26 ft³/s, 18,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s Oct. 5, 1925, gage height, 16.3 ft, from floodmark, from rating curve extended above 2,000 ft³/s on basis of float-area measurement of peak flow; maximum gage height, 16.65 ft Sept. 9, 1980; minimum daily discharge, 1 ft³/s in most years prior to 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 8	0515	*1,990	*10.37

Minimum daily discharge, 3.6 ft³/s June 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	101	19	15	29	21	17	6.2	e4.5	4.3	118	e11
2	114	43	19	19	29	24	18	5.9	e4.4	4.4	34	e8.8
3	165	37	20	22	31	26	21	5.8	e4.3	4.3	15	e8.5
4	48	31	21	19	31	25	19	5.8	3.9	4.3	12	e8.5
5	37	21	22	18	30	25	18	5.8	3.8	4.3	11	e8.5
6	25	19	28	30	24	26	15	7.1	4.1	4.3	9.7	e8.3
7	20	19	45	25	23	28	18	12	5.3	4.5	78	e9.6
8	19	17	32	22	23	35	27	11	5.4	4.5	454	20
9	16	17	24	13	23	34	26	9.1	4.9	4.4	169	e9.6
10	17	17	20	9.5	25	34	20	7.3	4.1	4.5	92	e8.0
11	87	18	e15	6.8	30	26	20	6.9	4.0	4.7	37	e8.0
12	107	19	e13	6.4	30	23	15	7.1	3.9	4.7	19	e7.8
13	48	19	e14	12	64	21	14	7.0	3.9	4.9	79	e7.8
14	25	19	22	11	76	21	e12	17	3.9	4.8	43	e8.5
15	20	19	29	18	66	21	e14	8.0	3.8	4.9	15	17
16	20	19	29	10	28	28	e9.6	63	3.6	4.9	e9.3	e11
17	19	18	25	7.3	25	32	e9.3	86	3.8	5.9	e8.0	e7.4
18	18	22	25	5.8	20	28	e8.8	60	3.8	5.1	e8.0	e7.3
19	18	71	26	7.1	19	34	e8.8	44	3.9	4.8	e8.0	e7.3
20	17	37	24	8.0	18	36	e8.8	24	4.0	5.2	e8.0	e7.1
21	18	22	24	7.3	17	23	8.3	20	4.0	6.9	57	e7.1
22	19	20	22	9.6	17	22	8.9	24	4.0	5.4	68	e7.1
23	18	18	19	11	19	30	7.4	17	3.9	9.9	119	e6.8
24	18	17	21	15	20	25	6.4	13	4.2	8.2	212	7.1
25	17	18	20	14	21	24	5.9	12	4.0	6.9	64	7.3
26	17	20	21	30	22	23	5.7	12	4.2	19	21	6.5
27	15	20	19	38	28	21	5.7	10	4.3	48	54	6.6
28	15	19	18	45	22	17	5.9	8.9	4.5	e10	37	58
29	16	20	20	67	---	e15	5.8	22	4.6	e7.1	21	19
30	15	21	19	46	---	15	6.0	e13	4.5	e7.1	16	15
31	15	---	15	31	---	15	---	e6.4	---	33	15	---
TOTAL	1042	778	690	598.8	810	778	385.3	557.3	125.5	255.2	1911.0	330.5
MEAN	33.6	25.9	22.3	19.3	28.9	25.1	12.8	18.0	4.18	8.23	61.6	11.0
MAX	165	101	45	67	76	36	27	86	5.4	48	454	58
MIN	15	17	13	5.8	17	15	5.7	5.8	3.6	4.3	8.0	6.5
AC-FT	2070	1540	1370	1190	1610	1540	764	1110	249	506	3790	656

CAL YR	1986	TOTAL	9129.6	MEAN	25.0	MAX	400	MIN	2.0	AC-FT	18110
WTR YR	1987	TOTAL	8261.6	MEAN	22.6	MAX	454	MIN	3.6	AC-FT	16390

e Estimated

COLORADO RIVER MAIN STEM

41

09383000 COLORADO RIVER AT COMPACT POINT, NEAR LEES FERRY, AZ

LOCATION.--Lat 36°51'05", long 111°36'21", in NE¼SE¼ sec.23, T.40 N., R.7 E., Coconino County, Hydrologic Units 14070006, 15010001, (see REMARKS), 1.0 mi downstream from Paria River, 1.4 mi downstream from gage on Colorado River at Lees Ferry, and 29 mi downstream from Utah-Arizona State line.

DRAINAGE AREA.--112,000 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--October 1913 to current year (monthly discharge only). Prior to October 1950, published in WSP 1313.

DETERMINATION OF DISCHARGE.--There is no gage. Monthly and yearly discharge computed as the sum of flow at stations on Colorado River and Paria River at Lees Ferry.

REMARKS.--This point on the Colorado River is the dividing point between the Upper Basin and Lower Basin, as defined in the Colorado River Compact of 1922. Flow substantially regulated by Lake Powell beginning Mar. 13, 1963. (See elsewhere in this report.)

AVERAGE DISCHARGE.--49 years (water years 1914-62), 17,760 ft³/s, 12,870,000 acre-ft/yr; 23 years (water years 1965-87), 14,800 ft³/s, 10,723,000 acre-ft/yr.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Mean	Runoff in acre-feet
October	18,790	1,155,000
November	21,100	1,255,000
December	25,040	1,540,000
CAL YR 1986	25,840	18,710,000
January	26,290	1,617,000
February	20,480	1,138,000
March	13,660	840,200
April	13,440	799,600
May	12,410	763,100
June	16,600	987,700
July	17,740	1,091,000
August	20,900	1,285,000
September	16,360	973,800
WTR YR 1987	18,570	13,450,000

NOTE.--Record shown is sum of flow at stations on Colorado River and Paria River at Lees Ferry.

LITTLE COLORADO RIVER BASIN

09383400 LITTLE COLORADO RIVER AT GREER, AZ

LOCATION.--Lat 34°01'00", long 109°27'24", in NE¼SE¼ sec.11, T.7 N., R.27 E., Apache County, Hydrologic Unit 15020001, in Apache National Forest, at former gaging station at culverts on State Highway 373, at Greer, 0.1 mi downstream from Filler Ditch.

DRAINAGE AREA.--30.9 mi².

PERIOD OF RECORD.--January 1976 to September 1979, October 1980 to September 1984, October 1986 to September 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(00301)	(00340)	(31625)	
OCT 1986													
08...	0930	3.8	80	7.30	--	4.5	0.50	--	8.9	--	15	32	
NOV													
20...	1700	43	60	7.00	4.5	5.0	14	--	--	--	29	94	
DEC													
17...	1345	4.8	95	7.80	4.0	1.5	3.5	563	--	91	<10	K6	
JAN 1987													
14...	1510	2.9	85	7.90	7.0	0.5	2.1	563	10.2	96	12	K1	
FEB													
13...	1020	7.8	92	7.87	6.0	0.5	2.9	567	10.0	93	13	K7	
MAR													
11...	1100	9.9	95	7.92	8.5	2.5	6.5	569	9.7	95	<10	<1	
APR													
15...	1155	80	70	7.70	18.0	4.5	10	570	8.6	89	22	K4	
MAY													
15...	1120	55	--	7.70	18.0	9.5	2.2	569	8.2	96	<10	K9	
JUN													
10...	0930	34	50	--	18.0	8.5	2.5	570	8.7	100	<10	24	
JUL													
21...	1235	8.8	81	8.14	23.0	17.0	0.60	570	7.0	97	15	57	
AUG													
18...	1130	15	75	7.97	24.0	14.0	0.90	572	7.6	99	15	K16	
SEP													
22...	1415	8.0	72	--	21.0	17.0	0.80	573	6.8	94	25	120	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986													
08...	31	28	0	7.1	2.4	3.9	0.3	6.0	59	0	48	6.0	
NOV													
20...	490	24	6	5.9	2.2	2.9	0.3	1.3	23	0	19	11	
DEC													
17...	K84	31	0	7.8	2.7	4.0	0.3	1.6	44	0	36	6.3	
JAN 1987													
14...	32	30	0	7.6	2.6	4.0	0.3	1.6	45	0	37	10	
FEB													
13...	27	34	0	8.5	3.0	4.6	0.4	1.8	49	0	40	5.0	
MAR													
11...	K13	40	0	10	3.6	4.9	0.3	1.7	60	0	49	8.1	
APR													
15...	95	30	0	7.2	2.9	3.3	0.3	1.4	38	0	31	9.7	
MAY													
15...	24	18	0	4.5	1.6	2.6	0.3	1.4	24	0	19	<5.0	
JUN													
10...	91	17	0	4.4	1.5	2.5	0.3	1.3	--	--	--	7.4	
JUL													
21...	230	25	0	6.3	2.2	4.2	0.4	1.0	42	0	34	4.5	
AUG													
18...	370	25	0	6.2	2.2	3.5	0.3	1.7	36	0	29	5.5	
SEP													
22...	640	28	0	6.9	2.5	4.3	0.4	2.2	--	0	--	3.7	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

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09383400 LITTLE COLORADO RIVER AT GREER, AZ--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)
OCT 1986												
08...	1.4	0.20	71	56	0.10	1	<0.100	<0.010	--	1.0	0.070	0.07
NOV												
20...	1.2	<0.10	54	36	0.07	15	<0.100	0.020	0.18	0.20	0.080	0.08
DEC												
17...	2.0	<0.10	70	46	0.09	2	<0.100	<0.010	--	0.60	0.040	0.04
JAN 1987												
14...	0.90	<0.10	65	50	0.09	<1	<0.100	0.040	--	<0.20	0.030	0.03
FEB												
13...	1.5	0.10	78	49	0.11	4	<0.100	<0.010	--	0.40	0.050	0.05
MAR												
11...	1.5	<0.10	79	60	0.11	1	<0.100	0.010	0.59	0.60	0.040	0.04
APR												
15...	1.2	<0.10	70	45	0.09	17	<0.100	0.030	2.2	2.2	0.050	0.05
MAY												
15...	1.0	<0.10	44	--	--	6	<0.100	0.050	0.25	0.30	0.030	0.03
JUN												
10...	0.80	0.20	44	30	0.06	7	<0.100	0.010	0.29	0.30	0.050	0.05
JUL												
21...	4.0	0.10	49	43	0.07	<1	<0.100	0.020	0.48	0.50	0.070	0.07
AUG												
18...	1.4	0.10	61	38	0.08	9	<0.100	0.010	0.79	0.80	0.520	0.52
SEP												
22...	0.80	0.10	64	42	0.09	1	<0.100	0.020	0.28	0.30	0.040	0.04

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986												
08...	<1	<1	6	<10	<1	<1	11	<1	3	1	480	310
NOV												
20...	<1	<1	8	<10	<1	<1	<1	<1	6	2	810	170
DEC												
17...	<1	1	7	<10	<1	2	80	<1	9	2	640	280
JAN 1987												
14...	<1	<1	8	<10	1	<1	<1	<1	6	2	410	94
FEB												
13...	<1	<1	9	<10	<1	1	<1	<1	5	1	460	240
MAR												
11...	<1	<1	8	<10	<1	<1	8	<1	3	3	580	350
APR												
15...	<1	<1	11	<10	<1	1	6	<1	<1	2	1100	480
MAY												
15...	<1	<1	7	<10	<1	<1	29	<1	2	1	250	140
JUN												
10...	<1	<1	6	<10	<1	<1	<1	3	3	4	310	110
JUL												
21...	<1	<1	7	10	<1	<1	11	2	14	1	230	110
AUG												
18...	<1	<1	7	<10	<1	<1	<1	<1	2	1	160	140
SEP												
22...	<1	<1	7	<10	<1	<1	11	<1	8	2	190	140

< Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

09383400 LITTLE COLORADO RIVER AT GREER, AZ--Continued

WATER QUALITY DATA

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986												
08...	<5	<5	40	25	<0.10	<1	<1	<1.0	150	<3	10	0.10
NOV												
20...	<5	7	30	15	<0.10	<1	<1	<1.0	30	12	20	2.3
DEC												
17...	<5	<5	30	29	0.10	<1	<1	<1.0	20	16	6	0.08
JAN 1987												
14...	<5	<5	30	33	<0.10	<1	<1	<1.0	10	11	13	0.10
FEB												
13...	<5	7	50	33	<0.10	<1	<1	<1.0	<10	5	10	0.21
MAR												
11...	<5	<5	40	30	<0.10	<1	<1	<1.0	<10	12	20	0.53
APR												
15...	<5	<5	40	13	0.20	<1	<1	<1.0	10	19	171	37
MAY												
15...	<5	5	20	8	<0.10	<1	<1	<1.0	<10	6	7	1.0
JUN												
10...	5	<5	20	9	<0.10	<1	<1	<1.0	<10	14	7	0.64
JUL												
21...	12	<5	20	9	<0.10	<1	<1	<1.0	<10	3	10	0.24
AUG												
18...	<5	<5	<10	11	0.20	<1	<1	<1.0	<10	6	5	0.20
SEP												
22...	<5	<5	10	8	<0.10	<1	<1	<1.0	<10	18	12	0.26

< Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

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09384000 LITTLE COLORADO RIVER ABOVE LYMAN LAKE, NEAR ST. JOHNS, AZ

LOCATION.--Lat 34°18'52", long 109°21'42", in SW¼ sec.27, T.11 N., R.28 E., Apache County, Hydrologic Unit 15020001, on left bank 0.75 mi downstream from Coyote Creek, 6 mi upstream from Lyman Dam, and 15 mi south of St. Johns.

DRAINAGE AREA.--747 mi².

PERIOD OF RECORD.--April 1940 to current year. Prior to October 1975 published as "above Lyman Reservoir."

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 6,010 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 7, 1976, water-stage recorder at site 0.4 mi downstream at datum approximately 20 ft lower, reactivated Mar. 21, 1980. See WSP 1313 for history of changes prior to 1950.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by many small reservoirs - combined capacity, about 15,500 acre-ft. Diversions for irrigation of about 6,700 acres above station.

AVERAGE DISCHARGE.--47 years, 23.9 ft³/s, 17,320 acre-ft/yr; median of yearly mean discharges, 16 ft³/s, 11,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s July 25, 1940, gage height, 17.1 ft, datum then in use, from floodmarks, by slope-area measurement of peak flow and reservoir in flow studies; maximum gage height, 18.6 ft, Sept. 12, 1975, at previous site (from graph recorded to 18.4 ft); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 20	0500	*1,090	6.06
Aug. 8	1545	432	4.88

Minimum daily discharge, 2.1 ft³/s Oct. 1, 2, July 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	9.0	28	e65	36	e30	56	216	24	6.7	31	11
2	2.1	15	e24	34	33	35	57	180	18	5.0	28	11
3	2.5	30	28	e29	32	36	67	148	17	5.9	28	11
4	3.4	43	30	e32	32	38	99	145	16	6.9	34	10
5	6.3	33	30	31	32	42	114	123	16	5.8	35	9.8
6	11	26	29	31	30	47	104	116	12	4.5	44	11
7	7.0	28	30	29	29	54	103	113	15	3.7	83	11
8	6.6	25	31	29	29	67	108	104	17	3.8	79	10
9	6.7	23	30	e26	28	72	107	99	23	3.8	42	11
10	8.4	23	29	e21	28	72	125	88	29	3.5	28	9.7
11	13	22	e19	e23	30	73	195	82	24	3.1	25	9.3
12	20	20	e21	e25	35	79	292	87	20	3.0	30	9.5
13	19	19	e27	e26	37	91	332	85	18	2.9	27	8.9
14	17	19	e31	e29	39	107	319	70	13	3.3	22	8.0
15	16	20	e30	27	40	104	365	60	13	e2.4	18	7.3
16	16	23	34	30	39	86	e493	57	15	e2.1	15	6.6
17	16	28	33	e25	35	76	e626	47	13	19	12	7.8
18	14	34	37	e20	34	69	e768	40	11	12	14	5.3
19	13	98	35	e20	35	73	863	36	11	9.1	11	4.6
20	12	107	33	e25	35	78	841	37	9.8	6.4	6.6	4.2
21	12	91	34	e22	e34	69	604	45	9.8	7.2	10	3.5
22	11	79	33	e20	e30	69	472	45	8.4	6.6	15	e3.3
23	9.8	59	30	e24	30	64	424	40	7.8	4.1	28	3.5
24	9.3	42	63	e22	32	65	384	37	e6.2	3.9	24	4.0
25	9.1	40	75	e27	32	63	330	34	e6.5	3.0	22	4.1
26	8.8	40	74	e29	35	57	289	36	e8.9	3.5	24	5.6
27	8.7	37	e76	e30	e30	56	263	37	11	3.9	30	5.8
28	8.8	34	72	30	e27	51	234	34	11	5.2	26	4.9
29	8.9	34	70	30	---	55	181	28	8.4	14	19	4.3
30	8.7	33	66	30	---	58	176	33	7.7	45	17	3.8
31	8.8	---	e66	32	---	60	---	31	---	43	14	---
TOTAL	316.0	1134.0	1248	873	918	1996	9391	2333	420.5	252.3	841.6	219.8
MEAN	10.2	37.8	40.3	28.2	32.8	64.4	313	75.3	14.0	8.14	27.1	7.33
MAX	20	107	76	65	40	107	863	216	29	45	83	11
MIN	2.1	9.0	19	20	27	30	56	28	6.2	2.1	6.6	3.3
AC-FT	627	2250	2480	1730	1820	3960	18630	4630	834	500	1670	436

CAL YR 1986 TOTAL 7601.7 MEAN 20.8 MAX 107 MIN 1.0 AC-FT 15080
WTR YR 1987 TOTAL 19943.2 MEAN 54.6 MAX 863 MIN 2.1 AC-FT 39560

e Estimated

LITTLE COLORADO RIVER BASIN

09386030 LITTLE COLORADO RIVER ABOVE ZION RESERVOIR, NEAR ST. JOHNS, AZ

LOCATION.--Lat 34°35'01", long 109°24'23", in SE¼SE¼ sec.30, T.14 N., R.28 E., Apache County, Hydrologic Unit 15020002, on downstream side of center pier of bridge on private road, 1.5 mi upstream from Carrizo Creek, 4 mi upstream from Zion Reservoir, and 5.8 mi northwest of St. Johns.

DRAINAGE AREA.--975 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 5,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Records good. Diversions above station for irrigation of about 10,200 acres, including 1,500 acres served by Lyman Canal. Regulation by many reservoirs above station (combined capacity, 46,900 acre-ft), the largest of which is Lyman Lake. Records do not include flow bypassing the station through an abandoned irrigation ditch during higher stages.

AVERAGE DISCHARGE.--12 years, 12.7 ft³/s, 9,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 582 ft³/s Aug. 4, 1983, gage height, 3.66 ft; minimum daily, 0.04 ft³/s Aug. 2, Sept. 7, Oct. 16-20, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 264 ft³/s Apr. 21, gage height, 3.14 ft; minimum daily, 1.2 ft³/s June 16, July 11, and Sept. 20, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	11	14	10	13	19	16	139	5.4	3.9	18	6.5
2	4.1	23	12	10	13	20	15	135	5.3	4.0	10	6.5
3	1.8	29	12	9.2	12	25	15	128	5.0	4.6	11	6.5
4	2.1	44	12	11	12	29	18	112	7.6	5.7	5.2	6.7
5	3.2	26	13	13	12	28	25	100	7.5	5.4	8.0	8.0
6	19	18	13	15	12	19	32	86	7.1	5.3	5.1	7.5
7	17	19	15	13	11	16	42	75	6.4	4.9	22	7.5
8	6.8	17	26	14	11	16	49	66	4.8	4.2	10	7.6
9	5.5	15	31	15	11	19	57	57	4.5	3.5	8.7	7.6
10	21	15	22	12	12	16	62	31	4.4	2.5	7.4	7.8
11	25	15	16	12	12	15	67	22	4.4	1.2	6.7	7.0
12	102	14	13	13	12	14	82	20	4.1	1.9	6.7	6.6
13	38	13	12	12	13	14	116	19	5.0	2.8	6.7	5.1
14	14	13	12	13	11	12	138	17	2.9	2.7	6.2	4.6
15	10	12	12	13	11	12	144	17	1.5	3.2	5.8	4.8
16	9.0	12	12	13	11	12	147	15	1.2	3.9	5.6	3.2
17	8.5	12	14	13	12	14	150	12	1.4	5.7	4.9	3.4
18	9.0	14	35	10	13	14	160	8.8	1.8	3.8	4.5	2.4
19	8.3	16	23	7.5	15	13	183	10	2.1	3.1	4.8	1.8
20	7.7	14	14	15	15	13	228	9.1	3.3	2.1	4.2	1.2
21	7.3	13	13	8.4	14	13	253	9.9	3.7	3.1	3.9	1.8
22	8.2	13	13	8.2	13	13	225	11	3.8	3.0	4.5	1.2
23	8.7	15	13	13	13	14	187	7.3	3.7	2.3	7.1	1.3
24	10	14	14	16	14	15	167	7.6	3.6	2.2	23	2.1
25	9.2	14	14	16	16	14	160	8.4	3.4	2.9	7.6	7.3
26	8.8	13	13	17	19	13	157	8.6	4.7	4.2	7.7	4.7
27	8.4	13	12	17	19	13	157	7.5	4.9	5.0	8.0	3.9
28	8.9	13	12	17	19	13	154	7.4	6.5	5.8	8.8	4.0
29	9.2	15	12	17	---	14	153	7.9	6.1	6.9	8.4	4.4
30	9.2	14	11	15	---	16	147	7.5	4.1	12	7.9	4.3
31	9.4	---	10	14	---	16	---	6.8	---	36	6.7	---
TOTAL	412.7	489	470	402.3	371	494	3506	1168.8	130.2	157.8	255.1	147.3
MEAN	13.3	16.3	15.2	13.0	13.2	15.9	117	37.7	4.34	5.09	8.23	4.91
MAX	102	44	35	17	19	29	253	139	7.6	36	23	8.0
MIN	1.8	11	10	7.5	11	12	15	6.8	1.2	1.2	3.9	1.2
AC-FT	819	970	932	798	736	980	6950	2320	258	313	506	292
CAL YR 1986	TOTAL	3401.33	MEAN	9.32	MAX	102	MIN	.68	AC-FT	6750		
WTR YR 1987	TOTAL	8004.2	MEAN	21.9	MAX	253	MIN	1.2	AC-FT	15880		

LITTLE COLORADO RIVER BASIN

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09386030 LITTLE COLORADO RIVER ABOVE ZION RESERVOIR, NEAR ST. JOHNS, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1980 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE AIR	TEMPER- ATURE WATER	HARD- NESS TOTAL	HARD- NESS NONCARB	CALCIUM	
		(CFS) (00061)	(US/CM) (00095)	(STAND- ARD UNITS) (00400)	(DEG C) (00020)	(DEG C) (00010)	(MG/L AS CACO3) (00900)	WH WAT TOT FLD MG/L AS CACO3 (00902)	DIS- SOLVED (MG/L AS CA) (00915)	
OCT 1986 16...	1500	8.8	2890	8.40	18.0	13.0	680	340	170	
MAR 1987 17...	1100	E13	3020	8.20	6.5	4.5	680	340	170	
SEP 23...	1400	1.4	2920	8.40	24.0	17.0	660	340	150	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD (MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD (MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 1986 16...	62	410	7	19	--	--	710	370	1.8	
MAR 1987 17...	63	410	7	19	420	0	550	310	1.6	
SEP 23...	69	480	8	14	310	--	870	270	1.7	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 1986 16...	17	1960	2.67	0.280	0.020	0.06	730	30	30	
MAR 1987 17...	13	1750	2.37	0.280	0.150	0.46	540	10	30	
SEP 23...	18	2030	2.76	0.210	0.020	0.06	810	160	190	

E Estimated

LITTLE COLORADO RIVER BASIN

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

LOCATION.--Lat 35°06'03", long 108°45'03", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank downstream from highway bridge on State Highway 36, 0.8 mi upstream from flow line of Black Rock Reservoir, 2.3 mi northeast of Black Rock, and 5.9 mi northeast of Zuni Pueblo.

DRAINAGE AREA.--810 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir".

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Elevation of gage is 6,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 5-28, Feb. 12-15, and Feb. 18 to Mar. 3. Water-discharge records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 14.3 ft³/s, 10,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft³/s, Aug. 4, 1974, gage height, 6.61 ft, from rating curve extended above 670 ft³/s on basis of slope-area measurements at gage heights 4.05 ft, 3.94 ft, 5.16 ft, and 6.61 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 13	0245	*359	*4.26

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.64	1.1	1.5	6.6	9.0	72	7.1	1.1	.49	1.8	.78
2	.21	3.4	1.1	1.6	8.0	11	72	6.1	.87	.44	1.4	.77
3	.22	3.0	1.1	1.6	8.8	14	70	6.2	.74	.43	1.1	.81
4	.20	1.5	1.1	1.5	9.2	16	76	5.0	.63	.47	1.2	.68
5	.47	1.1	1.1	1.5	9.8	21	81	4.7	.55	.46	2.2	.77
6	.65	.82	1.1	1.5	12	21	97	5.6	.41	.41	4.9	.86
7	.75	.69	1.1	1.5	12	23	107	6.1	2.9	.44	5.0	.88
8	.79	.70	1.1	1.4	15	14	113	6.3	.99	.49	4.8	.81
9	.73	.68	1.1	1.3	13	12	115	4.9	1.4	.52	1.9	.73
10	3.3	.62	1.1	1.2	11	32	118	4.3	1.3	.52	1.6	.71
11	4.9	.59	1.1	1.3	9.5	72	168	3.8	1.1	.57	1.9	.75
12	3.9	.57	1.1	1.3	9.8	76	309	3.1	.95	.65	1.4	.41
13	2.5	.57	1.2	1.2	11	67	347	3.1	.79	.65	1.9	.14
14	1.4	.56	1.2	1.2	10	65	289	3.0	.69	.64	2.0	.00
15	1.1	.54	1.3	1.3	9.0	66	251	3.7	.66	.66	1.7	.00
16	.97	.54	1.4	1.3	8.5	78	231	4.5	.47	1.1	1.2	.00
17	.90	.54	1.5	1.3	9.3	87	216	4.5	.21	1.8	.90	.00
18	.88	.63	1.6	1.3	10	90	192	3.9	.07	3.4	.74	.00
19	.85	3.7	1.5	1.4	11	87	170	3.4	.00	3.6	.66	.00
20	.81	2.6	1.4	1.4	10	86	142	3.1	.00	3.7	.67	.01
21	.79	1.4	1.4	1.5	9.0	91	121	3.1	.00	4.2	.71	.24
22	.79	1.2	1.4	1.7	8.5	96	104	2.9	.00	4.9	.67	.28
23	.79	1.3	1.3	2.0	8.0	98	63	2.8	.00	5.0	1.2	.62
24	.79	1.2	1.3	2.1	8.5	97	44	2.9	.00	4.1	1.1	.86
25	.80	1.1	1.3	2.3	9.5	96	71	2.7	.00	3.1	1.4	.85
26	.82	1.2	1.4	2.2	10	93	30	2.4	.00	2.3	3.0	.52
27	.82	1.2	1.4	2.4	9.0	85	14	1.8	.00	1.9	2.3	.45
28	.79	1.1	1.4	3.0	8.0	79	10	1.6	.00	1.8	2.2	.46
29	.61	1.1	1.4	6.1	---	77	9.4	1.4	.00	1.9	1.4	.73
30	.52	1.1	1.5	7.5	---	80	8.1	1.3	.16	2.3	.99	.64
31	.52	---	1.5	7.8	---	73	---	1.2	---	3.3	.81	---
TOTAL	33.73	35.89	39.6	66.2	274.0	1912.0	3710.5	116.5	15.99	56.24	54.75	14.76
MEAN	1.09	1.20	1.28	2.14	9.79	61.7	124	3.76	.53	1.81	1.77	.49
MAX	4.9	3.7	1.6	7.8	15	98	347	7.1	2.9	5.0	5.0	.88
MIN	.16	.54	1.1	1.2	6.6	9.0	8.1	1.2	.00	.41	.66	.00
AC-FT	67	71	79	131	543	3790	7360	231	32	112	109	29
CAL YR	1986	TOTAL	347.13	MEAN	.95	MAX	4.9	MIN	.00	AC-FT	689	
WTR YR	1987	TOTAL	6330.16	MEAN	17.3	MAX	347	MIN	.00	AC-FT	12560	

LITTLE COLORADO RIVER BASIN

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09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)
* OCT 07...	--	0.76	--	665	--	8.10	15.0	13.0	--	200
* JAN 23...	1130	2.1	847	1020	6.00	--	5.0	0.0	--	340
MAR 03...	1500	15	540	517	8.60	8.14	6.0	10.0	10.7	200
MAY 11...	1600	3.6	508	--	8.60	8.50	19.0	14.0	7.7	240
AUG 05...	1345	3.6	550	565	8.30	8.40	31.0	22.5	8.1	190
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L) (00450)	CAR- BONATE WATER WHOLE IT-FLD (MG/L) (00447)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L CACO3) (00419)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)
* OCT 07...	0	37	26	74	2	6.3	--	--	--	--
* JAN 23...	0	80	33	99	2	6.0	--	--	--	--
MAR 03...	19	52	17	37	1	3.5	160	31	183	181
MAY 11...	0	61	21	33	1	2.8	261	26	258	245
AUG 05...	8	45	20	80	3	8.0	236	0	193	187
DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3 (00440)	CAR- BONATE WH WAT TOTAL FIELD MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC TOTAL (UG/L AS AS) (01002)
* OCT 07...	--	280	E0	95	27	0.40	--	395	--	--
* JAN 23...	--	410	0	180	25	0.40	--	649	--	--
MAR 03...	194	--	--	79	10	0.30	8.3	--	320	<1
MAY 11...	255	--	--	39	8.0	0.60	7.7	--	320	1
AUG 05...	235	--	--	62	28	0.30	8.7	--	360	2
DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)
* OCT 07...	--	250	--	--	--	--	--	--	--	--
* JAN 23...	--	<50	--	--	--	--	--	--	--	--
MAR 03...	<1	40	<1	<1	<10	<10	6	2	58	<5
MAY 11...	1	80	<1	<1	<10	<10	15	3	20	<5
AUG 05...	1	100	<1	<1	<10	<10	2	1	19	<5

* Chemical Analyses performed by U.S. Bureau of Indian Affairs Laboratory in Gallup, NM.

E Estimated

< Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
* OCT 07...	--	--	--	--	--	--	--	--	--	--
* JAN 23...	--	--	--	--	--	--	--	23	0.13	58
MAR 03...	<5	<0.10	<0.1	<1	<1	20	14	31	1.3	86
MAY 11...	<5	<0.10	<0.1	<1	<1	60	14	30	0.29	73
AUG 05...	<5	<0.10	<0.1	<1	<1	20	3	11	0.11	87

* Chemical Analyses performed by U.S. Bureau of Indian Affairs Laboratory in Gallup, NM.
 < Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

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09390500 SHOW LOW CREEK NEAR LAKESIDE, AZ

LOCATION.--Lat 34°10'46", long 109°59'14", in SW¼NW¼ sec.14, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on left bank 1 mi upstream from pumping plant on Show Low Lake, 1.9 mi northwest of Lakeside, 2.2 mi upstream from Jaques Dam, and 6 mi southeast of Show Low.

DRAINAGE AREA.--68.6 mi².

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 1513: 1954-56. WSP 1926: Drainage area. WRD Ariz. 1971: 1970(M).

GAGE.--Water-stage recorder and concrete-dam control with V-notch sharp-crested weir. Elevation of gage is 6,610 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated periods, which are fair. Record shows inflow to Show Low Lake. Flow partly regulated by several small reservoirs, largest of which are Rainbow Lake and Scott Reservoir, combined capacity, 2,400 acre-ft. Diversions for irrigation of about 250 acres above station.

AVERAGE DISCHARGE.--34 years, 14.9 ft³/s, 10,800 acre-ft/yr; median of yearly mean discharges, 10.0 ft³/s, 7,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,550 ft³/s Dec. 18, 1978, gage height, 9.16 ft, from rating curve extended above 2,500 ft³/s; maximum gage height, 9.53 ft Dec. 26, 1971; no flow Oct. 5, 6, Dec. 10-19, 1964, Jan. 4-15, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 31	0315	128	3.10	Mar. 19	2145	287	3.56
Mar. 9	2130	*500	*4.02	Apr. 5	0330	158	3.20

Minimum daily discharge, 1.8 ft³/s Dec. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.1	1.8	5.3	59	14	38	9.8	6.7	e9.0	9.4	2.8
2	3.6	13	1.8	5.2	57	15	65	10	6.3	e9.5	6.9	2.7
3	3.7	17	1.9	4.9	55	18	92	9.3	6.2	e9.5	7.7	2.8
4	3.7	34	1.9	5.0	49	27	123	9.9	7.0	e9.5	8.5	2.8
5	4.2	15	1.9	5.9	50	51	113	10	7.3	e10	7.1	3.4
6	4.6	7.0	3.9	6.8	49	97	68	11	7.0	e10	11	3.8
7	3.9	6.8	36	6.1	49	232	56	10	8.1	e10	7.9	3.8
8	4.0	5.8	40	5.7	51	366	55	11	8.4	e10	4.0	3.8
9	3.7	5.0	30	e5.5	47	361	48	9.8	8.3	e10	3.6	3.7
10	5.0	4.5	22	e5.5	54	313	49	9.4	7.3	e10	3.1	3.7
11	5.1	4.1	e12	e5.5	66	250	51	9.2	7.0	e10	3.5	3.4
12	8.4	3.9	e11	e5.5	71	233	50	9.2	6.5	10	3.6	3.3
13	5.2	3.8	e9.1	e5.5	64	236	41	9.2	5.1	11	3.0	3.0
14	3.9	3.6	e7.9	e5.5	67	210	32	8.9	4.8	11	2.9	2.9
15	3.7	3.7	e7.0	e5.5	48	143	27	10	5.1	11	3.5	2.8
16	3.6	3.5	e6.0	e7.4	40	67	23	10	4.4	11	3.8	2.8
17	3.3	3.5	15	7.2	33	59	24	8.6	4.7	11	3.7	2.9
18	3.1	8.4	34	6.9	29	129	22	8.0	4.4	11	3.5	3.2
19	3.0	18	37	6.8	24	212	19	7.8	4.8	10	3.5	3.0
20	3.0	4.9	30	6.4	22	172	16	9.1	e5.0	11	3.4	3.0
21	3.0	3.9	24	6.2	19	109	14	9.1	e5.5	11	3.8	2.8
22	3.1	4.0	19	5.5	16	83	13	8.2	e6.0	11	5.1	3.3
23	3.1	3.9	15	5.5	16	61	12	7.9	e6.0	10	6.0	4.5
24	3.0	2.9	13	4.7	17	88	12	8.0	e6.5	9.5	4.8	4.1
25	3.1	2.5	11	e5.0	20	71	12	7.2	e7.0	8.6	4.4	3.9
26	3.2	2.3	8.6	e5.0	19	64	12	6.8	e7.0	8.8	4.2	3.5
27	3.1	2.1	7.2	e6.0	17	66	11	6.8	e7.5	9.5	3.9	2.9
28	3.1	2.0	6.4	e8.0	15	52	10	7.0	e8.0	9.7	3.1	3.1
29	3.1	1.9	5.8	12	---	43	9.7	6.8	e8.0	13	3.2	3.2
30	3.3	1.9	5.4	22	---	36	9.5	7.4	e8.5	17	3.1	3.2
31	3.3	---	5.2	101	---	33	---	6.9	---	21	2.9	---
TOTAL	116.6	197.0	430.8	299.0	1123	3911	1127.2	272.3	194.4	333.6	148.1	98.1
MEAN	3.76	6.57	13.9	9.65	40.1	126	37.6	8.78	6.48	10.8	4.78	3.27
MAX	8.4	34	40	101	71	366	123	11	8.5	21	11	4.5
MIN	3.0	1.9	1.8	4.7	15	14	9.5	6.8	4.4	8.6	2.9	2.7
AC-FT	231	391	854	593	2230	7760	2240	540	386	662	294	195

CAL YR 1986 TOTAL 3759.2 MEAN 10.3 MAX 192 MIN 1.8 AC-FT 7460
WTR YR 1987 TOTAL 8251.1 MEAN 22.6 MAX 366 MIN 1.8 AC-FT 16370

e Estimated

LITTLE COLORADO RIVER BASIN

09391000 SHOW LOW LAKE NEAR SHOW LOW, AZ

LOCATION.--Lat 34°11'35", long 110°00'15", in NW¼ sec.10, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on upstream side of left end of Jaques Dam on Show Low Creek, 3.4 mi northwest of Lakeside, and 4.5 mi southeast of Show Low.

DRAINAGE AREA.--73.0 mi².

PERIOD OF RECORD.--June 1953 to current year. Periodic readings of elevation and contents only, 1953-1985, published with record of Show Low Creek below Jaques Dam near Show Low, AZ (09392000).

GAGE.--Water-stage recorder, with periodic supplemental lake elevation readings. Altitude of gage is 6500.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by an earthen-rock dam; storage began in spring of 1953. The spillway is a concrete, broad-crested Ogee weir. Total capacity to spillway, 6,176 acre-ft, consisting of 1,070 acre-ft dead storage below elevation 6,535.0 ft (sill of outlet structure) and 5,106 acre-ft usable storage between elevation 6,535.0 ft and 6,570.0 ft (sill of overflow spillway). Capacity table prepared by Leeds, Hill, and Jewett, consulting engineers, from surveys by the firm. Water cannot be pumped when lake elevation is below 6,538.5 ft (sill of intake to pumping plant), but can be released to stream channel down to elevation 6,535.0 ft. Figures given herein represent total contents.

COOPERATION.--Periodic observations of lake elevation furnished by Navapache Electric Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,920 acre-ft Dec. 18, 1978 and Dec. 27, 1984; maximum elevation, 6,573.72 ft Dec. 27, 1984; minimum contents, not determined.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 6,310 acre-ft Mar. 10, elevation 6,570.68 ft; minimum, 1,890 acre-ft Dec. 5, elevation 6,542.82 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	2120	1900	2720	3380	5420	6200	6150	5350	5070	5230	5210
2	2110	2160	1900	2730	3500	5440	6200	6130	5310	5070	5240	5170
3	2110	2190	1900	2740	3610	5470	6210	6110	5290	5070	5250	5130
4	2110	2230	1900	2740	3710	5530	6220	6090	5260	5070	5260	5090
5	2120	2230	1890	2760	3810	5640	6210	6060	5230	5070	5270	5050
6	2120	2220	1910	2760	3900	5840	6200	6040	5200	5070	5290	5010
7	2120	2200	1980	2780	3990	e6170	6200	6020	5180	5070	5310	4980
8	2130	2180	2070	2780	4080	e6250	6190	6000	5150	5080	5310	4930
9	2130	2170	2130	2790	4170	e6300	6190	5980	5130	5080	5310	4900
10	2140	2140	2170	2800	4270	e6280	6200	5950	5100	5070	5310	4860
11	2150	2120	2190	2800	4400	6280	6200	5920	5070	5070	5310	4840
12	2170	2100	2210	2810	4520	6270	6190	5900	5060	5070	5300	4780
13	2180	2080	2230	2820	4650	6270	6180	5870	5060	5080	5300	4740
14	2180	2060	2240	2820	4770	6250	6180	5850	5050	5080	5290	4700
15	2180	2040	2250	2830	4860	6230	6180	5830	5040	5080	5270	4660
16	2190	2010	2260	2850	4930	6200	6180	5800	5030	5090	5260	4620
17	2190	1990	2300	2860	4990	6210	6180	5780	5020	5090	5260	4580
18	2190	1990	2370	2870	5040	6270	6190	5750	5010	5090	5250	4550
19	2190	2010	2450	2880	5080	6270	6170	5720	5000	5090	5240	4510
20	2190	1980	2500	2890	5120	6230	6170	5700	5000	5100	5230	4470
21	2190	1960	2550	2900	5150	6220	6170	5670	5010	5100	5220	4440
22	2200	1940	2580	2910	5190	6210	6170	5640	5010	5100	5220	4430
23	2200	1910	2620	2910	5220	6210	6170	5620	5020	5100	5220	4430
24	2200	1900	2640	2920	5260	6220	6170	5590	5030	5110	5220	4430
25	2200	1900	2650	2930	5310	6210	6170	5560	5030	5110	5220	4430
26	2200	1900	2670	2940	5340	6210	6180	5520	5040	5110	5220	4430
27	2190	1900	2680	2950	5370	6200	6170	5490	5050	5120	5230	4420
28	2160	1900	2690	2960	5390	6200	6170	5460	5050	5120	5240	4410
29	2140	1900	2700	2980	---	6190	6170	5430	5050	5130	5240	4400
30	2120	1900	2710	3030	---	6190	6170	5410	5060	5170	5240	4390
31	2110	---	2710	3250	---	6190	---	5380	---	5220	5230	---
MAX	2200	2230	2710	3250	5390	6300	6220	6150	5350	5220	5310	5210
MIN	2110	1900	1890	2720	3380	5420	6170	5380	5000	5070	5220	4390
(*)	6544.60	6542.85	6549.22	6553.01	6565.87	6570.12	6570.00	6565.79	6564.01	6564.90	6565.00	6560.08
(**)	0	-210	+810	+540	+2140	+800	-20	-790	-320	+160	+10	-840
CAL YR 1986	MAX 4330	MIN 1890	** -510									
WTR YR 1987	MAX 6300	MIN 1890	** +2280									

e Estimated

* Elevation, in feet, at end of month.

** Change in contents, in acre-feet.

09392000 SHOW LOW CREEK BELOW JAKUES DAM, NEAR SHOW LOW, AZ

LOCATION.--Lat 34°11'47", long 110°00'13", in NW¼ sec.10, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on right bank just downstream from Jaques Dam, 3.5 mi northwest of Lakeside, and 4.5 mi southeast of Show Low.

DRAINAGE AREA.--73.0 mi².

PERIOD OF RECORD.--November 1941 to January 1945, June 1953 to September 1955 (monthly discharge only), October 1955 to current year. Monthly discharge only November 1941 to January 1945, published in WSP 1313. Published as "at Jaques damsite, near Lakeside" 1941-45.

REVISED RECORDS.--WSP 1926: Drainage area. WDR AZ-81-1: 1979 (M).

GAGE.--Water-stage recorder and sharp-crested weir, with supplementary water-stage recorder on lake for recording flow over concrete spillway. Elevation of gage is 6,530 ft above National Geodetic Vertical Datum of 1929, from topographic map. November 1941 to January 1945 nonrecording gage at site 100 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Record since 1953 shows release from Show Low Lake. Flow regulated by several reservoirs, largest of which are Show Low Lake, completed in 1953; Rainbow Lake, completed prior to 1941; and Scott Reservoir, completed in 1946 (combined capacity, 8,800 acre-ft). Diversions for irrigation of about 250 acres above Show Low Lake and diversion by pumping of floodwater stored in Show Low Lake to Forestdale Creek in Salt River basin (see record for Forestdale Creek diversion from Show Low Creek, near Show Low, elsewhere in this report).

AVERAGE DISCHARGE.--34 years (water years 1954-87), 8.92 ft³/s, 6,460 acre-ft/yr; median of yearly mean discharges, 3.6 ft³/s, 2,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s, spillway flow entering 0.2 mi downstream from station, Dec. 27, 1984, lake elevation, 6,573.72 ft, from rating curve extended above 270 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 18, 1952, discharge, 6,250 ft³/s at site 5 mi downstream at Show Low, is the largest since at least 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 294 ft³/s Mar. 10; minimum daily, 0.69 ft³/s Aug. 9, 26-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.3	2.3	2.6	2.9	3.2	27	3.2	7.1	2.0	6.9	6.6
2	2.4	2.3	2.3	2.6	2.9	3.2	e41	3.2	7.1	7.1	4.1	6.6
3	2.4	2.3	2.3	2.6	2.9	3.2	52	5.8	7.1	7.4	2.8	6.6
4	2.4	2.4	2.3	2.6	2.9	3.2	58	7.1	7.1	7.6	2.8	6.6
5	2.4	2.4	2.3	2.6	2.9	3.2	69	7.1	7.1	7.6	2.8	6.6
6	2.4	2.4	2.3	2.6	2.9	3.3	38	7.1	7.1	7.6	2.8	6.6
7	2.4	2.4	2.3	2.6	2.9	3.4	23	7.1	7.1	7.6	1.9	6.6
8	2.4	2.4	2.4	2.6	2.9	e60	28	7.1	7.1	7.9	.74	6.6
9	2.4	2.4	2.3	2.6	2.9	e278	23	7.1	7.0	8.3	.69	6.6
10	2.4	2.4	2.4	2.5	3.0	e294	25	7.1	7.1	8.3	3.4	6.6
11	2.4	2.4	2.4	2.6	3.0	e218	29	7.1	7.1	8.3	4.9	6.6
12	2.4	2.4	2.4	2.6	3.0	204	23	7.1	7.1	8.3	4.9	6.5
13	2.4	2.4	2.4	2.7	3.0	208	13	7.1	7.1	8.3	5.2	6.5
14	2.3	2.4	2.4	2.7	3.0	194	13	7.1	7.1	8.3	6.9	6.4
15	2.3	2.4	2.4	2.7	3.0	122	13	7.1	7.1	8.3	7.1	6.4
16	2.3	2.4	2.4	2.6	3.1	54	12	7.1	7.1	8.3	7.1	6.4
17	2.3	2.3	2.4	2.6	3.1	40	12	7.1	7.1	8.3	7.0	6.4
18	2.3	2.3	2.4	2.6	3.2	88	9.7	7.1	7.1	8.3	6.9	6.4
19	2.3	2.3	2.4	2.7	3.1	180	5.9	7.1	7.1	8.3	6.9	6.4
20	2.3	2.3	2.4	2.9	3.2	158	4.4	7.1	7.1	8.3	6.9	6.4
21	2.3	2.3	2.4	2.9	3.2	94	4.9	7.1	7.1	8.3	6.9	6.4
22	2.3	2.3	2.4	2.9	3.1	60	5.7	7.1	7.1	8.3	6.9	6.4
23	2.3	2.3	2.4	3.0	3.2	36	5.7	7.1	7.1	8.3	6.9	6.4
24	2.3	2.3	2.4	3.0	3.2	60	4.6	7.1	7.1	8.3	6.9	6.4
25	2.3	2.3	2.4	3.0	3.2	52	4.2	7.1	7.1	8.3	2.4	6.4
26	2.3	2.3	2.6	3.0	3.2	46	4.5	7.1	7.1	8.3	.69	6.3
27	2.3	2.3	2.6	3.1	3.2	48	5.1	7.1	7.1	8.3	.69	6.3
28	2.3	2.3	2.6	3.1	3.2	28	4.6	7.1	7.1	8.3	.69	6.3
29	2.3	2.3	2.6	2.9	---	19	4.3	7.1	7.1	8.3	1.2	6.4
30	2.3	2.3	2.6	2.8	---	16	3.2	7.1	5.3	7.4	1.8	6.0
31	2.3	---	2.6	2.9	---	21	---	7.1	---	6.9	5.0	---
TOTAL	72.6	70.3	74.8	85.2	85.3	2600.7	565.8	211.0	211.1	243.4	132.80	193.7
MEAN	2.34	2.34	2.41	2.75	3.05	83.9	18.9	6.81	7.04	7.85	4.28	6.46
MAX	2.4	2.4	2.6	3.1	3.2	294	69	7.1	7.1	8.3	7.1	6.6
MIN	2.3	2.3	2.3	2.5	2.9	3.2	3.2	3.2	5.3	2.0	.69	6.0
AC-FT	144	139	148	169	169	5160	1120	419	419	483	263	384

CAL YR 1986 TOTAL 1529.1 MEAN 4.19 MAX 7.1 MIN 1.0 AC-FT 3030
WTR YR 1987 TOTAL 4546.70 MEAN 12.5 MAX 294 MIN .69 AC-FT 9020

e Estimated

LITTLE COLORADO RIVER BASIN

09393500 SILVER CREEK NEAR SNOWFLAKE, AZ

LOCATION.--Lat 34°40'00", long 110°02'30", in SW¼NW¼ sec.29, T.15 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on left bank 6 mi upstream from mouth and 11 mi north of Snowflake.

DRAINAGE AREA.--886 mi².

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,204.1 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for days of estimated record, which are fair. Diversions for irrigation above station of about 6,600 acres. Flow regulated by several reservoirs - combined capacity, about 22,100 acre-ft.

AVERAGE DISCHARGE.--37 years, 19.1 ft³/s, 13,840 acre-ft/yr; median of yearly mean discharges, 14 ft³/s, 10,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s Jan. 19, 1952, gage height, 18.0 ft, from rating curve extended above 4,400 ft³/s on basis of peak discharge for former station near Woodruff; no flow for several days in water years 1971, 1974-78, 1980-82, 1984, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharges (ft ³ /s)	Gage Height (ft)
Aug. 6	2315	*1,820	*7.57

Minimum daily discharge, 0.01 ft³/s Apr. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.0	2.5	e6.9	9.5	5.0	6.2	1.8	3.0	2.6	102	9.4
2	4.7	95	2.5	6.6	18	4.5	2.8	1.1	1.0	2.5	63	10
3	3.8	68	2.8	e6.3	34	3.8	1.5	.81	.34	1.4	42	11
4	6.9	57	3.7	e6.0	42	3.8	.55	.35	.66	1.2	23	6.9
5	6.7	19	4.1	e6.6	41	4.2	.24	.15	.22	.45	31	13
6	12	12	4.4	8.0	28	4.8	.16	.22	2.0	.30	117	11
7	20	9.8	5.0	6.7	21	133	11	.86	3.5	.23	371	7.8
8	14	9.2	e6.6	e5.8	16	166	10	2.2	39	1.0	100	3.1
9	8.0	5.9	9.6	6.7	11	129	9.4	1.4	30	.46	65	2.1
10	3.5	3.8	9.2	e6.1	8.0	109	4.7	1.5	11	.96	60	2.0
11	95	4.0	e8.0	e4.9	5.5	71	2.3	3.6	4.4	.89	55	1.4
12	169	4.4	e7.2	e3.6	e4.3	47	2.8	1.9	5.3	1.2	43	.86
13	24	4.5	e6.6	e3.4	e3.8	32	1.4	.62	4.9	.53	27	1.8
14	13	3.2	e5.5	3.8	e5.0	22	.43	.45	2.7	1.1	17	2.6
15	9.8	3.3	e4.8	2.9	e6.4	16	.60	.30	2.7	1.6	8.9	8.9
16	8.4	2.5	e4.6	e4.0	e6.1	12	1.5	.49	1.6	2.0	6.2	8.1
17	7.3	2.5	e4.6	e5.2	4.6	9.7	3.0	4.6	2.4	1.1	7.0	3.8
18	6.5	3.4	5.6	e5.2	4.0	8.5	3.1	3.0	1.4	1.2	6.0	3.8
19	5.4	3.9	e8.4	e5.2	3.3	27	1.2	1.9	1.5	2.1	2.8	1.9
20	4.9	2.3	7.8	e5.2	3.8	71	.99	2.7	1.1	1.3	5.1	2.4
21	3.3	1.8	7.9	e5.2	4.2	57	3.1	3.9	2.2	.82	6.5	2.6
22	2.4	1.5	7.6	e5.2	3.9	39	1.8	4.8	2.9	1.2	6.1	3.0
23	2.1	1.6	8.5	e5.2	3.9	27	.72	3.9	3.1	.47	55	2.9
24	2.2	1.7	8.7	e5.2	3.1	22	.27	2.3	2.0	1.4	75	8.3
25	2.8	2.1	7.9	e5.2	4.1	18	.08	2.1	1.5	.80	47	14
26	2.9	2.3	e7.0	e5.2	5.3	22	.01	.98	.95	1.0	58	10
27	2.3	2.3	e6.7	e5.2	6.0	26	2.1	.83	.47	4.1	39	7.8
28	2.7	2.7	e6.5	e5.9	5.5	23	1.5	1.8	1.8	1.9	31	6.6
29	3.6	2.6	e7.1	6.0	---	17	2.0	2.5	5.8	.63	29	8.2
30	3.1	2.4	e6.8	5.9	---	11	2.3	2.9	3.8	6.4	23	4.6
31	3.4	---	e5.4	7.8	---	8.4	---	1.8	---	115	17	---
TOTAL	457.5	337.7	193.6	171.1	311.3	1149.7	77.75	57.76	143.24	157.84	1538.6	179.86
MEAN	14.8	11.3	6.25	5.52	11.1	37.1	2.59	1.86	4.77	5.09	49.6	6.00
MAX	169	95	9.6	8.0	42	166	11	4.8	39	115	371	14
MIN	2.1	1.5	2.5	2.9	3.1	3.8	.01	.15	.22	.23	2.8	.86
AC-FT	907	670	384	339	617	2280	154	115	284	313	3050	357
CAL YR 1986	TOTAL	2042.34	MEAN	5.60	MAX	169	MIN	.00	AC-FT	4050		
WTR YR 1987	TOTAL	4775.95	MEAN	13.1	MAX	371	MIN	.01	AC-FT	9470		

e Estimated

09394500 LITTLE COLORADO RIVER AT WOODRUFF, AZ

LOCATION.--Lat 34°46'58", long 110°02'37", in NE¼SW¼ sec.17, T.16 N., R.22 E., Navajo County, Hydrologic Unit 15020002, on left bank at abandoned county road bridge in Woodruff, 3.7 mi downstream from Silver Creek.

DRAINAGE AREA.--8,100 mi², approximately.

PERIOD OF RECORD.--March to May 1905; June to July 1905 (gage heights only); August 1905 to May 1907; July 1907 to April 1908, July to October 1908, December 1908, and December 1915 to September 1916 (gage heights only); October 1916 to August 1917 (monthly discharge only); September 1917 to March 1918, December 1918 to December 1919, April 1929 to December 1933, September 1935 to current year. Published as "near Woodruff" 1916-19, 1929-48.

REVISED RECORDS.--WSP 1049: 1917. WSP 1213: 1906, 1919(M).

GAGE.--Water-stage recorder. Datum of gage is 5,130.3 ft above National Geodetic Vertical Datum of 1929. See WSP 1733 for history of changes prior to Sept. 22, 1949.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation of about 22,000 acres, including a pump installation 1,000 ft upstream installed in spring of 1973. Some regulation by reservoirs above station; combined capacity, about 81,400 acre-ft.

AVERAGE DISCHARGE.--58 years (water years 1906, 1917, 1930-33, 1936-87), 53.5 ft³/s, 38,760 acre-ft/yr; median of yearly mean discharges, 45 ft³/s, 32,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, occurred Jan. 19, 1916; maximum discharge recorded, 25,000 ft³/s Dec. 5, 1919; maximum gage height, 22.9 ft from high-water mark in gage well, Dec. 19, 1978; no flow at times in most years prior to 1960 and in 1974, 1976, and 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0345	1,930	11.06
Aug. 7	0330	*1,940	*11.07

Minimum daily discharge, 0.59 ft³/s July 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	4.5	5.7	e12	e45	14	25	288	6.3	3.5	263	14
2	6.0	83	5.6	e9.8	e35	16	21	255	5.6	3.2	89	13
3	5.9	158	5.7	e9.0	e42	50	17	226	3.9	2.2	59	9.7
4	7.4	117	5.7	e8.8	e48	83	17	201	3.4	1.3	185	15
5	8.1	75	6.4	e8.8	45	47	17	182	3.2	2.3	188	8.8
6	9.7	27	6.8	e30	38	38	15	169	2.7	1.1	192	17
7	17	16	40	e12	28	128	19	159	5.0	1.1	902	11
8	19	13	222	e12	22	209	25	e137	12	.59	150	8.2
9	13	10	317	11	18	178	26	e120	71	1.6	e110	5.5
10	8.7	7.6	188	10	15	167	22	e102	15	.94	e96	4.6
11	357	6.3	e90	9.2	12	128	22	e90	9.6	2.1	e81	5.3
12	1160	6.6	e50	8.7	11	81	21	e79	5.3	2.5	e70	3.1
13	255	6.5	e37	7.9	10	54	22	e68	5.4	2.6	e60	2.8
14	e40	6.5	e30	8.3	10	40	21	59	5.1	2.3	e48	4.8
15	25	6.1	e27	10	11	29	23	49	3.4	2.8	e22	7.8
16	16	6.1	e22	8.3	11	24	32	45	3.0	3.3	e8.0	10
17	12	5.8	e20	8.3	9.9	22	41	41	2.8	3.6	11	8.5
18	9.9	6.0	75	e6.7	9.6	20	56	33	2.6	1.9	6.8	7.0
19	8.6	7.2	e40	e6.4	9.1	20	107	27	1.9	3.1	3.8	4.9
20	7.6	7.4	e22	e6.2	9.2	105	167	23	2.2	2.7	4.4	4.1
21	6.7	8.8	e17	e6.1	9.2	88	219	21	2.7	2.8	9.4	5.0
22	5.8	8.8	e18	e6.2	8.6	65	285	22	3.1	1.9	7.3	5.2
23	5.4	7.2	e17	e7.0	9.1	47	334	20	3.4	1.5	310	5.2
24	5.2	6.5	e16	8.0	9.6	37	388	16	3.6	1.4	146	7.4
25	5.2	6.7	e14	8.5	11	44	431	13	2.8	2.6	67	13
26	5.9	7.1	e13	9.5	11	43	442	11	2.8	2.6	64	13
27	5.4	6.8	e12	11	19	45	419	9.2	1.9	3.1	47	9.6
28	4.6	6.7	e12	43	15	48	390	7.4	2.0	4.3	44	6.9
29	5.1	7.2	e12	181	---	38	356	7.2	2.5	4.1	35	6.2
30	4.3	6.2	e12	65	---	32	318	7.5	5.1	2.3	27	5.8
31	4.6	---	e10	e55	---	27	---	6.8	---	298	22	---
TOTAL	2050.6	647.6	1368.9	603.7	531.3	1967	4298	2494.1	199.3	369.33	3327.7	242.4
MEAN	66.1	21.6	44.2	19.5	19.0	63.5	143	80.5	6.64	11.9	107	8.08
MAX	1160	158	317	181	48	209	442	288	71	298	902	17
MIN	4.3	4.5	5.6	6.1	8.6	14	15	6.8	1.9	.59	3.8	2.8
AC-FT	4070	1280	2720	1200	1050	3900	8530	4950	395	733	6600	481
CAL YR	1986	TOTAL	9248.04	MEAN	25.3	MAX	1160	MIN	.92	AC-FT	18340	
WTR YR	1987	TOTAL	18099.93	MEAN	49.6	MAX	1160	MIN	.59	AC-FT	35900	

e Estimated

LOCATION.--Lat 35°10'42", long 109°27'15", in SW¼NW¼ sec.35, T.21 N., R.27 E., Apache County, Hydrologic Unit 15020007, on upstream side of right abutment of Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.5 mi southwest of Chambers.

PERIOD OF RECORD.--Water years 1971-72 (annual maximums only), January 1973 to current year (daily mean discharge above 500 ft³/s only).

REMARKS.--No estimated daily discharges. Records poor. Only daily mean discharges above 500 ft³/s are published. Small diversions above station for irrigation and livestock. Red Lake, near the headwaters of Black Creek, was built in 1954; the capacity was 9,700 acre-ft, but capacity may have been reduced by silting.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

No flow for several days.

[illegible]

57

LOCATION.--Lat 34°54'04", long 110°15'17", in NE¼SE¼ sec.6, T.17 N., R.20 E., Navajo County, Hydrologic Unit 15020008, on left bank just upstream from diversion dam, 5.4 mi west of Holbrook, 5.7 mi southeast of Joseph City, and 8.5 mi downstream from Puerco River.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder, crest-stage gage, and concrete diversion dam. Datum of gage is 5,031.10 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Jan. 9, 1980, on right bank at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,400 ft³/s Dec. 19, 1978, gage height, 7.64 ft, from rating curve extended above 7,400 ft³/s on basis of slope-area measurement at gage height, 6.82 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0200	*8,590	*6.74	Aug. 8	1345	5,260	5.37
July 31	1645	6,250	5.76				

[illegible]

LITTLE COLORADO RIVER BASIN

09397300 LITTLE COLORADO RIVER NEAR JOSEPH CITY, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since October 1981.

REMARKS.--Suspended-sediment load computed from load-discharge relation curves. Published record includes only those days on which instantaneous discharge exceeds 500 ft³/s. See remarks for water-discharge records.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Record not available at time of publication

LITTLE COLORADO RIVER BASIN

59

09398300 BLUE RIDGE RESERVOIR NEAR PINE, AZ

LOCATION.--Lat 34°33'19", long 111°11'00", in NE¼SE¼ sec.33, T.14 N., R.11 E., Coconino County, Hydrologic Unit 15020008, in Coconino National Forest, on upstream side of left end of spillway structure of Blue Ridge Dam on East Clear Creek, at mouth of General Springs Canyon, 7.3 mi east of Clints Well and 20 mi northeast of Pine.

DRAINAGE AREA.--71.1 mi².

PERIOD OF RECORD.--December 1964 to March 1965 (periodic elevations only), April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,620 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD. Prior to Apr. 2, 1965, nonrecording-gage readings (at intervals of 3 to 8 days) at NGVD.

REMARKS.--Reservoir is formed by a concrete arch dam. Dam completed and storage began in December 1964. Total capacity is 19,500 acre-ft at elevation 6,735 ft, of which 15,000 acre-ft is usable storage below 6,720 ft, the spillway crest. Drawdown below 6,646.3 ft, 2,620 acre-ft restricted by gill at mouth of diversion tunnel since November 1981. Reservoir serves as a basin from which water is pumped to the East Verde River. (See records for East Verde River diversion from East Clear Creek, near Pine.) Release is possible through valve in base of dam. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,200 acre-ft Feb. 19, 1980, elevation, 6,724.12 ft; minimum contents since reservoir filled (April 1965), 1,450 acre-ft Nov. 18-27, 1981; minimum elevation, 6,630.75 ft Nov. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,300 acre-ft Apr. 11, elevation, 6,721.12 ft; minimum, 5,080 acre-ft Dec. 5, elevation, 6,669.32 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on surveys by Leeds, Hill, and Jewett, Inc., January 1962)

6,660	3,920	6,720	15,000
6,680	6,580	6,730	17,960
6,700	10,260		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6960	6240	5250	---	e6110	9000	15180	15000	13430	11770	9930	8740
2	6900	6210	5210	---	6220	9040	15220	14960	13370	11700	9910	8690
3	6850	6200	5170	---	6330	9070	15280	14920	13320	11630	9910	8630
4	6810	6190	5130	---	6450	9130	15240	14880	13270	11560	9890	8570
5	6770	6170	5080	---	6540	9250	15190	14840	13210	11500	9890	8510
6	6720	6140	5110	---	6620	9430	15170	14800	13150	11440	9850	8450
7	6670	6110	5350	---	6700	9690	15180	14750	13100	11370	9820	8400
8	6620	6070	5470	---	6770	9970	15190	14700	13040	11310	9780	8340
9	6570	6030	5520	---	6850	10310	15250	14650	12990	11250	9720	8290
10	6530	5980	5530	---	6960	10670	15290	14600	12940	11180	9690	8230
11	6700	5940	5530	---	7140	11040	15300	14550	12880	11120	9660	8180
12	6960	5890	5520	---	7380	11470	15270	14510	12820	11060	9610	8130
13	7030	5840	5510	---	7700	12030	15200	14460	12770	11010	9560	8070
14	7030	5800	5490	---	8020	12580	15170	14420	12720	10940	9500	8020
15	7020	5770	5470	---	8230	13030	15170	14370	12660	10890	9440	7960
16	6990	5720	5470	---	8380	13330	15170	14320	12600	10840	9380	7900
17	6950	5690	e5450	---	8490	13540	15160	14270	12550	10770	9330	7850
18	6910	5650	e5450	---	8580	13770	15130	14210	12490	10710	9270	7790
19	6860	5640	e5470	---	8650	14040	15120	14150	12430	10650	9210	7730
20	6810	5630	e5490	---	8720	14260	15100	14110	12370	10600	9160	7670
21	6760	5610	e5510	---	8760	14450	15090	14050	12320	10540	9100	7620
22	6720	5580	e5520	---	8800	14640	15080	14000	12260	10480	9060	7570
23	6670	5550	e5540	---	8840	14780	15070	13940	12210	10430	9050	7510
24	6620	5520	e5560	---	8880	14900	15060	13880	12170	10370	9040	7460
25	6560	5480	e5580	---	8880	15000	15060	13820	12120	10320	9050	7410
26	6520	5450	e5600	---	8890	15060	15050	13760	12060	10260	9050	7350
27	6470	5410	e5620	---	8930	15100	15050	13710	12010	10210	9030	7300
28	6420	5380	e5640	---	8970	15120	15040	13650	11960	10150	8980	7250
29	6380	5330	e5660	---	---	15110	15030	13600	11900	10100	8920	7200
30	6330	5290	e5670	---	---	15100	15020	13540	11840	10040	8860	7150
31	6280	---	e5690	e5980	---	15110	---	13490	---	9990	8800	---
MAX	7030	6240	5690	---	8970	15120	15300	15000	13430	11770	9930	8740
MIN	6280	5290	5080	---	6110	9000	15020	13490	11840	9990	8800	7150
(*)	6677.88	6670.80	6673.64	6675.70	6693.53	6720.44	6720.09	6714.13	6707.24	6698.65	6692.71	6683.56
(**)	-720	-990	+400	+290	+2990	+6140	-90	-1530	-1650	-1850	-1190	-1650
CAL YR	1986	MAX	15310	MIN	5080	**	-8980					
WTR YR	1987	MAX	15300	MIN	5080	**	+150					

e Estimated

* Elevation, in feet, at end of month.

** Change in contents, in acre-feet.

Note.--No gage height record on days when no values of content are listed except at monthend, when contents are estimated.

LITTLE COLORADO RIVER BASIN

09398500 CLEAR CREEK BELOW WILLOW CREEK, NEAR WINSLOW, AZ

LOCATION.--Lat 34°40'03", long 111°00'25", in SW¼SE¼ sec.19, T.15 N., R.13 E., Coconino County, Hydrologic Unit 15020008, in Apache-Sitgreaves National Forest, on right bank 2 mi downstream from Willow Creek and 30 mi southwest of Winslow.

DRAINAGE AREA.--321 mi².

PERIOD OF RECORD.--June 1947 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,957 ft above National Geodetic Vertical Datum of 1929, from Topographic Division by photogrammetry.

REMARKS.--Records good except for estimated daily discharge, Jan. 8-28, which is poor. Flow is partially controlled by Blue Ridge Reservoir (usable capacity, 15,000 acre-ft) about 20 mi upstream. (See sta 09398300.) Diversion to East Verde River from Blue Ridge Reservoir. (See sta 09507580.)

AVERAGE DISCHARGE (unadjusted for diversion or storage).--40 years, 86.0 ft³/s, 62,310 acre-ft/yr; median of yearly mean discharges, 58 ft³/s, 42,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft³/s Dec. 18, 1978, gage height, 22.32 ft, from rating curve extended above 6,000 ft³/s; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 12	0800	*1,070	*8.53

No flow June 7 to Aug. 31, Sept. 4-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	.70	4.1	8.3	45	e42	124	45	1.1	.00	.00	.17
2	1.7	.95	3.2	e6.1	53	e39	288	38	.67	.00	.00	.21
3	1.1	1.7	2.8	5.0	70	e35	606	28	.35	.00	.00	.03
4	.67	6.7	2.3	4.5	82	35	809	21	.22	.00	.00	.00
5	.55	18	2.1	5.3	81	54	616	17	.15	.00	.00	.00
6	.59	27	2.1	5.6	57	96	499	14	.07	.00	.00	.00
7	.52	26	2.4	5.0	52	141	476	12	.00	.00	.00	.00
8	.89	21	74	e5.0	54	186	468	11	.00	.00	.00	.00
9	1.7	15	81	e5.0	51	215	552	9.8	.00	.00	.00	.00
10	1.9	12	61	e5.0	53	271	785	8.8	.00	.00	.00	.00
11	2.0	8.8	32	e4.5	71	262	912	7.7	.00	.00	.00	.00
12	118	7.1	e29	e4.5	121	279	931	7.8	.00	.00	.00	.00
13	120	5.7	31	e4.5	201	356	785	8.3	.00	.00	.00	.00
14	72	4.7	27	e4.5	242	443	533	8.5	.00	.00	.00	.00
15	50	4.0	24	e4.5	195	406	472	7.7	.00	.00	.00	.00
16	38	3.3	20	e4.5	156	271	498	7.0	.00	.00	.00	.00
17	27	2.8	17	e4.0	112	209	474	7.8	.00	.00	.00	.00
18	19	2.6	16	e4.5	91	166	434	7.6	.00	.00	.00	.00
19	14	2.7	20	e4.5	74	201	330	6.3	.00	.00	.00	.00
20	9.8	3.1	21	e4.5	64	202	264	4.8	.00	.00	.00	.00
21	7.4	20	22	e4.5	55	171	196	4.4	.00	.00	.00	.00
22	5.8	23	21	e4.5	43	164	146	3.8	.00	.00	.00	.00
23	4.5	19	18	e4.5	39	139	122	10	.00	.00	.00	.00
24	3.4	14	17	e4.5	41	139	108	13	.00	.00	.00	.00
25	2.8	12	14	e4.5	25	110	98	9.2	.00	.00	.00	.00
26	2.1	9.9	e13	e5.0	e18	107	89	7.1	.00	.00	.00	.00
27	1.7	8.1	e11	e5.5	14	118	79	5.1	.00	.00	.00	.00
28	1.4	6.8	e10	e7.3	32	129	70	3.6	.00	.00	.00	.00
29	1.1	6.2	e10	10	---	128	62	2.8	.00	.00	.00	.00
30	.90	5.3	e9.9	13	---	118	54	2.3	.00	.00	.00	.00
31	.77	---	e9.4	42	---	112	---	1.5	---	.00	.00	---
TOTAL	513.59	298.15	627.3	204.6	2192	5344	11880	340.9	2.56	0.00	0.00	0.41
MEAN	16.6	9.94	20.2	6.60	78.3	172	396	11.0	.085	.00	.00	.014
MAX	120	27	81	42	242	443	931	45	1.1	.00	.00	.21
MIN	.52	.70	2.1	4.0	14	35	54	1.5	.00	.00	.00	.00
AC-FT	1020	591	1240	406	4350	10600	23560	676	5.1	.0	.0	.8

CAL YR	1986	TOTAL	16210.56	MEAN	44.4	MAX	924	MIN	.00	AC-FT	32150
WTR YR	1987	TOTAL	21403.51	MEAN	58.6	MAX	931	MIN	.00	AC-FT	42450

e Estimated

LITTLE COLORADO RIVER BASIN

61

09401260 MOENKOPI WASH AT MOENKOPI, AZ

LOCATION.--Lat 36°06'18", long 111°12'04", in NW¼NE¼ sec.3, T.31 N., R.11 E. (unsurveyed), Coconino County, Hydrologic Unit 15020018, in Hopi Indian Reservation on right bank, 100 ft upstream from bridge on State Highway 264, 1.3 mi southeast of Moenkopi, 2.5 mi downstream from former gaging station 09401250, and 12.5 mi downstream from Begashibito Wash.

DRAINAGE AREA.--1,660 mi², approximately.

PERIOD OF RECORD.--July 1976 to current year. Records for October 1973 to July 1976, at site 2.5 mi upstream, not equivalent below 1.5 ft³/s due to channel losses.

GAGE.--Water-stage recorder and crest stage gages. Elevation of gage is 4,610 ft above National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--11 years, 10.5 ft³/s, 7,610 acre-ft/yr.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s Sept. 30, 1983, gage height, 15.10 ft, from rating curve extended above 220 ft³/s on basis of step-backwater computation at gage heights 12.2 ft, 15.0 ft, and 17.8 ft; no flow at times each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 15,100 ft³/s occurred Aug. 4, 1929, at former gaging station site 3.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 9	0615	1,450	6.30
Aug. 24	0230	*3,990	*8.75

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	10	e3.0	e3.0	e18	58	2.2	1.6	.10	.00	e1.2	.08
2	2.8	18	e3.0	e3.0	e8.4	e5.6	1.6	.80	.00	.00	e.60	.00
3	1.2	10	2.8	e3.0	e8.4	e4.4	1.2	1.0	.06	.00	e.20	.00
4	1.2	8.4	3.6	e3.0	e8.4	4.4	1.0	1.0	.06	.00	e.20	.00
5	1.2	5.6	2.8	e3.5	3.6	5.6	1.2	1.0	.05	.00	e.20	.00
6	1.6	5.6	3.6	e3.5	3.6	4.4	1.2	1.0	.02	.00	e.20	.60
7	2.8	6.8	8.4	e3.5	4.4	5.6	1.6	1.2	.00	.00	.20	.60
8	2.8	5.6	30	e3.0	2.8	6.8	2.2	1.2	.60	.00	124	.17
9	2.8	5.6	10	e3.0	2.2	8.4	2.2	.80	.12	.00	213	.20
10	3.6	8.4	11	e2.5	1.6	8.4	1.6	.80	.00	.00	36	.04
11	293	10	3.6	e2.5	1.6	6.8	1.6	.80	.00	.00	8.4	.00
12	285	10	2.8	e2.5	1.6	2.8	1.6	.80	.00	.00	30	.00
13	20	10	e3.0	e2.5	1.2	2.2	1.6	.80	.00	.00	49	.00
14	8.4	13	e3.0	e2.5	1.2	2.2	1.6	1.6	.00	.00	20	.00
15	3.6	13	e3.0	e3.0	1.2	1.6	1.6	26	.00	.00	4.4	.00
16	2.2	13	e5.5	e3.0	1.6	4.4	1.6	24	.00	.00	1.2	.00
17	2.2	13	6.8	e2.5	1.2	5.6	2.2	16	.00	.00	.47	.00
18	2.2	11	8.4	e2.0	1.0	2.8	1.2	14	.00	.00	.12	.00
19	2.2	127	e3.0	e2.0	1.0	2.2	1.0	1.6	.00	.00	.00	.00
20	2.2	e10	e3.0	e1.5	1.0	1.6	.80	1.0	.00	.00	.00	.00
21	1.6	e5.0	5.6	e1.5	1.0	1.6	.80	.36	.00	.00	.00	.00
22	1.6	e3.0	e5.5	e1.5	1.0	1.6	1.0	.36	.00	.00	.00	.00
23	1.6	e3.0	e5.0	e1.5	1.2	2.2	1.2	.47	.00	.00	411	.00
24	1.6	e3.0	e4.5	e2.5	5.6	3.6	1.2	.27	.00	.00	593	70
25	1.6	e3.0	e4.0	16	34	2.8	1.0	.20	.00	.00	144	1.2
26	1.6	e3.0	e3.5	10	24	2.8	1.0	.15	.00	.00	28	.80
27	1.6	e5.0	e3.0	8.4	20	2.2	1.2	.47	.00	7.4	13	.47
28	1.6	e3.0	e3.0	10	38	1.6	1.2	.15	.00	87	2.8	.36
29	1.6	e3.0	e3.0	4.4	---	1.6	1.0	.17	.00	e10	.80	.27
30	1.6	e3.0	e3.0	25	---	1.6	1.2	.04	.00	e5.6	.20	.17
31	2.2	---	e3.0	103	---	1.6	---	.10	---	e1.2	.10	---
TOTAL	662.0	348.0	163.4	238.8	198.8	167.0	41.60	99.74	1.01	111.20	1682.29	74.96
MEAN	21.4	11.6	5.27	7.70	7.10	5.39	1.39	3.22	.034	3.59	54.3	2.50
MAX	293	127	30	103	38	58	2.2	26	.60	87	593	70
MIN	1.2	3.0	2.8	1.5	1.0	1.6	.80	.04	.00	.00	.00	.00
AC-FT	1310	690	324	474	394	331	83	198	2.0	221	3340	149

CAL YR 1986 TOTAL 4956.55 MEAN 13.6 MAX 1070 MIN .00 AC-FT 9830
WTR YR 1987 TOTAL 3788.80 MEAN 10.4 MAX 593 MIN .00 AC-FT 7520

e Estimated

LITTLE COLORADO RIVER BASIN

09402000 LITTLE COLORADO RIVER NEAR CAMERON, AZ

LOCATION.--Lat 35°55'35", long 111°34'00", in NW¼ sec.5, T.29 N., R.8 E. (unsurveyed), Coconino County, Hydrologic Unit 15020016, in Navajo Indian Reservation, on left bank 3 mi downstream from Coconino damsite, 9.5 mi downstream from Moenkopi Wash, 9.5 mi northwest of Cameron, and 45 mi upstream from mouth.

DRAINAGE AREA.--26,500 mi², approximately.

PERIOD OF RECORD.--June 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,979.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 32,000 acres. Some regulation by reservoirs above station (combined capacity of principal reservoirs, about 135,000 acre-ft).

AVERAGE DISCHARGE.--40 years, 244 ft³/s, 176,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft³/s Jan. 21, 1952, gage height, 20.7 ft; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 120,000 ft³/s occurred on Sept. 19 or 20, 1923, based on discharge at Grand Falls.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 30	0400	*6,730	*10.77

No flow May 26 to June 5, June 26 to July 20, 25-26, Sept. 10-24, 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e45	85	.46	15	628	e40	255	400	.00	e.00	1.0	e8.1
2	e30	58	.32	25	320	e35	245	e400	.00	e.00	695	e3.9
3	e20	9.6	.17	23	217	e25	205	e375	.00	e.00	654	e.93
4	e15	209	.09	28	153	e20	196	e350	.00	e.00	325	54
5	e13	2120	.09	25	277	e20	178	e300	.00	e.00	205	e32
6	e9.0	1610	1.2	33	312	e15	908	e270	3.7	e.00	1070	e.46
7	e6.0	515	4.2	22	262	e10	1070	e250	67	e.00	636	e.09
8	e4.0	329	11	26	218	e9.0	861	e220	39	e.00	540	e.06
9	e3.0	175	15	16	199	60	842	e200	30	e.00	1620	e.01
10	e2.0	110	536	12	166	1160	793	e180	20	e.00	1640	.00
11	350	67	580	8.1	140	1600	740	e170	17	e.00	752	.00
12	1070	57	288	6.8	e120	1590	919	e160	16	e.00	796	.00
13	1430	42	181	7.2	e120	1100	1190	e140	e14	e.00	682	.00
14	2090	31	121	5.6	240	978	1240	e130	e12	e.00	164	.00
15	999	24	96	6.7	597	952	1170	e120	e11	e.00	102	.00
16	362	20	59	6.8	653	965	938	e90	e10	e.00	46	.00
17	192	15	533	3.1	445	1010	734	e70	e9.0	e.00	24	.00
18	112	e11	98	e2.9	325	906	619	e55	e8.0	e.00	13	.00
19	62	e6.8	51	e2.4	260	642	570	e40	e7.0	e.00	5.6	.00
20	40	86	561	e2.2	e220	483	508	e30	e6.0	e.00	2.0	.00
21	e25	23	498	e2.0	e170	523	528	e20	e5.0	25	.72	.00
22	e20	e14	202	e1.2	e140	538	554	e12	e4.0	6.4	76	.00
23	e15	e8.1	117	e.50	e120	608	538	e6.0	e3.0	e.08	311	.00
24	e10	3.9	178	e.30	e110	533	508	e2.0	e2.0	e.02	958	.00
25	e6.0	2.6	128	e.10	190	455	500	e.60	e1.0	e.00	726	10
26	e4.0	1.8	110	3.0	e85	432	475	e.00	e.00	e.00	469	2.4
27	2.5	1.1	102	7.2	e70	350	450	e.00	e.00	359	e281	.32
28	1.5	.93	82	6.8	e55	333	503	e.00	e.00	e92	e114	.00
29	.62	.82	59	379	---	248	475	e.00	e.00	e48	e64	.00
30	.14	.62	45	2290	---	211	450	e.00	e.00	e20	e37	.00
31	.10	---	31	1420	---	208	---	e.00	---	2.5	e16	---
TOTAL	6938.86	5637.27	4688.53	4386.90	6812	16059.0	19162	3990.60	284.70	553.00	13025.32	112.27
MEAN	224	188	151	142	243	518	639	129	9.49	17.8	420	3.74
MAX	2090	2120	580	2290	653	1600	1240	400	67	359	1640	54
MIN	.10	.62	.09	.10	55	9.0	178	.00	.00	.00	.72	.00
AC-FT	13760	11180	9300	8700	13510	31850	38010	7920	565	1100	25840	223

CAL YR	1986	TOTAL	55705.97	MEAN	153	MAX	2120	MIN	.00	AC-FT	110500
WTR YR	1987	TOTAL	81650.45	MEAN	224	MAX	2290	MIN	.00	AC-FT	162000

e Estimated

COLORADO RIVER MAIN STEM

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09402500 COLORADO RIVER NEAR GRAND CANYON, AZ

LOCATION.--Lat 36°06'05", long 112°05'08", in sec.5, T.31 N., R.3 E. (unsurveyed), Coconino County, Hydrologic Unit 15010001, in Grand Canyon National Park, on left bank 0.2 mi upstream from Kaibab Bridge, 0.4 mi upstream from Bright Angel Creek, 4.5 mi northeast of village of Grand Canyon, 26 mi downstream from Little Colorado River, and 267 mi upstream from Hoover Dam.

DRAINAGE AREA.--141,600 mi² approximately, including 3,959 mi² in Great Divide basin in southern Wyoming which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year. Prior to 1944, published as "Colorado River at Bright Angel Creek, near Grand Canyon." Gage-height records collected 1.5 mi downstream 1908-13, published in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder with supplementary water-stage recorder on right bank 700 ft downstream (prior to Oct. 1, 1934, supplementary gage was the only gage). Datum of both gages is 2,418.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Flow completely regulated by Lake Powell, 104 mi upstream, since Mar. 13, 1963. (See elsewhere in this report.) Many diversions above station for irrigation, municipal, and industrial uses.

AVERAGE DISCHARGE (unadjusted for storage in Lake Powell).--40 years (water years 1923-62), 16,930 ft³/s, 12,260,000 acre-ft/yr; 23 years (water years 1965-87) 15,270 ft³/s, 11,063,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1922-62: Maximum discharge, 127,000 ft³/s July 2, 1927, gage height, 29.25 ft; minimum, 700 ft³/s Dec. 28, 1924, gage height, -0.70 ft.
1963-87: Maximum discharge, 96,200 ft³/s June 29, 1983, gage height, 26.26 ft; minimum, 850 ft³/s Jan. 26, 1963, gage height, -0.55 ft, result of closing coffer dam at Glen Canyon Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1884, 300,000 ft³/s about July 8, 1884 (computed on basis of flood studies at Lees Ferry). Crest discharge of flood of June 19, 1921, was 220,000 ft³/s, gage height, 37.5 ft from floodmarks, from rating curve extended above 120,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,600 ft³/s Jan. 31, gage height, 14.67 ft; minimum daily, 7,540 ft³/s May 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24800	18600	26800	27400	27300	12600	18100	15700	17700	19900	21200	18400
2	17900	19300	25700	26900	26900	13300	9840	12400	19100	18700	22100	18700
3	17400	17600	28400	28700	26500	18000	10300	9100	12800	18600	22500	19000
4	18400	20000	28700	28400	24500	18700	9700	10800	13600	18900	22200	17900
5	19000	20200	26700	28900	25900	16700	7950	12700	15000	13800	20400	15100
6	19100	22000	24900	26900	25200	18000	8250	12200	13400	14200	22000	14600
7	20100	20100	27100	25700	24800	16000	11300	12900	12300	18100	21800	14600
8	18400	18800	27600	27000	23300	14200	11400	14300	10100	18500	21700	18800
9	18700	16800	25600	29100	19300	14100	10900	13600	13700	18600	20700	17600
10	17400	16000	26600	28500	19500	15700	12000	12500	13800	18000	20600	16600
11	19000	19800	27200	27400	19300	12300	14100	11000	14800	15700	21000	16200
12	19300	18300	26800	26200	19800	13400	13500	14300	12500	16300	19000	17400
13	19100	21200	26200	27300	17900	13400	14400	15100	12800	12600	18500	15900
14	21100	23600	26300	26100	19600	11800	14100	16600	13400	17700	18800	19000
15	19700	22100	25100	25600	18700	10200	14600	15600	14700	20000	21000	19600
16	18900	23000	25100	26500	16400	8640	14100	13900	16700	19700	22600	20200
17	19400	22800	24000	25600	19800	13300	15700	10500	18800	18400	23400	19900
18	17800	22800	24700	25600	21000	12700	13900	7540	19900	16600	24300	19900
19	19000	22600	26000	22600	17100	12800	14500	8780	20000	14600	24700	18900
20	15900	23400	24300	22500	18100	11100	13500	9010	20600	16900	26700	19400
21	19200	23000	27400	25500	22300	11100	14700	11800	21000	19900	26700	16900
22	19100	23000	24100	25000	20300	9580	15100	12600	21300	19500	24300	19800
23	18400	21200	25800	23500	18300	12800	15600	12200	21300	19500	23700	12200
24	18700	23000	22800	25500	22800	13400	16900	9660	21600	20200	20900	13400
25	18500	23600	20400	26100	19500	14200	17600	8190	21100	18900	23500	14300
26	18500	23000	17900	25100	17600	14400	18500	9700	19800	19100	22200	15800
27	18400	23100	21900	25700	15800	15300	18500	18200	20100	19800	24700	13200
28	19100	22000	22300	26100	13800	13500	18500	16300	20100	22300	22500	12100
29	18900	17600	22400	26100	---	12500	15700	16100	20900	21200	20400	15000
30	18000	21600	24300	26100	---	11800	15100	16700	20600	21600	19900	12500
31	18600	---	27800	26400	---	17900	---	16600	---	21900	15700	---
TOTAL	585800	630100	780900	814000	581300	423420	418340	396580	513500	569700	679700	502900
MEAN	18900	21000	25190	26260	20760	13660	13940	12790	17120	18380	21930	16760
MAX	24800	23600	28700	29100	27300	18700	18500	18200	21600	22300	26700	20200
MIN	15900	16000	17900	22500	13800	8640	7950	7540	10100	12600	15700	12100
AC-FT	1162000	1250000	1549000	1615000	1153000	839900	829800	786600	1019000	1130000	1348000	997500
CAL YR	1986	TOTAL	9577110	MEAN	26240	MAX	52600	MIN	7960	AC-FT	19000000	
WTR YR	1987	TOTAL	6896240	MEAN	18890	MAX	29100	MIN	7540	AC-FT	13680000	

COLORADO RIVER MAIN STEM

09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1925 to November 1942, September 1943 to December 1986 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to March 1974, April 1983 to current year.

WATER TEMPERATURES: October 1940 to October 1942, September 1943 to September 1976, April 1983 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1925 to November 1942, September 1943 to September 1972.

INSTRUMENTATION.--Water-temperature recorder from October 1952 to September 1976. Specific conductance and water temperature recorder April 1983 to current year.

REMARKS.--Unpublished chemical analyses for period October 1930 to September 1940, daily specific conductance measurements for period October 1937 to November 1942, September 1943 to September 1964, and daily water temperatures for period October 1936 to September 1940, available from district office in Tucson, Ariz.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (April 1983 to current year): Maximum recorded, 1,440 microsiemens on Mar. 20, 1986; minimum recorded, 631 microsiemens Dec. 22, 1986.

WATER TEMPERATURE (April 1983 to current year): Maximum recorded, 16.0°C on Aug. 26, 1984; minimum recorded, 7.5°C on Mar. 5, 1985.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,010 microsiemens on Apr. 7, May 17; minimum recorded, 631 microsiemens on Dec. 22.

WATER TEMPERATURE: Maximum recorded, 13.3°C on Aug. 11; minimum recorded, 7.8°C on Feb. 25-26, Mar. 29-31.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
DEC 1986 08...	1700	28600	660	8.00	12.5	220	82	54	21	54
DATE		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
DEC 1986 08...	2	2.8	176	144	160	37	0.30	8.8	421	
DATE		SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE PENDED (T/DAY) (80155)
DEC 1986 08...	423	0.57	0.290	<0.010	70	8	10	433	33400	

< Actual value is known to be less than value shown.

09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	697	679	689	716	687	698	689	653	672	671	653	660
2	714	691	703	710	675	690	695	659	673	671	653	664
3	720	697	707	746	687	716	671	653	662	672	653	662
4	755	697	724	693	675	686	665	647	657	672	654	666
5	726	691	709	916	681	724	670	652	660	672	654	661
6	708	691	701	746	686	705	676	646	661	672	660	669
7	703	685	694	715	680	698	664	646	653	697	672	685
8	725	690	703	727	686	702	664	635	649	691	661	674
9	707	696	701	727	698	708	664	646	656	685	661	668
10	737	690	707	756	692	713	677	652	663	698	667	684
11	702	678	696	715	674	694	724	653	683	692	662	675
12	872	690	724	727	680	696	665	647	654	686	662	669
13	754	702	718	721	679	696	666	647	653	674	656	666
14	860	707	741	691	673	682	660	643	650	687	657	671
15	731	701	709	697	679	688	666	643	654	681	663	674
16	718	689	705	702	667	682	660	637	650	675	657	669
17	724	689	702	697	667	683	666	644	653	694	669	679
18	706	695	702	691	673	683	761	638	657	711	670	691
19	712	677	695	697	673	685	655	638	648	694	664	677
20	712	689	703	697	672	685	656	638	649	711	647	675
21	718	683	699	707	684	693	703	645	670	665	642	654
22	706	688	699	701	672	686	668	631	646	659	648	650
23	705	682	697	701	684	691	668	645	652	689	648	662
24	705	688	696	701	672	687	675	639	652	665	648	656
25	711	688	696	690	660	677	687	657	673	666	643	654
26	717	676	696	690	666	677	699	663	680	666	649	659
27	711	682	698	684	659	671	693	657	671	666	655	659
28	705	676	693	683	665	673	688	658	670	673	661	668
29	711	687	696	706	671	688	688	664	672	691	667	677
30	710	687	699	695	665	679	682	652	668	738	685	711
31	710	687	697	---	---	---	671	652	658	733	686	705
MONTH	872	676	703	916	659	691	761	631	660	738	642	671
FEBRUARY			MARCH			APRIL			MAY			
1	957	674	726	853	812	831	853	812	830	894	835	849
2	721	692	706	888	818	847	912	824	867	912	841	869
3	704	686	695	829	788	804	918	865	880	941	835	878
4	711	692	703	813	783	796	918	865	884	---	---	---
5	716	693	706	819	783	797	935	861	890	900	853	871
6	734	716	722	824	783	800	929	888	904	929	828	867
7	747	728	734	819	789	803	1010	853	903	888	841	861
8	753	729	741	825	790	808	865	829	847	876	835	849
9	764	729	750	831	802	819	859	824	841	871	820	841
10	753	729	742	837	796	811	865	835	844	882	835	850
11	754	730	742	909	796	830	876	824	850	---	---	---
12	765	730	746	944	826	889	859	829	843	888	829	853
13	760	736	748	850	821	836	859	829	844	876	829	845
14	765	731	746	873	826	852	865	829	844	853	806	830
15	766	743	754	904	839	862	835	812	823	882	806	829
16	837	755	805	---	---	---	853	812	839	900	812	838
17	849	802	822	916	833	868	853	818	839	1010	829	886
18	825	773	795	887	839	862	853	824	839	---	---	---
19	820	779	801	864	824	843	859	812	838	929	878	912
20	803	779	792	894	824	850	876	834	854	918	888	904
21	785	762	772	894	847	862	882	841	857	906	853	881
22	774	727	750	953	865	898	871	818	840	894	829	855
23	774	739	758	918	853	891	888	824	852	894	824	845
24	780	745	762	871	835	851	859	824	841	882	810	836
25	805	768	784	900	835	858	871	818	834	---	---	---
26	828	793	812	876	829	852	853	818	832	---	---	---
27	840	775	809	865	824	841	871	818	834	871	800	825
28	834	775	811	853	829	838	859	818	834	824	788	805
29	---	---	---	894	841	866	894	829	849	841	800	818
30	---	---	---	894	853	876	906	829	852	871	806	825
31	---	---	---	865	824	845	---	---	---	841	794	810
MONTH	957	674	758	---	---	---	1010	812	851	---	---	---

COLORADO RIVER MAIN STEM

09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	865	800	818	771	753	765	765	735	744	---	---	---
2	818	782	796	788	747	767	788	741	761	835	776	793
3	871	800	823	800	747	768	900	747	783	782	765	775
4	876	806	828	788	747	763	794	747	766	---	---	---
5	871	794	815	818	759	787	788	734	764	---	---	---
6	847	788	809	829	771	790	776	724	751	---	---	---
7	876	794	823	794	753	768	871	747	772	---	---	---
8	865	806	826	794	747	762	800	735	759	788	759	773
9	894	806	837	800	759	769	959	771	843	776	753	767
10	882	788	816	794	753	766	912	794	847	---	---	---
11	859	788	807	829	759	777	871	776	815	---	---	---
12	871	788	819	818	728	770	806	747	777	---	---	---
13	871	800	822	829	732	775	824	700	756	---	---	---
14	853	776	812	806	741	766	776	718	745	771	753	764
15	841	800	814	788	747	756	788	741	764	759	741	752
16	824	782	804	782	747	758	759	735	746	771	753	764
17	818	776	791	776	759	765	765	735	750	765	741	756
18	806	759	783	794	753	768	741	724	731	765	753	759
19	812	765	787	788	765	775	753	718	733	765	753	762
20	812	753	775	800	735	765	753	724	737	771	747	760
21	794	765	779	771	753	762	753	700	723	---	---	---
22	806	765	775	776	729	748	753	718	728	---	---	---
23	806	759	773	782	741	752	759	724	740	---	---	---
24	794	738	764	800	753	764	812	729	767	806	724	754
25	794	756	771	794	747	766	835	741	781	776	718	735
26	800	759	775	782	735	756	900	759	792	788	718	737
27	800	759	773	776	724	749	788	729	750	771	724	746
28	794	759	772	900	729	761	759	729	739	794	735	758
29	788	759	772	788	729	750	771	729	745	765	724	741
30	782	735	766	765	735	746	759	735	748	812	729	764
31	---	---	---	771	729	747	776	747	761	---	---	---
MONTH	894	735	797	900	724	764	959	700	762	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.7	11.6	12.3	12.2	11.6	11.8	11.6	10.8	11.3	10.6	10.0	10.3
2	12.7	12.0	12.4	12.0	11.6	11.7	11.8	10.8	11.3	10.8	10.0	10.2
3	12.7	12.0	12.3	12.2	11.6	11.9	12.0	11.0	11.5	10.6	10.0	10.3
4	12.5	11.8	12.2	12.5	11.8	12.1	12.0	11.2	11.6	10.6	9.8	10.2
5	12.5	12.0	12.3	12.5	11.6	12.1	12.0	11.4	11.8	10.6	10.0	10.3
6	12.9	12.4	12.6	12.4	11.4	11.8	12.2	11.6	11.9	10.6	10.0	10.3
7	13.1	12.2	12.7	11.8	11.0	11.4	12.2	11.6	12.0	10.4	10.0	10.1
8	12.9	12.4	12.6	11.4	10.8	11.1	12.4	11.8	12.1	10.6	10.0	10.2
9	13.1	12.2	12.5	11.4	10.4	10.9	12.2	11.6	11.8	10.2	9.4	9.9
10	12.9	12.4	12.7	11.4	10.4	10.8	11.6	10.6	11.1	10.0	9.2	9.6
11	12.9	12.0	12.4	11.6	10.8	11.1	11.6	10.6	10.9	10.2	9.2	9.6
12	12.4	11.8	12.1	11.8	11.2	11.4	11.6	10.8	11.1	10.0	9.2	9.5
13	12.2	11.4	11.7	11.8	11.4	11.5	11.6	10.6	11.1	10.0	9.2	9.5
14	12.0	11.0	11.6	12.2	11.2	11.7	11.6	10.8	11.2	10.0	9.2	9.6
15	12.4	11.4	11.9	12.2	11.6	11.8	11.8	11.0	11.4	9.8	9.2	9.5
16	12.5	12.0	12.2	12.4	11.6	12.0	11.8	11.2	11.4	9.6	8.8	9.2
17	12.5	12.0	12.3	12.4	12.0	12.2	11.8	11.2	11.5	9.2	8.6	8.9
18	12.7	12.2	12.4	12.4	11.8	12.1	11.8	11.2	11.5	9.2	8.4	8.8
19	12.7	12.0	12.4	12.4	11.8	12.1	11.8	11.2	11.5	9.0	8.4	8.8
20	12.5	11.6	12.1	12.2	11.6	11.8	11.8	11.2	11.5	9.0	8.4	8.7
21	12.0	11.6	11.7	12.2	11.2	11.7	11.8	11.2	11.4	9.2	8.4	8.7
22	12.0	11.4	11.7	12.0	11.2	11.6	11.4	10.8	11.2	9.0	8.0	8.6
23	12.2	11.6	11.9	11.8	11.0	11.3	11.4	10.8	11.1	9.0	8.2	8.6
24	12.4	11.6	12.0	11.6	10.6	11.0	11.4	10.6	11.0	9.2	8.4	8.8
25	12.4	11.6	12.0	11.8	11.0	11.5	11.2	10.6	10.8	9.4	8.4	8.9
26	12.4	11.6	12.0	12.2	11.2	11.7	11.0	10.2	10.5	9.4	8.4	8.9
27	12.5	11.8	12.2	12.0	11.2	11.6	10.6	10.0	10.2	9.4	8.6	9.0
28	12.5	11.8	12.1	12.2	11.4	11.6	10.6	10.0	10.3	9.6	8.8	9.2
29	12.4	11.8	12.1	11.8	11.4	11.6	10.6	10.0	10.2	9.8	9.0	9.3
30	12.5	11.8	12.3	11.8	11.0	11.4	10.4	9.8	10.1	9.6	8.6	9.0
31	12.5	11.8	12.2	---	---	---	10.4	10.0	10.1	9.4	8.8	9.1
MONTH	13.1	11.0	12.2	12.5	10.4	11.6	12.4	9.8	11.2	10.8	8.0	9.4

COLORADO RIVER MAIN STEM

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09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9.6	8.4	8.9	8.8	8.0	8.4	9.2	8.8	9.0	10.8	10.0	10.5
2	9.4	8.4	8.9	9.0	8.4	8.6	10.2	8.6	9.2	11.4	10.2	10.9
3	9.6	8.6	9.0	9.2	8.4	8.8	9.8	9.2	9.6	11.4	10.6	11.1
4	9.6	9.0	9.2	9.2	8.6	8.9	10.2	9.6	9.9	12.0	10.6	11.4
5	9.6	8.8	9.1	9.2	8.6	9.0	10.6	9.8	10.2	11.6	11.2	11.4
6	9.4	8.4	9.0	9.4	8.8	9.1	---	---	---	12.0	10.8	11.3
7	9.4	8.4	8.9	9.4	9.0	9.1	11.2	10.2	10.8	12.2	11.0	11.6
8	9.4	8.4	8.9	9.6	8.8	9.2	11.0	10.4	10.8	12.0	11.2	11.6
9	9.4	8.6	9.0	9.8	9.0	9.3	11.2	10.8	11.1	11.4	10.8	11.3
10	9.6	8.8	9.1	9.8	9.0	9.4	11.2	10.6	10.9	11.4	10.4	10.9
11	9.6	9.0	9.4	10.2	9.2	9.6	11.2	10.2	10.7	---	---	---
12	9.8	9.2	9.5	10.4	9.4	9.9	10.6	10.0	10.2	11.8	11.2	11.5
13	9.8	9.0	9.5	10.2	9.2	9.8	10.2	9.4	9.8	11.6	10.8	11.2
14	9.8	9.0	9.3	10.2	9.2	9.8	10.4	9.4	9.9	11.2	10.6	10.9
15	9.4	8.6	8.9	10.0	9.2	9.6	11.2	9.4	10.3	11.2	10.6	10.9
16	9.0	8.4	8.7	---	---	---	11.0	10.0	10.4	11.4	10.6	11.1
17	9.4	8.4	8.9	9.4	8.4	8.8	11.2	10.4	10.8	11.8	10.4	11.3
18	9.4	8.4	8.8	9.4	8.6	8.9	11.0	10.4	10.8	---	---	---
19	9.0	8.4	8.8	9.4	8.8	9.1	10.6	10.0	10.3	13.0	12.0	12.6
20	8.8	8.4	8.5	9.6	8.6	9.1	10.2	9.4	9.9	12.9	12.0	12.5
21	9.0	8.2	8.5	9.4	8.6	9.0	10.2	9.2	9.8	12.2	11.6	11.8
22	9.2	8.4	8.7	9.0	8.2	8.5	11.0	9.6	10.3	11.8	10.8	11.3
23	9.0	8.4	8.6	8.8	8.0	8.3	10.6	9.6	10.0	11.8	10.6	11.2
24	8.6	8.0	8.4	8.6	8.0	8.4	10.8	10.0	10.2	---	---	---
25	8.4	7.8	8.2	9.4	8.0	8.6	11.0	10.0	10.5	---	---	---
26	8.6	7.8	8.3	9.4	8.4	8.9	11.0	10.2	10.6	---	---	---
27	9.0	8.0	8.5	9.4	8.4	8.8	11.0	10.2	10.6	11.2	10.0	10.6
28	8.6	8.2	8.5	9.2	8.2	8.6	11.0	10.0	10.4	10.6	9.6	10.2
29	---	---	---	8.6	7.8	8.2	10.8	9.8	10.2	10.6	9.8	10.1
30	---	---	---	9.2	7.8	8.4	10.6	10.2	10.4	11.0	9.8	10.3
31	---	---	---	9.2	7.8	8.7	---	---	---	11.2	10.6	10.9
MONTH	9.8	7.8	8.9	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.4	10.8	11.1	11.7	10.7	11.3	11.7	10.7	11.2	---	---	---
2	11.4	10.4	10.8	11.9	11.1	11.5	11.9	10.7	11.3	12.0	11.2	11.4
3	12.2	10.8	11.5	12.1	11.3	11.6	11.7	10.5	11.2	---	---	---
4	11.8	11.4	11.6	11.9	11.1	11.5	11.9	10.7	11.4	---	---	---
5	12.2	11.2	11.6	12.1	11.5	11.8	12.1	10.9	11.5	---	---	---
6	11.8	11.2	11.7	12.7	11.7	12.2	12.3	11.3	11.8	---	---	---
7	12.0	10.8	11.5	12.5	11.7	11.9	13.1	11.5	12.1	---	---	---
8	12.4	11.4	11.8	12.1	11.5	11.8	12.5	11.1	11.7	---	---	---
9	12.4	11.0	11.7	12.1	11.1	11.6	12.9	11.5	11.9	11.8	10.6	11.1
10	12.2	11.4	11.9	12.1	11.3	11.7	13.1	11.5	12.3	---	---	---
11	12.0	11.6	11.8	12.3	11.5	11.9	13.3	11.1	11.9	---	---	---
12	12.4	11.4	11.9	12.1	11.7	12.0	12.1	11.3	11.8	---	---	---
13	12.9	11.6	12.2	12.7	11.7	12.3	12.5	11.3	11.9	---	---	---
14	12.5	11.6	12.1	12.5	11.5	11.9	12.5	11.5	11.9	11.6	10.8	11.2
15	12.4	11.6	11.9	12.3	11.1	11.6	12.1	11.1	11.5	11.2	10.4	10.9
16	11.8	11.6	11.6	11.7	10.7	11.1	12.1	10.5	11.2	11.4	10.4	10.9
17	12.0	11.0	11.5	11.7	11.1	11.3	11.5	9.9	10.8	---	---	---
18	11.4	10.6	10.9	12.3	11.5	11.8	11.5	9.7	10.6	11.4	10.2	10.8
19	11.6	10.6	11.0	12.5	11.5	12.0	11.7	10.3	11.1	11.0	10.4	10.8
20	11.6	10.8	11.3	12.1	11.7	11.9	11.5	9.9	10.6	11.2	10.4	10.8
21	11.4	10.2	10.9	11.5	10.5	10.9	11.1	9.9	10.5	---	---	---
22	11.6	10.6	11.1	12.1	10.9	11.4	11.1	9.9	10.6	---	---	---
23	11.6	10.4	11.0	12.1	11.3	11.7	11.3	10.3	10.8	---	---	---
24	11.4	10.4	11.0	11.7	10.7	11.2	12.1	10.3	11.0	12.2	11.2	11.7
25	11.4	10.2	10.9	11.7	10.9	11.2	12.1	10.9	11.4	11.8	11.0	11.4
26	11.8	10.8	11.2	11.7	11.1	11.3	12.1	10.7	11.3	11.8	11.0	11.4
27	11.6	10.4	11.0	11.7	10.9	11.2	11.3	10.3	10.8	11.6	11.0	11.3
28	11.6	10.6	11.2	11.7	10.5	11.1	11.7	9.9	10.8	11.8	10.6	11.2
29	11.8	10.6	11.2	11.3	10.3	10.8	11.5	10.3	11.0	11.8	10.8	11.3
30	11.5	10.3	11.1	11.5	10.7	11.0	11.3	10.5	11.0	11.4	10.8	11.1
31	---	---	---	11.7	10.5	11.1	11.5	11.1	11.2	---	---	---
MONTH	12.9	10.2	11.4	12.7	10.3	11.5	13.3	9.7	11.3	---	---	---

KANAB CREEK BASIN

09403600 KANAB CREEK NEAR KANAB, UT

LOCATION.--Lat 37°06'02", long 112°32'50", in NE¼NE¼SW¼ sec.5, T.43 S., R.6 W., Kane County, Hydrologic Unit 15010003, at upstream edge of left bridge pier on U.S. Highway 89, 300 ft upstream from Tiny Canyon and 3.5 mi north of Kanab.

DRAINAGE AREA.--198 mi².

PERIOD OF RECORD.--July 1959 to September 1968 (peaks only). January 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. A crest-stage gage was in operation at this site from July 22, 1959 to Sept. 30, 1968 at different datum.

REMARKS.--Records poor. No diversion above station for irrigation.

AVERAGE DISCHARGE.--8 years, 16.2 ft³/s, 11,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s Aug. 20, 1984, maximum gage height, 8.50 ft Aug. 20, 1984; minimum recorded, 0.90 ft³/s June 23, 26, 29, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge recorded by crest-stage gage, 3,030 ft³/s Sept. 8, 1961, gage height, 19.80 ft at different datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	1000	*55	*3.79

Minimum daily discharge, 5.2 ft³/s Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	13	5.6	14	15	e16	7.4	9.1	e6.6	e12	8.1
2	14	15	14	6.8	13	14	15	7.3	7.7	e6.2	e11	7.5
3	14	15	12	6.7	13	15	17	7.4	8.5	e6.0	e12	7.8
4	e14	13	13	5.7	13	14	16	6.5	7.9	e5.8	e11	7.6
5	e15	13	13	7.2	13	16	16	7.1	8.7	e6.1	e10	8.5
6	e15	14	14	5.6	e13	15	16	6.6	9.5	e6.5	e12	7.1
7	e15	14	12	6.9	e12	14	e16	6.5	9.5	e6.6	e11	7.1
8	e15	13	10	5.3	e11	15	e16	7.0	8.9	e6.8	e12	7.7
9	e15	15	9.8	5.2	e11	15	15	7.8	9.5	e7.0	e17	8.2
10	e16	13	9.3	5.6	e14	15	15	7.8	12	e7.2	e14	8.7
11	22	14	9.7	e5.6	e11	16	e15	8.5	7.1	e7.4	e13	e9.0
12	13	14	10	e5.6	e11	16	e14	8.9	7.6	e7.6	e20	9.3
13	14	13	10	e5.6	e13	17	13	9.9	8.1	e7.8	e17	9.9
14	15	11	10	5.6	e16	16	14	11	7.1	e8.0	e14	8.8
15	16	12	11	e5.6	e14	18	12	10	7.9	e8.3	e13	8.0
16	14	13	11	e5.6	e12	18	12	11	6.4	e8.6	e11	8.3
17	15	12	9.9	e5.6	e11	19	12	12	7.0	e9.0	e10	9.5
18	15	13	9.0	e5.6	e11	19	11	15	e6.7	e10	e9.6	e9.6
19	15	13	8.7	e5.6	e11	20	13	16	e6.6	e10	e8.8	e9.8
20	16	12	8.6	e5.6	e11	20	11	17	e6.5	11	e8.4	10
21	16	11	7.7	e5.6	e11	19	10	15	e6.6	12	e10	e9.8
22	16	10	6.8	e5.6	e12	20	9.7	17	e6.4	10	e11	e9.6
23	14	12	5.5	e5.6	e12	20	e9.6	17	e6.6	12	e13	e9.4
24	16	13	8.8	e5.6	e13	18	e9.3	16	e6.4	10	e15	e9.3
25	17	12	7.7	e5.6	16	e18	e9.0	17	e6.0	e11	e13	9.2
26	16	12	7.6	e5.6	14	e18	e8.8	17	e6.8	e12	e11	8.2
27	16	12	7.6	5.5	15	e18	e8.4	15	e6.2	e13	e8.8	e8.6
28	15	11	7.7	6.1	15	19	7.9	12	e6.0	e13	8.3	8.8
29	15	12	7.8	6.2	---	18	8.1	11	e7.0	e13	7.2	7.7
30	14	12	6.6	9.6	---	e18	7.6	8.6	e6.8	e14	8.0	8.5
31	15	---	6.9	14	---	e17	---	6.3	---	e12	7.8	---
TOTAL	475	384	298.7	191.6	356	530	373.4	342.6	227.1	284.5	359.9	259.6
MEAN	15.3	12.8	9.64	6.18	12.7	17.1	12.4	11.1	7.57	9.18	11.6	8.65
MAX	22	15	14	14	16	20	17	17	12	14	20	10
MIN	13	10	5.5	5.2	11	14	7.6	6.3	6.0	5.8	7.2	7.1
AC-FT	942	762	592	380	706	1050	741	680	450	564	714	515

CAL YR 1986	TOTAL	4806.9	MEAN	13.2	MAX	81	MIN	3.0	AC-FT	9530
WTR YR 1987	TOTAL	4082.4	MEAN	11.2	MAX	22	MIN	5.2	AC-FT	8100

e Estimated

COLORADO RIVER BASIN

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VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ

LOCATION.--Lat 36°53'30", long 113°55'25", in SW¼SW¼ sec.4, T.40 N., R.15 W., Mohave County, Hydrologic Unit 15010010, on right bank 0.5 mi downstream from Beaver Dam Wash, 0.4 mi upstream from Littlefield, and 36 mi upstream from waterline of Lake Mead at elevation 1,221 ft, National Geodetic Vertical Datum of 1929.

DRAINAGE AREA.--5,090 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 959: 1932. WSP 979: 1930-31, 1933-37. WSP 1313: 1940 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,763.68 ft, above National Geodetic Vertical Datum of 1929. Prior to May 28, 1933, nonrecording gage at site 300 ft upstream, and May 28, 1933, to Nov. 7, 1939, at same site, both at datum 2.53 ft higher. Nov. 8, 1939, to Mar. 31, 1942, nonrecording gage at same site at datum 2.00 ft higher. Apr. 1, 1942, to Sept. 30, 1970, water-stage recorder at same site at same datum. Oct. 1, 1970, to Aug. 7, 1979, at site 300 ft upstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--58 years, 241 ft³/s, 174,600 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,200 ft³/s, Dec. 6, 1966, gage height, 15.66 ft, for site then in use, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement of peak flow; minimum, 38 ft³/s, May 1, 10, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 21	1200	*5,690	*9.33

Minimum daily, 57 ft³/s, July 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	183	241	119	142	134	186	362	139	70	128	80
2	421	186	244	121	142	139	183	326	134	65	92	80
3	421	180	226	124	144	144	192	279	124	65	71	88
4	386	167	226	119	144	150	233	241	126	65	111	81
5	367	173	241	129	134	176	279	216	134	63	90	82
6	358	180	260	139	134	161	304	205	121	63	110	81
7	353	170	183	147	144	144	296	180	129	65	110	80
8	330	164	e176	144	139	161	252	144	161	63	386	83
9	326	167	e169	131	144	176	267	136	134	60	180	75
10	313	176	e162	121	156	199	264	126	126	57	163	80
11	413	173	e154	124	161	173	300	124	119	57	139	78
12	432	258	147	124	167	167	344	142	116	57	118	75
13	283	308	142	126	192	199	348	144	119	63	108	110
14	219	326	156	129	183	199	358	139	94	65	168	111
15	156	e320	161	121	209	134	275	161	85	63	112	103
16	150	e300	164	126	170	212	330	292	91	60	99	120
17	222	e280	170	121	161	216	391	288	79	63	90	140
18	294	e275	186	136	142	216	480	317	89	116	85	80
19	296	e270	186	134	136	212	657	219	98	87	82	77
20	292	e265	180	136	116	199	525	183	91	72	81	75
21	283	e260	180	139	102	180	344	244	87	1960	89	76
22	233	e250	173	139	107	202	344	219	87	347	100	85
23	223	e245	164	139	119	196	491	180	81	210	190	87
24	219	e230	156	161	147	202	362	142	68	148	503	99
25	180	230	124	199	150	205	411	136	76	99	305	97
26	170	233	126	180	167	176	330	139	74	73	183	105
27	186	230	121	147	139	167	271	136	70	70	116	100
28	176	237	124	153	139	167	279	144	68	174	96	91
29	176	241	124	209	---	161	381	126	67	125	87	88
30	173	244	121	183	---	209	416	147	67	86	80	95
31	173	---	116	158	---	202	---	134	---	79	80	---
TOTAL	8537	6921	5303	4378	4130	5578	10093	5971	3054	4710	4352	2702
MEAN	275	231	171	141	147	180	336	193	102	152	140	90.1
MAX	432	326	260	209	209	216	657	362	161	1960	503	140
MIN	150	164	116	119	102	134	183	124	67	57	71	75
AC-FT	16930	13730	10520	8680	8190	11060	20020	11840	6060	9340	8630	5360
CAL YR	1986	TOTAL	74211	MEAN	203	MAX	840	MIN	57	AC-FT	147200	
WTR YR	1987	TOTAL	65729	MEAN	180	MAX	1960	MIN	57	AC-FT	130400	

e Estimated.

VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1947 to current year.

CHEMICAL ANALYSES: July 1949 to September 1969, once daily (composited); October 1969 to current year, monthly.

SPECIFIC CONDUCTANCES AND WATER TEMPERATURES: October 1947 to current year, once daily.

BIOLOGICAL DATA: October 1977 to September 1979, twice yearly.

MICROBIOLOGICAL DATA: November 1977 to October 1979, monthly; October 1986 to current year, every two months.

SEDIMENT DATA: October 1947 to September 1968, once daily; September 1977 to November 1979 and October 1986 to current year, monthly.

REMARKS.--Streamflow is not completely homogenous chemically from bank to bank. Flow adjacent to north (right) bank is generally somewhat more dilute than average, particularly at times of low streamflow; monthly data collected during June 1975-September 1976 indicate that specific conductance off north bank was 93 to 100 percent of streamwide average (range of discharge, 60-230 ft³/s. This doubtless affects specific conductance of daily samples, which are collected off north bank. Water temperature characteristically shows little or no variation from bank to bank. Much of day-to-day fluctuation in water temperature prior to August 1975 was due to measurement at different times of day (rather than at about the same time each day). Detailed sampling information for period since June 1975 is available from U.S. Geological Survey, Carson City, Nev.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 4,650 microsiemens Aug. 21, 1966; minimum, 615 microsiemens May 27, 28, 30, 31, 1983.

FECAL STREPTOCOCCI: Maximum, 46,000 colonies/100 mL (non-ideal colony count) Jan. 25, 1978; minimum, 100 colonies/100 mL Aug. 28, 1979.

WATER TEMPERATURES: Maximum, 33.5°C July 7, 1953; minimum, 2.0°C Jan. 4, 1949, Jan. 4, 1950, Jan. 4, 5, 1971.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 247,000 mg/L Aug. 14, 1964; minimum, 40 mg/L June 16, 20, 1962.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 3,900 microsiemens July 28; minimum, 1,470 microsiemens Apr. 19.

WATER TEMPERATURES: Maximum, 30.0°C July 15, 29; minimum, 8.0°C Jan. 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH, FIELD (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE, WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 28...	1315	189	2840	8.00	31.5	19.0	18	9.6	112	--	--
NOV 25...	1200	238	2650	7.90	16.0	12.5	30	9.9	99	3100	2200
DEC 29...	1135	124	3140	7.80	13.0	13.5	25	10.2	104	--	--
JAN 27...	1330	157	2800	8.00	17.0	14.0	4.8	10.4	102	K20	140
FEB 24...	1100	162	3220	8.00	7.0	11.0	45	11.3	104	--	--
MAR 26...	1000	171	2690	7.80	19.0	15.0	52	9.8	104	K27	170
APR 29...	1015	316	1820	8.10	32.0	20.0	180	8.1	--	--	--
MAY 28...	1400	153	2860	7.90	25.5	22.5	42	8.3	103	K8000	120
JUN 24...	1330	70	3410	7.90	37.0	29.0	1.8	8.3	117	K300	1700
JUL 22...	1700	331	3350	7.80	29.0	25.0	2000	6.3	82	--	--
AUG 27...	1930	99	3500	7.80	31.0	26.0	490	8.6	115	--	--
SEP 29...	1515	86	--	--	--	--	1.6	--	--	--	--

K Based on non-ideal colony count.

VIRGIN RIVER BASIN

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09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (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)
OCT 28...	970	250	83	260	4	23	320	262	850	360	0.80
NOV 25...	920	240	76	250	4	21	320	262	740	340	0.70
DEC 29...	1200	320	100	340	4	30	344	282	1000	480	0.90
JAN 27...	1000	260	84	260	4	21	355	291	840	370	1.0
FEB 24...	1000	250	92	330	5	24	--	--	890	440	0.90
MAR 26...	930	240	79	230	3	20	332	272	760	290	0.70
APR 29...	590	160	46	140	3	14	274	225	460	200	0.50
MAY 28...	950	250	80	250	4	22	318	261	820	350	0.70
JUN 24...	1100	280	100	290	4	29	388	277	1100	410	0.90
JUL 22...	1800	610	61	180	2	18	206	169	1600	250	0.40
AUG 27...	1400	410	84	330	4	28	287	235	1300	470	0.10
SEP 29...	1200	320	100	310	4	29	--	--	1000	400	0.90

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)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE 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 28...	19	2030	2000	2.8	--	--	--	--	--	--	--
NOV 25...	18	1890	1800	2.6	0.680	0.690	0.020	0.010	0.700	0.700	0.260
DEC 29...	22	2570	2500	3.5	--	--	--	--	--	--	--
JAN 27...	20	2120	2000	2.9	0.840	0.860	0.060	0.060	0.900	0.920	0.220
FEB 24...	21	2330	2200	3.2	--	--	--	--	--	--	--
MAR 26...	19	1920	1800	2.6	0.870	0.920	0.030	0.020	0.900	0.940	0.130
APR 29...	14	1180	1200	1.6	--	--	--	--	--	--	--
MAY 28...	18	2020	1900	2.7	0.790	0.830	0.010	0.020	0.800	0.850	0.160
JUN 24...	17	2540	2400	3.5	--	--	<0.010	<0.010	0.100	0.110	0.160
JUL 22...	10	3040	2800	4.1	--	--	--	--	--	--	--
AUG 27...	20	2910	2800	4.0	0.680	--	0.020	<0.010	0.700	0.660	0.140
SEP 29...	21	2550	2300	3.5	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	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. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 28...	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	0.290	0.64	0.41	0.90	0.70	1.6	0.130	0.110	0.100	<10	8
DEC 29...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	0.220	0.98	0.38	1.2	0.60	2.1	0.110	0.080	0.110	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 26...	0.100	0.87	0.50	1.0	0.60	1.9	0.110	0.100	0.080	20	10
APR 29...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	0.160	0.84	0.34	1.0	0.50	1.8	0.310	0.100	0.020	--	--
JUN 24...	0.160	0.64	--	0.80	<0.20	0.90	0.020	0.010	<0.010	<10	7
JUL 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	0.120	2.9	0.68	3.0	0.80	3.7	0.160	0.010	<0.010	60	5
SEP 29...	--	--	--	--	--	--	--	--	--	--	--
DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	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)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 28...	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	100	<10	<1	<1	<1	1	20	<5	310	10	--
DEC 29...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	--	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--	--
MAR 26...	<100	<10	<1	<1	<1	<1	10	<5	330	20	0.2
APR 29...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	100	<10	<1	<1	<1	1	<10	6	490	20	<0.1
JUL 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	<100	<10	1	2	<1	2	60	<5	420	30	0.1
SEP 29...	--	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

VIRGIN RIVER BASIN

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09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	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)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	--	--	--	--	--	--	--	621	317	35
NOV 25...	5	<1	1	<1	3100	<4	20	632	406	25
DEC 29...	--	--	--	--	--	--	--	312	104	8
JAN 27...	--	--	--	--	--	--	--	414	175	20
FEB 24...	--	--	--	--	--	--	--	389	170	37
MAR 26...	4	3	1	<1	3000	4	20	1220	564	15
APR 29...	--	--	--	--	--	--	--	1410	1200	73
MAY 28...	--	--	--	--	--	--	--	1980	818	8
JUN 24...	<1	<1	1	<1	4300	<25	<10	137	26	67
JUL 22...	--	--	--	--	--	--	--	23900	21300	99
AUG 27...	3	1	2	<1	4100	8	20	1340	360	95
SEP 29...	--	--	--	--	--	--	--	177	--	34

< Actual value is known to be less than value shown.

VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	2760	2620	3420	3020	3310	3070	1790	2870	3480	3250	3290
2	1920	---	2610	3360	3220	3280	3130	1880	2960	3260	3280	3320
3	1840	2780	2650	3360	3240	3220	3130	2080	3090	3320	3310	3440
4	1890	2750	2650	3330	3120	3070	3040	2230	3070	3250	3690	3390
5	1920	2710	2640	3200	3240	2810	2540	2460	2970	3210	3640	3380
6	---	2700	2740	3280	3240	2910	2200	2660	2990	3200	3700	3490
7	2040	2690	3270	3080	3380	3050	2400	2660	2990	3300	3410	3500
8	2020	2790	3310	3100	3080	2980	2490	2950	3200	3130	3210	3420
9	1920	2750	3310	3270	3210	2910	2530	3040	3010	3180	3720	3410
10	2030	2700	3340	3260	3080	2400	2490	3140	3130	---	3680	3540
11	1790	2720	3370	3290	2890	2810	2390	3220	3130	---	3430	3400
12	1830	2450	3360	3420	2800	2940	2230	3220	3310	3200	3470	3450
13	2060	2180	3380	3490	3020	2990	2250	2920	3270	3250	3480	3060
14	2320	2160	3430	3310	2780	2510	2390	3060	3450	3340	3450	3430
15	2790	2230	3440	3300	2920	2810	2780	2760	3490	3240	3280	3380
16	2650	2500	3430	3300	2720	3050	2510	2890	3280	3240	3480	3450
17	2230	2650	3410	3180	3010	2640	1930	2610	3160	3200	3420	3240
18	2240	2540	3370	3300	3160	2610	1870	2150	3370	3350	3390	3240
19	2270	2240	3370	3000	3210	2680	1470	2390	3330	3210	3320	3280
20	2180	---	3310	3220	3320	2710	1490	2680	3270	3270	3440	3430
21	2290	2330	3420	3100	3330	2870	1670	2810	3350	3100	3450	3460
22	2320	2580	3340	3100	3330	2940	1890	2430	3330	3240	3360	3610
23	2390	2610	3270	3100	3130	2770	1650	2620	3290	3400	3280	3300
24	2340	2600	3280	3100	3110	2840	1900	2830	3300	3710	3010	3500
25	2750	2590	3350	2600	3100	2720	2080	2920	3330	3580	3160	3410
26	2750	2590	3380	2550	3070	2930	1920	2990	3310	3550	3220	3400
27	2850	2530	3360	2910	3290	3140	2020	2870	3290	3480	3480	3380
28	2850	2600	3370	3250	3290	3260	2240	2870	3310	3900	3410	3340
29	2850	2600	3480	3290	---	3270	1820	2890	3300	3340	3410	3330
30	2830	2610	3360	2410	---	3160	1700	2840	3280	3310	3480	3420
31	2870	---	3460	2920	---	3220	---	2940	---	3420	3540	---
MEAN	---	---	3228	3155	3118	2929	2241	2703	3214	---	3415	3390
MAX	---	---	3480	3490	3380	3310	3130	3220	3490	---	3720	3450
MIN	---	---	2610	2410	2720	2400	1470	1790	2870	---	3010	3060

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	15.0	13.0	12.0	15.0	17.0	21.5	19.0	25.0	26.0	29.0	27.0
2	16.0	---	11.0	13.0	15.0	17.0	23.0	20.0	26.0	29.0	29.0	28.0
3	16.0	16.0	11.0	13.0	15.0	17.0	18.0	22.0	27.0	27.0	27.0	27.0
4	17.5	15.0	11.0	13.0	15.0	18.0	19.0	21.0	27.0	27.0	27.0	25.0
5	17.0	16.0	12.0	13.0	15.0	16.0	21.0	24.0	25.0	23.0	28.0	25.0
6	---	14.0	16.0	12.0	15.0	17.0	19.0	24.0	26.0	29.0	28.0	25.0
7	19.5	11.0	15.0	12.0	14.0	18.0	20.5	22.0	27.0	26.5	28.0	26.0
8	19.0	11.0	14.0	10.0	12.0	16.5	21.0	25.0	27.0	26.0	25.0	25.0
9	18.0	11.0	11.0	10.0	17.0	17.0	21.0	24.0	28.0	26.0	27.0	27.0
10	23.0	14.0	11.0	10.0	17.0	17.0	20.0	24.0	28.0	---	27.0	25.0
11	17.0	13.0	11.0	10.0	16.0	17.0	19.0	25.0	27.0	---	27.0	25.0
12	15.0	12.0	12.0	11.0	17.0	18.0	18.0	25.0	27.0	27.0	25.0	23.0
13	17.0	13.0	12.0	12.0	17.0	18.0	19.0	27.0	28.0	26.0	25.0	22.0
14	17.0	13.0	12.0	12.0	15.0	17.0	20.0	25.0	26.0	28.0	25.0	23.0
15	18.0	13.0	12.0	10.0	12.0	17.0	21.0	22.0	27.0	30.0	24.0	26.0
16	18.0	15.0	13.0	9.0	14.0	18.0	22.0	21.0	24.0	25.0	25.0	23.0
17	18.0	17.0	14.0	8.0	14.0	18.0	22.0	23.0	23.0	23.0	26.0	25.0
18	17.0	16.0	14.0	10.0	15.0	17.0	22.0	24.0	25.0	24.0	27.0	23.0
19	15.0	15.0	15.0	10.0	14.0	13.0	16.0	21.0	25.0	25.0	25.0	24.0
20	15.0	15.0	16.0	10.0	13.0	15.0	17.0	20.0	26.0	---	26.0	24.0
21	17.0	16.0	15.0	10.0	16.0	14.0	18.0	20.0	25.0	22.0	27.0	25.0
22	17.0	14.0	14.0	10.0	16.0	10.0	23.0	22.0	27.0	25.0	27.0	25.0
23	17.0	14.0	13.0	12.0	12.0	16.0	20.0	23.0	27.0	25.0	26.0	25.0
24	23.0	13.0	14.0	13.0	12.0	16.0	23.0	21.0	28.0	25.0	24.0	25.0
25	19.0	13.0	13.0	12.0	10.0	16.0	21.0	22.0	26.0	26.0	23.0	25.0
26	19.0	13.0	12.0	12.0	14.0	18.0	22.0	19.0	26.0	25.0	23.0	25.0
27	18.0	12.0	14.0	14.0	15.0	15.0	22.0	22.0	28.0	26.0	25.0	24.0
28	18.0	12.0	13.0	14.0	16.0	17.0	22.0	21.0	27.0	26.0	24.0	25.0
29	19.0	13.0	13.0	13.0	---	17.0	20.0	25.0	28.0	30.0	27.0	24.0
30	18.0	12.0	12.5	13.0	---	17.0	21.0	25.0	25.0	29.0	27.0	24.0
31	17.0	---	12.0	15.0	---	19.0	---	24.0	---	29.0	27.0	---
MEAN	---	---	13.0	11.5	14.6	16.6	20.4	22.6	26.4	---	26.1	24.8
MAX	---	---	16.0	15.0	17.0	19.0	23.0	27.0	28.0	---	29.0	28.0
MIN	---	---	11.0	8.0	10.0	10.0	16.0	19.0	23.0	---	23.0	22.0

LAS VEGAS VALLEY

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09419700 LAS VEGAS WASH NEAR HENDERSON, NV

LOCATION.--Lat 36°05'20", long 114°59'05", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, on right bank at upstream end of 4.5-ft pipe culvert on road, 3.5 mi north of Henderson, and 6.0 mi upstream from high-water line of Lake Mead at elevation 1,221.4 ft, National Geodetic Vertical Datum of 1929.

DRAINAGE AREA.--2,125 mi² of which 1,518 mi² contribute directly to surface runoff. Prior to Apr. 4, 1961, 2,179 mi², of which 1,571 mi² contributed directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1957 to September 1983 and October 1984 to current year.

REVISED RECORDS.--WSP 1926: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,540 ft, from topographic map. Prior to Apr. 4, 1961, at site 2.5 mi downstream at various datums.

REMARKS.--Records fair except for estimated daily discharges, which are poor. In closed basin above station, 2,150 acres are irrigated, mostly by pumping from ground water. Discharge includes wastewater from industrial plants and sewage effluent.

AVERAGE DISCHARGE.--29 years (1958-83, 1985-87), 54.7 ft³/s, 39,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,510 ft³/s, July 4, 1975, gage height, 10.67 ft, from floodmarks, from rating curve extended above 3,340 ft³/s on basis of area-velocity computation to determine peak flow, maximum gage height, 12.72 ft "(corrected)", Dec. 27, 1984; minimum daily, 4.8 ft³/s, Aug. 17, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 10, 1984, reached a stage of 17.14 ft, present datum, from floodmarks; discharge, 1,380 ft³/s, by sum of slope-conveyance and culvert computations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 630 ft³/s, May 16, gage height, unknown; minimum daily, 114 ft³/s, Oct. 18 and July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	e128	e148	140	133	140	126	132	122	117	131	e130
2	139	e130	e150	143	136	138	130	128	118	116	124	e128
3	139	e123	e150	143	135	134	126	125	117	114	122	e127
4	138	e125	e152	143	135	136	125	122	119	115	122	e132
5	136	e123	e158	243	131	136	137	122	123	118	126	e140
6	137	e120	e155	155	127	137	136	125	127	119	123	e136
7	135	124	e176	189	134	e250	126	124	165	121	124	e129
8	131	123	e169	260	136	e163	126	125	190	121	125	e120
9	130	e126	e165	176	134	e147	131	130	165	118	133	134
10	134	e124	e160	215	137	e150	129	131	130	116	131	136
11	136	e120	e150	e205	136	e153	131	128	144	123	128	138
12	136	e126	145	e170	132	142	136	125	128	120	132	138
13	136	e128	134	e150	133	141	130	122	118	120	134	138
14	134	e122	129	e140	131	138	133	117	124	123	135	140
15	131	e126	127	e138	132	136	132	122	117	128	134	138
16	131	e133	129	e138	139	136	134	229	119	129	127	133
17	127	e133	124	e137	134	134	130	196	121	142	128	129
18	114	e170	125	e137	135	134	132	143	118	130	129	131
19	126	e295	126	e140	133	130	130	130	124	129	127	131
20	127	e220	146	e140	131	129	130	126	116	129	e128	138
21	129	e200	135	e131	131	126	129	123	124	134	e128	143
22	132	183	130	e131	134	136	128	122	121	130	e128	141
23	129	185	127	e148	134	137	132	127	123	126	e130	136
24	170	185	131	e157	132	129	124	129	124	134	e130	138
25	152	178	135	e153	152	136	123	127	119	e139	e129	134
26	129	177	137	e150	166	129	127	125	119	e138	e132	132
27	e125	e159	136	e149	143	135	130	126	120	e136	e140	133
28	e125	e146	137	e150	138	127	132	125	121	130	e143	140
29	e130	e146	130	e150	---	125	138	127	120	129	e146	141
30	e127	e148	138	e142	---	130	133	121	118	131	e142	123
31	e125	---	139	132	---	126	---	122	---	126	e138	---
TOTAL	4106	4526	4393	4895	3804	4340	3906	4076	3814	3901	4049	4027
MEAN	132	151	142	158	136	140	130	131	127	126	131	134
MAX	170	295	176	260	166	250	138	229	190	142	146	143
MIN	114	120	124	131	127	125	123	117	116	114	122	120
AC-FT	8140	8980	8710	9710	7550	8610	7750	8080	7570	7740	8030	7990

CAL YR 1986	TOTAL	45684	MEAN	125	MAX	295	MIN	95	AC-FT	90610
WTR YR 1987	TOTAL	49837	MEAN	137	MAX	295	MIN	114	AC-FT	98850

e Estimated.

09419700 LAS VEGAS WASH NEAR HENDERSON, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1957 to October 1961, September and October 1962, May 1963 to June 1965, and December 1965 to current year.

CHEMICAL ANALYSES: January 1964 to January 1965, twice monthly; October 1967 to January 1969, weekly; February 1969 to January 1970 and July 1970 to September 1985, monthly (discontinued).

SPECIFIC CONDUCTANCES: January 1964 to January 1965, twice monthly; October to November 1967 and April 1968 to January 1969, weekly; February 1969 to January 1970 and July 1970 to September 1985, monthly; November 1985 to current year, hourly.

WATER TEMPERATURES: February 1957 to October 1961, September and October 1962, May 1963 to June 1965, and December 1965 to September 1985, monthly; November 1985 to current year, hourly.

SEDIMENT DATA: January 1977 to September 1985, monthly (discontinued).

INSTRUMENTATION.--Specific-conductance and temperature recorder since November 1985.

REMARKS.--Discharge includes sewage effluent and some wastewater from industrial plants. City and County sewage treatment plants implemented chemical removal of phosphorus from effluent during water year 1981. Periods of no record for daily specific conductance and water temperature are due to recorder malfunctions and periodic burial of the probes by sediment deposits. Records are poor due to variable accumulation of sediment near the recorder probes.

COOPERATION.--All water-quality sampling and analyses prior to July 1970, plus nutrient analyses for period July 1970 to September 1972, from U.S. Environmental Protection Agency. Data in addition to those listed under "Period of Record" for January 1964 to June 1970 may exist in files of U.S. Environmental Protection Agency.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 6,960 microsiemens Sept. 19, 1968; minimum, 1,470 microsiemens July 23, 1986.

WATER TEMPERATURES: Maximum, 29.0°C Aug. 4, 6, 1987; minimum, 2.0°C Jan. 31, 1972.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 1,580 mg/L Jan. 14 and Feb. 13, 1985; minimum, 1 mg/L Aug. 1, 1983.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 3,150 microsiemens Jan. 5; minimum, 1,610 microsiemens July 17.

WATER TEMPERATURES: Maximum, 29.0°C Aug. 4, 6; minimum, 12.0°C Jan. 17.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2470	1970	2210	2320	2140	2220	---	---	---	2510	2370	2460
2	2070	1930	2000	2210	2090	2130	---	---	---	2710	2520	2630
3	2050	1930	1990	2330	2130	2230	---	---	---	2950	2700	2840
4	2050	1870	1970	2290	2130	2200	---	---	---	3140	2840	3010
5	1970	1810	1920	2240	2120	2170	---	---	---	3150	1890	2450
6	2050	1890	1980	2240	2000	2160	---	---	---	2490	2070	2160
7	2190	1990	2090	2070	1860	1980	---	---	---	2250	2040	2180
8	2210	2050	2110	2070	1910	1990	---	---	---	2510	2240	2350
9	2210	1990	2120	1960	1830	1890	---	---	---	2600	2430	2530
10	2170	1990	2090	2030	1840	1910	---	---	---	2660	2470	2530
11	---	---	---	1990	1870	1940	---	---	---	2680	2480	2530
12	---	---	---	2080	1890	1970	---	---	---	2650	2470	2540
13	---	---	---	2300	1990	2110	---	---	---	2660	2490	2570
14	---	---	---	2170	1990	2060	---	---	---	2720	2500	2610
15	---	---	---	2210	2110	2160	2290	2150	2210	2710	2530	2610
16	---	---	---	---	---	---	2430	2280	2340	2740	2550	2640
17	---	---	---	---	---	---	2490	2340	2430	2740	2580	2640
18	---	---	---	---	---	---	2430	2250	2360	2730	2570	2630
19	---	---	---	---	---	---	2340	2220	2300	2800	2590	2670
20	---	---	---	2450	2400	2420	2310	1790	2120	2770	2600	2690
21	---	---	---	2450	2370	2400	2300	1870	2120	---	---	---
22	---	---	---	2540	2210	2470	2400	2260	2320	---	---	---
23	---	---	---	2570	2140	2480	2470	2290	2370	---	---	---
24	---	---	---	---	---	---	2520	2240	2360	2570	2370	2470
25	2300	1960	2100	---	---	---	2390	2230	2310	2560	2410	2480
26	2330	1930	2200	---	---	---	2400	2230	2330	2570	2440	2500
27	2290	1910	2110	---	---	---	2450	2270	2340	2620	2470	2550
28	2350	2130	2230	---	---	---	2410	2270	2330	2640	2500	2580
29	2330	2150	2240	---	---	---	2420	2200	2350	2650	2420	2530
30	2300	2200	2250	---	---	---	2430	2230	2320	2570	2410	2520
31	2280	2100	2200	---	---	---	2360	2230	2300	2640	2400	2520
MONTH	2470	1810	2110	2570	1830	2150	2520	1790	2310	3150	1890	2550

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SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	2610	2430	2520	---	---	---	---	---	---	2360	2260	2290
2	2620	2420	2500	---	---	---	---	---	---	2350	2250	2290
3	2690	2490	2570	---	---	---	---	---	---	2340	2220	2290
4	2720	2520	2600	---	---	---	---	---	---	2430	2290	2350
5	2710	2490	2600	---	---	---	---	---	---	2470	2330	2380
6	2740	2550	2630	---	---	---	---	---	---	2460	2320	2360
7	2680	2500	2560	---	---	---	---	---	---	2390	2270	2320
8	2650	2480	2530	---	---	---	---	---	---	2460	2290	2340
9	2640	2500	2560	---	---	---	---	---	---	2400	2220	2300
10	2670	2490	2590	2450	2330	2410	---	---	---	2280	2120	2200
11	2680	2480	2580	2660	2440	2510	---	---	---	2180	2080	2120
12	2650	2510	2590	2650	2460	2550	---	---	---	2180	2080	2130
13	2620	2470	2540	2770	2540	2610	---	---	---	2220	2120	2160
14	2570	2360	2460	2670	2540	2590	---	---	---	2230	2090	2150
15	2530	2360	2420	2730	2560	2620	---	---	---	---	---	---
16	2560	2410	2460	2770	2410	2600	---	---	---	---	---	---
17	2530	2360	2440	---	---	---	---	---	---	---	---	---
18	2580	2370	2460	---	---	---	---	---	---	---	---	---
19	2400	2180	2280	---	---	---	---	---	---	---	---	---
20	2370	2200	2280	---	---	---	---	---	---	---	---	---
21	2420	2270	2330	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	2470	2350	2400	---	---	---
24	2540	2370	2410	---	---	---	2460	2320	2380	---	---	---
25	---	---	---	---	---	---	2410	2300	2340	---	---	---
26	---	---	---	---	---	---	2420	2170	2330	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	2370	2170	2250	---	---	---
29	---	---	---	---	---	---	2280	2170	2220	---	---	---
30	---	---	---	---	---	---	2310	2230	2270	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	2740	2180	2500	2770	2330	2560	2470	2170	2310	2470	2080	2260
JUNE				JULY			AUGUST			SEPTEMBER		
1	---	---	---	2260	2140	2180	2360	2320	2330	2340	2280	2300
2	---	---	---	2280	2140	2200	2360	2320	2340	2300	2220	2260
3	---	---	---	2240	2120	2160	2380	2320	2360	---	---	---
4	---	---	---	2250	2110	2160	2400	2340	2370	---	---	---
5	---	---	---	2170	2070	2110	2380	2340	2360	---	---	---
6	---	---	---	2170	2070	2120	2360	2340	2350	---	---	---
7	---	---	---	2170	2090	2130	2360	2320	2350	---	---	---
8	---	---	---	2220	2070	2140	2380	2340	2360	---	---	---
9	---	---	---	2170	2040	2100	2340	2300	2330	---	---	---
10	---	---	---	2190	2020	2100	2340	2280	2310	---	---	---
11	---	---	---	2100	1970	2040	2380	2320	2360	---	---	---
12	---	---	---	2080	1930	2000	2380	2340	2370	---	---	---
13	2160	2010	2060	2070	1940	1980	2360	2300	2340	---	---	---
14	2160	2120	2140	2060	1940	1980	2360	2320	2330	---	---	---
15	2160	2120	2130	2000	1910	1940	2360	2320	2340	---	---	---
16	2160	2120	2130	1900	1710	1810	2360	2320	2340	---	---	---
17	2180	2120	2150	1740	1610	1690	2360	2320	2330	2170	2130	2160
18	2200	2160	2180	1820	1730	1780	2400	2320	2370	2190	2160	2170
19	2200	2160	2180	1860	1780	1810	2400	2360	2380	2200	2160	2170
20	2260	2160	2200	1910	1790	1860	2380	2340	2350	2180	2130	2150
21	2180	2120	2160	1940	1890	1920	2380	2340	2360	2130	1880	2030
22	2160	2120	2140	1990	1900	1950	2400	2340	2370	---	---	---
23	2180	2140	2150	2050	1960	2000	2380	2320	2360	---	---	---
24	2200	2140	2170	2060	1990	2030	2360	2320	2330	---	---	---
25	2260	2160	2200	2120	2030	2070	2400	2320	2350	---	---	---
26	2260	2200	2220	2110	2040	2070	2400	2320	2360	---	---	---
27	2280	2180	2230	2170	2050	2110	2340	2300	2320	---	---	---
28	2220	2180	2190	2360	2120	2220	2340	2300	2310	---	---	---
29	2260	2160	2210	2360	2260	2310	2360	2280	2320	---	---	---
30	2240	2140	2190	2320	2280	2300	2340	2260	2300	---	---	---
31	---	---	---	2380	2320	2340	2320	2260	2290	---	---	---
MONTH	2280	2010	2170	2380	1610	2050	2400	2260	2340	2340	1880	2180
YEAR	3150	1610	2290									

LAS VEGAS VALLEY

09419700 LAS VEGAS WASH NEAR HENDERSON, NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22.5	21.0	21.5	20.0	19.0	19.0	16.0	14.5	15.5	---	---	---
2	22.5	21.0	21.5	19.5	19.0	19.0	16.0	14.5	15.5	---	---	---
3	22.0	20.5	21.5	20.0	19.0	19.5	16.0	14.5	15.5	---	---	---
4	22.5	21.5	22.0	20.0	18.5	19.5	16.0	15.0	15.5	16.5	15.5	16.0
5	22.5	20.5	21.5	20.0	18.5	19.5	16.5	15.5	16.0	---	---	---
6	23.0	22.0	22.5	19.5	18.0	19.0	17.0	16.5	16.5	---	---	---
7	23.5	21.5	22.5	18.0	17.5	18.0	17.0	16.0	16.5	---	---	---
8	23.5	22.0	23.0	18.5	17.5	18.0	16.5	15.5	16.0	---	---	---
9	23.0	22.0	22.5	18.5	17.0	18.0	16.5	15.5	16.0	---	---	---
10	23.0	22.5	23.0	19.0	17.0	18.0	15.5	15.0	15.0	15.0	13.5	14.5
11	22.5	21.5	22.0	19.0	17.5	18.0	16.0	14.5	15.5	15.0	13.5	14.5
12	21.0	20.0	20.5	19.5	17.5	18.5	16.0	15.0	15.5	15.0	14.0	14.5
13	21.0	19.0	20.5	19.5	18.0	19.0	16.0	15.0	15.5	15.0	14.0	14.5
14	21.5	19.5	20.5	19.5	18.0	19.0	16.5	15.5	16.0	15.0	14.0	14.5
15	21.5	19.5	20.5	19.5	18.5	19.0	16.5	16.0	16.5	14.0	13.0	13.5
16	22.0	20.0	21.0	20.0	18.5	19.5	17.0	16.0	16.5	13.0	12.5	12.5
17	21.5	20.5	21.0	20.5	19.5	20.0	17.5	16.5	17.0	13.5	12.0	12.5
18	21.0	20.0	20.5	20.0	14.5	18.0	17.0	16.0	16.5	14.0	12.5	13.5
19	20.5	20.0	20.5	19.0	15.0	17.0	17.5	16.5	17.0	14.5	13.5	14.0
20	21.0	20.0	20.5	20.0	18.0	19.0	18.0	16.0	17.0	13.5	13.0	13.5
21	21.0	19.5	20.5	19.0	18.0	18.5	16.5	15.0	16.0	13.5	12.5	13.0
22	21.0	19.5	20.5	19.0	17.5	18.0	16.5	15.5	16.0	14.5	13.0	13.5
23	21.0	19.5	20.5	17.5	16.5	17.0	16.5	16.0	16.5	15.5	14.0	14.5
24	21.5	19.5	20.5	17.5	16.0	17.0	16.5	15.5	16.0	15.0	14.0	14.5
25	21.5	20.0	21.0	17.0	16.0	16.5	16.5	15.0	16.0	15.5	14.0	15.0
26	21.5	20.0	21.0	16.5	15.0	16.0	16.0	15.0	16.0	15.5	14.0	15.0
27	22.0	20.5	21.0	16.5	15.5	16.0	16.5	15.5	16.0	16.0	15.0	15.5
28	21.5	20.0	21.0	16.5	15.0	16.0	16.5	15.5	16.0	16.5	16.0	16.0
29	22.0	20.5	21.5	16.5	16.0	16.0	16.0	15.5	16.0	16.5	15.5	16.0
30	21.5	21.0	21.5	16.0	15.0	15.5	16.5	15.0	16.0	16.0	15.0	15.5
31	21.5	20.0	20.5	---	---	---	16.5	15.5	16.0	16.0	15.0	15.5
MONTH	23.5	19.0	21.0	20.5	14.5	18.0	18.0	14.5	16.0	16.5	12.0	14.5
FEBRUARY			MARCH			APRIL			MAY			
1	16.5	15.0	15.5	16.5	13.0	14.5	18.5	13.5	16.0	---	---	---
2	16.0	15.0	15.5	16.0	13.5	15.0	26.0	14.5	18.5	---	---	---
3	16.0	15.5	16.0	17.0	13.5	15.0	23.0	16.0	18.0	---	---	---
4	16.5	15.5	16.0	18.5	14.5	16.0	---	---	---	---	---	---
5	16.0	15.0	15.5	17.5	15.0	16.0	---	---	---	---	---	---
6	16.5	14.5	15.5	19.0	16.0	17.0	---	---	---	---	---	---
7	16.5	15.5	16.0	18.5	13.5	16.0	---	---	---	---	---	---
8	17.0	15.5	16.5	19.5	14.0	17.0	---	---	---	---	---	---
9	17.5	16.0	16.5	20.0	16.0	18.0	---	---	---	---	---	---
10	18.5	17.0	17.5	19.5	18.0	18.5	---	---	---	---	---	---
11	18.0	17.0	17.5	19.0	17.5	18.5	---	---	---	---	---	---
12	18.5	17.0	17.5	19.0	17.0	18.0	---	---	---	---	---	---
13	17.5	15.0	16.5	18.5	17.0	18.0	---	---	---	---	---	---
14	16.0	13.5	15.0	18.0	16.5	17.5	---	---	---	---	---	---
15	16.0	14.0	15.0	16.5	15.0	16.0	---	---	---	---	---	---
16	16.0	14.0	15.0	17.0	15.0	16.0	---	---	---	---	---	---
17	17.0	14.0	15.5	17.0	15.0	16.0	---	---	---	---	---	---
18	17.0	14.5	15.5	19.0	15.5	17.0	---	---	---	---	---	---
19	15.5	13.5	14.5	17.5	16.0	16.5	---	---	---	---	---	---
20	15.5	13.5	14.5	17.5	15.5	16.5	---	---	---	---	---	---
21	17.0	13.5	15.5	17.5	16.0	16.5	---	---	---	---	---	---
22	17.0	14.0	15.0	16.0	15.0	15.5	---	---	---	---	---	---
23	15.0	13.5	14.5	17.0	15.0	16.0	---	---	---	---	---	---
24	16.5	14.0	15.0	17.0	14.5	16.0	---	---	---	---	---	---
25	16.0	14.0	15.5	16.5	15.0	16.0	---	---	---	---	---	---
26	16.0	13.0	14.5	17.5	14.5	16.0	---	---	---	---	---	---
27	16.5	14.0	15.5	16.5	14.5	15.5	---	---	---	---	---	---
28	17.0	14.0	16.0	16.0	14.0	15.0	---	---	---	---	---	---
29	---	---	---	15.0	13.5	14.0	---	---	---	---	---	---
30	---	---	---	15.5	12.5	14.0	---	---	---	---	---	---
31	---	---	---	16.0	13.0	14.5	---	---	---	---	---	---
MONTH	18.5	13.0	15.5	20.0	12.5	16.0	26.0	13.5	17.5	---	---	---

LAS VEGAS VALLEY

09419755 LAS VEGAS WASH AT POWERLINE CROSSING BELOW HENDERSON, NV

WATER-QUALITY RECORDS

LOCATION.--Lat 36°06'55", long 114°56'16", in SW¼SW¼ sec.22, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, on right bank, about 3 mi upstream from high-water line of Lake Mead, about 3 mi downstream from Pabco Road, and about 4.5 mi northeast of Henderson.

DRAINAGE AREA.--2,185 mi², approximately.

PERIOD OF RECORD.--February 1986 to September 1987 (discontinued).

SPECIFIC CONDUCTANCES: February 1986 to September 1987, hourly.

WATER TEMPERATURES: February 1986 to September 1987, hourly.

INSTRUMENTATION.--Specific conductance and temperature recorder since February 1986.

REMARKS.--Discharge includes sewage effluent and wastewater from industrial plants. Periods of no record for daily specific conductance and temperature are due to recorder malfunctions and periodic burial of the probes by sediment deposits. Records are poor due to variable accumulation of sediment near the recorder probes.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 3,430 microsiemens June 4, 1986; minimum, 1,910 microsiemens July 17, 1987.

WATER TEMPERATURES: Maximum, 29.5°C June 27, July 14, and several days in August 1987; minimum, 7.5°C Jan. 8, 1987.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 3,090 microsiemens Mar. 8; minimum, 1,910 microsiemens July 17.

WATER TEMPERATURES: Maximum, 29.5°C June 27, July 14, and several days in August; minimum, 7.5°C Jan. 8.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	2580	2410	2470	---	---	---	---	---	---
2	---	---	---	2560	2400	2450	---	---	---	---	---	---
3	---	---	---	2540	2350	2440	---	---	---	---	---	---
4	---	---	---	2610	2420	2490	---	---	---	---	---	---
5	---	---	---	2590	2420	2480	2550	2440	2480	---	---	---
6	---	---	---	2610	2470	2540	2570	2440	2490	---	---	---
7	---	---	---	2660	2480	2560	2530	2360	2450	---	---	---
8	2380	2140	2230	---	---	---	2540	2380	2470	---	---	---
9	2370	2190	2260	---	---	---	2540	2450	2480	---	---	---
10	2350	2170	2250	---	---	---	2610	2450	2530	---	---	---
11	2350	2160	2240	---	---	---	2600	2420	2510	---	---	---
12	2300	2160	2210	---	---	---	2620	2460	2530	---	---	---
13	2320	2170	2230	---	---	---	2640	2460	2540	---	---	---
14	2420	2220	2300	---	---	---	2670	2520	2570	---	---	---
15	2440	2250	2340	---	---	---	2700	2530	2590	---	---	---
16	2450	2250	2340	---	---	---	2660	2550	2600	---	---	---
17	2460	2290	2370	---	---	---	2720	2590	2650	---	---	---
18	2510	2260	2400	---	---	---	---	---	---	---	---	---
19	2400	2290	2340	---	---	---	---	---	---	---	---	---
20	2480	2290	2370	---	---	---	---	---	---	---	---	---
21	2460	2310	2370	---	---	---	---	---	---	---	---	---
22	2490	2330	2390	---	---	---	---	---	---	---	---	---
23	2450	2330	2390	---	---	---	---	---	---	2730	2560	2650
24	2530	2330	2420	---	---	---	---	---	---	2760	2590	2650
25	2520	2340	2410	---	---	---	---	---	---	2780	2580	2640
26	2530	2330	2410	---	---	---	---	---	---	2740	2580	2630
27	2470	2320	2390	---	---	---	---	---	---	2750	2600	2670
28	2580	2350	2430	---	---	---	---	---	---	2790	2580	2690
29	2550	2390	2450	---	---	---	---	---	---	2810	2580	2710
30	2550	2390	2450	---	---	---	---	---	---	2800	2620	2710
31	2540	2380	2440	---	---	---	---	---	---	2880	2610	2740
MONTH	2580	2140	2350	2660	2350	2490	2720	2360	2530	2880	2560	2680

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SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	2870	2660	2740	2840	2630	2700	2890	2720	2780	2660	2550	2590
2	2870	2630	2710	2830	2640	2720	2890	2730	2800	2680	2540	2590
3	2890	2690	2760	2920	2720	2800	2940	2730	2820	2670	2550	2600
4	2920	2700	2790	2900	2700	2790	2880	2550	2740	2720	2560	2620
5	2910	2690	2780	2910	2710	2790	2930	2590	2760	2760	2590	2650
6	2940	2740	2810	2890	2710	2780	2940	2740	2810	2790	2610	2660
7	2870	2670	2750	2890	2360	2680	2890	2690	2790	2750	2550	2630
8	2840	2640	2710	3090	2600	2860	2930	2730	2780	2730	2540	2600
9	2810	2660	2730	3050	2810	2890	2880	2700	2770	2770	2510	2610
10	2800	2610	2730	3030	2810	2900	2800	2700	2760	2700	2500	2570
11	2790	2620	2720	3010	2810	2890	2820	2650	2720	2670	2510	2560
12	2820	2660	2740	2970	2750	2840	2830	2570	2680	2730	2550	2600
13	2820	2640	2710	3000	2750	2820	2700	2560	2600	2750	2560	2620
14	2880	2630	2720	2900	2710	2780	2720	2570	2640	2860	2570	2680
15	2840	2590	2680	2870	2660	2750	2720	2590	2640	2750	2600	2650
16	2790	2620	2680	2870	2660	2740	2740	2600	2660	2750	2030	2470
17	2770	2600	2670	2930	2730	2790	2760	2570	2660	2880	2510	2680
18	2800	2580	2660	2990	2720	2830	2760	2580	2650	2810	2630	2700
19	2830	2610	2690	3000	2810	2860	2740	2560	2630	2860	2630	2710
20	2820	2620	2700	2910	2720	2820	2730	2560	2610	2860	2670	2740
21	2870	2670	2720	2990	2730	2820	2720	2560	2620	2810	2630	2710
22	2910	2590	2660	2840	2610	2730	2700	2550	2610	2860	2650	2720
23	2760	2570	2660	2840	2660	2740	2730	2590	2650	2900	2600	2680
24	2880	2610	2670	2890	2640	2740	2700	2560	2610	2770	2560	2630
25	2760	2590	2670	2800	2660	2710	2670	2540	2590	2740	2540	2600
26	2870	2590	2720	2880	2620	2720	2710	2520	2590	2760	2540	2600
27	2840	2640	2760	2780	2620	2690	2650	2520	2570	2720	2550	2600
28	2920	2670	2790	2830	2670	2740	2680	2510	2560	2720	2530	2600
29	---	---	---	2880	2630	2730	2660	2510	2560	2740	2510	2590
30	---	---	---	2820	2630	2720	2620	2510	2570	2720	2440	2570
31	---	---	---	2920	2690	2790	---	---	---	2630	2420	2490
MONTH	2940	2570	2720	3090	2360	2780	2940	2510	2670	2900	2030	2620
	JUNE			JULY			AUGUST			SEPTEMBER		
1	2610	2420	2490	2570	2360	2430	2380	2230	2280	2540	2330	2410
2	2680	2460	2520	2590	2360	2460	2410	2260	2310	2490	2350	2400
3	2680	2440	2510	2540	2330	2400	2480	2280	2360	2530	2360	2430
4	2570	2400	2460	2550	2330	2400	2550	2350	2410	2620	2370	2480
5	2550	2360	2430	2490	2280	2360	2480	2330	2390	2780	2340	2510
6	2520	2350	2420	2450	2260	2330	2470	2340	2380	2530	2330	2410
7	2320	2050	2220	2450	2290	2340	2470	2310	2370	2540	2320	2390
8	2540	2340	2390	2510	2320	2390	2480	2300	2370	2520	2340	2400
9	2540	2330	2430	2480	2290	2370	2390	2230	2300	2430	2300	2360
10	2650	2390	2470	2530	2330	2390	2410	2210	2300	2420	2270	2330
11	2560	2380	2450	2450	2320	2360	2450	2280	2360	2380	2260	2300
12	2610	2410	2460	2410	2240	2310	2440	2290	2360	2380	2240	2300
13	2650	2290	2490	2390	2220	2270	2440	2270	2340	2410	2260	2310
14	2540	2380	2430	2410	2210	2270	2460	2270	2350	2390	2240	2310
15	2610	2420	2460	2260	2080	2160	2450	2270	2340	2440	2270	2350
16	2550	2380	2460	2170	2040	2090	2500	2280	2360	2440	2310	2370
17	2560	2410	2460	2070	1910	1980	2490	2280	2350	2520	2340	2400
18	2640	2430	2500	2140	1990	2060	2560	2310	2420	2440	2320	2360
19	2580	2410	2450	2300	2070	2180	2540	2340	2400	2460	2280	2360
20	2690	2380	2520	2320	2150	2230	2480	2320	2360	2380	2200	2290
21	2540	2370	2410	2470	2240	2360	2500	2310	2380	2340	2200	2260
22	2560	2360	2420	2480	2310	2370	2540	2330	2400	2370	2230	2280
23	2560	2360	2430	2500	2310	2380	2530	2300	2380	2390	2240	2300
24	2560	2360	2430	2480	2300	2360	2510	2300	2360	2360	2240	2290
25	2790	2380	2500	2510	2290	2370	2620	2320	2410	2380	2250	2320
26	2650	2470	2520	2410	2240	2310	2570	2340	2420	2440	2250	2330
27	2640	2400	2490	2420	2240	2320	2450	2290	2360	2410	2230	2300
28	2460	2360	2390	2440	2280	2330	2460	2300	2350	2340	2230	2260
29	2560	2350	2430	2510	2270	2360	2490	2300	2370	2350	2230	2280
30	2540	2370	2430	2410	2260	2310	2480	2290	2350	2720	2280	2420
31	---	---	---	2480	2230	2340	2460	2280	2350	---	---	---
MONTH	2790	2050	2450	2590	1910	2310	2620	2210	2360	2780	2200	2350
YEAR	3090	1910	2520									

09419755 LAS VEGAS WASH AT POWERLINE CROSSING BELOW HENDERSON, NV
 TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.5	20.0	21.0	19.0	18.0	18.5	---	---	---	16.5	15.0	15.5
2	22.5	20.5	21.0	19.5	18.0	18.5	---	---	---	17.0	15.0	16.0
3	22.0	19.5	21.0	20.0	18.0	19.0	---	---	---	17.0	15.0	16.0
4	22.0	20.0	21.0	20.0	18.0	19.0	---	---	---	16.5	15.5	16.0
5	22.0	19.5	21.0	20.5	18.0	19.0	18.0	16.5	17.5	16.5	10.5	13.0
6	23.0	21.0	22.0	19.0	17.5	18.5	18.0	17.5	18.0	16.0	12.5	14.5
7	23.0	20.5	22.0	18.0	17.0	17.5	18.0	17.0	17.5	16.0	9.0	14.5
8	23.0	20.5	22.0	18.5	16.5	17.5	18.0	16.5	17.0	12.5	7.5	10.5
9	22.5	20.5	21.5	18.5	16.0	17.0	17.5	15.5	16.5	14.5	12.5	13.5
10	22.5	21.5	22.0	18.5	16.0	17.5	16.5	15.0	15.5	15.0	14.0	14.5
11	21.5	20.0	21.0	18.5	16.5	17.5	16.5	15.0	15.5	15.5	14.0	14.5
12	20.5	19.0	19.5	19.0	17.0	18.0	16.0	15.5	16.0	15.5	14.0	15.0
13	20.5	18.0	19.5	19.0	17.0	18.0	16.0	16.0	16.0	16.0	14.5	15.0
14	21.0	18.0	19.5	19.0	17.0	18.0	16.0	16.0	16.0	16.0	15.0	15.5
15	21.0	18.0	19.5	19.5	17.5	18.5	16.5	16.0	16.5	15.0	14.5	15.0
16	21.5	19.0	20.5	19.5	17.5	18.5	16.5	16.0	16.5	14.5	13.5	14.0
17	21.5	19.5	20.5	19.5	18.5	19.0	18.0	16.5	17.0	14.5	13.5	14.0
18	21.0	19.0	20.0	19.5	15.5	18.0	17.5	16.0	16.5	15.5	14.0	15.0
19	20.5	19.5	20.0	18.5	14.5	16.5	17.5	16.0	17.0	16.0	15.5	15.5
20	21.0	19.5	20.0	20.0	18.0	19.0	18.0	15.5	17.0	16.0	15.0	15.5
21	21.0	18.5	20.0	19.5	18.0	19.0	16.5	15.5	16.0	16.5	14.5	15.5
22	21.0	18.5	20.0	19.0	17.5	18.0	16.5	16.0	16.5	16.0	14.0	15.0
23	21.0	18.5	20.0	18.5	17.0	17.5	17.0	16.5	16.5	16.0	14.0	15.0
24	21.0	19.0	20.0	18.5	16.5	17.5	16.5	16.0	16.5	16.0	14.0	15.0
25	21.0	18.5	20.0	18.0	16.5	17.0	16.5	16.0	16.0	16.5	14.0	15.0
26	21.5	19.0	20.0	17.5	15.5	16.5	16.0	16.0	16.0	16.5	14.0	15.5
27	21.5	19.0	20.5	17.5	15.5	16.5	16.0	16.0	16.0	16.5	15.5	16.0
28	21.0	19.0	20.0	---	---	---	16.5	16.0	16.0	17.0	16.0	16.5
29	21.5	19.5	20.5	---	---	---	16.5	16.0	16.0	17.5	15.5	16.0
30	21.5	20.5	21.0	---	---	---	16.0	15.5	16.0	16.5	15.0	16.0
31	20.5	19.0	20.0	---	---	---	17.0	15.5	16.0	17.0	15.0	16.0
MONTH	23.0	18.0	20.5	20.5	14.5	18.0	18.0	15.0	16.5	17.5	7.5	15.0
	FEBRUARY			MARCH			APRIL			MAY		
1	17.0	14.5	15.5	18.0	14.5	16.0	21.0	16.0	18.5	22.5	19.0	20.5
2	16.0	14.5	15.5	18.0	15.0	16.5	21.5	16.5	19.0	23.0	18.5	20.5
3	16.5	15.0	15.5	18.5	15.0	16.5	20.5	17.0	18.0	23.0	19.0	20.5
4	17.0	15.0	16.0	18.5	15.5	17.0	19.0	17.0	17.5	23.5	19.0	21.0
5	17.0	14.5	15.5	17.5	16.0	17.0	20.5	16.5	18.0	24.5	19.0	21.5
6	17.0	14.0	15.5	19.0	17.5	18.0	22.0	17.5	19.5	25.5	20.0	22.5
7	17.0	15.0	16.0	19.0	15.0	17.0	22.0	17.5	19.5	25.5	21.5	23.0
8	17.5	15.0	16.5	19.0	15.0	17.0	22.0	17.5	19.5	25.5	21.5	23.0
9	17.5	15.5	16.5	19.5	16.5	18.0	22.5	18.0	20.0	---	---	---
10	19.0	16.5	17.5	19.5	16.0	18.0	22.0	18.0	20.0	---	---	---
11	18.5	16.5	17.5	20.0	16.5	18.0	21.5	19.0	20.0	---	---	---
12	19.0	16.5	18.0	20.0	16.5	18.0	20.5	17.5	19.0	---	---	---
13	---	---	---	19.5	17.0	18.0	21.0	16.5	18.5	---	---	---
14	---	---	---	20.0	16.5	18.0	22.0	17.0	19.5	---	---	---
15	---	---	---	18.0	15.5	16.5	22.5	17.5	20.0	---	---	---
16	---	---	---	19.0	15.5	17.0	23.0	18.0	20.5	---	---	---
17	---	---	---	19.5	16.0	17.5	---	---	---	---	---	---
18	---	---	---	20.0	16.5	17.5	21.5	17.5	19.5	---	---	---
19	---	---	---	17.5	15.0	16.0	20.0	15.5	17.5	---	---	---
20	---	---	---	18.5	14.5	16.5	20.5	16.0	18.0	---	---	---
21	---	---	---	18.5	15.5	16.5	21.5	16.0	18.5	---	---	---
22	---	---	---	16.5	15.0	15.5	22.5	17.0	19.5	---	---	---
23	---	---	---	18.0	15.0	16.0	23.0	18.0	20.5	---	---	---
24	---	---	---	18.5	15.0	17.0	23.5	18.0	21.0	---	---	---
25	---	---	---	19.0	16.0	17.0	24.5	19.5	21.5	---	---	---
26	---	---	---	20.0	15.5	17.5	24.5	20.0	22.0	---	---	---
27	---	---	---	19.0	15.5	17.0	24.5	20.0	22.0	---	---	---
28	17.0	14.0	15.5	19.0	15.0	16.5	25.0	20.5	22.5	---	---	---
29	---	---	---	18.0	15.0	16.0	23.5	21.0	22.0	---	---	---
30	---	---	---	19.0	14.5	16.5	23.0	20.0	21.5	---	---	---
31	---	---	---	20.0	15.0	17.0	---	---	---	---	---	---
MONTH	19.0	14.0	16.0	20.0	14.5	17.0	25.0	15.5	20.0	25.5	18.5	21.5

COLORADO RIVER MAIN STEM

09421000 LAKE MEAD AT HOOVER DAM, AZ-NV

LOCATION--Lat 36°00'58", long 114°44'13", in NE¼SW¼ sec.3, T.30 N., R.23 W., Gila and Salt River meridian, Mohave-Clark Counties, Hydrologic Unit 15010005, in center of Hoover Dam on Colorado River.

DRAINAGE AREA.--171,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing (previously considered part of the Missouri River basin).

PERIOD OF RECORD.--Contents: February 1935 to current year. Evaporation: March 1952 to current year. Diversions (monthly totals only): to Boulder City area, since October 1935; to Henderson and Las Vegas areas, since April 1942; combined diversions since October 1968. Prior to 1946 published as "at Boulder Dam."

REVISED RECORDS.--WSP 899: 1935-39.

GAGE.--Water-stage indicator read once daily at midnight, with supplementary water-stage recorder. Datum of gage is 0.00 ft to Local Powerhouse datum and is 0.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by concrete arch-gravity dam; storage began Feb. 1, 1935; dam completed Mar. 1, 1936. Total capacity (based on 1963-64 resurvey by Coast and Geodetic Survey; capacity table put into use Apr. 1, 1967), 29,755,000 acre-ft, consisting of the following: Dead storage, 2,378,000 acre-ft below gage height 850.0 ft--gage sills in outlet towers; usable contents, 26,159,000 acre-ft between gage heights 895.0 ft and 1,211.4 ft (top of automatic spillway gates in raised position; and uncontrolled storage, 1,218,000 acre-ft between gage heights 1,221.4 ft and 1,229.0 ft (maximum water surface). Reservoir is used to store water for flood control, irrigation, municipal water supply, and power development. Figures given herein represent usable contents.

DIVERSIONS FROM LAKE MEAD.--Diversions to Boulder City area at dam; diversions to Henderson and Las Vegas areas from intakes 6 mi upstream. Diversions measured by Venturi meters. Water used for municipal and industrial purposes.

COOPERATION.--Records of gage height and contents furnished by Bureau of Reclamation. Records of diversions from Lake Mead furnished by Bureau of Reclamation and Colorado River Commission of Nevada.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 27,790,000 acre-ft, July 29, 30, 1941 (on basis of original bathymetry), gage height, 1,220.45 ft; maximum gage height, 1,225.85 ft, July 24, 1983 (equivalent to 26,868,000 acre-ft on basis of resurveyed bathymetry of 1963-64); minimum contents (since 1940), 10,695,000 acre-ft, Apr. 26, 1956, gage height, 1,083.21 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 24,523,000 acre-ft, Feb. 12, gage height, 1,210.83 ft; minimum, 23,738,000 acre-ft, June 17, gage height, 1,205.60 ft. COLORADO RIVER MAIN STEM

RESERVOIR STORAGE (THOU AC-FT) WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATIONS AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	24225	24199	24362	24462	24445	24479	24180	24042	23795	23897	24078	24351	
2	24232	24199	24370	24462	24457	24469	24180	24046	23798	23907	24090	24317	
3	24226	24195	24377	24465	24454	24454	24171	24042	23803	23916	24087	24318	
4	24228	24184	24391	24473	24466	24447	24157	24034	23803	23925	24102	24327	
5	24225	24183	24401	24471	24465	24445	24305	24025	23785	23932	24106	24329	
6	24222	24174	24421	24466	24476	24438	24139	24019	23770	23932	24114	24332	
7	24225	24172	24438	24457	24491	24445	24124	24016	23792	23925	24112	24330	
8	24229	24180	24451	24447	24507	24448	24111	23998	23781	23927	24138	24323	
9	24229	24181	24463	24438	24513	24435	24102	23995	23772	23930	24145	24330	
10	24226	24181	24465	24453	24515	24429	24091	24001	23764	23930	24150	24336	
11	24228	24181	24471	24465	24521	24421	24084	23983	23757	23934	24150	24335	
12	24235	24187	24474	24474	24523	24407	24085	23967	23751	23938	24166	24333	
13	24235	24192	24492	24465	24512	24392	24076	23961	23752	23940	24153	24339	
14	24232	24195	24504	24462	24512	24391	24070	23956	23754	23938	24145	24329	
15	24229	24213	24506	24448	24521	24380	24070	23955	23743	23941	24145	24326	
16	24235	24228	24503	24436	24516	24371	24067	23959	23740	23946	24157	24333	
17	24228	24241	24495	24447	24512	24350	24055	23950	23738	23949	24162	24336	
18	24234	24255	24489	24460	24503	24335	24043	23935	23742	23959	24168	24347	
19	24243	24270	24485	24454	24495	24317	24057	23919	23748	23964	24177	24356	
20	24240	24276	24497	24451	24486	24305	24048	23891	23761	23964	24186	24368	
21	24243	24279	24506	24418	24486	24305	24037	23880	23775	23968	24196	24373	
22	24234	24290	24506	24416	24495	24287	24036	23865	23785	23974	24222	24370	
23	24234	24305	24503	24410	24485	24270	24031	23856	23797	23983	24244	24382	
24	24226	24309	24501	24416	24486	24255	24025	23846	23810	23992	24253	24374	
25	24229	24309	24506	24427	24497	24246	24036	23833	23822	24004	24259	24368	
26	24234	24317	24494	24429	24492	24234	24037	23812	23837	24015	24276	24373	
27	24229	24329	24489	24424	24488	24225	24042	23800	23848	24022	24281	24377	
28	24225	24344	24488	24424	24485	24219	24042	23792	23864	24027	24288	24376	
29	24216	24355	24474	24426	---	24208	24043	23798	23873	24037	24306	24367	
30	24211	24362	24463	24426	---	24193	24046	23797	23886	24054	24315	24365	
31	24201	---	24456	24432	---	24181	---	23795	---	24066	24330	---	
MAX	24243	24362	24506	24474	24523	24479	24305	24046	23886	24066	24330	24382	
MIN	24201	24172	24362	24410	24445	24181	24025	23792	23738	23897	24078	24317	
*	1208.70	1209.77	1210.39	1210.23	1210.58	1208.57	1207.67	1205.99	1206.60	1207.80	1209.56	1209.79	
†	-19000	+161000	+94000	-24000	+53000	-304000	-135000	-251000	+91000	+180000	+264000	+35000	
‡	12760	11330	9540	10510	10680	12850	16280	17780	18640	21210	17980	20890	
**	5.9	5.1	6.1	3.4	3.1	3.8	3.1	5.5	6.6	8.8	7.5	6.8	
a	74300	63700	77200	43100	39200	47500	38700	67800	81300	108900	93900	86200	
CAL YR	1986	MAX	24506	MIN	23123	†	+735000	‡	175520	**	68.8	a	858000
WTR YR	1987	MAX	24523	MIN	23738	†	+145000	‡	180450	**	65.7	a	821800

* Gage height, in feet, at end of month.
† Change in contents, in acre-feet.
‡ Diversions, in acre-feet.

** Gross evaporation, in inches, from Lake Mead.
a Gross evaporation, in acre-feet, from Lake Mead.

NOTE.--Figures of gross evaporation are based on data obtained on Lake Mead by the U.S. Bureau of Reclamation and at Las Vegas by National Weather Service, and are computed by the Geological Survey. Only the mass-transfer method described in Geological Survey Professional Paper 298 is used. "Gross" denotes the total evaporation from the lake without deduction for precipitation on the lake surface for natural losses that would have occurred in the area now occupied by the lake. Starting February 1976, coefficient to 0.00179.

COLORADO RIVER MAIN STEM

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09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV
(National Stream-Quality Accounting Network Station)

LOCATION.--Lat 36°00'55", long 114°44'16", in NE¼SW¼ sec.3, T.30 N., R.23 W., Gila and Salt River meridian, or SW¼NE¼ sec.29, T.22 S., R.65 E., Mount Diablo meridian, Mohave-Clark Counties, Hydrologic Unit 15030101, in powerhouse at downstream side of Hoover Dam.

DRAINAGE AREA.--171,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing (previously considered part of the Missouri River basin).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year (prior to April 1934, monthly discharge only, published in WSP 1313). Published as "near Willow Beach" 1933-39 and as "below Boulder Dam" 1939-45.

GAGE.--Acoustical velocity meters on each turbine in Hoover Dam. Prior to Nov. 1, 1939, water-stage recorder at site 9 mi downstream at datum 594.8 ft, National Geodetic Vertical Datum of 1929. Nov. 1, 1939, to June 30, 1958, water-stage recorder at site 0.8 mi downstream at datum 600.35 ft, above National Geodetic Vertical Datum of 1929. July 1, 1958, to Nov. 7, 1979, totalizing flowmeter on each turbine.

REMARKS.--Flow regulated by Lake Mead since Feb. 1, 1935. Many diversions above station for irrigation, industrial, and municipal use.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--53 years (water years 1935-87), 14,100 ft³/s, 10,215,000 acre-ft/yr, unadjusted for storage in Lake Mead.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50,800 ft³/s, July 29, 1983; no flow at Hoover Dam part of Feb. 10, 1935; minimum daily, 152 ft³/s, Feb. 10, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 33,000 ft³/s, Jan. 7; minimum daily, 10,100 ft³/s, June 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21200	17700	20500	21900	20900	16400	18400	15400	17000	13400	15500	16800
2	22300	16900	21800	29100	24800	19700	17000	14400	15600	13700	14500	16200
3	22700	20600	21700	26200	24400	18800	16300	14000	16900	12700	18100	15600
4	15200	21400	22000	25600	23500	20300	14800	14200	17100	11600	18100	16100
5	18500	21000	22600	30400	22500	20600	13400	15600	16200	11800	17000	14500
6	19300	22100	18600	31500	22400	20000	16900	16000	13100	14000	17400	12700
7	18200	22200	17200	33000	16500	16700	16200	16800	13800	15600	16800	13600
8	19200	16800	21300	31200	16200	15500	16200	17600	15600	14300	13500	16200
9	18900	17400	22300	31200	20800	21100	16800	14700	16100	15500	13600	15100
10	20400	16700	21800	21500	19200	18700	16300	14100	15100	15000	16300	11600
11	15500	15100	23100	21900	19400	20100	15100	18100	15700	12900	16800	16500
12	14200	16100	24600	23900	20400	18700	13600	18000	17000	12500	18300	15000
13	18700	17200	17600	28700	20900	20500	17000	18400	11600	14600	18200	14200
14	20500	16500	19900	30800	18100	14600	17000	18300	10100	14000	18400	17600
15	21800	15500	25600	30400	15600	15700	15400	17000	14800	13800	15600	17000
16	18200	14900	27400	31900	20000	16400	17600	15200	15700	13800	13700	16700
17	20300	15800	27900	20500	20000	19200	16000	16800	14000	13700	17800	16200
18	13900	17400	27500	18400	22500	19200	14800	17400	16400	12700	18400	16300
19	14600	17600	27400	26000	23300	19500	13800	17300	15800	11500	18200	14300
20	20000	19300	12400	26500	20300	19700	17300	16200	11700	12900	19200	12900
21	19200	19800	20500	28000	18500	16300	18200	15200	11000	14300	18600	15600
22	19200	16700	26400	26500	17500	17000	16800	17600	14800	13900	14700	14600
23	19900	16700	26100	27900	23100	19400	17100	15700	15600	15000	13500	15600
24	20900	19700	26000	21200	20900	19200	18000	13900	13300	14600	17900	14400
25	17800	21400	22400	19100	23100	19100	13100	14700	14000	13300	16300	14500
26	16300	21000	25900	26200	21400	18200	14300	16500	14000	12800	16500	12400
27	21800	15600	21300	25900	20900	19100	18100	16500	12200	15100	17800	12200
28	21900	14900	22300	27600	17300	17700	18600	16900	11500	14500	17600	14400
29	20900	14800	27300	25000	---	18600	16400	14600	12500	14500	15100	13600
30	21100	14100	27900	26000	---	18400	17600	16000	12100	14600	13900	13300
31	21600	---	27300	23600	---	18700	---	15900	---	13500	17900	---
TOTAL	594200	532900	716600	817600	574400	573100	488100	499000	430300	426100	515200	445700
MEAN	19170	17760	23120	26370	20510	18490	16270	16100	14340	13750	16620	14860
MAX	22700	22200	27900	33000	24800	21100	18600	18400	17100	15600	19200	17600
MIN	13900	14100	12400	18400	15600	14600	13100	13900	10100	11500	13500	11600
AC-FT	1179000	1057000	1421000	1622000	1139000	1137000	968100	989800	853500	845200	1022000	884000
CAL YR 1986	TOTAL	8837300	MEAN	24210	MAX	37000	MIN	12400	AC-FT	17530000		
WTR YR 1987	TOTAL	6613200	MEAN	18120	MAX	33000	MIN	10100	AC-FT	13120000		

COLORADO RIVER MAIN STEM

09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1939 to current year.

CHEMICAL ANALYSES: October 1939 to September 1944, once daily (composited); October 1944 to July 1946 and November 1948 to July 1950, occasional (composited); October 1950 to September 1957, once daily (composited); October 1957 to September 1962, twice monthly (composited); October 1963 to September 1967, three times per month (composited); October 1967 to March 1970, once daily (composited); April 1970 to September 1981, monthly; October 1981 to September 1985, every two months; October 1985 to current year, monthly.

SPECIFIC CONDUCTANCES: October 1939 to July 1957, once daily; August 1957 to September 1962 and October 1963 to March 1970, variable frequency of measurement; April 1970 to September 1977, monthly; October 1977 to current year, hourly.

BIOLOGICAL DATA: November 1974 to September 1977, monthly; October 1977 to September 1981, monthly (seasonal).

MICROBIOLOGICAL DATA: November 1974 to September 1981, monthly; October 1981 to September 1985, every two months; October 1985 to current year, monthly.

WATER TEMPERATURES: October 1941 to July 1957, once daily; August 1957 to March 1970, variable frequency of measurement; April 1970 to September 1977, monthly; October 1977 to current year, hourly.

SEDIMENT DATA: August 1975 to September 1981, monthly; October 1981 to September 1985, every two months; October 1985 to current year, monthly.

INSTRUMENTATION.--Specific-conductance and water-temperature recorder October 1977 to current year.

REMARKS.--Samples collected 0.3 mi downstream from gaging station in Hoover Dam powerhouse. Unpublished chemical analyses for period October 1939 to September 1940 available from the U.S. Geological Survey in Tucson, Ariz.

EXTREMES MEASURED FOR PERIOD OF RECORD SINCE OCTOBER 1970.--

SPECIFIC CONDUCTANCES: Maximum, 1,230 microsiemens Jan. 18, 1972; minimum, 787 microsiemens Apr. 20, 1987.

PHYTOPLANKTON: Maximum, 3,800 cells/mL Nov. 5, 1974; minimum, 5 cells/mL Aug. 9, 1977.

FECAL STREPTOCOCCI: Maximum, 150 colonies/100 mL July 21, 1987; minimum, <1 colony/100 mL several times during period of record.

WATER TEMPERATURES: Maximum, 21.5°C July 23, 1983; minimum, 9.0°C Feb. 12, 1975, and Jan. 10, 1978.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 24 mg/L July 7, 1982; minimum, <1 mg/L on several days in 1976, Oct. 16, 1979, several days in 1980, Sept. 16, 1981, and Mar. 9, 1982.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 850 microsiemens several days in August; minimum, 787 microsiemens Apr. 20.

WATER TEMPERATURES: Maximum, 15.0°C Nov. 6; minimum, 11.5°C Mar. 24 and many days in Apr., May, June, and July.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH, FIELD (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
27...	1330	29700	810	8.00	26.5	14.0	0.30	7.0	70	<2	K2
NOV											
26...	1230	24500	820	8.00	16.0	14.0	0.20	7.0	69	2	2
DEC											
18...	1130	30100	815	7.70	17.0	13.5	0.30	7.2	70	<2	<2
JAN											
21...	1130	30800	820	8.10	15.0	13.0	0.20	8.8	84	<2	69
FEB											
18...	1100	24100	818	8.10	17.0	13.0	0.50	8.5	83	K1	K1
MAR											
24...	1200	19400	823	8.10	22.0	11.5	1.0	9.3	88	<2	<2
APR											
23...	1200	18100	795	8.00	29.5	11.5	0.40	9.4	88	K1	<1
MAY											
27...	1130	19700	815	7.90	26.5	12.5	0.30	9.0	87	<2	56
JUN											
23...	1130	21400	818	7.80	33.0	12.0	0.20	9.5	91	<2	K2
JUL											
21...	1130	12200	830	8.20	30.0	12.0	0.40	9.1	87	<2	150
SEP											
01...	1130	10500	830	7.70	35.0	13.0	0.60	8.2	80	<2	K8

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (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)
OCT 27...	260	66	24	70	2	3.3	155	127	210	55	0.30
NOV 26...	270	68	24	70	2	3.4	155	127	220	56	0.30
DEC 18...	260	66	23	74	2	3.6	152	125	220	48	0.30
JAN 21...	260	66	24	70	2	3.5	152	125	210	50	0.30
FEB 18...	270	67	24	71	2	3.6	150	123	210	55	0.30
MAR 24...	260	66	24	70	2	3.4	160	131	210	44	0.20
APR 23...	260	67	23	66	2	3.7	157	129	210	52	0.40
MAY 27...	260	65	24	69	2	3.6	160	131	210	52	0.30
JUN 23...	260	64	24	69	2	3.8	155	127	210	54	0.30
JUL 21...	280	71	26	75	2	3.8	157	129	180	57	0.30
SEP 01...	270	68	24	70	2	3.7	167	137	220	53	0.20

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)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 27...	9.1	528	510	0.72	<0.010	<0.010	0.400	0.390	0.060	0.040
NOV 26...	9.4	526	530	0.72	<0.010	<0.010	0.400	0.350	0.040	0.010
DEC 18...	8.9	512	520	0.70	<0.010	<0.010	0.400	0.360	0.050	0.050
JAN 21...	9.1	534	510	0.73	<0.010	<0.010	0.400	0.370	0.040	0.040
FEB 18...	9.1	524	510	0.71	0.330	<0.010	<0.100	0.330	0.050	0.040
MAR 24...	9.4	523	510	0.71	<0.010	<0.010	0.400	0.350	0.050	0.020
APR 23...	9.1	522	510	0.71	<0.010	<0.010	0.300	0.320	0.060	0.060
MAY 27...	9.4	526	510	0.72	<0.010	<0.010	0.300	0.330	0.060	0.050
JUN 23...	9.1	526	510	0.72	<0.010	<0.010	0.300	0.320	0.040	0.040
JUL 21...	9.9	541	500	0.74	<0.010	<0.010	0.300	0.220	0.010	0.030
SEP 01...	9.7	547	530	0.74	<0.010	<0.010	0.400	0.340	0.020	<0.010

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
OCT 27...	2.3	2.4	2.8	0.020	0.020	0.030	<0.010	--	--	--
NOV 26...	0.26	0.30	0.70	<0.010	<0.010	<0.010	<0.010	10	3	100
DEC 18...	0.15	0.20	0.60	<0.010	<0.010	<0.050	<0.010	--	--	--
JAN 21...	0.46	0.50	0.90	0.010	0.030	0.010	0.010	--	--	--
FEB 18...	3.5	3.5	--	0.010	0.010	<0.010	<0.010	--	--	--
MAR 24...	2.1	2.2	2.6	0.010	0.010	<0.010	<0.010	<10	2	99
APR 23...	0.94	1.0	1.3	0.010	0.040	<0.010	<0.010	--	--	--
MAY 27...	0.64	0.70	1.0	<0.010	0.030	<0.010	<0.010	<10	2	100
JUN 23...	0.56	0.60	0.90	0.030	0.020	<0.010	<0.010	--	--	--
JUL 21...	0.49	0.50	0.80	0.010	0.010	<0.010	<0.010	--	--	--
SEP 01...	0.38	0.40	0.80	0.010	0.010	<0.010	<0.010	20	2	100
DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	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)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 27...	--	--	--	--	--	--	--	--	--	--
NOV 26...	<0.5	1	<1	<3	2	<3	<5	40	<1	<0.1
DEC 18...	--	--	--	--	--	--	--	--	--	--
JAN 21...	--	--	--	--	--	--	--	--	--	--
FEB 18...	--	--	--	--	--	--	--	--	--	--
MAR 24...	<0.5	<1	<1	<3	<1	4	<5	38	<1	0.1
APR 23...	--	--	--	--	--	--	--	--	--	--
MAY 27...	<0.5	<1	<1	<3	1	9	<5	35	1	<0.1
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	--	--	--	--	--
SEP 01...	<0.5	2	1	<3	3	5	<5	29	2	<0.1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	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)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 27...	--	--	--	--	--	--	--	2	160	--
NOV 26...	<10	1	2	<1	840	<6	9	4	264	27
DEC 18...	--	--	--	--	--	--	--	1	81	--
JAN 21...	--	--	--	--	--	--	--	2	166	--
FEB 18...	--	--	--	--	--	--	--	2	130	58
MAR 24...	10	2	1	<1	840	<6	4	3	157	--
APR 23...	--	--	--	--	--	--	--	1	49	--
MAY 27...	<10	<1	<1	<1	850	<6	9	8	426	78
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	--	--	--	--	--
SEP 01...	<10	1	2	<1	850	<6	13	3	85	58

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	824	814	819	820	810	820	821	811	818	833	823	825
2	824	814	821	820	810	820	821	811	816	833	823	828
3	824	814	821	820	810	820	822	812	815	833	823	826
4	824	814	820	820	810	820	822	812	815	833	822	829
5	824	814	820	820	810	820	822	812	813	832	822	829
6	823	813	820	820	810	815	822	802	812	832	822	828
7	833	813	820	820	810	810	823	812	815	832	822	830
8	823	813	820	820	810	812	823	813	818	832	822	828
9	823	813	820	820	810	811	823	813	817	832	822	828
10	823	813	821	810	810	810	823	813	819	832	822	827
11	823	813	820	830	810	812	824	813	819	832	821	825
12	822	812	820	830	810	810	824	814	819	831	821	826
13	822	812	820	820	810	811	834	814	820	831	821	826
14	822	812	820	820	810	811	824	814	820	831	821	826
15	822	812	820	820	810	810	824	814	820	831	821	828
16	822	812	820	820	800	810	825	814	820	831	821	829
17	832	812	820	820	800	810	825	815	817	831	821	826
18	822	811	820	820	800	820	825	815	822	830	820	826
19	821	811	820	820	810	813	825	825	828	830	820	827
20	821	811	820	820	810	813	835	825	830	830	820	824
21	821	811	818	820	810	814	835	824	828	830	810	819
22	821	811	816	820	810	816	834	824	829	820	810	813
23	821	811	817	820	810	817	834	824	828	821	811	812
24	821	810	817	820	810	815	834	824	828	821	811	814
25	820	810	818	820	810	814	834	824	829	822	812	814
26	820	810	820	820	810	815	834	824	827	822	812	813
27	820	810	813	820	810	813	834	824	825	823	812	815
28	820	810	813	821	810	820	834	823	827	823	813	815
29	820	810	816	831	801	820	833	823	827	824	813	820
30	820	810	820	821	811	820	833	823	826	824	814	819
31	820	810	820	---	---	---	833	823	828	825	814	820
MONTH	833	810	819	831	800	815	835	802	822	833	810	823
	FEBRUARY			MARCH			APRIL			MAY		
1	825	815	821	821	811	817	820	809	813	822	801	811
2	825	815	820	831	811	818	819	808	814	813	802	808
3	826	816	824	821	811	818	818	808	816	823	803	811
4	826	816	823	821	811	821	828	798	812	814	804	810
5	827	816	823	831	821	823	817	807	813	825	805	813
6	827	817	823	831	821	823	816	806	814	826	806	818
7	828	817	823	831	821	824	825	805	812	827	816	819
8	828	818	825	831	821	825	815	805	810	818	807	815
9	828	818	825	831	821	823	814	804	808	819	808	816
10	829	818	824	831	811	821	814	803	810	829	809	820
11	829	819	822	831	811	821	823	803	809	830	810	819
12	830	819	824	831	811	821	822	802	812	831	810	821
13	830	820	823	831	811	821	821	792	806	832	811	822
14	831	820	824	831	811	819	811	801	806	833	812	825
15	831	821	825	831	811	821	811	800	808	824	813	822
16	831	821	823	821	811	817	819	800	808	834	814	822
17	832	821	824	831	821	828	819	799	809	825	815	823
18	832	812	823	831	811	819	819	798	808	836	815	827
19	832	822	828	831	811	817	818	788	805	836	816	825
20	832	822	825	831	811	821	817	787	799	828	817	825
21	832	822	822	821	810	814	816	796	801	828	818	826
22	832	812	822	830	810	815	806	795	801	839	819	828
23	822	812	818	830	810	818	805	795	801	840	820	831
24	822	812	817	830	810	821	806	796	804	841	820	831
25	822	812	821	820	810	815	807	797	806	842	821	830
26	832	812	821	820	810	815	808	797	805	833	822	828
27	822	812	816	820	810	815	809	798	805	833	815	830
28	832	811	820	830	810	818	810	799	805	842	822	830
29	---	---	---	820	810	815	810	800	806	832	821	830
30	---	---	---	820	810	815	811	800	807	841	830	834
31	---	---	---	820	810	812	---	---	---	840	820	831
MONTH	832	811	822	831	810	819	828	787	808	842	801	823

COLORADO RIVER MAIN STEM

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09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	839	829	830	828	818	825	840	830	840	840	830	840
2	839	828	832	829	818	825	850	830	840	840	830	840
3	838	827	832	829	819	826	840	830	839	840	830	840
4	837	827	830	830	819	826	850	830	839	840	830	830
5	837	826	831	831	820	826	840	830	840	839	829	834
6	836	816	828	831	821	825	840	830	840	839	829	830
7	835	815	826	832	821	830	840	830	840	839	829	830
8	834	824	829	832	812	820	840	830	840	839	829	830
9	834	823	826	833	823	828	850	830	840	839	829	830
10	833	822	827	843	813	828	840	830	837	839	818	830
11	832	822	829	834	824	829	840	830	840	838	828	830
12	831	821	828	835	824	829	840	830	840	838	818	830
13	831	820	826	835	825	830	850	830	838	838	818	828
14	830	819	827	836	826	830	840	830	838	838	828	830
15	829	819	825	837	826	834	840	830	837	838	828	830
16	829	818	823	837	827	833	840	830	840	837	828	830
17	828	817	824	838	827	831	840	830	835	837	827	830
18	827	816	822	838	828	830	840	830	836	837	827	830
19	826	816	822	839	819	830	840	830	835	837	827	830
20	826	815	821	840	829	830	840	830	838	837	827	830
21	825	814	822	840	830	835	840	830	837	837	827	830
22	824	813	819	840	830	840	850	830	840	837	827	830
23	823	813	818	840	830	840	850	830	840	836	816	830
24	824	813	821	840	830	840	840	830	840	836	816	830
25	825	814	820	840	830	840	840	830	840	836	816	830
26	825	815	823	840	830	840	840	830	840	836	826	830
27	826	815	821	840	830	840	840	830	840	836	816	830
28	826	816	823	840	830	840	840	830	840	835	816	830
29	827	816	823	840	830	840	840	830	840	835	825	830
30	828	817	824	840	830	840	840	830	840	835	815	830
31	---	---	---	840	830	840	840	830	840	---	---	---
MONTH	839	813	825	843	812	832	850	830	839	840	815	831
YEAR	850	787	823									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	14.0	14.0	14.5	13.5	14.0	14.5	14.0	14.0	13.5	13.5	13.5
2	14.0	13.5	14.0	14.5	14.0	14.5	14.5	14.0	14.0	13.5	13.5	13.5
3	14.0	13.5	14.0	14.5	14.0	14.5	14.0	14.0	14.0	13.5	13.5	13.5
4	14.0	13.5	14.0	14.5	14.0	14.5	14.0	14.0	14.0	14.0	13.5	13.5
5	14.0	13.5	14.0	14.5	14.5	14.5	14.0	14.0	14.0	14.0	13.5	13.5
6	14.0	13.5	14.0	15.0	14.0	14.5	14.0	14.0	14.0	13.5	13.5	13.5
7	14.0	13.5	14.0	14.5	14.0	14.5	14.0	14.0	14.0	13.5	13.5	13.5
8	14.0	13.5	14.0	14.5	14.5	14.5	14.5	14.0	14.0	13.5	13.5	13.5
9	14.0	13.5	14.0	14.5	14.5	14.5	14.5	14.0	14.0	13.5	13.5	13.5
10	14.5	13.5	14.0	14.5	14.0	14.0	14.5	14.0	14.0	13.5	13.5	13.5
11	14.0	13.5	14.0	14.5	14.0	14.0	14.0	14.0	14.0	13.5	13.5	13.5
12	14.0	13.0	13.5	14.5	13.5	14.0	14.5	14.0	14.5	13.5	13.5	13.5
13	14.0	13.5	14.0	14.5	14.0	14.0	14.5	14.5	14.5	13.5	13.5	13.5
14	14.0	13.5	14.0	14.5	14.0	14.0	14.5	14.0	14.5	13.5	13.5	13.5
15	14.0	13.5	14.0	14.5	14.0	14.0	14.5	14.0	14.0	13.5	13.5	13.5
16	14.0	13.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	13.5	13.5	13.5
17	14.0	13.5	14.0	14.5	13.5	14.0	14.0	14.0	14.0	13.5	13.0	13.5
18	14.0	13.5	14.0	14.5	13.5	14.0	14.0	13.5	14.0	13.0	13.0	13.0
19	14.0	13.5	14.0	14.5	14.0	14.0	14.0	14.0	14.0	13.0	13.0	13.0
20	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	14.0	13.0	13.0	13.0
21	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	14.0	13.0	13.0	13.0
22	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	14.0	13.0	13.0	13.0
23	14.0	13.5	14.0	14.5	14.0	14.5	14.0	13.5	14.0	13.0	12.5	13.0
24	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	14.0	13.0	13.0	13.0
25	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	13.5	13.0	13.0	13.0
26	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	13.5	13.0	13.0	13.0
27	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	14.0	13.0	13.0	13.0
28	14.0	13.5	14.0	14.5	13.5	14.0	14.0	13.5	14.0	13.0	12.5	13.0
29	14.0	13.5	14.0	14.5	13.5	14.0	14.0	13.5	14.0	13.0	13.0	13.0
30	14.0	13.5	14.0	14.5	14.0	14.0	14.0	13.5	14.0	13.0	13.0	13.0
31	14.0	13.5	14.0	---	---	---	14.0	13.5	14.0	13.0	13.0	13.0
MONTH	14.5	13.0	14.0	15.0	13.5	14.0	14.5	13.5	14.0	14.0	12.5	13.5

09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	13.0	13.0	13.0	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	12.0
2	13.0	13.0	13.0	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	12.0
3	13.0	13.0	13.0	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	11.5
4	13.0	13.0	13.0	12.5	12.5	12.5	12.0	11.5	12.0	12.0	11.5	11.5
5	13.0	13.0	13.0	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	11.5
6	13.0	13.0	13.0	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	12.0
7	13.0	13.0	13.0	12.5	12.5	12.5	12.0	11.5	12.0	12.0	12.0	12.0
8	13.0	13.0	13.0	12.5	12.5	12.5	12.0	11.5	12.0	12.0	11.5	12.0
9	13.0	13.0	13.0	12.5	12.5	12.5	12.0	11.5	12.0	12.0	11.5	12.0
10	13.0	13.0	13.0	12.5	12.0	12.5	12.0	11.5	12.0	12.0	12.0	12.0
11	13.0	13.0	13.0	12.5	12.0	12.5	12.0	11.5	12.0	12.0	11.5	12.0
12	13.0	13.0	13.0	12.5	12.0	12.5	12.5	11.5	12.0	12.0	11.5	12.0
13	13.0	13.0	13.0	12.5	12.0	12.5	12.0	11.5	11.5	12.0	11.5	12.0
14	13.0	13.0	13.0	12.5	12.0	12.5	12.0	11.5	11.5	12.0	12.0	12.0
15	13.0	13.0	13.0	12.5	12.0	12.5	12.0	11.5	11.5	12.0	12.0	12.0
16	13.0	13.0	13.0	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0
17	13.0	13.0	13.0	12.5	12.0	12.5	11.5	11.5	11.5	12.0	12.0	12.0
18	13.0	13.0	13.0	12.5	12.0	12.0	12.0	11.5	11.5	12.5	12.0	12.0
19	13.0	13.0	13.0	12.5	12.0	12.0	12.5	11.5	11.5	12.5	12.0	12.0
20	13.0	13.0	13.0	12.5	12.0	12.5	12.0	11.5	11.5	12.5	12.0	12.0
21	13.0	12.5	13.0	12.0	12.0	12.0	11.5	11.5	11.5	12.5	12.0	12.0
22	13.0	12.5	13.0	12.5	12.0	12.0	11.5	11.5	11.5	12.5	12.0	12.0
23	13.0	12.5	12.5	12.5	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0
24	12.5	12.5	12.5	12.5	11.5	12.5	11.5	11.5	11.5	12.5	12.0	12.0
25	12.5	12.5	12.5	12.5	12.0	12.0	11.5	11.5	11.5	12.5	12.0	12.5
26	13.0	12.5	12.5	12.0	12.0	12.0	12.0	11.5	11.5	12.5	12.0	12.0
27	12.5	12.5	12.5	12.5	12.0	12.0	11.5	11.5	11.5	12.5	12.0	12.5
28	12.5	12.5	12.5	12.5	12.0	12.5	11.5	11.5	11.5	12.5	12.0	12.0
29	---	---	---	12.0	12.0	12.0	11.5	11.5	11.5	12.5	12.0	12.5
30	---	---	---	12.5	12.0	12.0	11.5	11.5	11.5	12.5	12.0	12.5
31	---	---	---	12.0	12.0	12.0	---	---	---	12.5	12.0	12.5
MONTH	13.0	12.5	13.0	12.5	11.5	12.5	12.5	11.5	11.5	12.5	11.5	12.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	12.5	12.0	12.5	12.0	11.5	12.0	12.5	12.0	12.0	13.0	13.0	13.0
2	12.5	12.0	12.5	12.0	11.5	12.0	12.5	12.0	12.5	13.5	12.5	13.0
3	12.5	12.0	12.5	12.0	11.5	12.0	12.5	12.0	12.0	13.5	13.0	13.0
4	12.5	12.0	12.5	12.0	11.5	12.0	12.5	12.0	12.5	13.5	13.0	13.0
5	12.5	12.0	12.0	12.0	11.5	12.0	12.5	12.0	12.5	13.0	12.5	13.0
6	12.5	12.0	12.0	12.0	11.5	12.0	12.5	12.0	12.0	13.0	13.0	13.0
7	12.5	12.0	12.5	12.0	12.0	12.0	12.5	12.0	12.5	13.0	12.5	13.0
8	12.5	12.0	12.5	12.0	12.0	12.0	12.5	12.0	12.5	13.0	12.5	13.0
9	12.5	12.0	12.0	12.0	11.5	12.0	12.5	12.0	12.5	13.0	12.5	13.0
10	12.0	12.0	12.0	12.0	11.5	12.0	12.5	12.0	12.5	13.0	13.0	13.0
11	12.5	12.0	12.0	12.5	11.5	12.0	12.5	12.0	12.5	14.0	12.5	13.0
12	12.5	12.0	12.0	12.0	12.0	12.0	12.5	12.0	12.5	13.0	13.0	13.0
13	12.5	12.0	12.0	12.0	11.5	12.0	12.5	12.5	12.5	13.0	12.5	13.0
14	12.5	12.0	12.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
15	12.5	12.0	12.0	12.0	11.5	12.0	12.5	12.0	12.5	13.0	13.0	13.0
16	12.0	12.0	12.0	12.0	11.5	12.0	12.5	12.5	12.5	13.0	12.5	13.0
17	12.5	12.0	12.0	12.5	11.5	12.0	12.5	12.5	12.5	13.0	12.5	13.0
18	12.5	12.0	12.0	12.5	11.5	12.0	12.5	12.5	12.5	13.0	12.5	13.0
19	12.0	12.0	12.0	12.0	11.5	12.0	13.0	12.5	12.5	13.0	12.5	13.0
20	12.5	11.5	12.0	12.0	11.5	12.0	13.0	12.5	12.5	13.0	13.0	13.0
21	12.5	12.0	12.0	12.0	11.5	12.0	13.0	12.5	12.5	13.0	13.0	13.0
22	12.5	11.5	12.0	12.0	11.5	12.0	13.0	12.5	13.0	13.0	13.0	13.0
23	12.0	12.0	12.0	14.5	11.5	12.0	13.0	12.5	12.5	13.5	12.5	13.0
24	12.5	11.5	12.0	12.5	12.0	12.0	13.0	12.5	13.0	13.0	12.5	13.0
25	12.0	12.0	12.0	12.0	12.0	12.0	13.0	12.5	13.0	13.0	12.5	13.0
26	12.0	12.0	12.0	12.0	12.0	12.0	13.0	12.5	13.0	13.0	12.5	13.0
27	12.0	12.0	12.0	12.0	12.0	12.0	13.0	12.5	13.0	13.0	12.5	12.5
28	12.5	11.5	12.0	12.5	12.0	12.0	13.0	12.5	13.0	13.0	12.5	13.0
29	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	13.0	13.0	12.5	13.0
30	12.5	11.5	12.0	12.5	12.0	12.0	13.0	13.0	13.0	13.0	12.5	13.0
31	---	---	---	12.5	12.0	12.0	13.0	13.0	13.0	---	---	---
MONTH	12.5	11.5	12.0	14.5	11.5	12.0	13.0	12.0	12.5	14.0	12.5	13.0
YEAR	15.0	11.5	13.0									

COLORADO RIVER MAIN STEM

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09422500 LAKE MOHAVE AT DAVIS DAM, AZ-NV

LOCATION.--Lat 35°11'50", long 114°34'07", in SW¼ sec.18, T.21 N., R.21 W., Gila and Salt River meridian, Mohave County, Hydrologic Unit 15030101, on forebay structure on Arizona side of Davis Dam on Colorado River, 29 mi west of Kingman, Ariz., and 67 mi downstream from Hoover Dam.

DRAINAGE AREA.--173,300 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--January 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill and rockfill dam; dam completed in April 1949 and storage began Jan. 17, 1950. Usable capacity, 1,810,000 acre-ft between elevations 533.39 ft - lowest point of penstock outlet - and 647.0 ft - top of spillway gates. A small amount of additional storage is available through use of splashboards on the spillway gates. Dead storage, 8,530 acre-ft below elevation 533.39 ft. Lake is used for power development, reregulation for irrigation demand, and to satisfy requirements of the Treaty of 1944 with Mexico. Figures given herein represent usable contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,811,000 acre-ft May 24, 1958, May 29, 1963, May 29, 1982; maximum elevation, 647.04 ft May 29, 1963, May 29, 1982; minimum contents (since 1952), 1,168,000 acre-ft Sept. 8, 1953, elevation, 622.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,782,000 acre-ft June 4, elevation, 646.02 ft; minimum, 1,378,000 acre-ft Aug. 23, elevation, 630.78 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

630	1,359,000	638	1,564,000
632	1,409,000	641	1,644,000
635	1,486,000	644	1,726,000
	647	1,810,000	

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1395000	1450000	1421000	1518000	1723000	1702000	1780000	1728000	1768000	1629000	1427000	1408000
2	1402000	1442000	1428000	1534000	1726000	1700000	1778000	1724000	1770000	1623000	1421000	1411000
3	1409000	1445000	1435000	1536000	1729000	1703000	1771000	1721000	1774000	1615000	1421000	1410000
4	1400000	1447000	1441000	1538000	1736000	1707000	1765000	1716000	1780000	1609000	1420000	1412000
5	1398000	1450000	1449000	1555000	1737000	1711000	1755000	1714000	1781000	1601000	1419000	1412000
6	1399000	1457000	1453000	1579000	1737000	1713000	1754000	1711000	1774000	1596000	1417000	1406000
7	1398000	1463000	1453000	1601000	1729000	1712000	1751000	1709000	1767000	1591000	1416000	1403000
8	1399000	1463000	1457000	1625000	1719000	1708000	1748000	1710000	1766000	1590000	1407000	1404000
9	1401000	1461000	1468000	1646000	1717000	1713000	1751000	1706000	1768000	1586000	1401000	1406000
10	1403000	1460000	1473000	1639000	1715000	1714000	1748000	1703000	1767000	1580000	1398000	1400000
11	1400000	1452000	1481000	1634000	1716000	1715000	1746000	1707000	1769000	1570000	1399000	1401000
12	1393000	1446000	1484000	1629000	1715000	1717000	1742000	1711000	1770000	1562000	1401000	1403000
13	1394000	1442000	1474000	1640000	1715000	1721000	1743000	1713000	1758000	1556000	1399000	1405000
14	1397000	1437000	1473000	1647000	1715000	1715000	1741000	1715000	1742000	1547000	1399000	1410000
15	1404000	1433000	1481000	1659000	1707000	1710000	1736000	1718000	1737000	1542000	1396000	1414000
16	1406000	1425000	1492000	1672000	1708000	1707000	1736000	1721000	1734000	1536000	1389000	1418000
17	1410000	1421000	1506000	1667000	1707000	1711000	1732000	1722000	1728000	1530000	1390000	1420000
18	1405000	1420000	1518000	1658000	1710000	1712000	1725000	1722000	1731000	1520000	1392000	1424000
19	1400000	1420000	1522000	1669000	1717000	1717000	1721000	1736000	1728000	1511000	1393000	1426000
20	1403000	1421000	1518000	1673000	1715000	1723000	1721000	1743000	1719000	1501000	1398000	1426000
21	1406000	1427000	1512000	1685000	1710000	1723000	1725000	1743000	1707000	1495000	1401000	1429000
22	1408000	1426000	1511000	1691000	1704000	1726000	1725000	1749000	1702000	1491000	1393000	1433000
23	1410000	1422000	1514000	1701000	1702000	1731000	1727000	1750000	1698000	1485000	1385000	1437000
24	1414000	1424000	1516000	1703000	1708000	1735000	1730000	1747000	1695000	1478000	1391000	1438000
25	1415000	1433000	1512000	1695000	1712000	1742000	1724000	1745000	1685000	1471000	1388000	1440000
26	1409000	1438000	1514000	1701000	1714000	1749000	1720000	1749000	1677000	1468000	1388000	1438000
27	1415000	1435000	1508000	1706000	1714000	1754000	1723000	1757000	1665000	1459000	1393000	1437000
28	1420000	1428000	1504000	1714000	1710000	1757000	1729000	1766000	1650000	1453000	1397000	1441000
29	1426000	1423000	1509000	1718000	---	1759000	1729000	1770000	1639000	1447000	1396000	1442000
30	1447000	1418000	1516000	1726000	---	1757000	1730000	1770000	1633000	1442000	1398000	1442000
31	1454000	---	1524000	1726000	---	1767000	---	1767000	---	1434000	1403000	---
MAX	1454000	1463000	1524000	1726000	1737000	1767000	1780000	1770000	1781000	1629000	1427000	1442000
MIN	1393000	1418000	1421000	1518000	1702000	1700000	1720000	1703000	1633000	1434000	1385000	1400000
(*)	633.75	632.34	636.46	643.98	643.40	645.48	644.15	645.48	640.57	633.00	631.75	633.30
(**)	+62000	-36000	+106000	+202000	-16000	+57000	-37000	+37000	-134000	-199000	-31000	+39000
CAL YR	1986	MAX	1702000	MIN	1384000	(**)	+115000					
WTR YR	1987	MAX	1781000	MIN	1385000	(**)	+50000					

(*) Elevation, in feet, at end of month.

(**) Change in storage, in acre-feet.

COLORADO RIVER MAIN STEM

09423000 COLORADO RIVER BELOW DAVIS DAM, AZ-NV

LOCATION.--Lat 35°11'30", long 114°34'17", in SE¼NE¼ sec.1, T.32 S., R.66 E., Mount Diablo meridian, in Nevada, Clark County, Hydrologic Unit 15030101, on right bank 0.5 mi downstream from Davis Dam, 29 mi west of Kingman, Ariz., and 68 mi downstream from Hoover Dam.

DRAINAGE AREA.--173,300 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1905 to September 1907 (published as "at Hardyville"), March 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 490.00 ft, National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD since Oct. 1, 1967. 1905-7, nonrecording gage at site 4.8 mi downstream at datum about 3.4 ft lower. Mar. 16 to May 3, 1949, water-stage recorder at site 0.5 mi downstream at datum 10.00 ft higher. May 4, 1949, to Feb. 24, 1956, water-stage recorder at site 400 ft upstream at datum 10.00 ft higher. Feb. 25, 1956, to Sept. 30, 1967, water-stage recorder at present site at datum 10.00 ft higher.

REMARKS.--No estimated daily discharge. Records good. Flow regulated by Lake Mead since Feb. 1, 1935, and by Lake Mohave since Jan. 17, 1950. Many diversions upstream for irrigation, industrial, and municipal uses.

EXTREMES FOR PERIOD OF RECORD.--1905-7: Maximum daily discharge, 116,000 ft³/s June 20, 1906; minimum daily, 2,850 ft³/s Jan. 5, 1906.

1949-87: Maximum discharge, 46,200 ft³/s July 2, 1983, elevation, 509.48 ft, maximum elevation, 513.91 ft Apr. 22, 1952; no flow at Davis Dam parts of several days July to September 1950 and Dec. 27, 1950, when gates in dam were closed; minimum daily discharge, 285 ft³/s Aug. 3, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,300 ft³/s Dec. 12, elevation, 505.33 ft; minimum daily, 10,300 ft³/s Oct. 30.

REVISIONS.--Revised daily discharges, in cubic feet per second, for periods in September 1981 are given below. These figures supersede those published in the reports for 1981 and 1982.

Sept. 2....12300
5....14300

Sept. 6....13500
7....13600

Sept. 16....9060
27....9950

	TOTAL	MEAN	MAX	MIN	AC-FT
September 1981	318370	10610	14300	6100	631500
Wtr Yr 1981	4984080	13660	20800	2730	9886000
Cal Yr 1981	4208060	11530	20800	2730	8347000

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19800	19200	17300	24100	22800	20800	12400	16200	16500	14700	18300	15000
2	19700	19500	17500	24100	22800	20500	18600	16400	14400	17400	17700	14500
3	19600	19400	18400	23000	22400	18500	19200	16000	13300	15400	17600	14600
4	19500	19300	18200	25000	21500	18500	18400	16100	14300	15500	18200	14500
5	19500	18300	18100	21700	21600	18400	18500	16900	15000	15700	17900	15600
6	18200	18300	18000	20200	21700	18400	18700	17000	16400	16100	17700	15700
7	18300	18200	17900	20000	21700	18400	17800	16900	16400	16200	17200	15700
8	18500	18100	18200	19800	21800	18500	16900	16900	15700	15700	17200	14800
9	18300	18100	18000	21000	20400	18500	16400	16900	15300	16600	17300	14800
10	18500	18000	18100	24600	20400	18400	16800	15100	14900	17900	18000	14800
11	18300	18100	18200	24700	20000	18400	16800	16300	14100	17900	17700	14800
12	18300	18300	22400	25000	20000	18400	16800	16300	15500	16700	17600	14700
13	17900	18400	23700	24100	20200	18600	17000	16200	17800	16700	17800	13100
14	18400	18500	20800	25000	19900	18500	16500	16200	18000	18600	17800	14100
15	17500	18500	20800	25100	20000	18600	18000	14800	17700	17000	17400	14200
16	17600	18300	20800	25000	20000	18500	17200	14700	16900	17100	17100	14700
17	17900	18400	20700	23900	20800	16800	17700	14800	15400	17200	17300	14900
18	17600	18200	20600	21900	20800	17100	18100	14600	15500	16600	17100	14100
19	17700	18300	24300	21700	20700	16700	17600	12900	15700	16400	17200	13700
20	18100	18000	25800	21500	20800	16600	16200	12800	15700	17300	16400	13100
21	18100	17600	25700	21900	20800	16700	16100	13600	16500	16900	16300	13400
22	18300	17500	25900	22500	20900	16700	16200	14400	17600	16900	18800	13400
23	18300	17500	25300	22700	21100	16700	15900	15000	16600	17100	18200	13300
24	18300	17500	24700	22700	21100	17000	16200	15200	15600	17800	14700	13300
25	18200	17400	24700	22700	21100	16200	16700	14700	17900	17300	17100	13700
26	18300	17900	24700	23000	20800	15100	15600	14000	18200	16700	16200	13300
27	18300	17500	24700	22900	20800	15900	16200	11800	18600	17300	15600	13100
28	18300	17900	24700	23000	20800	18000	16200	11600	19100	18400	15000	12500
29	18000	17600	24200	22900	---	18200	16300	11600	17300	16300	15400	12700
30	10300	17600	24200	22800	---	18900	16400	15100	15100	17400	13400	13600
31	18600	---	24200	22800	---	13800	---	16400	---	17500	15200	---
TOTAL	562200	545400	670800	711300	587700	550300	507400	467400	487000	522300	526400	423700
MEAN	18140	18180	21640	22950	20990	17750	16910	15080	16230	16850	16980	14120
MAX	19800	19500	25900	25100	22800	20800	19200	17000	19100	18600	18800	15700
MIN	10300	17400	17300	19800	19900	13800	12400	11600	13300	14700	13400	12500
AC-FT	1115000	1082000	1331000	1411000	1165000	1092000	1006000	927100	966000	1036000	1044000	840400
CAL YR 1986	TOTAL	8788700	MEAN	24080	MAX	35500	MIN	10300	AC-FT	17430000		
WTR YR 1987	TOTAL	6561900	MEAN	17980	MAX	25900	MIN	10300	AC-FT	13020000		

09423000 COLORADO RIVER BELOW DAVIS DAM, AZ-NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to August 1985, April 1986 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1982 to September 1987 (discontinued).

WATER TEMPERATURE: October 1982 to September 1987 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,180 microsiemens Apr. 3, 1983; minimum recorded, 770 microsiemens Feb. 14, 1987.

WATER TEMPERATURE: Maximum recorded, 23.5°C July 31, Aug. 1, 7, 11-13, 17, 1983; minimum recorded, 10.1°C Jan. 20, 1987.

EXTREMES FOR CURRENT PERIOD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 890 microsiemens July 27, Aug. 3, 4; minimum recorded, 770 microsiemens Feb. 14.

WATER TEMPERATURE: Maximum recorded, 22.9°C Aug. 29; minimum recorded 10.1°C Jan. 20.

INSTRUMENTATION.--Specific conductance and water temperature recorder.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	HARD- NESS (MG/L AS CACO3)
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(00900)	
OCT 1986											
07...	1245	19700	840	8.00	30.0	19.0	753	8.9	97	260	
NOV											
04...	1000	20200	850	7.80	23.5	16.0	756	9.0	92	260	
DEC											
09...	1200	20500	830	7.95	12.0	14.0	760	9.9	97	260	
JAN 1987											
06...	1200	19900	840	8.10	12.5	13.0	760	9.8	93	260	
FEB											
03...	1145	24300	840	7.90	18.0	12.0	752	11.3	107	270	
MAR											
03...	0945	11200	860	7.90	10.0	12.0	760	10.8	101	270	
APR											
07...	1130	13600	850	8.00	22.0	16.0	758	10.3	105	260	
MAY											
05...	1600	22900	855	8.00	35.0	18.0	755	9.5	102	260	
JUN											
09...	0930	13100	850	7.90	38.0	17.0	754	9.6	101	250	
JUL											
07...	1045	14100	845	7.80	34.0	18.0	753	8.4	90	260	
AUG											
11...	1030	14700	850	7.80	37.0	18.0	755	7.7	82	260	
SEP											
03...	1015	14600	820	7.50	39.5	19.0	769	7.8	84	270	
DATE		HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3 (00440)	CAR- BONATE WH WAT TOTAL FIELD MG/L AS CO3 (00445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986											
07...	140	66	24	69	2	3.5	160	0	128	210	
NOV											
04...	140	66	24	69	2	3.3	150	0	123	210	
DEC											
09...	140	67	23	68	2	3.4	150	0	126	210	
JAN 1987											
06...	130	66	24	71	2	3.6	160	0	132	230	
FEB											
03...	150	67	24	72	2	3.6	140	0	118	220	
MAR											
03...	140	68	24	70	2	3.6	160	0	130	220	
APR											
07...	140	65	24	67	2	3.7	140	0	118	210	
MAY											
05...	130	66	24	69	2	3.8	160	0	129	210	
JUN											
09...	130	64	23	69	2	3.7	150	0	125	210	
JUL											
07...	120	65	23	70	2	3.7	160	0	134	210	
AUG											
11...	130	66	24	72	2	3.7	170	0	137	220	
SEP											
03...	140	66	25	74	2	4.0	160	--	131	210	

COLORADO RIVER MAIN STEM

09423000 COLORADO RIVER BELOW DAVIS DAM, AZ-NV--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1986										
07...	55	0.30	9.2	590	510	0.80	--	<0.010	0.200	0.180
NOV										
04...	55	0.30	9.0	533	510	0.72	--	<0.010	0.300	0.330
DEC										
09...	56	0.30	9.2	534	510	0.73	0.290	0.010	0.300	0.290
JAN 1987										
06...	53	0.30	9.2	532	540	0.72	--	<0.010	0.300	0.320
FEB										
03...	47	0.30	9.0	534	510	0.73	--	<0.010	0.300	0.320
MAR										
03...	55	0.30	9.0	541	530	0.74	--	<0.010	0.300	0.310
APR										
07...	57	0.30	8.8	533	510	0.72	--	<0.010	0.300	0.260
MAY										
05...	54	0.30	9.1	536	510	0.73	--	<0.010	0.300	0.240
JUN										
09...	58	0.40	9.0	533	510	0.72	--	<0.010	0.300	0.270
JUL										
07...	57	0.30	9.1	534	520	0.73	--	<0.010	0.300	0.320
AUG										
11...	55	0.30	9.4	526	530	0.72	--	<0.010	0.200	0.230
SEP										
03...	49	0.30	9.8	521	520	0.71	--	<0.010	0.200	0.210

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) (70507)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986										
07...	<0.010	--	0.50	0.70	3.1	<0.020	0.020	<0.010	100	6
NOV										
04...	0.020	0.58	0.60	0.90	4.0	<0.010	<0.010	0.010	100	6
DEC										
09...	<0.010	--	<0.20	--	--	<0.010	0.010	<0.010	100	7
JAN 1987										
06...	0.020	0.38	0.40	0.70	3.1	0.010	<0.010	<0.010	100	4
FEB										
03...	0.010	0.49	0.50	0.80	3.5	0.010	0.010	<0.010	90	<3
MAR										
03...	<0.010	--	0.20	0.50	2.2	0.010	<0.010	<0.010	90	20
APR										
07...	0.010	0.49	0.50	0.80	3.5	<0.010	<0.010	<0.010	100	4
MAY										
05...	0.030	0.87	0.90	1.2	5.3	0.010	0.010	<0.010	100	<3
JUN										
09...	0.040	0.86	0.90	1.2	5.3	0.030	0.010	<0.010	110	10
JUL										
07...	0.060	0.84	0.90	1.2	5.3	0.030	0.010	<0.010	100	<3
AUG										
11...	0.010	0.89	0.90	1.1	4.9	<0.010	<0.010	<0.010	110	5
SEP										
03...	0.030	0.37	0.40	0.60	2.7	<0.010	<0.010	<0.010	100	36

< Actual value is known to be less than value shown.

09423000 COLORADO RIVER BELOW DAVIS DAM, AZ-NV--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	849	---	---	839	862	850	860	---	850	880	862
2	836	850	---	---	860	860	848	860	---	850	870	861
3	836	860	---	---	857	868	847	860	---	840	890	860
4	837	840	---	---	855	867	845	860	---	840	890	850
5	838	840	---	---	852	865	843	---	---	840	870	850
6	849	840	---	---	860	863	842	---	---	840	870	860
7	840	840	---	---	857	872	860	---	---	860	870	860
8	840	---	---	---	855	870	860	---	---	860	880	860
9	841	---	---	---	852	868	860	---	860	860	880	860
10	841	---	---	---	850	877	860	---	860	860	880	860
11	841	---	---	---	847	865	860	---	860	860	870	850
12	842	---	---	---	875	873	860	---	860	860	870	850
13	842	---	---	---	872	872	860	---	860	880	878	840
14	843	---	---	---	870	870	860	---	860	880	868	850
15	843	---	---	840	867	868	870	---	870	870	866	850
16	843	---	---	840	875	877	870	---	860	860	875	850
17	844	---	---	831	872	865	870	---	880	860	884	850
18	844	---	---	832	870	873	860	---	880	850	884	860
19	844	---	---	822	867	872	860	---	850	860	883	850
20	845	---	---	823	865	870	860	---	850	860	872	860
21	845	---	---	813	862	868	860	---	870	860	871	860
22	845	---	---	814	870	867	860	---	850	870	870	850
23	846	---	---	814	867	865	860	---	860	870	870	880
24	846	---	---	815	865	863	870	---	850	880	869	870
25	847	---	---	815	862	862	870	---	850	880	868	850
26	847	---	---	816	860	860	870	---	870	880	867	850
27	847	---	---	817	867	888	870	---	870	890	866	850
28	848	---	---	827	865	857	870	---	850	880	875	850
29	848	---	---	828	---	855	870	---	850	880	874	870
30	838	---	---	838	---	853	860	---	880	870	863	870
31	849	---	---	839	---	852	---	---	---	880	872	---
MAX	849	---	---	---	875	888	870	---	---	890	890	880

MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	835	839	---	---	829	852	840	850	---	820	860	822
2	826	830	---	---	830	850	818	830	---	830	840	841
3	826	830	---	---	837	848	837	850	---	830	850	830
4	827	830	---	---	835	857	805	850	---	830	840	840
5	828	830	---	---	842	855	843	---	---	830	850	810
6	829	830	---	---	840	853	842	---	---	830	860	820
7	830	830	---	---	837	852	840	---	---	830	860	840
8	820	---	---	---	845	860	840	---	---	840	860	820
9	831	---	---	---	782	858	840	---	830	840	850	840
10	831	---	---	---	780	857	850	---	840	850	860	840
11	831	---	---	---	777	845	830	---	840	840	860	840
12	832	---	---	---	775	853	830	---	840	850	859	830
13	832	---	---	---	772	852	850	---	840	850	848	830
14	833	---	---	---	770	840	850	---	830	850	847	830
15	833	---	---	830	777	848	840	---	830	850	856	830
16	833	---	---	820	775	847	830	---	830	840	856	830
17	834	---	---	821	862	855	850	---	820	830	864	830
18	834	---	---	812	860	853	850	---	830	830	844	840
19	834	---	---	812	857	852	840	---	830	840	843	840
20	835	---	---	803	855	850	850	---	830	830	842	840
21	835	---	---	803	852	848	850	---	830	840	851	840
22	835	---	---	804	850	847	850	---	830	850	850	810
23	836	---	---	804	847	845	850	---	800	850	849	800
24	836	---	---	805	855	853	850	---	830	860	838	820
25	837	---	---	805	852	852	850	---	830	840	847	820
26	837	---	---	806	850	850	850	---	820	850	847	820
27	837	---	---	807	847	848	840	---	820	850	846	810
28	838	---	---	807	855	847	830	---	820	840	845	820
29	838	---	---	818	---	845	850	---	820	830	845	830
30	838	---	---	818	---	853	830	---	820	840	843	810
31	839	---	---	829	---	812	---	---	---	860	842	---
MIN	820	---	---	---	770	812	805	---	---	820	838	800

COLORADO RIVER MAIN STEM

09423000 COLORADO RIVER BELOW DAVIS DAM, AZ-NV--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	837	841	---	---	834	857	849	851	---	839	867	852
2	834	840	---	---	865	858	847	847	---	842	860	849
3	833	843	---	---	845	855	847	856	---	836	869	847
4	834	832	---	---	846	861	841	857	---	836	872	842
5	833	834	---	---	849	858	843	---	---	837	866	840
6	837	834	---	---	850	861	842	---	---	836	865	843
7	835	832	---	---	850	861	845	---	---	845	866	848
8	831	---	---	---	851	864	850	---	---	850	869	845
9	832	---	---	---	832	861	853	---	850	848	872	846
10	832	---	---	---	804	866	854	---	850	852	873	845
11	833	---	---	---	785	860	850	---	848	851	865	843
12	836	---	---	---	794	860	851	---	849	853	864	841
13	836	---	---	---	800	864	852	---	852	861	861	838
14	836	---	---	---	798	858	857	---	847	865	860	839
15	838	---	---	839	833	858	857	---	886	856	857	841
16	836	---	---	832	847	858	856	---	844	852	862	843
17	837	---	---	827	863	859	860	---	844	847	872	842
18	836	---	---	824	864	862	856	---	842	846	869	847
19	838	---	---	820	862	861	852	---	839	852	864	848
20	839	---	---	815	860	860	854	---	841	854	864	850
21	838	---	---	811	861	860	856	---	842	856	862	850
22	839	---	---	810	859	857	859	---	842	859	862	842
23	839	---	---	809	857	855	858	---	841	862	862	864
24	840	---	---	809	858	856	859	---	840	866	859	844
25	838	---	---	809	856	856	860	---	842	867	858	840
26	840	---	---	811	859	856	860	---	842	866	858	838
27	839	---	---	810	859	856	859	---	841	867	857	835
28	842	---	---	816	860	854	857	---	838	864	859	840
29	841	---	---	822	---	854	856	---	836	859	861	849
30	838	---	---	825	---	853	850	---	839	859	853	840
31	839	---	---	831	---	850	---	---	---	866	853	---

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.7	17.0	14.6	---	11.8	12.1	13.8	15.7	---	18.7	20.1	20.1
2	18.3	16.8	14.3	---	12.0	12.1	14.5	16.3	---	18.6	19.4	18.9
3	18.3	16.7	14.3	---	12.0	12.4	14.7	17.1	---	17.9	21.3	19.2
4	18.7	16.6	14.2	---	12.2	12.5	14.3	17.5	---	18.2	21.3	18.0
5	18.7	16.7	14.2	---	12.1	12.7	14.5	---	---	18.1	20.3	19.0
6	18.8	16.8	14.2	---	12.1	12.7	14.7	---	---	17.1	19.2	21.0
7	19.1	16.8	14.2	---	12.1	12.8	14.8	---	---	19.0	19.7	21.2
8	18.8	16.7	14.2	---	12.2	12.9	15.3	---	---	18.6	21.4	20.8
9	18.7	16.5	14.1	---	12.4	13.3	15.6	---	18.6	18.4	22.8	20.2
10	18.3	16.3	---	---	12.6	13.7	15.9	---	18.3	18.8	21.1	20.0
11	18.2	16.1	---	---	12.7	13.7	15.6	---	18.0	18.6	18.7	19.6
12	18.3	15.8	---	---	12.9	13.3	15.7	---	18.3	19.3	18.5	18.8
13	18.3	15.8	---	---	12.9	13.3	15.6	---	19.1	21.5	20.2	18.3
14	18.3	15.7	---	---	12.6	12.8	15.7	---	18.1	21.4	19.4	18.7
15	18.1	15.7	---	11.1	12.8	12.8	16.0	---	18.3	20.2	18.4	19.3
16	18.1	15.7	---	11.1	12.9	12.7	16.3	---	18.8	18.8	19.8	19.0
17	17.8	15.7	---	10.9	12.9	13.0	16.4	---	17.8	18.1	21.3	19.7
18	17.6	15.7	---	10.8	12.8	13.3	15.5	---	17.0	17.4	22.2	20.1
19	17.3	15.6	---	10.9	12.5	13.1	15.3	---	17.5	18.7	22.1	19.8
20	17.8	15.7	---	10.7	12.4	13.3	15.5	---	18.4	19.3	21.2	20.2
21	17.7	15.8	---	10.5	12.4	13.4	15.8	---	17.4	19.8	21.0	20.4
22	17.7	15.7	---	10.5	12.3	13.1	15.9	---	18.1	19.9	21.2	19.1
23	17.8	15.6	---	10.6	12.3	13.1	16.4	---	19.0	20.4	21.2	19.3
24	17.7	15.3	---	10.6	12.3	13.4	16.5	---	18.7	20.9	21.2	19.7
25	17.8	15.3	---	10.8	12.1	13.6	16.5	---	18.8	21.0	21.2	18.7
26	17.8	15.2	---	10.9	12.1	13.7	16.7	---	19.2	21.0	21.4	17.5
27	17.8	15.0	---	11.0	12.1	14.0	17.2	---	19.1	21.7	20.5	18.0
28	17.5	14.8	---	11.2	12.1	14.0	17.0	---	18.2	22.6	22.1	18.9
29	17.5	14.8	---	11.4	---	14.0	17.0	---	18.2	21.0	22.9	22.0
30	17.2	14.8	---	11.6	---	13.9	16.5	---	18.9	21.7	19.8	21.6
31	17.1	---	---	11.7	---	14.0	---	---	---	20.9	21.4	---
MAX	19.1	17.0	---	---	12.9	14.0	17.2	---	---	22.6	22.9	22.0

COLORADO RIVER MAIN STEM

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09423000 COLORADO RIVER BELOW DAVIS DAM, AZ-NV--Continued

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	16.5	14.0	---	11.5	11.6	12.4	15.4	---	16.8	17.8	18.6
2	18.0	16.6	14.0	---	11.5	12.0	12.4	15.4	---	17.2	17.7	17.7
3	18.0	16.5	14.1	---	11.5	12.1	13.1	16.0	---	17.2	17.6	17.9
4	18.0	16.0	14.1	---	11.5	12.0	13.1	17.0	---	16.9	18.1	17.2
5	18.5	16.5	14.1	---	12.0	12.1	14.0	---	---	16.0	17.8	17.2
6	18.5	16.5	14.1	---	12.0	12.0	14.0	---	---	16.0	17.5	17.0
7	18.5	16.6	14.1	---	12.0	12.1	14.0	---	---	16.2	17.9	18.8
8	18.5	16.5	14.0	---	12.0	12.6	15.0	---	---	17.6	17.7	18.7
9	18.2	16.0	14.0	---	11.9	12.6	15.0	---	16.3	17.4	18.4	18.2
10	18.0	16.1	---	---	12.4	13.2	15.3	---	16.2	17.4	17.9	18.3
11	17.5	15.5	---	---	12.3	13.1	14.6	---	16.0	17.5	17.4	18.1
12	18.0	15.5	---	---	12.3	12.7	14.6	---	16.1	17.5	17.7	17.8
13	18.1	15.7	---	---	12.3	12.6	15.1	---	16.5	17.9	18.1	17.7
14	18.0	15.6	---	---	12.3	12.2	15.1	---	16.5	18.4	17.6	17.6
15	18.0	15.5	---	11.0	12.3	12.2	15.6	---	16.0	17.6	17.7	17.4
16	17.5	15.5	---	10.5	12.3	12.2	15.7	---	16.0	17.4	17.9	17.4
17	17.5	15.6	---	10.5	12.8	12.7	15.2	---	15.8	16.8	19.5	17.5
18	17.0	15.5	---	10.7	12.2	12.7	14.2	---	15.9	16.8	19.8	17.7
19	17.0	15.0	---	10.7	12.2	12.8	14.2	---	16.0	17.2	19.2	18.3
20	17.0	15.0	---	10.1	12.3	12.7	15.2	---	16.1	17.5	18.9	18.3
21	17.6	15.6	---	10.2	12.2	12.8	15.3	---	16.3	17.6	18.8	18.6
22	17.5	15.5	---	10.4	12.2	12.9	15.3	---	16.2	17.5	19.0	17.9
23	17.5	15.0	---	10.2	12.2	12.8	15.8	---	16.3	17.5	18.8	17.7
24	17.5	15.0	---	10.2	11.9	12.8	16.3	---	16.4	18.5	19.0	18.2
25	17.5	15.2	---	10.3	11.6	13.4	15.8	---	16.8	18.3	18.8	17.4
26	17.5	15.0	---	10.3	11.6	13.3	15.8	---	16.9	18.1	18.8	17.2
27	17.5	14.5	---	10.9	11.6	13.3	16.4	---	17.1	18.3	18.9	17.1
28	17.0	14.5	---	11.0	11.6	13.8	15.9	---	16.7	18.7	18.8	16.9
29	17.0	14.5	---	10.9	---	13.4	15.9	---	16.8	18.1	19.3	16.9
30	16.5	14.6	---	11.4	---	12.9	15.4	---	16.6	18.3	19.0	17.7
31	16.0	---	---	11.5	---	13.1	---	---	---	18.1	18.9	---
MIN	16.0	14.5	---	---	11.5	11.6	12.4	---	---	16.0	17.4	16.9

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.3	16.7	14.5	---	11.7	11.9	13.1	15.6	---	17.6	18.8	19.2
2	18.1	16.7	14.1	---	11.6	12.0	13.8	15.8	---	17.7	18.4	18.3
3	18.2	16.6	14.2	---	11.7	12.3	14.2	16.7	---	17.5	19.4	18.3
4	18.4	16.5	14.2	---	12.0	12.2	14.0	17.2	---	17.4	19.7	17.8
5	18.6	16.6	14.2	---	12.0	12.6	14.2	---	---	17.5	18.9	18.2
6	18.6	16.7	14.1	---	12.0	12.6	14.3	---	---	16.7	18.4	19.1
7	18.7	16.7	14.1	---	12.1	12.5	14.4	---	---	17.7	18.7	20.0
8	18.7	16.6	14.1	---	12.1	12.8	15.2	---	---	18.0	19.2	19.6
9	18.5	16.1	14.0	---	12.0	12.8	15.4	---	17.0	17.9	20.8	19.1
10	18.2	16.2	---	---	12.5	13.5	15.6	---	16.8	18.0	19.4	19.0
11	17.7	15.9	---	---	12.6	13.3	15.2	---	16.6	17.9	18.0	18.7
12	18.1	15.7	---	---	12.7	13.2	15.2	---	16.9	18.4	18.0	18.4
13	18.2	15.7	---	---	12.7	12.9	15.3	---	17.8	19.5	19.0	18.0
14	18.1	15.6	---	---	12.4	12.7	15.5	---	17.1	20.0	18.4	18.1
15	18.0	15.6	---	11.1	12.6	12.4	15.8	---	16.9	18.5	18.0	18.3
16	17.9	15.6	---	10.7	12.7	12.5	16.0	---	17.1	17.9	19.0	18.3
17	17.6	15.7	---	10.8	12.8	12.8	15.9	---	16.7	17.4	20.7	18.7
18	17.2	15.6	---	10.8	12.7	13.0	15.2	---	16.5	17.2	21.1	19.3
19	17.2	15.4	---	10.8	12.4	13.0	14.9	---	16.7	18.0	20.3	19.2
20	17.5	15.5	---	10.4	12.3	13.1	15.4	---	17.0	18.4	19.8	19.5
21	17.7	15.7	---	10.4	12.3	13.2	15.6	---	16.9	18.9	19.8	19.7
22	17.6	15.6	---	10.5	12.3	13.0	15.7	---	17.2	18.9	20.1	18.7
23	17.6	15.4	---	10.5	12.2	13.0	16.0	---	17.4	19.3	20.0	18.8
24	17.6	15.1	---	10.4	12.2	13.2	16.4	---	17.1	20.0	20.0	19.1
25	17.6	15.2	---	10.5	12.0	13.5	16.3	---	17.7	19.9	20.1	18.0
26	17.7	15.1	---	10.7	11.8	13.5	16.2	---	17.8	19.6	19.8	17.4
27	17.7	14.8	---	10.9	12.0	13.7	16.8	---	17.7	20.2	19.5	17.6
28	17.2	14.6	---	11.1	11.8	13.9	16.4	---	17.3	20.7	20.0	17.9
29	17.2	14.7	---	11.1	---	13.7	16.3	---	17.3	19.1	20.7	19.6
30	16.7	14.7	---	11.5	---	13.4	16.0	---	17.6	19.9	19.4	19.8
31	16.8	---	---	11.6	---	13.6	---	---	---	19.5	19.9	---

LOCATION.--Lat 34°51'06", long 114°36'33", in SE~~1~~⁴ sec.19, T.9 N., R.23 E., San Bernardino meridian, San Bernardino County, Hydrologic Unit 15030101, on right bank at Needles, 15 mi upstream from Bureau of Reclamation gaging station near Topock, Ariz., 30 mi downstream from Davis Dam, and 97 mi downstream from Hoover Dam.

PERIOD OF RECORD.--April 1931 to current year (elevations only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 15, 1942, at site 550 ft downstream and May 15, 1942 to Feb. 16, 1969, at site 200 ft upstream.

REMARKS.--No estimated daily elevations. Flow regulated by Lake Mead since Feb. 1, 1935, and by Lake Mohave since Jan. 17, 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 475.77 ft Nov. 30, 1944; minimum, 453.12 ft Aug. 24, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 460.36 ft Dec. 23; minimum, 453.12 ft Aug. 24.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457.78	457.19	456.49	459.59	458.95	458.00	454.63	455.95	456.12	455.33	456.81	455.37
2	457.74	457.54	457.16	459.58	458.95	458.02	455.34	456.00	455.63	456.55	456.88	455.34
3	457.71	457.57	456.96	459.25	458.77	456.98	457.08	455.36	454.71	455.89	456.43	454.91
4	457.68	457.50	457.10	459.57	458.71	456.92	456.95	455.91	455.16	455.70	456.83	455.03
5	457.68	457.23	457.00	459.30	458.37	456.91	456.83	456.17	455.35	455.77	456.72	455.77
6	457.22	457.02	456.87	457.94	458.45	456.87	456.96	456.31	455.71	455.57	456.72	455.57
7	456.98	456.98	456.96	457.83	458.51	456.88	456.84	456.32	456.11	455.93	456.35	455.59
8	457.23	456.94	456.94	457.75	458.49	456.87	456.74	456.33	456.09	455.99	456.56	455.10
9	457.15	456.95	457.09	457.74	457.97	456.91	456.06	456.30	455.78	455.69	456.27	455.21
10	457.15	456.94	456.95	459.59	457.87	456.85	456.15	456.04	455.31	456.46	456.69	455.21
11	457.10	456.94	456.95	459.81	457.78	456.85	456.09	455.58	455.27	456.60	456.67	455.23
12	457.10	456.95	457.55	459.88	457.66	456.90	456.14	456.01	455.36	456.38	456.57	455.24
13	456.93	457.16	459.94	459.70	457.58	456.86	456.22	456.02	456.27	455.88	456.59	455.01
14	457.10	457.11	458.20	459.79	457.72	456.84	455.39	456.00	456.58	457.01	456.58	454.46
15	456.91	457.13	458.17	459.97	457.61	456.84	457.18	455.83	457.34	456.30	456.58	454.91
16	456.68	457.15	458.15	459.94	457.64	456.83	456.32	455.38	456.36	456.28	456.41	454.85
17	456.92	457.07	458.13	459.65	457.85	456.26	456.52	455.37	456.02	456.25	456.38	455.17
18	456.76	457.11	458.11	458.90	458.00	456.04	456.79	455.45	455.49	456.42	456.48	455.30
19	456.77	457.07	458.87	458.63	457.98	456.60	456.82	455.25	455.66	455.83	456.20	454.99
20	456.89	457.04	460.24	458.49	457.97	455.92	456.10	454.15	455.68	456.50	456.35	454.64
21	457.04	456.86	460.25	458.55	458.00	456.08	455.88	454.44	455.77	456.29	455.73	454.43
22	456.97	456.74	460.29	458.80	458.01	456.01	455.87	455.20	456.73	456.30	457.63	454.53
23	457.07	456.71	460.23	458.88	458.03	455.98	455.89	455.24	456.14	456.34	456.86	454.53
24	457.05	456.71	459.87	458.94	458.05	455.98	455.73	455.51	455.79	456.62	454.87	454.47
25	457.04	456.14	459.85	458.91	458.19	455.83	456.08	455.55	456.32	456.46	456.03	454.47
26	457.04	456.97	459.85	459.03	458.08	454.88	455.93	455.08	456.99	456.30	456.32	454.61
27	457.05	456.64	459.85	459.03	457.99	455.27	455.71	454.48	456.79	456.11	455.74	454.50
28	457.05	457.02	459.84	459.03	457.99	456.17	455.90	453.93	457.43	456.87	455.16	454.36
29	456.											

DIVERSIONS AND RETURN FLOWS BETWEEN DAVIS DAM AND PARKER DAM

101

09423550 TOPOCK MARSH INLET NEAR NEEDLES, CA

LOCATION.--Lat 34°50'10", long 114°35'03", in NE¼NW¼ sec.33, T.9 N., R.23 E., San Bernardino meridian, in Mohave County, Arizona, Hydrologic Unit 15030101, on left bank of Colorado River on north side of intake structure, 1.3 mi east of Needles.

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorders above and below intake gates to record head and to record gate openings. Datum of gages is 400.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records fair. Topock Marsh inlet diverts water from the Colorado River into Topock Marsh, an area of 4,260 acres. This water flows through the marsh and returns to the Colorado River through the Topock Marsh outlet. The U.S. Fish and Wildlife Service operate the gate settings that control the flow into marsh. Monthly total return flows through the outlet, sta 09423650, Topock Marsh Outlet near Topock, AZ, are shown in the table below. Prior to June 1978, daily flows for this station were published separately.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 249 ft³/s Mar. 5, 1976; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	147	38	.00	.00	.00	39	61	102	80	136	66
2	80	154	48	.00	22	.00	44	64	80	120	136	58
3	83	156	52	.00	35	.00	70	53	41	90	110	37
4	88	153	64	.00	25	.00	68	64	57	84	141	41
5	88	145	60	.00	26	.00	67	66	66	89	122	94
6	169	140	60	.00	26	.00	69	68	89	88	123	84
7	120	138	61	28	26	30	68	67	90	100	109	84
8	125	138	61	37	27	48	68	68	97	113	119	51
9	119	137	62	20	26	56	60	67	84	77	105	59
10	122	137	62	.00	25	63	62	64	56	132	123	57
11	122	137	77	.00	12	63	59	57	73	132	119	57
12	123	134	90	.00	.00	66	60	71	53	124	129	58
13	117	131	114	.00	.00	67	61	81	109	94	127	32
14	123	132	98	.00	.00	66	48	80	139	147	123	3.9
15	119	139	63	.00	.00	66	71	74	164	109	119	33
16	119	139	24	.00	.00	66	62	63	114	110	115	39
17	140	138	.00	.00	.00	59	65	63	101	105	123	67
18	135	139	.00	.00	.00	57	67	67	71	117	127	53
19	137	137	.00	.00	.00	66	68	57	79	98	104	36
20	129	111	.00	.00	.00	58	60	39	95	122	107	4.8
21	125	.00	.00	.00	.00	61	57	45	86	110	84	3
22	123	.00	25	.00	.00	59	58	59	148	113	165	3
23	123	.00	34	.00	.00	59	59	61	104	120	136	2
24	125	.00	.00	.00	.00	59	55	70	95	122	59	4
25	128	.00	.00	.00	.00	57	62	72	114	126	98	3.0
26	134	.00	.00	.00	.00	43	61	53	135	119	106	12
27	134	.00	.00	.00	.00	49	55	48	123	115	86	3
28	137	.00	.00	.00	.00	61	59	.00	139	134	64	17
29	143	.00	.00	.00	.00	65	59	.00	127	89	76	58
30	84	.00	.00	.00	.00	73	59	39	101	102	48	60
31	110	---	.00	.00	---	43	---	95	---	112	20	---
TOTAL	3705	2782.00	1093.00	85.00	250.00	1460.00	1820	1836.00	2932	3393	3359	1179.7
MEAN	120	92.7	35.3	2.74	8.93	47.1	60.7	59.2	97.7	109	108	39.3
MAX	169	156	114	37	35	73	71	95	164	147	165	94
MIN	80	.00	.00	.00	.00	.00	39	.00	41	77	20	2.0
AC-FT	7350	5520	2170	169	496	2900	3610	3640	5820	6730	6660	2340
(*)	0	0	0	0	0	0	0	0	0	0	0	0
CAL YR 1986	TOTAL	19271.00	MEAN	52.8	MAX	169	MIN	.00	AC-FT	38220	(*)	0
WTR YR 1987	TOTAL	23894.70	MEAN	65.5	MAX	169	MIN	.00	AC-FT	47400	(*)	0

* Return flow, in acre-feet, to Colorado River.

DIVERSIONS FROM LAKE HAVASU

09424150 COLORADO RIVER AQUEDUCT NEAR PARKER DAM, AZ-CA

LOCATION.--Lat 34°18'58", long 114°09'23", in NW¼SW¼ sec.28, T.3 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, Hydrologic Unit 15030101, at intake pumping plant of Metropolitan Water District of Southern California on Lake Havasu, 1.8 mi upstream from Parker Dam and 149 mi downstream from Hoover Dam.

PERIOD OF RECORD.--January 1939 to current year (monthly diversions only since October 1942). Published as a supplement to records for Colorado River below Parker Dam, 1942-50. Percolation return flow (monthly flow only) October 1964 to September 1973; prior to October 1964 miscellaneous measurements only.

GAGE.--Venturi meters in pressure lines at intake pumping plant.

REMARKS.--Pumping began Jan. 7, 1939. Figures of monthly diversion shown represent water pumped from Lake Havasu less return surface flow from Gene and Copper Basin Reservoirs. No water returned as surface flow from these reservoirs this year. Percolation return flow from Gene and Copper Basin Reservoirs is estimated by the U.S. Bureau of Reclamation as 10 acre-ft/day for a yearly total of 3,650 acre-ft, which is used for accounting purposes.

COOPERATION.--Diversion records furnished by Metropolitan Water District of Southern California.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily diversion, 3,986 acre-ft, 2,010 ft³/s Oct. 25, 1970 and Oct. 29, 1977; no diversion at times.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Divisions			
	Maximum	Minimum	Mean	Total
October.....	3,850	3,010	3,661	113,480
November.....	3,830	2,870	3,684	110,524
December.....	3,780	3,350	3,686	114,253
CAL YR 1986.....	3,900	1,370	3,570	1,303,276
January.....	3,800	3,360	3,557	110,272
February.....	3,800	3,350	3,651	102,234
March.....	3,850	1,640	3,428	106,256
April.....	3,730	3,560	3,685	110,555
May.....	3,690	2,690	3,434	106,460
June.....	3,840	3,610	3,722	111,654
July.....	3,750	3,340	3,494	108,318
August.....	3,700	3,300	3,535	109,573
September.....	3,690	3,630	3,657	109,706
WTR YR 1987.....	3,850	1,640	3,598	1,313,285

BILL WILLIAMS RIVER BASIN

103

09424432 FRANCIS CREEK NEAR BAGDAD, AZ

LOCATION.--Lat 34°45'42", long 113°15'54", in NW¼ sec.1, T.16 N., R.10 W., Yavapai County, Hydrologic Unit 15030202, on left bank, 13.1 mi northwest of Bagdad.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--December 1984 to current year (operated as a low flow station only).

GAGE.--Water-stage recorder. Elevation of gage is 3,260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for periods of estimated daily discharges, which are fair. Daily discharges above 20 cfs are not published. Diversion upstream from station for part of the municipal supply for the town of Bagdad was reported by the Cyprus Bagdad Mine to be 1,050 acre-feet in the 1987 water year.

COOPERATION.--Gage-height record was collected in cooperation with Bureau of Land Management.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	1.6	1.9	1.6	1.2	1.3	1.0	1.2	1.3	1.7	1.2
2	1.6	1.5	1.5	1.7	1.5	1.2	1.5	1.0	1.2	1.4	1.9	1.2
3	e1.7	1.5	1.5	1.6	e1.7	1.2	1.2	1.0	1.1	1.4	1.6	1.2
4	e1.5	1.5	1.7	1.6	1.3	3.3	1.1	1.0	.88	1.4	1.5	1.5
5	1.4	1.7	1.7	1.9	1.5	9.2	1.1	1.2	.88	1.4	1.5	15
6	1.6	1.9	1.8	1.8	1.3	18	1.0	1.2	1.4	1.4	1.5	3.8
7	1.4	1.8	2.0	3.9	1.3	9.7	1.0	1.1	1.7	1.4	1.4	1.5
8	1.4	1.6	1.8	7.0	1.3	5.4	1.0	1.2	1.2	1.4	1.4	1.6
9	1.5	1.6	1.6	14	1.3	3.8	1.0	1.2	1.5	1.6	1.3	e2.0
10	1.4	1.5	1.6	7.5	1.3	3.0	1.0	1.2	1.5	1.4	1.3	1.5
11	1.5	1.4	1.6	e4.0	1.3	2.5	1.1	1.2	1.5	1.3	1.3	1.7
12	e1.8	1.4	1.6	2.6	1.7	2.1	1.1	1.2	1.4	1.3	1.3	1.3
13	e1.5	e1.8	1.6	2.5	e1.7	1.6	.94	1.2	1.4	1.4	1.5	1.3
14	1.3	1.5	1.6	2.4	e1.0	1.4	1.0	1.2	1.5	1.4	1.4	1.3
15	1.6	1.4	1.6	e2.7	e.88	1.4	1.1	1.3	1.5	1.4	1.3	1.4
16	1.5	1.3	1.5	2.1	e.81	1.4	1.2	1.2	1.4	1.8	1.2	1.4
17	1.5	1.4	1.8	1.7	e.75	1.6	.94	1.3	1.4	1.4	1.2	1.3
18	1.5	1.8	1.7	1.4	.69	1.5	.94	1.2	1.4	1.3	1.3	1.3
19	1.4	1.5	1.6	1.5	1.2	4.2	.94	1.3	1.4	1.3	1.3	1.3
20	1.3	1.4	1.6	1.7	1.2	4.1	.88	1.3	1.4	1.3	1.2	1.3
21	1.3	1.4	1.6	1.4	1.2	2.9	.94	1.6	1.4	1.3	1.2	1.3
22	1.3	1.4	1.5	1.2	1.2	3.2	1.0	1.3	1.3	1.3	1.2	1.4
23	e1.7	1.8	1.5	1.2	1.2	3.3	1.0	1.3	1.2	1.1	1.2	1.3
24	1.4	1.5	e1.8	1.2	1.5	3.3	1.0	1.3	1.2	1.0	1.2	14
25	1.3	1.5	1.6	1.2	1.6	6.8	1.0	1.3	1.2	.88	1.2	19
26	1.3	1.5	1.5	1.2	1.5	6.8	1.0	1.4	1.2	.81	1.2	e3.5
27	1.3	1.5	1.5	1.2	1.3	4.5	1.0	1.6	1.2	.88	1.4	1.9
28	1.3	1.7	1.5	1.2	1.2	3.0	1.1	2.0	1.2	1.1	1.2	1.7
29	1.3	1.6	1.5	1.8	---	2.2	1.0	1.6	1.2	1.4	1.2	1.7
30	1.7	1.6	1.5	1.2	---	1.8	1.4	1.5	1.3	1.7	1.2	1.6
31	1.5	---	1.5	1.4	---	1.4	---	1.5	---	1.8	1.2	---
TOTAL	45.1	46.5	50.0	79.7	36.03	117.0	31.78	39.9	39.26	41.27	41.5	91.5
MEAN	1.45	1.55	1.61	2.57	1.29	3.77	1.06	1.29	1.31	1.33	1.34	3.05
MAX	1.8	1.9	2.0	14	1.7	18	1.5	2.0	1.7	1.8	1.9	19
MIN	1.3	1.3	1.5	1.2	.69	1.2	.88	1.0	.88	.81	1.2	1.2
AC-FT	89	92	99	158	71	232	63	79	78	82	82	181

WTR YR 1987 TOTAL 659.54 MEAN 1.81 MAX 19 MIN .69 AC-FT 1310

e Estimated

BILL WILLIAMS RIVER BASIN

09424447 BURRO CREEK AT OLD U.S. 93 BRIDGE NEAR BAGDAD, AZ

LOCATION.--Lat 34°32'30", long 113°26'40", in SW¼ sec.19, T.14 N., R.11 W., Mohave County, Hydrologic Unit 15030202, on left bank 15 mi upstream from confluence with Big Sandy River, and 15 mi southwest of Bagdad.

DRAINAGE AREA.--612 mi².

PERIOD OF RECORD.--August 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--7 years, 75.0 ft³/s, 54,340 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft³/s Mar. 3, 1983, gage height, 13.70 ft; no flow Aug. 15, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 47,400 ft³/s Feb. 14, 1980, from slope-area measurement of peak flow at present site and datum, gage height, 15.6 ft, from high-water mark in vicinity of gage.

EXTREMES FOR CURRENT Year.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	1645	*565	*5.14

No flow Aug. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	2.4	4.7	8.1	18	21	12	2.3	.30	.18	.16	.08
2	.66	2.5	4.8	8.0	16	29	11	2.3	.21	.20	.95	.09
3	.82	2.6	4.6	8.1	15	54	9.6	1.9	.26	.21	1.0	.09
4	.74	2.6	4.8	8.1	14	183	9.0	1.6	.29	.21	1.2	.25
5	.74	2.6	5.1	14	14	306	8.7	1.4	.24	.21	.60	1.1
6	.82	2.6	5.7	15	13	185	8.5	1.1	.28	.21	.48	.38
7	.82	2.5	17	21	13	120	8.7	.89	.38	.20	.42	.30
8	.82	2.5	69	58	12	67	8.7	.74	.31	.21	.40	.31
9	.79	2.6	61	82	11	46	8.3	.66	.18	.21	.32	.26
10	1.3	2.8	32	77	11	35	8.2	.63	.20	.16	.24	.20
11	5.7	2.8	21	48	11	27	7.2	.46	.17	.21	.11	.19
12	27	2.9	16	33	11	22	6.0	.45	.15	.23	.13	.18
13	19	2.9	13	27	10	18	6.2	.33	.15	.28	.07	.08
14	9.7	3.0	11	22	10	16	6.1	.16	.16	.29	.03	.02
15	6.9	3.0	10	20	9.8	15	5.6	.13	.13	.29	.00	.02
16	5.2	3.1	9.6	19	10	14	4.9	.25	.13	.31	.01	.04
17	4.3	3.3	9.6	17	9.7	16	4.6	.51	.14	.34	.04	.01
18	3.7	30	8.9	15	9.5	16	4.1	1.2	.09	.36	.04	.02
19	3.3	49	8.9	14	9.5	40	4.0	.62	.08	.35	.06	.02
20	3.0	20	10	13	9.0	41	4.0	.42	.18	.37	.06	.03
21	2.9	12	12	11	9.2	30	3.9	.35	.13	132	.03	.02
22	2.8	8.9	11	11	9.2	23	3.3	.37	.11	41	.03	.05
23	2.8	7.3	10	11	8.8	20	2.9	.30	.14	8.5	.09	.40
24	2.8	6.3	9.7	10	12	20	2.7	.29	.14	2.3	.10	.32
25	2.8	5.6	9.5	10	20	21	2.2	.33	.20	.69	.09	.21
26	2.7	5.2	8.9	9.8	22	35	2.1	.30	.34	.17	.98	.23
27	2.7	5.0	8.7	9.5	22	36	1.9	.31	.29	.12	.49	.19
28	2.6	4.9	8.5	9.5	22	25	2.0	.29	.22	.23	.11	.16
29	2.6	4.8	8.3	9.4	---	19	2.0	.28	.18	.20	.07	.16
30	2.4	4.6	8.2	13	---	15	2.5	.30	.19	.10	.13	.13
31	2.4	---	8.0	17	---	13	---	.33	---	.06	.11	---
TOTAL	125.47	210.3	429.5	648.5	361.7	1528	170.9	21.50	5.97	190.40	8.55	5.54
MEAN	4.05	7.01	13.9	20.9	12.9	49.3	5.70	.69	.20	6.14	.28	.18
MAX	27	49	69	82	22	306	12	2.3	.38	132	1.2	1.1
MIN	.66	2.4	4.6	8.0	8.8	13	1.9	.13	.08	.06	.00	.01
AC-FT	249	417	852	1290	717	3030	339	43	12	378	17	11
CAL YR 1986	TOTAL	20031.66	MEAN	54.9	MAX	3090	MIN	.14	AC-FT	39730		
WTR YR 1987	TOTAL	3706.33	MEAN	10.2	MAX	306	MIN	.00	AC-FT	7350		

BILL WILLIAMS RIVER BASIN

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09424450 BIG SANDY RIVER NEAR WIKIEUP, AZ

LOCATION.--Lat 34°27'45", long 113°37'25", in SE¼ sec.16, T.13 N., R.13 W., Mohave County, Hydrologic Unit 15030201, on left bank 7 mi downstream from Burro Creek, 15 mi upstream from confluence with Santa Maria River, and 17 mi south of Wikieup.

DRAINAGE AREA.--2,800 mi², approximately.

PERIOD OF RECORD.--March 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft, above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1970, at datum 3.06 ft higher. Oct. 1, 1970, to Oct. 10, 1973, at datum 2.06 ft higher. Supplementary water-stage recorder for low flows at site 75 ft upstream at same datum from Apr. 10, 1975 to Mar. 1, 1978; Mar. 28 to Dec. 7, 1966, and Apr. 2, 1969, to Apr. 9, 1975, at site 0.8 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 5, Apr. 29 to May 5, and Sept. 5-8, 20. Records fair. Diversions above station for irrigation of about 3,800 acres, mostly by pumping from ground water.

AVERAGE DISCHARGE.--21 years, 85.3 ft³/s, 61,800 acre-ft/yr; median of yearly mean discharges, 48 ft³/s, 34,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,500 ft³/s Feb. 20, 1980, gage height, 12.51 ft, from high-water mark in gage well; minimum daily, 1.3 ft³/s July 13, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	1730	*384	*2.82

Minimum daily, 3.4 ft³/s Nov. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	5.2	4.7	12	16	25	24	8.7	5.0	4.8	4.8	3.8
2	4.1	5.1	5.1	12	17	26	22	8.6	5.0	4.7	4.8	3.8
3	4.1	5.1	5.9	11	18	27	21	8.3	5.0	4.7	4.7	3.8
4	3.6	5.1	5.9	11	18	31	20	8.1	5.0	4.7	4.5	3.8
5	3.9	4.6	6.2	14	17	56	20	6.9	5.1	4.7	4.5	19
6	3.8	4.0	6.2	14	18	76	19	6.0	5.2	4.7	4.8	13
7	3.7	3.4	8.4	15	17	59	18	6.1	5.2	4.7	4.8	8.2
8	3.7	3.4	9.4	17	16	54	17	5.9	5.2	4.8	4.8	5.1
9	3.7	3.6	14	22	15	47	16	5.9	5.2	4.8	4.8	5.0
10	4.4	3.6	14	26	15	42	16	5.9	5.1	4.7	4.8	5.0
11	6.0	3.5	13	27	15	38	16	5.9	5.0	4.9	4.8	5.0
12	5.5	3.7	12	23	15	35	15	5.9	4.9	5.0	4.7	5.0
13	5.5	3.7	12	22	15	33	15	5.9	4.8	5.0	4.5	5.0
14	5.5	3.7	10	21	15	31	14	5.9	4.7	5.1	4.4	5.0
15	5.6	3.7	10	19	16	30	14	5.9	4.6	5.2	4.4	5.0
16	5.5	3.7	11	19	16	30	14	5.9	4.6	5.4	4.4	5.0
17	5.5	4.0	11	18	16	29	13	5.8	4.6	5.5	4.4	5.0
18	5.5	5.3	11	17	16	28	13	5.6	4.7	5.5	4.4	5.0
19	5.9	5.6	11	17	16	28	12	5.5	4.8	5.5	4.4	4.9
20	5.5	6.4	12	17	17	33	12	5.5	4.8	5.5	4.3	4.8
21	5.5	5.5	13	16	17	34	12	5.2	4.8	5.6	4.2	4.6
22	5.5	7.7	13	17	18	33	11	5.2	4.8	5.7	4.2	4.5
23	5.5	8.1	12	16	18	31	11	5.2	4.8	5.7	4.2	6.6
24	5.5	7.9	11	16	17	31	10	5.2	4.8	5.5	4.2	6.4
25	5.5	7.1	11	16	18	30	10	5.2	4.7	5.5	4.1	7.7
26	5.5	5.5	11	16	19	29	9.7	5.0	4.7	5.5	4.0	6.4
27	5.5	5.4	11	16	22	30	9.4	5.0	4.6	5.4	4.0	5.4
28	5.5	5.4	12	16	24	30	9.2	5.0	4.6	5.2	4.0	4.9
29	5.5	5.0	12	16	---	28	8.7	5.0	4.6	5.0	3.9	4.4
30	5.5	4.8	12	16	---	27	8.4	5.0	4.6	4.9	3.8	4.2
31	5.4	---	12	16	---	25	---	5.0	---	4.8	3.8	---
TOTAL	195.0	148.8	322.8	531	477	1086	430.4	184.2	145.5	158.7	136.4	175.3
MEAN	6.29	4.96	10.4	17.1	17.0	35.0	14.3	5.94	4.85	5.12	4.40	5.84
MAX	44	8.1	14	27	24	76	24	8.7	5.2	5.7	4.8	19
MIN	3.6	3.4	4.7	11	15	25	8.4	5.0	4.6	4.7	3.8	3.8
AC-FT	387	295	640	1050	946	2150	854	365	289	315	271	348

CAL YR	1986	TOTAL	17859.3	MEAN	48.9	MAX	2700	MIN	2.3	AC-FT	35420
WTR YR	1987	TOTAL	3991.1	MEAN	10.9	MAX	76	MIN	3.4	AC-FT	7920

09426000 BILL WILLIAMS RIVER BELOW ALAMO DAM, AZ

LOCATION.--Lat 34°13'51", long 113°36'29", in SE¼SE¼ sec.4, T.10 N., R.13 W., La Paz County, Hydrologic Unit 15030204, on left bank 0.6 mi downstream from Alamo Dam, 3.7 mi downstream from Bullard Wash, and 8 mi downstream from confluence of Santa Maria and Big Sandy Rivers.

DRAINAGE AREA.--4,730 mi², approximately, of which 400 mi² is below confluence of Santa Maria and Big Sandy Rivers.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October and November 1939, published in WSP 1313. Prior to October 1943, published as "Williams River near Alamo. October 1943 to September 1967, published as "Bill Williams River near Alamo."

REVISED RECORDS.--WSP 1213: 1939(M). 1941(P).

GAGE.--Water-stage recorder. Elevation of gage is 967 ft above National Geodetic Vertical Datum of 1929, from construction data. Prior to Apr. 9, 1968, at site 1.7 mi upstream at datum 1,002.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions above station for irrigation of about 9,100 acres, mostly by pumping from ground water. Flow regulated by Alamo Lake, beginning Mar. 2, 1969. Temporary storage and slight regulation of releases through uncontrolled rectangular conduit through Alamo Dam June 23, 1968, to Mar. 27, 1969. Alamo Lake is formed by an earthfill and rockfill dam, completed in 1968. Total capacity of lake is 1,043,000 acre-ft. See table below for monthend contents.

EXTREMES FOR PERIOD OF RECORD.--1940-68: Maximum discharge, 65,100 ft³/s Aug. 29, 1951, gage height, 30.8 ft, site and datum then in use; minimum daily, 1.1 ft³/s Sept. 4, 1958.
1969-87: Maximum discharge, 4,950 ft³/s Jan. 26, 1969, gage height, 10.20 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The history of floods that occurred prior to October 1939 is published in WSP 1683. The peak discharges have been correlated with those for Bill Williams River at Planet. The peak discharge for February 1937 has been determined as 105,000 ft³/s at a stage of 46 ft, site and datum then in use, from rating curve extended above 50,000 ft³/s on basis of slope-area measurement for flood of Sept. 6, 1939, at a stage of 39.6 ft, discharge of 86,000 ft³/s and known stable high-water control.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 300 ft³/s Oct. 1; minimum daily, 6.4 ft³/s May 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	11	12	11	11	12	13	12	26	25	25	61
2	297	12	12	11	12	11	13	12	26	25	25	62
3	295	12	11	11	12	12	13	12	26	25	26	62
4	295	12	11	11	12	12	13	6.4	26	25	26	62
5	295	12	11	11	12	12	13	9.6	26	25	26	62
6	295	13	11	11	12	12	13	22	26	24	26	62
7	295	13	11	11	12	12	13	22	26	24	26	62
8	295	13	11	11	11	12	13	22	26	24	26	63
9	295	13	6.9	10	11	12	13	22	26	24	26	63
10	183	15	8.6	10	11	12	13	22	27	24	41	63
11	12	15	11	10	11	12	12	23	27	24	62	63
12	12	14	11	10	11	12	12	23	27	24	62	63
13	11	12	11	11	11	12	12	23	27	24	62	63
14	11	11	11	11	11	12	12	23	27	24	62	63
15	11	11	11	11	13	12	12	23	27	24	62	62
16	11	10	11	11	13	12	12	23	27	24	62	62
17	11	11	11	11	13	12	12	23	27	24	62	62
18	11	12	11	11	13	12	12	24	26	24	62	62
19	11	14	11	11	13	12	12	25	26	24	62	62
20	11	14	11	11	13	12	12	26	26	24	62	62
21	11	14	10	11	13	12	12	26	26	25	62	48
22	11	13	9.8	11	13	12	12	26	26	25	61	47
23	11	15	9.6	11	13	12	12	26	25	25	61	61
24	11	15	9.6	11	12	12	12	26	25	25	61	59
25	11	15	9.6	11	12	12	12	26	25	25	61	58
26	11	15	9.9	11	12	12	12	26	25	25	61	57
27	11	15	9.8	11	12	12	12	26	25	25	61	56
28	11	15	9.8	11	12	12	12	26	25	25	61	51
29	11	14	11	11	---	12	12	26	25	25	61	46
30	11	13	11	11	---	12	12	26	25	25	61	45
31	11	---	11	11	---	13	---	26	---	25	61	---
TOTAL	3078	394	326.6	337	337	372	370	684.0	780	760	1565	1774
MEAN	99.3	13.1	10.5	10.9	12.0	12.0	12.3	22.1	26.0	24.5	50.5	59.1
MAX	300	15	12	11	13	13	13	26	27	25	62	63
MIN	11	10	6.9	10	11	11	12	6.4	25	24	25	45
AC-FT	6110	781	648	668	668	738	734	1360	1550	1510	3100	3520
(*)	105700	105100	104800	105300	106000	107400	106800	104100	100900	97940	93320	88350

CAL YR 1986 TOTAL 71724.7 MEAN 197 MAX 367 MIN 6.4 AC-FT 142300 (**) -89500
WTR YR 1987 TOTAL 10777.6 MEAN 29.5 MAX 300 MIN 6.4 AC-FT 21380 (**) -23450

* Storage, in acre-feet, at end of month for Alamo Lake, furnished by U.S. Army Corps of Engineers.
** Change in storage, in acre-feet.

09426600 BILL WILLIAMS RIVER AT MINERAL WASH NEAR PLANET, AZ

LOCATION.--Lat 34°15'18", long 114°00'32", in SE¼ sec.34, T.11 N., R.17 W., (revised), on boundary between Mohave and La Paz Counties, Hydrologic Unit 15030204, at convergence with Mineral Wash, 4.0 mi west of Planet Ranch, 6.1 mi upstream from waterline of Havasu Lake at elevation 450 ft above National Geodetic Vertical Datum of 1929, and approximately 30 mi downstream from Alamo Lake.

DRAINAGE AREA.--5,140 mi² approximately, of which approximately 410 mi² is below Alamo Dam.

PERIOD OF RECORD.--January 1970 to January 1972, October 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981.

WATER TEMPERATURES: October 1974 to September 1981.

REMARKS.--Streamflow ungaged.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	
NOV 1986												
05...	1100	24	900	7.90	16.0	12.0	4.8	755	8.5	80	55	
JAN 1987												
08...	1100	20	860	7.80	11.0	11.0	0.60	775	10.0	89	27	
APR												
09...	1100	19	780	7.80	32.0	23.0	0.60	760	8.2	96	84	
JUL												
08...	1230	6.9	820	7.80	32.0	31.5	0.60	751	8.1	112	130	
DATE		STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD (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 WATER WH FET FIELD (MG/L AS HCO3)	CAR- BONATE WATER WH FET FIELD (MG/L AS CO3)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3)
		(31673)	(00900)	(00902)	(00915)	(00925)	(00930)	(00931)	(00935)	(00440)	(00445)	(00410)
NOV 1986												
05...	180	200	0	53	16	84	3	5.7	290	0	228	
JAN 1987												
08...	80	200	0	54	16	83	3	5.7	260	0	212	
APR												
09...	45	200	14	54	16	85	3	6.0	230	0	188	
JUL												
08...	1400	200	0	52	16	90	3	6.3	260	0	210	
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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
		(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(70303)	(00618)	(00613)	(00631)	(00610)
NOV 1986												
05...	74	73	1.2	31	468	483	0.64	0.990	0.010	1.00	<0.010	
JAN 1987												
08...	75	65	1.2	31	459	459	0.62	--	<0.010	0.970	<0.010	
APR												
09...	72	75	1.2	32	459	455	0.62	--	<0.010	0.710	<0.010	
JUL												
08...	82	80	1.3	33	471	488	0.64	--	<0.010	0.550	0.030	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	
		(00608)	(00605)	(00625)	(00665)	(00666)	(00671)	(00660)	(01106)	(01000)	(01005)	
NOV 1986												
05...	<0.010	--	1.6	0.070	0.030	0.050	0.15	<10	7	75		
JAN 1987												
08...	0.020	--	0.70	0.030	0.030	0.040	0.12	<10	9	76		
APR												
09...	<0.010	--	0.80	0.030	0.030	0.020	0.06	20	7	80		
JUL												
08...	0.020	0.57	0.60	0.050	0.030	0.030	0.09	<10	8	82		

< Actual value is known to be less than value shown.

BILL WILLIAMS RIVER BASIN

09426600 BILL WILLIAMS RIVER AT MINERAL WASH NEAR PLANET, AZ--Continued

WATER QUALITY DATA

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 1986 05...	0.7	--	<1	<1	<3	3	<3	<5	44	6
JAN 1987 08...	<0.5	--	<1	<1	<3	1	4	<5	45	5
APR 09...	<0.5	--	<1	<1	<3	<1	5	<5	43	2
JUL 08...	2	240	<1	2	<3	<1	9	<5	45	2
DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1986 05...	0.1	<10	5	<1	<1.0	610	7	14	10	0.66
JAN 1987 08...	<0.1	<10	<1	<1	<1.0	620	8	6	5	0.27
APR 09...	<0.1	<10	1	<1	<1.0	620	10	8	--	--
JUL 08...	<0.1	<10	<1	<1	<1.0	640	13	<3	--	--

< Actual value is known to be less than value shown.

DIVERSIONS FROM LAKE HAVASU

109

09426650 CAP CANAL HAVASU PUMPING PLANT NEAR PARKER, AZ

LOCATION.--Lat 34°17'20", long 114°06'37", in NW¼NW¼ sec.23, T.11 N., R.18 W., La Paz County, Hydrologic Unit 15030204, on left bank of Bill Williams River arm of Lake Havasu, 2 mi upstream from Parker Dam and 19 mi northeast of Parker.

PERIOD OF RECORD.--October 1984 to current year.

REMARKS.--Figures of monthly diversion shown represent water pumped from Lake Havasu for delivery to the Central Arizona Project.

COOPERATION.--Diversion records furnished by U.S. Bureau of Reclamation, Central Arizona Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily diversion, 3,165 acre-ft, 1,600 ft³/s, Apr. 19, 1987; no diversion on many days.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Diversion			
	Maximum	Minimum	Mean	Total
October.....	0	0	0	0
November.....	0	0	0	0
December.....	674	0	59.8	1,855
CAL YR 1986.....	2,321	0	300	109,491
January.....	1,097	0	159	4,914
February.....	1,972	0	362	10,149
March.....	1,246	0	632	19,595
April.....	3,165	710	1,064	31,917
May.....	2,158	0	1,077	33,377
June.....	2,154	990	1,573	47,197
July.....	3,151	1,230	2,283	70,764
August.....	3,133	1,227	2,164	67,084
September.....	3,119	0	1,211	36,344
WTR YR 1987.....	3,165	0	885	323,196

WATER QUALITY RECORDS

LOCATION.--Lat 34°10'43", long 114°03'04", in NESE sec.29, T.10 N., R.17 W., La Paz County, Hydrologic Unit 15030104, 7.9 mi southeast of CAP Havasu Pumping Plant, and approximately 18 mi from Parker, AZ.

PERIOD OF RECORD.--August 1985 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00080)	(00025)	(00300)	(00301)	(00340)	(31625)	
DEC 1986													
30...	1130	0.0	850	8.10	19.0	12.0	--	744	10.2	97	<10	--	
MAR 1987													
13...	0915	0.0	810	8.20	21.0	15.5	--	738	10.4	108	14	--	
MAY													
07...	0915	550	860	8.00	27.0	21.5	--	741	8.8	103	<10	--	
JUL													
09...	0900	1650	840	8.00	27.0	25.5	2	735	8.9	113	<10	K1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)
DEC 1986													
30...	48	0.30	9.8	543	518	0.74	0.300	0.260	0.010	0.90	1.2	5.3	
MAR 1987													
13...	56	0.30	9.2	537	509	0.73	0.300	0.260	0.030	0.60	0.90	4.0	
MAY													
07...	55	0.30	8.9	540	528	0.73	0.200	0.210	0.030	0.60	0.80	3.5	
JUL													
09...	57	0.40	9.5	545	528	0.74	0.100	0.120	0.020	0.50	0.60	2.7	
DATE		PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)
DEC 1986													
30...	0.020	0.020	<0.010	3	2	100	100	--	100	<1	3	<1	
MAR 1987													
13...	0.020	<0.010	<0.010	2	2	<100	97	--	100	<1	<1	<1	
MAY													
07...	0.020	0.010	<0.010	3	2	100	97	--	100	<1	6	<1	
JUL													
09...	0.020	0.010	<0.010	2	2	<100	99	100	100	<1	--	<10	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

WATER QUALITY DATA

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
DEC 1986												
30...	--	2	--	3	200	<5	--	<0.10	--	<1	<1.0	--
MAR 1987												
13...	--	2	--	12	<100	<5	--	0.20	--	<1	<1.0	--
MAY												
07...	--	2	--	<3	<100	<5	--	<0.10	--	<1	<1.0	--
JUL												
09...	4	<15	90	5	<100	<5	20	<0.10	1	<1	1.0	10

DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)
DEC 1986												
30...	7	--	26	<0.010	<1	--	--	--	--	--	--	--
MAR 1987												
13...	20	--	22	<0.010	2	--	--	--	--	--	--	--
MAY												
07...	6	--	22	<0.010	7	--	--	--	--	--	--	--
JUL												
09...	9	3.9	23	<0.010	2	0.03	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010

DATE	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHENE, TOTAL (UG/L) (39400)
DEC 1986											
30...	--	--	--	--	--	--	--	--	--	--	--
MAR 1987											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUL											
09...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE&SE&SE& sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year.

REMARKS.--Water ponded in canal on dates sampled.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1986												
24...	0805	0.0	774	8.70	15.5	19.0	--	726	10.4	118	41	--
NOV												
21...	0745	0.0	820	8.79	18.5	17.0	--	721	10.1	111	--	--
DEC												
17...	1105	0.0	820	8.29	15.5	12.0	--	722	8.8	86	--	--
JAN 1987												
23...	0810	0.0	847	8.10	8.0	9.0	--	720	9.5	87	22	--
FEB												
24...	1000	0.0	830	8.32	8.0	13.0	--	714	--	--	--	--
MAR												
26...	1200	0.0	830	8.36	20.0	16.0	--	722	13.2	142	--	--
APR												
24...	0910	0.0	825	8.70	25.5	21.0	--	721	10.4	124	12	--
MAY												
22...	0830	0.0	952	8.59	22.0	25.0	--	722	9.8	126	--	--
JUN												
26...	0835	0.0	852	8.42	35.0	28.0	--	720	9.6	131	--	--
JUL												
17...	1030	0.0	845	8.42	32.0	27.0	2	718	8.0	107	32	100
AUG												
25...	0945	0.0	846	8.29	32.5	28.0	--	721	7.8	106	--	--
SEP												
24...	1015	0.0	832	8.11	24.0	25.0	--	723	9.6	123	--	--

DATE	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFIDE TOTAL (MG/L AS S) (00745)
OCT 1986												
24...	--	230	140	51	25	77	2	4.3	100	6	92	--
NOV												
21...	--	230	140	49	26	80	2	4.4	95	10	93	--
DEC												
17...	--	220	130	47	25	78	2	4.5	100	0	86	--
JAN 1987												
23...	--	240	150	52	26	82	2	4.9	100	0	88	--
FEB												
24...	--	220	140	47	26	81	2	4.4	99	4	88	--
MAR												
26...	--	260	140	63	25	75	2	3.9	140	6	124	--
APR												
24...	--	260	140	62	26	74	2	3.9	150	1	124	--
MAY												
22...	--	250	130	58	25	76	2	3.8	120	6	115	--
JUN												
26...	--	260	140	61	25	73	2	3.9	140	4	120	--
JUL												
17...	31	260	140	62	25	74	2	3.8	140	3	120	<0.5
AUG												
25...	--	250	150	60	25	75	2	4.1	130	0	105	--
SEP												
24...	--	250	140	57	25	74	2	1.9	130	0	108	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986												
24...	230	63	0.30	5.7	532	518	0.72	<0.100	<0.100	0.060	0.90	<0.010
NOV												
21...	230	61	0.30	5.3	525	523	0.71	<0.100	<0.100	--	0.20	0.020
DEC												
17...	220	60	0.30	4.8	531	491	0.72	<0.100	<0.100	--	0.80	0.010
JAN 1987												
23...	240	66	0.30	4.9	524	528	0.71	<0.100	<0.100	0.100	0.60	0.020
FEB												
24...	250	61	0.30	6.3	522	533	0.71	<0.100	<0.100	--	0.70	0.010
MAR												
26...	210	59	0.40	6.0	527	524	0.72	<0.100	<0.100	--	0.20	<0.010
APR												
24...	220	59	0.30	6.3	543	528	0.74	<0.100	<0.100	0.010	0.60	0.010
MAY												
22...	230	59	0.30	6.7	529	533	0.72	<0.100	<0.100	--	0.80	0.010
JUN												
26...	220	60	0.30	7.3	547	529	0.74	<0.100	<0.100	--	1.2	0.040
JUL												
17...	200	57	0.30	8.6	536	506	0.73	<0.100	<0.100	<0.010	1.4	0.020
AUG												
25...	190	100	0.30	9.4	--	528	0.72	<0.100	<0.100	--	0.30	<0.010
SEP												
24...	230	61	0.30	8.2	544	520	0.74	<0.100	<0.100	--	0.50	0.020
DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)
OCT 1986												
24...	0.010	<0.010	--	--	0.01	2	2	<100	89	--	110	<1
NOV												
21...	--	<0.010	--	0.02	--	--	--	--	--	--	110	--
DEC												
17...	--	<0.010	--	0.01	--	--	--	--	--	--	110	--
JAN 1987												
23...	0.010	0.010	0.03	0.02	0.0	2	2	100	85	--	110	<1
FEB												
24...	--	<0.010	--	0.01	--	--	--	--	--	--	120	--
MAR												
26...	--	0.010	0.03	--	--	--	--	--	--	--	100	--
APR												
24...	0.010	<0.010	--	0.01	0.01	2	2	<100	93	--	110	<1
MAY												
22...	--	<0.010	--	0.01	--	--	--	--	--	--	110	--
JUN												
26...	--	0.010	0.03	0.04	--	--	--	--	--	--	100	--
JUL												
17...	0.060	<0.010	--	0.02	0.06	2	1	200	95	90	100	<1
AUG												
25...	--	<0.010	--	--	--	--	--	--	--	--	110	--
SEP												
24...	--	<0.010	--	0.02	--	--	--	--	--	--	110	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)
OCT 1986											
24...	<1	<1	--	2	--	4	<100	<5	--	<0.10	--
NOV											
21...	--	--	--	--	--	6	--	--	--	--	--
DEC											
17...	--	--	--	--	--	<3	--	--	--	--	--
JAN 1987											
23...	2	<1	--	3	--	4	<100	<5	--	<0.10	--
FEB											
24...	--	--	--	--	--	5	--	--	--	--	--
MAR											
26...	--	--	--	--	--	4	--	--	--	--	--
APR											
24...	<1	<1	--	5	--	<3	<100	8	--	0.10	--
MAY											
22...	--	--	--	--	--	<3	--	--	--	--	--
JUN											
26...	--	--	--	--	--	<3	--	--	--	--	--
JUL											
17...	<1	<1	4	3	60	4	<100	<5	20	<0.10	2
AUG											
25...	--	--	--	--	--	13	--	--	--	--	--
SEP											
24...	--	--	--	--	--	7	--	--	--	--	--

DATE	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986											
24...	<1	<1.0	--	<3	6.4	16	<0.010	<1	--	8	0.0
NOV											
21...	--	--	--	--	--	--	--	--	--	4	0.0
DEC											
17...	--	--	--	--	--	--	--	--	--	15	0.0
JAN 1987											
23...	<1	<1.0	--	10	--	16	<0.010	<1	--	1	0.0
FEB											
24...	--	--	--	--	--	--	--	--	--	8	0.0
MAR											
26...	--	--	--	--	--	--	--	--	--	5	0.0
APR											
24...	<1	<1.0	--	<3	--	18	<0.010	3	--	2	0.0
MAY											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN											
26...	--	--	--	--	--	--	--	--	--	3	0.0
JUL											
17...	2	<1.0	10	16	4.0	20	<0.010	--	0.03	1	0.0
AUG											
25...	--	--	--	--	--	--	--	--	--	6	0.0
SEP											
24...	--	--	--	--	--	--	--	--	--	2	0.0

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09427300 CAP CANAL AT MP 252 NEAR COOLIDGE, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 32°50'08", long 111°25'41", in SW¼SW¼SW¼ sec.4, T.7 S., R.9 E., Pinal County, Hydrologic Unit 15050100, 1.8 mi upstream from Brady Pump Plant and 10.6 mi southeast of Coolidge.

PERIOD OF RECORD.--May to September 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(00020)	(00010)	(00080)	(00025)	(00300)	(00301)	(00340)	(31625)	
MAY 1987													
27...	1300	90	920	--	--	24.0	--	714	7.8	99	<10	--	
JUL													
01...	1130	350	850	8.30	41.0	29.0	--	630	7.8	124	--	--	
31...	1400	350	840	8.20	--	30.0	3	710	9.6	137	--	<1	
SEP													
14...	1430	106	850	8.60	--	26.0	--	715	11.2	148	43	--	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 1987													
27...	270	150	62	28	83	2	4.8	--	--	--	--	--	250
JUL													
01...	250	140	58	26	78	2	4.2	131	0	107	--	--	220
31...	250	130	61	24	71	2	3.7	138	0	112	<0.5	--	220
SEP													
14...	250	140	56	26	77	2	4.1	106	8	98	--	--	230
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)
MAY 1987													
27...	69	0.30	4.9	597	576	0.81	<0.100	<0.100	0.030	1.3	0.020	0.020	0.020
JUL													
01...	62	0.30	7.4	548	521	0.75	<0.100	<0.100	--	1.1	<0.010	--	--
31...	57	--	7.7	512	515	0.70	<0.100	<0.100	--	0.60	0.010	--	--
SEP													
14...	62	0.30	7.5	531	525	0.72	<0.100	<0.100	0.020	<0.20	0.010	<0.010	<0.010
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	
MAY 1987													
27...		0.010	0.03	0.02	0.01	3	3	100	110	--	130	<1	<1
JUL													
01...		<0.010	--	--	--	--	--	--	--	--	110	--	--
31...		<0.010	--	0.01	--	--	--	--	--	130	110	--	--
SEP													
14...		<0.010	--	0.01	--	2	2	100	90	--	100	<1	<1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427300 CAP CANAL AT MP 252 NEAR COOLIDGE, AZ--Continued

WATER QUALITY DATA

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR) (01032)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)
MAY 1987											
27...	<1	<1	--	3	--	3	<100	<5	--	<0.10	--
JUL											
01...	--	--	--	--	--	8	--	--	--	--	--
31...	--	--	13	--	110	9	--	--	<10	--	3
SEP											
14...	23	1	--	2	--	<3	<100	<5	--	<0.10	--
DATE	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORGANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHYLENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	SEDIMENT, SUS- PENDED (MG/L) (80154)	SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
MAY 1987											
27...	<1	<1.0	--	4	--	20	<0.010	3	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	<10	--	--	--	--	--	0.03	5	4.7
SEP											
14...	<1	<1.0	--	<3	6.3	17	<0.010	3	--	--	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427500 LAKE HAVASU NEAR PARKER DAM, AZ-CA

LOCATION.--Lat 34°18'58", long 114°09'23", in NW¼SW¼ sec.28, T.3 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, Hydrologic Unit 15030101, at intake pumping plant for Colorado River aqueduct of Metropolitan Water District of Southern California, 1.8 mi upstream from Parker Dam on Colorado River, and 149 mi downstream from Hoover Dam.

DRAINAGE AREA.--182,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--July 1938 to current year. Published as "Parker Reservoir near Parker Dam" 1938.

REVISED RECORDS.--WRD Ariz. 1975: 1974 (elevation).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by concrete-arch dam; dam was completed and storage began July 1, 1938. Usable capacity - based on April 1957 re-survey by Bureau of Reclamation between elevations 430.54 ft and 450.54 ft - 619,400 acre-ft between elevations 400.54 ft, sill of regulating gates, and 450.54 ft, top of regulating gates. Prior to Oct. 1, 1956, different capacity table used. Dead storage, 28,600 acre-ft below elevation 400.54 ft, based on original survey. About 0.07 ft fall indicated between gage and Parker Dam under normal operating conditions. drawdown below elevation 440.54 ft not legally permissible except by consent of the Metropolitan Water District of Southern California or in an emergency affecting the safety of the dam. Lake is used for flood control, power development, re-regulation of river for irrigation demand, and as a basin from which water is pumped by Metropolitan Water District of Southern California to Colorado River aqueduct. Figures given herein represent usable contents. For record of diversion to Colorado River aqueduct, see record for Colorado River aqueduct near Parker Dam elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum storage, 693,000 acre-ft, by temporary use of flashboards, Apr. 18, 1943, June 4, 1953; maximum elevation, 451.13 ft June 1, 1982, affected by wind; minimum storage, 71,400 acre-ft June 25, 1942, elevation, 412.09 ft.

EXTREMES FOR CURRENT YEAR.--Maximum storage, not determined, maximum elevation, 450.84 ft May 26, affected by wind; minimum storage, 540,700 acre-ft Mar. 18, elevation, 446.43 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	574700	543800	548500	596200	551200	548100	553000	584900	618000	619000	584600	576000
2	566500	545000	549400	597000	551300	549900	554600	587200	618800	620600	584200	577300
3	560500	548300	549000	596800	551300	553100	560300	586300	614200	619200	583800	582500
4	559400	553500	549900	596000	553700	553500	564400	586700	612600	615600	581900	582500
5	545900	554500	550400	597200	553700	554500	565200	587200	614200	613000	583400	584800
6	545400	554500	551700	591800	553700	555400	566700	588400	614400	609000	589900	583800
7	547000	552600	553100	586800	553100	556000	569200	595000	614800	604400	589500	583400
8	548500	551700	553100	579800	553100	555400	573900	599000	616400	603000	588900	581100
9	552400	549900	553900	573200	553100	554500	577700	602200	617600	603600	588400	578100
10	552400	549500	553700	569900	553500	553500	579100	603200	616200	601200	584400	580400
11	554500	549000	553700	571500	553100	551700	577000	601400	615800	601200	576200	580600
12	555000	549400	554500	573400	552400	550800	573400	602400	614800	599800	572200	581700
13	555800	550100	565800	575400	551700	549400	571100	602000	615000	595200	572600	580000
14	556700	550600	573700	575800	550800	548100	570100	609000	615000	591800	573200	574300
15	557300	551700	578500	578500	548300	547600	574500	616000	615800	593400	575600	572600
16	556500	552600	583200	580600	547000	545900	579600	618400	616800	596600	574100	573700
17	556500	553100	582100	582900	546300	543100	581000	618400	617400	595000	572000	575400
18	556500	555400	576000	581000	547000	541600	583400	619000	617400	595800	571800	578100
19	555800	557300	571600	580000	547400	548100	583400	619800	619000	592200	570300	580400
20	555800	557500	574100	574900	547200	549000	583800	615600	616200	593800	573900	580400
21	555400	558100	577900	570100	546300	552400	582900	616800	615800	590300	577000	575800
22	555800	556900	581100	567300	547200	553500	581900	620000	614600	589900	581100	573900
23	556500	555800	584400	565400	545900	554100	585900	622200	613800	597000	580800	574900
24	553900	554500	586300	562900	545600	555600	588600	622600	612000	595200	580000	577500
25	554100	552600	588000	560500	547400	560000	588600	623600	612600	593800	576800	579400
26	555200	552200	589700	559600	548100	562900	587200	624800	613800	590500	579100	581000
27	556400	552100	591400	558600	547900	559200	581900	623400	612800	590300	585100	580200
28	557500	551700	593200	557700	548500	559800	581000	622400	612200	586800	583800	577300
29	557700	551700	594000	556900	---	558600	580000	621600	615600	587200	585100	574700
30	553900	551000	594800	556700	---	560200	583400	619400	617000	586500	582100	573400
31	545000	---	595600	553500	---	557900	---	617000	---	584200	575600	---
MAX	574700	558100	595600	597200	553700	562900	588600	624800	619000	620600	589900	584800
MIN	545400	543800	548500	553500	545600	541600	553000	584900	612000	584200	570300	572600
(**)	-35900	+6100	+44600	-42100	-5000	+9400	+25500	+33600	0	-32800	-8600	-2200
CAL YR	1986	MAX	606200	MIN	538000	(**)	+5500					
WTR YR	1987	MAX	624800	MIN	541600	(**)	-7400					

(**) Change in storage, in acre-feet.

COLORADO RIVER MAIN STEM

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09427500 LAKE HAVASU NEAR PARKER DAM, AZ-CA--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	448.26	446.60	446.86	449.38	447.01	446.84	447.11	448.80	450.47	450.52	448.78	448.33
2	447.83	446.67	446.91	449.42	447.02	446.94	447.20	448.92	450.51	450.60	448.76	448.40
3	447.51	446.85	446.89	449.41	447.02	447.12	447.50	448.87	450.28	450.53	448.74	448.67
4	447.45	447.14	446.94	449.37	447.15	447.14	447.72	448.89	450.20	450.35	448.64	448.67
5	446.72	447.19	446.97	449.43	447.15	447.19	447.76	448.92	450.28	450.22	448.72	448.79
6	446.69	447.19	447.04	449.16	447.15	447.24	447.84	448.98	450.29	450.02	449.06	448.74
7	446.78	447.09	447.12	448.90	447.12	447.27	447.97	449.32	450.31	449.79	449.04	448.72
8	446.86	447.04	447.12	448.53	447.12	447.24	448.22	449.52	450.39	449.72	449.01	448.60
9	447.08	446.94	447.16	448.18	447.12	447.19	448.42	449.68	450.45	449.75	448.98	448.44
10	447.08	446.92	447.15	448.01	447.14	447.14	448.49	449.73	450.38	449.63	448.77	448.56
11	447.19	446.89	447.15	448.09	447.12	447.04	448.38	449.64	450.36	449.63	449.24	448.57
12	447.22	446.91	447.19	448.19	447.08	446.99	448.19	449.69	450.31	449.56	448.13	448.63
13	447.26	446.95	447.79	448.30	447.04	446.91	448.07	449.67	450.32	449.33	448.15	448.54
14	447.31	446.98	448.21	448.32	446.99	446.84	448.02	450.02	450.32	449.16	448.18	448.24
15	447.34	447.04	448.46	448.46	446.85	446.81	448.25	450.37	450.36	449.24	448.31	448.15
16	447.30	447.09	448.71	448.57	446.78	446.72	448.52	450.49	450.41	449.40	448.23	448.21
17	447.30	447.12	448.65	448.69	446.74	446.56	448.59	450.49	450.44	449.32	448.12	448.30
18	447.30	447.24	448.33	448.59	446.78	446.48	448.72	450.52	450.44	449.36	448.11	448.44
19	447.26	447.34	448.10	448.54	446.80	446.84	448.72	450.56	450.52	449.18	448.03	448.56
20	447.26	447.35	448.23	448.27	446.79	446.89	448.74	450.35	450.38	449.26	448.22	448.56
21	447.24	447.38	448.43	448.02	446.74	447.08	448.69	450.41	450.36	449.08	448.38	448.32
22	447.26	447.32	448.60	447.87	446.79	447.14	448.64	450.57	450.30	449.06	448.60	448.22
23	447.30	447.26	448.77	447.77	446.72	447.17	448.85	450.68	450.26	449.42	448.58	448.24
24	447.16	447.19	448.87	447.64	446.70	447.25	448.99	450.70	450.17	449.33	448.54	448.41
25	447.17	447.09	448.96	447.51	446.80	447.48	448.99	450.75	450.20	449.26	448.37	448.51
26	447.23	447.07	449.05	447.46	446.84	447.64	448.92	450.81	450.26	449.09	448.49	448.59
27	447.29	447.06	449.14	447.41	446.83	447.44	448.64	450.74	450.21	449.08	448.81	448.55
28	447.35	447.04	449.23	447.36	446.86	447.47	448.59	450.69	450.18	448.90	448.74	448.40
29	447.36	447.04	449.27	447.32	---	447.41	448.54	450.65	450.35	448.92	448.81	448.26
30	447.16	447.00	449.31	447.31	---	447.49	448.72	450.54	450.42	448.88	448.65	448.19
31	446.66	---	449.35	447.14	---	447.37	---	450.42	---	448.76	448.31	---
MAX	448.26	447.38	449.35	449.43	447.15	447.64	448.99	450.81	450.52	450.60	449.24	448.79
MIN	446.66	446.60	446.86	447.14	446.70	446.48	447.11	448.80	450.17	448.76	448.03	448.15
CAL YR	1986	MAX	449.88	MIN	446.28							
WTR YR	1987	MAX	450.81	MIN	446.48							

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA

LOCATION.--Lat 34°17'44", long 114°08'22", in NW¼NW¼ sec.3, T.2 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, Hydrologic Unit 15030104, on north end of powerplant at Parker Dam, 13 mi northeast of Parker, Ariz., and 14 mi upstream from Headgate Rock Dam.

DRAINAGE AREA.--182,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1934 (gage heights and fragmentary discharge records), October 1934 to current year. Prior to October 1937, published as "near Parker, Ariz."

REVISED RECORDS.--WSP 1313: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 300.54 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1967, at site 3.8 mi downstream at datum 346.23 ft above NGVD.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Mead since Feb. 1, 1935, by Lake Mohave since Jan. 17, 1950, and by Lake Havasu since July 1, 1938. Many diversions above station. For record of diversion to Colorado River aqueduct and return flows, see record for Colorado River aqueduct near Parker Dam, elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft³/s Feb. 8, 1937; no flow at Parker Dam for parts of several days in 1942 when gates in dam were closed; minimum daily discharge, 920 ft³/s Jan. 11, 1978.
An unregulated discharge of probably less than 1,350 ft³/s occurred Aug. 18, 1934 (lowest unregulated discharge since 1917 and probably since a much earlier date).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 22,100 ft³/s Jan. 15, 16; minimum daily, 8,710 ft³/s Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21600	16200	16200	21800	21700	18400	13700	12500	12900	11700	14000	12800
2	21500	16300	16200	21700	21200	17900	9530	13000	13400	11500	15100	11900
3	21500	16300	16200	21800	20900	16400	12800	13500	13400	14300	14600	8710
4	21400	16300	16200	21800	19900	16400	14200	13500	11600	13900	15700	11900
5	21400	16200	16200	21900	19900	16500	14600	13300	12000	13900	14300	12600
6	17400	16600	16300	21800	19900	16500	15000	13300	12000	14300	11600	14000
7	16000	16800	16300	21800	19900	16500	14400	11000	13300	15000	14000	14100
8	16000	16800	16300	21800	19900	16500	13200	11900	13100	13500	14700	13600
9	16000	16800	16300	21700	19900	16500	11400	13100	12200	11600	13700	12700
10	16000	16400	16200	21700	18400	16300	13200	13500	13500	14000	16000	10300
11	15800	16300	16200	21700	18400	16500	14800	13400	12200	14000	18700	12000
12	16100	16300	16200	21700	18400	16500	15300	12900	12300	15200	17200	11800
13	16100	15900	16200	21900	18400	16500	15200	13400	12900	15500	14000	12800
14	16100	16300	16300	21900	18400	16500	14200	9830	14600	15400	13800	14100
15	16100	16300	16300	22100	18400	16500	13200	10200	15000	13700	13400	12500
16	16100	16300	16300	22100	18400	16400	11400	11400	14100	11800	15300	12300
17	16100	16300	19200	21800	18400	16500	14100	12400	13500	14200	15100	10200
18	16100	16300	21700	21800	18400	14700	13700	11800	12600	13800	14900	10900
19	16100	16300	21700	21800	18400	13000	14200	11700	11700	14400	14300	11100
20	16100	16300	21700	21800	18400	13000	13600	11500	12900	12900	12300	11500
21	16100	16300	21700	21700	18400	13100	13800	10600	13300	15500	11300	12600
22	16100	16300	21700	21800	18400	13100	13700	10200	14300	13700	12700	12000
23	16200	16300	21700	21800	18500	13600	11700	11000	14400	10500	13800	11500
24	16200	16300	21700	21700	18400	13300	11900	11600	13700	15100	14300	9420
25	16200	16300	21800	21700	18400	11800	13800	12000	12600	14900	13600	10500
26	16200	16300	21800	21700	18400	10200	14400	11600	14600	15200	12900	11000
27	16200	16200	21700	21700	18300	13900	15300	11900	15600	14700	10200	11700
28	16200	16200	21800	21700	18400	13600	14200	10300	15300	16000	12600	11000
29	16400	16200	21800	21700	---	15600	14200	10300	13900	14900	12300	11300
30	16400	16200	21800	21700	---	15300	11800	11800	12600	12900	13700	11300
31	16200	---	21800	21700	---	15000	---	13600	---	14400	14100	---
TOTAL	527900	489900	583500	675300	532800	472500	406530	372030	399500	432400	434200	354130
MEAN	17030	16330	18820	21780	19030	15240	13550	12000	13320	13950	14010	11800
MAX	21600	16800	21800	22100	21700	18400	15300	13600	15600	16000	18700	14100
MIN	15800	15900	16200	21700	18300	10200	9530	9830	11600	10500	10200	8710
AC-FT	1047000	971700	1157000	1339000	1057000	937200	806400	737900	792400	857700	861200	702400
CAL YR 1986	TOTAL	8049520	MEAN	22050	MAX	32900	MIN	9090	AC-FT	15970000		
WTR YR 1987	TOTAL	5680690	MEAN	15560	MAX	22100	MIN	8710	AC-FT	11270000		

COLORADO RIVER MAIN STEM

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09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1982 to current year.

WATER TEMPERATURES: February 1954 to August 1970; September 1982 to current year.

EXTREMES FOR PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,510 microsiemens Dec. 14, 1986; minimum recorded, 804 microsiemens

July 20, 1987.

WATER TEMPERATURE: Maximum recorded, 28.5°C Aug. 12, 13, 18, 1955; minimum recorded, 7.5°C Jan. 11, 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,510 microsiemens Dec. 14; minimum recorded, 804 microsiemens July 20.

WATER TEMPERATURE: Maximum recorded, 25.4°C Aug. 12; minimum recorded, 9.0°C Jan. 20-24.

INSTRUMENTATION.--Water temperature recorder from February 1954 to August 1970. Specific conductance and water temperature recorder from September 1982 to current year.

REMARKS.--Prior to October 1968, published as 09428000.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	OXYGEN DEMAND, CHEM- ICAL	COLI- FORM, FECAL, 0.7	
		(CFS) (00061)	(US/CM) (00095)	(UNITS) (00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(HIGH LEVEL) (MG/L) (00340)	(UM-MF (COLS./ 100 ML) (31625)	
OCT 1986													
08...	1400	16200	840	7.80	35.0	20.0	2.0	756	8.7	97	11	<1	
DEC													
10...	1430	16700	850	7.90	14.5	13.5	1.5	760	9.8	95	10	K2	
FEB 1987													
04...	1330	20000	840	7.90	23.0	12.0	0.70	760	10.6	99	17	K2	
APR													
08...	1430	18300	860	8.00	32.0	17.0	1.0	760	9.7	101	12	<1	
JUN													
10...	1345	12200	880	7.80	41.0	22.5	1.0	755	9.7	113	23	<1	
AUG													
12...	1030	18200	880	7.80	35.0	26.0	0.30	763	7.2	89	19	22	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986													
08...	31	270	140	65	25	72	2	3.7	160	0	128	210	
DEC													
10...	K11	280	150	69	25	72	2	3.5	160	0	130	220	
FEB 1987													
04...	K1	280	150	69	25	71	2	3.5	150	0	126	220	
APR													
08...	K9	280	150	69	25	73	2	3.7	150	0	122	220	
JUN													
10...	K10	260	140	66	24	70	2	3.8	150	0	126	200	
AUG													
12...	21	270	140	66	25	72	2	3.7	150	0	125	210	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	ARSENIC TOTAL (UG/L AS AS) (01002)
OCT 1986												
08...	55	0.30	570	11	0.200	<0.010	--	1.5	1.7	7.5	<0.010	2
DEC												
10...	57	0.30	541	10	0.300	<0.010	--	0.30	0.60	2.7	<0.010	3
FEB 1987												
04...	51	0.30	535	<1	0.300	0.020	0.68	0.70	1.0	4.4	<0.010	2
APR												
08...	58	0.30	538	<1	0.300	0.020	0.68	0.70	1.0	4.4	0.010	2
JUN												
10...	59	0.20	546	4	0.200	0.040	0.86	0.90	1.1	4.9	0.040	2
AUG												
12...	54	0.30	536	<1	0.100	0.040	0.66	0.70	0.80	3.5	0.010	<1

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986											
08...	2	98	100	1	<1	8	<1	31	2	160	<3
DEC											
10...	3	98	100	<1	<1	3	<1	11	3	130	<3
FEB 1987											
04...	2	100	90	<1	1	<1	<1	13	4	40	3
APR											
08...	2	99	100	<1	<1	--	<1	9	<1	80	4
JUN											
10...	2	97	110	<1	<1	<1	<1	15	7	110	<3
AUG											
12...	2	97	110	1	<1	<1	<1	3	3	90	7

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1986											
08...	5	<5	20	2	3	2	<1.0	130	11	4	175
DEC											
10...	<5	<5	10	<1	2	3	<1.0	10	4	4	180
FEB 1987											
04...	13	<5	10	<1	3	3	<1.0	10	19	3	162
APR											
08...	32	<5	<10	1	2	2	<1.0	20	23	2	99
JUN											
10...	32	<5	<10	2	2	2	<1.0	20	16	2	66
AUG											
12...	<5	<5	20	4	2	2	<1.0	20	41	--	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	858	871	850	878	858	869	864	877	900	908	887	881
2	858	871	850	868	857	869	873	888	900	908	898	881
3	858	870	850	868	856	870	873	889	900	908	898	881
4	868	870	860	859	845	869	872	890	900	889	898	900
5	869	870	860	859	855	869	882	890	900	899	898	900
6	869	870	860	860	856	868	871	890	900	899	889	900
7	869	870	850	870	857	868	871	900	900	900	890	900
8	870	860	860	869	847	867	870	900	900	890	890	900
9	870	860	860	868	858	867	861	890	900	890	890	900
10	870	860	860	867	858	866	862	890	900	891	910	900
11	869	860	860	866	859	865	863	890	900	891	900	900
12	869	860	860	865	859	865	863	890	890	891	900	900
13	868	860	861	865	860	864	864	900	901	892	899	900
14	868	860	1510	864	860	864	865	900	901	882	899	900
15	868	860	1390	863	861	863	865	900	902	892	898	900
16	877	860	862	862	862	863	876	900	902	892	898	900
17	867	860	862	861	862	872	877	890	903	863	897	900
18	876	860	863	860	863	872	877	890	903	863	897	900
19	876	860	863	859	863	871	868	890	903	853	897	900
20	876	860	863	858	864	870	879	890	894	844	896	900
21	875	860	864	857	864	870	880	890	894	884	896	910
22	885	860	864	857	865	869	880	900	904	894	895	900
23	875	850	864	856	865	879	891	900	905	895	885	900
24	874	850	865	855	866	878	892	900	905	895	885	900
25	884	850	865	854	867	878	893	900	885	895	884	900
26	873	850	865	853	867	887	893	900	866	885	884	900
27	873	850	866	852	868	877	884	900	846	886	883	890
28	883	850	866	871	868	886	895	890	847	886	883	890
29	882	850	867	850	---	876	886	890	837	887	883	900
30	872	850	857	859	---	885	886	900	837	897	882	890
31	871	---	867	859	---	874	---	900	---	887	882	---
MAX	885	871	1510	878	868	887	895	900	905	908	910	910

WTR YR 1987 MAX 1510

MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	848	861	840	848	838	859	854	867	880	817	867	871
2	848	861	840	858	837	859	853	867	880	898	867	871
3	848	860	840	858	836	860	863	878	890	858	878	870
4	848	850	840	859	835	859	862	879	890	858	868	870
5	849	850	850	859	835	859	862	880	890	869	878	830
6	849	850	850	860	836	858	861	880	890	809	879	890
7	859	850	830	860	837	858	861	880	890	840	880	880
8	860	850	850	859	837	857	860	880	890	870	880	880
9	860	850	850	858	838	857	851	880	890	880	880	880
10	860	850	850	857	838	856	851	880	890	881	880	880
11	859	850	850	856	849	855	852	880	880	881	890	880
12	859	850	850	855	849	855	853	880	880	861	890	890
13	858	850	851	855	850	854	853	880	880	862	889	880
14	858	850	851	854	850	854	854	890	891	872	868	880
15	858	850	861	853	851	853	855	880	882	862	868	880
16	857	850	852	852	852	853	856	880	882	853	887	880
17	857	850	852	851	852	852	856	880	892	843	887	880
18	856	830	853	850	853	852	857	870	883	843	887	880
19	866	850	853	849	853	861	858	880	883	823	886	890
20	866	850	833	848	854	860	858	880	883	804	886	880
21	865	850	854	847	854	860	869	880	884	834	876	880
22	865	840	854	847	855	859	870	880	884	874	875	890
23	865	840	854	846	855	859	871	890	895	864	875	880
24	864	840	855	845	856	868	872	880	885	875	874	890
25	864	840	855	844	857	868	872	880	855	875	874	880
26	863	840	855	843	857	857	873	880	856	835	873	880
27	863	840	846	842	858	867	873	880	836	836	873	880
28	873	840	856	841	858	866	874	880	826	876	873	880
29	872	840	847	840	---	866	875	880	827	876	872	870
30	872	840	847	839	---	865	866	880	827	857	872	880
31	861	---	857	839	---	854	---	890	---	857	871	---
MIN	848	830	830	839	835	852	851	867	826	804	867	830

WTR YR 1987 MIN 804

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	867	845	858	848	862	862	875	890	852	880	873
2	855	864	843	859	847	862	867	877	892	902	885	874
3	856	863	844	858	846	864	868	880	894	879	888	872
4	858	859	849	859	845	867	869	884	892	875	885	885
5	859	859	851	859	845	868	869	885	892	886	885	886
6	859	860	852	860	846	866	867	887	891	846	887	893
7	861	860	848	862	846	864	869	888	896	871	888	893
8	864	858	852	863	847	863	864	889	893	880	886	891
9	861	858	853	863	849	862	857	886	892	883	884	889
10	865	855	853	862	849	861	858	886	890	888	889	890
11	860	857	856	861	851	863	857	887	890	882	896	890
12	864	855	860	860	851	863	857	888	890	882	898	891
13	863	854	861	858	853	862	858	889	890	880	895	890
14	863	856	960	857	853	862	861	892	892	880	892	888
15	864	858	956	857	854	859	861	890	892	880	891	889
16	867	855	861	856	855	861	865	891	892	879	893	890
17	866	854	859	855	856	862	867	885	893	860	891	891
18	867	848	860	854	856	862	868	881	893	857	892	891
19	871	851	861	854	855	864	867	882	893	841	889	894
20	872	852	858	854	858	863	871	883	893	826	890	892
21	873	851	862	853	857	863	871	886	893	865	888	891
22	875	850	859	852	858	864	875	890	893	882	886	891
23	875	849	857	853	860	869	879	893	897	884	881	890
24	872	847	857	851	859	873	881	888	894	885	880	890
25	875	848	857	850	859	871	883	887	873	885	881	890
26	867	846	857	851	859	873	882	889	862	863	880	890
27	866	845	856	850	860	873	881	886	841	879	880	889
28	876	843	858	851	860	875	885	887	837	884	877	888
29	874	843	855	849	---	874	884	889	831	885	877	886
30	872	844	855	849	---	875	880	890	827	881	876	884
31	870	---	857	849	---	865	---	891	---	880	876	---
MAX	876	867	960	863	860	875	885	893	897	902	898	894
MIN	855	843	843	849	845	859	857	875	827	826	876	872

WTR YR 1987 MAX 960 MIN 826

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.1	18.9	13.8	11.1	11.3	12.2	15.1	19.2	21.5	22.9	23.5	24.7
2	18.8	18.6	13.6	11.0	11.6	12.3	15.3	20.0	22.1	22.8	23.7	24.3
3	18.9	18.7	13.3	11.0	11.8	12.4	15.0	21.1	22.6	22.5	24.5	24.1
4	18.8	18.6	13.1	10.9	12.0	12.6	14.9	21.2	22.2	22.5	24.6	23.3
5	18.9	18.5	13.0	10.9	12.1	12.9	15.4	21.1	22.5	22.5	24.3	24.9
6	19.0	18.3	12.9	10.9	12.2	12.7	15.6	21.3	22.5	22.6	24.3	23.9
7	19.1	18.0	12.8	10.9	12.4	13.2	16.4	21.1	23.8	23.6	24.2	24.2
8	19.1	17.8	12.7	10.9	12.6	13.6	16.3	20.9	23.2	23.7	24.3	24.0
9	19.3	17.4	12.5	10.9	12.6	13.9	16.7	21.6	22.7	22.6	24.3	23.9
10	19.8	17.0	12.2	10.7	12.8	14.1	17.0	21.6	22.9	22.7	25.1	23.7
11	19.7	16.5	11.8	10.5	13.1	14.2	16.6	21.3	22.9	22.6	25.0	23.7
12	19.5	16.4	11.7	10.5	13.4	14.5	17.3	21.9	22.8	22.7	25.4	23.2
13	19.4	16.2	11.6	10.5	13.5	14.5	17.6	22.0	23.0	23.0	24.4	22.6
14	19.4	16.0	11.4	10.5	13.3	14.4	17.9	21.6	23.3	23.7	24.3	22.5
15	19.3	16.1	11.4	10.3	13.5	14.3	18.1	22.2	23.0	23.3	24.2	22.5
16	19.4	16.0	11.3	10.0	13.4	14.9	18.3	22.5	23.4	22.5	24.6	22.5
17	19.3	15.8	11.2	9.6	13.4	15.0	18.2	22.2	23.2	22.0	24.8	22.6
18	19.3	15.7	11.2	9.5	13.3	15.0	18.0	21.7	23.0	22.3	24.5	22.3
19	19.3	15.7	11.2	9.4	13.2	15.0	17.9	21.3	23.1	22.6	24.2	22.3
20	19.4	15.8	11.2	9.3	13.1	15.0	17.8	21.2	23.0	23.0	24.5	22.6
21	19.3	15.8	11.2	9.2	13.1	15.0	17.9	21.3	22.9	22.8	24.2	22.4
22	19.2	15.7	11.2	9.1	13.0	14.7	18.3	21.7	23.1	23.2	23.9	22.1
23	19.1	15.3	11.3	9.1	12.9	14.7	18.5	21.7	23.0	23.0	23.8	21.9
24	19.2	15.2	11.2	9.3	12.7	14.9	18.5	21.6	23.0	23.1	23.2	22.4
25	19.2	15.0	11.2	9.4	12.4	14.9	19.0	21.5	23.1	23.3	23.5	21.9
26	19.2	14.8	11.3	9.5	12.3	15.1	19.3	21.2	22.9	23.3	23.3	21.6
27	19.2	14.7	11.3	9.7	12.3	15.2	19.8	21.4	22.9	23.4	23.6	21.7
28	19.3	14.6	11.2	10.0	12.3	14.8	19.4	21.4	22.7	23.3	24.0	22.1
29	19.3	14.3	11.2	10.4	---	14.7	19.3	21.3	22.8	24.1	24.2	22.4
30	19.2	14.1	11.2	10.7	---	14.6	19.3	21.5	23.0	24.0	24.1	22.4
31	19.1	---	11.1	10.9	---	14.9	---	21.5	---	23.6	24.4	---
MAX	19.8	18.9	13.8	11.1	13.5	15.2	19.8	22.5	23.8	24.1	25.4	24.9

WTR YR 1987 MAX 25.4

COLORADO RIVER MAIN STEM

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09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	18.5	13.6	10.9	10.8	12.0	14.7	18.7	21.2	22.2	22.8	23.4
2	18.4	18.4	13.4	10.9	11.2	12.0	14.9	18.8	21.2	22.4	22.7	23.5
3	18.4	18.4	13.2	10.8	11.6	12.1	14.4	19.8	22.2	22.1	23.4	23.1
4	18.5	18.4	12.9	10.8	11.8	12.2	14.4	20.9	21.5	22.0	23.8	22.9
5	18.4	18.3	12.9	10.7	11.8	12.4	14.7	20.6	21.7	22.2	23.7	23.5
6	18.7	18.0	12.8	10.8	12.0	12.4	15.1	20.6	21.6	22.2	23.8	23.6
7	18.7	17.8	12.7	10.8	12.1	12.6	15.6	20.3	22.7	23.1	23.8	23.6
8	18.8	17.4	12.5	10.8	12.3	13.1	15.9	20.2	22.3	22.0	23.9	23.7
9	18.8	17.0	12.3	10.6	12.4	13.3	16.2	20.8	22.1	21.6	23.9	23.5
10	19.2	16.6	11.9	10.5	12.4	13.6	16.5	21.0	22.5	21.6	23.4	23.5
11	19.4	16.3	11.6	10.4	12.7	14.0	16.1	20.7	22.5	21.9	24.6	23.3
12	19.1	16.1	11.6	10.4	13.0	14.0	16.2	20.9	22.1	21.9	24.9	22.4
13	19.0	16.0	11.4	10.4	13.1	14.0	17.3	21.5	22.1	22.5	23.8	22.3
14	19.0	15.8	11.3	10.2	13.0	14.0	17.4	21.0	22.6	22.6	23.6	22.2
15	19.1	15.8	11.3	10.0	13.1	13.9	17.7	21.2	22.6	22.5	23.5	22.3
16	19.0	15.7	11.2	9.6	13.1	14.3	17.9	21.7	22.6	21.7	23.9	22.2
17	19.2	15.7	11.1	9.4	13.2	14.6	17.5	21.5	22.6	21.2	24.1	22.1
18	19.1	15.5	11.1	9.3	13.2	14.7	17.3	20.6	22.6	21.6	24.1	22.0
19	19.1	15.4	11.0	9.3	13.1	14.6	17.3	20.5	22.6	22.3	23.8	21.9
20	19.1	15.6	11.1	9.0	13.0	14.7	17.6	20.6	22.5	22.3	23.7	22.1
21	19.2	15.6	11.1	9.0	12.9	14.7	17.6	20.7	22.5	22.4	23.2	22.0
22	19.0	15.3	11.0	9.0	12.8	14.5	17.8	21.2	22.4	22.6	23.2	21.5
23	18.9	15.1	11.1	9.0	12.7	14.5	18.1	21.3	22.6	22.7	23.2	21.1
24	19.0	14.9	11.1	9.0	12.5	14.6	18.1	21.4	22.6	22.7	22.8	21.9
25	19.0	14.8	11.1	9.2	12.3	14.7	18.3	20.8	22.4	22.8	22.9	21.4
26	18.9	14.7	11.2	9.3	12.2	14.8	18.5	20.7	22.4	22.8	22.7	21.3
27	19.0	14.5	11.1	9.4	12.0	14.8	18.9	21.0	22.5	22.4	22.7	21.4
28	19.0	14.4	11.1	9.7	12.0	14.6	18.8	21.1	22.1	22.8	23.3	21.4
29	19.1	14.1	11.0	10.0	---	14.4	19.0	21.0	22.3	23.4	23.5	21.9
30	18.9	13.9	11.0	10.4	---	14.3	18.7	21.1	22.1	23.3	23.5	22.0
31	18.9	---	11.0	10.7	---	14.4	---	21.2	---	22.9	23.5	---
MIN	18.4	13.9	11.0	9.0	10.8	12.0	14.4	18.7	21.2	21.2	22.7	21.1
WTR YR 1987	MIN	9.0										

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.9	18.7	13.7	11.0	11.0	12.1	14.9	19.0	21.4	22.6	23.1	23.9
2	18.6	18.5	13.5	11.0	11.5	12.2	15.0	19.5	21.6	22.6	23.2	24.0
3	18.6	18.5	13.3	10.9	11.7	12.2	14.7	20.5	22.4	22.4	23.9	23.7
4	18.7	18.4	13.0	10.8	11.9	12.4	14.6	21.1	21.9	22.3	24.3	23.1
5	18.6	18.4	12.9	10.8	11.9	12.6	15.0	20.9	22.1	22.4	24.0	23.9
6	18.8	18.2	12.8	10.8	12.1	12.6	15.4	20.9	22.0	22.5	24.1	23.8
7	18.9	17.9	12.8	10.9	12.2	12.8	16.0	20.8	23.3	23.4	24.1	23.9
8	19.0	17.6	12.6	10.8	12.4	13.3	16.2	20.7	22.8	22.9	24.2	23.9
9	19.1	17.2	12.4	10.8	12.5	13.6	16.5	21.2	22.5	22.2	24.1	23.8
10	19.5	16.9	12.0	10.6	12.6	13.8	16.8	21.3	22.7	22.3	24.3	23.6
11	19.6	16.4	11.7	10.5	12.8	14.1	16.4	21.0	22.7	22.2	24.8	23.5
12	19.2	16.2	11.6	10.5	13.2	14.3	16.7	21.4	22.6	22.4	25.1	22.9
13	19.1	16.1	11.5	10.4	13.2	14.2	17.5	21.8	22.7	22.8	24.1	22.5
14	19.1	15.9	11.4	10.3	13.2	14.2	17.7	21.5	23.0	23.1	24.0	22.4
15	19.2	15.9	11.3	10.1	13.3	14.1	17.9	21.7	22.8	22.9	23.9	22.4
16	19.2	15.9	11.2	9.8	13.2	14.6	18.1	22.1	23.2	22.4	24.3	22.3
17	19.2	15.7	11.2	9.5	13.3	14.8	17.9	21.9	23.0	21.6	24.5	22.3
18	19.2	15.6	11.1	9.4	13.2	14.9	17.7	21.4	22.8	22.1	24.4	22.2
19	19.2	15.6	11.1	9.4	13.1	14.8	17.7	21.1	22.8	22.5	24.1	22.2
20	19.2	15.7	11.2	9.2	13.0	14.8	17.7	20.9	22.9	22.7	24.1	22.4
21	19.2	15.7	11.1	9.1	12.9	14.8	17.8	21.1	22.7	22.6	23.9	22.2
22	19.1	15.5	11.1	9.1	12.9	14.6	18.0	21.4	22.7	22.9	23.6	21.7
23	19.0	15.2	11.2	9.0	12.8	14.6	18.3	21.5	22.9	22.9	23.6	21.6
24	19.1	15.0	11.2	9.1	12.6	14.8	18.3	21.5	22.8	22.9	23.0	22.3
25	19.1	14.9	11.2	9.3	12.4	14.8	18.6	21.2	22.9	23.1	23.2	21.6
26	19.0	14.7	11.2	9.4	12.3	14.9	18.9	21.0	22.8	23.0	23.0	21.5
27	19.1	14.6	11.2	9.6	12.1	15.0	19.4	21.2	22.8	23.0	23.1	21.5
28	19.1	14.5	11.1	9.9	12.1	14.7	19.1	21.2	22.5	23.1	23.7	21.8
29	19.2	14.2	11.1	10.2	---	14.6	19.2	21.2	22.6	23.8	23.9	22.2
30	19.0	14.0	11.1	10.6	---	14.4	19.1	21.3	22.6	23.7	23.8	22.2
31	18.9	---	11.0	10.8	---	14.6	---	21.4	---	23.4	24.0	---

DIVERSIONS AND RETURN FLOWS BETWEEN PARKER DAM AND PALO VERDE DAM

09428500 COLORADO RIVER INDIAN RESERVATION MAIN CANAL NEAR PARKER, AZ

LOCATION.--Two gages, lat 34°10'04", long 114°16'33", in SE¼NW¼ sec.31, T.10 N., R.19 W., Gila and Salt River meridian, La Paz County, Hydrologic Unit 15030104. Forebay gage, on left wall of canal intake, 90 ft upstream from diversion gates at Arizona end of Headgate Rock Dam. Tailrace gage, on right bank of canal 250 ft downstream from gates. Both gages are on Colorado River Indian Reservation 1.7 mi northeast of Parker and 14 mi downstream from Parker Dam.

PERIOD OF RECORD.--January 1915 to current year (prior to January 1937, fiscal year diversions only; January 1937 to September 1954, monthly diversions only).

REVISED RECORDS.--WSP 1513: 1915-36.

GAGE.--Water-stage recorders above and below intake gates to record head, and recorder to show gate openings (since Oct. 1, 1972), with supplementary tape gages read daily and at time of each gate change (prior to Oct. 1, 1972, tape gages only). Datum of gages is 350.00 ft, datum in use locally, or 350.51 ft above National Geodetic Vertical Datum of 1929. Normal operating level of forebay is 364.3 ft; prior to July 9, 1962, normal operating level of forebay was 362.9 ft, datum in use locally. Prior to October 1954, discharge computed by various methods as described in WSP 1313.

REMARKS.--No estimated daily discharges. Records good. Daily diversions computed on basis of head on intake gates and gate openings. Records show water diverted to project and surface return flows to Colorado River through two wasteways and two drains; three of these are equipped with water-stage recorders.

COOPERATION.--Log of canal intake gate opening (supplementary record) furnished by Bureau of Indian Affairs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,940 ft³/s May 26, 1982; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	553	457	374	245	672	672	911	1270	1230	1460	1400	1090
2	689	416	467	361	709	768	876	1170	1280	1480	1320	1080
3	735	492	501	563	728	868	980	994	1340	1480	1380	1160
4	646	458	533	699	718	881	1000	1010	1360	1480	1390	1150
5	587	484	458	790	719	963	1060	1040	1370	1460	1440	1150
6	596	519	436	735	739	930	1020	1010	1360	1480	1440	1090
7	620	513	355	696	750	868	1170	1090	1310	1480	1430	938
8	656	448	336	678	748	817	1150	1180	1330	1440	1430	814
9	657	381	295	433	724	786	915	1180	1380	1460	1390	909
10	409	411	235	.00	713	763	1080	1150	1380	1480	1410	939
11	239	431	240	.00	724	897	1090	1150	1380	1480	1410	879
12	257	439	243	.00	766	812	1040	1200	1450	1470	1390	819
13	281	516	236	.00	740	867	1080	1260	1450	1460	1390	657
14	382	555	233	.00	690	919	1100	1300	1380	1480	1390	696
15	473	449	232	.00	646	841	1100	1260	1460	1490	1390	775
16	518	333	232	.00	750	801	966	1240	1480	1500	1390	834
17	452	341	327	.00	836	872	921	1160	1460	1480	1350	894
18	334	324	511	.00	982	1000	908	1090	1460	1450	1290	897
19	380	262	549	.00	1080	1070	837	1130	1480	1370	1350	787
20	422	258	364	.00	1090	1030	785	1140	1400	1440	1340	726
21	423	323	295	.00	1080	910	866	1150	1300	1440	1310	855
22	502	303	301	.00	942	736	1030	1160	1200	1410	1270	900
23	512	234	332	57	852	685	1130	1180	1260	1440	1170	853
24	457	251	344	210	885	805	1140	1110	1350	1410	1090	722
25	405	341	325	371	881	855	1140	992	1420	1410	1110	728
26	362	359	330	459	769	842	1150	1120	1440	1410	1060	714
27	391	270	415	602	692	992	1160	1120	1420	1410	1010	560
28	369	307	495	714	769	979	1160	1250	1420	1390	1020	591
29	452	320	521	802	---	1040	1230	1370	1450	1410	1140	658
30	496	293	488	876	---	1030	1300	1350	1440	1410	1130	675
31	536	---	400	810	---	1010	---	1310	---	1440	1090	---
TOTAL	14791	11488	11403	10101.00	22394	27309	31295	36136	41440	44900	40120	25540
MEAN	477	383	368	326	800	881	1043	1166	1381	1448	1294	851
MAX	735	555	549	876	1090	1070	1300	1370	1480	1500	1440	1160
MIN	239	234	232	.00	646	672	785	992	1200	1370	1010	560
AC-FT	29340	22790	22620	20040	44420	54170	62070	71680	82200	89060	79580	50660
(*)	23430	19120	18860	16300	17570	22780	22490	25930	25140	25600	28710	26530
CAL YR 1986	TOTAL	283399.00	MEAN	776	MAX	1400	MIN	.00	AC-FT	562100	(*)	267700
WTR YR 1987	TOTAL	316917.00	MEAN	868	MAX	1500	MIN	.00	AC-FT	628600	(*)	272500

* Return surface flow, in acre-feet, to Colorado River.

DIVERSIONS AND RETURN FLOWS BETWEEN PARKER DAM AND PALO VERDE DAM

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09429000 PALO VERDE CANAL NEAR BLYTHE, CA

LOCATION.--Lat 33°43'55", long 114°30'40", in NW¼NE¼ sec.19, T.5 S., R.24 E., San Bernardino meridian, Riverside County, Hydrologic Unit 15030104, at canal intake structure on west side of Palo Verde diversion dam, 10 mi northeast of Blythe and 44 mi downstream from Headgate Rock Dam.

PERIOD OF RECORD.--January 1922 to December 1923, January 1925 to current year (prior to October 1950, monthly discharge only).

REVISED RECORD.--WSP 1213: 1946-48.

GAGE.--Recording gages above and below intakes to record head. Since May 18, 1964, recorder to show gate openings.

Datum of gage is: Forebay gage, National Geodetic Vertical Datum of 1929; tailrace gage, 274.13 ft, NGVD.

Aug. 7, 1950, to Nov. 30, 1952, water-stage recorder on tailrace and auxiliary recorder 0.5 mi downstream and

Dec. 1, 1952, to Oct. 28, 1957, recording gage above and below former intake structure 0.2 mi upstream, at different datums.

REMARKS.--No estimated daily discharges. Records good. Daily diversions computed on basis of head on intake gates and gate openings. Records published herein represent flow diverted from Colorado River for irrigation. Return flows to Colorado River are measured by 10 wasteways and drains extending throughout the project; 5 of these are equipped with water stage recorder and Parshall flume, 3 are equipped with Sparling flowmeters. Return flows have not been subtracted; combined monthly return flows are given in table below.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,360 ft³/s July 30, 1981; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	811	985	563	882	672	886	1360	1510	1620	1780	1730	1340
2	913	907	602	857	774	955	1470	1260	1740	1820	1620	1350
3	870	947	656	204	768	986	1460	1070	1780	1700	1780	1350
4	929	855	674	.00	748	1160	1430	1280	1700	1570	1790	1580
5	855	845	666	.00	771	1240	1360	1540	1640	1700	1820	1470
6	995	753	637	.00	872	1290	1480	1650	1700	1830	1780	1340
7	948	769	536	.00	855	1260	1590	1600	1500	1820	1820	1350
8	767	894	519	.00	899	1050	1870	1580	1600	1800	1800	1480
9	587	821	484	.00	1090	1090	1820	1420	1750	1790	1830	1580
10	468	910	530	298	1210	1130	1780	1270	1750	1740	1910	1520
11	432	841	489	311	1210	1090	1600	1530	1750	1810	1770	1450
12	423	784	508	399	1260	1170	1470	1640	1710	1750	1870	1490
13	459	818	522	282	1340	1280	1690	1790	1940	1810	1930	1200
14	537	787	455	342	1200	1190	1410	1670	1600	1760	1870	1180
15	546	630	644	626	1050	1030	1350	1440	1790	1770	1810	1280
16	498	588	633	661	1140	1140	1390	1270	1890	1520	1730	1470
17	681	657	565	702	1100	1120	1610	1090	1810	1600	1640	1460
18	782	572	626	676	1180	1210	1450	1420	1690	1520	1680	1380
19	634	542	682	742	1390	1340	1200	1540	1750	1410	1660	1230
20	756	578	611	788	1480	1390	1350	1690	1610	1470	1740	1140
21	927	627	482	845	1290	1270	1300	1590	1440	1600	1700	1210
22	870	535	565	904	1180	1180	1350	1470	1490	1690	1640	1250
23	943	497	593	895	1200	1140	1440	1490	1620	1830	1410	1150
24	979	632	388	877	1120	1180	1580	1300	1790	2010	1480	1200
25	821	636	369	826	1140	1220	1580	1440	1890	1890	1530	1210
26	729	641	607	884	1130	1310	1500	1550	1850	1820	1690	990
27	795	514	689	897	1180	1280	1580	1610	1820	1880	1820	922
28	959	650	708	878	1050	1730	1520	1640	1770	1870	1670	803
29	1010	684	821	771	---	1110	1610	1570	1820	1830	1480	1080
30	973	638	851	792	---	1280	1640	1430	1750	1820	1330	1120
31	956	---	973	699	---	1250	---	1440	---	1820	1380	---
TOTAL	23853	21537	18648	17038.00	30299	36457	45240	45790	51560	54030	52710	38575
MEAN	769	718	602	550	1082	1176	1508	1477	1719	1743	1700	1286
MAX	1010	985	973	904	1480	1390	1870	1790	1940	2010	1930	1580
MIN	423	497	369	.00	672	886	1200	1070	1440	1410	1330	803
AC-FT	47310	42720	36990	33790	60100	72310	89730	90820	102300	107200	104600	76510
(*)	40580	35340	33220	30980	29170	38300	36800	39030	39910	41700	42330	39490
CAL YR	1986	TOTAL	439614.00	MEAN	1204	MAX	2060	MIN	.00	AC-FT	872000	* 467400
WTR YR	1987	TOTAL	435737.00	MEAN	1194	MAX	2010	MIN	.00	AC-FT	864300	* 446800

* Return flows, in acre-feet, to Colorado River.

COLORADO RIVER MAIN STEM

09429010 COLORADO RIVER AT PALO VERDE DAM, AZ-CA

LOCATION.--Lat 33°43'55", long 114°30'40", in NW¼NE¼ sec.19, T.5 S., R.24 E., San Bernardino meridian, in California, Riverside County, Hydrologic Unit 15030104, on west side of Palo Verde Diversion Dam, 10 mi northeast of Blythe, CA., and 44 mi downstream from Headgate Rock Dam.

DRAINAGE AREA.--186,200 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--April 1969 to current year. If records for the two Colorado River Indian Reservation drains entering below Palo Verde Dam are added to records for this station, records equivalent to those published 1956-69 as "Colorado River below Palo Verde Dam" can be obtained.

GAGE.--Water-stage recorder, to record water stage in tailrace. Supplementary water-stage recorder operated by Geological Survey and Palo Verde Irrigation District. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good. Many diversions above station for irrigation, municipal, and industrial uses. Flow regulated by Lake Mead, Lake Mohave, and Lake Havasu.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 42,300 ft³/s June 30, 1983; minimum daily, 1,060 ft³/s Nov. 25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 21,400 ft³/s Jan. 3; minimum daily, 7,940 ft³/s Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18800	14500	15400	21000	19000	15900	12100	10400	10900	9700	10900	11000
2	18800	14600	15300	21000	18800	15800	10700	10600	10400	9200	11200	10500
3	18800	14600	15200	21400	18300	14600	9600	10900	10700	9430	11200	10000
4	18900	14700	15300	21200	18000	13700	10800	11400	10500	10900	11300	7940
5	19100	14800	15400	21200	17400	13600	11500	11500	9420	11000	11400	9980
6	18600	14800	15400	20800	17300	13600	13100	11300	9690	11000	10500	10700
7	15300	15200	15500	20400	17300	13700	12200	10100	9990	11100	9400	11700
8	14900	15300	15600	20300	17200	13900	11400	10900	10600	11100	10800	11500
9	14900	15300	15700	20100	17100	14000	10700	10100	10300	10300	11500	11200
10	15100	15000	15500	20100	16700	14400	10300	10900	9880	9770	11500	10600
11	15400	14800	15600	20200	16100	13700	11400	10800	10500	10600	13100	9190
12	14700	14800	15600	20100	16100	14000	12200	9710	9810	11400	13300	10200
13	15100	14700	15600	20100	16000	13900	12300	9960	9770	11700	11800	10400
14	15000	14800	15700	20200	16000	13900	11900	9690	10700	12300	10700	11200
15	14900	15100	15500	19800	16000	14000	10800	10400	11500	11200	10900	11400
16	14800	15200	15500	19900	15900	14100	9550	9340	11600	10400	11200	10500
17	14700	15300	15500	19800	15800	14000	10100	10200	11000	9420	11800	10200
18	14600	15300	19700	19500	15700	13200	10900	10200	10600	10500	11700	8950
19	14800	15500	20700	19400	15400	12100	10800	9990	10000	10600	11400	9470
20	14700	15500	20900	19300	15300	11600	11100	9770	9670	11100	10900	9570
21	14600	15500	21000	19100	15500	11700	10700	8850	10600	10100	9930	9780
22	14600	15400	21000	19000	15600	11900	10500	9330	11200	10900	9340	10600
23	14400	15300	21100	19100	15600	11900	9550	9800	11200	10100	10600	10100
24	14600	15300	21200	19300	15700	11900	9620	9710	11200	8710	11400	9670
25	15000	15200	21300	19200	15600	11700	9270	9920	10600	10900	11400	8320
26	15000	15200	21200	19000	15700	10200	10300	10000	10300	11000	11000	9180
27	14700	15600	21200	18900	15800	10300	10900	9600	11800	11500	10400	9730
28	14600	15800	21100	18700	15600	12600	11200	9490	12400	11400	8860	10000
29	14600	15500	20900	18800	---	12000	10200	8550	11300	11600	10300	9730
30	14500	15200	20900	18700	---	12900	9110	8680	11000	10500	10400	9360
31	14500	---	20800	18900	---	12700	---	9790	---	10000	11600	---
TOTAL	483000	453800	556300	614500	460500	407500	324800	311880	319130	329430	341730	302670
MEAN	15580	15130	17950	19820	16450	13150	10830	10060	10640	10630	11020	10090
MAX	19100	15800	21300	21400	19000	15900	13100	11500	12400	12300	13300	11700
MIN	14400	14500	15200	18700	15300	10200	9110	8550	9420	8710	8860	7940
AC-FT	958000	900100	1103000	1219000	913400	808300	644200	618600	633000	653400	677800	600300
CAL YR	1986	TOTAL	7168520	MEAN	19640	MAX	30500	MIN	8640	AC-FT	14220000	
WTR YR	1987	TOTAL	4905240	MEAN	13440	MAX	21400	MIN	7940	AC-FT	9730000	

09429280. CIBOLA LAKE INLET NEAR CIBOLA, AZ.

LOCATION.--Lat 33°15'11", long 114°40'05", in SW¼NE¼ sec.18, T.2 S., R.23 W., La Paz County, Hydrologic Unit 15030104, in Cibola National Wildlife Refuge, below levee on left bank Colorado River at north end of Cibola Lake, 4.4 mi south of Cibola.

PERIOD OF RECORD.--December 1974 to current year (monthly discharge only).

GAGE.--None. Prior to July 30, 1982, two water-stage recorders; one recorded stage and the other recorded deflection-meter readings from deflection vane located in concrete flume.

REMARKS.--No estimated record. Records good. Record shows amount of water diverted from Colorado River to Cibola Lake.

09429290. CIBOLA LAKE OUTLET NEAR CIBOLA, AZ.

LOCATION.--Lat 33°13'19", long 114°40'16", in NW¼SE¼ sec.30, T.2 S., R.23 W., La Paz County, Hydrologic Unit 15030104, in Cibola National Wildlife Refuge, at south end of Cibola Lake outlet to Colorado River, 6.5 mi south of Cibola.

PERIOD OF RECORD.--December 1974 to current year (monthly discharge only).

GAGE.--Water-stage recorder and cipolletti weir or stop logs in 6-ft concrete flume. Datum of gage is 204.17 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated record. Records good. Record shows amount of water returned to Colorado River through controlled outlet. In water years 1976, 1977, and 1979 part of the return flow included in the record was from local runoff.

MONTHLY DISCHARGE, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Cibola Lake Inlet 09429280	Cibola Lake Outlet 09429290
October	0	0
November	0	0
December	0	0
CAL YR 1986	0	0
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
WTR YR 1987	0	0

COLORADO RIVER MAIN STEM

09429300 COLORADO RIVER BELOW CIBOLA VALLEY, AZ

LOCATION.--Lat 33°13'16", long 114°40'18", in NE¼SW¼ sec.30, T.2 S., R.23 W., Gila and Salt River meridian, La Paz County, Hydrologic Unit 15030104, on left bank 6.7 mi south of Cibola, 38 mi upstream from Imperial Dam, 39.7 mi downstream from Ehrenberg, AZ., 52.1 mi downstream from Palo Verde diversion dam near Blythe, CA, and at mile 620 on Colorado River Profile Survey map.

DRAINAGE AREA.--187,800 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--April 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 200.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lakes Mead, Mohave, and Havasu. Many diversions above station for irrigation, municipal, and industrial uses. See sta 09429000 for return flows from Palo Verde Irrigation District, which enter between sta 09429010 and this station. A portion of the return flows from Colorado River Indian Reservation also enters between these two stations.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft³/s Aug. 18, 1983, gage height, 16.57 ft; minimum daily discharge, 1,900 ft³/s Jan. 18, 1974; minimum gage height, about 4.1 ft, Jan. 18, 1974, based on minimum observed gage height of 4.25 ft Jan. 14, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 21,500 ft³/s Jan. 4; minimum daily, 8,630 ft³/s Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21100	15600	15800	20600	20200	17300	13700	10900	10400	11300	11400	12500
2	20800	15600	15800	20800	20300	17600	12900	11100	11000	9930	12100	11400
3	20600	15900	15600	20900	20100	17400	11100	11500	10600	9660	12500	10800
4	20500	15800	15600	21500	19700	16000	11100	11800	10800	10300	12100	9740
5	20400	15900	15600	21400	19100	15600	11900	12100	10400	11400	12500	8630
6	20400	15900	15800	21100	18700	15400	12400	11800	9640	11500	12200	10400
7	19000	16000	15900	20900	18600	15400	13400	11600	9950	11600	10700	11200
8	16600	16100	16100	20900	18700	15500	13100	10100	10600	11800	10800	12200
9	16300	16200	16100	20800	18700	15600	12200	11100	10800	11500	11700	11900
10	16300	16300	16100	20700	18500	15600	11300	10800	10400	10400	12500	11200
11	16500	16100	16000	20600	18000	15700	11400	11700	10300	10300	12600	10400
12	16200	15900	16100	20900	17600	15300	12700	11700	10600	11000	14400	9700
13	15800	15800	16100	20800	17400	15300	13400	11300	9870	11900	14300	10400
14	15700	15600	16100	20900	17300	15200	13500	11100	10100	12200	12500	11200
15	15600	15700	16300	20800	17300	15100	13400	9130	11300	12900	11400	12000
16	15600	16000	16100	20600	17500	15300	12400	9800	12000	11600	11700	11500
17	15500	16100	16200	20500	17300	15300	11000	9890	11700	10800	12400	10900
18	15400	16200	16900	20500	17200	15200	12000	11000	11300	10800	12900	10100
19	15400	16300	19800	20400	16900	14100	12600	10100	10800	11500	12600	9590
20	15500	16200	20300	20300	16600	12700	12600	10100	10100	11900	12300	10000
21	15500	16300	20500	20300	16600	12200	12700	9760	10100	12000	11200	10100
22	15400	16200	20800	20200	16800	12200	12500	8900	11000	11500	10500	10300
23	15300	16000	20700	20200	17200	12400	12300	9210	11800	11700	10500	11300
24	15300	16000	20700	20400	17100	12500	11200	9760	11600	10300	11800	10800
25	15400	15900	20900	20300	17300	12600	11200	10100	11500	10500	12200	9850
26	15700	15800	21000	20300	17200	11800	11400	10000	10600	11800	11900	9110
27	15800	15800	20700	20200	17300	10400	12300	10100	11100	12200	11600	10100
28	15800	16100	20700	20100	17300	11200	13000	9710	12400	12600	10300	10700
29	15700	15900	20700	20000	---	13000	13400	9070	12900	12900	9940	10700
30	15700	15700	20600	20000	---	13000	12300	8640	11600	12800	10800	10600
31	15700	---	20500	20000	---	13800	---	9060	---	11200	11100	---
TOTAL	520500	478900	556100	637900	502500	445700	370400	322930	327260	353790	367440	319320
MEAN	16790	15960	17940	20580	17950	14380	12350	10420	10910	11410	11850	10640
MAX	21100	16300	21000	21500	20300	17600	13700	12100	12900	12900	14400	12500
MIN	15300	15600	15600	20000	16600	10400	11000	8640	9640	9660	9940	8630
AC-FT	1032000	949900	1103000	1265000	996700	884000	734700	640500	649100	701700	728800	633400
CAL YR	1986	TOTAL	7474900	MEAN	20480	MAX	29100	MIN	10700	AC-FT	14830000	
WTR YR	1987	TOTAL	5202740	MEAN	14250	MAX	21500	MIN	8630	AC-FT	10320000	

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA
(National stream-quality accounting network, radiochemical, and tritium network station)

LOCATION.--Lat 32°52'59", long 114°27'55", at Imperial Dam. The Arizona end of the dam is in SW¼NW¼ sec.30, T.6 S., R.21 W., Gila and Salt River meridian, Yuma County, Hydrologic Unit 15030104; the California end is in NW¼SW¼ sec.9, T.15 S., R.24 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030104. Imperial Dam is 5 mi upstream from Laguna Dam, 15 mi northeast of Yuma, Az., 90 mi downstream from Palo Verde Dam, and 147 mi downstream from Parker Dam.

DRAINAGE AREA.--188,500 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1903-34 (yearly discharge only, published in WSP 1313), July 1934 to current year (monthly discharge only October 1942 to September 1979). Prior to October 1942 published as "near Picacho, Ca." October 1942 to September 1971 published as "at Imperial Dam" (monthly discharge shown as "flow reaching Imperial Dam," listed as supplement to "flow passing Imperial Dam").

GAGE.--None. This record is synthesized from records of several other stations (see REMARKS). July 13, 1934, to Sept. 30, 1942, water-stage recorder at site 14.5 mi upstream at datum 167.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records show flow of Colorado River reaching Imperial Dam, and are based on combined daily total flow of Colorado River below Imperial Dam (sta 09429500), All-American Canal near Imperial Dam (sta 09523000), Gila Gravity Main Canal at Imperial Dam (sta 09522500), and diversions to Mitty Lake (sta 09522400). Records for 1903-34 and for October 1942 to September 1960 were computed as combined flow of Colorado River at Yuma (sta 09521000) and the canals diverting at Imperial and Laguna Dams, less the flow of Gila River near Dome (sta 09520500); for some of these periods drainage and waste return flows and channel losses between the gaging stations and Imperial Dam were considered, and for other periods they were neglected. Records for October 1960 to September 1979 are based on combined monthly total flow of same stations on which daily flows are currently based. Records for July 1934 to September 1942 show daily discharge of Colorado River at gaging station near Picacho, Ca., water withdrawals, and diversions for irrigation, municipal, and industrial uses, and return flows from irrigated areas. Diversions to Mitty Lake, which began June 23, 1970, are included in river records in table below. Additional regulation, beginning Jan. 31, 1966, to equalize supplies for downstream water users, is provided by pumped storage in reservoir on Senator Wash, about 2 mi upstream from Imperial Dam. Monthend contents of Senator Wash Reservoir - capacity, 13,840 acre-ft - is given in table below.

COOPERATION.--Records of Sparling meter readings of diversion to Mitty Lake and contents of Senator Wash Reservoir furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF 1934-87.--Maximum discharge, 40,800 ft³/s Sept. 5, 1939; minimum, 538 ft³/s Aug. 3, 1934; minimum daily since regulation of Hoover Dam began, 1,450 ft³/s Feb. 17, 1935.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21200	15300	16200	20700	20100	17600	14000	12300	9540	12000	11500	11100
2	21000	15300	16100	20600	20200	17700	13700	11200	10200	11100	11500	12200
3	20700	15400	16600	20600	20000	18000	12900	11100	10700	10500	12400	11500
4	20300	15900	15700	20800	20300	17600	10600	11400	10700	9510	12500	10900
5	20400	16000	15600	21300	19900	16300	10800	11800	10700	10100	12600	9690
6	20300	15800	15400	21500	19300	15600	11900	12000	10300	11500	12500	9060
7	20300	15500	15900	21400	18600	15100	12400	11900	9540	11800	12700	10200
8	19500	15500	16300	20600	18600	15400	13100	11100	10100	11900	10900	11200
9	17700	15900	16300	21100	18400	15400	12700	10200	10500	12100	10700	11900
10	16400	16200	16300	21000	18400	15500	11800	10600	10900	11700	11700	11700
11	16000	16200	16100	21000	18300	15600	11100	11000	10300	11100	12600	11500
12	16500	16100	16100	21000	17900	15600	10600	11600	10300	10400	13000	10400
13	16600	15900	16200	21100	17600	15100	12400	11700	10400	11200	14300	9730
14	16200	15700	16000	21300	17500	15100	13300	11200	9900	11500	14800	10200
15	16400	15300	16200	20800	17200	15400	13400	10500	10400	12200	13000	11100
16	16200	15500	16200	21200	17100	15100	13200	9290	11000	13100	11300	11900
17	16100	15800	15800	21200	17100	15400	12100	10000	11900	11800	11800	11600
18	15900	16300	15600	21100	17200	15300	10300	9920	11800	10900	12000	10700
19	16000	16200	16300	21100	17100	15000	11800	10800	11300	10800	13000	9930
20	15900	16100	18100	20900	17000	13800	12600	10500	10800	11700	12700	9250
21	16100	15900	19300	20300	16500	12200	12600	9860	9990	12100	12000	10100
22	15800	15900	19600	20800	16500	12000	12500	9660	10400	12100	11200	10400
23	15700	16300	20100	20900	16700	12100	12300	8880	11500	12000	10200	10800
24	15700	15700	20600	20600	16900	12500	11900	9100	11600	11800	10500	11600
25	15300	15900	20800	20900	16900	12500	10900	9770	11800	10700	11500	10800
26	15600	15900	20600	20700	16900	12600	10800	10100	11600	10100	12200	9690
27	15600	15700	21000	20400	16800	11700	11700	10000	10900	11700	12100	9020
28	15800	15800	20900	19700	17300	10300	12300	10200	10700	12400	11800	9970
29	15800	15400	20800	20200	---	11300	12800	9630	12100	13400	10200	10400
30	15500	16000	20700	20300	---	13100	13000	8780	13000	13200	9660	11000
31	15400	---	20500	20100	---	13200	---	8560	---	13100	10700	---
TOTAL	531900	474400	547900	645200	502300	449100	365500	324650	324870	359510	369560	319540
MEAN	17160	15810	17670	20810	17940	14490	12180	10470	10830	11600	11920	10650
MAX	21200	16300	21000	21500	20300	18000	14000	12300	13000	13400	14800	12200
MIN	15300	15300	15400	19700	16500	10300	10300	8560	9540	9510	9660	9020
AC-FT	1055000	941000	1087000	1280000	996300	890800	725000	643900	644400	713100	733000	633800
(*)	6624	6946	6998	11581	7007	6988	7014	6877	7067	6904	7004	6561
(**)	984	694	730	861	722	861	774	738	714	861	861	833
CAL YR	1986	TOTAL	7413500	MEAN	20310	MAX	30700	MIN	11000	AC-FT	14700000	(**) 10760
WTR YR	1987	TOTAL	5214430	MEAN	14290	MAX	21500	MIN	8560	AC-FT	10340000	(**) 9630

(*) Monthend contents, in acre-feet, in Senator Wash Reservoir.

(**) Diversions, in acre-feet, to Mitty Lake (09522400).

COLORADO RIVER MAIN STEM

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

WATER-QUALITY RECORDS

LOCATION.--Water samples collected above trash racks at All-American Canal headworks at west end of Imperial Dam.

PERIOD OF RECORD.--August 1969 to current year.

Prior to October 1971, published as sta 09429500, Colorado River at Imperial Dam, Ariz.-Calif.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Replaces water-quality station 09525500 Yuma Main Canal below Colorado River Siphon, at Yuma, Ariz.

Stream discharges reported with analyses represent total flow reaching Imperial Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 1,970 microsiemens Aug. 23, 1977; minimum observed, 866 microsiemens Sept. 12, 1986.

WATER TEMPERATURES: Maximum observed, 33.0°C Aug. 20, 1977, Aug. 28, 29, 1981; minimum recorded, 7.5°C Dec. 31, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,190 microsiemens May 16; minimum recorded, 881 microsiemens Apr. 1.

WATER TEMPERATURES: Maximum recorded, 29.5°C Aug. 3; minimum recorded, 9.2°C Jan. 17, 18.

INSTRUMENTATION.--Specific conductance and water temperature recorder October 1982 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	COLI- FORM, FECAL, 0.7	STREP- TOCOCCI FECAL, KF AGAR	
		(CFS) (00061)	(US/CM) (00095)	(UNITS) (00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(COLS./ 100 ML) (31625)	(COLS. PER 100 ML) (31673)	
NOV 1986													
18...	1100	16300	930	8.00	21.0	17.5	0.70	764	9.3	97	83	110	
DEC													
18...	0930	16100	950	8.10	13.5	12.5	2.4	770	10.4	97	K16	43	
FEB 1987													
18...	1145	17000	950	8.00	19.0	13.0	2.9	764	10.6	101	K4	K7	
APR													
15...	1100	13300	975	7.80	31.0	19.0	8.3	779	9.6	102	K10	20	
JUN													
17...	1015	11900	1010	8.00	35.5	25.5	4.3	762	7.7	94	K17	95	
AUG													
20...	0945	12400	1010	7.90	31.5	28.0	4.6	762	8.0	103	K12	21	
DATE		HARD- NESS TOTAL	HARD- NESS NONCARB	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM AD- SORP- TION	POTAS- SIUM, DIS- SOLVED	BICAR- BONATE	CAR- BONATE	ALKA- LITY	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED
		(MG/L AS CACO3) (00900)	WH WAT TOT FLD MG/L AS CACO3 (00902)						WH FET FIELD MG/L AS CACO3 (00440)	WH FET FIELD MG/L AS CACO3 (00445)	WAT WH TOT FET FIELD MG/L AS CACO3 (00410)		
NOV 1986													
18...	280	140	69	26	87	2	3.7	170	0	136	240	73	
DEC													
18...	280	140	69	25	83	2	3.6	170	0	138	220	68	
FEB 1987													
18...	290	160	72	26	85	2	3.8	160	0	130	230	67	
APR													
15...	300	160	75	27	89	2	3.8	170	0	137	240	74	
JUN													
17...	290	150	74	26	96	3	3.7	170	0	143	250	85	
AUG													
20...	310	170	76	30	110	3	4.4	170	0	140	250	100	

K Based on non-ideal colony count.

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

WATER QUALITY DATA

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
NOV 1986												
18...	0.30	9.7	602	591	0.82	<0.010	0.230	<0.010	<0.010	--	0.50	0.020
DEC												
18...	0.30	9.3	597	561	0.81	<0.010	0.270	<0.010	<0.010	--	0.70	0.010
FEB 1987												
18...	0.30	9.6	590	573	0.80	<0.010	0.310	<0.010	<0.010	--	1.9	0.040
APR												
15...	0.40	9.3	615	602	0.84	<0.010	0.240	0.010	0.020	0.29	0.30	0.030
JUN												
17...	0.40	10	653	631	0.89	<0.010	0.180	0.010	0.020	0.79	0.80	0.060
AUG												
20...	0.40	12	707	668	0.96	<0.010	0.100	<0.010	<0.010	--	0.40	0.020
DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1986												
18...	<0.010	<0.010	--	<10	2	95	<0.5	<1	<1	<3	2	3
DEC												
18...	0.010	<0.010	--	--	--	--	--	--	--	--	--	--
FEB 1987												
18...	<0.010	0.010	0.03	<10	2	100	<0.5	<1	<1	<3	2	<3
APR												
15...	0.010	<0.010	--	<10	2	94	<0.5	<1	<1	<3	<1	<3
JUN												
17...	0.020	<0.010	--	--	--	--	--	--	--	--	--	--
AUG												
20...	0.010	<0.010	--	<10	3	96	<0.5	<1	<1	<3	2	9
DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	
NOV 1986												
18...	<5	41	5	<0.1	<10	2	2	<1.0	910	<6	12	
DEC												
18...	--	--	--	--	--	--	--	--	--	--	--	
FEB 1987												
18...	<5	41	1	<0.1	<10	1	3	<1.0	930	<6	5	
APR												
15...	<5	44	2	0.1	<10	2	2	<1.0	950	<6	7	
JUN												
17...	--	--	--	--	--	--	--	--	--	--	--	
AUG												
20...	<5	43	6	<0.1	<10	5	1	<1.0	1000	<6	10	

< Actual value is known to be less than value shown.

09429490 COLORADO RIVER ABOVE IMPERIAL DAM. AZ-CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

[illegible]

MINIMUM VALUES

[illegible]

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	918	947	950	945	908	943	956	989	1050	1020	1010	997
2	929	953	947	948	905	930	964	1030	1010	1030	982	966
3	925	942	951	943	906	939	994	1010	1010	1060	971	1000
4	920	932	951	949	916	952	1060	990	1020	1050	965	1010
5	917	925	955	952	916	967	1020	987	1020	1020	972	1040
6	917	932	953	950	926	966	989	982	1040	1000	966	1070
7	919	938	952	939	916	960	982	989	1050	1000	985	1010
8	977	934	954	930	917	960	966	994	1040	1000	1030	980
9	960	935	950	926	917	962	985	1060	1010	995	994	962
10	946	935	951	926	918	959	1010	1000	1010	1010	980	971
11	946	934	957	932	922	954	1040	1010	1030	1040	970	994
12	930	938	959	922	931	975	1020	989	1020	1010	952	1020
13	955	930	961	922	928	962	980	995	1020	1000	927	1010
14	932	937	964	925	930	969	982	1010	1040	974	954	995
15	938	949	968	923	930	976	983	1010	1020	980	992	960
16	936	936	967	927	925	976	988	1090	980	969	992	951
17	936	930	971	923	927	975	999	1040	978	1010	982	965
18	941	931	964	925	932	977	1040	1030	1000	1020	961	978
19	950	940	935	925	938	981	1000	997	996	1000	962	1010
20	947	941	928	922	938	1010	978	1030	1010	976	972	1010
21	945	943	949	919	933	1030	968	1030	1030	985	984	994
22	937	944	948	912	930	1020	970	1060	1020	996	1020	994
23	944	953	951	908	927	1010	977	1070	1000	982	1030	976
24	946	952	953	907	929	1010	996	1050	984	1000	1020	972
25	947	946	946	903	929	993	1030	1040	1000	1040	976	975
26	951	948	950	911	930	995	1020	1020	1010	992	975	1010
27	947	952	950	910	933	1020	1000	1020	1040	980	986	1020
28	951	949	945	911	930	1050	981	1020	1010	976	996	986
29	947	952	943	909	---	1010	961	1040	979	945	1040	977
30	946	957	943	906	---	970	961	1070	981	965	1030	976
31	950	---	942	908	---	961	---	1080	---	965	1010	---
MAX	977	957	971	952	938	1050	1060	1090	1050	1060	1040	1070
MIN	917	925	928	903	905	930	956	982	978	945	927	951

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	19.9	14.2	11.8	11.8	13.8	17.4	23.3	26.3	26.5	28.9	28.8
2	20.6	19.2	14.0	11.9	12.0	14.3	18.1	22.9	26.2	26.6	29.4	28.5
3	20.4	18.6	13.7	11.9	12.0	14.5	18.2	22.7	26.8	27.4	29.5	28.4
4	20.1	19.1	13.6	11.7	12.3	14.9	18.3	22.9	27.3	26.9	29.4	28.1
5	20.5	19.1	13.7	11.4	12.5	14.9	17.6	23.5	27.3	26.5	29.1	28.8
6	21.0	18.9	14.3	11.2	12.7	14.9	17.7	24.4	27.2	26.1	29.3	28.3
7	21.2	18.6	14.5	11.5	12.9	15.4	18.6	25.3	27.4	26.3	29.3	27.0
8	21.9	18.1	14.3	11.4	13.3	15.9	19.3	25.2	27.0	26.5	29.4	26.6
9	21.9	17.2	14.0	11.3	13.3	16.0	19.8	25.9	26.5	26.3	29.4	26.6
10	21.5	16.6	13.6	10.8	13.8	16.2	20.6	25.6	26.9	26.5	29.1	26.8
11	21.1	16.4	12.5	10.6	14.4	16.3	20.8	25.7	26.7	27.4	28.8	26.7
12	21.0	16.5	11.8	10.8	14.8	16.7	20.3	25.9	26.6	27.2	28.8	26.7
13	20.4	16.7	11.8	10.9	15.1	16.7	20.0	26.0	26.9	27.5	28.3	25.9
14	19.9	16.7	12.0	11.0	15.0	16.7	19.4	26.0	27.2	27.8	27.7	24.7
15	19.9	17.1	12.2	10.8	14.8	16.6	20.2	25.6	26.7	27.9	27.3	24.9
16	20.1	17.1	12.2	10.1	14.2	15.4	21.2	25.9	26.8	27.3	27.0	25.0
17	20.4	17.0	12.4	9.7	14.0	15.5	21.7	25.9	26.8	26.8	27.0	25.1
18	20.4	17.0	12.8	9.7	13.9	16.0	21.7	25.8	26.5	26.6	27.6	25.6
19	20.1	17.2	12.8	10.0	13.8	16.2	20.6	25.6	25.5	26.3	27.9	26.1
20	20.0	17.3	13.0	10.1	13.4	16.0	19.6	24.6	25.7	26.3	28.4	26.5
21	19.6	17.2	12.9	9.9	13.3	16.1	19.0	23.5	25.8	26.8	28.4	26.5
22	19.7	17.2	12.6	10.0	13.7	15.6	20.1	23.5	26.0	27.3	28.2	26.5
23	19.8	16.5	12.4	10.4	13.7	15.5	21.8	24.4	26.3	27.3	28.6	26.3
24	20.0	15.3	12.3	10.8	13.4	16.0	22.4	24.4	26.6	27.1	28.8	26.2
25	20.0	14.8	12.2	10.9	13.2	16.7	23.0	24.1	27.0	28.2	28.3	26.0
26	20.0	15.0	11.9	11.0	12.8	16.9	23.8	22.6	27.5	27.8	27.9	26.6
27	19.9	14.9	11.7	11.2	13.2	17.2	23.9	22.3	27.9	28.2	27.8	26.6
28	20.2	14.7	11.6	11.5	13.6	17.2	23.6	22.9	27.4	28.4	28.1	26.7
29	20.5	14.6	11.8	12.0	---	16.8	23.7	24.1	26.6	28.4	28.3	26.5
30	20.5	14.5	11.8	11.9	---	16.2	23.6	25.0	26.4	28.7	28.6	26.5
31	20.5	---	11.8	11.7	---	16.4	---	25.9	---	28.9	29.0	---
MAX	21.9	19.9	14.5	12.0	15.1	17.2	23.9	26.0	27.9	28.9	29.5	28.8

WTR YR 1987 MAX 29.5

COLORADO RIVER MAIN STEM

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.2	19.1	13.7	11.4	11.2	13.1	16.3	22.7	25.5	26.1	28.7	28.2
2	20.0	18.4	13.4	11.5	11.4	13.4	17.2	22.2	25.8	26.2	28.5	28.0
3	19.7	17.9	13.2	11.4	11.6	13.8	18.0	22.4	26.0	26.6	29.0	28.0
4	19.6	18.4	13.4	11.3	11.7	14.1	17.5	22.2	26.7	26.3	29.1	27.5
5	19.7	18.5	13.3	11.0	11.9	14.6	17.3	22.6	26.8	26.1	28.5	27.5
6	20.1	18.5	13.7	10.7	12.2	14.7	17.2	23.5	26.8	25.7	28.8	26.9
7	20.6	18.0	14.2	11.1	12.4	14.6	17.6	24.4	26.6	25.7	28.8	26.5
8	20.9	17.2	13.8	11.0	12.6	15.3	18.5	24.9	26.4	26.1	28.9	26.0
9	21.5	16.5	13.6	10.8	12.9	15.5	19.2	25.2	26.2	25.7	29.0	26.3
10	21.1	16.2	12.5	10.3	13.0	15.4	19.9	25.4	26.4	25.9	28.7	26.5
11	20.6	16.2	11.8	10.2	13.6	15.8	20.3	25.3	26.4	26.3	28.1	26.3
12	20.3	16.0	11.2	10.3	14.2	16.0	20.1	25.2	26.2	26.9	28.3	26.0
13	20.0	16.1	11.4	10.5	14.4	16.1	19.3	25.7	26.3	26.8	27.5	24.6
14	19.3	16.3	11.5	10.7	14.6	16.2	18.7	25.7	26.6	27.3	27.0	24.2
15	19.4	16.4	11.7	10.1	14.2	15.4	19.2	25.0	26.2	27.2	26.8	24.3
16	19.4	16.8	11.8	9.6	13.6	14.7	20.2	24.9	25.8	26.8	26.5	24.8
17	19.7	16.6	12.0	9.2	13.4	14.6	20.9	25.2	25.5	26.3	26.3	24.4
18	19.9	16.6	12.2	9.2	13.3	15.0	20.7	25.2	25.2	25.8	26.8	24.9
19	19.7	16.6	12.6	9.3	13.1	15.6	19.8	24.6	24.9	26.1	27.4	25.5
20	19.3	16.8	12.5	9.5	12.9	15.4	18.6	23.5	25.2	26.0	27.8	26.0
21	19.1	16.7	12.5	9.5	12.6	15.7	18.3	23.0	25.3	26.1	28.1	26.0
22	19.2	16.5	12.2	9.3	12.8	14.7	18.9	23.0	25.5	26.4	28.0	25.9
23	19.2	15.5	12.0	9.7	13.2	14.9	20.2	23.6	25.8	26.8	27.7	25.6
24	19.4	14.7	11.9	10.0	13.1	15.2	21.8	23.7	25.8	26.6	28.4	25.6
25	19.6	14.3	11.8	10.3	12.5	15.8	22.4	22.7	26.4	27.1	27.9	25.6
26	19.5	14.6	11.5	10.4	12.5	16.2	22.9	21.8	26.9	27.4	27.4	25.8
27	19.6	14.5	11.3	10.6	12.4	16.8	23.3	21.3	27.4	27.3	27.5	25.9
28	19.6	14.3	11.2	10.9	12.8	16.7	23.3	22.2	26.7	27.9	27.5	26.3
29	19.9	14.3	11.3	11.2	---	15.9	23.0	23.0	25.7	27.6	27.8	26.3
30	20.0	14.0	11.4	11.6	---	15.4	22.9	24.1	25.8	28.2	27.8	26.1
31	19.9	---	11.4	11.2	---	15.6	---	25.1	---	28.5	28.4	---
MIN	19.1	14.0	11.2	9.2	11.2	13.1	16.3	21.3	24.9	25.7	26.3	24.2
WTR YR 1987	MIN	9.2										

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.6	19.3	14.0	11.6	11.5	13.5	16.8	23.0	25.9	26.3	28.8	28.5
2	20.4	18.7	13.5	11.7	11.7	13.9	17.6	22.5	26.1	26.4	29.0	28.3
3	20.1	18.3	13.5	11.7	11.8	14.2	18.1	22.6	26.4	27.0	29.2	28.2
4	19.9	18.7	13.4	11.4	12.1	14.5	17.9	22.6	27.0	26.6	29.2	27.8
5	20.1	18.7	13.5	11.2	12.3	14.7	17.5	23.0	27.0	26.3	28.8	28.1
6	20.5	18.7	13.9	11.0	12.5	14.8	17.4	23.9	27.0	25.9	29.0	27.6
7	20.9	18.2	14.3	11.3	12.7	15.0	18.0	24.8	27.0	26.1	29.1	26.7
8	21.4	17.6	14.0	11.2	13.0	15.5	18.9	25.0	26.7	26.3	29.2	26.3
9	21.7	16.7	13.8	11.0	13.1	15.7	19.5	25.5	26.4	26.1	29.3	26.5
10	21.3	16.5	12.9	10.5	13.4	15.8	20.2	25.5	26.7	26.2	29.0	26.6
11	20.9	16.3	12.1	10.4	14.0	16.1	20.6	25.5	26.6	26.8	28.5	26.6
12	20.6	16.3	11.4	10.6	14.5	16.4	20.2	25.6	26.4	27.1	28.5	26.5
13	20.2	16.4	11.6	10.7	14.8	16.4	19.6	25.8	26.6	27.1	27.8	25.2
14	19.6	16.5	11.8	10.9	14.8	16.5	19.1	25.9	26.9	27.5	27.4	24.5
15	19.7	16.7	11.9	10.4	14.5	16.0	19.6	25.3	26.6	27.7	27.1	24.6
16	19.8	17.0	12.0	9.8	13.8	15.1	20.6	25.4	26.1	27.0	26.7	24.9
17	20.1	16.7	12.2	9.5	13.7	15.0	21.3	25.6	26.5	26.6	26.6	24.8
18	20.1	16.8	12.4	9.4	13.6	15.5	21.2	25.6	26.1	26.3	27.2	25.3
19	20.0	16.9	12.7	9.6	13.4	15.9	20.1	25.0	25.2	26.2	27.6	25.8
20	19.6	17.1	12.7	9.8	13.2	15.7	19.0	23.9	25.5	26.2	28.1	26.3
21	19.4	17.0	12.7	9.7	13.0	15.9	18.7	23.2	25.6	26.5	28.3	26.3
22	19.4	16.7	12.4	9.7	13.2	15.0	19.4	23.3	25.9	26.8	28.1	26.1
23	19.6	15.9	12.2	10.1	13.5	15.2	20.9	24.0	26.1	27.0	28.2	26.0
24	19.8	14.9	12.2	10.4	13.3	15.6	22.0	24.0	26.2	26.9	28.6	25.9
25	19.8	14.6	12.0	10.6	12.8	16.1	22.7	23.6	26.8	27.7	28.0	25.8
26	19.8	14.8	11.7	10.7	12.7	16.6	23.2	22.1	27.2	27.6	27.6	26.2
27	19.8	14.7	11.5	10.9	12.8	17.0	23.5	21.8	27.6	27.8	27.7	26.2
28	19.9	14.5	11.5	11.2	13.2	16.9	23.5	22.6	26.9	28.2	27.8	26.5
29	20.2	14.4	11.6	11.6	---	16.3	23.4	23.6	26.1	28.1	28.0	26.5
30	20.3	14.2	11.6	11.7	---	15.8	23.3	24.6	26.1	28.5	28.3	26.2
31	20.2	---	11.6	11.5	---	16.0	---	25.5	---	28.7	28.7	---
MAX	21.7	19.3	14.3	11.7	14.8	17.0	23.5	25.9	27.6	28.7	29.3	28.5
MIN	19.4	14.2	11.4	9.4	11.5	13.5	16.8	21.8	25.2	25.9	26.6	24.5

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LOCATION.--Forebay gage: Lat 32°52'59", long 114°27'57", in NW¼SW¼ sec.9, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, near All-American Canal headworks at west end of Imperial Dam, 5 mi upstream from Laguna Dam, 15 mi northeast of Yuma, Az., 90 mi downstream from Palo Verde Dam, and 147 mi downstream from Parker Dam.

REMARKS.--No estimated daily discharges. Records good. Records of daily discharge show flow of Colorado River passing Imperial Dam, and include water released to river through California and Gila sluiceways, sludge from desilting basins returned to river, and leakage through dam. For records of flow reaching Imperial Dam see sta 09429490. Flow of Colorado River regulated by many reservoirs, principally Lake Mead, since 1935. Many diversions from Colorado River and tributaries above station. Diversion to Mitrtry Lake and monthend contents of Senator Wash Reservoir also are published with sta 09429490.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12,100 ft³/s Dec. 28; minimum daily, 430 ft³/s June 27.

CAL YR	1986	TOTAL	2878530	MEAN	7886	MAX	17700	MIN	1440	AC-FT	5710000
WTR YR	1987	TOTAL	1288974	MEAN	3531	MAX	12100	MIN	430	AC-FT	2557000

COLORADO RIVER MAIN STEM

09429600 COLORADO RIVER BELOW LAGUNA DAM, AZ-CA

LOCATION.--Lat 32°48'44", long 114°30'51", in SE&NE& sec.35, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on right bank 1.4 mi downstream from Laguna Dam, 2.8 mi northeast of Bard, Ca., and 10 mi northeast of Yuma, Az.

DRAINAGE AREA.--188,600 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 120.84 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--No estimated daily discharges. Records fair. Natural flow of Colorado River at this point is affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, municipal, and industrial uses, and return flows from irrigated areas. Flow past station consists mainly of water released through Imperial Dam, sludge from the desilting basins at Imperial Dam, seepage through Imperial Dam, and seepage from the All-American Canal and the Gila Gravity Main Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 30,900 ft³/s Aug. 19, 1983; minimum daily, 71 ft³/s May 29, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12,100 ft³/s Dec. 28; minimum daily, 597 ft³/s May 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7880	1940	3870	12000	10900	6790	1510	1480	935	1090	1140	1570
2	7740	1940	3280	11700	10300	5330	1470	1480	935	1080	1100	1730
3	7630	1590	3710	11600	7290	5030	1430	1500	944	1070	1130	1770
4	7360	2840	3120	12000	7060	4280	1400	1500	947	1070	1070	1610
5	7840	4410	3020	11900	6350	3000	1400	1480	953	1070	1090	1550
6	7560	4530	2990	11900	5250	2400	1410	1440	942	1070	1090	1450
7	7300	4680	4270	11900	4720	1830	1440	1390	939	1070	1120	1500
8	6850	5480	2880	11300	5550	2570	1500	1360	968	1070	1130	1530
9	4930	6550	2860	11600	4400	1850	1500	1170	1070	1070	1120	1550
10	5460	5530	3570	11500	3910	969	1480	1140	1070	1070	1090	1560
11	6070	4900	3130	11900	4080	1490	1470	1020	1070	1070	1100	1570
12	5800	4750	3780	11400	3280	1790	1470	976	1060	1070	1110	1620
13	4530	4830	4300	11500	3350	1330	1460	988	1060	1180	2350	1630
14	3550	5360	5530	11700	4260	1580	1450	982	1060	1120	3470	1540
15	3170	5690	5460	11200	3960	2280	1470	991	1070	1030	3390	1590
16	3160	6390	7730	11400	3120	1340	1450	981	1080	960	2360	1680
17	3600	5710	8560	11500	2990	1360	1450	993	1090	960	1170	1680
18	3530	7140	7890	11500	3170	1700	1440	996	1060	1050	1100	1690
19	3740	7510	7110	11700	3110	1770	1460	993	1050	1070	1080	1690
20	2240	6950	8560	11400	3150	1790	1460	1000	1050	1070	1070	1740
21	2320	6910	10100	10900	3260	1820	1460	1020	1050	1060	1050	1660
22	2340	7660	10200	11100	3700	1860	1480	1010	1050	1070	1050	1650
23	2230	7970	10900	11300	3170	1700	1470	1010	1050	1070	1050	1550
24	2360	6790	11600	11000	3480	1570	1490	1020	1070	1020	1190	1470
25	2350	6470	11700	11400	3480	1610	1480	1020	963	1000	1150	1460
26	2220	6800	11500	11000	4140	1590	1470	1020	769	1010	1090	1470
27	2320	7340	11900	10300	5890	1590	1480	1010	670	1040	956	1470
28	2220	6650	12100	9660	5740	1560	1470	1090	767	1120	1210	1500
29	2240	5860	11700	10100	---	1530	1500	597	1020	1180	1660	1530
30	1900	5200	11300	10700	---	1520	1490	961	1090	1170	1590	1550
31	1860	---	11400	10800	---	1510	---	967	---	1140	1550	---
TOTAL	134300	166370	220020	350860	133060	68339	43910	34585	29852	33190	42826	47560
MEAN	4332	5546	7097	11320	4752	2204	1464	1116	995	1071	1381	1585
MAX	7880	7970	12100	12000	10900	6790	1510	1500	1090	1180	3470	1770
MIN	1860	1590	2860	9660	2990	969	1400	597	670	960	956	1450
AC-FT	266400	330000	436400	695900	263900	135600	87100	68600	59210	65830	84950	94340
CAL YR 1986	TOTAL	2906990	MEAN	7964	MAX	18100	MIN	1590	AC-FT	5766000		
WTR YR 1987	TOTAL	1304872	MEAN	3575	MAX	12100	MIN	597	AC-FT	2588000		

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi upstream from Mogollon Creek, 7 mi northeast of Gila, and at mile 572.5.

DRAINAGE AREA.--1,864 mi².

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1944 (M), 1949 (M). WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,655.8 ft above National Geodetic Vertical Datum of 1929, (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 500 acres upstream from station. Several observations of water temperature were made during the year. National Weather Service gage height and rain gage satellite telemeter at station.

AVERAGE DISCHARGE.--60 years (water years 1928-87), 149 ft³/s, 108,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,200 ft³/s, Dec. 28, 1984, gage height, 13.0 ft, from floodmark, from rating curve extended above 7,000 ft³/s on basis of slope-area measurement at gage height 12.5 ft; maximum gage height, 17.2 ft, from floodmark, Sept. 29, 1941; minimum, 14 ft³/s, July 15, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in November 1905, December 1906, and January 1916.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 3	1930	*2,460	*4.20	July 30	1630	960	2.88

Minimum daily discharge, 39 ft³/s, July 8-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	111	115	140	125	142	266	265	96	55	228	117
2	90	117	113	137	123	145	268	276	91	51	176	110
3	93	1160	110	134	121	150	273	267	88	48	156	103
4	93	1060	108	131	124	155	298	247	85	45	182	105
5	92	432	108	132	126	166	334	227	84	44	220	122
6	167	303	110	133	126	198	324	214	81	42	240	112
7	200	261	138	130	124	260	315	202	83	40	238	105
8	128	247	227	126	121	371	315	196	89	39	228	97
9	116	217	218	124	120	407	312	183	111	39	210	91
10	141	195	184	119	112	394	310	176	95	39	321	87
11	232	177	166	116	109	429	315	171	88	39	441	82
12	404	165	149	111	112	451	342	169	83	39	398	79
13	445	165	140	108	114	471	380	165	79	40	429	77
14	305	159	137	106	117	490	386	163	80	42	331	81
15	242	153	132	107	122	504	360	165	76	44	251	81
16	206	149	137	109	124	489	339	162	72	60	204	77
17	195	145	192	110	125	445	344	155	66	55	171	73
18	172	142	329	105	126	398	370	150	63	53	150	74
19	155	143	328	101	129	380	403	145	60	52	136	77
20	143	144	277	100	130	408	422	142	58	52	125	76
21	135	176	261	102	132	415	423	143	56	51	119	72
22	130	176	261	99	131	407	383	145	55	55	121	93
23	125	168	251	99	128	408	341	139	54	56	167	77
24	123	159	229	103	127	378	309	131	53	58	182	74
25	122	151	209	102	131	361	287	122	51	63	270	70
26	118	140	194	103	149	343	274	118	51	65	264	69
27	116	131	179	103	150	324	266	113	57	63	194	68
28	115	125	169	103	145	305	257	110	64	93	166	68
29	113	121	161	104	---	296	257	105	64	255	180	73
30	114	117	154	109	---	285	259	103	59	522	158	77
31	113	---	145	117	---	268	---	99	---	348	132	---
TOTAL	5034	7109	5631	3523	3523	10643	9732	5168	2192	2547	6788	2567
MEAN	162	237	182	114	126	343	324	167	73.1	82.2	219	85.6
MAX	445	1160	329	140	150	504	423	276	111	522	441	122
MIN	90	111	108	99	109	142	257	99	51	39	119	68
AC-FT	9980	14100	11170	6990	6990	21110	19300	10250	4350	5050	13460	5090
CAL YR	1986	TOTAL	63991	MEAN	175	MAX	1530	MIN	48	AC-FT	126900	
WTR YR	1987	TOTAL	64457	MEAN	177	MAX	1160	MIN	39	AC-FT	127900	

09431500 GILA RIVER NEAR REDROCK, NM
(National stream-quality accounting network and radiochemical network station)

LOCATION.--Lat 32°43'37", long 108°40'30", in W₁ sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, on left bank 0.2 mi downstream from Copper Canyon, 0.2 mi upstream from lower end of box canyon, 4.7 mi northeast of Redrock, 14 mi downstream from Mangas Creek, and at mile 539.2.

DRAINAGE AREA.--2,829 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only for some periods, published in WSP 1313. Published as "near Cliff" 1904-7.

REVISED RECORDS.--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Elevation of gage is 4,090 ft above National Geodetic Vertical Datum of 1929, from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi downstream at different datum. June 13, 1980 to Feb. 23, 1983 at site 1,300 ft downstream at same datum.

REMARKS.--No estimated daily discharges: Water-discharge records good. Diversions for irrigation of about 5,000 acres upstream from station. Gage height and rain gage satellite telemeter at station.

AVERAGE DISCHARGE.--71 years (water years 1906, 1909-10, 1913-55, 1963-87), 209 ft³/s, 151,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft³/s, Dec. 19, 1978, gage height, 29.8 ft, in gage well, 34.1, ft from floodmarks, from rating curve extended above 9,500 ft³/s on basis of slope-area measurement of peak flow; minimum, 2.2 ft³/s, Aug. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Peaks discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 10	2230	*3,610	*10.50

Minimum daily discharge, 29 ft³/s, July 12, 13, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	101	141	235	145	151	280	347	113	44	434	164
2	96	95	133	225	148	157	288	341	105	42	447	151
3	96	360	133	217	161	168	291	334	102	42	330	140
4	103	984	134	216	179	174	293	322	105	39	283	124
5	105	581	143	204	177	188	325	305	101	39	387	112
6	309	475	133	208	156	195	355	265	78	41	386	161
7	301	404	153	208	157	236	363	251	70	41	544	128
8	219	395	224	202	155	314	361	239	132	36	400	121
9	173	364	349	178	172	425	357	232	107	33	393	120
10	175	336	322	172	183	436	339	230	123	31	711	121
11	219	316	284	165	174	462	336	220	103	31	748	103
12	361	280	257	162	166	456	355	213	93	29	547	81
13	496	255	232	164	136	468	407	214	84	29	640	77
14	403	257	214	168	134	461	420	215	85	32	548	74
15	364	221	212	166	139	464	413	226	76	51	485	71
16	315	207	216	163	155	458	398	214	67	34	411	72
17	309	211	306	149	165	455	405	192	58	32	344	77
18	266	214	438	144	167	435	429	204	56	30	303	80
19	241	210	462	147	171	418	451	203	50	30	278	88
20	218	204	437	159	176	413	459	198	48	29	247	70
21	202	194	418	153	159	409	459	209	44	40	225	78
22	191	208	409	139	151	406	448	185	41	57	191	124
23	179	210	404	136	156	407	438	180	41	52	192	117
24	161	216	385	128	159	401	412	170	39	42	307	103
25	147	217	358	128	141	391	383	159	39	38	410	93
26	142	207	345	139	155	385	371	152	41	35	387	69
27	142	179	329	158	164	371	354	144	42	34	344	61
28	146	170	294	158	157	334	334	144	43	138	264	57
29	133	158	276	159	---	317	334	150	46	197	218	65
30	116	154	258	154	---	308	334	125	49	551	204	83
31	107	---	246	138	---	289	---	121	---	579	173	---
TOTAL	6536	8383	8645	5242	4458	10952	11192	6704	2181	2478	11781	2985
MEAN	211	279	279	169	159	353	373	216	72.7	79.9	380	99.5
MAX	496	984	462	235	183	468	459	347	132	579	748	164
MIN	96	95	133	128	134	151	280	121	39	29	173	57
AC-FT	12960	16630	17150	10400	8840	21720	22200	13300	4330	4920	23370	5920
CAL YR	1986	TOTAL	85651	MEAN	235	MAX	1750	MIN	38	AC-FT	169900	
WTR YR	1987	TOTAL	81537	MEAN	223	MAX	984	MIN	29	AC-FT	161700	

GILA RIVER BASIN

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09431500 GILA RIVER NEAR REDROCK, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)
NOV 19...	1100	210	285	321	--	7.80	23.0	16.0	6.5	9.6	120	8
JAN 06...	1100	210	370	334	7.80	8.24	7.0	6.5	9.2	10.0	110	0
MAR 25...	1230	392	320	237	8.50	7.32	7.0	8.0	25	10.2	78	4
MAY 07...	1100	256	230	247	--	8.20	21.5	17.5	3.0	8.6	78	0
JUN 02...	1130	107	295	312	8.30	8.40	28.0	17.5	1.2	8.8	98	2
SEP 02...	1000	153	320	330	8.00	8.30	23.0	18.5	41	8.4	120	0

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L) (00450)	CAR- BONATE WATER WHOLE IT-FLD (MG/L) (00447)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3) (00419)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3 (00410)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
NOV 19...	34	8.1	44	2	2.4	--	--	119	110	123	47	11
JAN 06...	33	7.1	29	1	1.8	246	0	202	134	121	30	9.9
MAR 25...	23	4.9	19	1	1.5	78	4	70	74	87	18	6.8
MAY 07...	23	4.9	20	1	1.6	--	--	--	--	95	22	6.0
JUN 02...	29	6.1	24	1	1.8	121	0	99	96	113	25	9.0
SEP 02...	34	7.4	27	1	2.3	155	0	127	124	125	28	8.6

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
NOV 19...	1.7	34	219	250	<0.010	0.200	0.050	0.020	0.75	0.070	0.060
JAN 06...	1.6	32	292	220	<0.010	0.240	0.020	0.020	0.28	0.030	0.050
MAR 25...	1.4	31	152	150	<0.010	0.140	0.030	0.010	0.37	0.110	0.040
MAY 07...	1.3	32	160	170	0.020	<0.100	0.020	0.040	0.48	0.050	0.040
JUN 02...	1.7	33	204	190	<0.010	0.170	<0.010	0.140	--	0.070	0.040
SEP 02...	1.9	36	217	220	<0.010	0.210	0.030	0.020	0.37	0.060	0.060

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
NOV 19...	10	2	18	<0.5	1	<1	<3	5	13	<5	22
JAN 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 25...	220	<1	16	<0.5	<1	<1	<3	4	95	<5	16
MAY 07...	90	1	11	<0.5	<1	<1	<3	8	43	<5	16
JUN 02...	20	1	14	<0.5	<1	<1	<3	2	12	<5	25
SEP 02...	40	1	20	<0.5	<1	3	<3	5	27	<5	18

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)
NOV 19...	4	<0.1	<10	1	<1	<1	130	<6	12	2.3	0.9
JAN 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 25...	5	<0.1	<10	1	<1	<1	91	<6	4	--	--
MAY 07...	11	<0.1	<10	2	<1	<1	92	<6	25	0.9	0.5
JUN 02...	2	<0.1	<10	<1	<1	<1	120	<6	<3	--	--
SEP 02...	3	<0.1	<10	2	<1	<1	150	<6	7	--	--

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 19...	5.3	1.7	4.1	1.6	0.04	1.2	--	--	--	26	32
JAN 06...	--	--	--	--	--	--	32	18	73	K220	33
MAR 25...	--	--	--	--	--	--	74	78	77	160	52
MAY 07...	1.9	0.9	1.6	0.9	<0.01	0.51	26	18	80	57	70
JUN 02...	--	--	--	--	--	--	33	9.5	37	K27	48
SEP 02...	--	--	--	--	--	--	100	41	100	32	K18

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, on left bank at head of canyon, 1.4 mi downstream from Blue Creek, 10 mi east of Virden, and 16 mi upstream from New Mexico-Arizona State line.

DRAINAGE AREA.--3,203 mi², excluding Animas River basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi downstream, and in Sunset Canal. Published as "Gila River near Duncan, Ariz.," 1914-15 and as "Gila River at Fuller's Ranch, near Duncan, Ariz.," 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,875 ft above National Geodetic Vertical Datum of 1929, from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi downstream, 1,000 ft upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum. Since April 18, 1980, supplementary gage on left bank 800 ft downstream at same datum. Since June 1980, crest-stage gages at supplementary gage site.

REMARKS.--Records good. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

AVERAGE DISCHARGE.--60 years (water years 1928-87), 197 ft³/s, 142,700 acre-ft/yr; median of yearly mean discharges, 144 ft³/s, 104,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft³/s Dec. 19, 1978, gage height, 29.00 ft, from rating curve extended above 38,000 ft³/s on basis of slope-area measurement of peak flow; minimum, 1 ft³/s July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 11	0130	*2,680	*9.50

Minimum daily discharge, 17 ft³/s July 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	132	157	209	149	158	244	341	118	53	353	155
2	77	130	151	201	154	156	253	338	110	44	321	154
3	78	257	147	195	155	170	257	333	103	42	266	140
4	81	1530	145	196	174	173	257	319	108	41	221	135
5	84	818	156	190	176	182	283	314	104	39	262	120
6	238	526	154	192	179	189	313	285	92	37	267	147
7	304	410	162	192	161	208	319	270	81	37	398	123
8	223	357	189	194	156	272	329	258	115	34	284	111
9	167	320	290	178	160	367	326	249	114	30	282	122
10	160	285	311	173	174	415	311	242	126	27	593	112
11	178	263	268	166	172	437	305	224	113	25	1160	104
12	292	241	244	162	166	455	323	216	102	23	573	88
13	652	223	227	158	149	458	372	215	93	21	667	78
14	537	224	211	167	137	462	406	218	90	20	512	73
15	399	204	206	165	140	477	402	224	87	32	361	69
16	313	192	213	169	146	486	390	222	79	41	272	66
17	281	192	312	158	163	476	386	200	72	29	219	67
18	246	196	404	150	167	446	406	200	68	23	189	79
19	217	196	508	145	170	409	438	208	64	20	177	79
20	193	194	459	159	174	392	466	200	58	17	164	75
21	184	185	413	156	169	385	482	221	53	18	148	70
22	171	195	403	145	158	388	472	201	48	33	139	100
23	166	199	378	143	155	385	446	189	45	46	131	103
24	149	198	353	140	165	373	411	177	44	45	207	96
25	143	204	324	134	153	366	371	163	44	31	319	92
26	138	198	302	134	161	353	359	159	45	24	311	78
27	140	182	289	154	165	332	e342	150	47	19	297	65
28	144	175	260	156	164	296	326	141	49	44	230	60
29	142	167	243	157	---	277	323	151	49	287	248	124
30	138	162	230	159	---	271	323	135	52	535	196	89
31	134	---	216	148	---	256	---	125	---	512	169	---
TOTAL	6448	8755	8325	5145	4512	10470	10641	6888	2373	2229	9936	2974
MEAN	208	292	269	166	161	338	355	222	79.1	71.9	321	99.1
MAX	652	1530	508	209	179	486	482	341	126	535	1160	155
MIN	77	130	145	134	137	156	244	125	44	17	131	60
AC-FT	12790	17370	16510	10210	8950	20770	21110	13660	4710	4420	19710	5900
CAL YR	1986	TOTAL	94536	MEAN	259	MAX	2350	MIN	28	AC-FT	187500	
WTR YR	1987	TOTAL	78696	MEAN	216	MAX	1530	MIN	17	AC-FT	156100	

e Estimated

09442000 GILA RIVER NEAR CLIFTON, AZ

LOCATION.--Lat 32°57'57", long 109°18'35", in NE¼SE¼ sec.25, T.5 S., R.29 E., Greenlee County, Hydrologic Unit 15040002, on right bank 60 ft upstream from bridge on county road, 6 mi upstream from San Francisco River, and 6 mi south of Clifton.

DRAINAGE AREA.--4,010 mi².

PERIOD OF RECORD.--November 1910 to July 1918 (published as "at Guthrie"), October 1927 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1059: 1911-12, 1915, 1917. WSP 1179: 1929(M), 1934(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,336.38 ft above National Geodetic Vertical Datum of 1929. Nov. 6, 1910, to July 11, 1918, non-recording gage or water-stage recorder at two sites about 6 mi upstream at Guthrie at different datums. March 1928 to June 1948 water-stage recorder at present site at datum 0.91 ft lower. June 1948 to Oct. 17, 1967, water-stage recorder at site 0.2 mi upstream at datum 3.12 ft higher. Oct. 18, 1967, to June 23, 1974, Apr. 10, 1978, to Feb. 6, 1979, at site 500 ft downstream at datum 0.44 ft higher. June 24, 1974 to Apr. 9, 1978, at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 14,300 acres above station. Station is below all Duncan Valley diversions.

AVERAGE DISCHARGE.--66 years (water years 1912-17, 1928-87), 198 ft³/s, 143,500 acre-ft/yr; median of yearly mean discharges, 142 ft³/s, 103,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft³/s Dec. 19, 1978, gage height, 23.80 ft, from rating curve extended above 28,000 ft³/s; minimum daily, 3.7 ft³/s July 27, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 21	0815	*3,020	*7.83

Minimum daily discharge, 3.7 ft³/s July 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	133	175	240	162	157	210	249	87	31	377	193
2	59	143	172	229	161	158	199	259	81	31	348	153
3	57	311	169	216	160	146	196	261	74	31	323	142
4	56	562	162	216	152	152	199	260	65	31	272	139
5	89	914	161	217	156	156	198	246	60	30	259	154
6	76	619	163	212	158	163	216	222	60	29	279	193
7	148	499	184	206	154	168	235	e200	59	29	258	148
8	218	405	172	205	146	179	245	e195	111	29	350	138
9	204	360	198	200	154	229	247	e180	86	27	277	125
10	230	324	288	194	154	314	244	e175	92	28	309	123
11	219	294	307	190	160	349	242	e165	93	27	835	111
12	220	268	279	185	159	369	243	e160	90	26	560	97
13	313	247	260	188	150	387	251	e160	79	25	510	90
14	429	234	254	183	144	401	293	e160	73	23	503	83
15	381	233	235	188	147	407	319	e165	67	24	429	77
16	325	218	230	186	155	415	323	e165	60	25	346	71
17	e285	199	291	187	158	419	300	e155	59	26	291	66
18	e255	194	360	177	156	386	295	147	60	27	245	63
19	e225	196	436	172	148	356	325	142	57	26	208	61
20	e205	196	467	173	139	316	347	145	52	25	175	63
21	e190	191	444	174	157	303	365	149	50	676	155	63
22	e180	186	420	172	165	286	384	150	48	54	130	59
23	e170	188	412	164	158	283	371	142	46	8.7	119	62
24	170	192	390	164	151	286	360	135	44	5.9	106	77
25	163	197	358	161	157	276	323	136	40	5.0	144	73
26	150	200	329	156	157	277	299	130	34	4.2	257	61
27	142	200	312	155	153	265	283	123	35	3.7	278	63
28	142	195	298	166	153	259	270	116	36	4.6	272	59
29	142	191	271	170	---	238	249	110	34	47	233	57
30	146	184	258	172	---	224	247	104	32	563	224	217
31	144	---	246	173	---	223	---	96	---	454	227	---
TOTAL	5796	8473	8701	5791	4324	8547	8278	5202	1864	2376.1	9299	3081
MEAN	187	282	281	187	154	276	276	168	62.1	76.6	300	103
MAX	429	914	467	240	165	419	384	261	111	676	835	217
MIN	56	133	161	155	139	146	196	96	32	3.7	106	57
AC-FT	11500	16810	17260	11490	8580	16950	16420	10320	3700	4710	18440	6110
CAL YR	1986	TOTAL	77316	MEAN	212	MAX	1470	MIN	29	AC-FT	153400	
WTR YR	1987	TOTAL	71732.1	MEAN	197	MAX	914	MIN	3.7	AC-FT	142300	

e Estimated

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft downstream from Rainbow Bridge Canyon, 1.7 mi northwest of Reserve, and at mile 563.1.

DRAINAGE AREA.--350 mi², approximately.

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

REVISED RECORDS.--WDR NM-78-1: 1977. WRD Nm-84-1: 1973, 1979-80.

GAGE.--Water-stage recorder. Elevation of gage is 5,820 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 15, 1972 at site 1,800 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-5, Dec. 26 to Jan. 3, Jan. 11-18, Feb. 9, Apr. 24 to May 5, May 24-31, June 4-19, July 20-22, and Aug. 29-30. Records good except for estimated daily discharges, which are poor. Possible minor regulation by Luna Lake, 27 mi upstream. Diversions for irrigation of about 280 acres upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 28.9 ft³/s, 20,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft³/s, Oct. 1, 1983, gage height, 11.71 ft recorded, 11.3 ft, from outside floodmarks, from rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow; minimum, 1.0 ft³/s, Mar. 16, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 15 ft, as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft³/s at Alma (downstream). See WSP 1313.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 14	0030	608	2.90	July 30	1545	*1,290	*3.62
Apr. 12	0115	521	2.64				

Minimum discharge, 4.4 ft³/s, July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	14	27	19	32	26	104	105	14	8.7	20	20
2	10	23	23	18	40	27	147	100	12	8.6	17	18
3	10	49	23	18	35	31	220	100	11	8.3	16	16
4	11	76	22	20	35	43	306	90	10	8.2	38	18
5	11	72	23	23	37	65	236	65	8.7	11	58	20
6	12	57	25	21	32	97	205	58	6.9	11	46	20
7	11	58	37	19	32	186	218	54	10	7.3	61	19
8	11	56	45	18	33	300	219	54	11	6.5	74	16
9	10	45	38	19	35	299	256	46	11	5.3	55	14
10	30	40	34	17	36	311	316	39	10	5.1	55	13
11	20	34	27	16	37	268	386	47	11	5.2	39	12
12	69	32	29	15	45	291	411	39	11	5.1	36	12
13	32	31	25	17	54	385	346	36	10	5.1	34	12
14	26	31	24	15	69	474	277	38	10	4.4	32	12
15	22	31	24	13	57	456	254	41	10	5.5	30	12
16	19	29	27	12	52	317	257	42	10	6.0	30	11
17	18	27	27	14	45	232	252	34	10	14	29	12
18	17	26	33	15	40	201	238	30	9.8	9.4	28	12
19	16	48	36	15	40	256	212	28	9.6	9.8	26	13
20	15	82	36	16	37	246	189	28	9.6	8.8	25	12
21	14	67	36	17	30	238	115	38	9.4	8.6	25	12
22	14	56	35	17	26	230	110	39	9.2	8.6	25	12
23	14	52	32	17	26	176	122	33	9.2	8.5	26	12
24	14	44	32	17	26	199	115	26	9.3	11	39	12
25	13	40	29	19	24	164	115	25	9.0	15	42	12
26	13	38	26	19	22	143	110	22	9.0	16	87	12
27	13	36	24	18	25	153	110	20	8.8	13	91	11
28	13	33	23	18	23	124	110	19	8.8	33	49	11
29	13	32	22	20	---	107	105	17	8.7	11	30	11
30	13	31	21	19	---	91	105	15	8.8	77	25	10
31	13	---	20	21	---	87	---	15	---	30	23	---
TOTAL	527	1290	885	542	1025	6223	6166	1343	295.8	385.0	1211	409
MEAN	17.0	43.0	28.5	17.5	36.6	201	206	43.3	9.86	12.4	39.1	13.6
MAX	69	82	45	23	69	474	411	105	14	77	91	20
MIN	10	14	20	12	22	26	104	15	6.9	4.4	16	10
AC-FT	1050	2560	1760	1080	2030	12340	12230	2660	587	764	2400	811
CAL YR	1986	TOTAL	7442.7	MEAN	20.4	MAX	126	MIN	4.9	AC-FT	14760	
WTR YR	1987	TOTAL	20301.8	MEAN	55.6	MAX	474	MIN	4.4	AC-FT	40270	

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼NW¼ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi upstream from hot springs, 5 mi south of Glenwood, 6 mi downstream from Whitewater Creek, and at mile 511.5.

DRAINAGE AREA.--1,653 mi².

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area. WDR NM-78-1: 1977. WDR NM-79-1: 1973, 1975-77 (P).

GAGE.--Water-stage recorder. Elevation of gage is 4,560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 15, 1934, at site 4.5 mi upstream at datum 98.82 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 2,000 acres upstream from station. Gage height and rain gage satellite telemeter at station.

AVERAGE DISCHARGE.--60 years, 84.1 ft³/s, 60,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft³/s, Oct. 2, 1983, gage height, 18.15 ft recorded, 20.80 ft from outside floodmarks, from rating curve extended above 4,200 ft³/s on basis of slope-area measurements at gage heights 10.74 ft, 15.6 ft and 20.8 ft; minimum, 1.5 ft³/s Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft³/s or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft³/s was measured (by float-area method) at station at Alma (about 12 mi upstream, drainage area, 1,560 mi²); a similar measurement of 21,000 ft³/s was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.--Peaks discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 8	1830	913	3.50	Aug. 1	1945	*2,080	*5.09

Minimum discharge, 20 ft³/s, July 12, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	75	121	78	93	113	278	257	68	25	321	81
2	22	81	116	76	90	145	290	258	62	24	224	72
3	21	171	112	74	90	183	338	239	56	24	212	64
4	21	247	106	71	87	251	429	221	54	29	219	66
5	49	216	103	69	86	292	511	204	57	30	182	74
6	111	207	105	69	84	352	475	193	56	30	230	76
7	58	217	111	69	80	473	457	182	56	29	203	71
8	56	195	132	69	76	731	449	175	61	26	169	68
9	59	178	148	68	74	762	451	164	62	28	314	61
10	121	164	138	62	72	724	474	157	62	27	185	63
11	153	154	128	60	71	636	530	146	60	25	154	62
12	300	149	116	59	73	580	590	142	56	20	144	65
13	218	142	108	59	75	605	607	143	52	26	132	53
14	143	138	101	58	84	718	509	141	53	27	117	48
15	117	134	98	61	97	750	443	133	56	29	109	50
16	99	134	94	62	109	626	421	133	56	28	98	52
17	87	134	95	62	105	511	436	132	50	26	87	49
18	77	154	101	59	103	452	462	123	46	24	73	49
19	71	150	100	53	102	442	467	120	42	23	67	50
20	65	158	102	48	104	508	450	116	42	22	59	51
21	65	190	110	54	104	495	413	129	40	20	70	51
22	64	183	112	53	100	496	369	124	34	23	84	49
23	62	174	111	51	94	496	333	126	29	23	83	45
24	62	165	109	52	90	432	304	121	29	23	103	42
25	63	157	106	54	98	448	282	116	34	25	119	38
26	65	147	96	55	118	417	269	109	32	24	125	35
27	62	141	95	54	114	398	260	104	30	25	149	34
28	65	135	91	54	107	388	249	98	33	215	134	34
29	69	129	88	54	---	351	240	88	31	169	111	37
30	74	126	85	54	---	322	239	78	27	200	95	40
31	75	---	81	56	---	290	---	73	---	363	83	---
TOTAL	2597	4745	3319	1877	2580	14387	12025	4545	1426	1632	4455	1630
MEAN	83.8	158	107	60.5	92.1	464	401	147	47.5	52.6	144	54.3
MAX	300	247	148	78	118	762	607	258	68	363	321	81
MIN	21	75	81	48	71	113	239	73	27	20	59	34
AC-FT	5150	9410	6580	3720	5120	28540	23850	9020	2830	3240	8840	3230
CAL YR 1986	TOTAL	32700	MEAN	89.6	MAX	959	MIN	14	AC-FT	64860		
WTR YR 1987	TOTAL	55218	MEAN	151	MAX	762	MIN	20	AC-FT	109500		

GILA RIVER BASIN

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09444200 BLUE RIVER NEAR CLIFTON, AZ

LOCATION.--Lat 33°17'27", long 109°11'44", in sec.6, T.2 S., R.31 E. (unsurveyed), Greenlee County, Hydrologic Unit 15040004, in Apache National Forest, on right bank 0.1 mi downstream from county road crossing, 0.9 mi upstream from Clear Creek, 8 mi upstream from mouth, and 17 mi northeast of Clifton.

DRAINAGE AREA.--506 mi².

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those for the period Oct. 1 to Dec. 15, which are fair.

AVERAGE DISCHARGE.--19 years (water years 1969-87), 81.4 ft³/s, 58,970 acre-ft/yr; median of yearly mean discharges, 43 ft³/s, 31,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s Oct. 20, 1972, gage height, 22.56 ft, from rating curve extended above 960 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 1.4 ft³/s Oct. 18-20, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 30	1230	*2,910	*10.19

Minimum daily discharge, 6.3 ft³/s July 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	25	47	59	106	137	121	162	19	8.3	158	19
2	7.0	189	47	58	89	159	130	139	18	8.0	137	18
3	6.9	583	46	56	89	170	149	125	18	7.8	137	16
4	6.9	330	44	50	92	209	174	112	16	7.5	154	16
5	6.9	202	43	50	97	257	180	102	16	7.3	157	22
6	24	149	51	50	96	299	166	98	16	7.1	107	16
7	8.4	201	203	50	94	347	165	95	16	6.9	88	16
8	7.4	148	251	49	90	433	169	90	15	6.8	71	15
9	7.6	119	157	47	85	421	167	82	16	6.6	114	14
10	86	104	123	43	80	431	181	74	19	6.5	82	12
11	66	94	101	40	80	397	201	80	16	6.5	86	12
12	373	84	83	40	80	391	227	84	15	6.5	105	12
13	133	75	72	40	81	411	238	66	15	6.5	84	12
14	96	70	66	40	85	453	220	64	17	6.4	58	11
15	71	64	60	40	91	415	208	58	14	6.4	36	11
16	60	60	59	43	91	348	210	57	13	7.4	28	11
17	52	57	59	44	90	292	222	47	13	9.5	21	11
18	47	55	68	38	81	260	235	45	12	6.7	16	12
19	43	71	79	34	79	255	235	40	11	6.3	16	12
20	40	113	88	37	76	246	229	42	11	6.4	14	11
21	37	109	185	38	71	236	211	68	10	13	14	12
22	34	96	148	36	62	235	191	44	10	12	14	11
23	32	88	129	35	56	217	176	38	10	8.1	18	11
24	30	78	116	35	56	207	166	34	9.6	7.3	29	10
25	28	69	107	35	81	195	159	31	9.3	7.0	97	10
26	27	63	97	34	139	177	152	29	9.2	6.8	189	11
27	27	58	89	34	114	168	150	26	9.4	8.1	44	11
28	27	54	81	35	117	157	143	26	9.5	75	23	10
29	26	52	74	37	---	145	138	24	9.5	62	18	11
30	26	49	68	39	---	135	137	22	8.8	482	17	10
31	26	---	63	87	---	123	---	21	---	342	16	---
TOTAL	1469.5	3509	2904	1353	2448	8326	5450	2025	401.3	1164.7	2148	386
MEAN	47.4	117	93.7	43.6	87.4	269	182	65.3	13.4	37.6	69.3	12.9
MAX	373	583	251	87	139	453	238	162	19	482	189	22
MIN	6.9	25	43	34	56	123	121	21	8.8	6.3	14	10
AC-FT	2910	6960	5760	2680	4860	16510	10810	4020	796	2310	4260	766

CAL YR	1986	TOTAL	18998.1	MEAN	52.0	MAX	583	MIN	6.9	AC-FT	37680
WTR YR	1987	TOTAL	31584.5	MEAN	86.5	MAX	583	MIN	6.3	AC-FT	62650

GILA RIVER BASIN

09444500 SAN FRANCISCO RIVER AT CLIFTON, AZ

LOCATION.--Lat 33°02'58", long 109°17'43", in SW¼SE¼ sec.30, T.4 S., R.30 E., Greenlee County, Hydrologic Unit 15040004, on downstream side of right pier at Railroad Boulevard Bridge (U.S. Highway 666), at Clifton, 9.9 mi upstream from mouth.

DRAINAGE AREA.--2,766 mi².

PERIOD OF RECORD.--October 1910 to March 1911, July 1911 to June 1912, September 1912, November 1912 to March 1913, May 1913 to July 1918, July 1927 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "San Francisco River at dam above Clifton" in 1911 and under both names in 1912.

REVISED RECORDS.--WSP 1049: 1911, 1913-15, 1917. WSP 1283: Drainage area. WSP 1313: 1927-30(M), 1932(M), 1934(M). WRD Ariz. 1972: 1917(M).

GAGE.--Water-stage recorder. Datum of gage is 3,436.16 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Apr. 7, 1959. Apr. 7, 1959, to Mar. 23, 1961, at site 1,140 ft downstream at datum 5.37 ft lower. July 18, 1980 to July 28, 1983, supplementary water-stage recorder 0.4 mi upstream on right bank at same datum and June 15, 1981 to Sept. 30, 1983, crest-stage gages at site. Since Aug. 4, 1983, supplementary water-stage recorder on right bank at main gage site at same datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for mining, municipal use, and for irrigation of about 2,700 acres above station.

AVERAGE DISCHARGE.--63 years (water years 1914-15, 1917, 1928-87) 213 ft³/s, 154,300 acre-ft/yr; median of yearly mean discharges, 130 ft³/s, 94,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,900 ft³/s Oct. 2, 1983, gage height, 19.72 ft, from high-water mark, from rating curve extended above 30,000 ft³/s on basis of slope-area measurement at gage height 17.0 ft; minimum daily, 6.1 ft³/s June 21, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 3	0015	*1,940	4.32

Minimum daily discharge, 44 ft³/s July 14, 20, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	89	161	196	234	343	390	441	125	57	598	140
2	64	214	154	190	230	373	386	436	116	52	526	129
3	64	1300	150	187	224	415	419	408	109	52	625	109
4	64	761	144	184	223	529	511	378	102	51	466	105
5	60	521	139	181	226	580	626	345	96	51	554	105
6	114	399	146	184	224	639	616	317	96	51	420	120
7	141	521	238	180	222	756	598	307	97	50	429	122
8	106	431	538	175	215	975	604	288	98	49	295	110
9	98	342	378	173	211	1160	603	270	95	49	365	105
10	156	297	319	171	207	1190	632	255	99	49	388	93
11	320	266	279	164	202	1150	693	250	101	49	340	79
12	752	245	249	160	200	1060	775	252	92	47	324	82
13	590	230	227	159	193	1040	851	239	86	46	308	80
14	386	216	213	158	206	1090	828	236	90	44	254	76
15	278	204	203	159	226	1140	745	228	86	45	201	72
16	220	196	200	163	238	1060	716	222	83	49	181	71
17	185	187	203	171	239	876	725	210	76	51	160	72
18	161	198	227	168	231	769	758	198	74	51	140	71
19	143	239	269	159	229	693	775	187	71	46	122	77
20	129	254	257	158	227	709	756	183	73	44	112	75
21	120	265	372	156	227	686	699	209	72	48	104	72
22	115	272	361	156	218	666	637	213	71	44	101	72
23	111	260	326	155	208	663	564	198	67	49	110	71
24	105	243	297	155	202	598	517	193	56	51	202	70
25	99	226	276	156	220	585	490	184	57	53	209	70
26	95	210	258	155	339	559	472	175	61	52	265	68
27	91	197	243	158	356	524	453	165	63	50	345	67
28	89	186	233	159	342	507	439	154	63	210	252	67
29	88	177	222	159	---	474	424	151	61	398	219	81
30	87	168	214	162	---	448	407	142	60	663	198	120
31	86	---	204	174	---	413	---	132	---	1040	163	---
TOTAL	5179	9314	7700	5185	6519	22670	18109	7566	2496	3641	8976	2651
MEAN	167	310	248	167	233	731	604	244	83.2	117	290	88.4
MAX	752	1300	538	196	356	1190	851	441	125	1040	625	140
MIN	60	89	139	155	193	343	386	132	56	44	101	67
AC-FT	10270	18470	15270	10280	12930	44970	35920	15010	4950	7220	17800	5260

CAL YR	1986	TOTAL	71507	MEAN	196	MAX	1950	MIN	38	AC-FT	141800
WTR YR	1987	TOTAL	100006	MEAN	274	MAX	1300	MIN	44	AC-FT	198400

GILA RIVER BASIN

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09444600 SAN FRANCISCO RIVER NEAR CLIFTON, AZ

LOCATION (Revised).--Lat 33°00'26", long 109°18'52", in NE¼SW¼SE¼ sec.12, T.5 S., R.29, E., Greenlee County, Hydrologic Unit 15040004, 2.9 mi downstream from Clifton sewage treatment facility, 3.3 mi south of Clifton, and 5.7 mi upstream from mouth.

DRAINAGE AREA.--2,770 mi², approximately.

PERIOD OF RECORD.--January 1976 to September 1979, October 1980 to March 1984, October 1986 to current year.

REMARKS.--Streamflow ungaged. Gaging station 09444500 San Francisco River at Clifton located 2.2 mi upstream. Prior to October 1986, samples taken at site 2.0 mi upstream; records equivalent.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(00301)	(MG/L) (00340)	
OCT 1986												
21...	1100	123	1260	8.40	19.0	17.0	15	688	8.2	95	<10	
NOV												
17...	1130	187	775	8.10	16.0	12.0	7.1	690	8.3	85	<10	
DEC												
05...	1200	142	948	8.30	12.0	8.0	4.4	691	9.8	92	<10	
JAN 1987												
13...	1200	152	1020	8.20	11.0	9.0	1.7	690	10.2	98	--	
FEB												
12...	1130	191	723	8.30	16.0	13.0	4.6	692	--	--	<10	
MAR												
17...	1230	874	380	8.00	15.5	10.5	130	683	--	--	29	
APR												
15...	1000	741	349	7.80	21.0	14.5	110	690	8.1	88	27	
MAY												
13...	1800	234	615	--	--	22.0	52	666	7.7	101	<10	
JUN												
12...	1200	87	1220	8.40	--	28.0	14	673	7.3	107	<10	
JUL												
17...	1600	49	1750	8.60	--	31.0	1.0	670	8.5	132	13	
AUG												
13...	1400	308	600	8.40	--	28.0	180	665	6.7	99	<10	
SEP												
24...	1130	69	1370	8.30	--	21.0	2.4	675	8.7	111	42	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)
OCT 1986												
21...	K7	K26	200	47	63	11	120	4	7.2	170	0	
NOV												
17...	K10	22	180	22	54	11	88	3	5.6	165	0	
DEC												
05...	<1	K20	190	190	57	11	98	3	5.7	165	0	
JAN 1987												
13...	K1	K2	200	39	59	12	100	3	5.6	151	0	
FEB												
12...	17	5	190	26	55	12	85	3	5.6	159	0	
MAR												
17...	540	150	110	0	32	7.9	29	1	2.4	128	0	
APR												
15...	43	260	100	0	29	7.4	30	1	2.2	131	0	
MAY												
13...	330	820	140	12	43	8.9	64	2	4.7	162	0	
JUN												
12...	K32	88	200	59	65	10	140	4	8.5	177	0	
JUL												
17...	K8	560	270	250	85	13	220	6	17	133	12	
AUG												
13...	K110	1500	150	11	46	9.7	58	2	4.8	166	0	
SEP												
24...	K26	--	240	82	76	12	170	5	11	194	0	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09444600 SAN FRANCISCO RIVER NEAR CLIFTON, AZ

WATER QUALITY DATA

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT 1986										
21...	159	29	200	0.70	580	525	0.79	35	--	--
NOV										
17...	132	26	150	0.60	474	430	0.64	17	<0.100	<0.010
DEC										
05...	133	28	170	0.60	504	370	0.69	18	<0.100	0.030
JAN 1987										
13...	124	30	180	0.60	523	482	0.71	6	<0.100	0.040
FEB										
12...	125	28	140	0.70	461	423	0.63	31	<0.100	<0.010
MAR										
17...	104	17	33	0.40	217	190	0.30	428	0.300	0.070
APR										
15...	107	16	35	0.40	221	185	0.30	484	<0.100	0.050
MAY										
13...	133	18	100	0.60	352	318	0.48	134	<0.100	0.030
JUN										
12...	144	34	260	0.70	676	605	0.92	23	<0.100	0.020
JUL										
17...	129	42	430	0.90	1020	905	1.39	3	<0.100	<0.010
AUG										
13...	136	27	87	0.50	364	319	0.50	458	0.100	0.030
SEP										
24...	159	35	270	0.80	757	670	1.03	7	<0.100	<0.010
DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS TOTAL (MG/L AS P) (00670)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1986										
21...	--	--	--	--	--	--	3	3	43	80
NOV										
17...	--	0.20	--	--	0.100	0.10	--	3	30	50
DEC										
05...	1.2	1.2	--	--	0.070	0.07	3	3	36	60
JAN 1987										
13...	0.16	0.20	--	--	0.080	0.08	3	3	37	60
FEB										
12...	--	0.20	--	--	0.080	0.08	2	2	31	60
MAR										
17...	0.93	1.0	1.3	5.8	0.840	0.84	4	1	19	20
APR										
15...	0.75	0.80	--	--	0.650	0.65	2	1	14	30
MAY										
13...	0.57	0.60	--	--	0.230	0.23	2	2	29	40
JUN										
12...	1.2	1.2	--	--	0.110	0.11	3	2	55	80
JUL										
17...	--	3.3	--	--	0.050	0.05	3	3	76	140
AUG										
13...	1.2	1.2	1.3	5.8	0.760	0.76	3	2	26	50
SEP										
24...	--	0.40	--	--	0.050	0.05	4	3	63	100

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09444600 SAN FRANCISCO RIVER NEAR CLIFTON, AZ

WATER QUALITY DATA

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT 1986 21...	<1	<1	8	<1	--	5	1300	7	10	<5
NOV 17...	<1	<1	<1	<1	35	10	2100	12	<5	<5
DEC 05...	<1	2	<1	<1	33	10	3200	6	7	<5
JAN 1987 13...	<1	<1	1	<1	23	20	150	66	<5	<5
FEB 12...	<1	<1	5	<1	86	9	4800	9	33	<5
MAR 17...	<1	<1	9	<1	150	8	20000	40	21	<5
APR 15...	<1	<1	9	<1	27	<1	11000	58	9	<5
MAY 13...	<1	<1	7	<1	16	3	3400	21	43	12
JUN 12...	<1	<1	2	<1	36	13	750	4	68	<5
JUL 17...	<1	<1	<1	<1	13	7	50	9	<5	<5
AUG 13...	<1	<1	<1	1	420	26	18000	21	11	<5
SEP 24...	<1	<1	13	<1	10	4	290	7	<5	<5

DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986 21...	60	6	<0.10	<1	<1	1.0	220	3	28	9.3
NOV 17...	60	9	<0.10	--	<1	<1.0	20	5	73	37
DEC 05...	80	6	0.70	<1	<1	<1.0	20	3	43	16
JAN 1987 13...	10	14	<0.10	<1	<1	<1.0	20	13	26	11
FEB 12...	180	4	<0.10	2	<1	<1.0	30	5	69	36
MAR 17...	850	3	<0.10	<1	<1	<1.0	200	<3	1440	3400
APR 15...	390	3	0.20	<1	<1	<1.0	40	<3	1070	2140
MAY 13...	100	6	0.10	<1	<1	<1.0	<10	<3	213	135
JUN 12...	40	8	<0.10	<1	<1	<1.0	20	12	36	8.5
JUL 17...	30	10	<0.10	<1	<1	<1.0	60	10	8	1.1
AUG 13...	450	5	0.40	<1	<1	<1.0	160	18	859	714
SEP 24...	30	9	<0.10	<1	<1	<1.0	<10	<3	18	3.4

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09445000 WILLOW CREEK DIVERSION FROM BLACK RIVER, NEAR MORENCI, AZ

LOCATION.--Lat 33°24'46", long 109°43'08", in SW¼ sec.23, T.1 N., R.25 E. (unsurveyed), Graham County, Hydrologic Unit 15040005, in San Carlos Indian Reservation, on left bank just downstream from end of diversion pipeline, 3.6 mi northeast of Point of Pines, 5.0 mi southeast of pumping plant on Black River, and 29 mi northwest of Morenci.

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

GAGE.--Water-stage recorder and steel-edged rectangular weir. Datum of gage is 5,957.16 ft above National Geodetic Vertical Datum of 1929. Prior to June 26, 1946, at end of pipeline at that time, 3.5 mi upstream at datum about 50 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. The entire flow consists of Black River (head of Salt River) water which is pumped into headwater of Willow Creek (tributary of Eagle Creek) for industrial and municipal supply in vicinity of Morenci.

AVERAGE DISCHARGE.--42 years, 11.5 ft³/s, 8,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft³/s May 18, 19, 21-26, 1970; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	15	10	10	11	11	10	15	15	15	15
2	16	16	15	10	10	11	11	13	15	15	15	15
3	16	10	15	9.4	10	11	11	6.7	15	15	15	15
4	16	7.6	15	.04	10	11	11	15	15	15	15	15
5	15	12	15	2.1	10	10	11	14	15	15	15	15
6	15	13	15	9.9	10	11	11	15	15	15	15	15
7	16	14	13	10	8.0	11	11	15	15	15	15	15
8	16	14	11	10	10	11	11	15	14	15	15	15
9	16	15	14	9.7	10	11	11	15	15	15	15	15
10	15	15	15	9.4	10	10	11	14	7.9	15	15	15
11	15	15	15	8.8	11	11	11	15	11	15	15	15
12	14	15	15	10	13	10	11	15	9.5	15	15	15
13	14	15	15	10	12	10	9.9	15	9.2	8.6	15	15
14	7.9	12	15	10	10	10	9.9	14	9.6	11	15	15
15	8.9	10	15	10	8.9	10	10	15	18	11	15	15
16	8.9	10	15	10	12	11	10	15	18	21	15	15
17	16	10	15	10	12	10	9.7	15	19	22	15	15
18	16	10	15	10	8.6	11	15	15	19	22	15	15
19	16	9.5	15	10	11	10	14	12	19	19	15	15
20	16	8.8	15	10	11	11	14	17	19	19	15	15
21	16	8.9	16	10	11	11	15	18	19	14	15	13
22	16	9.2	11	10	11	9.8	15	18	19	15	15	15
23	16	9.5	2.5	10	11	11	15	18	19	16	15	15
24	16	9.7	10	10	11	11	15	17	15	15	15	15
25	16	13	9.0	10	5.0	10	15	18	15	15	15	15
26	16	14	9.5	10	4.7	11	15	16	14	16	15	15
27	16	14	9.8	10	10	11	15	15	15	15	15	15
28	16	15	9.8	10	11	11	15	15	15	15	15	15
29	15	15	9.7	10	---	11	15	15	15	6.1	15	14
30	16	15	10	9.8	---	11	13	15	15	10	15	15
31	16	---	9.9	10	---	11	---	15	---	16	15	---
TOTAL	464.7	371.2	400.2	289.14	282.2	330.8	372.5	460.7	454.2	466.7	465	447
MEAN	15.0	12.4	12.9	9.33	10.1	10.7	12.4	14.9	15.1	15.1	15.0	14.9
MAX	16	16	16	10	13	11	15	18	19	22	15	15
MIN	7.9	7.6	2.5	.04	4.7	9.8	9.7	6.7	7.9	6.1	15	13
AC-FT	922	736	794	574	560	656	739	914	901	926	922	887
CAL YR	1986	TOTAL	5738.10	MEAN	15.7	MAX	20	MIN	2.5	AC-FT	11380	
WTR YR	1987	TOTAL	4804.34	MEAN	13.2	MAX	22	MIN	.04	AC-FT	9530	

09447000 EAGLE CREEK ABOVE PUMPING PLANT, NEAR MORENCI, AZ

LOCATION.--Lat 33°04'18", long 109°27'10", in SE¼NE¼ sec.22, T.4 S., R.28 E., Greenlee County, Hydrologic Unit 15040005, on left bank 3 mi upstream from Phelps Dodge Corp. pumping plant, 5 mi west of Morenci, and 13 mi upstream from mouth.

DRAINAGE AREA.--613 mi².

PERIOD OF RECORD.--April 1944 to current year.

REVISED RECORDS.--WSP 1850-C: 1966.

GAGE.--Water-stage recorder. Datum of gage is 3,697.6 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 25, 1984 at datum 3.4 ft higher. Jan. 30, 1978 to Sept. 1, 1980, water-stage recorder, Parshall flume and weir 200 ft downstream at same datum. April 1944 to Jan. 30, 1978, Sept. 1, 1980 to July 31, 1981, at site 1,200 ft downstream at datum 6.37 ft lower. Nov. 4, 1980 to Aug. 1, 1981, supplementary water-stage recorder at present site and datum. Nov. 15, 1952 to Nov. 4, 1980, supplementary water-stage recorder 1,100 ft downstream on right bank at datum 6.37 ft lower. Aug. 23, 1950 to Nov. 15, 1952, supplementary water-stage recorder at site 1,300 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Diversions above station for irrigation of about 500 acres, mostly above Willow Creek. Water from Black River was pumped into Eagle Creek basin, 52 mi upstream from this station, for the entire year and water was pumped from wells into Eagle Creek near Double Circle Ranch below Willow Creek for 7 months. The monthly quantities pumped are shown in table below. Diversion by pumping for industrial and municipal use in and near Morenci and Clifton are made from Eagle Creek, 3 mi downstream from this station and from San Francisco River near Clifton. Monthly quantities diverted are shown in the table below; 98 percent of the pumpage was from Eagle Creek.

AVERAGE DISCHARGE (unadjusted).--43 years, 58.8 ft³/s, 42,600 acre-ft/yr; median of yearly mean discharges, 38 ft³/s, 27,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,400 ft³/s Oct. 2, 1983, gage height, 13.04 ft, from rating curve extended above 730 ft³/s on basis of slope-area measurements at gage heights 10.5 ft and 13.04 ft; minimum, 2.9 ft³/s June 25, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*)

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 3	0500	*1,990	*5.84	July 28	0300	1,220	5.13
Dec. 8	0900	894	4.20	Sept. 21	2045	1,850	5.78

Minimum daily discharge, 26 ft³/s July 14-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	34	39	45	61	62	46	37	28	89	28
2	29	135	34	38	54	82	57	45	36	28	104	27
3	29	1200	34	37	50	137	57	43	36	27	70	27
4	30	345	34	36	49	301	64	43	35	27	52	27
5	31	166	34	37	49	492	68	39	35	27	92	28
6	33	112	38	35	49	340	65	40	36	27	86	29
7	32	138	83	33	49	300	61	42	37	27	106	27
8	31	151	662	34	48	287	57	41	37	27	69	27
9	32	123	297	35	46	259	57	41	37	27	52	27
10	45	90	174	34	46	241	59	40	35	27	61	27
11	66	74	119	32	45	232	58	39	34	27	86	27
12	187	65	90	32	44	199	58	55	32	27	53	27
13	92	58	75	32	44	168	58	49	31	27	49	27
14	56	55	66	33	44	147	58	41	30	26	45	27
15	46	51	59	33	44	133	56	41	28	26	41	27
16	37	47	56	36	45	128	54	39	27	27	38	27
17	34	42	56	36	45	120	52	37	30	28	35	27
18	32	42	58	34	45	123	51	35	31	30	31	27
19	34	41	59	30	46	132	53	34	32	35	28	27
20	34	39	61	31	44	125	56	36	32	36	27	27
21	34	36	65	33	44	117	54	44	33	223	27	162
22	34	35	67	31	43	108	53	41	33	89	27	90
23	34	34	65	30	42	102	52	41	32	50	28	44
24	33	33	57	31	41	93	50	41	33	41	57	39
25	32	32	49	32	53	91	46	42	37	39	44	33
26	32	32	48	31	72	88	49	42	34	37	40	32
27	32	33	45	32	66	82	49	42	30	35	38	31
28	32	34	44	33	60	78	49	40	38	300	39	34
29	32	34	42	36	---	74	47	39	35	62	35	31
30	32	34	41	36	---	71	47	38	30	177	31	29
31	29	---	40	39	---	66	---	38	---	155	28	---
TOTAL	1295	3339	2686	1051	1352	4977	1657	1274	1003	1769	1608	1069
MEAN	41.8	111	86.6	33.9	48.3	161	55.2	41.1	33.4	57.1	51.9	35.6
MAX	187	1200	662	39	72	492	68	55	38	300	106	162
MIN	29	28	34	30	41	61	46	34	27	26	27	27
AC-FT	2570	6620	5330	2080	2680	9870	3290	2530	1990	3510	3190	2120
(*)	542	0	0	0	0	0	508	707	854	819	411	438
(**)	1350	1230	1210	1270	1080	1140	1180	1400	1400	1490	1220	1150
CAL YR 1986	TOTAL	19821	MEAN	54.3	MAX 1200	MIN 23	AC-FT 39310	(*) 4312	(**)	16990		
WTR YR 1987	TOTAL	23080	MEAN	63.2	MAX 1200	MIN 26	AC-FT 45780	(*) 4279	(**)	15120		

(*) Pumpage, in acre-feet, into Eagle Creek from Eagle Creek Wells.

(**) Pumpage, in acre-feet, to Clifton and Morenci, from San Francisco River and Eagle Creek.

GILA RIVER BASIN

09447800 BONITA CREEK NEAR MORENCI, AZ

LOCATION.--Lat 32°57'20", long 109°31'50", in SE¼NW¼ sec.36, T.5 S., R.27 E., Graham County, Hydrologic Unit 15040005, on left bank 2.0 mi upstream from intake of City of Safford water supply, 6.3 mi upstream from mouth, and 12.8 mi southwest of Morenci.

DRAINAGE AREA.--302 mi².

PERIOD OF RECORD.--August 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Two crest-stage gages 440 ft upstream on right and left banks.

REMARKS.--No estimated daily discharges. Records fair except those above 20 ft³/s, which are poor.

AVERAGE DISCHARGE.--6 years, 11.4 ft³/s, 8,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s Oct. 2, 1983, gage height, 17.3 ft, from rating curve extended above 560 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.68 ft³/s Dec. 20-23, 1982, gage height, 1.50 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 20, 1972, 10,000 ft³/s, from slope-area measurement made by City of Safford at site about 2 mi downstream. Flood of June 27, 1981, 1,340 ft³/s, from slope-area measurement at present site, gage height, 5.6 ft, from floodmark.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 3	0900	301	3.27	Aug. 1	2200	363	3.92
July 21	0215	*3,510	*8.17	Aug. 24	0345	474	4.15
July 30	1900	752	4.69	Aug. 24	0900	803	4.77

Minimum daily discharge, 2.2 ft³/s Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	6.0	4.1	5.0	5.0	5.7	5.3	4.4	3.6	2.6	24	2.9
2	7.0	19	4.1	5.0	4.9	5.5	5.2	4.4	3.5	2.6	42	2.8
3	6.9	164	4.1	5.0	4.9	8.4	5.2	4.3	3.4	2.6	23	2.7
4	7.0	50	4.1	5.0	4.7	11	5.5	4.3	3.2	2.5	5.7	2.8
5	7.1	14	4.0	5.3	4.7	14	5.3	4.3	3.3	2.5	16	2.7
6	7.2	7.7	4.4	5.1	4.7	13	5.1	4.3	3.3	2.5	28	2.6
7	7.0	14	4.9	5.1	4.7	9.7	4.9	4.2	3.4	2.5	26	2.5
8	7.0	7.6	13	5.1	4.9	7.5	4.9	4.2	3.3	2.5	7.5	2.3
9	11	6.5	12	5.2	4.8	6.6	4.9	4.2	3.5	2.5	4.6	2.3
10	10	6.0	7.8	5.3	4.7	7.1	4.8	4.1	3.3	2.5	3.5	2.3
11	11	5.5	6.1	5.2	4.6	6.3	4.8	4.1	3.1	2.5	3.9	2.3
12	52	5.2	5.6	5.2	4.5	6.0	4.7	4.0	3.2	2.4	4.1	2.3
13	12	5.0	5.3	5.2	4.5	5.9	4.7	3.9	3.0	2.4	3.0	2.3
14	7.9	4.8	5.1	5.1	4.5	5.9	4.7	4.0	3.0	2.4	2.8	2.3
15	7.0	4.6	4.9	5.1	4.6	6.1	4.6	4.0	2.9	2.4	2.6	2.3
16	6.3	4.4	4.6	5.6	4.6	6.6	4.6	3.9	2.9	2.5	2.6	2.3
17	6.0	4.1	4.6	5.6	4.6	6.1	4.5	3.9	2.9	2.4	2.5	2.3
18	5.7	4.7	4.6	5.6	4.7	5.9	4.6	3.8	2.8	2.4	2.4	2.3
19	5.7	4.3	4.7	5.6	4.8	5.7	4.6	3.8	2.8	2.4	2.3	2.3
20	5.6	4.0	4.8	5.5	4.8	5.7	4.5	4.2	2.8	2.4	2.3	2.3
21	5.6	3.9	4.8	5.5	4.9	5.7	4.5	4.7	2.8	175	2.3	2.9
22	5.6	3.8	4.6	5.5	4.8	6.0	4.5	4.2	2.7	3.5	2.4	4.2
23	5.5	3.9	4.7	5.6	5.0	6.0	4.5	4.0	2.6	3.2	2.4	2.4
24	5.5	4.0	4.8	5.5	5.1	5.7	4.4	3.9	2.6	3.1	177	2.3
25	5.7	4.1	4.8	5.3	6.5	5.8	4.4	4.0	2.6	2.8	15	2.3
26	6.0	4.0	4.7	5.2	7.6	5.7	4.4	4.0	2.5	2.7	5.4	2.3
27	5.5	4.0	4.8	5.2	6.3	5.6	4.4	3.9	2.6	2.8	3.5	2.3
28	5.5	4.0	4.9	5.1	5.8	5.6	4.3	3.9	2.7	2.7	3.0	2.2
29	5.6	4.0	4.7	5.0	---	5.7	4.3	3.9	2.6	7.0	3.9	2.2
30	5.6	4.0	4.8	5.0	---	5.6	4.3	3.8	2.6	100	3.1	2.2
31	5.6	---	5.0	5.0	---	5.5	---	3.7	---	83	10	---
TOTAL	258.0	381.1	165.4	162.7	140.2	211.6	141.4	126.3	89.5	435.3	436.8	74.2
MEAN	8.32	12.7	5.34	5.25	5.01	6.83	4.71	4.07	2.98	14.0	14.1	2.47
MAX	52	164	13	5.6	7.6	14	5.5	4.7	3.6	175	177	4.2
MIN	5.5	3.8	4.0	5.0	4.5	5.5	4.3	3.7	2.5	2.4	2.3	2.2
AC-FT	512	756	328	323	278	420	280	251	178	863	866	147
CAL YR	1986	TOTAL	2626.3	MEAN	7.20	MAX	164	MIN	2.2	AC-FT	5210	
WTR YR	1987	TOTAL	2622.5	MEAN	7.18	MAX	177	MIN	2.2	AC-FT	5200	

09448500 GILA RIVER AT HEAD OF SAFFORD VALLEY, NEAR SOLOMON, AZ

LOCATION.--Lat 32°52'06", long 109°30'38", in SE¼NE¼ sec.31, T.6 S., R.28 E., Graham County, Hydrologic Unit 15040005, on left bank 0.6 mi downstream from intake of Brown Canal, 8 mi northeast of Solomon, and 17 mi downstream from San Francisco River. Records include flow of Brown Canal, which is measured 2,000 ft downstream from intake.

DRAINAGE AREA.--7,896 mi².

PERIOD OF RECORD.--April 1914 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1932 and October 1940 to September 1949 published as "near Solomonsville" and October 1932 to October 1933 and May 1935 to September 1940 as "below Bonita Creek near Solomonsville."

REVISED RECORDS.--WSP 1059: 1914, 1916-17, 1923(M), 1924-25, 1927, 1929-31(M). WSP 1179: 1915, 1918-19(M). WSP 1313: 1934. WSP 1733: 1923.

GAGE.--Water-stage recorder. Datum of gage is 3,059.92 ft above National Geodetic Vertical Datum of 1929. Prior to July 8, 1980, at datum 4.96 ft higher. See WSP 1733 for history of changes prior to Jan. 1, 1941. Supplementary water-stage recorder and Parshall flume on Brown Canal.

REMARKS.--Records good. Records show water reaching head of Safford Valley and include water diverted to Brown Canal. Diversions above station for mining, municipal use, and for irrigation of about 17,500 acres, much of it by pumping from ground water.

COOPERATION.--Record for Brown Canal furnished by Gila Water Commissioner.

AVERAGE DISCHARGE.--73 years, 482 ft³/s, 349,200 acre-ft/yr; median of yearly mean discharges, 330 ft³/s, 239,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 132,000 ft³/s Oct. 2, 1983, gage height, 20.8 ft, from rating curve, extended above 52,000 ft³/s on basis of slope-area measurements at 14.40 ft and 20.8 ft; minimum, 11 ft³/s June 25, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 3	2100	*3,020	*9.10

Minimum daily discharge, 69 ft³/s July 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e180	273	399	502	409	551	750	730	255	123	1200	371
2	e166	302	387	482	438	581	725	762	238	106	948	289
3	160	2120	373	471	440	688	740	744	224	96	1070	267
4	155	1510	364	454	431	887	836	709	214	93	745	256
5	154	1510	355	453	431	1150	970	659	210	90	823	251
6	209	1100	357	447	437	1230	1000	615	207	89	784	296
7	264	1010	417	437	432	1230	976	584	204	86	765	276
8	394	981	918	430	417	1280	996	547	217	81	754	e263
9	361	848	987	428	411	1390	1000	511	254	78	629	e250
10	340	750	846	417	408	1440	1010	482	225	78	748	e230
11	585	667	786	401	410	1500	1060	473	222	78	1160	206
12	912	600	683	389	407	1450	1150	454	231	76	1130	194
13	1080	561	601	381	393	1420	1240	444	213	75	902	188
14	988	517	555	374	388	1460	1240	422	198	71	895	181
15	822	499	513	375	404	1510	1170	420	189	69	727	175
16	684	482	492	383	433	1410	1090	406	175	73	592	169
17	587	452	529	390	439	1300	1070	392	170	77	495	169
18	525	444	668	384	440	1250	1090	373	164	77	412	168
19	481	499	765	367	431	1210	1150	356	159	79	348	165
20	436	508	865	354	420	1200	1170	352	154	78	307	173
21	406	518	904	355	419	1180	1140	391	152	958	283	168
22	392	506	936	357	427	1150	1100	404	e151	424	261	309
23	373	495	875	354	411	1130	1040	385	e146	185	265	188
24	355	480	820	347	397	1070	969	355	e141	148	412	182
25	332	468	764	341	418	1030	895	338	e141	137	399	182
26	313	465	712	334	534	1030	835	329	e136	133	493	e170
27	296	461	669	330	625	975	810	329	e135	129	598	e163
28	290	447	642	335	564	931	775	313	e130	269	535	158
29	289	428	598	349	---	894	744	299	e130	514	474	151
30	290	413	549	353	---	854	725	285	e125	1100	398	273
31	284	---	523	361	---	798	---	271	---	1490	408	---
TOTAL	13103	20314	19852	12135	12214	35179	29466	14134	5510	7160	19960	6481
MEAN	423	677	640	391	436	1135	982	456	184	231	644	216
MAX	1080	2120	987	502	625	1510	1240	762	255	1490	1200	371
MIN	154	273	355	330	388	551	725	271	125	69	261	151
AC-FT	25990	40290	39380	24070	24230	69780	58450	28030	10930	14200	39590	12860
CAL YR 1986	TOTAL	179267	MEAN	491	MAX	3810	MIN	109	AC-FT	355600		
WTR YR 1987	TOTAL	195508	MEAN	536	MAX	2120	MIN	69	AC-FT	387800		

e Estimated

GILA RIVER BASIN

09458200 DEADMAN CREEK NEAR SAFFORD, AZ

LOCATION.--Lat 32°43'59", long 109°48'57", in SW¼ sec.17, T.8 S., R.25 E., (unsurveyed), Graham County, in Coronado National Forest, on left bank 9 mi southwest of Safford.

DRAINAGE AREA.--4.78 mi².

PERIOD OF RECORD.--November 1966 to September 1976, August 1986 to current year.

GAGE.--Water-stage recorder and sharp-crested V-notch weir. Elevation of gage is 4,950 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for period of estimated discharges, which are fair. No regulation or diversion above station. City of Safford diverts water about 1,000 ft downstream for municipal supply.

AVERAGE DISCHARGE.--10 years (1967-76, 1987), 1.41 ft³/s, 1,020 acre-ft/yr; median of yearly mean discharges, 1.0 ft³/s, 720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119 ft³/s, Oct. 19, 1972, gage height, 3.45 ft, from rating curve extended above 18 ft³/s on basis of computation of flow over weir at gage height 3.25 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 19, 1978 reached a discharge of 2,760 ft³/s, from slope-area measurement ¼ mi downstream from station.

EXTREMES FOR CURRENT YEAR.--August to September 1986: Maximum discharge during period, 37 ft³/s, Aug. 29, gage height, 2.64 ft; minimum, 0.04 ft³/s Aug. 20, 21, gage height, 1.70 ft.
Water year 1987: Peak discharges greater than base discharge of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0430	*63	*2.78
Nov. 3	0500	33	2.61

Minimum daily discharge, 0.06 ft³/s July 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	1.6
2	---	---	---	---	---	---	---	---	---	---	---	.94
3	---	---	---	---	---	---	---	---	---	---	---	e.76
4	---	---	---	---	---	---	---	---	---	---	---	e.55
5	---	---	---	---	---	---	---	---	---	---	---	e.43
6	---	---	---	---	---	---	---	---	---	---	---	e.32
7	---	---	---	---	---	---	---	---	---	---	---	e.24
8	---	---	---	---	---	---	---	---	---	---	---	e.28
9	---	---	---	---	---	---	---	---	---	---	---	.97
10	---	---	---	---	---	---	---	---	---	---	---	1.0
11	---	---	---	---	---	---	---	---	---	---	---	.69
12	---	---	---	---	---	---	---	---	---	---	---	.55
13	---	---	---	---	---	---	---	---	---	---	.20	.54
14	---	---	---	---	---	---	---	---	---	---	.50	.37
15	---	---	---	---	---	---	---	---	---	---	.62	.37
16	---	---	---	---	---	---	---	---	---	---	.17	.32
17	---	---	---	---	---	---	---	---	---	---	.14	.28
18	---	---	---	---	---	---	---	---	---	---	.14	.24
19	---	---	---	---	---	---	---	---	---	---	.10	.24
20	---	---	---	---	---	---	---	---	---	---	.08	.20
21	---	---	---	---	---	---	---	---	---	---	.08	.20
22	---	---	---	---	---	---	---	---	---	---	.10	.17
23	---	---	---	---	---	---	---	---	---	---	.10	.75
24	---	---	---	---	---	---	---	---	---	---	.10	6.7
25	---	---	---	---	---	---	---	---	---	---	.10	2.2
26	---	---	---	---	---	---	---	---	---	---	.10	1.5
27	---	---	---	---	---	---	---	---	---	---	.12	1.1
28	---	---	---	---	---	---	---	---	---	---	.59	.94
29	---	---	---	---	---	---	---	---	---	---	5.3	.85
30	---	---	---	---	---	---	---	---	---	---	1.5	.48
31	---	---	---	---	---	---	---	---	---	---	2.1	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	25.78
MEAN	---	---	---	---	---	---	---	---	---	---	---	.86
MAX	---	---	---	---	---	---	---	---	---	---	---	6.7
MIN	---	---	---	---	---	---	---	---	---	---	---	.17
AC-FT	---	---	---	---	---	---	---	---	---	---	---	51

e Estimated

GILA RIVER BASIN

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09458200 DEADMAN CREEK NEAR SAFFORD, AZ--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	1.8	1.4	1.4	1.6	3.9	1.9	9.9	2.5	.35	.31	.37
2	.61	7.6	1.2	1.4	1.4	5.2	2.2	8.6	2.4	.32	.25	.32
3	.85	17	1.1	1.2	1.4	5.8	2.3	7.1	2.5	.29	.27	.31
4	.69	6.4	.94	1.2	1.2	8.9	3.3	6.3	2.6	.26	.29	.43
5	.76	4.2	.94	1.8	1.2	11	2.9	5.8	2.3	.24	.26	.65
6	.76	3.3	3.2	1.2	1.1	11	2.7	5.7	2.6	.22	.23	.51
7	.61	4.9	8.1	1.2	1.0	11	2.7	6.3	2.3	.20	.29	.42
8	.55	3.3	7.4	1.1	.94	9.7	2.7	6.3	2.2	.19	.27	.32
9	.55	2.9	4.9	1.0	1.0	8.1	2.7	6.2	2.2	.17	.26	.27
10	2.2	2.5	3.9	.94	.94	9.6	3.2	6.1	2.0	.15	.58	.23
11	3.1	2.3	3.5	.94	.85	7.8	4.0	6.1	2.1	.15	1.5	.22
12	21	2.2	2.9	.85	.85	6.7	4.9	6.0	1.8	.13	.78	.20
13	4.5	2.0	2.7	.85	.76	6.1	5.1	6.1	1.6	.12	.56	.19
14	2.9	2.0	2.3	.85	.69	6.1	4.8	6.0	1.5	.12	.41	.20
15	2.2	1.9	2.3	.93	.69	5.5	4.7	6.0	1.3	.11	.33	.18
16	1.9	1.7	3.1	1.4	.69	5.2	5.4	5.8	1.2	.21	.27	.18
17	1.9	1.7	3.1	1.1	.69	4.7	6.8	5.5	1.0	.18	.23	.19
18	1.7	3.1	2.9	1.5	.61	4.4	8.0	5.2	.95	.13	.20	.20
19	1.6	3.5	2.7	1.4	.69	4.2	12	4.9	.86	.12	.19	.19
20	1.5	3.5	2.7	1.4	.69	3.7	11	6.4	.78	.10	.26	.16
21	1.4	3.1	2.7	1.2	1.0	3.5	9.6	6.8	.73	.12	.89	.15
22	1.4	2.9	2.5	1.1	.94	3.5	7.9	5.6	.67	.11	.67	.22
23	1.2	2.5	2.3	.94	.94	3.1	6.9	5.1	.61	.07	.52	.20
24	1.1	2.3	2.2	.94	1.1	2.9	6.5	4.7	.59	.06	1.1	.26
25	1.1	2.2	2.0	1.1	2.0	3.1	7.2	4.4	.56	.11	1.2	.29
26	.94	2.0	1.9	1.2	2.3	2.9	8.2	4.0	.53	.08	1.0	.28
27	.94	1.9	1.9	1.2	2.5	2.7	11	3.7	.85	.09	.81	.22
28	.85	1.7	1.7	1.6	3.1	2.5	14	3.3	.63	.43	.65	.20
29	.85	1.6	1.6	1.5	---	2.3	12	3.1	.46	.38	.57	.18
30	.76	1.5	1.6	1.2	---	2.2	11	2.9	.39	.67	.48	.20
31	.76	---	1.5	1.7	---	2.0	---	2.7	---	.58	.41	---
TOTAL	61.94	99.5	83.18	37.34	32.87	169.3	187.6	172.6	42.71	6.46	16.04	7.94
MEAN	2.00	3.32	2.68	1.20	1.17	5.46	6.25	5.57	1.42	.21	.52	.26
MAX	21	17	8.1	1.8	3.1	11	14	9.9	2.6	.67	1.5	.65
MIN	.55	1.5	.94	.85	.61	2.0	1.9	2.7	.39	.06	.19	.15
AC-FT	123	197	165	74	65	336	372	342	85	13	32	16
WTR YR 1987	TOTAL	917.48	MEAN	2.51	MAX	21	MIN	.06	AC-FT	1820		

GILA RIVER BASIN

09466500 GILA RIVER AT CALVA, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 33°11'08", long 110°13'10", in SW¼ sec.8, T.3 S., R.21 E. (unsurveyed), Graham County, Hydrologic Unit 15040005, in San Carlos Indian Reservation, on Southern Pacific Railroad bridge at head of San Carlos Reservoir, 2.0 mi west of Calva.

DRAINAGE AREA.--11,470 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,517.29 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1954, and Aug. 25, 1958, to Dec. 31, 1962, at datum 2.52 ft lower. Oct. 1, 1954, to Aug. 24, 1958, at datum 5.52 ft lower. Dec. 31, 1962, to Oct. 20, 1972, at site 530 ft downstream at datum 3.65 ft lower. Oct. 20, 1972, to Sept. 30, 1974, supplementary gage at bridge on U.S. Highway 70, 6.2 mi upstream at datum 2,560.19 ft, NGVD.

REMARKS.--Records poor. Diversion above station for irrigation of about 69,000 acres, metallurgical treatment of ores, and municipal uses.

AVERAGE DISCHARGE.--58 years, 328 ft³/s, 237,600 acre-ft/yr; median of yearly mean discharges, 210 ft³/s, 152,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s Oct. 3, 1983, gage height, 23.1 ft, from rating curve extended above 87,000 ft³/s on basis of area-velocity and flow-over-road computations of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1914, probably in excess of 100,000 ft³/s Jan. 20, 1916, determined on basis of peak discharge at stations near Solomon and at Kelvin.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 4	0515	*2,150	*7.69

Minimum daily discharge, 11 ft³/s July 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	293	493	563	416	377	549	694	253	25	910	159
2	115	366	482	557	398	404	539	700	225	25	727	156
3	114	1080	472	536	421	367	535	773	188	21	576	115
4	109	1870	e450	508	453	380	563	768	175	21	695	98
5	174	1340	e445	529	461	557	556	713	e165	17	413	88
6	e275	1260	471	522	459	814	621	647	e150	20	e418	80
7	e245	1010	510	505	453	894	644	532	e140	20	e346	75
8	e245	831	559	488	451	1030	637	e450	e125	19	e337	85
9	245	771	873	477	447	1230	644	e400	e115	17	e319	89
10	328	732	799	472	430	1390	661	e380	e100	16	e315	75
11	349	698	729	468	428	1420	694	e370	e88	16	439	67
12	548	670	655	471	421	1430	754	e360	e81	14	945	64
13	725	e640	611	472	415	1470	840	e350	e75	13	879	60
14	741	e615	596	459	397	1470	994	350	e72	13	715	57
15	752	e590	579	437	395	1500	1110	338	e69	12	684	54
16	670	e571	570	484	405	1450	1110	325	e67	13	e450	54
17	607	e554	556	471	405	1360	1100	321	e60	14	e400	55
18	566	e539	563	454	388	1230	1080	321	e59	13	270	53
19	528	e543	642	455	378	1110	1140	318	e58	12	209	54
20	478	e608	715	455	347	975	1270	291	e58	12	186	52
21	430	606	788	433	312	947	1280	291	e52	11	160	52
22	402	594	845	424	295	988	1300	311	e48	77	134	60
23	402	589	814	419	286	937	1290	344	e42	119	131	56
24	399	571	789	412	281	911	1250	e358	e38	72	237	83
25	388	548	742	408	289	822	1180	e350	33	61	164	81
26	369	531	699	407	325	789	1050	334	27	55	158	79
27	363	522	669	402	355	769	967	321	23	51	125	73
28	339	516	653	400	406	680	857	309	24	e46	200	71
29	307	506	617	394	---	658	801	298	19	e40	212	71
30	295	499	585	389	---	628	749	293	24	42	182	66
31	295	---	567	422	---	570	---	273	---	393	164	---
TOTAL	11919	21063	19538	14293	10917	29557	26765	12883	2653	1300	12100	2282
MEAN	384	702	630	461	390	953	892	416	88.4	41.9	390	76.1
MAX	752	1870	873	563	461	1500	1300	773	253	393	945	159
MIN	109	293	445	389	281	367	535	273	19	11	125	52
AC-FT	23640	41780	38750	28350	21650	58630	53090	25550	5260	2580	24000	4530

CAL YR	1986	TOTAL	128093	MEAN	351	MAX	2600	MIN	27	AC-FT	254100
WTR YR	1987	TOTAL	165270	MEAN	453	MAX	1870	MIN	11	AC-FT	327800

e Estimated

GILA RIVER BASIN

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09466500 GILA RIVER AT CALVA, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(00025)	(MG/L) (00300)	(00301)	(MG/L) (00340)	(31625)	
OCT 1986													
20...	1230	475	1420	8.30	20.0	17.0	140	710	8.6	96	24	350	
NOV													
13...	1100	E640	1050	8.20	13.0	11.0	140	715	8.6	83	44	220	
DEC													
03...	1030	478	1840	8.20	8.0	8.0	38	714	--	--	<10	120	
JAN 1987													
12...	1200	460	1600	7.80	11.0	9.5	32	715	10.5	99	17	K2	
FEB													
11...	1130	442	1350	8.20	17.0	14.0	22	712	8.5	89	<10	12	
MAR													
18...	1300	1240	770	8.20	18.0	13.0	170	706	9.7	100	24	180	
APR													
13...	1300	838	923	7.90	23.0	20.0	110	710	7.2	85	27	220	
MAY													
14...	1600	366	1730	--	--	27.5	35	669	6.1	89	17	K18	
JUN													
11...	1130	89	3200	--	30.5	28.0	2.3	690	7.3	105	<10	K9	
JUL													
16...	1200	14	4400	8.20	24.5	25.0	1.1	690	8.0	109	31	120	
AUG													
12...	1700	1020	640	8.20	--	28.0	350	690	5.8	82	35	5500	
SEP													
23...	1030	57	3350	8.50	--	24.0	18	695	9.5	126	47	85	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986													
20...	970	230	38	67	16	180	5	4.8	277	0	227	120	
NOV													
13...	690	220	28	62	15	140	4	4.3	210	0	162	100	
DEC													
03...	2000	250	250	72	18	210	6	4.9	235	0	193	140	
JAN 1987													
12...	270	270	270	77	18	210	6	4.9	250	0	205	150	
FEB													
11...	120	250	34	71	18	210	6	6.0	200	0	162	150	
MAR													
18...	520	160	8	44	11	94	3	3.0	161	0	133	63	
APR													
13...	640	160	0	44	12	130	5	3.8	190	0	155	80	
MAY													
14...	700	260	30	72	19	250	7	7.4	--	--	--	140	
JUN													
11...	280	340	94	87	30	510	12	9.7	--	--	--	320	
JUL													
16...	91	480	290	120	44	670	14	12	270	0	217	340	
AUG													
12...	8100	110	0	31	7.4	89	4	4.0	161	0	132	58	
SEP													
23...	420	300	84	75	28	540	14	10	250	14	229	340	

E Estimated

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09466500 GILA RIVER AT CALVA, AZ--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT 1986												
20...	220	1.5	37	776	769	1.06	527	<0.010	0.900	0.830	0.010	<0.010
NOV												
13...	180	1.2	--	668	617	0.91	512	--	0.700	--	0.030	--
DEC												
03...	260	1.3	--	870	706	1.18	111	--	1.00	--	0.050	--
JAN 1987												
12...	280	1.4	37	906	784	1.23	71	<0.010	1.00	1.00	0.070	0.070
FEB												
11...	260	1.5	--	882	848	1.20	102	--	0.900	--	<0.010	--
MAR												
18...	110	1.0	--	443	414	0.60	908	--	0.600	--	0.030	--
APR												
13...	140	1.1	35	548	551	0.75	580	<0.010	0.700	0.690	0.010	0.010
MAY												
14...	300	1.4	--	1000	927	1.36	110	--	1.20	--	0.040	--
JUN												
11...	670	1.6	--	1800	1780	2.45	13	--	1.30	--	0.020	--
JUL												
16...	940	1.9	38	2400	2290	3.26	3	<0.010	<0.100	<0.100	0.060	<0.010
AUG												
12...	80	1.2	--	393	376	0.53	7080	--	0.600	--	0.030	--
SEP												
23...	710	1.8	--	1850	1840	2.52	47	--	<0.100	--	<0.010	--

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1986											
20...	--	<0.20	--	--	0.090	0.100	0.090	0.28	0.09	0.01	30
NOV											
13...	1.4	1.4	2.1	9.3	0.850	--	--	--	0.85	--	--
DEC											
03...	0.45	0.50	1.5	6.6	0.390	--	--	--	0.39	--	--
JAN 1987											
12...	0.33	0.40	1.4	6.2	0.380	0.090	0.080	0.25	0.38	0.01	20
FEB											
11...	--	0.80	1.7	7.5	0.080	--	--	--	0.08	--	--
MAR											
18...	0.47	0.50	1.1	4.9	1.10	--	--	--	1.1	--	--
APR											
13...	1.1	1.1	1.8	8.0	0.910	0.090	0.090	0.28	0.91	0.0	90
MAY											
14...	0.36	0.40	1.6	7.1	0.200	--	--	--	0.20	--	--
JUN											
11...	1.7	1.7	3.0	13	0.040	--	--	--	0.04	--	--
JUL											
16...	0.44	0.50	--	--	0.020	<0.010	0.010	0.03	0.02	--	50
AUG											
12...	5.1	5.1	5.7	25	8.70	--	--	--	8.7	--	--
SEP											
23...	--	0.90	--	--	0.060	--	--	--	0.06	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09466500 GILA RIVER AT CALVA, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1986											
20...	5	6	41	<0.5	230	<1	2	<1	<1	<3	--
NOV											
13...	5	4	37	--	170	1	<1	6	<1	--	110
DEC											
03...	4	4	47	--	230	<1	<1	3	<1	--	60
JAN 1987											
12...	4	5	49	<0.5	250	<1	1	4	<1	<3	38
FEB											
11...	4	4	47	--	250	<1	<1	8	<1	--	40
MAR											
18...	4	3	28	--	100	1	<1	12	<1	--	150
APR											
13...	3	3	26	<0.5	140	<1	<1	3	<1	<3	100
MAY											
14...	5	5	56	--	300	<1	<1	3	<1	--	29
JUN											
11...	5	5	100	--	640	<1	<1	<2	<1	--	13
JUL											
16...	5	5	200	<10	920	<1	<1	<1	<1	1	15
AUG											
12...	7	5	22	--	110	<1	<1	<1	<1	--	970
SEP											
23...	5	5	100	--	670	<1	1	10	<1	--	17

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1986											
20...	4	17000	18	25	<5	130	570	4	<0.10	<0.1	10
NOV											
13...	5	21000	920	20	<5	--	520	7	<0.10	--	--
DEC											
03...	4	13000	<3	11	<5	--	300	4	0.80	--	--
JAN 1987											
12...	5	6400	9	7	<5	160	190	5	<0.10	<0.1	<10
FEB											
11...	5	5300	6	13	<5	--	180	4	<0.10	--	--
MAR											
18...	8	23000	45	23	<5	--	860	4	<0.10	--	--
APR											
13...	<1	18000	30	16	<5	87	580	3	0.20	0.1	<10
MAY											
14...	6	3000	19	<5	<5	--	100	4	0.10	--	--
JUN											
11...	9	330	20	<5	<5	--	20	<10	<0.10	--	--
JUL											
16...	7	90	30	<5	<5	410	40	20	0.20	0.7	14
AUG											
12...	15	140000	22	95	<5	--	5600	<10	0.10	--	--
SEP											
23...	11	960	40	<5	<5	--	60	20	<0.10	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN
09466500 GILA RIVER AT CALVA, AZ--Continued

WATER QUALITY DATA

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986											
20...	2	<1	<1	1.0	550	15	260	9	57	1360	1740
NOV											
13...	--	<1	<1	<1.0	--	--	130	<3	37	1600	2760
DEC											
03...	--	<1	<1	<1.0	--	--	60	<3	20	565	729
JAN 1987											
12...	2	<1	<1	<1.0	650	8	50	10	22	506	628
FEB											
11...	--	<1	<1	<1.0	--	--	40	6	16	485	579
MAR											
18...	--	<1	<1	<1.0	--	--	390	<3	46	1440	4820
APR											
13...	2	<1	<1	<1.0	370	11	80	<3	46	1020	2310
MAY											
14...	--	<1	<1	<1.0	--	--	<10	4	13	783	774
JUN											
11...	--	1	1	<1.0	--	--	340	<10	65	110	26
JUL											
16...	1	<1	<1	<1.0	1500	19	10	10	39	22	0.83
AUG											
12...	--	<1	<1	<1.0	--	--	780	11	--	11400	31400
SEP											
23...	--	1	1	<1.0	--	--	<10	<10	--	81	12

< Actual value is known to be less than value shown.

09468500 SAN CARLOS RIVER NEAR PERIDOT, AZ

LOCATION.--Lat 33°17'47", long 110°27'03", in SE¼ sec.36, T.1 S., R.18 E. (unsurveyed), Gila County, Hydrologic Unit 15040007, in San Carlos Indian Reservation, on U.S. Highway 70 bridge, 0.9 mi south of Peridot.

DRAINAGE AREA.--1,026 mi².

PERIOD OF RECORD.--August 1910 to January 1911 (gage heights only), April 1914 to July 1915, August to September 1915 (monthly discharge only), October 1929 to current year. Prior to October 1929 published as "at San Carlos."

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,542.29 ft above National Geodetic Vertical Datum of 1929 (Arizona Highway Department bench mark). See WSP 1713 or 1733 for history of changes prior to Feb. 1, 1942. Feb. 1, 1942, to Aug. 13, 1970, at sites 1.9 mi upstream at different datums. Aug 14, 1970, to Sept. 30, 1980, at site 1.8 mi upstream at datum 2,578.90 ft, National Geodetic Vertical Datum of 1929. Supplementary water-stage recorder Dec. 21, 1967, to July 2, 1968, at site 2.2 mi downstream at datum in use prior to Feb. 1, 1942; Jan. 31, 1979, to Sept. 30, 1980, at present site and datum.

REMARKS.--Records fair. Diversions above station for irrigation of about 600 acres. Small inflow from sewage treatment system about 3.6 mi upstream. Flow regulated to some extent since June 15, 1979, by Talkalai Reservoir; capacity, about 6,000 acre-ft.

AVERAGE DISCHARGE.--58 years (water years 1930-87), 56.0 ft³/s, 40,570 acre-ft/yr; median of yearly mean discharges, 33 ft³/s, 23,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s Mar. 14, 1941, gage height, 11.4 ft, site and datum then in use, from rating curve extended above 23,000 ft³/s on basis of rate of change in storage in San Carlos Reservoir; maximum gage height 14.8 ft, Dec. 22, 1965, site and datum then in use; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	1945	2,260	6.03
Dec. 7	1900	*4,130	*7.00

Minimum daily discharge, 3.2 ft³/s July 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	15	27	49	596	482	31	14	11	6.0	12	8.6
2	20	129	27	46	220	888	29	14	12	6.3	26	8.0
3	20	63	26	44	165	917	29	15	12	6.5	20	6.8
4	18	62	25	43	136	1130	25	14	15	7.5	14	6.0
5	20	43	25	43	119	985	27	14	11	7.5	13	6.5
6	20	33	29	44	106	528	27	14	11	6.8	11	6.6
7	19	172	1710	92	97	345	26	14	9.4	5.8	12	6.4
8	18	289	2050	85	88	252	25	13	11	5.2	12	5.9
9	18	102	636	69	80	199	23	12	11	5.1	12	5.5
10	26	62	255	58	74	153	23	11	12	4.7	143	5.3
11	27	47	160	51	69	128	23	12	11	4.6	54	5.0
12	44	36	119	46	65	115	22	13	12	3.2	63	4.9
13	118	31	87	44	59	101	21	15	9.7	3.2	64	5.1
14	57	26	77	42	55	92	20	14	9.7	5.0	23	5.4
15	43	25	67	40	51	86	19	15	8.7	4.8	17	5.0
16	33	24	61	41	48	90	19	15	8.7	6.1	13	4.9
17	25	23	56	41	44	121	19	13	8.2	6.1	9.3	5.1
18	22	264	64	39	43	580	18	13	7.6	5.8	8.9	5.2
19	20	98	100	39	39	257	17	13	8.1	4.9	7.4	5.2
20	18	49	81	38	35	170	17	13	7.4	4.4	7.2	5.5
21	17	46	172	36	34	125	17	14	6.9	5.7	5.9	5.5
22	17	41	152	35	31	109	16	14	7.2	5.7	6.2	6.0
23	16	37	115	34	29	100	14	14	7.5	4.1	37	5.5
24	15	33	94	33	31	92	15	12	6.1	3.6	11	16
25	15	31	83	32	49	88	16	12	6.3	5.3	17	20
26	15	30	74	32	65	79	15	12	6.6	4.8	30	13
27	15	29	67	34	79	67	16	12	7.0	5.6	18	13
28	15	29	59	36	174	57	16	12	6.9	7.7	13	14
29	15	28	55	36	---	47	15	13	6.1	8.7	11	e13
30	15	27	52	36	---	41	15	12	6.6	9.3	9.3	e12
31	15	---	50	53	---	35	---	11	---	12	9.3	---
TOTAL	778	1924	6655	1391	2681	8459	615	409	273.7	182.0	709.5	234.9
MEAN	25.1	64.1	215	44.9	95.7	273	20.5	13.2	9.12	5.87	22.9	7.83
MAX	118	289	2050	92	596	1130	31	15	15	12	143	20
MIN	15	15	25	32	29	35	14	11	6.1	3.2	5.9	4.9
AC-FT	1540	3820	13200	2760	5320	16780	1220	811	543	361	1410	466

CAL YR 1986 TOTAL 28964.9 MEAN 79.4 MAX 2050 MIN 5.6 AC-FT 57450
WTR YR 1987 TOTAL 24312.1 MEAN 66.6 MAX 2050 MIN 3.2 AC-FT 48220

e Estimated

GILA RIVER BASIN

09469000 SAN CARLOS RESERVOIR AT COOLIDGE DAM, AZ

LOCATION.--Lat 33°10'32", long 110°31'38", in NW¼ sec.17, T.3 S., R.18 E. (unsurveyed), Gila County, Hydrologic Unit 15040005, in San Carlos Indian Reservation, at right intake tower of Coolidge Dam on Gila River.

DRAINAGE AREA.--12,886 mi².

REVISED RECORDS.--WSP 1049: 1929, 1934, 1937-38. WSP 1283: Drainage area.

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Jan. 15, 1937, series of stakes with tops at known elevations for reference points on right bank about 1,000 ft upstream from dam. Jan. 15, 1937, to Dec. 31, 1947, water-stage recorder at present site at datum 0.72 ft lower.

REMARKS.--Reservoir is formed by concrete multiple-dome dam. Dam completed Oct. 25, 1928; storage began Nov. 15, 1928. Usable capacity (from capacity table computed by San Carlos Irrigation District, based on an estimate of sediment deposited since 1966; used since Jan. 1, 1982) 935,000 acre-ft between elevations 2,382.63 ft, sill of lowest outlet gate, and 2,512.3 ft, crest of spillway. No dead storage. Figures given herein represent usable contents. Reservoir is used to store water for irrigation of San Carlos project and for power development, dependent on irrigation demands. Spill over Coolidge Dam because of capacity storage has occurred April 22 to May 5, 1979, Feb. 24 to Mar. 13, 1980, Oct. 4-23, 28-31, Dec. 3-13, 1983, Jan. 2 to June 5, 1985.

COOPERATION.--Wire-weight gage readings furnished by U.S. Bureau of Indian Affairs.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,090,000 acre-ft Feb. 26 to Mar. 6, 1980; maximum elevation observed, 2,520.3 ft Feb. 28, 1980; no usable contents at times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 792,000 acre-ft Apr. 25-30, elevation, 2,503.7 ft; minimum, 496,000 acre-ft Sept. 30, elevation, 2,482.3 ft.

Capacity table (elevation, in feet, and usable contents, in acre-ft)

2,480	468,000	2,495	660,000
2,485	528,000	2,500	734,000
2,490	592,000	2,505	812,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602000	621000	665000	718000	743000	757000	782000	791000	757000	676000	586000	526000
2	602000	622000	665000	719000	745000	759000	782000	791000	755000	673000	586000	524000
3	600000	625000	666000	719000	745000	762000	782000	791000	752000	670000	585000	521000
4	600000	629000	666000	720000	746000	764000	781000	791000	750000	667000	583000	520000
5	600000	633000	666000	722000	748000	767000	779000	791000	748000	663000	581000	518000
6	600000	637000	669000	724000	748000	768000	779000	791000	746000	660000	580000	516000
7	600000	640000	674000	725000	748000	770000	779000	789000	744000	658000	577000	514000
8	600000	643000	678000	725000	748000	770000	779000	789000	742000	654000	575000	513000
9	600000	644000	681000	726000	749000	771000	779000	789000	739000	652000	573000	511000
10	600000	645000	684000	728000	749000	773000	779000	787000	737000	648000	572000	509000
11	602000	648000	687000	728000	751000	774000	781000	787000	733000	645000	571000	508000
12	603000	649000	688000	728000	752000	774000	781000	785000	733000	643000	569000	507000
13	603000	649000	690000	729000	752000	776000	781000	785000	731000	639000	568000	506000
14	606000	651000	691000	731000	752000	778000	781000	783000	727000	635000	567000	504000
15	608000	652000	693000	732000	752000	779000	782000	781000	725000	631000	565000	502000
16	610000	654000	694000	734000	752000	781000	785000	779000	723000	629000	563000	502000
17	611000	654000	696000	735000	752000	781000	785000	778000	721000	626000	561000	501000
18	611000	655000	697000	735000	752000	782000	785000	778000	717000	624000	559000	499000
19	612000	656000	698000	735000	752000	784000	785000	776000	715000	622000	557000	498000
20	612000	656000	700000	735000	752000	785000	787000	772000	711000	618000	554000	497000
21	612000	658000	701000	735000	752000	785000	787000	772000	706000	616000	552000	497000
22	614000	658000	703000	737000	751000	784000	789000	772000	702000	614000	549000	497000
23	614000	659000	704000	737000	751000	784000	789000	770000	699000	611000	547000	497000
24	614000	660000	706000	738000	751000	784000	789000	770000	696000	607000	544000	497000
25	615000	660000	709000	738000	752000	784000	792000	767000	694000	603000	542000	497000
26	617000	662000	710000	740000	754000	784000	792000	765000	691000	599000	540000	497000
27	618000	662000	712000	740000	756000	784000	792000	763000	687000	597000	538000	497000
28	618000	663000	713000	740000	756000	784000	792000	761000	685000	596000	535000	497000
29	619000	663000	715000	740000	---	784000	792000	761000	682000	592000	533000	497000
30	619000	663000	716000	742000	---	782000	792000	759000	679000	590000	531000	496000
31	619000	---	716000	742000	---	782000	---	757000	---	588000	529000	---
MAX	619000	663000	716000	742000	756000	785000	792000	791000	757000	676000	586000	526000
MIN	600000	621000	665000	718000	743000	757000	779000	757000	679000	588000	529000	496000
(*)	2492.0	2495.2	2498.8	2500.5	2501.4	2503.1	2503.7	2501.5	2496.2	2489.7	2485.0	2482.3
(**)	+17000	+44000	+53000	+26000	+14000	+26000	+10000	-35000	-78000	-91000	-59000	-33000

CAL YR 1986 MAX 905000 MIN 600000 (***) -114000
WTR YR 1987 MAX 792000 MIN 496000 (***) -106000

(*) Elevation, in feet, at end of month.

(**) Change in contents, in acre-feet.

09469500 GILA RIVER BELOW COOLIDGE DAM, AZ

LOCATION.--Lat 33°10'10", long 110°31'50", in SW $\frac{1}{4}$ sec.17, T.3 S., R.18 E. (unsurveyed), Pinal County, Hydrologic Unit 15050100, on left bank 2,200 ft downstream from Coolidge Dam.

DRAINAGE AREA.--12,886 mi².

PERIOD OF RECORD.--July to October 1899, April 1900 to March 1902, July to September 1902, December 1902 to December 1904, January to May 1905 (gage heights only), June to November 1905; August 1910 to February 1911 (gage heights only); April 1914 to current year. Published as "at San Carlos" 1899-1911, as "near San Carlos" 1914-26, and as "at Coolidge Dam" 1927-38.

REVISED RECORDS.--WSP 629: 1915-16. WSP 1049: 1899-1904. WSP 1149: 19M), 1921, 1922(M), 1923, 1924(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 2,309.33 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 5, 1911, nonrecording gage at various sites and datums upstream from mouth of San Carlos River. Apr. 29, 1914, to Mar. 8, 1937, water-stage recorder at various sites within 1 mi upstream from present site at different datums. Mar. 27, 1979 to Oct. 10, 1980, and since Oct. 4, 1983, supplementary water-stage recorder at site on left bank 1,000 ft upstream at datum 2,309.5 ft above NGVD, used above discharges at approximately 1,570 ft³/s, maximum capacity of parshall flume.

REMARKS.--No estimated daily discharges. Records excellent except those below 20 ft³/s, which are fair. Flow regulated by San Carlos Reservoir since Nov. 15, 1928. (See sta 09469000.) Record includes flow of Warm Springs, which enters between dam and gage. Large diversions above San Carlos Reservoir for irrigation, metallurgical treatment of ore, and municipal supply; about 69,000 acres of land was irrigated, a considerable portion by pumping from ground water.

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir).--75 years (water years 1901, 1904, 1915-87) 383 ft³/s, 277,500 acre-ft/yr; median of yearly mean discharges, 230 ft³/s, 167,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1914-28: Maximum discharge, 130,000 ft³/s Jan. 20, 1916, estimated on basis of peak discharge near Solomon and at Kelvin; no flow at times.
1928-87: Maximum discharge, 5,020 ft³/s Oct. 6, 1983, gage height, 10.7 ft, at supplementary gage; no flow at times prior to 1938; minimum daily since 1938, 0.40 ft³/s in several years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,370 ft³/s July 11-17, 22, 28, 29; minimum daily, 1.3 ft³/s Nov. 8, 9, 11-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	2.2	187	2.4	183	128	806	719	967	1330	1320	1110
2	108	2.2	223	2.5	183	128	799	736	1010	1340	1320	1100
3	108	2.0	248	2.6	183	129	800	735	1040	1350	1320	1090
4	108	1.7	257	2.5	183	220	800	734	1040	1350	1320	1070
5	109	1.6	223	2.6	166	425	772	733	1040	1350	1320	977
6	109	1.4	174	2.4	154	554	737	733	1080	1350	1320	925
7	93	1.6	104	2.0	154	606	723	762	1110	1350	1320	896
8	77	1.3	59	2.0	154	719	700	812	1140	1350	1320	868
9	74	1.3	37	2.0	154	820	685	832	1180	1340	1320	790
10	76	1.8	27	23	154	861	667	833	1190	1360	1320	728
11	78	1.3	27	36	181	901	635	848	1210	1370	1320	690
12	78	1.3	27	43	244	967	629	862	1210	1370	1320	637
13	76	1.3	27	49	272	997	617	894	1210	1370	1320	587
14	76	1.4	28	49	319	995	595	952	1210	1370	1310	554
15	74	193	27	52	346	1030	584	1010	1210	1370	1300	518
16	29	207	26	54	346	1040	572	1030	1260	1370	1280	473
17	2.4	162	26	54	346	1040	564	1020	1310	1370	1260	445
18	2.0	162	27	61	382	1030	581	1010	1340	1360	1250	374
19	2.0	162	41	66	405	1020	593	1010	1350	1360	1250	333
20	2.0	163	66	83	405	1000	575	1010	1340	1350	1260	323
21	2.1	141	74	97	413	995	564	1010	1330	1360	1270	307
22	2.0	130	60	117	418	995	564	1010	1300	1370	1270	243
23	2.3	114	51	130	422	994	592	988	1300	1360	1270	199
24	2.5	106	51	130	414	966	610	977	1300	1360	1270	118
25	2.8	106	51	130	254	945	629	958	1310	1360	1270	79
26	2.8	104	51	140	138	917	652	946	1320	1360	1260	79
27	2.8	110	65	148	126	900	658	954	1340	1360	1240	79
28	2.9	138	72	170	128	900	676	962	1350	1370	1210	79
29	3.0	154	72	183	---	870	693	966	1350	1370	1200	78
30	2.9	154	71	183	---	854	693	965	1350	1350	1160	77
31	2.4	---	30	183	---	835	---	964	---	1330	1120	---
TOTAL	1446.9	2328.4	2509	2202.0	7227	24781	19765	27975	36697	42080	39610	15826
MEAN	46.7	77.6	80.9	71.0	258	799	659	902	1223	1357	1278	528
MAX	137	207	257	183	422	1040	806	1030	1350	1370	1320	1110
MIN	2.0	1.3	26	2.0	126	128	564	719	967	1330	1120	77
AC-FT	2870	4620	4980	4370	14330	49150	39200	55490	72790	83470	78570	31390
CAL YR	1986	TOTAL	199824.1	MEAN	547	MAX	1330	MIN	1.3	AC-FT	396400	
WTR YR	1987	TOTAL	222447.3	MEAN	609	MAX	1370	MIN	1.3	AC-FT	441200	

09470000 GILA RIVER AT WINKELMAN, AZ

LOCATION (REVISED).--Lat 33°00'21", long 110°45'21", in SW¼SW¼ sec.7, T.5 S., R.15 E., Gila County, Hydrologic Unit 15050100, on right bank 1.2 mi north of Winkelman, 2.4 mi upstream from San Pedro River, and 29 mi downstream from Coolidge Dam.

DRAINAGE AREA.--13,268 mi², of which 382 mi² is below Coolidge Dam.

PERIOD OF RECORD.--September 1917 to June 1918, September 1941 to September 1980, July 1984 to current year.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,935 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 10, 1917, to June 27, 1918, nonrecording gage at bridge 1.4 mi downstream at different datum. September 1941 to Jan. 5, 1964, at site about 400 ft upstream at datum 0.81 ft lower. Supplementary nonrecording gage 1.3 mi downstream since Aug. 9, 1963, at datum 13.68 ft lower; supplementary water-stage recorder Jan. 6, 1964, to Nov. 24, 1975, at bridge 1.4 mi downstream at datum 14.76 ft lower. July 1984 to Jan. 16, 1987, at site 0.25 mi downstream at different datums.

REMARKS.--Records good except for the period Oct. 1 to Jan. 15, which are poor. Large diversions above station for irrigation, metallurgical treatment of ore, and municipal supply, but none between Coolidge Dam and this station. About 69,000 acres irrigated in the basin above Coolidge Dam, a considerable portion by pumping from ground water. Flow regulated by San Carlos Reservoir (See sta 09469000).

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir).--42 years (water years 1942-80, 1985-87), 323 ft³/s, 234,000 acre-ft/yr; median of yearly mean discharges, 190 ft³/s, 138,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,000 ft³/s of which 500 ft³/s was released by Coolidge Dam, Aug. 9, 1944, gage height, 18.40 ft, from rating curve extended above 2,900 ft³/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge during period Oct. 1980 to June 1984, 17,000 ft³/s, Oct. 2, 1983, gage height 16.0 ft, from flood mark, from rating curve extended above 8,000 ft³/s, (no significant release from Coolidge Dam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft³/s, July 19, gage height, 5.26 ft, unadjusted for release from Coolidge Dam; minimum daily, 21 ft³/s Oct. 24 to Nov. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e190	e21	e200	e60	232	355	863	736	955	1280	1270	1160
2	e150	e21	e220	e50	231	323	841	734	977	1270	1270	1140
3	e130	e21	e230	e40	227	293	841	716	1020	1270	1280	1140
4	e115	e21	e250	e30	206	297	847	716	1010	1270	1290	1130
5	e110	e21	e250	e27	204	459	837	716	1030	1270	1310	1100
6	e110	e21	e220	e27	176	636	794	719	1080	1280	1310	1010
7	e110	e21	e150	e25	172	665	761	727	1090	1280	1300	993
8	e100	e21	e100	e25	172	768	747	771	1090	1290	1300	952
9	e80	e21	e80	e24	172	892	712	815	1100	1290	1300	908
10	e75	e21	e50	e24	171	994	709	813	1140	1290	1290	819
11	e74	e21	e45	e30	172	964	675	812	1160	1300	1300	783
12	e75	e21	e40	e40	219	986	648	833	1190	1310	1300	720
13	e78	e21	e40	e50	288	1020	643	867	1200	1310	1300	677
14	e78	e21	e40	e66	298	1030	621	917	1200	1320	1280	582
15	e78	e40	e38	e66	359	1030	600	988	1190	1320	1250	550
16	e70	e160	e38	65	364	1110	593	1030	1200	1320	1250	504
17	e40	e210	e38	76	374	1100	570	1030	1240	1310	1240	481
18	e35	e200	e38	75	390	1090	569	1030	1260	1320	1220	448
19	e30	e190	e40	82	450	1070	593	1030	1300	1330	1230	358
20	e27	e180	e50	86	459	1060	586	993	1290	1290	1230	365
21	e25	e170	e66	107	464	1040	558	989	1310	1280	1240	363
22	e23	e160	e72	115	483	1040	557	988	1300	1300	1240	310
23	e22	e160	e64	143	488	1040	562	996	1230	1290	1250	249
24	e21	e150	e60	146	488	1030	603	971	1250	1290	1270	218
25	e21	e140	e60	146	543	994	614	959	1250	1300	1270	123
26	e21	e130	e60	149	500	987	643	934	1270	1290	1280	97
27	e21	e130	e62	162	381	952	668	929	1270	1290	1270	90
28	e21	e150	e68	167	362	947	680	937	1290	1300	1250	87
29	e21	e160	e74	193	---	936	738	950	1280	1300	1220	85
30	e21	e180	e74	198	---	900	728	951	1280	1300	1200	81
31	e21	---	e70	208	---	897	---	954	---	1290	1170	---
TOTAL	1993	2804	2887	2702	9045	26905	20401	27551	35452	40150	39180	17523
MEAN	64.3	93.5	93.1	87.2	323	868	680	889	1182	1295	1264	584
MAX	190	210	250	208	543	1110	863	1030	1310	1330	1310	1160
MIN	21	21	38	24	171	293	557	716	955	1270	1170	81
AC-FT	3950	5560	5730	5360	17940	53370	40470	54650	70320	79640	77710	34760

CAL YR 1986 TOTAL 212857 MEAN 583 MAX 1750 MIN 21 AC-FT 422200
WTR YR 1987 TOTAL 226593 MEAN 621 MAX 1330 MIN 21 AC-FT 449400

e Estimated

09471000 SAN PEDRO RIVER AT CHARLESTON, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 31°37'33", long 110°10'26", in NE¼NE¼ sec.11, T.21 S., R.21 E., Cochise County, Hydrologic Unit 15050202, in Spanish land grant of San Juan de las Boquillas y Nogales, at downstream side of pier near center of highway bridge, 0.3 mi south of Charleston, 1.5 mi upstream from Charleston damsite, and 9 mi upstream from Babocomari River.

DRAINAGE AREA.--1,219 mi², of which 696 mi² is in Mexico.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January and February 1904 (gage heights only); March 1904 to August 1906; November 1910 to December 1911 (gage heights only); September 1912 to current year. Monthly discharge only October 1926 to May 1928 and December 1933 to April 1935, published in WSP 1313. Published as "near Lewis Springs" 1910-11, and as "near Fairbank" 1911-26.

REVISED RECORDS.--WSP 1119: 1939(M). WSP 1213: 1914, 1916(M), 1918(M), 1919, 1920(M), 1922-23(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,954.01 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1942, nonrecording gage or water-stage recorder at various sites within 6.5 mi downstream at different datums.

REMARKS.--Records fair except for periods of estimated daily record, which are poor. Diversions above station, mostly by pumping from ground water, for irrigation of 3,200 acres in 1978, excluding an unknown amount in Mexico. Record shows flow available at Charleston damsite.

AVERAGE DISCHARGE.--76 years (water years 1905, 1913-87), 59.2 ft³/s, 42,890 acre-ft/yr; median of yearly mean discharges, 48 ft³/s, 34,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 98,000 ft³/s Sept. 28, 1926, gage height, 21.9 ft, site and datum then in use, by slope-area measurement of peak flow; minimum since 1928, 0.30 ft³/s July 14-16, 1982, gage height, 1.83 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 4	0430	*3,290	*6.70

Minimum daily discharge, 1.4 ft³/s July 11-14, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	15	22	19	27	17	17	5.6	1.7	5.4	e15
2	10	12	15	22	19	27	17	15	5.2	1.6	4.0	e12
3	10	21	14	22	19	25	17	15	4.3	1.6	3.1	e10
4	10	19	15	22	18	24	17	14	32	1.5	510	e12
5	10	19	15	22	18	23	e17	14	4.5	1.5	264	e51
6	10	18	15	22	17	23	e17	12	16	1.5	e25	e40
7	10	18	16	22	16	22	e16	12	10	1.5	e8.0	e14
8	10	17	15	22	16	22	16	12	e5.0	1.5	e43	e10
9	10	17	15	22	16	21	16	12	e5.0	1.5	e115	e9.5
10	10	17	15	22	17	21	16	12	e5.0	1.5	e38	e9.0
11	10	17	15	21	17	21	16	12	e5.0	1.4	e228	e8.5
12	11	17	15	21	16	21	15	11	e4.0	1.4	e31	e8.0
13	10	17	15	20	17	20	14	11	e4.0	1.4	e118	e7.5
14	11	17	15	21	17	20	14	11	e4.0	1.4	e24	e7.0
15	10	17	19	21	17	19	14	10	e4.0	2.0	e9.2	e6.5
16	11	17	24	20	17	19	14	10	e4.0	5.2	e7.2	e6.5
17	10	16	75	20	17	19	14	9.2	e4.0	2.6	e6.3	e6.0
18	10	17	90	20	17	19	12	7.7	e4.0	1.7	e5.2	e5.8
19	10	17	80	20	17	19	14	7.0	e4.0	1.6	e35	e5.4
20	10	16	48	20	17	18	13	8.3	e3.0	e1.6	e52	e5.0
21	10	16	38	20	18	18	13	9.4	e3.0	e1.6	e14	e4.6
22	10	16	32	20	18	18	13	7.5	e3.0	e1.6	e208	e4.0
23	10	16	29	20	18	18	12	e6.5	e3.0	e1.5	e55	e353
24	10	16	27	20	18	18	12	e6.5	e3.0	e1.5	e23	e125
25	10	16	26	20	20	18	11	e6.3	e3.0	e1.4	16	140
26	10	15	24	20	24	18	11	e6.3	e3.0	e1.9	64	73
27	10	15	23	20	25	18	16	e6.1	e3.0	e3.1	176	58
28	10	15	23	20	26	17	79	e6.1	e2.0	e3.1	35	52
29	11	15	22	19	---	17	27	6.1	e2.0	36	30	49
30	11	15	22	19	---	17	19	5.8	1.8	6.5	23	47
31	12	---	22	19	---	16	---	5.6	---	3.2	19	---
TOTAL	317	492	834	641	511	623	519	304.4	159.4	97.1	2194.4	1154.3
MEAN	10.2	16.4	26.9	20.7	18.2	20.1	17.3	9.82	5.31	3.13	70.8	38.5
MAX	12	21	90	22	26	27	79	17	32	36	510	353
MIN	10	11	14	19	16	16	11	5.6	1.8	1.4	3.1	4.0
AC-FT	629	976	1650	1270	1010	1240	1030	604	316	193	4350	2290

CAL YR	1986	TOTAL	12940.3	MEAN	35.5	MAX	1700	MIN	1.4	AC-FT	25670
WTR YR	1987	TOTAL	7846.6	MEAN	21.5	MAX	510	MIN	1.4	AC-FT	15560

e Estimated

09471000 SAN PEDRO RIVER AT CHARLESTON, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1986 to September 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
DEC 1986													
16...	1400	23	490	--	--	15.5	--	--	12.0	--	<10	K10	
FEB 1987													
27...	1300	27	510	8.00	8.5	13.5	38	655	10.2	114	<10	<1	
MAY													
05...	1530	13	495	--	--	25.0	86	656	7.3	103	--	76	
28...	1600	6.0	450	--	21.5	29.0	37	654	6.6	101	<10	140	
JUL													
30...	1600	5.8	300	8.00	--	30.0	710	655	5.8	90	31	4200	
SEP													
17...	1330	5.9	480	8.50	26.0	28.0	53	655	6.7	100	30	88	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
DEC 1986													
16...	52	--	0	--	--	--	--	--	--	--	--	--	--
FEB 1987													
27...	78	180	8	54	12	38	1	2.5	--	--	--	64	
MAY													
05...	280	170	0	50	12	39	1	2.9	--	--	--	60	
28...	120	150	0	42	12	40	1	2.9	--	--	--	50	
JUL													
30...	9300	110	0	33	5.6	19	0.8	3.8	154	0	126	20	
SEP													
17...	270	180	0	51	13	37	1	7.2	229	7	196	47	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
DEC 1986													
16...	--	--	--	--	--	--	7	--	<0.010	<0.100	0.130	0.050	
FEB 1987													
27...	11	0.50	17	295	307	0.40	60	0.390	0.020	0.300	0.410	0.060	
MAY													
05...	9.7	0.50	22	313	311	0.43	--	--	<0.010	--	<0.100	0.120	
28...	10	0.50	21	285	282	0.39	48	--	<0.010	<0.100	<0.100	0.030	
JUL													
30...	5.8	0.40	14	188	178	0.26	835	--	--	0.300	--	0.020	
SEP													
17...	9.2	0.60	23	260	299	0.35	71	--	0.010	<0.100	<0.100	0.020	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
DEC 1986													
16...	0.040	0.45	0.50	--	--	0.020	0.030	0.020	0.06	0.02	0.01	--	
FEB 1987													
27...	<0.010	0.74	0.80	1.1	4.9	0.030	<0.010	<0.010	--	0.03	--	--	
MAY													
05...	0.110	0.58	0.70	--	--	0.100	0.010	<0.010	--	0.10	0.01	20	
28...	0.040	0.47	0.50	--	--	0.050	0.030	0.010	0.03	0.05	0.02	<10	
JUL													
30...	--	--	--	--	--	--	--	--	--	--	--	--	
SEP													
17...	<0.010	--	<0.20	--	--	0.060	<0.010	<0.010	--	0.06	--	20	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09471000 SAN PEDRO RIVER AT CHARLESTON, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 1986												
16...	3	--	--	--	60	<1	--	3	--	--	11	--
FEB 1987												
27...	3	2	110	--	60	<1	<1	3	<1	--	15	4
MAY												
05...	--	3	120	<0.5	--	--	1	--	<1	<3	--	5
28...	3	2	130	<0.5	70	<1	<1	<1	2	<3	14	4
JUL												
30...	2	3	<100	--	40	--	<1	--	<1	--	--	7
SEP												
17...	4	4	110	<0.5	70	<1	<1	2	<1	<3	24	9

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
DEC 1986											
16...	230	--	<5	--	--	40	--	0.30	--	--	--
FEB 1987											
27...	1500	8	<5	<5	--	100	14	<0.10	--	--	--
MAY											
05...	--	26	--	<5	34	--	22	--	<0.1	<10	<1
28...	1200	8	5	<5	39	100	20	<0.10	<0.1	<10	<1
JUL											
30...	--	60	--	<5	--	--	10	<0.10	--	--	--
SEP											
17...	2200	12	<5	<5	28	130	23	<0.10	<0.1	<10	<1

DATE	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR) (01082)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
DEC 1986											
16...	<1	--	--	--	--	--	10	--	77	27	1.7
FEB 1987											
27...	<1	<1	<1.0	--	--	--	10	9	90	97	7.1
MAY											
05...	--	<1	<1.0	--	480	<6	--	5	88	154	5.4
28...	<1	<1	<1.0	--	490	<6	20	14	--	--	--
JUL											
30...	<1	<1	<1.0	230	--	--	--	20	100	953	15
SEP											
17...	<1	1	<1.0	490	490	<6	20	3	78	27	0.43

< Actual value is known to be less than value shown.

09472000 SAN PEDRO RIVER NEAR REDINGTON, AZ

LOCATION.--Lat 32°22'50", long 110°26'45", in NE¼NW¼ sec.19, T.12 S., R.19 E., Cochise County, Hydrologic Unit 15050203, on left bank, 0.3 mi upstream from Cochise-Pima County line, 4.3 mi southeast of Redington, and 30 mi north of Benson.

DRAINAGE AREA.--2,939 mi², of which 696 mi² is in Mexico.

PERIOD OF RECORD.--June 1943 to June 1947, July 1950 to current year (monthly discharge only, July 1954 to March 1955). Also extremes for water years 1948-50, published in WSP 1179.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder, and, since Aug. 26, 1981, crest-stage gage. Datum of gage is 2,930.04 ft above National Geodetic Vertical Datum of 1929. June 1943 to June 1947, and Oct. 1, 1962, to June 27, 1963, at present site at datum 7.49 ft higher. July 1950 to Sept. 30, 1962, at site 400 ft upstream at datum 10.47 ft higher. Supplementary water-stage recorder 50 ft upstream at same datum since June 29, 1977.

REMARKS.--No estimated daily discharges. Records fair except those below 25 ft³/s, which are poor. Diversions above station for irrigation of about 10,800 acres in 1978, excluding an unknown amount in Mexico. Diversion above gage into formerly used ditch on right bank was placed in operation in January 1972; diversion was observed Apr. 2 and May 6.

AVERAGE DISCHARGE.--40 years (water years 1944-46, 1951-87), 47.2 ft³/s, 34,200 acre-ft/yr; median of yearly mean discharges, 30 ft³/s, 21,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s Aug. 2, 1951, gage height, 20.2 ft, present site and datum, from rating curve extended above 16,000 ft³/s on basis of slope-area measurement of peak flow, maximum gage height 21.60 ft, Oct. 2, 1983; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1906, about 90,000 ft³/s Sept. 28, 1926, gage height, 29.0 ft, present site and datum, from floodmark, computed on basis of peak discharge of same flood for station at Charleston and for Gila River at Kelvin.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 22	0600	*410	*10.63

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.8	2.4	19	16	33	8.0	24	.00	2.0	1.1	20
2	6.2	6.6	2.4	19	18	31	3.8	19	.00	2.3	5.4	20
3	5.9	11	2.4	19	19	29	.00	16	.00	2.2	17	20
4	5.8	13	2.4	18	18	29	.00	14	.00	2.2	21	20
5	6.4	6.8	2.4	19	17	27	.00	11	.00	2.8	77	20
6	6.5	6.7	2.4	18	16	23	.00	3.6	.00	3.3	71	20
7	6.2	6.7	24	17	15	22	.00	.00	26	3.0	47	28
8	5.8	6.5	22	17	16	22	.00	.00	13	2.4	24	26
9	5.8	6.5	10	16	18	20	.00	.00	9.6	1.7	24	23
10	7.0	6.4	8.9	15	17	20	.00	.00	8.1	1.2	38	22
11	7.0	6.4	8.2	14	14	18	.00	.00	7.3	1.1	67	22
12	11	6.5	7.9	14	12	17	.00	.00	7.0	1.0	66	22
13	7.4	6.4	8.4	15	9.9	16	.00	.00	6.8	1.1	50	22
14	6.9	6.4	8.4	11	9.5	16	.00	.00	6.6	.86	41	22
15	6.9	6.6	8.2	.00	9.6	17	.00	.00	6.4	1.2	50	22
16	7.4	6.6	9.6	.00	10	18	.00	.00	6.1	3.3	34	22
17	7.4	6.6	44	.00	11	18	.00	.00	5.9	3.3	23	22
18	7.6	6.8	32	.00	11	16	.00	.00	5.7	2.3	21	22
19	7.3	6.7	32	.00	11	16	.00	.00	5.5	1.6	20	22
20	6.9	6.6	34	5.1	6.9	16	.00	.00	5.5	.92	20	22
21	6.7	6.6	32	15	.00	16	.00	.00	5.2	.85	20	22
22	6.5	6.5	30	14	.00	16	.00	.00	4.6	1.2	86	21
23	6.3	6.5	28	16	.00	16	.00	.00	4.4	1.2	58	21
24	6.1	6.5	26	19	.00	16	.00	.00	4.5	.74	54	63
25	6.1	4.7	24	17	8.7	16	.00	.00	4.6	.69	44	55
26	6.1	2.5	22	16	19	15	.00	.00	4.3	.66	41	38
27	6.3	2.4	21	16	28	15	.00	.00	4.2	.68	55	42
28	6.3	2.5	20	15	33	15	34	.00	3.1	1.3	55	30
29	6.2	2.5	18	15	---	15	27	.00	2.6	2.1	46	24
30	6.0	2.4	18	14	---	13	31	.00	2.3	1.8	31	21
31	5.8	---	19	15	---	9.8	---	.00	---	1.4	24	---
TOTAL	206.0	184.7	530.0	408.10	363.60	586.8	103.80	87.60	159.30	52.40	1231.5	776
MEAN	6.65	6.16	17.1	13.2	13.0	18.9	3.46	2.83	5.31	1.69	39.7	25.9
MAX	11	13	44	19	33	33	34	24	26	3.3	86	63
MIN	5.8	2.4	2.4	.00	.00	9.8	.00	.00	.00	.66	1.1	20
AC-FT	409	366	1050	809	721	1160	206	174	316	104	2440	1540
CAL YR	1986	TOTAL	9881.82	MEAN	27.1	MAX	1140	MIN	.00	AC-FT	19600	
WIR YR	1987	TOTAL	4689.80	MEAN	12.8	MAX	86	MIN	.00	AC-FT	9300	

09473000 ARAVAIPA CREEK NEAR MAMMOTH, AZ

LOCATION.--Lat 32°50'37", long 110°37'09", in NW¼NW¼ sec.9, T.7 S., R.17 E., Pinal County, Hydrologic Unit 15050203, on right bank 6 mi upstream from mouth and 9 mi north of Mammoth.

DRAINAGE AREA.--541 mi².

PERIOD OF RECORD.--May 1931 to December 1942 (published as "near Feldman"), May 1966 to current year. Monthly discharge only July 1941 to December 1942, published in WSP 1313.

REVISED RECORDS.--WDR AZ-68-1: 1967. WDR AZ-82-1: 1968, 1969, 1973, 1979 (M).

GAGE.--Water-stage recorder and, since March 1980, crest-stage gage. Elevation of gage is 2,345 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1981 to Oct. 1, 1983 gage at site 300 ft upstream at datum 4.19 ft higher. Prior to Oct. 1, 1981, at datum 1.00 ft higher. May 1931 to December 1942 at site 0.3 mi downstream at different datum.

REMARKS.--Records fair except for periods of estimated daily discharge, which are poor. Diversions for irrigation of several hundred acres above station.

AVERAGE DISCHARGE.--32 years, 35.7 ft³/s, 25,860 acre-ft/yr; median of yearly mean discharges, 24 ft³/s, 17,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since at least 1931, 70,800 ft³/s Oct. 1, 1983, from slope-area measurement of peak flow, gage height, 16.76 ft, from profile past gage; minimum, 0.3 ft³/s Aug. 30, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 20,000 ft³/s occurred Aug. 2, 1919, at site of former gaging station 6 mi downstream, operated April 1919 to September 1921, gage height, 6.3 ft, from floodmark, site and datum then in use, from rating curve extended above 5,100 ft³/s on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*), from rating curve extended above 130 ft³/s on the basis of slope area measurement at gage height 16.76 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0430	*1,320	*4.46

Minimum daily discharge, 12 ft³/s, July 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	24	24	e26	54	135	22	28	e24	15	29	22
2	22	33	23	e27	36	122	22	27	e23	14	24	21
3	23	31	24	e27	30	100	23	25	e23	13	22	22
4	24	29	23	e28	27	81	38	26	e23	13	23	24
5	24	27	23	34	27	87	44	26	e24	12	30	25
6	24	25	44	32	26	78	48	26	42	13	21	25
7	24	33	309	29	23	62	44	26	54	15	24	24
8	24	26	260	27	24	48	38	26	e26	15	19	26
9	24	27	72	27	24	35	34	26	e23	16	16	27
10	38	25	51	27	25	200	31	26	e20	16	19	28
11	54	24	44	30	24	135	29	25	e19	17	22	29
12	467	24	40	30	25	81	31	26	e18	18	20	29
13	71	24	38	27	25	53	30	26	e17	18	18	25
14	39	23	36	28	25	40	28	26	e16	18	15	25
15	29	22	36	29	26	33	28	26	e15	25	15	25
16	25	22	33	34	29	97	27	25	e15	24	14	26
17	23	22	41	33	29	84	26	26	e15	26	18	25
18	22	23	46	31	29	58	26	26	e14	24	17	26
19	22	32	40	30	28	42	27	26	e14	25	16	24
20	23	27	35	30	28	34	28	26	e14	24	17	22
21	24	25	35	31	29	30	26	27	e14	23	24	22
22	24	24	34	29	29	33	26	25	e14	24	26	21
23	26	23	32	30	30	32	26	25	14	23	25	24
24	23	21	31	29	33	29	26	e25	14	24	23	25
25	23	22	32	29	128	29	26	e24	14	27	28	22
26	22	23	30	30	271	27	26	e24	14	22	26	21
27	24	23	e28	30	202	26	26	e24	14	21	25	20
28	24	24	e27	31	151	24	27	e25	15	22	22	21
29	23	24	e27	31	---	24	26	e25	15	25	22	21
30	24	23	e27	31	---	22	28	26	15	28	23	35
31	24	---	e26	46	---	23	---	26	---	50	22	---
TOTAL	1285	755	1571	933	1437	1904	887	796	582	650	665	732
MEAN	41.5	25.2	50.7	30.1	51.3	61.4	29.6	25.7	19.4	21.0	21.5	24.4
MAX	467	33	309	46	271	200	48	28	54	50	30	35
MIN	22	21	23	26	23	22	22	24	14	12	14	20
AC-FT	2550	1500	3120	1850	2850	3780	1760	1580	1150	1290	1320	1450
CAL YR 1986	TOTAL	15276	MEAN	41.9	MAX	589	MIN	16	AC-FT	30300		
WTR YR 1987	TOTAL	12197	MEAN	33.4	MAX	467	MIN	12	AC-FT	24190		

e Estimated

GILA RIVER BASIN

09473100 SAN PEDRO RIVER BELOW ARAVAIPA CREEK NEAR MAMMOTH, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 32°51'03", long 110°43'27", in SE¼NE¼SE¼ sec.5, T.7 S., R.16 E., Pinal County, Hydrologic Unit 15050203, at former gaging station, 1.0 mi downstream from mouth of Aravaipa Creek, 10 mi north of Mammoth, and 11 mi upstream from mouth.

DRAINAGE AREA.--4,360 mi²; of which 696 mi² is in Mexico.

PERIOD OF RECORD.--

CHEMICAL QUALITY DATA: October 1980 to September 1986.

SUSPENDED SEDIMENT DATA: October 1980 to current year.

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986					
01...	1115	8.8	25.5	116	2.8
NOV					
04...	1055	22	19.5	626	37
24...	1500	22	--	85	5.0
JAN 1987					
07...	1345	22	19.0	218	13
FEB					
03...	1545	26	20.0	110	7.8
MAR					
10...	1100	41	--	177	20
JUN					
02...	1220	15	31.0	--	--
JUL					
07...	1530	10	30.0	20	0.55

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
MAR 1987								
10...	1100	41	1	15	56	85	96	100

09474000 GILA RIVER AT KELVIN, AZ

LOCATION.--Lat 33°06'10", long 110°58'33", in NE¼NW¼ sec.12, T.4 S., R.13 E., Pinal County, Hydrologic Unit 15050100, on left bank at Kelvin, 500 ft downstream from Mineral Creek, 18 mi downstream from San Pedro River, and 19 mi upstream from Ashurst-Hayden Dam.

DRAINAGE AREA.--18,011 mi², of which 5,125 mi² is below Coolidge Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1911 to current year.

REVISED RECORDS.--WSP 329: 1911. WSP 609: 1916(M). WSP 629: 1914-17. WSP 1119: 1913, 1915, 1917(M), 1921(M), 1922-23, 1927(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,745.02 ft above National Geodetic Vertical Datum of 1929. Prior to June 15, 1914, and Dec. 1, 1914, to Aug. 31, 1915, nonrecording gages at several sites within 2 mi of present site at different datums. Sept. 1, 1915, to Sept. 30, 1963, water-stage recorder at site 900 ft downstream at datum 1.80 ft lower. Since Jan. 16, 1985, supplementary water-stage recorder at same site.

REMARKS.--Records good. Large diversions above station for irrigation, of which about 90 percent is above Coolidge Dam. About 82,000 acres irrigated, a considerable portion by pumping from ground water. Flow regulated by San Carlos Reservoir 49 mi upstream since Nov. 15, 1928. (See sta 09469000.) San Pedro River contributes major portion of unregulated inflow.

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir).--76 years, 505 ft³/s, 365,900 acre-ft/yr; median of yearly mean discharges, 340 ft³/s, 246,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1911-28: Maximum discharge, about 132,000 ft³/s Jan. 20, 1916, gage height, 19.5 ft, site and datum then in use, from rating curve extended above slope-area measurement at gage height, 16.2 ft for flood of Sept. 28, 1926; no flow Feb. 25, 1913.
1929-87: Maximum discharge, 100,000 ft³/s Oct. 2, 1983, gage height, 33.0 ft from floodmark, from rating curve extended above 12,000 ft³/s on basis of peak discharge computed by step-backwater method at Hayden Railroad Bridge, 17.8 mi upstream, and by flood-routing; minimum daily, 0.1 ft³/s June 25, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 4	2100	*1,670	*6.77

Minimum daily discharge, 49 ft³/s, Oct. 30 to Nov. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	49	199	124	250	551	881	745	932	1340	1360	1170
2	204	61	219	98	248	521	858	766	939	1330	1370	1140
3	168	73	249	88	241	459	856	765	993	1340	1360	1130
4	158	72	271	84	239	385	864	756	1000	1360	1390	1110
5	152	62	283	88	240	397	869	753	1010	1350	1380	1080
6	141	60	281	93	228	554	833	747	1050	1370	1420	974
7	128	65	392	85	215	627	804	758	1090	1360	1410	942
8	122	60	926	83	214	654	813	795	1090	1370	1420	889
9	108	57	365	84	214	756	765	826	1110	1350	1430	859
10	129	57	212	82	214	812	752	837	1140	1340	1450	774
11	131	55	154	76	215	988	731	842	1140	1350	1510	743
12	440	54	127	83	233	936	706	850	1170	1350	1490	679
13	258	51	114	93	623	955	695	853	1180	1210	1460	624
14	140	54	106	101	596	954	680	886	1170	1370	1470	582
15	119	56	100	106	368	964	658	943	1170	1360	1410	552
16	112	123	97	114	365	1030	649	988	1180	1360	1420	511
17	104	189	97	117	370	1080	631	989	1220	1360	1410	478
18	83	205	102	115	374	1060	623	980	1250	1350	1410	449
19	70	207	125	115	408	1040	639	984	1280	1350	1340	383
20	e68	189	119	122	424	1030	646	992	1300	1350	1330	360
21	e61	189	133	128	427	1000	615	997	1300	1340	1370	343
22	e59	181	146	147	433	1010	607	989	1300	1360	1390	339
23	e56	172	140	160	437	1010	612	986	1280	1360	1460	280
24	e53	163	124	177	456	1010	637	e960	1270	1370	1440	250
25	54	155	120	177	526	984	648	e940	1300	1380	1430	219
26	53	164	118	178	567	976	671	932	1340	1370	1430	204
27	52	161	117	182	610	947	687	929	1350	1360	1400	165
28	51	163	117	190	559	937	695	931	1350	1370	1390	140
29	50	182	127	206	---	933	713	943	1350	1380	1350	134
30	49	201	128	221	---	901	744	940	1370	1390	1330	125
31	49	---	129	236	---	897	---	938	---	1390	1230	---
TOTAL	3669	3530	5937	3953	10294	26358	21582	27540	35624	41990	43460	17628
MEAN	118	118	192	128	368	850	719	888	1187	1355	1402	588
MAX	440	207	926	236	623	1080	881	997	1370	1390	1510	1170
MIN	49	49	97	76	214	385	607	745	932	1210	1230	125
AC-FT	7280	7000	11780	7840	20420	52280	42810	54630	70660	83290	86200	34970
CAL YR 1986	TOTAL	229504	MEAN	629	MAX	3330	MIN	49	AC-FT	455200		
WTR YR 1987	TOTAL	241565	MEAN	662	MAX	1510	MIN	49	AC-FT	479100		

e Estimated

GILA RIVER BASIN

09474000 GILA RIVER AT KELVIN, AZ--Continued

WATER-QUALITY RECORDS

LOCATION.--Water samples collected at Florence-Kelvin road bridge 200 ft upstream from Mineral Creek, and 700 ft upstream from gaging station.

PERIOD OF RECORD.--December 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1976.

WATER TEMPERATURES: December 1950 to September 1976.

SUSPENDED-SEDIMENT DISCHARGE: January 1958 to September 1976, daily; October 1976 to current year monthly.

REMARKS.--No inflow from Mineral Creek between sampling point and gaging station except during infrequent periods of heavy local rains. Unpublished daily specific conductance measurements for period December 1950 to September 1964 available from district office in Tucson, Ariz.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986										
06...	1045	134	21.0	66	77	90	96	100	21	7.6
NOV										
25...	1000	154	--	84	91	96	100	--	53	22
DEC										
09...	1000	372	10.5	91	95	98	99	100	350	352
JAN 1987										
08...	1245	82	11.0	84	89	95	100	--	96	21
22...	1245	148	9.0	97	98	99	100	--	498	199
FEB										
04...	1030	229	11.0	97	98	99	100	--	499	309
18...	1400	378	12.0	8	39	70	100	--	1000	1020
MAR										
03...	1300	435	14.0	32	55	78	100	--	1350	1590
24...	1130	1040	13.0	18	33	51	67	100	2090	5870
APR										
09...	1200	751	17.0	40	51	70	93	100	142	288
21...	1400	582	22.0	23	41	63	91	100	56	88
MAY										
06...	1700	724	25.0	45	53	70	94	100	128	250
20...	1500	982	--	19	26	51	86	100	208	551
JUN										
02...	1700	879	--	20	27	40	68	100	215	510
23...	1800	1280	18.0	24	35	52	86	100	215	743
JUL										
08...	1100	1370	21.0	26	34	49	85	100	221	817
AUG										
05...	1800	1340	21.0	30	36	41	49	100	452	1640
31...	1715	1180	23.0	71	76	84	91	100	371	1180
SEP										
09...	1630	873	21.5	48	62	74	92	100	136	321

09474000 GILA RIVER AT KELVIN, AZ--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
				% FINER THAN .062 MM (80164)	% FINER THAN .125 MM (80165)	% FINER THAN .250 MM (80166)	% FINER THAN .500 MM (80167)
OCT 1986							
06...	1045	134	21.0	--	1	10	30
NOV							
25...	1000	154	--	--	--	2	14
DEC							
09...	1000	372	10.5	1	2	6	27
JAN 1987							
08...	1245	82	11.0	--	--	3	24
22...	1245	148	9.0	--	1	3	17
FEB							
04...	1030	229	11.0	36	37	40	47
18...	1400	378	12.0	1	3	7	18
MAR							
03...	1300	435	14.0	--	1	8	18
24...	1130	1040	13.0	2	10	20	33
APR							
09...	1200	751	17.0	--	2	15	32
21...	1400	582	22.0	--	3	16	33
MAY							
06...	1700	724	25.0	--	2	7	18
20...	1500	982	--	--	2	9	28
JUN							
02...	1700	879	--	1	5	15	24
23...	1800	1280	18.0	--	--	2	16
JUL							
08...	1100	1370	21.0	--	--	1	13
AUG							
05...	1800	1340	21.0	9	9	10	15
31...	1715	1180	23.0	--	--	2	21
SEP							
09...	1630	873	21.5	--	1	3	14
DATE		BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
		% FINER THAN 1.00 MM (80168)	% FINER THAN 2.00 MM (80169)	% FINER THAN 4.00 MM (80170)	% FINER THAN 8.00 MM (80171)	% FINER THAN 16.0 MM (80172)	% FINER THAN 32.0 MM (80173)
OCT 1986							
06...	64	88	96	99	100	--	--
NOV							
25...	58	83	96	99	100	--	--
DEC							
09...	62	85	96	99	100	--	--
JAN 1987							
08...	62	84	95	100	--	--	--
22...	52	81	95	100	--	--	--
FEB							
04...	58	65	70	77	83	91	100
18...	47	68	79	87	95	100	--
MAR							
03...	40	64	77	80	87	100	--
24...	59	80	89	93	96	100	--
APR							
09...	64	85	93	97	100	--	--
21...	64	76	85	91	98	100	--
MAY							
06...	46	63	72	80	90	100	--
20...	56	82	93	97	100	--	--
JUN							
02...	52	76	87	91	93	100	--
23...	47	72	86	91	93	100	--
JUL							
08...	40	60	71	80	87	96	100
AUG							
05...	33	58	71	78	82	84	100
31...	63	88	97	100	--	--	--
SEP							
09...	48	79	93	98	100	--	--

GILA RIVER BASIN

DIVERSION FROM GILA RIVER

09475500 FLORENCE-CASA GRANDE CANAL, NEAR FLORENCE, AZ

LOCATION.--Lat 33°05'15", long 111°17'10", in NE¼NE¼ sec.14, T.4 S., R.10 E., Pinal County, Hydrologic Unit 15050100, on left bank at China Wash, 2.6 mi downstream from head at Ashurst-Hayden Dam and 7.5 mi northeast of Florence.

PERIOD OF RECORD.--January 1928 to current year (monthly diversions only). Published as a supplement to records for Gila River at Ashurst-Hayden Dam, 1928-80.

GAGE.--Water-stage recorder and Parshall flume. Prior to Jan. 12, 1937, water-stage recorder 900 ft downstream from Ashurst-Hayden Dam.

REMARKS.--Records show monthly diversion from the Gila River at Ashurst-Hayden Dam for irrigation of land under the 100,000 acre San Carlos Project. Diversion records are those at the canal gaging station at the flume 2.6 mi downstream from dam; values are adjusted for sluicing through the dam or from the canal and pumping of water into the canal between the dam and the flume, but are not adjusted for natural losses. Adjusted values show water available at Ashurst-Hayden Dam, except for spill over the dam or water sluiced through the dam during times of flood runoff.

COOPERATION.--Pumping records furnished by Bureau of Indian Affairs.

MONTHLY DIVERSIONS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Discharge, in cubic feet per second			Diversions in acre-feet	Water sluiced above flume (acre-feet)
	Maximum	Minimum	Mean		
October.....	231	0	83.1	5,110	0
November.....	217	0	72.9	4,340	0
December.....	365	110	176	10,840	0
CAL YR 1986.....	1,390	0	569	414,280	2,400
January.....	219	81	128	7,880	0
February.....	602	199	347	19,270	0
March.....	1,120	376	855	52,600	0
April.....	863	517	644	38,320	0
May.....	912	638	793	48,750	0
June.....	1,200	864	1,080	64,060	60
July.....	1,250	1,180	1,220	74,840	99
August.....	1,240	1,100	1,190	73,170	160
September.....	1,060	134	565	33,650	0
WTR YR 1987.....	1,250	0	596	432,830	319

GILA RIVER BASIN

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09479500 GILA RIVER NEAR LAVERN, AZ

LOCATION.--Lat 33°15'25", long 112°09'59", in SW¼NW¼ sec.16, T.2 S., R.2 E., Pinal County, Hydrologic Unit 15050100, in Gila River Indian Reservation, on left abutment of highway bridge, 2.1 mi upstream from Santa Cruz River, 2.6 mi south of Komatke, and 7.3 mi south of Laveen.

DRAINAGE AREA.--20,615 mi², of which 696 mi² is in Mexico.

PERIOD OF RECORD.--January 1940 to September 1946, December 1947 to current year.

GAGE.--Water-stage recorder above concrete diversion dam. Datum of gage is 1,018.90 ft above National Geodetic Vertical Datum of 1929. Since July 9, 1969, supplementary water-stage recorder on overflow channel at highway bridge 0.2 mi south at same datum. Oct. 16, 1940, to July 8, 1969, supplementary staff gage or water-stage recorder on overflow channel at datum 0.23 ft lower.

REMARKS.--No estimated daily discharges. Records fair. Records include flow over dam and in overflow channel. Large diversions above station for irrigation. Most low flow is waste water from irrigated lands and from Chandler, Arizona treatment plant (1979-83). Flow partly regulated by storage in San Carlos Reservoir. (See elsewhere in this report.)

AVERAGE DISCHARGE.--45 years (water years 1941-46, 1949-87), 35.3 ft³/s, 25,570 acre-ft/yr; median of yearly mean discharges, 11 ft³/s, 8,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s Oct. 4, 1983, gage height, 12.08 ft main gage, 12.34 ft overflow gage, result of flow routing computation; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.1 ft³/s, Feb. 25, gage height, 3.91 ft main gage (no flow at overflow gage); no flow most of year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.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	.00	.00
25	.00	.00	.00	.00	3.2	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	1.8	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.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	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.00	.00	.00	.00	.18	.00	.00	.00	.00	.00	.00	.00
MAX	.00	.00	.00	.00	3.2	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	9.9	.0	.0	.0	.0	.0	.0	.0
CAL YR	1986	TOTAL	21.67	MEAN	.059	MAX	8.1	MIN	.00	AC-FT	43	
WTR YR	1987	TOTAL	5.00	MEAN	.014	MAX	3.2	MIN	.00	AC-FT	9.9	

GILA RIVER BASIN

09480000 SANTA CRUZ RIVER NEAR LOCHIEL, AZ

LOCATION.--Lat 31°21'19", long 110°35'20", in SW¼ sec.11, T.24 S., R.17 E. (unsurveyed), Santa Cruz County, Hydrologic Unit 15050301, on southern border of Spanish land grant of San Rafael, near left bank on downstream side of pier of bridge on county road, 1.7 mi upstream from international boundary, and 2.5 mi northeast of Lochiel.

DRAINAGE AREA.--82.2 mi².

PERIOD OF RECORD.--January 1949 to current year.

REVISED RECORDS.--WSP 1733: 1951.

GAGE.--Water-stage recorder. Elevation of gage is 4,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Small diversions for irrigation of 200 acres above station, mostly by pumping from ground water.

AVERAGE DISCHARGE.--38 years, 4.09 ft³/s, 2,960 acre-ft/yr; median of yearly mean discharges, 2.1 ft³/s, 1,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s Oct. 9, 1977 and Aug. 15, 1984, gage height, 10.21 ft and 10.2 ft respectively, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement at gage height 10.21 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 10	1430	*291	*3.82

Minimum daily discharge, 0.08 ft³/s, July 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	1.5	1.2	1.4	1.4	1.4	1.2	.76	.59	.29	.13	.78
2	3.5	1.7	1.2	1.4	1.4	1.3	1.1	.79	.61	.32	.14	.79
3	3.2	1.5	1.2	1.4	1.4	1.3	1.2	.78	.58	.35	.16	.83
4	3.1	1.4	1.2	1.4	1.3	1.3	1.2	.80	.53	.35	.25	1.2
5	3.1	1.4	1.2	1.4	1.2	1.4	1.1	.85	.40	.33	.16	.93
6	3.0	1.3	1.3	1.4	1.2	1.4	1.1	.80	.37	.32	.13	.88
7	2.9	1.2	1.3	1.4	1.2	1.4	1.1	.77	.35	.30	.13	.83
8	2.8	1.2	1.2	1.4	1.3	1.4	1.1	.78	.34	.26	.14	.81
9	2.9	1.2	1.2	1.4	1.4	1.3	1.0	.70	.40	.27	.13	.79
10	3.5	1.2	1.2	1.4	1.3	1.3	1.1	.68	.54	.19	41	.79
11	3.0	1.2	1.1	1.4	1.3	1.3	1.1	.67	.54	.22	2.4	.78
12	2.7	1.2	1.0	1.4	1.3	1.3	1.1	.69	.53	.16	1.1	.78
13	2.5	1.2	1.1	1.4	1.3	1.3	1.1	.69	.53	.12	.93	.79
14	2.3	1.2	1.1	1.4	1.4	1.3	1.1	.71	.53	.14	.87	.79
15	2.3	1.1	1.2	1.4	1.4	1.3	1.1	.69	.57	.20	.86	.80
16	2.2	1.2	1.4	1.4	1.4	1.3	1.1	.65	.57	.21	.86	.80
17	2.1	1.2	4.0	1.4	1.4	1.3	1.1	.66	.53	.19	.84	.84
18	2.0	1.3	2.3	1.4	1.4	1.3	1.1	.69	.52	.17	.79	.83
19	1.8	1.2	1.8	1.4	1.4	1.3	1.1	.62	.57	.17	.78	.78
20	1.8	1.1	1.7	1.4	1.5	1.3	1.1	.53	.55	.16	.77	.70
21	1.7	1.1	1.7	1.4	1.5	1.3	1.0	.47	.52	.17	2.0	.73
22	1.7	1.0	1.6	1.4	1.5	1.2	.90	.45	.47	.17	.97	2.0
23	1.7	1.0	1.6	1.4	1.5	1.2	.75	.45	.40	.16	.80	2.7
24	1.7	1.0	1.6	1.4	1.5	1.2	.68	.47	.38	.16	.78	10
25	1.7	1.1	1.5	1.4	1.9	1.2	.67	.53	.40	.17	.89	4.1
26	1.7	1.2	1.5	1.4	1.9	1.2	.62	.53	.38	.17	1.0	.68
27	1.7	1.2	1.5	1.4	1.4	1.2	.62	.54	.38	.17	.81	.59
28	1.7	1.2	1.4	1.4	1.4	1.2	.64	.60	.27	.12	.79	.56
29	1.6	1.3	1.4	1.4	---	1.1	.70	.62	.27	.08	.88	.54
30	1.5	1.3	1.4	1.4	---	1.1	.76	.58	.33	.09	.80	.54
31	1.5	---	1.4	1.4	---	1.1	---	.58	---	.12	.79	---
TOTAL	72.5	36.9	45.5	43.4	39.5	39.5	29.54	20.13	13.95	6.30	63.08	38.96
MEAN	2.34	1.23	1.47	1.40	1.41	1.27	.98	.65	.46	.20	2.03	1.30
MAX	3.6	1.7	4.0	1.4	1.9	1.4	1.2	.85	.61	.35	.41	10
MIN	1.5	1.0	1.0	1.4	1.2	1.1	.62	.45	.27	.08	.13	.54
AC-FT	144	73	90	86	78	78	59	40	28	12	125	77

CAL YR	1986	TOTAL	1303.31	MEAN	3.57	MAX	560	MIN	.28	AC-FT	2590
WTR YR	1987	TOTAL	449.26	MEAN	1.23	MAX	41	MIN	.08	AC-FT	891

09480500 SANTA CRUZ RIVER NEAR NOGALES, AZ

LOCATION.--Lat 31°20'40", long 110°51'03", in NW¼ sec.18, T.24 S., R.15 E. (unsurveyed), Santa Cruz County, Hydrologic Unit 15050301, in Spanish land grant of Maria Santisima del Carmen, on left bank 0.8 mi downstream from international boundary and 5.5 mi east of Nogales.

DRAINAGE AREA.--533 mi², of which 348 mi² is in Mexico.

PERIOD OF RECORD.--March to November 1907 and April 1909 to December 1912 (discharge measurements and fragmentary gage-height record), January 1913 to June 1922 (October 1915 to September 1916 monthly discharge only), May 1930 to December 1933, July 1935 to current year. Water-year estimates for 1913, 1915-16, 1920-22, 1930, 1934-35, published in WSP 1733.

REVISED RECORDS.--WSP 959: 1935(M). WSP 1213: 1915-16, 1930-32(M), 1934(M), 1936-37(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,702.54 ft above National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission). Prior to June 30, 1922, nonrecording gage or water-stage recorder at various sites 5 to 6 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records poor. Diversions above station of about 4,300 acre-ft/yr for irrigation of about 2,150 acres in Mexico in 1977. Diversion 19 mi upstream for municipal supply of city of Nogales, Sonora, began in 1949; diversion in 1968 totaled 3,500 acre-ft/yr.

AVERAGE DISCHARGE.--68 years (water years 1913-22, 1930-87), 28.6 ft³/s, 20,720 acre-ft/yr; median of yearly mean discharges, 19 ft³/s, 13,800 acre-ft/yr.

EXTREMES FOR PERIOD 1930-87.--Maximum discharge, 31,000 ft³/s Oct. 9, 1977, gage height, 15.5 ft, from rating curve extended above 1,660 ft³/s on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 10	2015	*3,560	*7.45

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	14	11	11	5.6	24	15	2.3	.00	.00	48	.45
2	16	14	11	9.9	5.9	24	14	3.1	.00	.00	34	.39
3	17	14	11	9.9	6.0	24	13	2.6	.00	.00	18	.42
4	16	14	11	9.9	5.8	24	12	1.9	.00	.00	191	.80
5	16	14	11	9.3	5.6	25	11	1.4	.00	.00	36	1.4
6	16	14	10	9.4	5.6	25	10	.88	.00	.00	26	.80
7	15	14	10	9.1	5.6	26	11	.52	.00	.00	16	.43
8	15	14	9.9	9.1	5.6	26	11	1.6	.00	.00	5.9	.36
9	15	14	9.9	9.1	5.2	25	10	1.6	.00	.00	26	.31
10	15	14	9.9	8.5	5.4	25	9.6	.39	.00	.00	555	.28
11	14	14	9.9	8.2	5.6	25	9.2	.27	.00	.00	343	.25
12	14	13	9.6	7.6	6.0	23	8.3	.17	.04	.00	60	.20
13	14	13	9.1	7.6	6.2	23	8.0	.04	.03	.00	29	.22
14	14	13	9.1	7.6	6.2	23	7.2	.09	.01	.85	14	.24
15	14	13	9.1	7.6	6.5	20	6.6	.20	.00	.13	7.8	.20
16	14	13	9.3	7.2	6.9	21	6.2	.02	.02	.00	5.5	.19
17	14	13	12	6.9	7.5	20	5.9	.01	.00	.00	4.6	.26
18	14	13	12	6.9	8.0	19	5.7	.00	.00	.00	3.8	.31
19	14	13	11	6.9	8.9	18	5.9	.00	.00	.00	3.3	.31
20	14	12	10	6.9	9.9	16	5.5	.18	.00	.16	3.0	.32
21	14	12	9.9	6.5	11	17	5.3	.13	.00	.00	3.0	.37
22	14	12	9.9	6.6	11	17	4.8	.00	.00	.00	3.6	2.2
23	14	12	9.9	6.9	11	16	3.7	.00	.01	.00	3.7	1.0
24	14	12	9.6	6.9	12	16	3.3	.00	.06	.00	3.7	.95
25	14	12	9.6	6.8	19	16	3.8	.00	.06	.00	12	1.2
26	14	11	9.9	6.4	38	16	3.7	.00	.06	.00	9.3	1.5
27	14	11	9.9	6.0	33	16	4.3	.00	.07	.00	3.1	.57
28	14	11	9.7	6.0	31	16	4.0	.00	.04	1.1	2.3	.36
29	14	11	9.9	6.1	---	16	3.9	.00	.03	1.9	1.9	.29
30	14	11	9.9	5.9	---	15	3.8	.00	.02	2.1	1.4	.26
31	14	---	10	5.6	---	15	---	.00	---	2.3	.83	---
TOTAL	452	385	314.0	238.3	294.0	632	225.7	17.40	0.45	8.54	1474.73	16.84
MEAN	14.6	12.8	10.1	7.69	10.5	20.4	7.52	.56	.015	.28	47.6	.56
MAX	17	14	12	11	38	26	15	3.1	.07	2.3	555	2.2
MIN	14	11	9.1	5.6	5.2	15	3.3	.00	.00	.00	.83	.19
AC-FT	897	764	623	473	583	1250	448	35	.9	17	2930	33
CAL YR	1986	TOTAL	8412.39	MEAN	23.0	MAX	824	MIN	.03	AC-FT	16690	
WTR YR	1987	TOTAL	4059.96	MEAN	11.1	MAX	555	MIN	.00	AC-FT	8050	

GILA RIVER BASIN

09482500 SANTA CRUZ RIVER AT TUCSON, AZ

LOCATION.--Lat 32°13'19", long 110°58'52", in SE¼SE¼ sec.11, T.14 S., R.13 E., Pima County, Hydrologic Unit 15050301, on right bank, 300 ft downstream from Congress Street Bridge, in Tucson.

DRAINAGE AREA.--2,222 mi², of which 395 mi² is in Mexico, adjusted for 15.2 mi² of Tucson Arroyo drainage area contributing to this station effective July 1956.

PERIOD OF RECORD.--October 1905 to September 1981 (monthly discharge only, January 1907 to September 1912, January to September 1914), June 1986 to current year (discharge above 500 ft³/s only).

REVISED RECORDS.--WSP 859: 1915(M). WSP 1283: Drainage area. WSP 1313: 1939(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,320.68 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 27, 1929, nonrecording gages or reference points for measuring to water surface at various places on Congress Street bridge at various datums. Nov. 27, 1929 to Sept. 30, 1981, water-stage recorder at Congress Street bridge: at datum 6.22 ft higher Nov. 27, 1929 to June 18, 1958; at datum 2.22 ft higher June 18, 1958 to May 21, 1963; at datum 3.48 ft lower May 21, 1963 to Oct. 27, 1970; at datum 2.86 ft lower Oct. 1, 1971 to Sept. 30, 1981. No gage Oct. 27, 1970 to Oct. 1, 1971, and Oct. 10, 1977, to Feb. 14, 1978.

REMARKS.--Records poor. Only daily discharges above 500 ft³/s are published. Irrigation above station of about 26,000 acres, including about 2,300 acres in Mexico, mostly by pumping from ground water. Ground water is also pumped above the station for municipal supply and mining. From October 1969 to September 1981, all flow past station was published, including waste water when known.

AVERAGE DISCHARGE.--76 years (1906-81), 22.7 ft³/s, 16,450 acre-ft/yr; median of yearly mean discharges, 14 ft³/s, 10,100 acre-ft/yr.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1892, 52,700 ft³/s, from slope-area measurement of peak flow, Oct. 2, 1983; gage height, 22.2 ft, from floodmark, at site and datum used in 1981. Maximum discharge during the 1985 water year was 10,000 ft³/s Dec. 28, 1984; gage height, 12.5 ft, at site and datum used in 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s Oct. 10, 1977, gage height, 21.8 ft, from flood-marks, from rating curve extended above 4,000 ft³/s on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*) for water years 1986 and 1987:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 21, 1986	1545	*1,920	*5.45
aAug. 2, 1987	unknown	*1,500	*5.03

a About

No daily discharges above 500 ft³/s during the period June 9, 1986 to Sept. 30, 1987.

GILA RIVER BASIN

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09486100 CANADA DEL ORO NEAR ORACLE JUNCTION, AZ

LOCATION.--Lat 32°33'54", long 110°50'48", in NE¼SE¼NE¼ sec.13, T.10 S., R.14 E., Pinal County, Hydrologic Unit 15050301, on right bank 1.5 mi upstream from Golder Dam, 5.1 mi east of Oracle Junction and 12 mi upstream from Big Wash.

DRAINAGE AREA.--42.3 mi².

PERIOD OF RECORD.--January 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 9, 1986 at site 20 ft downstream at datum 1.34 ft lower.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 488 ft³/s Dec. 27, 1984, gage height, 5.06 ft; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s Oct. 2, 1983, gage height, 8.09 ft, from crest-stage gage; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 10	0915	*62	*2.01

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.35	.97	1.8	9.4	17	10	6.0	.58	.00	.00	.82
2	.00	.56	.97	1.6	7.3	20	9.6	5.5	.41	.00	.17	.60
3	.00	2.5	.96	1.5	6.6	22	9.8	5.1	.31	.00	.00	.47
4	.00	4.9	.95	1.4	6.1	24	16	4.4	.23	.00	.00	.92
5	.00	3.4	.90	2.9	6.1	26	18	4.1	.18	.00	.00	1.4
6	.00	3.3	2.3	3.5	5.7	24	16	3.8	.11	.00	.25	1.1
7	.00	3.7	12	2.1	5.3	24	15	3.4	.05	.00	.59	.80
8	.00	3.2	17	1.7	5.0	23	15	3.1	.02	.00	.33	.61
9	.00	2.8	8.2	1.5	5.0	23	15	3.1	.01	.00	.30	.47
10	.00	2.7	6.0	1.4	4.8	39	15	3.1	.00	.00	.32	.41
11	.01	2.7	4.7	1.4	4.7	36	16	3.5	.00	.00	1.8	.30
12	5.6	2.6	3.8	1.3	4.7	28	17	3.0	.00	.00	1.7	.10
13	5.0	2.4	3.5	1.2	4.5	24	16	2.7	.00	.00	13	.00
14	3.3	2.3	3.2	.00	4.5	23	14	2.5	.00	.00	5.9	.00
15	2.2	2.0	2.8	.98	4.3	25	12	2.4	.00	.00	3.5	.00
16	1.6	1.9	2.7	2.2	4.3	29	12	2.5	.00	.00	2.6	.00
17	1.2	1.8	3.7	2.0	4.3	26	13	2.1	.00	.00	2.0	.00
18	.91	1.8	6.6	1.5	4.1	23	13	1.7	.00	.00	1.5	.00
19	.79	1.7	5.0	1.5	3.9	21	13	1.6	.00	.00	1.1	.00
20	.70	1.7	4.8	2.0	3.8	19	13	1.8	.00	.00	.88	.00
21	.67	1.6	5.1	1.9	3.8	17	11	2.7	.00	.00	3.3	.00
22	.65	1.4	4.4	1.9	3.6	19	10	2.0	.00	.00	2.8	.00
23	.60	1.4	4.0	2.4	3.3	18	9.7	1.6	.00	.00	2.4	.00
24	.56	1.3	3.8	2.3	4.0	17	9.1	1.3	.00	.00	2.0	.00
25	.47	1.3	3.4	2.3	14	17	8.6	1.1	.00	.00	2.9	.00
26	.40	1.3	3.0	2.3	14	17	8.3	1.1	.00	.00	2.8	.00
27	.36	1.3	2.8	2.5	14	15	8.0	.00	.00	.00	2.3	.00
28	.32	1.3	2.6	2.5	15	14	7.5	.94	.00	.00	2.0	.00
29	.31	1.1	2.4	2.5	---	13	7.1	.87	.00	.00	1.7	.00
30	.31	1.1	2.2	2.5	---	12	6.8	.79	.00	.00	1.5	.00
31	.33	---	1.9	7.6	---	11	---	.70	---	.00	1.1	---
TOTAL	26.32	61.41	126.65	64.18	176.1	666	364.5	78.50	1.90	0.00	60.74	8.00
MEAN	.85	2.05	4.09	2.07	6.29	21.5	12.1	2.53	.063	.00	1.96	.27
MAX	5.6	4.9	17	7.6	15	39	18	6.0	.58	.00	13	1.4
MIN	.00	.35	.90	.00	3.3	11	6.8	.00	.00	.00	.00	.00
AC-FT	52	122	251	127	349	1320	723	156	3.8	.0	120	16

CAL YR	1986	TOTAL	1892.73	MEAN	5.19	MAX	83	MIN	.00	AC-FT	3750
WTR YR	1987	TOTAL	1634.30	MEAN	4.48	MAX	39	MIN	.00	AC-FT	3240

GILA RIVER BASIN

09489000 SANTA CRUZ RIVER NEAR LAVEEN, AZ

LOCATION.--Lat 33°13'56", long 112°10'08", in NE¼NE¼ sec.29, T.2 S., R.2 E., Pinal County, Hydrologic Unit 15050303, in Gila River Indian Reservation, on downstream side of highway bridge, 3.4 mi upstream from mouth, 4.3 mi south of Komatke, and 9 mi south of Laveen.

DRAINAGE AREA.--8,581 mi².

PERIOD OF RECORD.--January 1940 to September 1946, December 1947 to current year.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,020.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Many diversions above station, mostly by pumping from ground water, for municipal uses and for irrigation of about 240,000 acres, not including San Carlos Project. Much of the low flow passing this station is drainage and wasteway return from irrigated lands upstream and pumpage from ground water.

AVERAGE DISCHARGE.--45 years (water years 1941-46, 1949-87), 21.6 ft³/s, 15,650 acre-ft/yr; median of yearly mean discharges, 11 ft³/s, 8,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s Oct. 4, 1983, gage height, 19.74 ft, from flow-routing computation; no flow for most of time in recent years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 25	0900	*110	*9.63

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.0	.00	.00	1.1	2.4	.00	.00	.00	.00	15	.19
2	.20	.00	.00	.00	1.7	2.5	.00	.00	.00	.00	1.4	.00
3	3.7	.00	.00	.00	3.0	2.0	.00	.00	.00	.00	.48	.00
4	2.5	.00	.00	.00	3.0	1.6	.00	.00	.00	.00	.01	.00
5	.94	.00	.00	.00	2.3	1.3	.00	.0	.00	.00	.01	.00
6	.22	.00	.00	.00	2.2	1.0	.00	2.3	.00	.00	1.2	.00
7	.00	.00	12	.00	1.8	2.9	.00	1.1	.00	.00	.44	.00
8	.00	.00	24	.00	1.4	2.9	.00	.03	.00	.00	.01	.00
9	.00	.00	8.7	1.1	1.1	1.9	.00	.00	.00	.00	.00	.00
10	.00	.00	5.7	6.0	3.1	1.5	.00	.00	.00	.00	.00	.00
11	.00	.00	2.9	5.0	4.6	1.1	.00	.00	.00	.00	.00	.00
12	7.4	.00	1.4	6.9	4.7	.80	.00	.00	.00	.00	.00	.00
13	1.6	.00	.76	4.6	3.5	.43	.00	.00	.00	.00	.00	.00
14	1.2	.00	.42	3.8	6.0	.83	.00	.00	.00	.00	.00	.00
15	2.3	.00	.20	2.5	4.9	.97	.00	.00	.00	.00	.00	.00
16	2.2	.00	.01	1.6	3.9	.72	.00	.00	.00	.00	.00	e.00
17	3.8	.00	.00	1.0	3.9	.33	.00	.00	.00	.00	.00	e.00
18	1.8	.00	3.0	.61	3.1	.04	.00	.00	.00	.00	.00	e1.0
19	.69	.00	3.0	.28	2.1	.00	.00	.00	.00	.00	.00	e2.0
20	.23	.00	1.5	.03	1.9	.00	.00	.00	.00	.00	.00	e3.0
21	.01	.00	.80	.00	2.0	.00	.00	.00	.00	.00	.00	e4.0
22	.00	.00	.40	.00	1.2	.23	.00	.00	.00	.00	.00	3.8
23	.00	.00	.12	.00	.87	.98	.00	.00	.00	.00	.00	6.5
24	.00	.00	.00	.00	18	.71	.00	.00	.00	.00	.00	5.3
25	.00	.00	.00	.00	85	.35	.00	.00	.00	.00	.00	7.5
26	.00	.00	.62	.00	42	.05	.00	.00	.00	.00	.00	5.7
27	.00	.00	.84	.0	16	.00	.00	.00	.00	.00	47	3.9
28	.00	.00	.45	.02	5.6	.00	.00	.00	.00	.00	5.8	4.4
29	.01	.00	.17	.00	---	.00	.00	.00	.00	.00	2.1	3.6
30	.36	.00	.00	.76	---	.00	.00	.00	.00	.00	1.4	2.5
31	.28	---	.00	1.8	---	.00	---	.00	---	.00	.86	---
TOTAL	29.44	0.00	66.99	36.00	229.97	27.54	0.00	3.43	0.00	0.00	75.71	53.39
MEAN	.95	.00	2.16	1.16	8.21	.89	.00	.11	.00	.00	2.44	1.78
MAX	7.4	.00	24	6.9	85	2.9	.00	2.3	.00	.00	.47	7.5
MIN	.00	.00	.00	.00	.87	.00	.00	.00	.00	.00	.00	.00
AC-FT	58	.0	133	71	456	55	.0	6.8	.0	.0	150	106
CAL YR 1986	TOTAL	784.22	MEAN	2.15	MAX	201	MIN	.00	AC-FT	1560		
WTR YR 1987	TOTAL	522.47	MEAN	1.43	MAX	85	MIN	.00	AC-FT	1040		

e Estimated

GILA RIVER BASIN

183

09489082 NORTH FORK THOMAS CREEK NEAR ALPINE, AZ

LOCATION.--Lat 33°40'31", long 109°16'13", in NW¼SW¼ sec.20, T.4 N., R.30 E., Greenlee County, Hydrologic Unit 15060101, on left bank, in Apache Sitgreaves National Forest, 3.0 mi upstream from confluence with Beaver Creek and 14 mi southwest of Alpine.

DRAINAGE AREA.--0.73 mi².

PERIOD OF RECORD.--October 1985 to current year. October 1965 to September 1985, in reports of Rocky Mountain Forest and Range Experiment Station.

GAGE.--Water stage recorder and V-notch weir. Elevation of gage is 8,380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2.3 ft³/s Apr. 18, 19, 20, 1987, gage height, 0.76 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.3 ft³/s Apr. 18, 19, 20, gage height, 0.76 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.10	.05	.12	.08	.26	1.4	.05	.01	.01	.00
2	.01	.06	.09	.04	.14	.08	.30	1.2	.05	.02	.01	.00
3	.01	.11	.08	.04	.17	.07	.37	1.1	.04	.02	.01	.00
4	.01	.09	.07	.04	.19	.07	.48	.94	.04	.02	.01	.00
5	.01	.09	.07	.04	.19	.08	.49	.78	.04	.02	.00	.00
6	.01	.11	.06	.03	.19	.11	.47	.70	.03	.02	.01	.00
7	.00	.14	.06	.03	.19	.17	.47	.63	.03	.01	.01	.00
8	.00	.14	.05	.03	.20	.29	.47	.56	.03	.01	.01	.00
9	.00	.13	.05	.03	.19	.35	.52	.48	.03	.01	.01	.00
10	.02	.12	.04	.03	.19	.43	.61	.43	.03	.01	.01	.00
11	.02	.12	.04	.03	.19	.48	.82	.40	.02	.01	.02	.00
12	.03	.12	.04	.02	.20	.54	1.0	.35	.02	.00	.01	.00
13	.02	.12	.04	.02	.21	.71	1.1	.33	.02	.00	.01	.00
14	.02	.13	.04	.02	.24	.91	1.1	.29	.02	.00	.01	.00
15	.02	.13	.04	.02	.25	.93	1.2	.25	e.02	.01	.01	.00
16	.02	.13	.04	.02	.25	.80	1.4	.22	e.02	.01	.01	.00
17	.02	.14	.04	.02	.23	.69	1.8	.19	e.02	.01	.01	.00
18	.03	.18	.05	.03	.21	.61	2.1	.18	e.02	.01	.01	.00
19	.03	.51	.06	.03	.20	.57	2.3	.17	e.02	.01	.00	.00
20	.03	.53	.08	.03	.18	.54	2.2	.17	e.01	.01	.00	.00
21	.02	.41	.09	.03	.17	.54	2.1	.16	e.01	.01	.00	.00
22	.02	.33	.09	.03	.15	.53	1.9	.14	e.01	.00	.00	.00
23	.02	.25	.09	.03	.15	.48	1.8	.13	e.01	.00	.00	.00
24	.02	.21	.08	.02	.13	.47	1.8	.12	e.01	.00	.00	.00
25	.02	.19	.08	.02	.13	.43	1.8	e.11	e.01	.00	.00	.00
26	.02	.17	.08	.02	.12	.39	1.7	.10	e.01	.00	.00	.00
27	.02	.15	.07	.02	.10	.35	1.7	.09	e.01	.00	.00	.00
28	.01	.14	.07	.03	.09	.33	1.6	.08	e.01	.00	.00	.00
29	.01	.12	.06	.03	---	.31	1.5	.07	e.01	.00	.00	.00
30	.01	.12	.05	.04	---	.28	1.4	.07	.01	.01	.00	.00
31	.00	---	.05	.09	---	.26	---	.06	---	.01	.00	---
TOTAL	0.48	5.20	1.95	0.96	4.97	12.88	36.76	11.90	0.66	0.25	0.18	0.00
MEAN	.015	.17	.063	.031	.18	.42	1.23	.38	.022	.008	.006	.00
MAX	.03	.53	.10	.09	.25	.93	2.3	1.4	.05	.02	.02	.00
MIN	.00	.01	.04	.02	.09	.07	.26	.06	.01	.00	.00	.00
AC-FT	1.0	10	3.9	1.9	9.9	26	73	24	1.3	.5	.4	.0

CAL YR 1986 TOTAL 23.99 MEAN .066 MAX .58 MIN .00 AC-FT 48
WTR YR 1987 TOTAL 76.19 MEAN .21 MAX 2.3 MIN .00 AC-FT 151

e Estimated

GILA RIVER BASIN

09489500 BLACK RIVER BELOW PUMPING PLANT, NEAR POINT OF PINES, AZ

LOCATION.--Lat 33°28'36", long 109°45'48", in W sec.32, T.2 N., R.25 E. (unsurveyed), Graham County, Hydrologic Unit 15060101, in San Carlos Indian Reservation, on left bank 0.9 mi downstream from Phelps Dodge Corp. pumping plant, 1.3 mi downstream from Freezeout Creek, 8 mi northwest of Point of Pines, and 63 mi upstream from confluence with White River.

DRAINAGE AREA.--560 mi².

PERIOD OF RECORD.--June 1953 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,725 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Water is diverted at pumping plant 0.9 mi upstream and pumped into headwaters of Willow Creek (tributary of Eagle Creek) for mining, metallurgical treatment of ores, and domestic supply in vicinity of Morenci. (See sta 09445000.)

AVERAGE DISCHARGE (adjusted for diversion to Willow Creek).--34 years, 228 ft³/s, 165,200 acre-ft/yr; median of yearly mean discharges, 190 ft³/s, 138,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft³/s Oct. 19, 1972, gage height, 18.0 ft, from flood-marks, from rating curve extended above 5,000 ft³/s; minimum daily, 2.6 ft³/s July 5, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 3	1100	911	4.13	Mar. 4	1815	952	4.19
Nov. 19	1330	1,420	4.87	Mar. 14	0515	1,350	4.77
Dec. 7	2100	1,010	4.27	Apr. 18	0700	*2,530	*6.39

Minimum daily discharge, 31 ft³/s July 11, 12, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	45	158	116	149	192	522	1130	102	43	79	58
2	33	81	142	117	157	220	631	972	96	39	66	52
3	33	711	133	115	181	312	814	866	91	37	66	49
4	34	702	131	116	200	491	1040	746	88	35	62	45
5	37	485	127	117	201	476	976	665	84	34	77	45
6	45	377	151	113	209	535	928	624	79	34	80	51
7	54	368	642	105	209	665	950	628	82	33	73	53
8	50	370	645	103	209	833	963	558	88	33	73	47
9	45	321	409	99	207	848	960	505	96	33	74	42
10	51	301	305	96	220	958	1150	456	112	32	119	38
11	82	269	237	89	236	884	1400	432	94	31	118	36
12	268	243	191	81	259	932	1670	489	86	31	125	34
13	244	228	181	73	301	1070	1610	430	83	36	134	34
14	187	229	165	82	377	1190	1510	412	80	37	99	34
15	145	231	160	89	347	1180	1630	376	71	38	77	34
16	119	234	175	94	339	981	1880	355	68	33	65	34
17	95	237	214	e95	301	913	2070	320	63	34	57	33
18	89	247	295	e93	288	908	2180	280	57	33	50	33
19	80	915	307	e90	266	1020	2090	257	52	33	47	34
20	72	967	270	e87	257	964	1980	239	50	31	44	33
21	66	675	252	e85	223	899	1770	301	48	40	45	33
22	62	544	245	e84	209	913	1600	290	46	36	46	33
23	59	450	235	e86	200	785	1500	232	44	36	49	32
24	57	355	208	e86	207	825	1420	206	44	34	55	34
25	55	317	196	e86	218	699	1340	185	44	34	77	37
26	52	287	171	e86	166	613	1280	162	47	34	87	40
27	50	251	159	e92	176	660	1210	150	49	34	113	39
28	48	220	150	94	189	561	1130	138	56	42	99	39
29	48	197	144	99	---	533	1060	127	52	67	79	37
30	46	184	130	104	---	459	987	120	46	87	70	38
31	44	---	121	129	---	467	---	112	---	96	62	---
TOTAL	2384	11041	7049	3001	6501	22986	40251	12763	2098	1230	2367	1181
MEAN	76.9	368	227	96.8	232	741	1342	412	69.9	39.7	76.4	39.4
MAX	268	967	645	129	377	1190	2180	1130	112	96	134	58
MIN	33	45	121	73	149	192	522	112	44	31	44	32
AC-FT	4730	21900	13980	5950	12890	45590	79840	25320	4160	2440	4690	2340
(*)	91.9	380	240	106	242	752	1354	427	85.0	54.8	91.4	54.3
(**)	5650	22640	14770	6520	13450	46250	80580	26230	5060	3370	5610	3230

CAL YR	1986	TOTAL	79317	MEAN	217	MAX	1280	MIN	26	AC-FT	157300	(*)	232	(**)	168700
WTR YR	1987	TOTAL	112852	MEAN	309	MAX	2180	MIN	31	AC-FT	223800	(*)	322	(**)	233400

e Estimated

(*) Mean, adjusted for Willow Creek diversion from Black River near Morenci.

(**) AC-FT, adjusted for Willow Creek diversion from Black River, near Morenci.

09490500 BLACK RIVER NEAR FORT APACHE, AZ

LOCATION.--Lat 33°42'46", long 110°12'40", in NW¼ sec.12, T.4 N., R.20 E. (unsurveyed), Gila County, Hydrologic Unit 15060101, on downstream side of first pier from right bank on highway bridge, 5 mi upstream from confluence with White River and 14 mi west of Fort Apache.

DRAINAGE AREA.--1,232 mi².

PERIOD OF RECORD.--October 1912 to December 1915, September 1916, October 1917 to January 1918, April 1918, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1914-15, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,345 ft above National Geodetic Vertical Datum of 1929, river-profile map. November 1912 to July 1918, nonrecording gages or water-stage recorders at several sites within 1 mi of present site at various datums.

REMARKS.--No estimated daily discharges. Records good. One transbasin diversion for industrial and municipal use (see record of Willow Creek diversion from Black River, near Morenci). Negligible storage in several small recreational lakes.

AVERAGE DISCHARGE.--33 years (water years 1913-15, 1958-87), 427 ft³/s, 309,400 acre-ft/yr; median of yearly mean discharges, 360 ft³/s, 261,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,200 ft³/s Oct. 2, 1983, gage height, 24.80 ft, from rating curve extended above 8,500 ft³/s on basis of slope-area measurements at gage heights 22.33 ft and 24.80 ft; minimum daily, 11 ft³/s July 6, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s (revised) and maximum (*), from rating curve extended above 8,500 ft³/s on the basis of slope-area measurement at gage height of 22.33 ft and 24.80 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 7	2030	*7,140	*10.60	Apr. 18	1700	3,480	7.79
Mar. 4	2400	6,030	9.82	July 30	2215	4,550	8.73
Mar. 18	0200	2,870	7.19				

Minimum daily discharge, 45 ft³/s, July 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	90	231	188	1190	485	786	1360	191	76	478	108
2	73	104	206	183	645	778	924	1390	179	67	272	99
3	71	1220	185	184	518	1340	1120	1200	168	62	207	90
4	70	1080	175	174	475	2670	1410	1080	162	58	171	84
5	72	715	174	180	457	3260	1570	967	155	55	351	80
6	79	505	179	213	423	2250	1420	898	152	53	239	78
7	103	1420	3240	235	396	1830	1380	870	151	51	199	76
8	96	1070	4010	201	370	1800	1450	845	151	50	199	82
9	99	521	1820	186	356	1720	1410	756	156	49	174	78
10	96	415	918	161	344	1680	1530	697	167	48	144	71
11	109	380	659	131	354	1620	1870	675	175	47	351	64
12	606	341	446	145	372	1490	2290	657	162	46	297	56
13	518	314	384	154	396	1540	2440	692	150	45	266	52
14	369	294	346	160	436	1690	2220	633	145	45	242	51
15	296	291	314	157	505	1740	2230	614	136	48	188	51
16	244	287	300	165	455	1630	2570	580	122	53	151	52
17	210	286	420	161	453	1680	2880	554	117	57	127	50
18	180	289	723	136	409	2260	3080	509	107	56	109	50
19	165	361	649	104	397	2010	3040	463	98	57	96	49
20	150	1190	529	149	375	1750	2850	441	90	51	87	48
21	139	886	763	161	363	1580	2530	431	85	50	83	48
22	130	643	879	141	328	1520	2200	479	81	65	96	49
23	122	535	489	151	309	1420	2040	439	77	63	125	48
24	117	450	413	156	310	1410	1910	372	73	54	117	54
25	110	386	366	152	353	1310	1820	332	71	52	120	50
26	108	357	327	161	337	1140	1710	301	76	49	124	53
27	104	328	287	186	350	1060	1640	276	75	50	136	61
28	99	298	262	307	405	1020	1550	255	80	55	163	62
29	96	270	242	324	---	930	1460	236	79	66	153	60
30	95	249	226	302	---	859	1360	218	83	478	135	65
31	92	---	204	1370	---	772	---	204	---	1240	122	---
TOTAL	4894	15575	20366	6778	12081	48244	56690	19424	3714	3296	5722	1919
MEAN	158	519	657	219	431	1556	1890	627	124	106	185	64.0
MAX	606	1420	4010	1370	1190	3260	3080	1390	191	1240	478	108
MIN	70	90	174	104	309	485	786	204	71	45	83	48
AC-FT	9710	30890	40400	13440	23960	95690	112400	38530	7370	6540	11350	3810

CAL YR	1986	TOTAL	158097	MEAN	433	MAX	6790	MIN	47	AC-FT	313600
WTR YR	1987	TOTAL	198703	MEAN	544	MAX	4010	MIN	45	AC-FT	394100

GILA RIVER BASIN

09492400 EAST FORK WHITE RIVER NEAR FORT APACHE, AZ

LOCATION.--Lat 33°49'20", long 109°48'50", in SE¼ sec.16, T.5 N., R.24 E. (unsurveyed), Apache County, Hydrologic Unit 15060102, in Fort Apache Indian Reservation, on left bank 600, ft downstream from highway bridge, 0.1 mi upstream from Rock Creek, and 10 mi east of Fort Apache.

DRAINAGE AREA.--38.8 mi².

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,050 ft above National Geodetic Vertical Datum of 1929, by barometer. Prior to Dec. 29, 1960, at site 600 ft upstream at datum 12.78 ft higher. Dec. 29, 1960, to Sept. 28, 1962, at site 600 ft upstream at datum 12.92 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--30 years, 37.3 ft³/s, 27,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s Oct. 1, 1983, gage height, 5.40 ft, from rating curve extended above 1,000 ft³/s; minimum daily, 4.0 ft³/s Nov. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	2215	141	2.13	Apr. 17	2200	*235	*2.31
Nov. 19	0945	100	1.92	Aug. 6	1900	145	2.15

Minimum daily discharge, 7.0 ft³/s Jan. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	29	25	e17	29	e27	52	170	57	18	24	20
2	20	44	25	e17	30	e25	65	160	59	17	27	19
3	20	47	24	e17	31	e26	80	130	60	17	26	18
4	19	42	23	e17	32	35	90	133	60	17	30	19
5	23	38	22	17	29	43	79	131	60	16	31	18
6	28	39	30	18	28	47	69	119	59	16	53	17
7	24	45	44	e15	27	52	67	127	57	16	72	16
8	22	38	32	e12	28	52	64	131	61	16	57	15
9	22	36	27	e9.0	29	51	63	123	60	16	51	14
10	48	37	24	e9.0	30	49	71	128	57	16	53	14
11	76	37	e18	e12	31	46	94	115	54	21	64	14
12	102	37	e22	e16	32	47	112	115	51	16	61	13
13	80	37	e22	e16	33	57	103	118	47	16	55	13
14	74	38	e22	e14	35	64	103	118	43	16	49	14
15	70	37	23	12	33	65	126	122	43	16	43	13
16	66	36	25	e12	32	60	145	130	39	16	36	12
17	66	36	26	e12	29	56	181	130	36	16	32	12
18	64	41	26	e9.0	27	55	205	123	33	16	29	12
19	61	92	23	e7.0	26	62	198	113	31	15	27	12
20	56	77	23	e9.0	25	60	189	106	29	15	27	11
21	53	66	23	e11	28	60	180	95	27	15	28	11
22	48	62	22	e13	27	60	176	85	26	15	27	11
23	43	55	21	e15	25	55	171	81	24	15	26	11
24	39	48	21	e17	23	51	179	78	23	15	36	12
25	36	48	19	e17	22	47	177	74	22	15	27	13
26	34	40	e18	18	27	44	177	70	23	15	29	12
27	32	36	e18	19	e26	44	180	67	22	15	27	11
28	29	33	e18	20	e26	41	194	63	22	18	25	13
29	28	30	e18	20	---	39	190	60	20	19	24	11
30	26	28	e18	21	---	39	173	58	18	39	23	11
31	25	---	e18	32	---	41	---	56	---	38	21	---
TOTAL	1354	1309	720	470.0	800	1500	3953	3329	1223	547	1140	412
MEAN	43.7	43.6	23.2	15.2	28.6	48.4	132	107	40.8	17.6	36.8	13.7
MAX	102	92	44	32	35	65	205	170	61	39	72	20
MIN	19	28	18	7.0	22	25	52	56	18	15	21	11
AC-FT	2690	2600	1430	932	1590	2980	7840	6600	2430	1080	2260	817

CAL YR 1986	TOTAL	15576	MEAN	42.7	MAX	141	MIN	17	AC-FT	30890
WTR YR 1987	TOTAL	16757.0	MEAN	45.9	MAX	205	MIN	7.0	AC-FT	33240

e Estimated

09494000 WHITE RIVER NEAR FORT APACHE, AZ

LOCATION.--Lat 33°44'11", long 110°09'58", in SE¼ sec.32, T.4 N., R.21 E. (unsurveyed), Gila County, Hydrologic Unit 15060102, in Fort Apache Indian Reservation, on right bank 2,200 ft downstream from highway bridge, 4.5 mi upstream from confluence with Black River, and 11 mi west of Fort Apache.

DRAINAGE AREA.--632 mi².

PERIOD OF RECORD.--October 1917 to September 1918 (published as "at Wanslee's Ranch"), October 1957 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WRD Ariz. 1971: 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 4,365.99 ft above National Geodetic Vertical Datum of 1929. Oct. 12, 1917, to Aug. 31, 1918, nonrecording gage at site 2,100 ft upstream at different datum.

REMARKS.--Records good except those for the periods of estimated record, which are fair. Small diversions above station for irrigation of about 1,460 acres. Negligible storage above station in several small recreational lakes.

AVERAGE DISCHARGE.--31 years, 212 ft³/s, 153,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft³/s Dec. 18, 1978, gage height, 15.71 ft, from rating curve extended above 7,800 ft³/s on basis of slope-area measurement of peak flow; no flow July 18-21, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 18	0530	*2,000	*5.79

Minimum daily discharge, 49 ft³/s, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e95	105	148	121	245	196	357	1070	264	e80	180	73
2	e90	226	137	122	230	229	443	986	256	e75	106	70
3	e90	292	140	117	213	260	597	881	253	e70	106	68
4	e85	244	136	116	208	361	800	789	251	e65	147	67
5	e85	222	136	128	202	454	736	745	249	e60	181	70
6	117	203	157	123	192	466	678	716	248	e60	189	69
7	120	260	415	119	183	561	667	695	242	e55	324	66
8	105	226	426	119	185	619	676	684	e236	e55	240	64
9	102	202	300	107	182	609	663	642	e234	e55	197	62
10	132	199	247	89	192	584	784	635	e217	e55	193	60
11	245	193	173	99	208	522	973	596	189	e55	220	59
12	416	186	166	109	224	528	1160	570	163	e55	245	59
13	333	181	174	113	244	597	1020	562	152	e55	208	58
14	286	185	163	115	270	688	995	559	151	e55	160	59
15	261	183	162	113	263	681	1110	582	151	e55	124	59
16	238	178	173	119	255	574	1370	622	e145	e55	105	55
17	232	175	219	104	232	568	1610	591	e140	e55	92	57
18	213	180	276	104	222	560	1800	562	e135	e55	81	55
19	196	326	239	105	208	693	1760	513	e130	e55	75	56
20	181	353	206	115	208	615	1740	503	e125	e55	72	52
21	168	306	259	111	178	536	1520	509	e120	e55	76	49
22	160	278	196	108	173	533	1390	439	e110	e60	78	51
23	153	258	177	108	180	469	1350	398	e100	e50	87	54
24	143	231	168	107	195	507	1340	369	e85	e55	134	63
25	135	225	157	105	180	442	1270	351	e75	e55	134	65
26	128	212	136	107	177	397	1190	328	e70	e60	116	65
27	123	194	133	117	186	396	1120	307	e75	e70	116	64
28	120	184	132	123	191	356	1120	296	e80	e80	97	61
29	113	175	131	124	---	341	1110	287	e80	e90	80	60
30	111	162	125	125	---	299	1030	275	e80	e120	78	58
31	105	---	115	304	---	316	---	271	---	264	75	---
TOTAL	5081	6544	5922	3696	5826	14957	32379	17333	4806	2139	4316	1828
MEAN	164	218	191	119	208	482	1079	559	160	69.0	139	60.9
MAX	416	353	426	304	270	693	1800	1070	264	264	324	73
MIN	85	105	115	89	173	196	357	271	70	50	72	49
AC-FT	10080	12980	11750	7330	11560	29670	64220	34380	9530	4240	8560	3630

CAL YR	1986	TOTAL	81246	MEAN	223	MAX	1040	MIN	54	AC-FT	161200
WTR YR	1987	TOTAL	104827	MEAN	287	MAX	1800	MIN	49	AC-FT	207900

e Estimated

GILA RIVER BASIN

09495000 FORESTDALE CREEK DIVERSION FROM SHOW LOW CREEK, NEAR SHOW LOW, AZ

LOCATION.--Lat 34°10'40", long 110°00'56", in SE¼NW¼ sec.16, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, in Sitgreaves National Forest, on right bank 170 ft downstream from terminal structure of Show Low Creek diversion works, 4,350 ft west of pumping plant on Show Low Lake, and 5 mi south of Show Low.

PERIOD OF RECORD.--May 1953 to current year.

GAGE.--Water-stage recorders and V-notch sharp-crested weir. Datum of gage is 6,621.57 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--Records good. Entire flow consists of water pumped from Show Low Lake in Little Colorado River basin, into headwaters of Forestdale Creek in Gila River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft³/s June 2, 3, 5, 1973, Mar. 17-25, 27-30, Apr. 2-15, Apr. 18 to May 5, 1975; no flow for most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	7.4	13	.00	.00	8.4
2	.00	.00	.00	.00	.00	.00	.00	13	13	.00	.00	14
3	.00	8.7	.00	.00	.00	.00	.00	13	13	.00	.00	14
4	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
5	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
6	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
7	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
8	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
9	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
10	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
11	.00	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
12	.00	14	.00	.00	.00	.00	.00	13	4.8	.00	.00	14
13	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
14	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
15	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
16	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
17	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
18	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
19	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
20	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
21	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	14
22	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	5.3
23	.00	14	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
24	.00	5.9	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
27	e8.3	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
28	e14	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
29	14	.00	.00	.00	---	.00	.00	13	.00	.00	.00	.00
30	14	.00	.00	.00	---	.00	.00	13	.00	.00	.00	.00
31	5.8	---	.00	.00	---	.00	---	13	---	.00	.00	---
TOTAL	56.10	294.60	0.00	0.00	0.00	0.00	0.00	397.4	147.80	0.00	0.00	293.70
MEAN	1.81	9.82	.00	.00	.00	.00	.00	12.8	4.93	.00	.00	9.79
MAX	14	14	.00	.00	.00	.00	.00	13	13	.00	.00	14
MIN	.00	.00	.00	.00	.00	.00	.00	7.4	.00	.00	.00	.00
AC-FT	111	584	.0	.0	.0	.0	.0	788	293	.0	.0	583
CAL YR 1986	TOTAL	2421.30	MEAN	6.63	MAX	18	MIN	.00	AC-FT	4800		
WTR YR 1987	TOTAL	1189.60	MEAN	3.26	MAX	14	MIN	.00	AC-FT	2360		

e Estimated

09496500 CARRIZO CREEK NEAR SHOW LOW, AZ

LOCATION.--Lat 33°59'09", long 110°16'52", in sec.24, T.7 N., R.19 E. (unsurveyed), Gila County, Hydrologic Unit 15060104, in Fort Apache Indian Reservation, on right bank 500 ft upstream from bridge on U.S. Highway 60, 1 mi downstream from Corduroy Creek, 23 mi southwest of Show Low, and 24 mi upstream from mouth.

DRAINAGE AREA.--439 mi².

PERIOD OF RECORD.--June 1951 to June 1961, June 1967 to June 1976, October 1975 to June 1976 (monthly discharges only), April 1977 to current year.

REVISED RECORDS.--WRD Ariz. 1968: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,749.52 ft above National Geodetic Vertical Datum of 1929. Prior to June 1976 at site on bridge pier 400 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation above station of less than 300 acres. Records include trans basin diversion from Show Low Creek. (See sta 09495000.)

AVERAGE DISCHARGE.--27 years (water years 1952-60, 1968-75, 1978-87), 54.9 ft³/s, 39,780 acre-ft/yr; median of yearly mean discharges, 31 ft³/s, 22,500 acre-ft/yr, unadjusted for transbasin diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,500 ft³/s Jan. 18, 1952, gage height, 12.08 ft, at site then in use, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 15.1 ft Dec. 18, 1978, from high-water mark; minimum daily discharge, 0.2 ft³/s July 12, 1951, Sept. 21, 1959, at site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1951, about 23,000 ft³/s Dec. 30, 1965, gage height, 13.0 ft, from floodmark at previous site, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement at gage height 12.08 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 7	0145	*763	*3.77

Minimum daily discharge, 2.1 ft³/s July 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	18	11	18	251	48	50	16	20	3.3	8.8	4.1
2	5.7	36	11	17	178	68	47	16	19	3.0	29	4.0
3	6.0	64	10	14	150	131	47	26	19	2.8	12	10
4	6.0	93	10	13	121	285	47	26	18	2.7	28	14
5	17	74	10	16	113	538	52	26	19	2.6	22	16
6	10	71	17	18	92	544	51	26	35	2.6	13	15
7	8.6	70	109	17	71	615	45	27	23	2.5	33	15
8	7.8	52	216	18	60	596	42	28	19	2.5	11	14
9	8.4	28	152	16	51	483	41	26	19	2.4	14	14
10	15	27	95	13	47	394	36	30	17	2.3	7.7	14
11	47	26	56	14	52	277	32	29	16	2.2	7.0	14
12	33	24	42	13	51	221	30	27	16	2.2	7.7	14
13	19	24	35	13	49	185	28	33	13	2.2	7.2	14
14	14	24	29	13	48	154	26	29	7.0	2.3	5.4	15
15	12	24	22	13	46	123	25	28	5.7	4.1	5.0	14
16	10	24	22	15	42	139	23	29	4.9	3.5	4.4	14
17	9.9	23	25	13	37	165	22	26	4.5	3.6	3.9	14
18	9.2	33	93	13	34	287	21	24	4.2	3.0	3.7	14
19	8.5	68	89	13	32	384	20	24	3.9	2.8	3.4	15
20	8.5	44	68	14	34	238	19	27	4.0	2.6	3.3	14
21	8.5	32	71	13	31	156	18	30	4.0	2.6	6.7	14
22	8.8	28	64	14	28	126	18	26	3.8	2.4	5.8	14
23	8.8	27	46	14	26	118	18	24	3.7	2.1	7.6	12
24	8.7	25	38	14	31	141	17	23	3.6	2.2	6.1	11
25	8.5	20	34	14	33	164	18	23	3.6	3.6	28	8.0
26	8.6	14	24	15	34	136	19	23	4.5	3.6	12	7.0
27	8.8	13	24	17	38	114	20	22	4.6	3.3	8.0	7.3
28	9.0	13	20	19	42	96	19	22	4.0	5.1	5.9	6.4
29	16	12	18	25	---	80	17	22	3.5	5.8	5.2	5.2
30	19	12	18	32	---	65	16	21	3.2	6.9	5.0	4.9
31	19	---	17	322	---	56	---	21	---	8.6	4.5	---
TOTAL	385.4	1043	1496	793	1822	7127	884	780	325.7	101.4	324.3	351.9
MEAN	12.4	34.8	48.3	25.6	65.1	230	29.5	25.2	10.9	3.27	10.5	11.7
MAX	47	93	216	322	251	615	52	33	35	8.6	33	16
MIN	5.7	12	10	13	26	48	16	16	3.2	2.1	3.3	4.0
AC-FT	764	2070	2970	1570	3610	14140	1750	1550	646	201	643	698
CAL YR	1986	TOTAL	10206.9	MEAN	28.0	MAX	299	MIN	3.2	AC-FT	20250	
WTR YR	1987	TOTAL	15433.7	MEAN	42.3	MAX	615	MIN	2.1	AC-FT	30610	

09497500 SALT RIVER NEAR CHRYSOTILE, AZ

LOCATION.--Lat 33°47'53", long 110°29'57", in sec.25, T.5 N., R.17 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in San Carlos Indian Reservation, on left bank 1,200 ft upstream from bridge on U.S. Highway 60, 5.7 mi northeast of Chrysotile, 8 mi upstream from Cibecue Creek, and 33 mi downstream from confluence of Black and White Rivers.

DRAINAGE AREA.--2,849 mi².

PERIOD OF RECORD.--September 1924 to current year (monthly discharge only July to December 1954).

REVISED RECORDS.--WSP 859: 1926-27, 1929-30, 1934, 1936. WSP 899: 1927, 1932, 1937, 1938(M). WSP 1313: 1925-26(M), 1929-30(M), 1935-36(M), 1944(M). WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,354.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several diversions for irrigation above station of about 3,100 acres, one diversion into the basin (see record of Forestdale Creek diversion from Show Low Creek, near Show Low), and one diversion out of the basin (see record of Willow Creek diversion from Black River, near Morenci).

AVERAGE DISCHARGE.--63 years, 663 ft³/s, 480,300 acre-ft/yr; median of yearly mean discharges, 550 ft³/s, 398,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,400 ft³/s Dec. 18, 1978, gage height, 17.35 ft, from rating curve extended above 52,000 ft³/s; minimum, 49 ft³/s July 6, 7, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood peak of 74,000 ft³/s occurred prior to 1924 and is believed to be the peak of the flood of Jan. 19, 1916, gage height, 18 ft, from floodmarks, from rating curve extended above 52,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 8	0015	*8,370	*7.17	Apr. 18	2245	5,520	6.05
Mar. 5	0500	7,950	7.02	July 31	0600	3,810	5.21
Mar. 18	0900	4,160	5.40				

Minimum discharge, 139 ft³/s July 16, gage height, 1.59 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	284	493	394	2330	842	1090	2290	487	215	992	276
2	227	329	454	392	1230	1090	1230	2400	467	203	510	256
3	223	1220	430	388	1020	1590	1510	2070	452	191	439	243
4	221	1580	415	381	916	3070	1980	1850	449	182	389	233
5	226	1260	405	386	873	5230	2340	1660	442	174	408	236
6	328	952	424	418	820	3800	2110	1550	441	173	585	239
7	304	1390	2030	436	752	3260	2010	1490	462	168	496	234
8	302	1700	6120	424	703	3250	2070	1450	446	162	542	224
9	283	978	2880	399	673	3030	2030	1360	451	159	490	223
10	293	779	1470	363	657	2800	2150	1300	463	154	460	212
11	395	713	1080	316	664	2570	2640	1250	446	152	482	202
12	1050	662	794	309	701	2240	3300	1190	434	151	548	197
13	1130	615	678	335	741	2230	3610	1200	408	147	518	188
14	856	587	616	349	804	2450	3310	1180	389	148	465	186
15	705	578	567	362	872	2560	3270	1160	376	144	414	188
16	614	568	545	376	894	2460	3780	1170	359	154	362	185
17	557	563	596	367	831	2190	4430	1130	331	168	324	182
18	510	566	1120	327	781	3380	4940	1070	311	177	297	183
19	465	671	1120	280	755	3160	4980	985	294	172	271	181
20	438	1450	938	289	724	2770	4760	927	277	168	251	179
21	408	1450	985	360	696	2360	4320	943	265	158	237	173
22	387	1140	1260	328	641	2150	3740	903	255	164	325	172
23	375	995	884	319	600	2070	3460	868	244	173	290	173
24	362	885	733	347	616	1920	3300	782	231	164	340	194
25	343	768	658	340	705	1930	3130	726	215	158	435	203
26	325	705	592	339	685	1680	2930	671	219	166	376	200
27	314	657	526	358	677	1500	2780	619	231	173	369	201
28	305	605	496	441	731	1450	2660	592	241	186	348	198
29	297	561	471	552	---	1280	2540	555	241	208	344	188
30	289	525	449	516	---	1190	2380	524	223	287	313	186
31	289	---	427	1370	---	1070	---	507	---	1510	294	---
TOTAL	13059	25736	30656	12561	23092	72572	88780	36372	10550	6709	12914	6135
MEAN	421	858	989	405	825	2341	2959	1173	352	216	417	204
MAX	1130	1700	6120	1370	2330	5230	4980	2400	487	1510	992	276
MIN	221	284	405	280	600	842	1090	507	215	144	237	172
AC-FT	25900	51050	60810	24910	45800	143900	176100	72140	20930	13310	25610	12170
CAL YR 1986	TOTAL	267420	MEAN	733	MAX	7320	MIN	170	AC-FT	530400		
WTR YR 1987	TOTAL	339136	MEAN	929	MAX	6120	MIN	144	AC-FT	672700		

GILA RIVER BASIN

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09497800 CIBECUE CREEK NEAR CHRYSOTILE, AZ

LOCATION.--Lat 33°50'35", long 110°33'25", in E½ sec.8, T.5 N., R.17 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in Fort Apache Indian Reservation, on right bank 0.5 mi upstream from mouth and 7 mi north of Chrysotile.

DRAINAGE AREA.--295 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,200 ft above National Geodetic Vertical of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Small diversions for irrigation in the vicinity of the village of Cibecue.

AVERAGE DISCHARGE.--28 years, 46.9 ft³/s, 33,980 acre-ft/yr; median of yearly mean discharges, 34 ft³/s, 24,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft³/s Sept. 2, 1977, gage height, 17.3 ft, on basis of slope-area measurement of peak flow; minimum daily, 4.1 ft³/s Aug. 17-19, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	2130	*2,680	*5.84	Aug. 12	1730	1,320	4.55
July 29	2030	1,890	5.13				

Minimum daily discharge, 15 ft³/s July 12-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	24	25	41	55	48	26	19	16	18	e17
2	19	52	23	25	42	50	44	25	19	16	17	e17
3	18	38	23	24	46	48	43	24	19	16	27	e17
4	18	104	23	24	49	42	44	24	19	16	16	e17
5	18	25	23	29	52	40	46	22	31	16	49	e17
6	18	23	28	28	52	51	46	23	21	16	39	e17
7	19	23	35	25	48	68	46	23	20	16	23	e17
8	18	23	34	26	45	85	44	22	18	16	30	e17
9	18	23	36	24	43	93	40	22	18	16	44	e17
10	51	22	37	23	41	102	41	22	18	16	57	e17
11	214	22	37	24	39	100	40	24	17	16	48	e17
12	151	22	35	24	39	98	40	24	17	15	133	e17
13	25	21	33	23	41	94	39	22	17	15	e55	e17
14	22	21	31	23	44	92	39	22	17	15	e20	e17
15	21	21	30	23	46	92	36	24	17	15	e17	e17
16	21	21	30	27	47	92	35	23	17	15	e17	e17
17	21	21	34	23	44	95	32	21	17	15	e17	e17
18	20	59	40	20	44	76	31	21	17	15	e17	e17
19	20	113	29	23	43	65	30	20	17	15	e17	e17
20	20	26	28	29	41	73	29	21	17	15	e17	e17
21	20	24	28	21	38	76	28	26	17	15	e17	e17
22	21	28	28	25	36	75	28	22	17	15	e17	e17
23	21	28	28	26	35	68	26	21	17	15	e25	e17
24	20	25	27	23	38	63	26	20	17	15	e17	e20
25	20	24	27	23	45	62	30	20	17	15	e17	e20
26	20	24	27	22	41	61	38	20	17	15	e17	e17
27	20	24	26	22	40	60	29	20	17	15	e17	e19
28	20	24	26	22	47	60	37	20	17	17	e17	e28
29	20	24	26	23	---	58	28	20	17	178	e17	e17
30	20	24	26	24	---	55	28	20	17	52	e17	e16
31	20	---	25	54	---	52	---	20	---	34	e17	---
TOTAL	974	949	907	777	1207	2201	1091	684	542	697	873	528
MEAN	31.4	31.6	29.3	25.1	43.1	71.0	36.4	22.1	18.1	22.5	28.2	17.6
MAX	214	113	40	54	52	102	48	26	31	178	133	28
MIN	18	20	23	20	35	40	26	20	17	15	16	16
AC-FT	1930	1880	1800	1540	2390	4370	2160	1360	1080	1380	1730	1050

CAL YR	1986	TOTAL	13943	MEAN	38.2	MAX	359	MIN	16	AC-FT	27660
WTR YR	1987	TOTAL	11430	MEAN	31.3	MAX	214	MIN	15	AC-FT	22670

e Estimated

GILA RIVER BASIN

09497980 CHERRY CREEK NEAR GLOBE, AZ

LOCATION.--Lat 33°49'40", long 110°51'20", in SW $\frac{1}{4}$ sec.30, T.6 N., R.15 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in Tonto National Forest, on right bank 0.2 mi upstream from Devils Chasm, 13 mi upstream from mouth, and 30 mi north of Globe.

DRAINAGE AREA.--200 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 17, 1979, at site 125 ft downstream at datum 2.95 ft lower.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--22 years, 41.3 ft³/s, 29,920 acre-ft/yr; median of yearly mean discharges, 23 ft³/s, 16,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Jan. 17, 1979, gage height, unknown, from slope-area measurement of peak flow; minimum daily, 2.4 ft³/s Sept. 17, 22, 25, 29, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	0515	*358	*4.21

Minimum daily discharge, 4.9 ft³/s July 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	9.4	9.2	11	78	57	22	10	7.3	5.7	9.4	6.6
2	7.9	12	9.0	11	64	86	21	9.9	7.2	5.6	28	6.5
3	8.4	12	8.7	11	56	140	20	9.3	6.8	5.4	47	6.3
4	8.3	20	8.7	10	47	240	20	9.5	6.8	5.3	11	6.7
5	8.8	16	8.7	14	38	286	19	9.2	6.8	5.5	7.7	7.2
6	9.3	13	11	20	32	230	18	10	7.1	5.6	11	6.6
7	8.7	12	24	16	27	203	18	9.7	6.9	5.5	43	6.3
8	8.4	11	42	16	24	158	18	9.1	6.6	5.5	12	6.2
9	8.5	11	33	14	22	124	16	8.6	6.6	5.6	9.0	6.1
10	11	11	26	13	20	98	16	9.1	6.4	5.2	7.8	6.1
11	19	11	20	13	20	74	16	9.3	6.2	5.1	7.9	6.0
12	32	11	17	12	19	53	15	13	6.2	5.2	7.9	6.1
13	15	10	15	12	19	42	14	14	6.2	6.1	8.0	6.2
14	12	10	14	11	17	36	14	12	6.0	5.4	6.5	6.1
15	11	10	13	12	16	35	14	10	6.2	5.8	6.4	6.2
16	10	10	13	14	17	37	13	9.6	6.5	6.0	6.5	6.1
17	9.8	10	15	13	16	35	13	9.0	6.5	6.0	6.3	6.1
18	9.6	14	19	11	16	49	12	8.3	6.3	5.6	6.1	6.3
19	9.4	43	16	11	16	81	12	11	6.3	5.8	5.6	6.3
20	9.4	19	14	12	16	67	12	12	6.3	5.7	6.2	6.1
21	9.4	14	15	12	15	45	12	10	6.3	5.8	6.9	6.0
22	9.4	13	14	11	14	38	12	8.9	6.2	5.5	12	6.0
23	9.4	12	13	12	14	34	11	8.1	6.1	5.3	9.3	6.5
24	9.4	12	13	12	20	34	11	13	12	5.6	8.1	6.9
25	9.4	12	12	11	27	47	11	13	12	6.0	8.9	7.1
26	9.4	11	12	12	28	46	10	13	6.0	4.9	25	6.7
27	9.4	11	11	13	33	40	11	7.6	6.1	4.9	11	6.6
28	9.4	11	11	17	42	34	11	7.8	5.9	6.3	8.7	6.5
29	9.4	11	11	21	---	30	11	8.0	5.7	6.1	7.4	6.5
30	9.4	11	11	17	---	27	11	7.7	5.6	7.1	6.7	6.4
31	9.4	---	11	57	---	24	---	7.6	---	7.6	6.4	---
TOTAL	328.2	393.4	470.3	452	773	2530	434	307.3	203.1	176.7	363.7	191.3
MEAN	10.6	13.1	15.2	14.6	27.6	81.6	14.5	9.91	6.77	5.70	11.7	6.38
MAX	32	43	42	57	78	286	22	14	12	7.6	47	7.2
MIN	7.9	9.4	8.7	10	14	24	10	7.6	5.6	4.9	5.6	6.0
AC-FT	651	780	933	897	1530	5020	861	610	403	350	721	379

CAL YR	1986	TOTAL	9566.5	MEAN	26.2	MAX	735	MIN	5.6	AC-FT	18980
WTR YR	1987	TOTAL	6623.0	MEAN	18.1	MAX	286	MIN	4.9	AC-FT	13140

09498400 PINAL CREEK AT INSPIRATION DAM NEAR GLOBE, AZ

LOCATION.--Lat 33°34'23", long 110°54'02", in NE¼NW¼SE¼ sec.26, T.3 N., R.14 E., Gila County, Hydrologic Unit 15060103, in Tonto National Forest, on right bank 20 ft upstream from Inspiration Dam, 3.8 mi upstream from mouth, and 14 mi northwest of the town of Globe.

DRAINAGE AREA.--195 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,725 ft above National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--7 years (water years 1981-87), 12.3 ft³/s, 8,910 acre-ft/yr.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,920 ft³/s July 9, 1981 (from weather records), gage height, 5.05 ft, from high-water mark; minimum daily, 1.5 ft³/s Mar. 10-14, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0145	325	1.78	Aug. 10	2230	*861	*2.68
Aug. 5	1815	292	1.71	Aug. 22	2400	461	2.04

Minimum daily discharge, 2.7 ft³/s Sept. 7, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.4	10	11	10	7.0	10	6.9	6.9	7.1	4.8	2.9
2	12	9.0	10	11	10	7.7	9.6	6.9	6.9	7.1	6.9	3.1
3	12	11	9.6	10	10	7.9	9.6	6.9	6.9	7.1	7.1	3.0
4	12	11	9.6	11	10	7.7	9.9	6.9	6.9	7.7	5.1	3.9
5	12	9.6	9.6	12	10	7.7	10	6.9	6.9	7.6	16	3.4
6	12	9.6	10	11	11	8.2	10	6.9	6.9	7.3	4.7	2.9
7	12	9.6	14	10	11	8.4	10	7.1	6.9	7.4	3.6	2.7
8	11	9.6	13	10	11	8.0	10	7.4	6.9	7.4	3.2	2.8
9	11	9.6	11	10	11	7.9	10	6.6	6.9	7.4	3.0	2.8
10	12	9.6	11	10	11	7.9	10	6.7	6.9	6.8	e40	2.7
11	14	9.6	11	11	11	8.3	10	7.2	6.9	5.6	19	2.9
12	56	9.6	11	11	11	8.4	10	6.9	6.9	5.7	5.1	2.9
13	10	9.6	11	10	10	8.7	10	6.9	6.9	5.7	3.4	2.9
14	10	10	11	10	11	9.0	10	6.9	6.9	5.7	3.1	3.2
15	9.6	10	11	10	10	9.6	10	6.9	6.9	6.1	3.0	3.5
16	9.6	10	11	10	10	12	9.6	6.9	6.6	6.3	2.9	3.3
17	9.6	10	11	9.8	9.6	9.6	9.0	6.9	6.4	5.7	2.9	3.4
18	9.6	12	10	9.6	9.6	9.6	9.0	6.9	6.7	5.4	3.0	3.4
19	9.0	9.0	10	9.9	9.6	8.9	9.0	6.9	6.9	5.2	4.0	3.4
20	9.0	9.0	10	11	9.6	8.4	8.9	6.9	6.9	5.2	4.1	3.6
21	9.0	9.0	10	10	9.8	8.7	8.4	6.9	6.9	5.2	4.3	3.8
22	9.0	9.0	10	9.8	10	9.7	8.4	6.9	7.0	4.9	7.4	3.9
23	9.0	9.6	11	9.8	10	9.6	8.4	7.2	7.2	4.4	55	e4.4
24	9.0	9.6	11	9.6	11	9.6	8.4	7.4	7.4	5.0	6.1	4.0
25	8.4	10	11	9.6	11	9.6	8.2	7.4	7.2	5.4	4.0	4.1
26	8.4	10	11	9.5	9.8	9.0	8.3	7.4	6.9	4.6	3.8	4.2
27	8.4	10	11	9.6	9.2	9.7	7.9	7.4	6.8	4.4	3.6	4.5
28	8.4	10	11	10	7.6	10	7.9	7.4	6.8	4.7	3.4	4.5
29	8.4	10	11	9.9	---	10	7.6	7.1	7.0	4.8	3.7	4.5
30	8.4	10	11	9.9	---	10	7.2	6.9	7.1	5.1	3.2	4.5
31	8.4	---	11	11	---	10	---	6.9	---	5.4	2.9	---
TOTAL	359.2	293.0	333.8	317.0	284.8	276.8	275.3	217.4	207.3	183.4	242.3	105.1
MEAN	11.6	9.77	10.8	10.2	10.2	8.93	9.18	7.01	6.91	5.92	7.82	3.50
MAX	56	12	14	12	11	12	10	7.4	7.4	7.7	55	4.5
MIN	8.4	8.4	9.6	9.5	7.6	7.0	7.2	6.6	6.4	4.4	2.9	2.7
AC-FT	712	581	662	629	565	549	546	431	411	364	481	208

CAL YR	1986	TOTAL	3884.3	MEAN	10.6	MAX	78	MIN	4.1	AC-FT	7700
WTR YR	1987	TOTAL	3095.4	MEAN	8.48	MAX	56	MIN	2.7	AC-FT	6140

e Estimated

GILA RIVER BASIN

09498400 PINAL CREEK AT INSPIRATION DAM NEAR GLOBE, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1979 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
NOV 1986											
04...	1200	11	3150	7.82	18.5	19.5	30	693	8.1	98	62
28...	1200	9.9	3350	7.60	12.0	14.0	1.0	705	8.9	95	43
DEC											
31...	1205	11	3300	8.07	11.0	14.5	0.50	691	9.0	98	43
JAN 1987											
28...	1200	10	2420	7.70	17.0	14.0	0.40	690	9.4	102	44
MAR											
02...	1410	9.5	2840	8.05	13.5	12.0	84	691	9.7	100	48
25...	1055	12	3010	8.00	11.5	15.0	0.50	685	14.0	157	50
APR											
24...	1200	9.1	3180	8.00	29.0	22.0	2.0	692	7.9	101	46
MAY											
20...	1045	7.2	3120	8.05	25.0	21.0	1.4	685	8.1	103	43
JUN											
25...	1200	7.1	3320	7.51	31.0	23.0	0.70	689	7.5	98	56
JUL											
30...	1430	4.9	3240	7.96	29.0	25.0	0.70	688	7.7	105	50
AUG											
19...	1235	4.9	3220	7.99	33.5	30.0	1.2	689	6.3	94	44
SEP											
23...	1735	4.6	3310	8.00	26.0	25.0	0.60	690	9.6	130	*98

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL AS (MG/L CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)
NOV 1986										
04...	500	--	1900	1800	570	120	76	0.8	4.3	--
28...	K12	22	2000	1800	570	130	79	0.8	4.2	140
DEC										
31...	K21	K3	1800	1700	520	120	*80	0.9	4.3	160
JAN 1987										
28...	130	K11	1800	1700	530	110	74	0.8	4.8	--
MAR										
02...	K30	140	1600	1400	440	110	70	0.8	3.9	130
25...	K1	K13	1700	1600	490	120	*80	0.9	3.9	150
APR										
24...	31	K17	1700	1600	500	120	81	0.9	4.2	150
MAY										
20...	K13	32	1900	1800	550	120	74	0.8	4.2	140
JUN										
25...	K16	39	1900	1800	560	130	71	0.7	4.4	110
JUL										
30...	77	--	2000	1800	580	130	78	0.8	4.7	200
AUG										
19...	K10	110	1800	1700	530	120	77	0.8	5.0	150
SEP										
23...	K8	88	2000	1800	570	130	75	0.8	6.0	140

* Value verified.

K Based on non-ideal colony count.

09498400 FINAL CREEK AT INSPIRATION DAM NEAR GLOBE, AZ--Continued

WATER QUALITY DATA

DATE	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
NOV 1986										
04...	0	130	1900	88	0.20	--	3000	2860	4.08	158
28...	0	120	1800	95	0.20	--	3040	2770	4.13	8
DEC										
31...	0	132	1800	75	0.20	--	3100	2700	4.22	2
JAN 1987										
28...	0	110	1800	90	0.20	--	3090	2700	4.20	2
MAR										
02...	0	110	1600	82	0.20	--	2670	2390	3.63	216
25...	0	123	1900	100	0.20	--	3050	2790	4.15	6
APR										
24...	0	116	1900	100	0.20	--	3190	2800	4.34	6
MAY										
20...	0	115	1900	100	0.20	--	3220	2840	4.38	9
JUN										
25...	0	91	1600	100	0.20	--	3280	2540	4.46	8
JUL										
30...	0	163	2000	100	0.20	54	3320	3070	4.52	11
AUG										
19...	0	124	1800	100	0.20	--	3330	2740	4.53	5
SEP										
23...	0	117	2100	*110	0.20	54	3370	3150	4.58	2

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)
NOV 1986										
04...	<0.100	0.330	0.27	0.60	0.060	0.06	3	<1	<100	70
28...	<0.100	0.170	0.33	0.50	0.050	0.05	1	1	100	70
DEC										
31...	<0.100	0.350	0.25	0.60	0.030	0.03	1	<1	100	60
JAN 1987										
28...	<0.100	0.250	0.55	0.80	0.020	0.02	<1	<1	100	70
MAR										
02...	<0.100	0.240	0.46	0.70	0.020	0.02	3	<1	<100	50
25...	<0.100	0.240	0.0	0.20	0.020	0.02	<1	<1	<100	60
APR										
24...	<0.100	0.380	0.22	0.60	0.040	0.04	<1	<1	<100	70
MAY										
20...	<0.100	0.260	0.54	0.80	0.040	0.04	<1	<1	<100	70
JUN										
25...	<0.100	0.200	0.30	0.50	0.010	0.01	<1	<1	12	70
JUL										
30...	<0.100	0.160	0.84	1.0	0.020	0.02	<1	<1	<100	60
AUG										
19...	<0.100	0.150	0.35	0.50	0.030	0.03	<1	<1	<100	80
SEP										
23...	<0.100	0.180	0.82	1.0	0.030	0.03	<1	<1	<100	70

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09498400 PINAL CREEK AT INSPIRATION DAM NEAR GLOBE, AZ--Continued

WATER QUALITY DATA

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
NOV 1986										
04...	2	2	<1	<1	520	16	4500	30	37	<5
28...	2	2	1	1	29	10	390	20	<5	5
DEC										
31...	<1	2	3	<1	14	9	70	30	<5	<5
JAN 1987										
28...	1	1	2	<1	14	6	40	30	<5	<5
MAR										
02...	2	1	<1	<1	730	23	4700	20	29	<5
25...	2	2	<1	<1	18	10	80	20	<5	<5
APR										
24...	3	2	<1	<1	31	11	220	20	<5	<5
MAY										
20...	4	1	--	3	17	7	100	30	<5	<5
JUN										
25...	<1	1	9	1	10	4	100	4	<5	<5
JUL										
30...	<1	2	4	<1	9	4	40	30	<5	<5
AUG										
19...	1	<1	2	3	21	9	100	20	<5	<5
SEP										
23...	1	1	8	<1	15	7	100	30	<5	<5
DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1986										
04...	20000	19000	0.10	1	<1	<1.0	80	40	221	6.7
28...	24000	23000	<0.10	<1	<1	<1.0	80	30	4	0.11
DEC										
31...	23000	23000	<0.10	<1	<1	<1.0	30	20	2	0.06
JAN 1987										
28...	25000	24000	<0.10	<1	<1	<1.0	20	20	4	0.11
MAR										
02...	23000	23000	<0.10	1	<1	<1.0	60	20	192	4.9
25...	25000	26000	<0.10	<1	<1	1.0	30	30	3	0.09
APR										
24...	28000	26000	0.20	<1	<1	<1.0	30	20	9	0.22
MAY										
20...	25000	24000	<0.10	<1	<1	<1.0	20	20	19	0.37
JUN										
25...	24000	*22000	<0.10	<1	<1	<1.0	20	23	12	0.23
JUL										
30...	23000	22000	<0.10	<1	<1	<1.0	20	20	4	0.05
AUG										
19...	32000	30000	<0.10	<1	<1	1.0	20	20	10	0.13
SEP										
23...	33000	35000	<0.10	<1	<1	<1.0	10	20	13	0.16

* Value verified.

< Actual value is known to be less than value shown.

09498500 SALT RIVER NEAR ROOSEVELT, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 33°37'10", long 110°55'15", in SE¼NE¼ sec.9, T.3 N., R.14 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in Tonto National Forest on left bank 100 ft downstream from bridge on State Highway 288, 0.3 mi downstream from Pinal Creek, 1 mi upstream from diversion dam for power canal, 14 mi east of village of Roosevelt, and 17 mi upstream from Roosevelt Dam.

DRAINAGE AREA.--4,306 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1913 to current year (monthly discharge only January to September 1913, published in WSP 1313).

REVISED RECORDS.--WSP 1049: 1914, 1916, 1918-19, 1926. WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,177.14 ft above National Geodetic Vertical Datum of 1929. Prior to 1925, nonrecording gage at diversion dam about 1 mi downstream at different datum. Nonrecording gage at present site and datum 1925 to Jan. 17, 1935. May 20, 1955, to July 30, 1959, supplementary water-stage recorder at diversion dam.

REMARKS.--No estimated daily discharges. Records good. Several small diversions for irrigation of about 4,000 acres above station and two trans basin diversions above station, one into basin from Show Low Creek and one out of basin to Willow Creek. Records show inflow to Roosevelt Lake. Tonto Creek also contributes to Roosevelt Lake; see records elsewhere in this report.

AVERAGE DISCHARGE.--74 years, 903 ft³/s, 654,200 acre-ft/yr; median of yearly mean discharges, 710 ft³/s, 514,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft³/s Mar. 14, 1941, gage height, 24.4 ft, from rating curve extended above 55,000 ft³/s on basis of velocity-area studies and float-area measurements at 66,000 ft³/s and 102,000 ft³/s; maximum gage height, 29.35 ft Dec. 19, 1978; minimum discharge, 59 ft³/s all or part of each day, July 1-4, 7-12, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 42 ft³/s was reported Aug. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 8	0930	7,480	11.72	Apr. 19	0745	5,300	10.62
Mar. 5	1315	*7,560	11.72				

Minimum daily discharge, 160 ft³/s Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	362	589	518	2830	1140	1420	2480	559	259	1510	330
2	291	367	559	485	1640	1320	1460	2580	543	246	800	307
3	272	621	517	472	1210	1740	1620	2380	518	233	641	287
4	268	1690	492	462	1070	3110	1940	2130	503	217	508	270
5	270	1460	469	468	1030	5300	2470	1930	507	204	456	269
6	294	1180	495	490	1030	4480	2430	1800	510	194	605	268
7	385	1020	555	504	994	3770	2280	1720	503	190	728	270
8	354	1830	5440	525	949	3670	2280	1680	523	187	676	266
9	360	1290	3670	490	910	3560	2310	1650	499	180	600	234
10	365	989	1940	460	873	3330	2280	1530	490	176	568	236
11	421	896	1330	410	840	3070	2620	1510	491	172	564	218
12	1020	821	1130	361	866	2700	3240	1430	478	167	608	199
13	1280	764	952	358	908	2530	3760	1330	461	167	849	181
14	1090	709	875	393	943	2630	3600	1380	432	168	653	169
15	909	685	796	411	987	2820	3430	1320	415	166	556	168
16	793	679	736	431	1050	2850	3680	1330	392	172	486	171
17	703	672	713	435	1010	2520	4270	1350	373	174	423	168
18	646	680	972	412	983	3270	4740	1250	352	184	382	164
19	588	889	1280	364	945	3410	5010	1160	342	196	341	168
20	544	1040	1160	328	924	3290	4810	1030	321	192	320	162
21	512	1590	1040	347	900	2840	4500	1010	307	192	329	161
22	483	1270	1180	402	845	2500	3990	1000	298	184	276	160
23	462	1110	1220	373	772	2400	3650	965	292	183	417	164
24	441	1020	965	371	757	2160	3480	857	281	194	346	176
25	425	939	870	403	920	2270	3370	786	269	193	393	219
26	406	872	776	389	985	2090	3190	734	258	188	484	240
27	391	805	710	393	917	1880	3010	694	255	191	429	235
28	390	742	638	428	954	1800	2870	657	266	199	420	253
29	382	684	608	562	---	1690	2770	636	271	222	396	251
30	372	638	577	642	---	1590	2640	605	277	416	389	230
31	358	---	546	741	---	1490	---	585	---	875	351	---
TOTAL	15780	28314	33800	13828	29042	83220	93120	41499	11986	6881	16504	6594
MEAN	509	944	1090	446	1037	2685	3104	1339	400	222	532	220
MAX	1280	1830	5440	741	2830	5300	5010	2580	559	875	1510	330
MIN	268	362	469	328	757	1140	1420	585	255	166	276	160
AC-FT	31300	56160	67040	27430	57600	165100	184700	82310	23770	13650	32740	13080
CAL YR 1986	TOTAL	317859	MEAN	871	MAX	6530	MIN	196	AC-FT	630500		
WTR YR 1987	TOTAL	380568	MEAN	1043	MAX	5440	MIN	160	AC-FT	754900		

GILA RIVER BASIN

09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1958 to October 1967, January 1976 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1958 to October 1967.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (000020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1986												
28...	1045	374	2140	8.44	21.5	17.0	7.2	711	9.5	106	19	K32
NOV												
26...	1330	903	1050	7.80	13.0	10.0	13	705	10.2	98	13	K20
DEC												
30...	1340	583	1430	8.32	13.5	7.0	5.1	708	10.9	97	<10	K2
JAN 1987												
27...	1330	409	2130	6.90	16.0	8.0	1.4	710	13.8	126	16	<1
FEB												
24...	1340	765	1260	8.15	10.0	8.5	3.6	698	10.9	102	<10	K1
MAR												
24...	1440	2200	538	8.18	18.0	12.0	16	696	13.6	139	21	K7
APR												
23...	1420	3760	350	8.21	27.0	18.0	28	703	8.6	99	24	K5
MAY												
19...	1345	1210	775	8.45	28.0	22.5	4.4	698	8.7	111	<10	K15
JUN												
24...	1105	281	2420	8.32	33.0	25.0	2.9	704	8.0	106	<10	K14
JUL												
29...	1215	216	3670	8.40	30.0	27.5	1.8	701	7.9	110	19	K8
AUG												
18...	1325	390	1610	8.37	34.5	26.0	37	701	7.3	99	14	180
SEP												
22...	1215	166	3400	8.43	29.0	22.5	0.80	708	9.8	123	55	K6

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
OCT 1986											
28...	K19	280	120	76	22	300	8	6.9	190	5	162
NOV											
26...	21	150	51	42	12	130	5	3.5	--	0	104
DEC											
30...	K3	220	76	60	17	200	6	4.9	160	6	144
JAN 1987											
27...	<1	290	110	81	22	320	8	6.8	220	0	184
FEB											
24...	K2	200	67	54	15	170	5	4.2	160	0	130
MAR											
24...	K12	110	29	29	8.4	60	3	2.4	97	0	78
APR											
23...	K43	74	16	21	5.2	40	2	1.4	71	0	58
MAY											
19...	K10	120	32	32	8.9	110	5	3.0	100	<1	85
JUN											
24...	K13	280	140	76	23	360	10	8.1	170	5	144
JUL											
29...	40	310	170	76	30	600	15	13	160	8	146
AUG											
18...	110	220	78	61	17	240	7	6.0	180	1	145
SEP											
22...	K95	320	170	77	31	560	14	33	160	10	148

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER QUALITY DATA

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1986											
28...	120	490	0.20	18	1140	1140	1.55	16	<0.010	<0.100	<0.100
NOV											
26...	59	220	0.10	--	545	529	0.74	33	--	<0.100	--
DEC											
30...	86	320	0.10	20	795	800	1.08	9	<0.010	<0.100	<0.100
JAN 1987											
27...	120	500	0.20	--	1210	1160	1.65	2	--	<0.100	--
FEB											
24...	74	270	0.20	18	701	685	0.95	5	<0.010	<0.100	<0.100
MAR											
24...	35	98	0.10	--	295	281	0.40	33	--	<0.100	--
APR											
23...	19	58	<0.10	16	201	196	0.27	111	<0.010	<0.100	<0.100
MAY											
19...	37	170	0.10	--	434	412	0.59	10	--	<0.100	--
JUN											
24...	110	580	0.20	18	1250	1270	1.70	7	<0.010	<0.100	<0.100
JUL											
29...	120	980	0.30	--	1950	1920	2.65	10	--	<0.100	--
AUG											
18...	73	370	0.20	21	896	878	1.22	83	<0.010	<0.100	<0.100
SEP											
22...	150	940	0.20	--	1830	1890	2.49	9	--	<0.100	--
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1986											
28...	0.040	0.020	0.46	0.50	0.020	0.020	0.010	0.03	0.02	0.01	<10
NOV											
26...	0.030	--	0.17	0.20	0.060	--	--	--	0.06	--	--
DEC											
30...	0.040	0.020	0.16	0.20	0.040	0.040	0.030	0.09	0.04	0.01	--
JAN 1987											
27...	0.040	--	0.56	0.60	0.020	--	--	--	0.02	--	--
FEB											
24...	<0.010	<0.010	--	0.90	0.020	0.020	0.020	0.06	0.02	0.0	60
MAR											
24...	0.020	--	0.58	0.60	0.090	--	--	--	0.09	--	--
APR											
23...	0.010	<0.010	0.49	0.50	0.070	0.050	0.030	0.09	0.07	0.02	<10
MAY											
19...	<0.010	--	--	0.60	0.050	--	--	--	0.05	--	--
JUN											
24...	0.030	0.030	0.57	0.60	0.040	0.020	<0.010	--	0.04	0.02	--
JUL											
29...	<0.010	--	--	0.60	0.020	--	--	--	0.02	--	--
AUG											
18...	<0.040	<0.010	--	0.40	0.110	0.030	0.020	0.06	0.11	0.01	20
SEP											
22...	0.010	--	0.29	0.30	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1986											
28...	5	6	48	<2	170	<1	<3	<1	<1	<9	9
NOV											
26...	2	2	26	--	80	<1	<1	2	<1	--	16
DEC											
30...	4	3	<100	--	110	<1	<1	7	<1	--	7
JAN 1987											
27...	4	4	<100	--	180	<1	<1	2	1	--	6
FEB											
24...	4	3	29	<0.5	110	<1	<1	<1	<1	<3	6
MAR											
24...	3	2	23	--	30	<1	<1	<1	<1	--	7
APR											
23...	1	1	15	<0.5	20	<1	<1	12	<1	<3	10
MAY											
19...	2	2	21	--	60	<1	<1	--	3	--	5
JUN											
24...	4	4	<100	--	190	<1	<1	13	<1	--	4
JUL											
29...	6	6	<100	--	340	<1	<1	34	2	--	3
AUG											
18...	7	6	55	<0.5	140	<1	<1	8	<5	<3	8
SEP											
22...	6	6	<100	--	300	<1	<1	6	<1	--	7

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1986											
28...	3	390	16	24	5	210	500	430	<0.10	0.2	<30
NOV											
26...	7	1100	89	21	<5	--	330	210	<0.10	--	--
DEC											
30...	3	330	20	<5	<5	--	380	380	<0.10	--	--
JAN 1987											
27...	1	90	<10	<5	<5	--	560	570	<0.10	--	--
FEB											
24...	3	300	28	<5	<5	120	320	300	<0.10	<0.1	<10
MAR											
24...	3	1200	98	<5	<5	--	400	100	<0.10	--	--
APR											
23...	9	2900	8	<5	<5	35	230	46	<0.10	<0.1	<10
MAY											
19...	4	320	16	<5	<5	--	160	130	<0.10	--	--
JUN											
24...	4	110	<10	<5	7	--	560	500	<0.10	--	--
JUL											
29...	6	200	20	<5	<5	--	350	310	<0.10	--	--
AUG											
18...	3	2600	19	<5	<5	150	360	230	<0.10	<0.1	<10
SEP											
22...	3	180	10	<5	<5	--	560	550	<0.10	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER QUALITY DATA

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986											
28...	<1	<1	<1	<1.0	670	<18	100	11	92	15	15
NOV											
26...	--	<1	<1	<1.0	--	--	40	<3	88	39	95
DEC											
30...	--	<1	<1	<1.0	--	--	<10	<10	92	12	19
JAN 1987											
27...	--	<1	<1	<1.0	--	--	<10	<10	56	8	8.8
FEB											
24...	4	<1	<1	<1.0	460	<6	<10	9	74	7	14
MAR											
24...	--	<1	<1	<1.0	--	--	20	8	60	63	374
APR											
23...	<1	<1	<1	<1.0	140	<6	<10	<3	41	256	2600
MAY											
19...	--	<1	<1	<1.0	--	--	<10	5	86	15	49
JUN											
24...	--	<1	<1	<1.0	--	--	10	20	66	18	14
JUL											
29...	--	<1	<1	<1.0	--	--	<10	10	98	6	3.5
AUG											
18...	<10	<1	<1	<2.0	510	<6	20	4	100	93	98
SEP											
22...	--	<1	<1	<1.0	--	--	<10	<10	98	21	9.4

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09498503 SOUTH FORK PARKER CREEK NEAR ROOSEVELT, AZ

LOCATION.--Lat 33°47'50", long 110°57'35", in NE¼NW¼ sec.7, T.5 N., R.14 E., Gila County, Hydrologic Unit 15060103, in Tonto National Forest, 1.5 mi upstream from confluence with Pocket Creek, and 12 mi northeast of Roosevelt.

DRAINAGE AREA.--1.09 mi².

PERIOD OF RECORD.--November 1985 to current year. Prior to November 1985, station operated by the U.S. Forest Service (records unpublished).

GAGE.--Water-stage recorder and two sharp-crested weirs. Elevation of gage is 5,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60 ft³/s, Feb. 16, 1986, gage height, 3.73 ft; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, since 1934, 270 ft³/s, Dec. 23, 1945 as reported by the U.S. Forest Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.5 ft³/s, Nov. 18, Dec. 7, gage height, 2.26 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.03	.13	.19	2.3	.91	.50	.10	.03	.00	.00	.00
2	.03	.06	.12	.19	3.0	1.2	.48	.10	.03	.00	.00	.00
3	.03	.08	.12	.17	2.4	2.0	.44	.10	.03	.00	.00	.00
4	.03	.11	.10	.17	1.8	3.0	.43	.09	.02	.00	.00	.00
5	.03	.14	.09	.22	1.3	3.8	.42	.09	.02	.00	.01	.00
6	.03	.20	1.3	.21	.96	3.6	.40	.08	.02	.00	.01	.00
7	.02	.18	4.1	.22	.78	3.6	.36	.08	.02	.00	.00	.00
8	.02	.16	3.0	.22	.67	3.3	.33	.07	.02	.00	.00	.00
9	.03	.13	1.7	.20	.60	3.0	.32	.07	.02	.00	.00	.00
10	.04	.12	1.3	.19	.56	2.2	.30	.08	.02	.00	.00	.00
11	.65	.11	.96	.19	.54	1.7	.27	.08	.01	.00	.01	.00
12	1.3	.10	.94	.19	.55	1.3	.25	.07	.01	.00	.01	.00
13	.54	.09	.94	.19	.51	1.0	.24	.06	.01	.00	.01	.00
14	.38	.08	.85	.22	.47	.87	.23	.06	.01	.00	.01	.00
15	.26	.07	.60	.35	.43	.84	.28	.07	.01	.00	.00	.00
16	.21	.07	.65	.41	.40	.82	.19	.06	.01	.00	.00	.00
17	.18	.06	.69	.41	.37	.90	.19	.05	.01	.00	.00	.00
18	.16	.53	.61	.41	.35	1.5	.17	.04	.01	.00	.00	.00
19	.13	2.5	.53	.41	.32	2.1	.17	.04	.01	.00	.00	.00
20	.11	.87	.49	.41	.32	2.0	.16	.11	.01	.00	.00	.00
21	.10	.59	.46	.41	.31	1.4	.16	.09	.01	.00	.00	.00
22	.09	.47	.46	.41	.27	1.2	.15	.06	.01	.00	.00	.00
23	.07	.37	.44	.41	.24	1.1	.14	.06	.01	.00	.00	.00
24	.07	.31	.41	.41	.26	1.1	.14	.07	.01	.00	.00	.00
25	.06	.26	.38	.44	.29	1.0	.13	.07	.00	.00	.00	.00
26	.05	.22	.35	.57	.32	.88	.13	.06	.00	.00	.00	.00
27	.04	.20	.33	.97	.34	.79	.12	.04	.00	.00	.00	.00
28	.04	.18	.30	1.3	.43	.70	.12	.04	.00	.00	.00	.00
29	.03	.16	.23	1.2	---	.65	.11	.04	.00	.00	.00	.00
30	.03	.14	.22	.90	---	.59	.11	.03	.00	.00	.00	.00
31	.03	---	.20	2.1	---	.55	---	.03	---	.00	.00	---
TOTAL	4.82	8.59	23.00	14.29	21.09	49.60	7.44	2.09	0.37	0.00	0.06	0.00
MEAN	.16	.29	.74	.46	.75	1.60	.25	.067	.012	.00	.002	.00
MAX	1.3	2.5	4.1	2.1	3.0	3.8	.50	.11	.03	.00	.01	.00
MIN	.02	.03	.09	.17	.24	.55	.11	.03	.00	.00	.00	.00
AC-FT	9.6	17	46	28	42	98	15	4.1	.7	.0	.1	.0
CAL YR 1986	TOTAL	206.06	MEAN	.56	MAX	21	MIN	.00	AC-FT	409		
WTR YR 1987	TOTAL	131.35	MEAN	.36	MAX	4.1	MIN	.00	AC-FT	261		

GILA RIVER BASIN

203

09499000 TONTO CREEK ABOVE GUN CREEK, NEAR ROOSEVELT, AZ

LOCATION.--Lat 33°58'48", long 111°18'10", in SW¼NE¼ sec.2, T.7 N., R.10 E., Gila County, Hydrologic Unit 15060105, in Tonto National Forest, on left bank 600 ft upstream from Gun Creek, 17 mi upstream from high-water line of Roosevelt Lake, and 24 mi northwest of Roosevelt.

DRAINAGE AREA.--675 mi².

PERIOD OF RECORD.--December 1940 to current year.

REVISED RECORDS.--WSP 1283: Drainage area. WDR AZ-80-1: 1978-79(M).

GAGE.--Water-stage recorder. Datum of gage is 2,523.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--46 years (water years 1942-87), 155 ft³/s, 112,300 acre-ft/yr; median of yearly mean discharges, 92 ft³/s, 66,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft³/s Jan. 17, 1979 and Feb. 15, 1980, gage height, 17.0 ft; maximum gage height, 18.2 ft Sept. 5, 1970; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	0100	3,540	7.07
Aug. 3	1815	*4,460	*7.27

Minimum daily discharge, 1.7 ft³/s July 24, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	27	27	35	332	397	88	39	18	5.4	10	11
2	12	29	25	34	191	551	88	37	18	5.0	8.9	11
3	12	47	26	33	143	803	110	33	18	4.0	261	8.4
4	13	45	26	32	117	1380	125	33	17	3.5	50	8.3
5	15	40	26	36	101	1840	126	32	16	4.2	33	8.1
6	17	37	30	57	90	1110	108	31	15	3.4	81	6.8
7	17	33	88	67	79	748	104	28	16	3.0	45	9.2
8	16	32	176	75	71	556	98	26	14	2.6	39	9.3
9	15	30	119	79	64	435	98	26	14	2.4	26	8.4
10	24	29	87	70	59	364	101	28	13	2.5	44	7.1
11	34	27	69	59	56	257	105	28	12	2.3	144	5.4
12	158	25	60	53	60	204	100	25	11	2.4	62	5.1
13	77	26	55	49	68	187	93	26	10	2.4	161	5.0
14	54	25	50	47	71	184	85	24	11	2.3	103	4.4
15	44	25	48	46	69	180	74	26	11	2.8	53	4.0
16	39	24	45	44	63	197	69	27	9.6	2.6	30	4.0
17	35	25	46	44	57	198	67	25	9.5	3.2	20	4.8
18	33	31	46	40	54	222	64	22	7.7	2.8	16	4.8
19	31	33	47	37	51	280	62	21	7.3	2.6	14	4.7
20	29	48	53	39	52	241	58	25	7.2	3.1	11	4.1
21	30	41	91	39	49	196	52	37	7.0	2.9	11	3.9
22	28	36	67	35	45	173	49	40	6.9	2.4	11	4.3
23	29	34	58	37	39	163	46	29	6.7	2.3	42	5.4
24	28	32	52	37	52	142	45	25	6.8	1.7	41	5.2
25	28	30	47	36	123	149	44	24	6.7	1.8	37	5.5
26	27	30	44	37	156	140	43	22	6.7	1.9	18	10
27	26	29	42	37	247	130	45	20	6.4	1.7	20	13
28	26	28	41	37	313	120	43	20	5.4	2.1	18	13
29	26	28	39	41	---	113	39	19	5.2	3.0	14	11
30	24	25	37	47	---	103	39	20	5.6	4.3	13	9.3
31	26	---	36	128	---	95	---	20	---	10	12	---
TOTAL	988	951	1703	1487	2872	11858	2268	838	318.7	96.6	1448.9	214.5
MEAN	31.9	31.7	54.9	48.0	103	383	75.6	27.0	10.6	3.12	46.7	7.15
MAX	158	48	176	128	332	1840	126	40	18	10	261	13
MIN	12	24	25	32	39	95	39	19	5.2	1.7	8.9	3.9
AC-FT	1960	1890	3380	2950	5700	23520	4500	1660	632	192	2870	425

CAL YR	1986	TOTAL	39883.0	MEAN	109	MAX	5600	MIN	7.7	AC-FT	79110
WTR YR	1987	TOTAL	25043.7	MEAN	68.6	MAX	1840	MIN	1.7	AC-FT	49670

09501000 RESERVOIR SYSTEM ON SALT RIVER AT AND BELOW ROOSEVELT DAM, AZ

LOCATION.--This system comprises four storage reservoirs created by four separate dams on Salt River, Hydrologic Unit 15060106: Roosevelt Lake, formed by Roosevelt Dam in sec.20, T.4 N., R.12 E. (unsurveyed), on State Highway 88; Apache Lake, formed by Horse Mesa Dam, 17 mi downstream from Roosevelt Dam; Canyon Lake, formed by Mormon Flat Dam, 27 mi downstream from Roosevelt Dam; Saguaro Lake, formed by Stewart Mountain Dam, 37 mi downstream from Roosevelt Dam. Contents given herein are combined contents of the four reservoirs.

DRAINAGE AREA.--6,211 mi², at Stewart Mountain Dam.

PERIOD OF RECORD.--April 1910 to current year. Prior to October 1934, monthend contents only, published in WSP 1313. Evaporation: April 1958 to June 1963.

REVISED RECORDS.--WSP 1283: Drainage area. WRD Ariz. 1975: 1974.

GAGES.--Roosevelt Lake, water-stage indicator in powerplant connected to long distance transmitter on lake (water-stage recorder prior to Jan. 1, 1967); Apache Lake, water-stage indicator in powerplant connected to long distance transmitter on lake since April 1949 (prior to that date, nonrecording gage or reference mark); Canyon and Saguaro Lakes, mercury column gages.

REMARKS.--Total capacity of the four reservoirs as of 1981 was 1,710,000 acre-ft, divided as follows: Roosevelt Lake, 1,337,000 acre-ft; Apache Lake, 245,000 acre-ft; Canyon Lake, 58,000 acre-ft; Saguaro Lake, 70,000 acre-ft. Dead storage negligible. Dams forming these reservoirs were built as follows: Roosevelt 1905-11; Horse Mesa 1924-27; Mormon Flat 1923-26; Stewart Mountain 1928-30. The four dams forming these reservoirs completely develop the fall in the Salt River from Roosevelt Lake to Stewart Mountain Dam. Elevation of water surface varies from 1,422.0 ft, sill of lowest outlet in Stewart Mountain Dam, to 2,136 ft, top of spillway gates in raised position on Roosevelt Dam. See 1978 to 1980 reports for dates of spill prior to 1981 water year. Records given herein represent usable contents. Water from this system is used for irrigation of Salt River Valley, power generation, municipal purposes, and recreation.

COOPERATION.--Records of daily contents furnished by Salt River Valley Water Users' Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents of system, 1,764,000 acre-ft May 22, 1941; minimum, 20,680 acre-ft Sept. 16, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum contents of system, 1,699,000 acre-ft May 7; minimum, 1,337,000 acre-ft Oct. 1-4.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1337000	1365000	1420000	1490000	1479000	1511000	1621000	1691000	1672000	1592000	1500000	1433000
2	1337000	1366000	1420000	1490000	1484000	1514000	1620000	1693000	1670000	1589000	1500000	1430000
3	1337000	1367000	1422000	1490000	1487000	1518000	1619000	1695000	1668000	1586000	1499000	1427000
4	1337000	1369000	1422000	1490000	1489000	1524000	1618000	1696000	1665000	1583000	1497000	1424000
5	1338000	1373000	1423000	1491000	1490000	1533000	1618000	1697000	1663000	1580000	1496000	1422000
6	1338000	1376000	1424000	1491000	1491000	1547000	1620000	1698000	1661000	1577000	1494000	1417000
7	1338000	1377000	1427000	1491000	1491000	1556000	1621000	1699000	1658000	1574000	1492000	1416000
8	1339000	1379000	1429000	1491000	1492000	1564000	1622000	1698000	1656000	1571000	1490000	1414000
9	1339000	1383000	1441000	1491000	1493000	1573000	1623000	1698000	1653000	1568000	1487000	1413000
10	1341000	1385000	1449000	1491000	1494000	1581000	1624000	1698000	1651000	1565000	1485000	1411000
11	1343000	1387000	1453000	1490000	1494000	1587000	1625000	1698000	1649000	1561000	1483000	1407000
12	1345000	1388000	1455000	1490000	1493000	1592000	1627000	1697000	1646000	1558000	1481000	1404000
13	1347000	1390000	1457000	1490000	1493000	1595000	1629000	1697000	1643000	1555000	1480000	1401000
14	1350000	1390000	1459000	1489000	1493000	1598000	1632000	1696000	1640000	1552000	1478000	1399000
15	1352000	1391000	1461000	1489000	1492000	1602000	1635000	1695000	1639000	1550000	1475000	1397000
16	1354000	1393000	1462000	1488000	1492000	1606000	1638000	1695000	1636000	1546000	1473000	1395000
17	1355000	1394000	1463000	1486000	1493000	1608000	1640000	1694000	1633000	1543000	1471000	1393000
18	1356000	1395000	1465000	1485000	1493000	1610000	1645000	1693000	1631000	1540000	1468000	1390000
19	1357000	1398000	1467000	1484000	1493000	1614000	1651000	1692000	1627000	1537000	1465000	1389000
20	1358000	1399000	1470000	1484000	1493000	1617000	1657000	1691000	1624000	1534000	1462000	1386000
21	1359000	1402000	1472000	1483000	1493000	1618000	1662000	1691000	1622000	1531000	1460000	1384000
22	1360000	1405000	1474000	1482000	1493000	1619000	1667000	1690000	1619000	1528000	1457000	1383000
23	1360000	1408000	1477000	1481000	1494000	1620000	1671000	1688000	1616000	1525000	1455000	1381000
24	1361000	1410000	1479000	1481000	1495000	1621000	1675000	1687000	1613000	1522000	1452000	1379000
25	1362000	1412000	1481000	1480000	1499000	1622000	1677000	1685000	1610000	1518000	1451000	1378000
26	1363000	1413000	1483000	1480000	1503000	1622000	1680000	1684000	1607000	1515000	1447000	1377000
27	1363000	1415000	1484000	1479000	1507000	1623000	1683000	1683000	1603000	1513000	1444000	1376000
28	1363000	1416000	1486000	1477000	1508000	1623000	1686000	1680000	1599000	1510000	1442000	1375000
29	1364000	1417000	1487000	1478000	---	1623000	1688000	1678000	1598000	1507000	1440000	1373000
30	1364000	1418000	1488000	1477000	---	1623000	1690000	1676000	1595000	1504000	1438000	1372000
31	1365000	---	1489000	1477000	---	1622000	---	1674000	---	1502000	1435000	---
MAX	1365000	1418000	1489000	1491000	1508000	1623000	1690000	1699000	1672000	1592000	1500000	1433000
MIN	1337000	1365000	1420000	1477000	1479000	1511000	1618000	1674000	1595000	1502000	1435000	1372000
(*)	+28000	+55000	+70000	-11000	+32000	+110000	+70000	-19000	-80000	-92000	-67000	-63000
CAL YR 1986	MAX	1694000	MIN	1337000	(*)	+42000						
WTR YR 1987	MAX	1699000	MIN	1337000	(*)	+33000						

(*) Change in contents, in acre-feet (from 0800 first of month).

NOTE.--Contents at 0800 Oct. 1, 1987, 1,370,000 acre-feet. Prior to Oct. 1, 1972, contents were given at 2400.

GILA RIVER BASIN

205

09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ

LOCATION.--Lat 33°33'10", long 111°34'33", in NW¼NW¼ sec.6, T.2 N., R.8 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060106, on left bank 3.5 mi downstream from Stewart Mountain Dam and 6 mi upstream from Verde River.

DRAINAGE AREA.--6,232 mi², of which 21 mi² is below Stewart Mountain Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1930 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Stewart Mountain Dam" 1934-41.

REVISED RECORDS.--WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,370 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 27, 1934, at site 3.2 mi upstream at different datum. Sept. 27, 1934, to Jan. 20, 1950, at site 2.8 mi upstream at datum 1,396.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by four reservoirs above station. (See elsewhere in this report.) Entire flow (except during infrequent periods of extreme flooding) is diverted at Granite Reef Dam, 10 mi downstream, for irrigation in Salt River Valley and for municipal use by the city of Phoenix.

AVERAGE DISCHARGE.--57 years, 979 ft³/s, 709,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,200 ft³/s Feb. 15, 1980, gage height, 25.0 ft, from highwater mark inside gage well, from rating curve extended above 10,000 ft³/s defined by known release rates from Stewart Mountain Dam and recorded gage heights; maximum daily discharge, 64,000 ft³/s Feb. 16, 1980; no flow at times in recent years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,240 ft³/s Mar. 23; minimum daily, 6.0 ft³/s Nov. 15-17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	6.7	7.4	7.4	806	8.3	1910	1500	1650	1750	1610	1590
2	14	6.9	7.7	219	703	8.3	1930	1470	1720	1660	1610	1630
3	9.0	6.7	7.8	574	588	8.6	1920	1440	1770	1700	1480	1570
4	8.2	6.8	7.8	534	672	8.5	1880	1400	1760	1660	1600	1530
5	8.2	6.8	7.6	555	795	8.5	1860	1450	1710	1580	1610	1500
6	8.1	6.5	8.0	481	756	8.4	1840	1430	1710	1640	1580	1490
7	7.8	6.5	9.1	556	727	8.2	1740	1440	1730	1640	1620	1460
8	7.8	6.9	8.2	588	611	8.2	1730	1590	1750	1680	1700	1440
9	7.8	6.8	7.8	633	715	7.9	1790	1630	1770	1710	1740	1360
10	11	6.7	7.7	678	879	77	1910	1630	1770	1740	1660	1490
11	9.6	6.8	7.4	628	1020	627	1970	1610	1760	1650	1580	1570
12	8.4	6.8	7.6	578	1030	851	1950	1510	1770	1610	1540	1460
13	7.7	6.8	7.5	695	1100	1090	1840	1580	1790	1600	1560	1360
14	7.4	6.4	7.5	755	1170	1210	1870	1620	1760	1630	1660	1320
15	7.3	6.0	7.5	889	1130	1070	2030	1680	1700	1650	1710	1190
16	7.2	6.0	7.4	954	1090	1280	2000	1610	1720	1630	1630	1160
17	7.2	6.0	7.4	1030	1120	1700	2080	1510	1780	1580	1720	1170
18	7.2	7.3	7.4	1050	1150	1720	1960	1070	1780	1640	1690	1280
19	7.2	8.0	7.4	798	971	1860	1700	1480	1780	1600	1650	1200
20	7.2	6.5	7.8	764	957	2210	1390	1590	1720	1580	1690	1130
21	7.2	7.2	7.6	726	820	2210	1530	1560	1730	1680	1710	1080
22	7.2	7.8	7.4	752	330	2230	1670	1630	1720	1690	1700	1100
23	7.2	7.8	7.4	781	11	2240	1740	1610	1770	1680	1700	1050
24	7.2	7.7	7.4	750	8.8	2030	1760	1630	1740	1680	1660	910
25	7.2	7.4	7.4	701	9.1	1890	1710	1510	1740	1720	1610	913
26	7.2	7.4	7.4	751	8.7	1890	1600	1530	1680	1650	1600	861
27	6.8	7.4	7.4	872	8.3	1880	1630	1560	1750	1600	1620	887
28	6.8	7.6	7.4	861	8.2	1890	1640	1570	1750	1600	1650	925
29	6.7	7.4	7.4	906	---	1900	1600	1600	1700	1620	1640	1060
30	6.7	7.4	7.4	954	---	1910	1550	1660	1700	1630	1520	957
31	6.7	---	7.4	915	---	1910	---	1620	---	1610	1500	---
TOTAL	568.2	209.0	235.6	21935.4	19194.1	35749.9	53730	47720	52180	51090	50550	37643
MEAN	18.3	6.97	7.60	708	686	1153	1791	1539	1739	1648	1631	1255
MAX	333	8.0	9.1	1050	1170	2240	2080	1680	1790	1750	1740	1630
MIN	6.7	6.0	7.4	7.4	8.2	7.9	1390	1070	1650	1580	1480	861
AC-FT	1130	415	467	43510	38070	70910	106600	94650	103500	101300	100300	74660
CAL YR	1986	TOTAL	319398.3	MEAN	875	MAX	3020	MIN	1.8	AC-FT	633500	
WTR YR	1987	TOTAL	370805.2	MEAN	1016	MAX	2240	MIN	6.0	AC-FT	735500	

GILA RIVER BASIN

09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily record of specific conductance and water temperature collected at Stewart Mountain Dam, 3.5 mi upstream from gaging station.

PERIOD OF RECORD.--December 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1982, March 1983 to current year.

WATER TEMPERATURES: December 1950 to September 1982, March 1983 to current year.

REMARKS.--No flow between specific conductance sampling point and gaging station except during infrequent periods of heavy local rains. Unpublished daily specific conductance measurements for period December 1950 to September 1964, available from district office in Tucson, Ariz.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 2,490 microsiemens Aug. 20, 1951; minimum daily observed, 470 microsiemens Feb. 10, 1980.

WATER TEMPERATURES: Maximum daily observed, 29.0°C Aug. 24, 26, 27, 1951, Sept. 11, 12, 1969; minimum daily observed, 9.0°C Feb. 1, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 1,050 microsiemens June 21; minimum daily observed, 806 microsiemens Oct. 27.

WATER TEMPERATURES: Maximum daily observed, 24.0°C Aug. 18, 20, 21; minimum daily observed, 11.0°C Jan. 22.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT OF SATUR- ATION) (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
OCT 1986												
27...	1035	6.9	806	8.00	21.0	21.0	0.80	730	7.4	87	11	73
NOV												
18...	0900	6.2	850	8.01	18.0	16.5	0.70	726	6.4	69	<10	K14
DEC												
16...	0855	7.4	845	8.18	10.0	12.0	1.1	728	8.9	87	10	29
JAN 1987												
22...	0950	725	830	8.32	12.0	11.0	1.4	731	10.4	98	16	K1
FEB												
19...	0940	1030	830	8.22	8.5	12.0	0.80	723	9.1	89	<10	K3
MAR												
30...	1025	1900	878	8.48	19.0	14.0	2.0	730	11.4	116	12	K2
APR												
22...	0930	1660	884	8.48	21.0	15.0	1.0	726	9.3	97	<10	K5
MAY												
19...	0735	1450	972	8.20	23.0	18.0	1.2	721	6.8	76	<10	<1
JUN												
30...	0915	1700	970	7.82	29.0	20.5	1.0	722	7.3	87	<10	K7
AUG												
04...	0915	1620	989	8.01	33.5	22.5	2.0	724	12.5	153	16	26
20...	0850	1690	962	7.98	35.5	22.5	1.7	723	7.1	87	<10	K7
SEP												
18...	1030	1280	985	8.09	31.0	22.0	1.6	726	9.0	109	--	K9

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

WATER QUALITY DATA

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD HCO3 (00440)	CAR- BONATE WATER WH FET FIELD CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986												
27...	43	170	53	46	13	100	3	4.0	140	0	116	55
NOV												
18...	83	170	38	46	13	100	3	3.9	160	0	131	54
DEC												
16...	K8	170	38	45	13	100	3	3.6	150	0	128	50
JAN 1987												
22...	K1	160	41	45	12	100	4	3.6	140	2	121	51
FEB												
19...	K9	160	40	45	12	99	4	3.1	150	0	122	56
MAR												
30...	K6	160	40	44	12	100	4	3.4	140	5	120	53
APR												
22...	K8	170	53	48	13	110	4	3.4	130	7	121	56
MAY												
19...	K26	170	48	48	13	130	4	3.5	160	0	126	60
JUN												
30...	77	170	52	47	13	120	4	3.9	150	0	119	57
AUG												
04...	64	170	58	46	13	120	4	3.6	130	0	111	57
20...	120	170	48	46	13	120	4	4.0	150	0	121	58
SEP												
18...	280	170	51	47	13	120	4	3.9	150	0	120	52
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)
OCT 1986												
27...	170	0.20	482	459	0.66	6	<0.100	0.060	1.8	1.9	0.040	0.04
NOV												
18...	170	0.30	481	466	0.65	5	<0.100	0.030	0.27	0.30	0.010	0.01
DEC												
16...	160	0.30	469	448	0.64	2	<0.100	0.050	0.65	0.70	0.020	0.02
JAN 1987												
22...	170	0.30	451	457	0.61	15	<0.100	<0.010	--	0.40	0.020	0.02
FEB												
19...	160	0.30	453	450	0.62	4	<0.100	0.020	1.1	1.1	0.010	0.01
MAR												
30...	170	0.30	474	461	0.64	3	<0.100	0.020	0.18	0.20	0.020	0.02
APR												
22...	170	0.30	488	481	0.66	<1	<0.100	0.020	0.48	0.50	0.020	0.02
MAY												
19...	200	0.30	517	532	0.70	2	<0.100	0.010	0.39	0.40	0.020	0.02
JUN												
30...	190	0.20	521	503	0.71	<1	<0.100	0.030	0.77	0.80	0.020	0.02
AUG												
04...	200	0.30	520	506	0.71	9	<0.100	<0.010	--	0.60	0.020	0.02
20...	190	0.30	521	504	0.71	25	<0.100	<0.010	--	0.30	0.030	0.03
SEP												
18...	190	0.30	521	499	0.71	1	<0.100	0.020	0.28	0.30	0.020	0.02

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986												
27...	3	3	41	80	<1	<1	<1	1	7	3	160	7
NOV												
18...	3	2	39	70	<1	<1	<1	<1	6	5	120	3
DEC												
16...	3	3	38	80	<1	<1	<1	<1	7	4	150	4
JAN 1987												
22...	3	4	50	80	<1	<1	3	<1	13	4	100	4
FEB												
19...	3	3	48	70	<1	<1	<1	1	10	3	90	7
MAR												
30...	3	3	49	70	<1	<1	32	<1	8	4	130	<3
APR												
22...	3	3	50	90	<1	<1	1	<1	7	5	80	<3
MAY												
19...	4	4	52	80	<1	<1	3	<1	7	4	40	<3
JUN												
30...	3	3	53	90	<1	<1	*29	2	3	5	90	<3
AUG												
04...	3	3	53	90	<1	<1	1	<1	4	2	110	<3
20...	3	3	53	80	<1	<1	2	<1	4	3	100	7
SEP												
18...	4	2	53	80	<1	<1	14	<1	5	6	140	5

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986												
27...	6	<5	60	21	<0.10	<1	<1	<1.0	<10	<3	4	0.07
NOV												
18...	<5	<5	30	13	<0.10	<1	<1	<1.0	10	12	6	0.10
DEC												
16...	<5	<5	20	5	<0.10	<1	<1	<1.0	20	11	3	0.06
JAN 1987												
22...	17	<5	10	2	<0.10	<1	<1	<1.0	10	9	4	7.8
FEB												
19...	6	<5	20	1	<0.10	<1	<1	1.0	<10	4	2	5.6
MAR												
30...	<5	<5	10	4	<0.10	<1	<1	<1.0	20	<3	4	21
APR												
22...	<5	<5	<10	3	0.20	<1	<1	<1.0	<10	16	3	13
MAY												
19...	<5	<5	10	2	<0.10	<1	<1	<1.0	10	11	2	7.8
JUN												
30...	<5	<5	30	12	<0.10	<1	<1	<1.0	10	5	11	50
AUG												
04...	<5	<5	30	13	<0.10	<1	<1	<1.0	<10	4	5	22
20...	<5	<5	40	9	0.20	<1	<1	1.0	<10	13	4	18
SEP												
18...	8	<5	20	7	<0.10	<1	<1	<1.0	<10	9	5	17

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	850	---	---	---	830	---	855	937	958	965	981	978
2	---	---	---	---	831	---	880	940	950	970	981	970
3	---	---	---	847	---	---	880	940	977	980	980	971
4	---	---	---	847	830	---	878	930	971	979	987	969
5	---	---	---	849	827	---	871	931	979	971	979	966
6	---	---	---	841	819	---	881	960	990	963	980	970
7	---	---	---	848	820	---	900	950	970	---	980	962
8	---	---	---	853	831	---	885	939	971	969	985	970
9	---	---	---	849	830	---	885	940	---	998	991	972
10	---	---	---	849	835	---	884	940	979	---	988	963
11	---	---	---	842	825	832	878	939	---	976	985	970
12	---	---	---	842	831	838	880	948	980	971	995	969
13	---	---	---	851	838	835	881	959	981	970	990	970
14	---	---	---	839	831	---	891	950	980	965	990	965
15	---	---	---	850	831	832	895	949	980	971	990	972
16	---	---	---	838	838	831	894	952	963	980	989	973
17	---	---	---	835	834	838	---	956	971	980	995	972
18	---	---	---	840	837	833	898	958	973	978	1000	963
19	---	---	---	832	839	832	900	954	968	978	999	968
20	---	---	---	831	840	829	891	951	977	969	990	962
21	---	---	---	830	844	830	900	950	1050	977	989	970
22	---	---	---	826	833	830	895	960	964	975	989	975
23	---	---	---	836	---	830	900	958	978	---	990	965
24	---	---	---	830	---	833	910	960	976	972	981	965
25	---	---	---	829	---	839	899	958	970	970	981	970
26	---	---	---	829	---	841	930	952	970	970	976	960
27	---	---	---	829	---	843	911	961	981	976	980	970
28	---	---	---	830	---	840	910	955	991	980	980	971
29	---	---	---	831	---	848	911	960	986	979	979	964
30	---	---	---	850	---	848	920	955	980	980	981	964
31	---	---	---	851	---	850	---	951	---	980	976	---
MAX	---	---	---	---	---	---	---	961	---	---	1000	978
MIN	---	---	---	---	---	---	---	930	---	---	976	960

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	---	---	---	13.0	---	14.0	19.0	19.0	21.0	22.0	22.0
2	---	---	---	---	13.0	---	14.0	16.0	19.0	21.0	22.0	22.0
3	---	---	---	14.0	---	---	14.0	17.0	19.0	21.0	22.0	22.0
4	---	---	---	14.0	13.0	---	14.0	17.0	20.0	21.0	21.0	22.0
5	---	---	---	14.0	13.0	---	14.0	17.0	19.5	21.0	22.0	21.0
6	---	---	---	13.0	14.0	---	14.0	17.0	19.0	21.0	22.0	21.0
7	---	---	---	14.0	12.0	---	14.0	17.0	19.0	---	22.0	21.0
8	---	---	---	14.0	13.0	---	14.0	17.0	19.0	21.0	21.0	21.0
9	---	---	---	13.5	12.0	---	15.0	17.0	---	21.0	21.0	21.0
10	---	---	---	14.0	13.0	---	15.0	17.0	19.0	---	21.0	22.0
11	---	---	---	14.0	12.0	13.0	15.0	17.0	---	19.0	21.0	22.0
12	---	---	---	14.0	12.0	13.0	15.0	17.0	19.0	19.0	21.0	23.0
13	---	---	---	14.0	12.0	13.0	15.0	17.0	19.0	19.0	21.0	23.0
14	---	---	---	14.0	13.0	---	15.0	17.0	19.0	19.0	21.0	22.0
15	---	---	---	14.0	13.0	14.0	---	17.0	19.0	19.0	22.0	22.0
16	---	---	---	14.0	13.0	14.0	15.0	19.0	19.0	19.0	22.0	22.0
17	23.0	---	---	14.0	13.0	13.0	---	19.0	19.0	19.0	22.0	22.0
18	---	---	---	14.0	13.0	13.0	15.0	19.0	19.0	22.0	24.0	22.0
19	---	---	---	14.0	13.0	13.0	15.0	19.0	19.0	22.0	22.0	22.0
20	---	---	---	14.0	13.0	---	15.0	19.0	19.0	22.0	24.0	22.0
21	---	---	---	14.0	13.0	---	15.0	19.0	19.0	23.0	24.0	22.0
22	---	---	---	14.0	13.0	---	15.0	19.0	20.0	23.0	23.0	22.0
23	---	---	---	14.0	---	14.0	15.0	18.0	20.0	---	23.0	22.0
24	---	---	---	14.0	---	14.0	17.0	18.0	20.0	23.0	23.0	22.0
25	---	---	---	12.0	---	14.0	17.0	18.0	21.0	22.0	23.0	21.0
26	---	---	---	12.0	---	14.0	17.0	18.0	21.0	22.0	23.0	21.0
27	---	---	---	12.0	---	14.0	17.0	18.0	21.0	22.0	23.0	22.0
28	---	---	---	12.0	---	14.0	17.0	18.0	21.0	22.0	23.0	21.0
29	---	---	---	12.0	---	14.0	18.0	18.0	21.0	22.0	22.0	21.0
30	---	---	---	12.0	---	14.0	18.0	19.0	21.0	22.0	22.0	21.0
31	---	---	---	13.0	---	14.0	---	19.0	---	22.0	22.0	---
MAX	---	---	---	---	---	---	---	19.0	---	---	24.0	23.0
MIN	---	---	---	---	---	---	---	16.0	---	---	21.0	21.0

GILA RIVER BASIN

09503700 VERDE RIVER NEAR PAULDEN, AZ

LOCATION.--Lat 34°53'40", long 112°20'32", in SW¼SE¼ sec.39, T.18 N., R.1 W., Yavapai County, Hydrologic Unit 15060202, in Prescott National Forest, on right bank 0.3 mi upstream from Verde Valley Ranch, 7 mi east of Paulden, 8 mi upstream from Hell Canyon, 8 mi downstream from Granite Creek, and 10 mi downstream from Sullivan Lake.

DRAINAGE AREA.--2,530 mi², approximately (includes 373 mi² in Aubrey Valley Playa, a closed basin).

PERIOD OF RECORD.--July 1963 to current year.

REVISED RECORDS.--WDR AZ-83-1: 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,117 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversions and storage above station for irrigation and municipal use.

AVERAGE DISCHARGE.--24 years, 42.7 ft³/s, 30,940 acre-ft/yr; median of yearly mean discharges, 29 ft³/s, 21,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Feb. 20, 1980, gage height, 12.72 ft, from rating curve extended above 7,600 ft³/s on basis of slope-conveyance and step-backwater analysis; maximum gage height, 12.89 ft Sept. 24, 1983; minimum daily discharge, 15 ft³/s May 13-23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 12	0015	*217	*2.36

Minimum daily discharge, 24 ft³/s Aug. 15-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	29	29	29	30	28	27	28	25	25	27
2	28	28	29	29	29	30	28	27	28	25	25	26
3	28	28	29	29	29	30	27	27	28	25	25	26
4	28	28	29	29	28	30	28	27	28	25	25	36
5	29	28	29	30	28	30	28	27	28	25	25	40
6	29	29	30	29	27	29	28	27	29	25	27	35
7	29	29	30	30	27	29	28	28	28	25	25	28
8	28	29	29	30	27	29	28	28	27	25	25	28
9	29	29	29	30	27	29	28	28	27	25	25	27
10	30	29	28	29	28	29	28	28	27	25	26	27
11	34	29	28	30	29	29	28	28	27	25	29	26
12	30	29	28	30	29	29	28	29	27	25	49	27
13	28	29	28	30	29	29	28	29	27	26	26	26
14	28	29	29	30	28	29	27	29	26	26	25	27
15	28	29	29	30	28	30	27	29	26	28	24	27
16	28	29	29	30	28	30	27	29	26	26	24	27
17	28	29	29	30	28	29	27	29	26	25	24	27
18	28	30	29	30	28	29	26	28	26	25	24	27
19	29	30	29	30	28	29	26	28	26	25	24	27
20	29	30	30	30	29	29	26	28	26	26	25	27
21	29	29	29	30	29	28	26	28	26	25	25	28
22	29	29	29	30	28	29	26	28	26	25	25	28
23	29	29	29	30	29	28	26	28	26	25	25	29
24	29	29	29	30	32	28	26	28	26	25	25	29
25	29	29	29	29	32	28	27	27	26	25	38	28
26	29	29	28	29	31	28	27	27	26	26	41	28
27	29	29	28	29	30	28	27	28	26	26	29	29
28	29	29	28	29	30	28	27	28	25	26	27	28
29	28	29	28	29	---	28	27	28	25	26	26	28
30	28	29	29	29	---	28	27	28	25	26	26	28
31	28	---	29	30	---	28	---	28	---	26	25	---
TOTAL	892	868	894	918	804	896	815	866	798	786	839	851
MEAN	28.8	28.9	28.8	29.6	28.7	28.9	27.2	27.9	26.6	25.4	27.1	28.4
MAX	34	30	30	30	32	30	28	29	29	26	49	40
MIN	28	28	28	29	27	28	26	27	25	25	24	26
AC-FT	1770	1720	1770	1820	1590	1780	1620	1720	1580	1560	1660	1690
CAL YR	1986	TOTAL	10327	MEAN	28.3	MAX	104	MIN	25	AC-FT	20480	
WTR YR	1987	TOTAL	10227	MEAN	28.0	MAX	49	MIN	24	AC-FT	20290	

09504000 VERDE RIVER NEAR CLARKDALE, AZ

LOCATION.--Lat 34°51'08", long 112°03'55", in NW¼SE¼ sec.17, T.17 N., R.3 E., Yavapai County, Hydrologic Unit 15060202, in Prescott National Forest, on left bank 1.7 mi downstream from Sycamore Creek and 5.6 mi north of Clarkdale.

DRAINAGE AREA.--3,520 mi², approximately (includes 373 mi² in Aubrey Valley Playa, a closed basin).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1915 to October 1916, May 1917 to July 1921, April 1965 to current year.

REVISED RECORDS.--WSP 1213: 1917, 1920.

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above National Geodetic Vertical Datum of 1929. June 1915 to June 1921 at site 2.5 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--26 years (water years 1916, 1918-20, 1966-87), 197 ft³/s, 142,700 acre-ft/yr; median of yearly mean discharges, 160 ft³/s, 116,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,600 ft³/s Feb. 21, 1920, gage height, 19.1 ft, site and datum then in use, from rating curve extended above 2,500 ft³/s on basis of float-area measurement at 35,000 ft³/s; minimum daily, 55 ft³/s Aug. 31, Sept. 1, 1920.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 8	0345	*1,620	*3.46

Minimum daily discharge, 71 ft³/s Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	87	93	97	124	95	99	89	87	86	76	83
2	84	87	93	97	130	95	137	89	84	86	74	83
3	84	87	93	97	143	94	249	89	85	84	75	83
4	84	87	93	97	144	106	282	87	86	84	75	82
5	85	88	93	105	160	259	254	87	91	84	76	e130
6	85	89	97	104	143	626	184	87	94	82	77	e105
7	85	89	101	105	122	955	151	85	97	82	92	e90
8	85	89	101	108	116	1140	e140	87	94	82	83	e85
9	86	89	100	104	116	1210	e155	87	90	80	79	e85
10	103	89	98	102	125	1170	e170	88	91	80	81	e80
11	110	89	97	101	161	751	e155	89	90	80	80	e80
12	146	89	97	100	197	559	e130	89	89	78	94	e80
13	137	89	99	99	193	489	e110	89	90	79	103	e80
14	102	89	99	99	285	415	e100	88	91	78	86	e80
15	91	89	99	99	285	333	91	87	90	78	81	e80
16	89	89	103	99	189	256	89	89	90	79	80	e75
17	88	89	107	99	140	174	87	89	91	81	79	e75
18	87	90	102	97	119	332	85	89	91	77	79	75
19	87	91	101	97	102	876	85	88	91	76	81	71
20	87	90	106	98	100	511	85	87	92	80	81	73
21	85	89	107	97	97	406	85	87	93	78	81	75
22	85	89	104	97	93	291	85	87	92	75	81	77
23	85	91	102	97	90	185	83	86	94	73	85	79
24	85	91	101	97	103	161	83	85	93	72	89	87
25	85	91	101	97	104	203	83	85	93	72	95	87
26	85	91	101	96	99	231	85	85	93	77	118	85
27	85	91	101	95	97	304	85	85	90	77	109	83
28	85	91	100	95	96	249	85	85	89	81	95	81
29	85	92	99	95	---	170	87	85	88	81	e90	81
30	85	93	99	94	---	133	87	86	86	78	e85	77
31	85	---	99	104	---	110	---	87	---	77	e85	---
TOTAL	2824	2684	3086	3068	3873	12889	3686	2702	2715	2457	2645	2487
MEAN	91.1	89.5	99.5	99.0	138	416	123	87.2	90.5	79.3	85.3	82.9
MAX	146	93	107	108	285	1210	282	89	97	86	118	130
MIN	84	87	93	94	90	94	83	85	84	72	74	71
AC-FT	5600	5320	6120	6090	7680	25570	7310	5360	5390	4870	5250	4930

CAL YR	1986	TOTAL	48134	MEAN	132	MAX	1800	MIN	78	AC-FT	95470
WTR YR	1987	TOTAL	45116	MEAN	124	MAX	1210	MIN	71	AC-FT	89490

e Estimated

GILA RIVER BASIN

09504000 VERDE RIVER NEAR CLARKDALE, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1976 to October 1979, January 1980 to August 1983, October 1986 to September 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	OXYGEN DEMAND, CHEM- ICAL	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(HIGH LEVEL) (MG/L) (00340)	
OCT 1986												
22...	1430	85	515	8.40	17.0	13.5	5.5	674	11.4	124	<10	
NOV												
19...	1600	91	515	8.00	17.0	17.0	4.2	--	8.8	--	12	
DEC												
23...	1200	99	518	8.30	13.5	11.0	3.2	676	10.5	108	<10	
JAN 1987												
26...	1300	95	530	8.40	--	12.5	4.6	683	11.6	122	<10	
FEB												
26...	1530	97	480	8.60	10.0	14.0	1.0	673	11.0	121	<10	
MAR												
06...	1230	641	185	8.10	22.5	9.0	81	678	10.2	99	21	
APR												
14...	1730	99	470	8.60	29.0	21.5	1.5	676	7.4	95	<10	
MAY												
28...	1120	85	520	8.30	23.5	19.0	2.3	675	9.2	113	--	
JUN												
22...	1150	93	490	8.30	34.5	23.0	5.7	675	8.5	112	<10	
JUL												
28...	1100	85	475	8.30	21.5	21.0	1.5	677	--	--	13	
AUG												
25...	0930	89	490	8.25	24.5	20.0	2.4	680	8.9	110	<10	
SEP												
30...	1015	78	490	8.08	25.0	18.0	3.6	681	9.4	112	23	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
OCT 1986												
22...	K3	33	230	0	52	25	27	0.8	2.1	303	7	
NOV												
19...	K13	35	230	0	51	25	27	0.8	1.8	308	0	
DEC												
23...	K3	110	240	0	56	25	26	0.7	2.0	309	0	
JAN 1987												
26...	K17	83	240	0	54	25	26	0.8	1.9	303	12	
FEB												
26...	K4	88	220	0	52	23	25	0.7	2.0	256	24	
MAR												
06...	K70	460	83	7	21	7.4	5.7	0.3	1.3	92	0	
APR												
14...	K9	71	240	0	60	23	25	0.7	3.0	330	1	
MAY												
28...	K2	260	230	0	51	24	25	0.7	2.0	300	7	
JUN												
22...	K12	150	220	0	47	24	24	0.7	2.1	292	0	
JUL												
28...	K75	330	230	0	51	24	26	0.8	2.2	308	4	
AUG												
25...	40	150	220	0	50	24	24	0.7	2.3	316	0	
SEP												
30...	K5	850	230	0	52	25	25	0.7	1.8	311	0	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09504000 VERDE RIVER NEAR CLARKDALE, AZ--Continued

WATER QUALITY DATA

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT 1986										
22...	260	11	14	0.20	283	285	0.38	13	0.100	<0.010
NOV										
19...	252	9.8	14	0.30	238	275	0.32	23	0.200	0.040
DEC										
23...	253	10	13	0.30	270	282	0.37	10	0.300	<0.010
JAN 1987										
26...	268	9.7	14	0.20	269	291	0.37	12	0.200	<0.010
FEB										
26...	250	9.7	11	0.20	270	271	0.37	4	0.200	<0.010
MAR										
06...	76	9.5	3.5	0.10	111	94	0.15	126	<0.100	0.100
APR										
14...	274	7.6	12	0.20	264	296	0.36	17	<0.100	0.020
MAY										
28...	258	10	15	0.30	274	282	0.37	1	<0.100	<0.010
JUN										
22...	239	9.1	13	0.30	270	263	0.37	14	<0.100	0.040
JUL										
28...	258	8.7	11	0.10	292	276	0.40	9	<0.100	<0.010
AUG										
25...	259	6.5	12	0.20	279	273	0.38	11	<0.100	<0.010
SEP										
30...	255	8.7	13	0.30	283	271	0.38	11	<0.100	0.020

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1986										
22...	--	0.30	0.40	1.8	0.650	0.65	18	15	170	170
NOV										
19...	0.36	0.40	0.60	2.7	0.010	0.01	17	16	170	210
DEC										
23...	--	0.40	0.70	3.1	0.010	0.01	18	18	170	160
JAN 1987										
26...	--	0.60	0.80	3.5	0.020	0.02	19	16	180	170
FEB										
26...	--	0.80	1.0	4.4	<0.010	--	18	17	170	160
MAR										
06...	2.0	2.1	--	--	0.100	0.10	5	4	41	30
APR										
14...	0.88	0.90	--	--	0.020	0.02	16	14	160	<10
MAY										
28...	--	0.50	--	--	0.020	0.02	22	21	170	180
JUN										
22...	--	<0.20	--	--	0.030	0.03	18	16	180	170
JUL										
28...	--	0.50	--	--	0.020	0.02	18	17	180	190
AUG										
25...	--	<0.20	--	--	0.030	0.03	20	19	170	160
SEP										
30...	--	<0.20	--	--	0.030	0.03	18	18	180	160

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09504000 VERDE RIVER NEAR CLARKDALE, AZ--Continued

WATER QUALITY DATA

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT 1986										
22...	<1	<1	--	1	6	3	310	3	24	<5
NOV										
19...	<1	<1	<1	1	10	1	260	11	9	<5
DEC										
23...	<1	3	9	<1	9	2	260	7	6	<5
JAN 1987										
26...	<1	<1	<1	4	17	<1	190	13	6	<5
FEB										
26...	<1	1	<1	<1	5	3	110	13	<5	<5
MAR										
06...	<1	<1	20	<1	11	3	3600	120	9	5
APR										
14...	<1	18	4	<1	4	21	350	300	<5	<5
MAY										
28...	<1	1	<1	<1	3	<10	150	10	14	10
JUN										
22...	<1	<1	5	<1	2	5	260	19	<5	<5
JUL										
28...	<1	1	E2	7	3	10	260	87	<5	<5
AUG										
25...	<1	<1	2	4	3	<1	220	5	<5	<5
SEP										
30...	1	<1	<1	<1	7	2	280	6	63	7

DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986										
22...	20	2	<0.10	<1	<1	<1.0	40	5	30	6.9
NOV										
19...	10	4	0.10	<1	<1	<1.0	30	17	23	5.7
DEC										
23...	10	3	0.20	<1	<1	<1.0	20	13	16	4.3
JAN 1987										
26...	<10	4	<0.10	<1	<1	<1.0	20	9	46	12
FEB										
26...	<10	3	<0.10	<1	<1	1.0	<10	<3	24	6.3
MAR										
06...	90	2	<0.10	<1	<1	<1.0	20	8	168	291
APR										
14...	<10	31	<0.10	<1	<1	<1.0	<10	270	23	6.1
MAY										
28...	<10	4	<0.10	<1	<1	<1.0	<10	4	21	4.8
JUN										
22...	<10	7	<0.10	<1	<1	<1.0	<10	5	31	7.8
JUL										
28...	40	5	0.10	<1	<1	<1.0	<10	<3	33	7.6
AUG										
25...	<10	3	<0.10	<1	<1	<1.0	<10	5	28	6.7
SEP										
30...	20	6	<0.10	<1	<1	<1.0	50	13	19	4.0

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09504430 OAK CREEK AT SEDONA, AZ

LOCATION.--Lat 34°51'42", long 111°45'40", in NE¼NE¼NE¼ sec.18, T.17 N., R.6 E., Coconino County, Hydrologic Unit 15060202, on left bank 290 ft downstream from State Highway 179 bridge in Sedona, 28 mi southwest of Flagstaff, and 35.1 mi upstream from mouth.

DRAINAGE AREA.--233 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,169.20 ft above National Geodetic Vertical Datum of 1929 (Arizona Department of Transportation bench mark).

REMARKS.--Records good except for estimated daily discharges, which are fair. Many diversions above and below station for irrigation.

AVERAGE DISCHARGE.--6 years, 98.6 ft³/s, 71,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,700 ft³/s Mar. 12, 1982, gage height, 15.64 ft, from outside floodmark, from rating curve extended above 5,000 ft³/s on the basis of slope-conveyance study; minimum daily, 19 ft³/s June 12, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	1630	*3,350	*7.96

Minimum daily discharge, 25 ft³/s July 18, 19, Aug. 21, 22, Sept. 11-22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	33	32	30	190	34	60	30	27	27	38	26
2	34	32	32	30	165	40	110	30	27	27	31	26
3	33	32	31	31	148	77	174	29	27	26	30	26
4	31	32	31	30	145	186	193	30	35	27	41	27
5	31	32	31	37	124	275	148	30	31	27	31	28
6	31	32	43	34	94	326	110	29	30	28	31	26
7	30	31	100	35	82	450	98	28	32	27	31	26
8	30	32	95	38	79	416	128	29	30	27	37	26
9	33	32	61	33	78	576	124	30	30	27	31	26
10	41	32	49	32	95	468	112	30	29	27	32	26
11	1010	33	40	32	151	338	102	30	29	26	31	25
12	615	33	37	32	197	300	92	29	29	27	52	25
13	192	33	34	32	190	279	77	29	29	27	36	25
14	94	34	32	32	248	258	61	30	29	26	29	25
15	66	34	32	32	168	224	54	30	29	26	28	25
16	51	34	33	33	126	129	49	29	29	26	28	25
17	44	34	48	31	94	167	46	29	29	26	27	25
18	39	41	66	31	66	417	43	29	29	25	28	25
19	37	38	53	30	53	400	42	29	28	25	27	25
20	35	41	47	30	44	249	42	30	28	29	26	25
21	34	38	43	31	39	178	39	30	28	28	25	25
22	34	35	39	31	35	129	39	30	28	27	25	25
23	33	33	38	e31	34	94	38	30	27	27	26	26
24	33	33	36	e31	40	123	37	30	28	27	26	31
25	33	33	34	e31	36	114	33	29	27	32	26	30
26	33	33	33	e31	38	113	32	30	28	31	29	27
27	33	33	32	e31	34	115	32	30	26	29	28	30
28	33	33	32	e31	32	91	31	30	27	30	27	34
29	33	33	32	e100	---	72	31	29	26	31	28	29
30	32	33	31	e150	---	60	31	27	27	29	27	28
31	32	---	31	278	---	54	---	27	---	30	27	---
TOTAL	2875	1012	1308	1421	2825	6752	2208	911	858	854	939	798
MEAN	92.7	33.7	42.2	45.8	101	218	73.6	29.4	28.6	27.5	30.3	26.6
MAX	1010	41	100	278	248	576	193	30	35	32	52	34
MIN	30	31	31	30	32	34	31	27	26	25	25	25
AC-FT	5700	2010	2590	2820	5600	13390	4380	1810	1700	1690	1860	1580
CAL YR 1986	TOTAL 27127	MEAN 74.3	MAX 1240	MIN 19	AC-FT 53810							
WTR YR 1987	TOTAL 22761	MEAN 62.4	MAX 1010	MIN 25	AC-FT 45150							

e Estimated

GILA RIVER BASIN

09504430 OAK CREEK AT SEDONA, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1987 to September 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)
JUN 1987							
23...	1330	27	265	8.60	31.0	21.0	660
JUL							
14...	1430	26	281	8.62	37.0	21.0	661
29...	1400	32	380	8.59	30.5	22.0	660
AUG							
14...	1300	33	300	8.51	28.0	20.0	658
25...	1600	26	290	8.56	18.5	20.0	668
SEP							
14...	1550	25	282	8.65	17.5	16.0	661
29...	1630	29	291	8.43	21.5	17.5	663

DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
JUN 1987						
23...	8.4	109	47	98	0	6
JUL						
14...	--	--	44	82	0	2
29...	8.0	106	46	130	0	<1
AUG						
14...	8.1	104	84	130	0	2
25...	8.3	105	K27	100	0	--
SEP						
14...	8.2	96	K17	210	0	1
29...	8.4	101	43	81	0	3

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09504440 OAK CREEK AT RED ROCK CROSSING NEAR SEDONA, AZ

LOCATION.--Lat 34°49'28", long 111°48'20", NE&SW¼ sec.26, T.17 N., R.5 E., Yavapai County, Hydrologic Unit 15060202 in Coconino National Forest, at Red Rock (Baldwins) crossing, 5.0 mi downstream from Sedona and 31 mi upstream from mouth.

DRAINAGE AREA.--252 mi².

PERIOD OF RECORD.--October 1978 to August 1983, October 1986 to September 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(00301)	(MG/L) (00340)	(COLS./ 100 ML) (31625)	
OCT 1986													
22...	1800	30	--	--	10.0	11.0	0.60	663	9.4	98	<10	<1	
NOV													
18...	1615	35	305	7.80	--	12.5	1.0	--	11.1	--	<10	55	
DEC													
24...	1115	33	270	8.50	6.5	6.5	3.2	665	11.0	103	17	K3	
JAN 1987													
28...	1230	53	275	8.50	18.0	10.0	4.1	665	10.2	104	<10	K2	
FEB													
27...	1130	36	290	8.40	7.0	9.0	1.7	664	10.5	104	<10	<1	
MAR													
25...	1700	88	170	8.50	14.0	9.0	16	661	9.5	95	37	<1	
APR													
28...	1545	24	282	8.80	--	19.5	0.70	666	8.0	100	14	K4	
MAY													
29...	1115	20	306	8.50	24.5	18.0	1.8	665	8.9	108	<10	K4	
JUN													
23...	1045	19	290	8.50	30.0	22.0	1.3	666	8.5	112	31	K5	
JUL													
29...	1030	19	290	8.55	28.0	22.0	1.7	678	8.4	108	27	32	
AUG													
24...	1515	19	305	8.52	28.0	22.0	1.5	666	7.4	97	<10	53	
SEP													
29...	1055	19	289	8.50	26.5	17.5	0.70	671	8.4	100	28	25	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986													
22...	55	160	0	36	17	4.9	0.2	1.3	--	--	--	--	3.4
NOV													
18...	100	160	0	35	17	4.9	0.2	0.90	--	--	--	--	3.2
DEC													
24...	200	150	5	32	16	4.4	0.2	1.0	161	7	144	144	3.1
JAN 1987													
28...	330	150	1	32	16	4.3	0.2	1.0	170	4	145	145	3.7
FEB													
27...	K22	140	0	30	15	4.3	0.2	1.0	166	5	144	144	3.6
MAR													
25...	K8	84	0	19	8.8	3.1	0.2	0.80	103	2	88	88	6.1
APR													
28...	390	160	5	35	17	5.0	0.2	0.90	176	6	154	154	2.3
MAY													
29...	170	150	0	34	16	4.9	0.2	0.90	179	5	155	155	2.1
JUN													
23...	340	160	4	34	17	5.0	0.2	1.0	176	5	152	152	2.9
JUL													
29...	430	160	0	35	17	5.2	0.2	1.0	195	2	164	164	2.1
AUG													
24...	260	160	0	34	17	5.1	0.2	1.2	184	9	165	165	5.2
SEP													
29...	100	160	0	35	17	4.9	0.2	1.6	188	5	162	162	2.4

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09504440 OAK CREEK AT RED ROCK CROSSING NEAR SEDONA, AZ--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)
OCT 1986												
22...	3.2	<0.10	179	162	0.24	1	<0.100	<0.010	--	0.40	0.040	0.04
NOV												
18...	3.2	<0.10	160	162	0.22	6	<0.100	<0.010	--	0.60	<0.010	--
DEC												
24...	3.2	<0.10	161	145	0.22	3	<0.100	<0.010	--	0.40	0.010	0.01
JAN 1987												
28...	3.1	<0.10	155	147	0.21	<1	<0.100	<0.010	--	0.40	0.020	0.02
FEB												
27...	3.6	<0.10	153	142	0.21	2	<0.100	0.010	0.69	0.70	0.010	0.01
MAR												
25...	2.4	<0.10	96	93	0.13	8	<0.100	0.020	0.68	0.70	0.050	0.05
APR												
28...	3.2	<0.10	158	155	0.21	2	<0.100	<0.010	--	0.30	0.020	0.02
MAY												
29...	3.2	0.10	167	153	0.23	<1	<0.100	0.010	0.49	0.50	0.020	0.02
JUN												
23...	3.4	0.10	165	154	0.22	<1	<0.100	0.040	0.26	0.30	0.020	0.02
JUL												
29...	3.3	<0.10	160	161	0.22	3	<0.100	<0.010	--	0.40	0.010	0.01
AUG												
24...	2.7	0.10	186	164	0.25	2	<0.100	<0.010	--	<0.20	0.020	0.02
SEP												
29...	5.3	0.10	162	163	0.22	6	<0.100	0.030	--	<0.20	0.030	0.03
DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986												
22...	5	5	200	10	<1	<1	--	2	8	<1	170	47
NOV												
18...	5	4	190	30	<1	<1	2	<1	10	1	150	46
DEC												
24...	5	5	180	<10	<1	1	9	<1	9	1	280	68
JAN 1987												
28...	4	4	190	<10	<1	<1	14	3	11	<1	360	92
FEB												
27...	4	4	150	10	<1	<1	<1	<1	6	4	110	55
MAR												
25...	2	2	87	<10	<1	<1	4	<1	3	4	930	100
APR												
28...	5	5	180	10	<1	1	21	<1	4	1	70	24
MAY												
29...	5	4	200	10	<1	<1	<1	5	3	<10	80	27
JUN												
23...	5	6	200	10	<1	<1	3	<1	3	<1	140	33
JUL												
29...	5	5	200	10	<1	2	9	5	4	1	190	33
AUG												
24...	6	6	200	<10	<1	1	9	6	4	<1	180	33
SEP												
29...	6	6	200	20	2	<1	4	<1	18	6	240	53

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09504440 OAK CREEK AT RED ROCK CROSSING NEAR SEDONA, AZ--Continued

WATER QUALITY DATA

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986												
22...	<5	<5	20	8	<0.10	<1	<1	1.0	110	23	2	0.16
NOV												
18...	<5	<5	<10	8	0.10	<1	<1	<1.0	30	15	4	0.38
DEC												
24...	<5	<5	<10	5	<0.10	<1	<1	<1.0	20	11	6	0.54
JAN 1987												
28...	<5	<5	<10	5	<0.10	<1	<1	<1.0	20	27	11	1.6
FEB												
27...	9	<5	<10	5	<0.10	<1	<1	<1.0	<10	<3	8	0.79
MAR												
25...	<5	<5	20	4	<0.10	<1	<1	<1.0	30	<3	11	2.6
APR												
28...	<5	<5	<10	3	0.10	<1	<1	<1.0	<10	8	5	0.32
MAY												
29...	6	<10	10	8	<0.10	<1	<1	<1.0	<10	4	7	0.38
JUN												
23...	<5	<5	<10	6	<0.10	<1	<1	<1.0	<10	8	7	0.36
JUL												
29...	<5	12	70	8	<0.10	<1	<1	<1.0	20	<3	17	0.88
AUG												
24...	<5	<5	10	11	<0.10	<1	<1	<1.0	<10	5	9	0.46
SEP												
29...	95	11	30	16	<0.10	<1	<1	<1.0	70	39	10	0.52

< Actual value is known to be less than value shown.

09504500 OAK CREEK NEAR CORNVILLE, AZ

LOCATION.--Lat 34°45'52", long 111°53'25", in NW¼SW¼ sec.23, T.16 N., R.4 E., Yavapai County, Hydrologic Unit 15060202, on right bank 250 ft downstream from county highway bridge, 0.2 mi upstream from Page Springs, 4 mi northeast of Cornville, and 15 mi upstream from mouth.

DRAINAGE AREA.--357 mi².

PERIOD OF RECORD.--July 1940 to September 1945, April 1948 to current year.

REVISED RECORDS.--WSP 1149: 1948(M). WRD Ariz. 1974: 1973.

GAGE.--Water-stage recorder and crest stage gage. Elevation of gage is 3,470 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to March 10, 1981, at site 250 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Numerous diversions above and below station for irrigation.

AVERAGE DISCHARGE.--44 years, 90.3 ft³/s, 65,420 acre-ft/yr; median of yearly mean discharges, 75 ft³/s, 54,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s Feb. 19, 1980, gage height, 16.30 ft; maximum gage height, 16.48 ft, Sept. 5, 1970; minimum discharge, 6 ft³/s July 27, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, 23 ft in March 1938, from floodmarks (upstream side of bridge).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	2000	*3,300	*7.29
Aug. 12	2030	1,640	5.68

Minimum daily discharge, 14 ft³/s July 9-12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	e37	36	38	216	54	57	31	20	15	21	23
2	38	e37	36	37	203	55	81	30	18	15	24	21
3	37	e37	36	37	164	64	165	29	17	15	21	22
4	37	e37	36	37	163	138	204	26	15	15	21	30
5	36	e37	35	39	147	311	182	25	21	15	44	41
6	37	e37	39	43	114	365	130	25	20	16	24	26
7	36	e36	56	40	96	490	111	25	21	15	20	24
8	34	e36	119	44	89	498	123	24	21	15	19	22
9	31	e37	68	42	90	619	137	25	19	14	21	21
10	69	e37	56	39	105	595	122	27	18	14	21	21
11	733	e37	49	38	156	440	114	27	18	14	21	21
12	e600	e38	43	38	211	384	103	26	18	14	174	21
13	e400	e38	42	38	224	353	89	26	17	15	101	21
14	e200	e38	41	38	260	331	71	28	17	15	33	21
15	e60	e37	40	38	226	308	58	28	16	15	25	22
16	e45	e36	40	39	161	207	49	25	15	16	23	22
17	e40	34	41	38	129	154	46	23	17	16	23	22
18	e35	e34	61	36	92	345	42	23	17	16	21	22
19	e30	e38	57	37	77	516	41	20	17	15	20	21
20	e29	e41	51	38	70	335	39	20	17	16	21	21
21	e26	43	51	37	63	243	37	24	17	17	21	21
22	e25	38	45	37	56	182	35	24	17	16	21	20
23	e25	37	43	37	53	149	35	22	17	16	22	21
24	e37	36	42	37	63	139	33	21	16	16	24	26
25	e38	36	42	37	62	155	32	20	16	16	26	28
26	e37	36	40	37	62	142	32	23	16	19	29	26
27	e38	36	39	38	62	133	31	22	17	21	27	25
28	e37	36	39	46	55	121	30	21	16	33	26	28
29	e38	36	38	100	---	96	29	20	16	24	24	28
30	e37	36	38	123	---	79	30	20	16	21	23	25
31	e37	---	38	267	---	64	---	20	---	21	24	---
TOTAL	2941	1109	1437	1570	3469	8065	2288	750	523	521	965	713
MEAN	94.9	37.0	46.4	50.6	124	260	76.3	24.2	17.4	16.8	31.1	23.8
MAX	733	43	119	267	260	619	204	31	21	33	174	41
MIN	25	34	35	36	53	54	29	20	15	14	19	20
AC-FT	5830	2200	2850	3110	6880	16000	4540	1490	1040	1030	1910	1410

CAL YR	1986	TOTAL	25727	MEAN	70.5	MAX	1240	MIN	20	AC-FT	51030
WTR YR	1987	TOTAL	24351	MEAN	66.7	MAX	733	MIN	14	AC-FT	48300

e Estimated

GILA RIVER BASIN

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09505220 ROCKY GULCH NEAR RIMROCK, AZ

LOCATION.--Lat 34°44'49, long 111°29'38", in SE¼NW¼ sec.27, T.16 N., R.8 E., Coconino County, Hydrologic Unit 15060202, in Coconino National Forest, on right bank, on headwaters of Rocky Gulch, and 7 mi northwest of Rimrock.

DRAINAGE AREA.--1.40 mi².

PERIOD OF RECORD.--October 1985 to current year. Prior to October 1985, station operated by the U.S. Forest Service (records unpublished).

GAGE.--Water-stage recorder and concrete flume. Elevation of gage is 6,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24 ft³/s Apr. 2, 1986, gage height, 1.20 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.9 ft³/s, Mar. 9, gage height, 0.66 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.03	.02	.04	1.6	.12	2.6	.03	.03	.01	.00	.00
2	.00	.03	.01	.06	2.1	.22	2.9	.03	.03	.01	.00	.00
3	.00	.02	.04	.05	2.0	.78	2.5	.03	.03	.02	.00	.00
4	.00	.00	.01	.09	1.6	2.3	2.4	.03	.03	.03	.02	.01
5	.00	.00	.00	.02	1.1	3.8	2.0	.03	.01	.03	.00	.00
6	.01	.00	.14	.00	.80	4.4	1.7	.03	.00	.03	.00	.00
7	.01	.01	.92	.00	.69	4.6	2.0	.03	.00	.03	.00	.00
8	.03	.01	.56	.00	.73	4.1	1.8	.03	.00	.03	.01	.00
9	.01	.02	.31	.00	1.0	5.5	1.4	.03	.00	.02	.02	.00
10	.03	.02	.19	.00	1.9	3.7	1.2	.03	.00	.02	.00	.00
11	.71	.00	.46	.00	2.0	3.0	.97	.03	.00	.03	.00	.00
12	.40	.00	.10	.00	2.1	2.8	.73	.03	.00	.03	.01	.00
13	.09	.00	.15	.00	1.8	2.4	.46	.03	.00	.02	.01	.00
14	.03	.00	.05	.00	1.5	1.7	.34	.03	.00	.03	.00	.00
15	.03	.00	.03	.01	.72	1.3	.26	.03	.00	.02	.00	.00
16	.03	.00	.03	.02	.46	.94	.22	.03	.00	.03	.00	.00
17	.03	.00	.20	.00	.28	1.2	.17	.03	.00	.02	.00	.00
18	.03	.02	.26	.00	.21	3.5	.12	.03	.02	.03	.00	.00
19	.03	.25	.14	.00	.16	3.6	.09	.03	.00	.03	.00	.00
20	.03	.09	.09	.00	.12	2.8	.07	.03	.00	.03	.00	.00
21	.03	.03	.05	.00	.11	2.0	.07	.03	.01	.03	.00	.00
22	.03	.03	.07	.00	.14	1.4	.06	.03	.00	.03	.01	.00
23	.02	.03	e.03	.01	.11	1.1	.06	.03	.00	.03	.00	.00
24	.01	.03	e.03	.03	1.4	1.0	.04	e.03	.00	.03	.00	.00
25	.02	.03	e.03	.04	.17	1.1	.03	e.03	.00	.03	.00	.00
26	.03	.02	.03	.44	.07	1.6	.03	.03	.00	.03	.00	.00
27	.03	.03	.03	.41	.07	1.7	.03	.03	.00	.02	.00	.00
28	.03	.03	.03	.81	.08	1.1	.03	.03	.00	.02	.00	.00
29	.03	.03	.03	1.3	---	.80	.03	.03	.00	.01	.00	.00
30	.03	.03	.05	1.4	---	.70	.03	.03	.00	.00	.00	.00
31	.03	---	.04	1.8	---	1.3	---	.03	---	.00	.00	---
TOTAL	1.79	0.79	4.13	6.53	25.02	66.56	24.34	0.93	0.16	0.73	0.08	0.01
MEAN	.058	.026	.13	.21	.89	2.15	.81	.030	.005	.024	.003	.000
MAX	.71	.25	.92	1.8	2.1	5.5	2.9	.03	.03	.03	.02	.01
MIN	.00	.00	.00	.00	.07	.12	.03	.03	.00	.00	.00	.00
AC-FT	3.6	1.6	8.2	13	50	132	48	1.8	.3	1.4	.2	.02

CAL YR 1986 TOTAL 116.37 MEAN .32 MAX 9.2 MIN .00 AC-FT 231
WTR YR 1987 TOTAL 131.07 MEAN .36 MAX 5.5 MIN .00 AC-FT 260

e Estimated

GILA RIVER BASIN

09505260 MONTEZUMA WELL OUTLET NEAR RIMROCK, AZ

LOCATION.--Lat 34°38'53", long 111°45'02", in NE¼, sec.31, T.15 N., R.6 E., Yavapai County, Hydrologic Unit 15060202, in Montezuma Castle National Monument, on left bank 100 ft downstream from outlet of Montezuma Well, and 2.5 mi northeast of Rimrock.

PERIOD OF RECORD.--1948-59, 1961, 1976 (three or less discharge measurements each year); April 1977 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Elevation of gage is 3,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--10 years (water years 1978-87), 2.21 ft³/s, 1,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3.2 ft³/s Apr. 4, 8-20, July 17-23, 26-31, Aug. 6, 7, 13-16, 21, 1979; minimum daily, 0.90 ft³/s Oct. 4, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2.8 ft³/s May 20, June 5, 6, 21-27; minimum daily, 1.2 ft³/s Nov. 9 to Dec. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	e1.3	e1.2	1.6	2.6	2.3	2.0	2.3	2.6	2.3	2.1	2.0
2	1.5	e1.3	e1.2	1.7	2.6	2.3	2.0	2.4	2.7	2.3	2.1	2.0
3	1.4	e1.3	e1.2	1.7	2.5	2.3	2.0	2.4	2.7	2.1	2.0	2.0
4	1.4	e1.3	e1.2	1.7	2.5	2.3	2.0	2.4	2.7	2.2	2.0	2.0
5	1.4	e1.3	1.2	1.7	2.5	2.3	2.0	2.4	2.8	2.2	2.0	2.0
6	1.4	e1.3	1.3	1.7	2.5	2.3	2.0	2.4	2.8	2.2	2.0	2.0
7	1.3	e1.3	1.3	1.7	2.5	2.3	2.0	2.5	2.7	2.2	2.0	2.0
8	1.4	e1.3	1.3	1.7	2.5	2.3	2.0	2.5	2.7	2.2	2.0	2.0
9	1.4	e1.2	1.3	1.7	2.5	2.3	2.0	2.5	2.7	2.3	2.0	2.0
10	1.4	e1.2	1.4	1.7	2.5	2.3	2.0	2.5	2.7	2.3	2.0	2.0
11	1.3	e1.2	1.4	e1.7	2.5	2.3	2.0	2.5	2.6	2.3	2.0	2.0
12	e1.3	e1.2	1.4	e1.9	2.5	2.3	2.0	2.5	2.6	2.3	1.9	2.0
13	e1.3	e1.2	1.5	e2.0	2.5	2.3	2.0	2.5	2.6	2.3	1.9	2.0
14	e1.3	e1.2	1.5	e2.2	2.5	2.3	2.0	2.6	2.6	2.3	2.0	1.9
15	e1.3	e1.2	1.4	2.3	2.5	2.3	2.1	2.6	2.6	2.3	1.9	1.9
16	e1.3	e1.2	1.4	2.3	2.5	2.2	2.1	2.6	2.6	2.3	1.9	1.9
17	e1.3	e1.2	1.4	2.3	2.5	2.2	2.1	2.7	2.6	2.3	1.9	1.9
18	e1.3	e1.2	1.4	2.3	2.5	2.2	2.1	2.7	2.7	2.3	1.9	1.9
19	e1.3	e1.2	1.4	2.3	2.4	2.2	2.2	2.7	2.7	2.3	1.9	1.9
20	e1.3	e1.2	1.5	2.4	2.4	2.2	2.2	2.8	2.7	2.2	1.9	1.8
21	e1.3	e1.2	1.5	2.5	2.4	2.1	2.2	2.7	2.8	2.2	1.9	1.8
22	e1.3	e1.2	1.5	2.5	2.4	2.1	2.3	2.7	2.8	2.2	1.9	1.8
23	e1.3	e1.2	1.5	2.5	2.4	2.1	2.3	2.7	2.8	2.2	1.9	1.8
24	e1.3	e1.2	1.5	2.5	2.3	2.1	2.3	2.7	2.8	2.2	1.9	1.8
25	e1.3	e1.2	1.4	2.5	2.3	2.1	2.3	2.7	2.8	2.1	1.9	1.8
26	e1.3	e1.2	1.5	2.5	2.3	2.0	2.4	2.6	2.8	2.1	1.9	1.7
27	e1.3	e1.2	1.6	2.5	2.3	2.0	2.4	2.7	2.8	2.2	1.9	1.7
28	e1.3	e1.2	1.5	2.5	2.3	2.0	2.4	2.6	2.5	2.2	1.9	1.7
29	e1.3	e1.2	1.5	2.5	---	2.0	2.4	2.6	2.3	2.2	2.0	1.7
30	e1.3	e1.2	1.5	2.5	---	2.0	2.4	2.7	2.3	2.2	2.0	1.7
31	e1.3	---	1.5	2.6	---	2.0	---	2.6	---	2.2	2.0	---
TOTAL	41.3	36.8	43.4	66.2	68.7	68.0	64.2	79.8	80.1	69.2	60.6	56.7
MEAN	1.33	1.23	1.40	2.14	2.45	2.19	2.14	2.57	2.67	2.23	1.95	1.89
MAX	1.5	1.3	1.6	2.6	2.6	2.3	2.4	2.8	2.8	2.3	2.1	2.0
MIN	1.3	1.2	1.2	1.6	2.3	2.0	2.0	2.3	2.3	2.1	1.9	1.7
AC-FT	82	73	86	131	136	135	127	158	159	137	120	112
CAL YR 1986	TOTAL	758.0	MEAN	2.08	MAX	2.8	MIN	1.2	AC-FT	1500		
WTR YR 1987	TOTAL	735.0	MEAN	2.01	MAX	2.8	MIN	1.2	AC-FT	1460		

e Estimated

09505350 DRY BEAVER CREEK NEAR RIMROCK, AZ

LOCATION.--Lat 34°43'43", long 111°46'30", in NE¼ sec.1, T.15 N., R.5 E., Yavapai County, Hydrologic Unit 15060202, in Coconino National Forest, on left upstream abutment of abandoned highway bridge, 1,000 ft (revised) upstream from present State Highway 179, and 5.5 mi north of Rimrock.

DRAINAGE AREA.--142 mi².

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WRD Ariz. 1969: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,694.38 ft above National Geodetic Vertical Datum of 1929 (Arizona Highway Department bench mark).

REMARKS.--Records good. No known diversions above station.

AVERAGE DISCHARGE.--27 years, 48.1 ft³/s, 34,850 acre-ft/yr; median of yearly mean discharges, 36 ft³/s, 26,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft³/s Sept. 5, 1970, gage height, 14.35 ft, from rating curve extended above 6,000 ft³/s on basis of computation of peak flow over weir at gage height 9.07 ft and 9.69 ft and slope-area measurement at gage height 14.35 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	2130	681	4.41	Jan. 31	0545	610	4.30
Dec. 8	0500	696	4.43	Mar. 9	0145	*1,160	*4.98

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.00	e.00	.03	197	3.6	34	e.00	e.00	e.00	.10	e.00
2	.02	.00	e.00	.02	162	28	104	e.00	e.00	e.00	.33	e.00
3	.01	.00	e.00	.02	120	128	172	e.00	e.00	e.00	e.00	e.00
4	.00	.00	e.00	.02	107	285	190	e.00	e.00	e.00	e.00	1.4
5	.00	.00	e.00	.04	82	389	117	e.00	e.00	e.00	e.00	.15
6	.00	.00	e.00	.03	54	384	82	e.00	e.00	e.00	e.00	e.00
7	.00	.00	e7.4	.02	40	412	78	e.00	e.00	e.00	e.00	e.00
8	.00	.00	e95	.02	38	341	101	e.00	e.00	e.00	e.00	e.00
9	.00	.00	38	.01	40	620	118	e.00	e.00	e.00	e.00	e.00
10	.66	.00	16	e.01	57	325	140	e.00	e.00	e.00	e.00	e.00
11	88	.00	9.4	e.01	97	209	127	e.00	e.00	e.00	e.00	e.00
12	218	.00	5.5	e.00	154	194	101	e.00	e.00	e.00	13	e.00
13	66	.00	3.1	e.00	143	198	65	e.00	e.00	e.00	1.3	e.00
14	28	.00	1.8	e.00	167	184	34	e.00	e.00	e.00	e.00	e.00
15	13	.00	.85	e.00	127	160	22	e.00	e.00	e.00	e.00	e.00
16	6.7	.00	.41	e.00	101	74	17	e.00	e.00	e.00	e.00	e.00
17	3.4	.00	.31	.01	62	174	13	e.00	e.00	e.00	e.00	e.00
18	1.4	.71	13	.01	48	463	10	e.00	e.00	e.00	e.00	e.00
19	.46	.37	15	.01	30	297	7.6	e.00	e.00	e.00	e.00	e.00
20	.11	.05	11	.01	19	148	5.2	e.00	e.00	e.00	e.00	e.00
21	.04	e.00	9.4	e.00	13	101	3.7	e.00	e.00	e.00	e.00	e.00
22	.02	e.00	6.7	e.00	9.5	66	2.1	e.00	e.00	e.00	e.00	e.00
23	.02	e.00	5.7	e.00	7.4	32	1.0	e.00	e.00	e.00	e.00	.00
24	.02	e.00	4.6	e.00	11	66	.39	e.00	e.00	e.00	e.00	.00
25	.02	e.00	3.0	e.00	9.0	72	.15	e.00	e.00	.03	e.00	.00
26	.01	e.00	2.0	e.00	6.5	94	e.06	e.00	e.00	.15	e.00	.00
27	.01	e.00	1.2	e.00	5.0	85	e.03	e.00	e.00	e.00	e.00	.00
28	.01	e.00	.61	e.00	3.3	52	e.01	e.00	e.00	e.00	e.00	.00
29	.01	e.00	.22	79	---	30	e.00	e.00	e.00	e.00	e.00	.00
30	.00	e.00	.08	112	---	17	e.00	e.00	e.00	e.00	e.00	.00
31	.00	---	.04	325	---	12	---	e.00	---	e.00	e.00	---
TOTAL	425.94	1.13	250.32	516.27	1909.7	5643.6	1545.24	0.00	0.00	0.18	14.73	1.55
MEAN	13.7	.038	8.07	16.7	68.2	182	51.5	.00	.00	.006	.48	.052
MAX	218	.71	95	325	197	620	190	.00	.00	.15	13	1.4
MIN	.00	.00	.00	.00	3.3	3.6	.00	.00	.00	.00	.00	.00
AC-FT	845	2.2	497	1020	3790	11190	3060	.0	.0	.4	29	3.1

CAL YR 1986	TOTAL	11500.95	MEAN	31.5	MAX	1350	MIN	.00	AC-FT	22810
WTR YR 1987	TOTAL	10308.66	MEAN	28.2	MAX	620	MIN	.00	AC-FT	20450

e Estimated

GILA RIVER BASIN

09505800 WEST CLEAR CREEK NEAR CAMP VERDE, AZ

LOCATION.--Lat 34°32'19", long 111°41'36", in NW¼ sec.11, T.13 N., R.6 E., Yavapai County, Hydrologic Unit 15060203, in Coconino National Forest, on left bank at Bull Pen Ranch, 11 mi upstream from mouth, and 9 mi east of Camp Verde.

DRAINAGE AREA.--241 mi².

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--22 years, 70.0 ft³/s, 50,720 acre-ft/yr; median of yearly mean discharges, 58 ft³/s, 42,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s Dec. 18, 1978, gage height, 11.6 ft, from floodmarks and rating curve extended above 2,700 ft³/s on basis of slope-area measurements at gage heights 8.3 ft and 10.15 ft; minimum daily, 11 ft³/s Aug. 1, 22, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	2000	1,420	5.90
Mar. 18	1800	*2,110	*6.40

Minimum daily discharge, 14 ft³/s June 12, June 30 to July 13, 23, 24, Aug. 19-21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	18	18	213	30	56	26	18	14	18	15
2	17	18	18	18	168	34	211	25	18	14	22	17
3	17	19	18	18	83	77	283	24	17	14	19	16
4	16	20	18	18	58	360	304	23	16	14	18	17
5	17	19	18	22	73	602	354	22	16	14	20	17
6	17	18	26	21	81	592	276	22	16	14	25	17
7	19	18	62	21	79	794	194	23	17	14	20	17
8	19	17	62	22	71	765	209	23	16	14	18	16
9	18	17	31	20	63	929	202	22	16	14	18	16
10	22	17	23	18	64	850	193	22	15	14	17	16
11	34	17	21	18	190	528	178	22	15	14	17	16
12	119	17	24	18	226	492	163	22	14	14	18	16
13	35	17	21	18	268	464	142	22	15	14	22	17
14	23	18	20	18	262	400	108	22	15	15	18	17
15	20	18	20	20	213	285	84	22	15	15	17	17
16	18	18	20	22	111	197	74	21	15	17	17	17
17	17	18	20	20	83	216	67	21	15	17	16	16
18	17	19	20	19	58	777	63	21	15	15	15	16
19	17	22	19	19	45	733	58	22	15	15	14	16
20	16	20	20	19	39	625	52	21	15	15	14	16
21	16	20	20	19	35	382	47	22	15	15	14	16
22	16	19	19	19	31	234	43	22	15	15	15	17
23	16	18	19	19	28	151	40	21	15	14	18	18
24	16	18	19	19	36	220	37	20	16	14	18	20
25	16	18	18	19	32	210	36	20	16	16	18	19
26	16	18	18	19	30	164	33	20	16	16	18	19
27	16	18	18	22	27	191	30	19	16	16	17	18
28	16	18	18	31	27	153	29	18	16	18	16	18
29	16	18	18	92	---	108	29	18	15	21	17	17
30	17	18	18	84	---	79	29	18	14	18	17	17
31	17	---	18	253	---	59	---	18	---	18	16	---
TOTAL	673	547	702	983	2694	11701	3624	664	468	472	547	507
MEAN	21.7	18.2	22.6	31.7	96.2	377	121	21.4	15.6	15.2	17.6	16.9
MAX	119	22	62	253	268	929	354	26	18	21	25	20
MIN	16	17	18	18	27	30	29	18	14	14	14	15
AC-FT	1330	1080	1390	1950	5340	23210	7190	1320	928	936	1080	1010
CAL YR 1986	TOTAL 12330	MEAN 33.8	MAX 544	MIN 11	AC-FT 24460							
WTR YR 1987	TOTAL 23582	MEAN 64.6	MAX 929	MIN 14	AC-FT 46770							

09507500 FOSSIL CREEK DIVERSIONS TO CHILDS POWERPLANT, NEAR CAMP VERDE, AZ

LOCATION.--Lat 34°22'06", long 111°39'56", in NE¼SW¼ sec.20, T.11 N., R.7 E., Yavapai County, Hydrologic Unit 15060203, at head of Stehr Lake, 2.3 mi northeast of Childs powerplant, 4.4 mi by flume downstream from Irving powerplant, and 17 mi southeast of Camp Verde.

PERIOD OF RECORD.--January 1952 to current year.

GAGE.--Water-stage recorder and weir in concrete flume. Datum of gage is 3,716.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records excellent. Record is obtained at the head of Stehr Lake, a regulatory basin, and shows the water used by Childs powerplant. Most of the flow originates at Fossil Springs, which are fairly constant. Diversion is made from Fossil Creek 8 mi upstream from this station and is first used by Irving powerplant. A second diversion from Fossil Creek enters the flume below Irving powerplant. Based on estimates and records for previous years, the flow through the Irving powerplant is estimated to be about 99 percent of the record published herewith.

AVERAGE DISCHARGE.--35 years, 43.3 ft³/s, 31,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 58 ft³/s Aug. 1, 2, 1982; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	46	44	43	48	44	43	43	46	46	47	45
2	47	46	44	42	43	45	43	43	46	46	48	45
3	46	46	44	42	48	45	43	43	45	46	48	45
4	46	45	44	42	47	45	44	24	46	45	47	45
5	46	46	45	43	46	46	43	25	46	45	47	45
6	37	45	45	43	47	44	42	25	46	45	47	44
7	45	45	45	43	47	44	30	42	46	46	47	45
8	45	46	45	43	46	45	44	43	46	45	47	45
9	45	46	45	42	46	44	42	42	46	45	47	45
10	45	46	45	42	48	45	44	43	46	45	47	44
11	45	45	45	42	47	46	43	43	46	45	46	45
12	44	45	45	42	45	45	44	42	46	45	46	44
13	44	45	45	43	46	45	41	42	46	45	46	45
14	44	45	45	42	46	45	44	27	46	45	46	45
15	44	44	45	42	47	44	43	43	46	44	46	45
16	45	44	45	43	45	45	43	43	46	44	45	44
17	45	44	45	42	46	44	44	44	45	44	45	44
18	44	45	45	42	46	45	44	44	45	44	45	44
19	44	44	45	42	46	46	44	40	46	44	45	44
20	45	44	45	43	46	45	44	45	46	44	45	44
21	46	43	45	43	46	45	44	46	46	44	45	44
22	46	43	45	43	46	45	44	46	46	44	45	44
23	46	43	45	42	46	43	44	46	46	44	45	44
24	46	26	45	43	45	45	44	44	46	44	45	44
25	46	44	45	43	45	44	44	44	46	44	45	44
26	46	44	45	43	46	44	43	45	46	44	45	44
27	45	44	45	32	46	43	37	45	46	44	45	41
28	46	44	45	43	45	43	42	46	45	40	45	44
29	46	44	44	45	---	43	43	46	45	47	45	35
30	46	44	45	47	---	44	43	45	45	47	45	44
31	46	---	44	47	---	44	---	45	---	47	45	---
TOTAL	1396	1321	1389	1319	1291	1380	1280	1284	1374	1387	1422	1320
MEAN	45.0	44.0	44.8	42.5	46.1	44.5	42.7	41.4	45.8	44.7	45.9	44.0
MAX	47	46	45	47	48	46	44	46	46	47	48	45
MIN	37	26	44	32	43	43	30	24	45	40	45	35
AC-FT	2770	2620	2760	2620	2560	2740	2540	2550	2730	2750	2820	2620
CAL YR 1986	TOTAL	16494	MEAN	45.2	MAX	49	MIN	26	AC-FT	32720		
WTR YR 1987	TOTAL	16163	MEAN	44.3	MAX	48	MIN	24	AC-FT	32060		

GILA RIVER BASIN

09507580 EAST VERDE RIVER DIVERSION FROM CLEAR CREEK, NEAR PINE, AZ

LOCATION.--Lat 34°25'04", long 111°15'47", in NW¼NE¼ sec.23, T.12 N., R.10 E. (unsurveyed), Gila County, Hydrologic Unit 15060203, on East Verde River at mouth of Mail Creek, 0.9 mi southeast of Washington Park, and 11 mi east of Pine.

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

GAGE.--Water-stage recorder and weir in concrete flume. Datum of gage is 5,774 ft above National Geodetic Vertical Datum of 1929, (Phelps Dodge Corporation reference mark).

REMARKS.--No estimated daily discharges. Records excellent. Diversion is 9.5 mi northeast from Blue Ridge Reservoir, on East Clear Creek, in the Little Colorado River basin, to the East Verde River in the Gila River basin.

AVERAGE DISCHARGE.--21 years (water years 1967-87) 13.4 ft³/s, 9,710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 34 ft³/s Apr. 19, 29, May 5-7, 10, 12, 15, 18, June 2, 1969; no flow for long periods each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	24	18	.00	.00	.00	.00	7.8	19	23	23	22
2	22	24	18	.00	.00	.00	.00	18	19	23	15	23
3	22	24	18	.00	.00	.00	.00	16	19	23	6.7	23
4	23	24	19	.00	.00	.00	.00	17	19	22	14	23
5	22	23	18	.00	.00	.00	.00	17	19	23	14	23
6	24	22	18	.00	.00	.00	.00	18	19	23	21	23
7	25	23	18	.00	.00	.00	.00	19	19	23	23	23
8	24	23	18	.00	.00	.00	.00	19	19	23	21	23
9	24	23	18	.00	.00	.00	.00	19	19	23	23	23
10	25	23	18	.00	.00	.00	.00	19	19	23	15	23
11	23	22	18	.00	.00	.00	.00	19	19	23	14	23
12	24	22	18	.00	.00	.00	.00	19	19	23	22	23
13	25	21	18	.00	.00	.00	.00	16	19	20	23	23
14	25	21	18	.00	.00	.00	.00	19	16	22	23	23
15	25	20	18	.00	.00	.00	.00	19	16	23	23	23
16	25	20	18	.00	.00	.00	.00	19	19	23	23	23
17	24	19	18	.00	.00	.00	.00	19	19	24	24	23
18	25	19	18	.00	.00	.00	.00	19	19	24	21	23
19	24	18	7.8	.00	.00	.00	.00	19	19	24	23	23
20	25	18	.00	.00	.00	.00	.00	19	19	24	23	23
21	25	19	.00	.00	.00	.00	.00	19	19	24	23	23
22	24	18	.00	.00	.00	.00	.00	19	19	24	23	21
23	25	18	.00	.00	.00	.00	.00	19	14	24	2.1	23
24	24	18	.00	.00	.00	.00	.00	19	11	24	.15	23
25	25	19	.00	.00	.00	.00	.00	18	14	23	.12	23
26	24	18	.00	.00	.00	.00	.00	19	19	24	.10	23
27	24	18	.00	.00	.00	.00	.00	19	19	24	8.6	22
28	25	18	.00	.00	.00	.00	.00	19	16	24	23	23
29	24	19	.00	.00	---	.00	.00	19	16	24	23	23
30	24	18	.00	.00	---	.00	.00	19	22	24	23	23
31	25	---	.00	.00	---	.00	---	19	---	23	23	---
TOTAL	747	616	332.80	0.00	0.00	0.00	0.00	564.8	543	721	543.77	686
MEAN	24.1	20.5	10.7	.00	.00	.00	.00	18.2	18.1	23.3	17.5	22.9
MAX	25	24	19	.00	.00	.00	.00	19	22	24	24	23
MIN	22	18	.00	.00	.00	.00	.00	7.8	11	20	.10	21
AC-FT	1480	1220	660	.0	.0	.0	.0	1120	1080	1430	1080	1360
CAL YR	1986	TOTAL	4874.80	MEAN	13.4	MAX	25	MIN	.00	AC-FT	9670	
WTR YR	1987	TOTAL	4754.37	MEAN	13.0	MAX	25	MIN	.00	AC-FT	9430	

09507980 EAST VERDE RIVER NEAR CHILDS, AZ

LOCATION.--Lat 34°17'00", long 111°38'50", in sec.21, T.11 N., R.7 E. (unsurveyed), Gila County Hydrologic Unit 15060203, in Tonto National Forest, on left bank 1.3 mi upstream from mouth and 6 mi southeast of Childs.

DRAINAGE AREA.--328 mi².

PERIOD OF RECORD.--September 1961 to December 1965, May 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,500 ft above National Geodetic Vertical Datum (NGVD) of 1929, from topographic map. Sept. 1, 1961, to Dec. 15, 1965, at site 1 mi upstream at elevation of 2,600 ft above NGVD of 1929, datum raised 0.38 ft Oct. 4, 1963. May 25, 1967, to July 20, 1972, at present site at datum 1.29 ft higher.

REMARKS.--No estimated daily discharges. Records good. Since September 30, 1965, records include transbasin diversions from east Clear Creek to headwaters of East Verde River. (See sta 09507580 and 09398300.)

AVERAGE DISCHARGE.--20 years (water years 1968-87), 73.7 ft³/s, 53,400 acre-ft/yr; median of yearly mean discharges, 55 ft³/s, 39,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,500 ft³/s Sept. 5, 1970, gage height, 20.5 ft, present datum, from profile past gage, from rating curve extended above 960 ft³/s on basis of slope-area measurements at gage heights 10.11 and 20.5 ft, present datum; minimum daily, 0.20 ft³/s June 19 to July 8, 1963, July 21-28, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0315	884	3.80
Mar. 5	0130	*1,030	*4.06

Minimum daily discharge, 8.2 ft³/s Aug. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	23	21	12	180	115	33	15	21	12	22	21
2	26	24	22	12	83	203	35	14	20	16	24	21
3	26	29	22	12	40	359	43	15	20	18	26	22
4	27	28	22	11	33	561	56	23	20	18	22	22
5	29	24	21	14	29	657	62	23	20	18	21	23
6	31	24	30	24	26	501	52	24	21	18	22	23
7	29	24	130	31	24	360	45	25	22	18	16	22
8	28	23	254	43	21	280	45	25	21	18	21	22
9	28	24	73	42	20	189	50	26	20	18	22	14
10	33	24	42	30	19	161	49	26	20	18	21	14
11	175	24	35	22	18	126	50	34	19	18	62	14
12	363	24	32	19	18	103	50	30	19	18	32	14
13	80	23	30	18	18	96	48	28	19	19	22	16
14	44	23	29	19	19	95	41	27	19	19	30	27
15	34	24	29	20	18	100	36	29	18	17	25	25
16	31	22	28	19	19	108	32	35	17	22	24	24
17	28	22	29	17	20	241	30	31	15	23	23	23
18	27	23	29	16	18	276	28	25	17	22	22	23
19	25	26	29	15	17	169	26	25	17	22	22	19
20	25	24	29	16	17	127	24	25	17	21	20	18
21	24	22	35	16	17	93	22	26	17	21	22	19
22	24	22	27	14	16	77	20	27	17	21	40	19
23	24	22	22	14	15	69	20	25	17	19	95	21
24	24	21	19	15	32	59	19	24	17	17	36	23
25	23	22	17	14	43	54	18	23	17	17	20	28
26	23	22	16	14	41	50	17	23	10	19	13	26
27	23	22	15	15	41	44	18	22	9.3	19	10	26
28	23	22	14	17	53	41	16	22	10	20	11	27
29	23	21	13	18	---	39	15	22	12	21	8.2	25
30	22	22	13	18	---	37	16	22	13	22	15	24
31	22	---	12	164	---	34	---	21	---	21	21	---
TOTAL	1366	700	1139	731	915	5424	1016	762	521.3	590	790.2	645
MEAN	44.1	23.3	36.7	23.6	32.7	175	33.9	24.6	17.4	19.0	25.5	21.5
MAX	363	29	254	164	180	657	62	35	22	23	95	28
MIN	22	21	12	11	15	34	15	14	9.3	12	8.2	14
AC-FT	2710	1390	2260	1450	1810	10760	2020	1510	1030	1170	1570	1280
CAL YR 1986	TOTAL	12043.5	MEAN	33.0	MAX	458	MIN	7.3	AC-FT	23890		
WTR YR 1987	TOTAL	14599.5	MEAN	40.0	MAX	657	MIN	8.2	AC-FT	28960		

GILA RIVER BASIN

09508300 WET BOTTOM CREEK NEAR CHILDS, AZ
(Hydrologic bench mark station)

LOCATION.--Lat 34°09'39", long 111°41'32", in sec.36, T.9 N., R.6 E. (unsurveyed), Gila County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 1.4 mi upstream from mouth and 13 mi south of Childs.

DRAINAGE AREA.--36.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1967 to current year.

REVISED RECORDS.--WRD Ariz. 1970: 1968(M).

GAGE.--Water-stage recorder. Elevation of gage is 2,320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--20 years (water years 1968-87), 15.1 ft³/s, 10,940 acre-ft/yr; median of yearly mean discharges, 9.5 ft³/s, 6,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,830 ft³/s Feb. 19, 1980, gage height, 16.0 ft, from high-water mark in gage well, from rating curve extended above 3,000 ft³/s on basis of slope-area measurements at gage heights 9.77, 14.18, and 15.66 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	2145	422	6.23	Mar. 4	2145	*522	*6.44
Jan. 6	0200	161	5.46	Mar. 15	2015	208	5.63
Jan. 31	1515	176	5.51	Mar. 18	0015	223	5.68

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.42	.46	2.7	87	94	4.6	.79	.19	.00	.00	.04
2	1.0	.44	.46	2.5	37	178	4.2	.73	.15	.00	.00	.00
3	.88	.46	.46	2.3	21	268	3.8	.65	.11	.00	.00	.00
4	.76	.46	.46	2.1	12	325	3.7	.59	.06	.00	.00	.00
5	.70	.43	.46	2.2	9.7	334	3.9	.55	.08	.00	.05	.06
6	.59	.42	1.5	86	8.5	258	3.7	.52	.08	.00	.06	.08
7	.53	.41	14	40	7.6	195	3.6	.50	.17	.00	.04	.05
8	.67	.40	35	41	6.7	115	3.5	.47	.11	.00	.00	.00
9	1.2	.40	14	32	5.8	63	3.3	.46	.04	.00	.00	.00
10	1.9	.40	8.9	18	5.1	37	3.1	.45	.00	.00	.00	.00
11	47	.39	7.4	11	4.6	23	3.0	.44	.00	.00	.04	.00
12	121	.40	5.9	9.4	4.2	14	2.8	.41	.00	.00	.17	.00
13	21	.40	4.9	8.6	4.1	10	2.6	.39	.00	.00	.14	.00
14	9.2	.40	4.2	8.2	4.0	8.9	2.4	.39	.00	.00	.08	.00
15	7.0	.42	3.7	7.6	3.8	41	2.1	.43	.00	.00	.03	.00
16	5.4	.40	3.5	7.6	3.6	97	1.8	.40	.00	.00	.00	.00
17	4.3	.40	3.5	6.9	3.5	98	1.6	.40	.00	.00	.00	.00
18	3.6	.50	3.6	5.8	3.2	141	1.4	.35	.00	.00	.00	.00
19	3.1	.64	3.6	5.5	2.9	95	1.3	.31	.00	.00	.00	.00
20	2.6	.52	3.7	5.9	2.8	55	1.1	.34	.00	.00	.00	.00
21	2.3	.53	8.3	5.7	2.7	31	.96	.41	.00	.00	.00	.00
22	1.7	.52	8.8	6.0	2.4	20	.89	.37	.00	.00	.00	.00
23	1.5	.46	7.4	6.5	2.2	14	.86	.32	.00	.00	.00	.00
24	1.2	.46	6.2	6.5	6.6	11	.77	.29	.00	.00	.00	.04
25	.98	.47	5.2	6.4	8.9	9.7	.74	.31	.00	.00	.22	.13
26	.80	.46	4.5	6.2	8.7	8.7	.76	.34	.00	.00	.20	.15
27	.64	.46	4.1	6.6	13	7.9	.77	.37	.00	.00	.20	.14
28	.58	.46	3.7	7.6	37	7.2	.78	.36	.00	.00	.13	.18
29	.49	.47	3.5	9.0	---	6.4	.82	.33	.00	.00	.12	.11
30	.43	.46	3.2	8.6	---	5.7	.84	.27	.00	.00	.14	.06
31	.41	---	2.9	77	---	5.1	---	.23	---	.00	.10	---
TOTAL	244.76	13.46	177.50	451.4	318.6	2576.6	65.69	13.17	0.99	0.00	1.72	1.04
MEAN	7.90	.45	5.73	14.6	11.4	83.1	2.19	.42	.033	.00	.055	.035
MAX	121	.64	35	86	87	334	4.6	.79	.19	.00	.22	.18
MIN	.41	.39	.46	2.1	2.2	5.1	.74	.23	.00	.00	.00	.00
AC-FT	485	27	352	895	632	5110	130	26	2.0	.0	3.4	2.1
CAL YR	1986	TOTAL	2041.93	MEAN	5.59	MAX	192	MIN	.00	AC-FT	4050	
WTR YR	1987	TOTAL	3864.93	MEAN	10.6	MAX	334	MIN	.00	AC-FT	7670	

GILA RIVER BASIN

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09508300 WET BOTTOM CREEK NEAR CHILDS, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1968 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
DEC 1986													
11...	1115	7.2	100	7.70	9.5	7.0	27	706	11.0	98	24	73	
FEB 1987													
10...	1215	5.0	100	7.49	23.0	12.0	20	715	10.2	101	K8	36	
MAY													
14...	1145	E0.40	284	7.99	32.0	24.0	0.50	699	8.4	109	K15	310	
AUG													
12...	1310	0.16	370	7.72	33.0	28.0	0.30	697	7.9	111	K20	87	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (MG/L AS K) (00935)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
DEC 1986													
11...	38	0	9.9	3.1	6.7	0.5	0.80	54	0	10	3.1	0.70	
FEB 1987													
10...	38	0	10	3.1	6.9	0.5	0.80	63	0	13	2.6	0.70	
MAY													
14...	100	0	27	8.1	18	0.8	1.0	140	0	<5.0	7.0	1.5	
AUG													
12...	140	0	37	11	30	1	1.7	210	0	4.3	13	2.3	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL DIS- SOLVED (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)
DEC 1986													
11...	24	89	87	0.12	<0.010	<0.100	0.040	0.030	0.86	0.90	0.050	0.010	
FEB 1987													
10...	20	112	89	0.15	<0.010	<0.100	0.080	0.090	0.32	0.40	0.030	0.050	
MAY													
14...	33	171	--	--	<0.010	<0.100	0.020	0.020	0.38	0.40	0.010	0.030	
AUG													
12...	42	224	247	0.30	<0.010	<0.100	<0.010	<0.010	--	0.40	0.050	0.030	
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 1986													
11...	<0.010	--	0.05	0.01	790	3	20	<0.5	1	<1	<3	6	
FEB 1987													
10...	0.020	0.06	0.03	0.03	670	4	21	<0.5	<1	<1	<3	14	
MAY													
14...	0.030	0.09	0.01	0.0	<10	13	30	<0.5	<1	<1	<3	7	
AUG													
12...	0.020	0.06	0.05	0.01	<10	*27	32	<0.5	<1	<1	<3	6	

E Estimated

K Based on non-ideal colony count.

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09508300 WET BOTTOM CREEK NEAR CHILDS, AZ--Continued

WATER QUALITY DATA

DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 1986												
11...	780	<5	12	9	<0.1	<10	<1	<1	<1.0	49	<6	24
FEB 1987												
10...	250	<5	12	6	<0.1	<10	3	<1	1.0	52	<6	49
MAY												
14...	65	<5	33	*15	<0.1	<10	2	<1	<1.0	150	<6	22
AUG												
12...	64	<5	34	15	0.2	<10	<1	<1	<1.0	210	<6	16
DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L AS U) (09511)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L AS U) (80020)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
DEC 1986												
11...	--	--	--	--	--	--	--	--	--	4	110	2.1
FEB 1987												
10...	0.9	1.7	1.7	1.3	1.4	1.3	0.04	--	0.13	65	6	0.08
MAY												
14...	--	--	--	--	--	--	--	--	--	--	1	0.0
AUG												
12...	2.5	<0.4	3.0	1.9	2.3	1.8	0.03	0.74	--	89	1	0.00

* Value verified.

< Actual value is known to be less than value shown.

09508500 VERDE RIVER BELOW TANGLE CREEK, ABOVE HORSESHOE DAM, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 34°04'23", long 111°42'56", in sec.35, T.9 N., R.6 E. (unsurveyed), Yavapai County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 1.3 mi downstream from Tangle Creek and 9 mi upstream from Horseshoe Dam.

DRAINAGE AREA.--5,872 mi², includes 373 mi² in Aubrey Valley Playa, a closed basin.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,029.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. About 12,500 acres above station are irrigated by surface water and ground water. Low flow slightly regulated by powerplant 32 mi above station, using water from Fossil Creek. This station is above all major reservoirs on Verde River.

AVERAGE DISCHARGE.--42 years, 565 ft³/s, 409,300 acre-ft/yr; median of yearly mean discharges, 450 ft³/s, 326,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,800 ft³/s Feb. 15, 1980, gage height, 21.41 ft; minimum, 48 ft³/s June 17, 1956, July 18, 19, 1958, caused by power regulation on Fossil Creek; minimum daily discharge, 61 ft³/s July 18, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1924, 100,000 ft³/s Mar. 3, 1938, gage height, 19.0 ft, from floodmarks, based on comparison with peak discharge at other stations on Verde River.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 10	0115	*5,000	*9.23
Mar. 19	1230	4,670	9.02

Minimum daily discharge, 107 ft³/s July 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	282	304	322	1990	615	457	209	170	114	166	204
2	301	283	298	320	1700	779	411	204	165	112	178	193
3	279	290	311	316	1240	1080	668	204	164	120	181	176
4	274	292	307	313	945	1830	1060	203	160	118	344	185
5	261	291	303	324	818	3570	1370	210	155	118	234	167
6	268	289	343	384	753	4000	1290	204	152	119	189	170
7	260	287	454	372	679	4010	1050	196	147	120	190	191
8	267	284	859	385	575	4280	793	190	147	114	172	204
9	261	290	724	391	509	4210	797	186	148	110	168	187
10	284	294	559	366	481	4650	850	185	147	111	190	172
11	378	295	431	341	473	3730	888	188	145	116	189	171
12	1960	292	394	329	684	2790	805	194	144	117	234	163
13	1760	291	374	322	946	2410	709	196	140	115	209	157
14	923	295	363	322	1130	2210	586	198	134	119	334	157
15	648	300	356	326	1200	2010	491	205	132	118	306	170
16	500	298	350	335	1200	1820	416	206	130	123	248	167
17	424	293	351	335	898	1420	370	206	127	134	231	164
18	375	293	357	328	712	2440	339	206	128	127	213	164
19	347	317	352	321	570	3710	319	204	124	126	201	166
20	332	339	363	324	493	3500	306	200	120	132	187	159
21	322	340	375	320	435	2310	293	200	121	135	168	150
22	314	324	382	314	405	1680	279	200	129	129	162	157
23	311	319	360	308	380	1320	268	202	133	127	187	163
24	304	319	347	309	477	984	250	197	126	116	218	171
25	293	301	338	305	597	1000	220	195	125	107	215	182
26	291	306	333	300	558	1020	216	194	128	110	221	203
27	290	304	330	302	529	944	221	192	119	111	230	216
28	289	304	325	304	526	983	213	188	113	116	236	222
29	286	305	324	333	---	908	215	181	109	125	227	214
30	289	303	321	387	---	714	211	179	111	148	205	219
31	286	---	321	780	---	555	---	174	---	158	209	---
TOTAL	13695	9020	11909	10738	21903	67482	16361	6096	4093	3765	6642	5384
MEAN	442	301	384	346	782	2177	545	197	136	121	214	179
MAX	1960	340	859	780	1990	4650	1370	210	170	158	344	222
MIN	260	282	298	300	380	555	211	174	109	107	162	150
AC-FT	27160	17890	23620	21300	43440	133900	32450	12090	8120	7470	13170	10680

CAL YR	1986	TOTAL	165432	MEAN	453	MAX	4140	MIN	125	AC-FT	328100
WTR YR	1987	TOTAL	177088	MEAN	485	MAX	4650	MIN	107	AC-FT	351300

GILA RIVER BASIN

09508500 VERDE RIVER BELOW TANGLE CREEK ABOVE HORSESHOE DAM, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--October 1980 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1986												
10...	1330	287	595	8.51	17.0	20.0	4.0	740	8.5	96	11	K40
NOV												
13...	1320	268	601	8.59	22.5	14.0	0.80	710	9.6	100	<10	--
DEC												
11...	1420	420	508	8.60	12.0	9.0	7.1	712	11.2	104	<10	22
JAN 1987												
13...	1500	318	572	8.47	18.5	9.0	1.2	702	11.0	104	<10	<1
FEB												
10...	1440	470	463	8.52	24.0	14.0	16	708	9.6	100	<10	K9
MAR												
10...	1500	4490	179	8.09	21.0	12.0	120	708	10.0	100	*34	K84
APR												
14...	1530	566	380	8.50	28.0	19.0	12	705	8.8	103	14	K9
MAY												
14...	1400	197	635	8.42	29.0	24.0	2.2	701	7.9	103	<10	K8
JUN												
12...	1420	146	632	8.49	38.0	28.5	8.8	700	7.7	109	<10	K6
JUL												
29...	1500	128	673	7.90	35.0	30.0	5.0	700	6.4	93	20	K6
AUG												
12...	1520	231	651	8.42	34.5	29.5	19	699	8.7	126	<10	200
SEP												
15...	1250	171	662	8.25	28.0	25.0	1.7	706	8.5	111	42	K9

DATE	STREP- TOCOC- FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL AS CACO3 (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
OCT 1986											
10...	K15	250	22	45	33	37	1	2.8	280	<1	227
NOV											
13...	--	260	12	48	33	35	1	2.4	280	9	244
DEC											
11...	25	230	5	48	27	26	0.8	2.1	260	10	226
JAN 1987											
13...	K3	260	8	50	32	31	0.9	2.2	300	2	249
FEB											
10...	29	220	16	46	25	23	0.7	1.9	250	5	203
MAR											
10...	350	87	17	21	8.3	5.5	0.3	1.3	88	0	70
APR											
14...	K23	170	15	36	19	17	0.6	1.8	--	2	154
MAY											
14...	23	250	25	46	33	38	1	2.7	250	13	226
JUN											
12...	K11	240	16	43	33	41	1	3.1	260	10	228
JUL											
29...	30	250	29	44	35	47	1	3.4	270	0	225
AUG											
12...	420	270	46	46	37	46	1	3.2	270	2	222
SEP											
15...	K11	260	36	46	36	45	1	3.2	280	0	227

* Value verified.

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09508500 VERDE RIVER BELOW TANGLE CREEK ABOVE HORSESHOE DAM, AZ--Continued

WATER QUALITY DATA

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1986											
10...	65	19	0.30	22	351	361	0.48	19	<0.010	<0.100	<0.100
NOV											
13...	64	22	0.30	--	337	361	0.46	3	--	<0.100	--
DEC											
11...	38	17	0.30	20	301	325	0.41	17	<0.010	<0.100	<0.100
JAN 1987											
13...	50	17	0.30	--	308	334	0.42	3	--	<0.100	--
FEB											
10...	33	13	0.30	19	284	293	0.39	39	<0.010	<0.100	<0.100
MAR											
10...	11	3.4	0.10	--	120	94	0.16	374	--	<0.100	--
APR											
14...	26	12	0.20	19	216	228	0.29	32	<0.010	<0.100	<0.100
MAY											
14...	77	22	<0.10	--	359	369	0.49	40	--	<0.100	--
JUN											
12...	90	28	0.40	23	385	412	0.52	13	<0.010	<0.100	<0.100
JUL											
29...	98	29	0.40	--	390	391	0.53	5	--	<0.100	--
AUG											
12...	91	27	0.30	26	405	415	0.55	36	<0.010	<0.100	<0.100
SEP											
15...	81	28	0.30	--	375	377	0.51	3	--	<0.100	--
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1986											
10...	0.040	0.030	0.66	0.70	0.020	0.010	0.030	0.09	0.02	0.0	<10
NOV											
13...	0.030	--	0.37	0.40	0.020	--	--	--	0.02	--	--
DEC											
11...	0.040	0.050	0.46	0.50	0.030	0.010	<0.010	--	0.03	0.01	--
JAN 1987											
13...	0.030	--	--	<0.20	0.010	--	--	--	0.01	--	--
FEB											
10...	0.060	0.050	0.24	0.30	0.070	0.040	0.010	0.03	0.07	0.03	40
MAR											
10...	0.110	--	1.1	1.2	0.120	--	--	--	0.12	--	--
APR											
14...	<0.020	<0.010	--	5.2	0.060	0.020	0.020	0.06	0.06	0.0	30
MAY											
14...	0.020	--	0.58	0.60	0.030	--	--	--	0.03	--	--
JUN											
12...	0.020	<0.010	0.38	0.40	0.030	0.020	<0.010	--	0.03	0.02	--
JUL											
29...	--	--	--	--	0.020	--	--	--	0.02	--	--
AUG											
12...	<0.010	<0.010	--	0.40	0.120	0.010	0.010	0.03	0.12	0.0	<10
SEP											
15...	<0.010	--	--	0.20	<0.010	--	--	--	--	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09508500 VERDE RIVER BELOW TANGLE CREEK ABOVE HORSESHOE DAM, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1986											
10...	19	2	74	<0.5	170	<1	<1	*<1	<1	<3	12
NOV											
13...	19	18	79	--	160	<1	<1	2	<1	--	12
DEC											
11...	15	14	100	--	130	<1	<1	6	<1	--	12
JAN 1987											
13...	19	18	86	--	140	<1	<1	3	<1	--	5
FEB											
10...	*14	*12	84	<0.5	120	<1	<1	6	<1	<3	11
MAR											
10...	8	5	33	--	20	<1	<1	*14	<1	--	30
APR											
14...	12	9	67	<0.5	80	<1	1	12	<1	<3	18
MAY											
14...	19	20	78	--	180	<1	<1	6	<1	--	11
JUN											
12...	21	20	72	--	20	<1	<1	<1	<1	--	4
JUL											
29...	22	21	62	--	220	<1	<1	<1	<1	--	9
AUG											
12...	20	21	66	<0.5	220	1	<1	2	<1	<3	8
SEP											
15...	--	21	69	--	210	<1	<1	9	<1	--	5

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1986											
10...	7	--	10	<5	<5	39	20	4	<0.10	<0.1	<10
NOV											
13...	5	90	6	<5	<5	--	10	4	<0.10	--	--
DEC											
11...	4	500	10	10	<5	--	10	<10	<0.10	--	--
JAN 1987											
13...	5	90	15	<5	<5	--	<10	6	<0.10	--	--
FEB											
10...	4	790	26	<5	<5	27	30	6	<0.10	<0.1	<10
MAR											
10...	8	9900	140	11	6	--	*270	4	<0.10	--	--
APR											
14...	<1	1100	36	5	<5	22	30	4	0.20	<0.1	<10
MAY											
14...	12	410	19	50	<5	--	10	3	0.10	--	--
JUN											
12...	5	430	7	<5	6	--	20	3	<0.10	--	--
JUL											
29...	6	280	5	<5	5	--	30	3	<0.10	--	--
AUG											
12...	6	1600	9	<5	<5	29	70	16	0.20	0.4	<10
SEP											
15...	5	260	4	<5	<5	--	20	6	<0.10	--	--

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09508500 VERDE RIVER BELOW TANGLE CREEK ABOVE HORSESHOE DAM, AZ--Continued

WATER QUALITY DATA

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
OCT 1986											
10...	1	1	1	<1.0	750	6	*250	31	79	20	15
NOV											
13...	--	<1	<1	<1.0	--	--	10	10	56	7	5.1
DEC											
11...	--	<1	<1	<1.0	--	--	20	10	94	12	14
JAN 1987											
13...	--	1	1	<1.0	--	--	<10	8	93	6	5.2
FEB											
10...	4	1	<1	<1.0	480	<6	20	<3	92	46	58
MAR											
10...	--	<1	<1	<1.0	--	--	60	11	91	309	3750
APR											
14...	2	<1	<1	<1.0	380	6	<10	9	85	26	40
MAY											
14...	--	<1	<1	<1.0	--	--	30	14	88	19	10
JUN											
12...	--	<1	<1	<1.0	--	--	<10	11	92	26	10
JUL											
29...	--	<1	<1	<1.0	--	--	10	8	94	14	4.8
AUG											
12...	3	<1	<1	<1.0	880	10	20	29	99	76	47
SEP											
15...	--	1	1	<1.0	--	--	40	7	97	8	3.7

* Value verified.

< Actual value is known to be less than value shown.

09509500 RESERVOIR SYSTEM ON VERDE RIVER AT AND BELOW HORSESHOE DAM, AZ

LOCATION.--This system comprises two storage reservoirs created by Horseshoe and Bartlett Dams on Verde River, Hydrologic Unit 15060203. Gages on Horseshoe Reservoir, formed by Horseshoe Dam, lat 33°59'05", long 111°42'35", in sec.2, T.7 N., R.6 E. (unsurveyed); and Bartlett Reservoir, formed by Bartlett Dam, lat 33°49'05", long 111°37'52", in sec.34, T.6 N., R.7 E. (unsurveyed).

DRAINAGE AREA.--6,185 mi², at Bartlett Dam.

PERIOD OF RECORD.--July 1939 to current year. Prior to 1946 published as Bartlett Reservoir at Bartlett Dam.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorders on dam structures. Datum of gage on Horseshoe Reservoir is 1,900.00 ft and on Bartlett Reservoir 1,599.46 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1964, Bartlett Reservoir gage datum was 10.00 ft higher.

REMARKS.--Horseshoe Reservoir is formed by earthfill and rockfill dam; dam completed and storage began Nov. 15, 1945. Bartlett Reservoir is formed by concrete multiple-arch dam; dam completed May 1939 and storage began Feb. 5, 1939. Total capacity of the two reservoirs (capacity tables dated 1978, based on survey in 1977-78) is 309,600 acre-ft divided as follows: Horseshoe Reservoir, 131,400 acre-ft between elevations 1,915.0 ft - sill of outlet gage - and 2,026.0 ft - top of spillway gates; Bartlett Reservoir, 178,200 acre-ft between elevations 1,619.46 ft - 10 ft above sill of outlet gates - and 1,797.46 ft - top of spillway gates. No dead storage. There was no spillage over Bartlett Dam during 1987 water year. Records given herein represent usable contents. Water is used for irrigation of Salt River Valley and for municipal supply.

COOPERATION.--Capacity tables furnished by Salt River Valley Water Users' Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents of system, 318,000 acre-ft May 9, 1973; no storage at times when natural flow of river was passed through reservoir system.

EXTREMES FOR CURRENT YEAR.--Maximum contents of system, 309,000 acre-ft Apr. 15-17; minimum, 201,000 acre-ft Jan. 1.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248000	229000	210000	201000	220000	237000	294000	306000	299000	263000	225000	209000
2	246000	228000	210000	202000	223000	237000	295000	305000	299000	262000	225000	208000
3	244000	227000	210000	202000	225000	238000	295000	305000	298000	261000	224000	208000
4	243000	227000	210000	202000	226000	240000	296000	305000	299000	260000	224000	208000
5	241000	226000	210000	203000	228000	244000	298000	305000	295000	258000	223000	208000
6	239000	225000	210000	204000	228000	249000	300000	305000	294000	257000	223000	208000
7	237000	224000	211000	205000	229000	253000	301000	304000	293000	255000	223000	208000
8	235000	223000	212000	205000	230000	258000	302000	304000	292000	254000	222000	207000
9	233000	221000	213000	205000	230000	263000	303000	304000	292000	252000	222000	208000
10	233000	220000	213000	206000	230000	269000	304000	304000	291000	250000	221000	208000
11	233000	219000	213000	207000	231000	273000	305000	303000	290000	249000	220000	209000
12	235000	217000	214000	207000	232000	277000	306000	303000	289000	248000	220000	209000
13	237000	215000	214000	208000	233000	279000	307000	303000	288000	246000	220000	209000
14	238000	215000	213000	208000	234000	282000	308000	303000	287000	245000	220000	208000
15	238000	214000	213000	208000	236000	284000	309000	303000	286000	244000	220000	208000
16	238000	214000	213000	209000	237000	284000	309000	303000	284000	242000	220000	208000
17	238000	213000	212000	210000	238000	284000	309000	302000	283000	241000	220000	208000
18	237000	213000	212000	210000	238000	285000	308000	302000	281000	240000	219000	206000
19	237000	212000	211000	210000	238000	287000	308000	302000	280000	239000	218000	205000
20	236000	212000	211000	211000	238000	288000	307000	302000	278000	238000	217000	205000
21	236000	212000	210000	211000	237000	287000	308000	302000	277000	237000	216000	205000
22	235000	212000	210000	212000	236000	285000	308000	301000	276000	235000	215000	205000
23	234000	212000	209000	212000	235000	285000	308000	301000	274000	234000	214000	205000
24	234000	212000	209000	212000	235000	285000	308000	301000	273000	233000	213000	205000
25	233000	212000	208000	213000	235000	286000	308000	301000	271000	231000	213000	205000
26	233000	212000	207000	213000	236000	288000	308000	300000	270000	230000	212000	205000
27	232000	211000	207000	214000	236000	289000	308000	300000	269000	229000	211000	205000
28	231000	211000	206000	214000	236000	291000	307000	300000	267000	228000	211000	205000
29	231000	211000	204000	215000	---	292000	307000	300000	266000	227000	212000	205000
30	230000	211000	203000	215000	---	293000	306000	299000	265000	226000	210000	204000
31	229000	---	202000	217000	---	293000	---	299000	---	226000	209000	---
MAX	248000	229000	214000	217000	238000	293000	309000	306000	299000	263000	225000	209000
MIN	229000	211000	202000	201000	220000	237000	294000	299000	265000	226000	209000	204000
(**)	-20000	-18000	-9000	+15000	+19000	+57000	+13000	-7000	-34000	-39000	-17000	-5000
CAL YR	1986	MAX	299000	MIN	201000	(**)	-21000					
WTR YR	1987	MAX	309000	MIN	201000	(**)	-45000					

(**) Change in storage, in acre-feet.

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ

LOCATION.--Lat 33°48'30", long 111°39'46", in NW¼ sec.5, T.5 N., R.7 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 2.1 mi downstream from Bartlett Dam, 4.0 mi upstream from Camp Creek, and 16 mi east of town of Cave Creek.

DRAINAGE AREA.--6,188 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1888 to current year. (Monthly discharge only August 1888 to December 1903, and January 1910 to September 1913. For some periods prior to December 1903 gage heights, discharge measurements, and daily discharge hydrograph are published in reports of the Geological Survey.) Prior to October 1941, published under different names as follows: "near Fort McDowell," "at mouth," "above Salt River," "at McDowell," "at McDowell near Lehi," "near McDowell," and "above Camp Creek, near McDowell."

REVISED RECORDS.--WSP 1049: 1893, 1913-14, 1917-18, 1926-27, 1929. WSP 1213: 1915-16. WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,572.34 ft above National Geodetic Vertical Datum of 1929. Gage at present site and datum Jan. 1, 1942, to Sept. 30, 1961, Dec. 30, 1965, to Mar. 10, 1971, and Oct. 1, 1978, to the present; Mar. 2 to Sept. 30, 1978, used as supplementary gage, and Feb. 18, 1975, to Feb. 28, 1978, supplementary water-stage recorder at site 30 ft upstream at same datum. Oct. 1, 1961, to Dec. 29, 1965, and Mar. 11, 1971, to Sept. 30, 1973, water-stage recorder at site 1.9 mi upstream at datum 1,600 ft, from topographic map; at same site at datum 2.00 ft higher, Oct. 1, 1973, to Mar. 3, 1975, and 3.00 ft higher, Oct. 1, 1961, to Dec. 29, 1965, and Mar. 11, 1971, to Sept. 30, 1973. Feb. 17, 1925, to Dec. 31, 1941, water-stage recorder at two sites within 0.5 mi upstream from Camp Creek, at various datums. Prior to Feb. 17, 1925, nonrecording gages at several sites about 20 mi downstream from present location at various datums.

REMARKS.--Records good except for estimated daily discharges, which are fair. About 12,500 acres above station are irrigated by surface water and ground water. Flow completely regulated by Bartlett Reservoir since Feb. 5, 1939, and Horseshoe Reservoir since Nov. 15, 1945 (see preceding page), except during periods of spill. Water diverted downstream for municipal supply of city of Phoenix, and for irrigation in Fort McDowell Indian Reservation. Remainder (except during infrequent periods of extreme flooding) is diverted at Granite Reef Dam on Salt River 27 mi downstream for irrigation in Salt River Valley, and for municipal use by the city of Phoenix.

AVERAGE DISCHARGE (adjusted for storage in Bartlett and Horseshoe Reservoirs).--99 years, 678 ft³/s, 491,200 acre-ft/yr; median of yearly mean discharge, 540 ft³/s, 391,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1888-1939: Maximum discharge not determined, probably over 150,000 ft³/s Feb. 24, 1891; minimum daily, 29 ft³/s July 11, 13, 1901. Floods of Nov. 27, 1905, and Mar. 4, 1938, reached maximum discharges of 96,000 ft³/s and 95,000 ft³/s, respectively.

1939-87: Maximum discharge, 101,000 ft³/s Mar. 2, 1978; no flow at Bartlett Dam at times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,810 ft³/s Mar. 21; minimum daily, 86 ft³/s Jan. 10-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	558	364	778	95	449	200	390	254	766	458	e455
2	1070	555	364	353	94	571	260	333	393	739	423	e455
3	1100	540	378	90	93	641	370	249	587	725	458	e410
4	1100	513	406	88	93	808	250	200	709	706	393	e275
5	1100	540	392	88	156	889	200	216	680	661	394	175
6	1060	569	294	88	300	996	240	370	612	676	395	174
7	1160	616	176	88	300	1080	320	337	531	733	396	174
8	1230	779	219	88	301	1060	350	222	444	760	395	174
9	1240	906	279	87	301	1100	350	222	476	825	473	174
10	652	951	263	86	303	860	350	222	564	823	519	174
11	421	1020	285	86	303	640	280	222	574	775	517	174
12	349	1030	285	86	303	640	200	222	598	671	420	173
13	376	1040	385	86	304	640	200	222	599	606	176	173
14	465	744	588	93	304	640	200	222	594	645	174	173
15	504	606	570	100	302	640	200	222	582	869	174	173
16	553	499	472	101	304	1130	260	222	613	907	174	173
17	576	539	537	100	304	1620	400	222	668	837	257	173
18	586	542	630	99	465	1670	500	222	811	647	499	174
19	583	477	679	99	667	1700	500	222	877	596	680	174
20	612	432	665	97	668	2050	390	222	751	632	681	174
21	605	430	606	97	808	2810	200	222	643	778	666	174
22	558	406	594	97	975	2530	200	222	614	870	594	174
23	558	321	594	97	882	1520	183	222	627	834	552	196
24	596	235	606	97	848	711	208	222	720	808	489	181
25	598	235	658	96	652	451	227	221	863	808	489	179
26	565	314	722	95	515	281	227	221	758	784	488	178
27	555	353	717	94	490	182	247	221	716	696	489	176
28	543	414	774	95	498	181	349	222	691	593	488	175
29	563	426	841	95	---	181	408	222	718	523	488	227
30	574	379	904	95	---	182	406	222	729	531	479	500
31	594	---	870	96	---	183	---	222	---	543	454	---
TOTAL	22029	16969	16117	3835	11628	29036	8675	7420	18996	22367	13732	6534
MEAN	711	566	520	124	415	937	289	239	633	722	443	218
MAX	1240	1040	904	778	975	2810	500	390	877	907	681	500
MIN	349	235	176	86	93	181	183	200	254	523	174	173
AC-FT	43690	33660	31970	7610	23060	57590	17210	14720	37680	44360	27240	12960
CAL YR	1986	TOTAL	157853	MEAN	432	MAX	1240	MIN	21	AC-FT	313100	
WTR YR	1987	TOTAL	177338	MEAN	486	MAX	2810	MIN	86	AC-FT	351700	

e Estimated

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to December 1981, March 1982 to September 1982, April 1983 to current year.
WATER TEMPERATURES: December 1950 to December 1981, March 1982 to September 1982, April 1983 to current year.

REMARKS.--Unpublished daily specific conductance measurements for period December 1950 to September 1964 available from district office in Tucson, Ariz.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 958 microsiemens Nov. 10, 1956; minimum daily observed, 160 microsiemens Feb. 29, 1980.

WATER TEMPERATURES: Maximum daily observed, 32.0°C July 18, Aug. 14, 1951; minimum daily observed, 5.0°C Jan. 30, 1952.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 499 microsiemens Feb. 24; minimum daily observed, 315 microsiemens Sept. 5.

WATER TEMPERATURES: Maximum daily observed, 23.0°C Sept. 25; minimum daily observed, 7.0°C on Jan. 21.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(00340)	(31625)	
OCT 1986													
23...	0930	533	424	8.26	18.0	19.0	4.4	722	8.5	97	16	K12	
NOV													
17...	0945	530	465	8.50	16.5	17.5	9.2	722	9.6	107	<10	K16	
DEC													
15...	1030	630	460	7.30	14.0	14.0	7.9	724	10.4	106	<10	K1	
JAN 1987													
21...	0930	95	485	8.45	8.0	7.0	2.1	727	12.1	105	<10	<1	
FEB													
18...	0915	303	480	8.42	9.5	11.0	4.2	717	11.2	108	17	K1	
MAR													
25...	1200	385	480	8.00	26.5	13.0	4.0	720	12.5	126	<10	<1	
APR													
21...	1000	173	474	8.55	28.5	14.0	2.0	722	11.2	115	<10	K7	
MAY													
20...	0940	228	477	8.39	28.0	19.0	1.8	717	9.5	109	<10	K7	
JUL													
01...	1300	771	470	8.22	38.0	15.0	2.2	716	12.0	127	<10	K2	
16...	1040	906	433	8.28	29.5	16.0	3.8	716	11.1	120	<10	K2	
AUG													
14...	0935	173	375	8.00	32.0	19.0	2.6	714	9.1	105	--	K13	
SEP													
25...	1200	179	365	8.09	25.0	23.0	3.2	718	9.6	119	24	K10	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL WH WAT (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986													
23...	K15	180	1	36	22	23	0.8	2.4	220	0	180	37	
NOV													
17...	K2	200	6	38	25	27	0.9	2.7	210	13	192	49	
DEC													
15...	48	200	0	38	25	27	0.9	2.6	260	0	211	49	
JAN 1987													
21...	K11	210	11	40	26	27	0.8	2.6	230	2	196	44	
FEB													
18...	K12	200	13	39	26	27	0.8	2.6	230	5	192	54	
MAR													
25...	K5	200	0	39	26	27	0.8	2.5	240	0	208	44	
APR													
21...	K13	210	16	41	26	28	0.9	2.2	220	10	194	47	
MAY													
20...	K10	200	3	40	25	27	0.8	2.2	240	<1	200	47	
JUL													
01...	K5	190	2	38	23	23	0.7	2.3	230	0	188	38	
16...	34	180	10	37	22	22	0.7	1.9	210	0	173	36	
AUG													
14...	33	170	6	35	19	18	0.6	2.0	200	0	160	27	
SEP													
25...	K11	160	2	34	19	18	0.6	2.1	200	0	161	29	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09510000 VERDE RIVER BELOW BARTLETT DAM, AZ--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)
OCT 1986												
23...	15	0.20	273	245	0.37	12	<0.100	0.110	0.79	0.90	0.020	0.02
NOV												
17...	15	0.30	274	287	0.37	16	<0.100	0.040	0.26	0.30	0.040	0.04
DEC												
15...	17	0.30	278	285	0.38	10	<0.100	0.040	0.36	0.40	0.020	0.02
JAN 1987												
21...	16	0.30	292	275	0.40	23	<0.100	0.020	0.28	0.30	0.020	0.02
FEB												
18...	16	0.30	275	287	0.37	12	<0.100	<0.010	--	0.80	0.080	0.08
MAR												
25...	15	0.30	279	274	0.38	12	<0.100	0.030	0.27	0.30	0.010	0.01
APR												
21...	13	0.30	286	286	0.39	1	<0.100	<0.010	--	0.40	0.020	0.02
MAY												
20...	15	0.30	280	277	0.38	4	<0.100	0.020	0.58	0.60	0.030	0.03
JUL												
01...	16	0.30	266	255	0.36	3	<0.100	0.020	0.58	0.60	0.010	0.01
16...	13	<0.10	249	235	0.34	4	<0.100	0.020	0.68	0.70	0.030	0.03
AUG												
14...	10	0.30	240	209	0.33	2	<0.100	0.020	0.58	0.60	0.050	0.05
SEP												
25...	12	0.20	230	211	0.31	7	<0.100	0.050	0.15	0.20	0.060	0.06

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986												
23...	16	14	46	110	<1	<1	<1	<1	4	2	480	6
NOV												
17...	13	13	51	130	<1	<1	<1	<1	6	4	580	3
DEC												
15...	13	12	50	120	<1	<1	<1	<1	6	8	480	6
JAN 1987												
21...	13	14	51	130	<1	<1	<1	<1	9	4	130	7
FEB												
18...	12	12	51	130	<1	<1	1	<1	8	2	400	33
MAR												
25...	12	12	51	120	<1	<1	3	<1	16	7	260	5
APR												
21...	12	11	52	130	<1	1	5	<1	5	4	150	6
MAY												
20...	12	11	51	130	<1	<1	11	<1	9	3	160	4
JUL												
01...	11	11	50	110	<1	<1	17	1	6	4	200	5
16...	15	10	49	90	<1	<1	<1	<1	5	2	320	9
AUG												
14...	16	12	44	100	1	<1	6	1	5	3	230	6
SEP												
25...	12	13	43	80	<1	<1	16	<1	11	4	380	5

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1986												
23...	9	<5	220	120	<0.10	<1	<1	<1.0	210	<3	12	17
NOV												
17...	<5	<5	40	5	<0.10	<1	<1	<1.0	10	8	12	17
DEC												
15...	<5	<5	40	6	<0.10	<1	<1	<1.0	*10	*26	16	27
JAN 1987												
21...	<5	<5	10	8	<0.10	<1	<1	<1.0	<10	13	4	1.0
FEB												
18...	<5	<5	30	11	<0.10	<1	<1	<1.0	10	12	6	4.9
MAR												
25...	<5	<5	30	4	<0.10	<1	<1	<1.0	20	17	7	7.3
APR												
21...	<5	8	<10	3	0.20	<1	<1	<1.0	<10	6	4	1.9
MAY												
20...	<5	<5	20	6	<0.10	<1	<1	<1.0	20	14	6	3.7
JUL												
01...	<5	<5	40	15	<0.10	<1	<1	<1.0	10	5	12	25
16...	15	<5	50	20	<0.10	<1	<1	<1.0	*10	<3	7	17
AUG												
14...	<5	<5	60	33	<0.10	<1	2	<1.0	<10	4	4	1.9
SEP												
25...	<5	<5	100	30	<0.10	<1	<1	<1.0	10	5	8	3.9

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	412	455	480	486	489	490	409	411	482	446	---	376
2	410	455	476	482	488	494	405	415	483	382	---	370
3	411	458	468	483	490	---	405	405	482	387	---	370
4	411	459	467	483	470	470	402	409	---	381	---	358
5	410	458	451	481	467	470	404	419	400	383	---	315
6	405	458	455	460	487	468	404	417	400	380	365	325
7	415	451	455	475	489	480	409	415	410	386	365	370
8	410	440	455	468	489	485	410	438	412	378	365	368
9	415	442	440	475	487	469	409	429	411	376	390	376
10	410	442	442	478	489	459	400	430	438	373	389	380
11	399	440	447	480	491	460	402	448	404	417	367	380
12	400	440	441	473	489	470	403	420	400	370	370	349
13	409	441	472	471	485	450	417	416	424	387	361	371
14	395	441	471	472	485	471	403	410	411	394	360	376
15	419	455	468	471	486	468	415	420	430	402	355	358
16	412	471	470	471	489	471	410	428	410	388	385	372
17	420	464	470	475	478	471	408	430	408	403	382	375
18	432	470	469	472	479	470	401	439	410	438	381	351
19	432	475	489	478	479	480	399	480	418	419	390	381
20	431	483	489	478	491	480	408	460	427	421	382	378
21	426	464	483	475	491	484	407	440	437	429	388	378
22	448	469	480	475	489	480	410	480	430	429	381	381
23	448	468	482	481	489	479	408	480	433	430	380	380
24	450	465	482	485	499	479	412	485	448	431	381	382
25	450	464	495	480	495	480	415	449	432	420	382	379
26	449	460	490	480	494	481	418	441	442	419	387	395
27	449	479	489	482	492	480	449	465	428	419	382	385
28	449	478	485	490	492	480	412	483	431	425	381	375
29	457	481	489	484	---	480	425	450	441	420	385	378
30	455	475	485	486	---	482	431	488	472	419	382	379
31	453	---	490	488	---	409	---	484	---	418	385	---
MAX	457	483	495	490	499	---	449	488	---	446	---	395
MIN	395	440	440	460	467	---	399	405	---	370	---	315

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	19.0	16.0	13.0	10.0	10.0	12.0	14.0	15.0	14.0	---	20.0
2	21.0	20.0	15.0	13.0	10.0	10.0	12.0	14.0	15.0	13.0	---	20.0
3	21.0	20.0	15.0	13.0	10.0	---	12.0	14.0	15.0	13.0	---	20.0
4	21.0	20.0	15.0	13.0	10.0	11.0	12.0	14.0	---	13.0	---	20.0
5	21.0	20.0	15.0	12.0	10.0	11.0	12.0	14.0	14.0	13.0	---	20.0
6	21.0	19.0	15.0	12.0	11.0	11.0	12.0	14.0	14.0	13.0	20.0	20.0
7	21.0	19.0	15.0	11.0	11.0	11.0	12.0	14.0	13.0	13.0	20.0	20.0
8	22.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	20.0	20.0
9	22.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	13.0	14.0	19.0	20.0
10	20.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	19.0	20.0
11	19.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	19.0	20.0
12	19.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	13.0	14.0	19.0	20.0
13	19.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	14.0	14.0	19.0	20.0
14	19.0	19.0	15.0	11.0	11.0	11.0	12.0	12.0	14.0	14.0	19.0	20.0
15	19.0	18.0	15.0	11.0	11.0	11.0	12.0	12.0	14.0	14.0	19.0	20.0
16	19.0	18.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	14.0	18.0	20.0
17	19.0	18.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	14.0	18.0	20.0
18	20.0	18.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	15.0	18.0	20.0
19	20.0	18.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	15.0	19.0	20.0
20	20.0	18.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	15.0	19.0	20.0
21	20.0	17.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	16.0	20.0	20.0
22	20.0	17.0	15.0	10.0	11.0	12.0	12.0	14.0	14.0	16.0	20.0	20.0
23	20.0	16.0	14.0	10.0	11.0	12.0	12.0	12.0	14.0	16.0	19.0	20.0
24	20.0	16.0	13.0	10.0	11.0	12.0	12.0	12.0	14.0	16.0	19.0	20.0
25	20.0	16.0	13.0	10.0	11.0	12.0	12.0	12.0	14.0	17.0	19.0	20.0
26	20.0	16.0	14.0	10.0	11.0	11.0	12.0	12.0	14.0	17.0	19.0	20.0
27	20.0	16.0	14.0	10.0	10.0	11.0	12.0	12.0	14.0	17.0	19.0	20.0
28	20.0	16.0	14.0	10.0	10.0	11.0	12.0	12.0	14.0	17.0	19.0	20.0
29	19.0	16.0	14.0	10.0	---	11.0	12.0	12.0	14.0	16.0	19.0	20.0
30	19.0	16.0	14.0	10.0	---	11.0	12.0	15.0	14.0	16.0	19.0	20.0
31	19.0	---	14.0	10.0	---	12.0	---	15.0	---	16.0	19.0	---
MAX	22.0	20.0	16.0	13.0	11.0	---	12.0	15.0	---	17.0	---	20.0
MIN	19.0	16.0	13.0	10.0	10.0	---	12.0	12.0	---	13.0	---	20.0

GILA RIVER BASIN

241

09510200 SYCAMORE CREEK NEAR FORT MCDOWELL, AZ

LOCATION.--Lat 33°41'39", long 111°32'28", in sec.16, T.4 N., R.8 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 0.7 mi southwest of Sugarloaf Mountain, 9 mi northeast of Fort McDowell, 10 mi upstream from mouth, and 25 mi northeast of Scottsdale.

DRAINAGE AREA.--164 mi².

PERIOD OF RECORD.--December 1960 to current year. Prior to Oct. 1, 1963, published as "near McDowell."

REVISED RECORDS.--WRD Ariz. 1970: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,759.33 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1970, at datum 0.16 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--26 years (water years 1962-87), 30.1 ft³/s, 21,810 acre-ft/yr; median of yearly mean discharges, 14 ft³/s, 10,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,200 ft³/s Sept. 5, 1970, gage height, 19.7 ft, from profile past gage, from rating curve extended above 3,600 ft³/s on basis of slope-area measurements at gage heights 15.0, 16.0, and 19.7 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	1900	*319	*1.97

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.31	e2.0	e3.4	23	e150	e9.1	e3.0	.58	.00	.00	.00
2	.15	.49	e1.4	e3.3	21	e170	e9.0	e2.5	.41	.00	.10	.00
3	.16	.67	e1.1	e3.3	19	178	8.5	e2.5	.33	.00	32	.00
4	.18	.76	e.84	e3.3	15	194	8.5	e2.5	.22	.00	2.5	.00
5	.23	.64	e1.2	e6.7	13	191	8.4	e2.0	.13	.00	.61	.00
6	.27	.46	3.1	e8.6	11	126	7.9	e2.0	.49	.00	.28	.00
7	.31	.45	e41	e8.3	11	89	7.2	e2.0	.90	.00	.19	.13
8	.23	.45	e29	e7.9	10	e69	6.7	e2.0	.25	.00	.15	.01
9	.31	.45	e8.4	e7.7	11	e64	6.5	e2.0	.04	.00	.12	.01
10	.34	.45	e64	e6.6	e10	e69	6.1	e1.5	.00	.00	.10	.02
11	36	.46	e21	e6.0	e10	e70	5.7	e1.5	.00	.00	.12	.00
12	e30	.45	e9.5	e5.6	e9.0	e41	5.5	e1.3	.00	.00	.14	.04
13	e2.0	.45	e6.4	e5.3	e9.0	e34	4.9	1.2	.00	.00	.08	.06
14	e.65	.44	e4.8	e5.4	e8.0	e36	5.3	e1.2	.00	.00	.07	.02
15	e.35	.43	e4.1	e5.4	e8.0	e38	e5.0	e1.1	.00	.00	.05	.00
16	e.30	.44	e3.8	e6.2	e7.0	e40	e5.0	e1.1	.00	.00	.07	.00
17	e.30	.48	e8.5	e6.4	e7.0	e32	e5.0	e1.1	.00	.00	.07	.00
18	e.30	43	e7.8	e5.6	e7.0	e30	e4.5	e1.0	.00	.00	.04	.00
19	e.30	e72	e4.8	e5.2	e6.0	e23	e4.5	e1.0	.00	.00	.02	.00
20	e.30	e8.0	e4.8	e5.1	e6.0	e21	e4.5	e1.0	.00	.03	.02	.02
21	e.30	e2.7	e11	e5.1	e6.0	e19	e4.5	e1.0	.00	.07	.03	.00
22	e.26	e1.9	e8.5	e4.4	e5.0	e19	e4.0	e1.0	.00	.07	.00	.00
23	.25	e1.2	e6.4	e4.3	e5.0	e17	e4.0	e1.0	.00	.02	.00	.00
24	.23	e1.0	5.0	4.1	e70	e17	e4.0	e1.0	.00	.00	.00	.00
25	.21	e.75	4.3	e4.1	e110	e16	e4.0	e1.0	.00	.00	.01	.00
26	.23	e.51	4.1	e4.6	e120	e19	e3.5	e1.0	.00	.00	.02	.00
27	.35	e.34	3.9	e4.3	e130	e21	e3.5	e1.0	.00	.00	.00	.00
28	.37	e.23	3.7	4.4	e140	e21	e3.5	.96	.00	.00	.00	.00
29	.37	e.38	e3.7	4.4	---	e16	e3.0	.91	.00	.00	.00	.00
30	.40	e1.8	e3.6	4.4	---	e16	e3.0	.92	.00	.00	.00	.00
31	.32	---	e3.5	11	---	e12	---	.71	---	.00	.00	---
TOTAL	76.26	142.09	285.24	170.4	807.0	1858	164.8	44.00	3.35	0.19	36.79	0.31
MEAN	2.46	4.74	9.20	5.50	28.8	59.9	5.49	1.42	.11	.006	1.19	.010
MAX	36	72	64	11	140	194	9.1	3.0	.90	.07	32	.13
MIN	.15	.23	.84	3.3	5.0	12	3.0	.71	.00	.00	.00	.00
AC-FT	151	282	566	338	1600	3690	327	87	6.6	.4	73	.6

CAL YR 1986 TOTAL 5641.89 MEAN 15.5 MAX 1080 MIN .00 AC-FT 11190
WTR YR 1987 TOTAL 3588.43 MEAN 9.83 MAX 194 MIN .00 AC-FT 7120

e Estimated

09511300 VERDE RIVER NEAR SCOTTSDALE, AZ

LOCATION.--Lat 33°33'34", long 111°40'09", in NW¼NE¼SE¼ sec.31, T.3 N., R.7 E., Maricopa County, Hydrologic Unit 15060203, in Salt River Indian Reservation, on right bank, at downstream side of Verde Plant intake structure, 1.6 mi downstream from State Highway 87 (Beeline highway), 0.75 mi north of city of Phoenix water treatment plant, 1.1 mi upstream from mouth, and 16 mi northeast of Scottsdale.

DRAINAGE AREA.--6,600 mi², approximately.

PERIOD OF RECORD.--February 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,320.31 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1980 at site 1.6 mi upstream on State Highway 87 bridge at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Bartlett and Horseshoe Reservoirs (see sta 09509500) except during periods of spill or floodflow below Bartlett Dam. About 12,500 acres above reservoirs are irrigated by surface water and ground water. Below reservoirs water is diverted for municipal supply of city of Phoenix, and for irrigation of an undetermined acreage in Fort McDowell Indian Reservation. Remainder (except during infrequent period of extreme flooding) is diverted at Granite Reef Dam on Salt River, 6 mi downstream, for irrigation in Salt River Valley and for municipal use by the city of Phoenix.

AVERAGE DISCHARGE.--26 years, 660 ft³/s, 478,200 acre-ft/yr; median of yearly mean discharges, 480 ft³/s, 348,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 98,000 ft³/s Feb. 16, 1980, on basis of flood routing, gage height, not determined; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,290 ft³/s Mar. 21, 22; minimum daily, 75 ft³/s Jan. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	675	540	333	722	102	414	174	349	190	719	458	391
2	901	536	331	593	97	479	172	315	245	710	370	381
3	941	536	332	189	89	565	287	263	384	684	558	392
4	947	503	365	133	86	661	287	216	582	688	367	320
5	947	515	361	121	84	754	208	175	605	629	357	215
6	952	533	362	111	168	833	191	235	532	618	343	180
7	1010	560	286	102	235	919	240	343	500	670	338	172
8	1070	631	213	98	246	936	295	222	389	681	333	165
9	1100	781	269	94	250	957	305	204	373	740	356	160
10	1010	810	270	85	250	906	306	201	450	747	453	129
11	594	895	271	77	254	635	297	200	459	742	462	142
12	480	912	274	79	257	620	213	198	489	672	473	149
13	372	924	277	79	253	611	183	196	494	604	263	157
14	432	809	475	79	254	607	179	197	495	562	193	157
15	482	670	552	86	255	617	182	199	474	711	182	146
16	511	539	452	93	258	721	185	198	567	760	177	136
17	534	522	474	95	255	1320	257	203	595	764	176	153
18	550	587	557	95	264	1430	390	201	684	622	281	153
19	537	525	593	95	552	1520	417	194	756	567	510	153
20	564	454	617	95	578	1630	418	196	730	555	567	155
21	566	416	568	93	637	2290	245	197	639	620	539	149
22	541	429	571	90	815	2290	183	195	592	718	554	140
23	516	360	556	86	771	1630	175	199	586	715	523	156
24	549	292	556	84	853	946	167	199	629	677	471	161
25	566	246	572	83	716	530	203	204	785	680	451	159
26	538	276	639	85	550	397	210	202	711	698	451	159
27	535	316	644	80	458	245	219	194	673	647	443	158
28	516	355	668	78	481	207	260	192	645	598	427	155
29	530	395	718	76	---	199	333	190	665	502	418	149
30	535	372	786	75	---	189	348	190	662	490	423	236
31	563	---	791	97	---	178	---	190	---	534	399	---
TOTAL	20564	16239	14733	4048	10068	26236	7529	6657	16580	20324	12316	5628
MEAN	663	541	475	131	360	846	251	215	553	656	397	188
MAX	1100	924	791	722	853	2290	418	349	785	764	567	392
MIN	372	246	213	75	84	178	167	175	190	490	176	129
AC-FT	40790	32210	29220	8030	19970	52040	14930	13200	32890	40310	24430	11160
CAL YR	1986	TOTAL	142101	MEAN	389	MAX	1100	MIN	54	AC-FT	281900	
WTR YR	1987	TOTAL	160922	MEAN	441	MAX	2290	MIN	75	AC-FT	319200	

GILA RIVER BASIN

243

09512200 SALT RIVER TRIBUTARY IN SOUTH MOUNTAIN PARK, AT PHOENIX, AZ

LOCATION.--Lat 33°20'49", long 112°05'03", in NE¼NE¼ sec.18, T.1 S., R.3 E., Maricopa County, Hydrologic Unit 15060106, in South Mountain Park, on left bank 6.5 mi south of Phoenix main post office.

DRAINAGE AREA.--1.75 mi².

PERIOD OF RECORD.--January 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,405.20 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. No storage or diversion above station.

AVERAGE DISCHARGE.--26 years, 0.008 ft³/s, 5.8 acre-ft/yr; median of yearly mean discharges, 0.00 ft³/s, 0.0 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 670 ft³/s Sept. 4, 1965, gage height, 9.70 ft, from floodmarks, from rating curve extended above 31 ft³/s on basis of measurements of peak flow through culvert at gage heights 5.80, 9.09, and 9.52 ft; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	e.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
5	e.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
21	e.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
22	e.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
23	e.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
24	e.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
25	e.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
26	e.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
27	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	e.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	e.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	e.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CAL YR 1986 TOTAL 0.00 MEAN .00 MAX .00 MIN .00 AC-FT .0
WTR YR 1987 TOTAL 0.00 MEAN .00 MAX .00 MIN .00 AC-FT .0

e Estimated

GILA RIVER BASIN

09512280 CAVE CREEK BELOW COTTONWOOD WASH NEAR CAVE CREEK, AZ

LOCATION.--Lat 33°53'14", long 111°57'12", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.6 N., R.4 E., Maricopa County, Hydrologic Unit 15060106, on left bank 1,500 ft downstream from Cottonwood Creek and 3.7 mi north of town of Cave Creek.

DRAINAGE AREA.--82.7 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--7 years, 6.01 ft³/s, 4,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,720 ft³/s Nov. 30, 1982, gage height, 6.86 ft; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 19, 1980, reached a stage of 10.4 ft present datum, from flood marks, discharge, 7,020 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 3	0045	*118	*1.18

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.31	.70	1.0	6.5	30	1.1	.57	.06	.00	.00	.00
2	.00	.32	.70	1.0	4.3	45	1.1	.50	.03	.00	.00	.00
3	.00	.36	.70	.98	2.9	63	1.1	.40	.00	.00	.00	.00
4	.00	.38	.73	.92	2.1	42	1.1	.31	.00	.00	.00	.00
5	.00	.40	.74	1.9	1.6	22	1.1	.22	.00	.00	.00	.00
6	.00	.40	1.8	3.1	1.4	12	1.1	.22	.00	.00	.00	.00
7	.00	.40	4.4	2.4	1.2	7.4	1.1	.22	.00	.00	.00	.00
8	.00	.40	15	2.8	1.1	5.3	1.2	.22	.00	.00	.00	.00
9	.00	.41	3.7	2.1	.99	4.1	1.2	.20	.00	.00	.00	.00
10	8.9	.43	6.5	1.6	.92	3.3	.96	.17	.00	.00	.68	.00
11	10	.45	3.8	1.4	.92	2.8	.92	.14	.00	.00	.07	.00
12	16	.47	2.5	1.3	.92	2.5	.89	.08	.00	.00	.00	.00
13	2.5	.47	2.1	1.1	.92	2.1	.79	.08	.00	.00	.00	.00
14	.93	.47	1.6	1.1	.92	1.9	.80	.08	.00	.00	.00	.00
15	.66	.47	1.4	1.1	.85	2.3	.85	.65	.00	.00	.00	.00
16	.53	.48	1.4	.96	.85	4.7	.84	.34	.00	.00	.00	.00
17	.46	.52	2.0	.92	.85	3.5	.75	.20	.00	.00	.00	.00
18	.42	.63	2.1	.80	.89	2.5	.74	.11	.00	.00	.00	.00
19	.40	.84	2.2	.82	.92	2.1	.73	.11	.00	.00	.00	.00
20	.40	.75	1.9	.91	.92	1.7	.69	.08	.00	.00	.00	.00
21	.40	.74	2.3	.88	.92	1.5	.64	.08	.00	.00	.00	.00
22	.40	.74	1.8	.85	.85	1.5	.61	.08	.00	.00	.00	.00
23	.40	.70	1.4	.85	.85	1.9	.57	.08	.00	.00	.00	.00
24	.37	.70	1.3	.85	12	1.7	.50	.06	.00	.00	.00	.00
25	.37	.75	1.3	.85	25	1.7	.40	.08	.00	.00	.00	.00
26	.34	.80	1.2	.85	20	1.6	.40	.11	.00	.00	.00	.00
27	.34	.79	1.2	.85	24	1.4	.37	.11	.00	.00	.00	.00
28	.34	.79	1.2	.85	25	1.1	.40	.11	.00	.00	.00	.00
29	.34	.79	1.1	.81	---	1.1	.74	.11	.00	.00	.00	.00
30	.35	.75	1.0	.81	---	1.1	.70	.11	.00	.00	.00	.00
31	.33	---	1.0	4.1	---	1.1	---	.08	---	.00	.00	---
TOTAL	45.18	16.91	70.77	40.76	140.59	275.9	24.39	5.91	0.09	0.00	0.75	0.00
MEAN	1.46	.56	2.28	1.31	5.02	8.90	.81	.19	.003	.00	.024	.00
MAX	16	.84	15	4.1	25	63	1.2	.65	.06	.00	.68	.00
MIN	.00	.31	.70	.80	.85	1.1	.37	.06	.00	.00	.00	.00
AC-FT	90	34	140	81	279	547	48	12	.2	.0	1.5	.0
CAL YR 1986	TOTAL	506.22	MEAN	1.39	MAX	78	MIN	.00	AC-FT	1000		
WTR YR 1987	TOTAL	621.25	MEAN	1.70	MAX	63	MIN	.00	AC-FT	1230		

GILA RIVER BASIN

245

09512400 CAVE CREEK AT PHOENIX, AZ

LOCATION.--Lat 33°34'56", long 112°06'43", in SW¼ sec.24, T.3 N., R.2 E., Maricopa County, Hydrologic Unit 15060106, on downstream side of bridge at Peoria Avenue in Phoenix, 0.7 mi upstream from Arizona Canal.

DRAINAGE AREA.--252 mi².

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,236.37 ft above National Geodetic Vertical Datum of 1929 (from Salt River Valley Water Users' Association temporary bench mark). Prior to July 31, 1974, at site 60 ft upstream at datum 6.93 ft higher.

REMARKS.--Records fair. Peak flow regulated from 161 mi² by Cave Creek Dam 12 mi upstream.

AVERAGE DISCHARGE.--30 years, 3.69 ft³/s, 2,670 acre-ft/yr; median of yearly mean discharges, 0.90 ft³/s, 650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft³/s - including 345 ft³/s released from Cave Creek Dam - Dec. 19, 1967, gage height, 11.23 ft, present datum; no flow for most of time each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 233 ft³/s, Feb. 24, gage height, 4.18 ft; no flow for most of the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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	12	.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	108	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	e28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.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	41	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	45	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	18	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.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	136.00	0.00	12.00	0.00	104.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	4.39	.00	.39	.00	3.71	.00	.00	.00	.00	.00	.00	.00
MAX	108	.00	12	.00	45	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	270	.0	24	.0	206	.0	.0	.0	.0	.0	.0	.0

CAL YR 1986	TOTAL	380.80	MEAN	1.04	MAX	177	MIN	.00	AC-FT	755
WTR YR 1987	TOTAL	252.00	MEAN	.69	MAX	108	MIN	.00	AC-FT	500

e Estimated

GILA RIVER BASIN

09512500 AGUA FRIA RIVER NEAR MAYER, AZ

LOCATION.--Lat 34°18'55", long 112°03'48", in NW¼SE¼ sec.20, T.11 N., R.3 E., Yavapai County, Hydrologic Unit 15070102, on left bank at Sycamore damsite, 700 ft downstream from Big Bug Creek and 12 mi southeast of Mayer.

DRAINAGE AREA.--588 mi².

PERIOD OF RECORD.--January 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,434 ft above National Geodetic Vertical Datum of 1929 (levels by Maricopa County Municipal Water Conservation District No. 1).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions above station for mining and irrigation of about 600 acres.

AVERAGE DISCHARGE.--47 years, 22.5 ft³/s, 16,300 acre-ft/yr; median of yearly mean discharges, 13 ft³/s, 9,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft³/s Feb. 19, 1980, from rating curve extended above 3,400 ft³/s on basis of slope-area measurement of peak flow, gage height, 15.76 ft, from mean of surge, inside high-water mark 16.03 ft, floodmark 18.97 ft; negligible flow at times during the summer months in most previous years when entire flow was diverted to Perry Canal above station and flow past gage was seepage only.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	1730	*6,070	*7.79

No flow July 7-13, Sept. 22-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.4	5.8	6.9	142	34	7.3	4.4	e.84	.24	1.3	e.50
2	3.3	3.3	5.9	7.0	66	208	7.2	4.0	e.60	.19	3.7	e.25
3	3.5	3.2	6.1	7.4	38	299	6.9	3.4	.39	.12	e5.0	e.25
4	3.6	3.3	5.7	8.0	20	241	6.9	3.2	.36	.12	e100	e32
5	5.3	3.3	5.8	10	17	203	e7.0	2.8	.52	.12	e25	e5.0
6	4.6	3.1	6.6	11	14	146	e7.0	2.6	.64	.09	2.3	e2.0
7	4.4	3.2	8.1	9.6	13	119	e7.3	2.4	.60	.00	1.3	e1.5
8	4.4	3.3	29	9.9	11	96	6.9	2.4	.51	.00	.50	e1.5
9	4.8	3.4	22	10	11	48	6.9	2.2	.60	.00	.08	e1.0
10	8.0	3.7	11	10	9.7	30	6.8	2.6	1.1	.00	.12	e1.0
11	896	3.6	9.2	9.5	9.2	22	6.8	2.6	.70	.00	.12	e1.0
12	e80	3.6	8.8	7.4	9.0	18	6.8	2.4	.40	.00	.13	e1.0
13	e6.0	4.0	7.5	7.3	8.8	15	6.7	2.1	.36	.00	.24	e.90
14	e5.0	4.2	7.3	7.5	8.4	12	6.7	1.9	.36	.02	.31	e.80
15	e5.0	4.6	7.5	7.7	8.0	13	6.7	1.6	.36	.10	.60	e.70
16	e5.0	4.6	7.5	8.4	7.8	14	5.0	4.1	.36	.12	.60	e.60
17	e5.0	4.4	7.4	7.4	7.9	12	5.4	1.2	.36	.12	.60	e.50
18	e5.0	6.1	6.7	7.4	7.6	25	5.9	.96	.66	.12	.60	e.40
19	e5.0	7.7	6.6	8.2	7.3	15	5.5	e.60	.72	.12	.60	.60
20	e5.0	6.9	6.5	8.6	7.0	11	5.6	e.60	.72	.12	.60	.37
21	e5.0	6.9	6.4	7.7	6.7	9.8	5.5	.96	.69	.20	.71	.11
22	5.0	6.9	6.3	8.1	5.9	9.6	5.4	.84	.64	.24	1.0	.00
23	4.9	6.6	6.3	8.2	5.7	9.2	5.4	.84	.54	.25	1.1	.00
24	4.6	6.5	6.4	8.1	8.9	8.8	5.4	.72	.52	.19	123	.00
25	4.3	6.2	5.9	8.2	9.5	8.7	5.1	1.2	.43	.12	e39	.06
26	4.1	6.3	6.1	8.5	11	8.4	5.2	1.3	.29	.25	e2.0	.12
27	4.0	6.4	6.3	8.7	12	8.0	4.8	1.2	.13	.48	e1.0	.15
28	3.9	6.5	6.6	8.9	12	7.7	4.4	.96	.17	.65	e.80	.12
29	3.8	6.4	6.7	9.0	---	7.7	4.2	1.1	.24	.60	e.60	.14
30	3.7	6.1	7.1	9.3	---	7.6	4.4	1.2	.24	1.0	e.50	.13
31	3.5	---	6.6	323	---	7.3	---	.96	---	1.4	e.50	---
TOTAL	1109.1	147.7	251.7	576.9	494.4	1673.8	181.1	59.34	15.05	6.98	313.91	52.70
MEAN	35.8	4.92	8.12	18.6	17.7	54.0	6.04	1.91	.50	.23	10.1	1.76
MAX	896	7.7	29	323	142	299	7.3	4.4	1.1	1.4	123	32
MIN	3.3	3.1	5.7	6.9	5.7	7.3	4.2	.60	.13	.00	.08	.00
AC-FT	2200	293	499	1140	981	3320	359	118	30	14	623	105

CAL YR	1986	TOTAL	5431.2	MEAN	14.9	MAX	896	MIN	1.7	AC-FT	10770
WTR YR	1987	TOTAL	4882.68	MEAN	13.4	MAX	896	MIN	.00	AC-FT	9680

e Estimated

GILA RIVER BASIN

247

09512600 TURKEY CREEK NEAR CLEATOR, AZ

LOCATION.--Lat 34°16'56", long 112°12'25", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.11 N., R.1 E. (unsurveyed), Yavapai County, Hydrologic Unit 15070102, in Prescott National Forest, on right bank 0.7 mi upstream from Forest Route 259, 1.5 mi east of Cleator, and 9.3 mi south of Mayer.

DRAINAGE AREA.--89.4 mi².

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--8 years, 14.2 ft³/s, 10,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,230 ft³/s Feb. 19, 1980, gage height, 11.51 ft, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 5, 1970, reached a stage of about 16 ft, from floodmarks, discharge, about 9,000 ft³/s, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement at gage height 11.51 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	1800	*530	*3.38

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.22	.24	.51	9.5	3.2	3.4	.32	.00	.00	.00	.00
2	.00	.26	.24	.51	7.7	2.9	2.9	.29	.00	.00	.00	.00
3	.00	.29	.24	.51	8.0	3.2	2.8	.25	.00	.00	.00	.00
4	.00	.26	.24	.51	8.2	4.3	2.9	.24	.00	.00	.00	.00
5	.00	.26	.24	1.9	8.0	8.2	3.1	.22	.00	.00	.00	.00
6	.00	.24	.29	2.6	6.9	17	3.2	.21	.00	.00	.00	.00
7	.00	.22	.68	2.6	6.3	29	2.9	.21	.00	.00	.00	.00
8	.00	.22	1.2	3.2	5.9	26	2.9	.20	.00	.00	.00	.00
9	.00	.22	1.2	2.4	5.1	22	2.9	.18	.00	.00	.00	.00
10	.00	.22	.82	1.7	4.3	15	2.7	.18	.00	.00	.00	.00
11	82	.22	.62	1.4	3.9	12	2.3	.18	.00	.00	1.7	.00
12	25	.24	.56	1.2	5.9	9.5	2.0	.18	.00	.00	.19	.00
13	8.2	.24	.51	1.1	5.9	8.2	1.9	.17	.00	.00	.0	.00
14	2.6	.24	.51	1.1	5.5	7.2	1.8	.24	.00	.00	.00	.00
15	1.1	.24	.51	1.0	4.6	6.9	1.6	.25	.00	.00	.00	.00
16	.68	.24	.51	1.0	4.3	8.8	1.2	.26	.00	.00	.00	.00
17	.46	.24	.56	1.0	3.9	7.4	1.0	.23	.00	.00	.00	.00
18	.29	.29	.68	.82	3.2	6.6	.87	.20	.00	.00	.00	.00
19	.24	.29	.82	.82	3.2	12	.80	.18	.00	.00	.00	.00
20	.24	.26	.91	.91	2.9	9.9	.66	.19	.00	.00	.00	.00
21	.18	.26	1.2	1.2	2.9	8.1	.63	.19	.00	.00	.00	.00
22	.18	.24	1.4	1.2	1.9	7.8	.54	.17	.00	.00	.00	.09
23	.16	.24	1.1	1.1	1.9	7.4	.49	.14	.00	.00	.00	.09
24	.15	.22	1.0	1.1	3.6	6.1	.40	.07	.00	.00	.00	.00
25	.16	.22	.82	1.2	5.5	7.0	.32	.06	.00	.00	36	.00
26	.18	.24	.68	1.1	5.5	6.8	.29	.10	.00	.00	5.9	.00
27	.19	.26	.68	1.1	5.1	6.1	1.7	.11	.00	.00	9.9	.00
28	.19	.26	.62	1.5	3.9	5.9	.65	.09	.00	.00	2.1	.00
29	.19	.24	.56	2.9	---	5.2	.52	.06	.00	.00	.53	.00
30	.19	.24	.51	4.6	---	4.7	.41	.05	.00	.00	.26	.00
31	.22	---	.51	9.0	---	4.2	---	.00	---	.00	.08	---
TOTAL	122.80	7.33	20.66	52.79	143.5	288.6	49.78	5.42	0.00	0.00	56.66	0.18
MEAN	3.96	.24	.67	1.70	5.12	9.31	1.66	.17	.00	.00	1.83	.006
MAX	82	.29	1.4	9.0	9.5	29	3.4	.32	.00	.00	.36	.09
MIN	.00	.22	.24	.51	1.9	2.9	.29	.00	.00	.00	.00	.00
AC-FT	244	15	41	105	285	572	99	11	.0	.0	112	.4
CAL YR	1986	TOTAL	1718.28	MEAN	4.71	MAX	200	MIN	.00	AC-FT	3410	
WTR YR	1987	TOTAL	747.72	MEAN	2.05	MAX	82	MIN	.00	AC-FT	1480	

09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ

LOCATION.--Lat 34°00'56", long 112°10'02", in NW¼NW¼ sec.28, T.8 N., R.2 E., Yavapai County, Hydrologic Unit 15070102, on right bank 2.5 mi southwest of Rock Springs and 10 mi upstream from Lake Pleasant.

DRAINAGE AREA.--1,130 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year (monthly discharge only, October 1973 to September 1974).

Low-flow records not equivalent prior to Oct. 1, 1974, due to spring flow in streambed between sites in use.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1974, at site 600 ft upstream at datum 10.00 ft higher (now used as supplementary gage).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--17 years, 88.3 ft³/s, 63,970 acre-ft/yr; median of yearly mean discharges, 32 ft³/s, 23,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,500 ft³/s Feb. 19, 1980, gage height, 21.08 ft recorded, 28.15 ft from floodmark, from rating curve extended above 21,000 ft³/s on basis of slope-area measurement at gage height 27.2 ft; no flow at times each year prior to October 1974; since October 1974, no flow May 27 to July 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0100	*2,160	*9.63

Minimum discharge, 0.13 ft³/s June 30, July 14-17; minimum gage height, 4.11 ft, June 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.9	2.2	4.7	292	106	20	3.8	1.8	.53	.67	1.2
2	2.4	1.9	2.1	4.8	133	143	19	3.6	1.4	.51	.70	1.1
3	2.6	1.9	2.2	4.8	87	243	17	3.4	1.1	.55	.76	1.0
4	2.6	1.9	2.3	4.6	67	262	16	2.8	1.0	.40	.68	.90
5	2.6	1.7	2.4	6.9	51	225	16	2.6	.93	.34	.75	6.7
6	2.8	1.6	3.1	12	43	182	16	2.3	1.0	.35	1.1	22
7	2.8	1.4	8.9	19	37	169	15	1.9	1.6	.33	1.3	9.5
8	2.9	1.5	10	18	33	166	15	1.9	1.3	.29	1.3	4.9
9	3.0	1.5	19	17	30	126	14	1.9	1.0	.27	1.1	2.7
10	4.5	1.5	25	17	27	100	13	1.9	.94	.24	14	1.9
11	e3.0	1.4	16	16	25	79	12	1.8	.92	.24	50	1.5
12	e584	1.4	11	12	24	64	11	1.9	.88	.22	6.9	1.3
13	e70	1.3	9.0	11	23	52	9.7	1.7	.84	.27	2.4	1.0
14	e24	1.4	7.3	11	23	44	9.2	1.8	.73	.25	1.5	.81
15	12	1.6	6.4	10	22	42	8.6	2.1	.68	.19	1.1	.81
16	7.3	1.6	5.8	10	20	46	8.1	2.2	.67	.28	.76	.81
17	4.2	1.9	6.9	11	19	48	7.4	1.8	.63	.25	.67	.70
18	3.2	2.8	6.2	12	18	42	6.5	1.7	.62	.33	.63	.63
19	2.9	5.0	5.6	11	18	47	6.4	1.6	.64	.36	.60	.57
20	2.7	8.3	5.5	11	17	47	5.7	1.7	.65	.30	.59	.54
21	2.8	4.9	6.2	11	15	42	5.3	1.8	.67	.31	.53	.48
22	2.6	3.5	7.0	11	15	38	4.8	1.8	.66	.34	.53	.47
23	2.3	2.9	6.3	10	15	36	4.3	1.8	.66	.34	.62	.56
24	2.2	2.6	6.0	9.8	64	35	4.0	1.7	.58	.43	.75	.61
25	2.2	2.6	5.8	9.7	68	32	3.6	1.7	.58	.60	79	.72
26	2.0	2.4	5.6	9.4	57	31	3.8	1.9	.84	.69	45	.72
27	2.0	2.1	5.5	9.4	79	29	10	2.1	.75	.60	17	.71
28	2.0	2.1	5.2	9.4	88	26	9.4	2.0	.67	.59	6.8	.68
29	1.9	2.1	4.8	9.9	---	25	5.5	2.0	.61	.53	3.3	.67
30	1.9	2.3	4.6	15	---	23	3.8	1.9	.38	.62	2.4	.59
31	1.8	---	4.5	148	---	22	---	1.9	---	.62	1.5	---
TOTAL	765.6	71.0	218.4	476.4	1410	2572	300.1	65.0	25.73	12.17	244.94	66.78
MEAN	24.7	2.37	7.05	15.4	50.4	83.0	10.0	2.10	.86	.39	7.90	2.23
MAX	584	8.3	25	148	292	262	20	3.8	1.8	.69	79	22
MIN	1.8	1.3	2.1	4.6	15	22	3.6	1.6	.38	.19	.53	.47
AC-FT	1520	141	433	945	2800	5100	595	129	51	24	486	132

CAL YR	1986	TOTAL	7397.73	MEAN	20.3	MAX	584	MIN	.74	AC-FT	14670
WTR YR	1987	TOTAL	6228.12	MEAN	17.1	MAX	584	MIN	.19	AC-FT	12350

e Estimated

GILA RIVER BASIN

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09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1982 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 1986												
22...	0910	2.6	646	8.28	18.0	17.0	0.60	714	8.5	95	31	66
NOV												
20...	0850	9.4	663	8.39	16.0	14.5	3.9	717	8.6	90	330	180
DEC												
19...	0900	5.8	683	8.30	10.0	11.5	1.6	716	9.3	91	36	41
JAN 1987												
27...	0830	9.4	690	8.30	11.0	10.5	1.4	718	9.9	94	K4	K14
FEB												
23...	0905	15	648	8.42	11.0	9.5	1.4	707	10.5	100	K2	K8
MAR												
27...	0920	29	528	8.40	14.5	13.0	2.5	712	9.5	96	K14	K21
APR												
21...	0950	5.8	627	8.48	25.5	14.0	1.0	720	10.0	103	K13	27
MAY												
21...	0905	1.9	668	8.29	23.0	21.0	1.1	715	8.0	97	K16	K13
JUL												
06...	0915	0.31	622	8.10	37.0	24.5	1.3	711	6.8	88	K9	36
AUG												
05...	0845	0.75	668	7.98	30.0	27.5	1.0	715	6.2	84	44	22
17...	0940	0.72	645	7.90	33.0	23.5	1.6	714	7.3	92	59	39
SEP												
21...	0925	0.60	640	8.10	30.0	23.0	43	715	8.7	109	34	58

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 1986												
22...	240	11	56	25	44	1	2.5	280	0	68	32	0.30
NOV												
20...	260	20	59	28	47	1	2.4	300	2	71	36	0.40
DEC												
19...	260	8	56	29	46	1	2.3	310	0	73	34	0.30
JAN 1987												
27...	280	26	62	30	47	1	2.1	310	0	70	37	0.40
FEB												
23...	250	12	57	27	43	1	1.8	280	7	71	29	0.40
MAR												
27...	210	5	47	22	35	1	1.8	240	3	50	22	0.40
APR												
21...	240	5	53	26	43	1	1.9	290	1	63	29	0.50
MAY												
21...	240	3	52	26	45	1	2.2	290	0	66	32	0.40
JUL												
06...	220	13	47	24	46	1	2.6	250	0	69	36	0.40
AUG												
05...	230	26	51	26	49	1	2.5	260	0	70	33	0.40
17...	230	25	51	25	48	1	2.5	250	0	74	36	0.40
SEP												
21...	230	2	50	25	51	2	2.8	280	0	69	35	0.40

K Based on non-ideal colony count.

GILA RIVER BASIN

09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ--Continued

WATER QUALITY DATA

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
OCT 1986											
22...	28	395	395	0.54	<0.100	<0.100	0.20	0.080	0.060	0.060	0.18
NOV											
20...	28	415	423	0.56	<0.100	<0.100	0.70	0.060	0.050	0.060	0.18
DEC											
19...	25	328	418	0.45	<0.100	<0.100	0.30	0.050	0.040	0.040	0.12
JAN 1987											
27...	25	414	426	0.56	<0.100	<0.100	0.50	0.030	0.040	0.040	0.12
FEB											
23...	25	369	407	0.50	<0.100	<0.100	1.6	0.040	0.040	0.040	0.12
MAR											
27...	22	298	327	0.41	<0.100	<0.100	<0.20	0.040	0.030	0.020	0.06
APR											
21...	24	*302	385	0.41	<0.100	<0.100	0.40	0.040	0.030	0.020	0.06
MAY											
21...	26	333	392	0.45	<0.100	<0.100	0.50	0.040	0.060	0.040	0.12
JUL											
06...	29	375	376	0.51	<0.100	<0.100	0.70	0.010	0.010	0.010	0.03
AUG											
05...	29	375	388	0.51	<0.100	<0.100	0.50	0.040	0.070	0.020	0.06
17...	28	392	389	0.53	<0.100	<0.100	0.50	0.010	0.030	0.010	0.03
SEP											
21...	29	379	399	0.52	<0.100	<0.100	0.30	0.110	0.040	0.030	0.09
DATE	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1986											
22...	0.08	0.0	17	100	160	150	<1	9	9	200	7
NOV											
20...	0.06	0.0	9	<100	150	150	<1	<1	8	260	7
DEC											
19...	0.05	0.0	15	100	150	140	<1	5	13	220	10
JAN 1987											
27...	0.03	0.0	12	100	150	140	<1	2	9	130	13
FEB											
23...	0.04	0.0	12	<100	110	140	<1	<1	9	160	8
MAR											
27...	0.04	0.01	10	100	120	90	<1	2	9	220	10
APR											
21...	0.04	0.01	14	<100	160	130	1	<1	7	110	6
MAY											
21...	0.04	0.02	15	<100	170	150	<1	4	7	160	7
JUL											
06...	0.01	0.0	14	<100	190	160	<1	17	2	200	12
AUG											
05...	0.04	0.05	16	100	170	180	<1	--	8	2400	8
17...	0.01	0.02	21	<100	130	160	<1	10	3	260	8
SEP											
21...	0.11	0.01	19	<100	200	170	<1	8	11	3800	5

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ--Continued

WATER QUALITY DATA

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1986											
22...	<5	140	0.20	<1	<1	*220	1.5	0.5	<0.010	3	0.02
NOV											
20...	<5	50	<0.10	<1	<1	10	2.3	0.2	<0.010	8	0.20
DEC											
19...	<5	40	<0.10	<1	<1	10	1.7	0.1	<0.010	3	0.05
JAN 1987											
27...	<5	20	<0.10	<1	<1	<10	1.7	--	<0.010	3	0.08
FEB											
23...	8	30	<0.10	<1	<1	20	2.1	0.1	<0.010	2	0.08
MAR											
27...	<5	30	<0.10	<1	1	10	2.5	0.3	<0.010	8	0.63
APR											
21...	<5	20	0.10	<1	<1	<10	1.5	0.8	<0.010	1	0.02
MAY											
21...	<5	40	<0.10	<1	<1	<10	1.9	1.1	<0.010	4	0.02
JUL											
06...	5	80	<0.10	<1	<1	10	3.7	0.6	<0.010	49	0.04
AUG											
05...	<5	210	<0.10	<1	<1	20	2.1	0.3	<0.010	20	0.04
17...	<5	50	<0.10	<1	<1	<10	1.9	0.4	--	7	0.01
SEP											
21...	<5	130	<0.10	<1	<1	20	1.9	0.8	<0.010	99	0.16

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09512830 BOULDER CREEK NEAR ROCK SPRINGS, AZ

LOCATION.--Lat 33°59'55", long 112°12'57", in SE¼NW¼ sec.36, T.8 N., R.1 E., Yavapai County, Hydrologic Unit 15070102, on left bank 2.2 mi upstream from Agua Fria River, 1.5 mi southwest of Rock Springs, and 7.1 mi northwest of New River.

DRAINAGE AREA.--37.8 mi².

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 376 ft³/s Nov. 26, 1985, gage height, 3.84 ft; no flow for many days in 1987 water year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32 ft³/s Mar. 4, gage height, 1.91 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.02	.03	.04	10	5.3	.48	.05	.00	.00	.01	.10
2	.03	.02	.03	.04	8.6	13	.42	.05	.00	.00	.02	.09
3	.02	.02	.03	.04	6.1	19	.39	.05	.00	.00	.02	.09
4	.02	.02	.03	.04	4.3	25	.34	.05	.00	.00	.02	.10
5	.03	.02	.03	.08	2.8	25	.28	.04	.00	.01	.02	.10
6	.03	.02	.06	.06	2.2	20	.26	.02	.00	.01	.03	.10
7	.03	.03	.08	.06	1.9	16	.24	.01	.00	.01	.03	.09
8	.04	.03	.04	.50	1.5	13	.19	.02	.00	.01	.03	.06
9	.03	.03	.04	2.1	1.2	9.3	.16	.01	.00	.01	.03	.05
10	.04	.03	.03	1.7	1.0	7.0	.16	.02	.00	.01	.04	.03
11	.04	.03	.03	1.3	.89	5.0	.16	.01	.00	.01	.07	.02
12	.03	.02	.03	.94	.81	3.8	.14	.01	.00	.01	.06	.01
13	.03	.02	.03	.79	.69	3.0	.10	.01	.00	.01	.05	.00
14	.02	.02	.03	.70	.65	2.3	.10	.01	.00	.01	.05	.00
15	.02	.04	.03	.75	.60	1.8	.10	.01	.00	.00	.06	.00
16	.02	.06	.03	1.1	.59	1.8	.10	.01	.00	.00	.06	.00
17	.02	.06	.04	1.1	.56	2.6	.08	.01	.00	.00	.06	.00
18	.02	.10	.04	1.1	.51	2.7	.08	.01	.00	.00	.06	.00
19	.02	.05	.04	.84	.48	2.1	.07	.01	.00	.00	.06	.00
20	.02	.05	.08	.71	.45	1.9	.05	.01	.00	.00	.09	.00
21	.02	.05	.10	.61	.41	1.6	.04	.00	.00	.00	.08	.00
22	.02	.05	.06	.57	.40	1.4	.05	.00	.00	.01	.08	.00
23	.02	.04	.06	.56	.40	1.2	.05	.00	.00	.00	.08	.00
24	.02	.03	.06	.50	2.7	1.1	.04	.00	.00	.00	.08	.00
25	.02	.03	.06	.41	3.7	1.1	.03	.00	.00	.00	.08	.00
26	.02	.03	.05	.40	4.2	1.0	.03	.00	.00	.01	.09	.00
27	.02	.03	.05	.40	3.9	.94	.03	.00	.00	.01	.09	.00
28	.02	.03	.04	.40	3.1	.86	.04	.00	.00	.01	.10	.00
29	.02	.03	.04	.40	---	.75	.05	.00	.00	.01	.11	.00
30	.02	.03	.04	.65	---	.60	.05	.00	.00	.01	.12	.00
31	.02	---	.04	3.9	---	.53	---	.00	---	.01	.10	---
TOTAL	0.76	1.04	1.38	22.79	64.64	190.68	4.31	0.42	0.00	0.17	1.88	0.84
MEAN	.025	.035	.045	.74	2.31	6.15	.14	.014	.00	.005	.061	.028
MAX	.04	.10	.10	3.9	10	25	.48	.05	.00	.01	.12	.10
MIN	.02	.02	.03	.04	.40	.53	.03	.00	.00	.00	.01	.00
AC-FT	1.5	2.1	2.7	45	128	378	8.5	.8	.0	.3	3.7	1.7
CAL YR	1986	TOTAL	340.44	MEAN	.93	MAX	51	MIN	.01	AC-FT	675	
WTR YR	1987	TOTAL	288.91	MEAN	.79	MAX	25	MIN	.00	AC-FT	573	

GILA RIVER BASIN

253

09512860 HUMBUG CREEK NEAR CASTLE HOT SPRINGS, AZ

LOCATION.--Lat 33°58'02", long 112°17'34", in NW¼SE¼NE¼ sec.7, T.7 N., R.1 E., Yavapai County, Hydrologic Unit 15070102, on right bank, 3.0 mi upstream from Lake Pleasant, and 4.0 mi southeast of Castle Hot Springs.

DRAINAGE AREA.--59.9 mi².

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,030 ft³/s, Aug. 7, 1985, gage height 7.36 ft, result of a slope-area measurement; no flow June 17-21, 24, 1986, and for many days during 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 161 ft³/s Jan. 5, 1030 hours, gage height 5.03 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.14	.13	.17	.27	.61	1.3	.26	.06	.00	.00	.00
2	.08	.14	.13	.17	.21	.56	1.2	.26	.03	.00	.10	.00
3	.09	.14	.13	.17	.20	.53	1.2	.24	.02	.00	.11	.00
4	.08	.15	.13	.17	.17	.50	1.1	.21	.02	.00	.01	.02
5	.09	.15	.13	32	.19	.46	1.2	.19	.00	.00	.01	.04
6	.09	.15	.27	4.8	.18	.46	1.1	.18	.00	.00	.01	.02
7	.09	.15	2.0	.35	.18	.47	1.1	.18	.07	.00	.00	.00
8	.08	.16	.21	.18	.23	.41	1.0	.16	.03	.00	.00	.00
9	.09	.17	.15	.16	.23	.42	.97	.15	.02	.00	.00	.00
10	.14	.17	.15	.15	.20	.42	.87	.14	.00	e.00	.00	.00
11	.15	.17	.15	.15	.20	.46	.80	.13	.00	e.00	.04	.00
12	1.2	.15	.15	.15	.20	.79	.69	.12	.00	e.00	.11	.00
13	.14	.15	.15	.15	.19	1.3	.69	.12	.00	e.00	.04	.00
14	.12	.15	.16	.15	.18	1.5	.64	.13	.00	e.00	.01	.00
15	.11	.15	.15	.15	.19	1.7	.58	.16	.00	e.00	.00	.00
16	.12	.15	.17	.15	.19	1.9	.49	.13	.00	e.00	.00	.01
17	.13	.15	.28	.14	.18	2.0	.42	.11	.00	e.00	.00	.01
18	.13	.45	.16	.14	.18	1.8	.39	.10	.00	e.00	.00	.01
19	.12	.17	.15	.15	.17	1.6	.39	.09	.00	e.00	.00	.01
20	.13	.14	.34	.15	.17	1.5	.37	.10	.00	e.00	.00	.01
21	.14	.13	.18	.15	.17	1.5	.35	.11	.00	.00	.00	.01
22	.14	.13	.17	.15	.17	1.5	.36	.10	.00	.00	.00	.01
23	.14	.12	.16	.15	.17	1.6	.36	.09	.00	.00	.17	.02
24	.14	.13	.15	.15	1.8	1.7	.32	.09	.00	.00	.15	.10
25	.15	.13	.15	.15	12	1.7	.29	.09	.00	.00	.17	.03
26	.13	.12	.15	.15	26	1.6	.27	.10	.00	.00	.23	.02
27	.15	.13	.16	.15	3.1	1.6	.29	.11	.00	.00	.11	.02
28	.15	.13	.17	.15	.78	1.4	.29	.11	.00	.02	.06	.02
29	.15	.13	.16	.16	---	1.3	.26	.10	.00	.06	.05	.01
30	.13	.13	.17	.17	---	1.2	.27	.09	.00	.00	.06	.01
31	.14	---	.17	.32	---	1.2	---	.08	---	.00	.01	---
TOTAL	4.83	4.63	7.08	41.65	48.10	35.69	19.56	4.23	0.25	0.08	1.45	0.38
MEAN	.16	.15	.23	1.34	1.72	1.15	.65	.14	.008	.003	.047	.013
MAX	1.2	.45	2.0	32	26	2.0	1.3	.26	.07	.06	.23	.10
MIN	.08	.12	.13	.14	.17	.41	.26	.08	.00	.00	.00	.00
AC-FT	9.6	9.2	14	83	95	71	39	8.4	.5	.2	2.9	.8
CAL YR 1986	TOTAL	757.09	MEAN	2.07	MAX	90	MIN	.00	AC-FT	1500		
WTR YR 1987	TOTAL	167.93	MEAN	.46	MAX	32	MIN	.00	AC-FT	333		

e Estimated

GILA RIVER BASIN

09512970 COTTONWOOD CREEK NEAR WADDELL DAM, AZ

LOCATION.--Lat 33°53'55", long 112°18'39", in NW¼SW¼SE¼ sec.36, T.7 N., R.1 W., Yavapai County Hydrologic Unit 15070102, on left bank 4 mi northwest of Waddell Dam and 1 mi upstream from the mouth at Lake Pleasant.

DRAINAGE AREA.--9.28 mi².

PERIOD OF RECORD.--May 1983 to current year.

REVISED RECORDS.--WDR AZ-86-1: 1983(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 1,660 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft³/s (revised), Sept. 23, 1983, gage height 2.80 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 41 ft³/s, Oct. 11, gage height 2.65 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.06	.11	e.01	.03	.01	e.01	.01	.00	.00	.00	.00
2	.02	.08	.09	e.01	.03	.01	.01	.01	.00	.00	.00	.00
3	e.02	.05	.10	e.01	.03	.01	.01	.01	.00	.00	.00	.00
4	e.02	.12	.10	e.01	.04	.01	.04	.01	.00	.00	.00	.00
5	e.02	.17	.10	.06	.05	.01	.01	.01	.00	.00	.00	.00
6	e.02	.16	.11	.01	.08	.01	e.01	.00	.00	.00	.00	.00
7	e.02	.15	.53	.01	.07	.03	e.01	.00	.02	.00	.00	.00
8	.01	.15	1.8	.01	.08	.01	e.01	.00	.00	.00	.00	.00
9	.08	.17	.09	.01	.06	.01	e.01	.01	.00	.00	.00	.00
10	.09	.15	.07	.01	.04	.01	.01	.00	.00	.00	.00	.00
11	4.1	.17	.03	.01	.05	.01	.01	.00	.00	.00	.00	.00
12	1.9	.22	.03	.01	.07	.01	.01	.01	.00	.00	.00	.00
13	e.04	.16	.01	.01	.11	.01	.01	.01	.00	.00	.00	.00
14	e.04	.07	.01	.01	.12	.01	.01	1.1	.00	.00	.00	.00
15	e.04	.13	.01	.01	.10	.01	.01	.01	.00	.00	.00	.00
16	e.04	.11	.01	.01	.10	.05	.01	.01	.00	.00	.00	.00
17	e.05	.16	.86	.01	.11	.04	.01	.01	.00	.00	.00	.00
18	e.05	.33	.05	.11	.08	.01	.01	.01	.00	.00	.00	.00
19	e.05	.24	.04	.02	.09	.01	.01	.01	.00	.00	.00	.00
20	e.05	.09	.03	e.04	.07	.01	.01	.01	.00	.00	.00	.00
21	e.06	.10	e.02	e.04	.08	.01	.01	.01	.00	.00	.00	.00
22	e.06	.12	e.02	e.04	.09	.01	.01	.01	.00	.00	.00	.00
23	e.06	.08	.01	.04	.08	.01	.01	.01	.00	.00	.00	.00
24	e.06	.07	.03	.04	.09	.01	.01	.01	.00	.00	.00	.00
25	e.07	.07	.02	.04	.02	e.01	.01	.01	.00	.00	.00	.00
26	e.07	.08	.01	.04	.03	e.01	.01	.00	.00	.00	.00	.00
27	e.07	.13	.05	.04	.05	e.01	.00	.00	.00	.00	.00	.00
28	e.07	.11	.03	.04	.02	e.01	.00	.00	.00	.00	.00	.00
29	e.08	.10	.05	.04	---	e.01	.00	.00	.00	.00	.00	.00
30	e.08	.09	.02	.04	---	e.01	.01	.00	.00	.00	.00	.00
31	e.08	---	e.01	.04	---	e.01	---	.00	---	.00	.00	---
TOTAL	7.43	3.89	4.45	0.83	1.87	0.40	0.30	1.29	0.02	0.00	0.00	0.00
MEAN	.24	.13	.14	.027	.067	.013	.010	.042	.001	.00	.00	.00
MAX	4.1	.33	1.8	.11	.12	.05	.04	1.1	.02	.00	.00	.00
MIN	.01	.05	.01	.01	.02	.01	.00	.00	.00	.00	.00	.00
AC-FT	15	7.7	8.8	1.6	3.7	.8	.6	2.6	.04	.0	.0	.0
CAL YR 1986	TOTAL	35.81	MEAN	.098	MAX	4.1	MIN	.00	AC-FT	71		
WTR YR 1987	TOTAL	20.48	MEAN	.056	MAX	4.1	MIN	.00	AC-FT	41		

e Estimated

09513000 AGUA FRIA RIVER AT WADDELL DAM, AZ

LOCATION.--Lat 33°51'20", long 112°15'58", in SW¼ sec.16, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, at left upstream end of Waddell Dam, and 22 mi northwest of Glendale.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--November 1910 to September 1914 (gage heights only), October 1914 to September 1919, October 1919 to September 1924 (gage heights only), October 1933 to current year (monthly discharge only). Published as "near Glendale" prior to 1920, and as "at Lake Pleasant Dam" 1920 to September 1962.

REVISED RECORDS.--WSP 1213: 1915-16, 1918-19. WSP 1343: Drainage area. WSP 1513: 1956.

GAGE.--Nonrecording gage on Lake Pleasant read once daily. Datum of gage is 1,431.2 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1924, nonrecording gage or water-stage recorder at several sites in the vicinity of diversion dam 1.5 mi downstream from Waddell Dam, at different datum.

REMARKS.--Records good. Figures given herein represent flow into Lake Pleasant. Inflow computed on basis of three factors as follows: 1. Change in contents of Lake Pleasant and in contents of small reservoir behind diversion dam 1.5 mi downstream from Lake Pleasant. 2. (a) Release from Lake Pleasant, computed from twice-daily readings by Clausen-Pierce weir rule in Beardsley Canal, checked by current-meter measurements by U.S. Geological Survey. (b) Spill from Lake Pleasant, measured over diversion dam based on staff-gage readings. See tables of diversions and spill below. 3. Effect of rainfall and evaporation on lake; evaporation assumed as 0.85 of that measured once daily in 3-ft-square land pan buried 1 ft in ground near left end of Waddell Dam. Effect of bank storage and bank release in Lake Pleasant is not taken into account. For months when inflow to lake is small and other factors relatively large, discordant figures of runoff may appear. Such discrepancies that may be attributed to inaccuracies in the capacity table, or to the fact that bank storage and bank release are not taken into account, result in quantities too large for periods of falling stage, but tend to be compensated for by quantities too small for periods of rising stage. Inaccuracies in figures of release and evaporation, which may be within reasonable limits within themselves, may result in disproportionately large inaccuracies in small figures of inflow computed as residuals. Diversions for irrigation above Lake Pleasant of probably not over 1,000 acres. Spill occurred in 1941, 1966, 1968, 1978, 1979, 1980, and 1983 water years.

COOPERATION.--Records collected and prepared in cooperation with Maricopa County Municipal Water Conservation District No. 1.

AVERAGE DISCHARGE.--59 years (water years 1915-19, 1934-87), 96.5 ft³/s, 69,910 acre-ft/yr; median of yearly mean discharges, 40 ft³/s, 29,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 105,000 ft³/s Jan. 28, 1916, gage height, 30 ft, same datum as in 1919, from floodmarks, Nov. 27, 1919, gage height, 33 ft, datum then in use, from floodmarks, from rating curve extended above 13,000 ft³/s on basis of velocity-area studies (on basis of comparative gage heights, the flood of Nov. 27, 1919, is believed to have been the greater); no flow during spring and summer of several years.

MONTHLY INFLOW TO LAKE PLEASANT; SPILL AND DIVERSIONS BELOW LAKE PLEASANT,
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Inflow to Lake Pleasant		Diversions in acre-feet	Spill in acre-feet
	Mean (cfs)	Runoff in acre-feet		
October.....	30.8	1,895	1,550	0
November.....	1.19	71	1,688	0
December.....	11.4	703	315	0
CAL YR 1986.....	19.4	14,058	3,558	0
January.....	9.58	589	0	0
February.....	62.0	3,444	0	0
March.....	99.4	6,110	0	0
April.....	11.4	677	0	0
May.....	0	0	0	0
June.....	9.73	579	6,251	0
July.....	3.14	193	246	0
August.....	1.59	98	131	0
September.....	4.27	254	0	0
WTR YR 1987.....	20.2	14,613	10,181	0

GILA RIVER BASIN

09513500 LAKE PLEASANT AT WADDELL DAM, AZ

LOCATION.--Lat 35°51'20", long 112°15'58", in SW¼ sec.16, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, at left upstream end of Waddell Dam on Agua Fria River.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--February 1928 to current year (annual figures only prior to 1939). Prior to October 1963 published as "at Lake Pleasant Dam."

GAGE.--Nonrecording gage read once daily. Datum of gage is 1,431.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by concrete multiple-arch dam; dam completed and storage began in 1927. Capacity, 157,200 acre-ft, of which 84,300 acre-ft is between gage heights 66 ft - 32 ft above centerline of outlet works - and 146.0 ft, crest of spillway, and 72,900 acre-ft between 146.0 ft and 170.0 ft, top of spillway gates. At times, capacity is greater due to trash build-up on top of spillway gates. This condition is known to have occurred in water years 1978, 1979, 1980, and 1983. There is no storage below gage height 66 ft because of accumulated sediment. Water released from reservoir flows down river channel 1.5 mi to diversion dam where it is diverted for irrigation near Beardsley. Figures given herein represent usable storage in Lake Pleasant (based on 1979 capacity table). Contents of small reservoir formed by diversion dam is not included.

COOPERATION.--Gage-height record furnished by Maricopa County Municipal Water Conservation District No. 1.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 178,500 acre-ft Apr. 19, 1941, of which 500 acre-ft was uncontrolled storage; maximum gage height, 170.92 ft Mar. 28, 1979; no usable contents Sept. 5, 1933, July 19 to Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum storage, 65,300 acre-ft Apr. 10; maximum gage height, 137.68 ft Apr. 10; minimum contents, 51,800 acre-ft Sept. 20-23, 28-30; minimum gage height, 130.82 ft Sept. 23.

Capacity table (gage height, in feet, and usable storage, in acre-feet)

130	50,250
140	70,350
150	94,450

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 17:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59400	58600	56400	56500	57500	60100	65200	64600	63300	55400	53900	52700
2	59400	58500	56300	56500	57900	60300	65200	64600	63300	55300	53900	52700
3	59300	58400	56200	56400	58100	60700	65200	64600	63200	55200	53900	52600
4	59300	58300	56100	56400	58300	61300	65200	64500	63200	55200	53900	52600
5	59300	58100	56100	56500	58400	61800	65200	64500	63100	55100	53900	52600
6	59200	58100	56100	56500	58400	62300	65200	64400	63100	55100	53900	52600
7	59200	57900	56200	56600	58500	62800	65200	64400	63000	55000	53800	52500
8	59100	57800	56300	56600	58600	63200	65200	64400	62800	55000	53800	52400
9	58900	57700	56300	56600	58600	63500	65200	64300	62600	55000	53700	52300
10	58900	57600	56300	56600	58700	63800	65300	64300	62300	54900	53700	52300
11	58900	57500	56300	56600	58700	64000	65200	64200	61900	54800	53600	52200
12	58100	57400	56300	56600	58700	64100	65200	64200	61600	54800	53600	52200
13	60300	57300	56300	56600	58800	64200	65200	64200	61300	54700	53500	52100
14	60300	57200	56300	56600	58800	64300	65200	64200	60900	54700	53400	51900
15	60200	57100	56300	56600	58800	64400	65100	64200	60600	54700	53400	52000
16	60100	57100	56300	56600	58900	64500	65100	64100	60300	54600	53300	52000
17	60000	57000	56400	56600	58900	64600	65100	64100	59900	54600	53300	52000
18	60000	57000	56400	56600	58900	64700	65100	64000	59600	54500	53200	51900
19	59900	57000	56500	56600	58900	64700	65000	64000	59200	54500	53200	51900
20	59800	57000	56500	56600	58900	64800	65000	63900	58900	54400	53200	51800
21	59700	56900	56500	56600	58900	64900	64900	63900	58600	54300	53100	51800
22	59600	56900	56500	56600	58900	64900	64800	63800	58300	54300	53100	51800
23	59500	56800	56500	56700	58900	65000	64800	63800	58000	54200	53100	51800
24	59400	56700	56500	56700	59200	65000	64800	63700	57700	54200	53100	52000
25	59300	56600	56500	56700	59500	65100	64800	63700	57300	54200	53100	52000
26	59200	56600	56500	56700	59700	65100	64800	63600	56900	54100	53000	52000
27	59100	56600	56500	56700	59800	65100	64700	63500	56500	54100	53000	51900
28	59000	56600	56500	56700	59900	65100	64700	63500	56100	54100	52900	51800
29	58900	56500	56500	56700	---	65100	64700	63500	55900	54000	52900	51800
30	58800	56500	56400	56700	---	65100	64700	63400	55600	54000	52800	51800
31	58700	---	56400	56800	---	65200	---	63400	---	54000	52800	---
MAX	60300	58600	56500	56800	59900	65200	65300	64600	63300	55400	53900	53900
MIN	58100	56500	56100	56400	57500	60100	64700	63400	55600	54000	52800	51800
(*)	134.45	133.30	133.29	133.50	135.05	137.60	137.37	136.75	132.85	132.02	131.39	130.85
(**)	-800	-2200	-100	+400	+3100	+5300	-500	-1300	-7800	-1600	-1200	-1000
CAL YR	1986	MAX	89100	MIN	56100	(**)	-25900					
WTR YR	1987	MAX	65300	MIN	51800	(**)	-7700					

(*) Gage height, in feet, at 1700 hours on last day of month.

(**) Change in storage, in acre-feet.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°49'55", long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, March 1982 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal Oct. 1, 1986 to June 15, 1987 and July 8 to Sept. 30, 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
JUN 1987 23...	0815	140	568	8.09	27.0	19.0	7.8	722	8.6	98	K10	42	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (MG/L AS K) (00935)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
JUN 1987 23...	190	12	43	21	41	1	3.4	230	0	67	33	0.50	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	
JUN 1987 23...	19	340	339	0.46	<0.100	<0.100	0.60	0.070	0.060	0.030	0.09	0.07	
DATE		PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	
JUN 1987 23...	0.03	18	16	<100	61	120	120	<1	<1	<1	<10		
DATE		COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	
JUN 1987 23...	8	5	420	<3	77	16	320	140	<0.10	<0.1	<1		
DATE		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	
JUN 1987 23...	<1	<1	1.0	40	16	7.0	0.6	<0.010	<0.01		14	5.3	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09513780 NEW RIVER NEAR ROCK SPRINGS, AZ

LOCATION.--Lat 33°58'27", long 112°05'54", in SW¼SW¼ sec.6, T.7 N., R.3 E., Maricopa County, Hydrologic Unit 15070102, on right bank 180 ft upstream from road crossing and 6 mi southeast of Rock Springs.

DRAINAGE AREA.--67.3 mi².

PERIOD OF RECORD.--Water years 1962-65 (annual maximums only), October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,310 ft above National Geodetic Vertical Datum of 1929, from topographic map. Jan. 2, 1964, to Sept. 30, 1965, crest-stage gage, and Oct. 28, 1965, to Nov. 16, 1967, water-stage recorder, at same site at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--22 years, 13.9 ft³/s, 10,070 acre-ft/yr; median of yearly mean discharges, 4.8 ft³/s, 3,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s Sept. 5, 1970, gage height, 13.5 ft, from profile past gage, from rating curve extended above 380 ft³/s on basis of slope-area measurements at gage heights 3.6, 4.73, 7.3, 10.7, and 13.5 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 3	2145	*545	*3.87

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	32	63	2.0	.23	.00	.00	.00	.00
2	.00	.00	.00	.00	10	120	1.8	.13	.00	.00	.00	.00
3	.00	.00	.00	.00	6.1	180	1.7	.10	.00	.00	.00	.00
4	.00	.00	.00	.00	4.2	127	1.6	.08	.00	.00	.00	.00
5	.00	.00	.00	.00	3.1	63	1.5	.07	.00	.00	.00	.00
6	.00	.00	.00	.64	2.7	23	1.4	.06	.00	.00	.00	.00
7	.00	.00	.00	1.4	2.4	17	1.4	.03	.00	.00	.00	.00
8	.00	.00	.00	1.2	2.2	14	1.4	.02	.00	.00	.00	.00
9	.00	.00	.00	1.1	2.0	11	1.4	.00	.00	.00	.00	.00
10	.00	.00	.00	1.1	1.8	8.6	1.1	.00	.00	.00	.00	.00
11	.00	.00	.00	1.0	1.7	7.8	.76	.00	.00	.00	.00	.00
12	.00	.00	.00	1.0	1.7	6.8	.53	.00	.00	.00	.00	.00
13	.00	.00	.00	.91	1.5	6.0	.33	.00	.00	.00	.00	.00
14	.00	.00	.00	.84	1.4	5.2	.26	.00	.00	.00	.00	.00
15	.00	.00	.00	.81	1.2	5.3	.21	.00	.00	.00	.00	.00
16	.00	.00	.00	.84	1.1	7.2	.17	.00	.00	.00	.00	.00
17	.00	.00	.00	.81	1.1	6.3	.14	.00	.00	.00	.00	.00
18	.00	.00	.00	.73	1.0	5.3	.14	.00	.00	.00	.00	.00
19	.00	.00	.00	.59	1.0	4.7	.13	.00	.00	.00	.00	.00
20	.00	.00	.00	.63	1.0	3.9	.13	.00	.00	.00	.00	.00
21	.00	.00	.00	.61	1.0	3.5	.10	.00	.00	.00	.00	.00
22	.00	.00	.00	.61	.92	3.6	.10	.00	.00	.00	.00	.00
23	.00	.00	.00	.58	.84	3.5	.10	.00	.00	.00	.00	.00
24	.00	.00	.00	.51	13	3.2	.10	.00	.00	.00	.00	.00
25	.00	.00	.00	.35	20	3.1	.09	.00	.00	.00	.00	.00
26	.00	.00	.00	.28	21	2.9	.08	.00	.00	.00	.00	.00
27	.00	.00	.00	.30	21	2.7	.08	.00	.00	.00	.00	.00
28	.00	.00	.00	.30	29	2.5	.11	.00	.00	.00	.00	.00
29	.00	.00	.00	.28	---	2.4	1.1	.00	.00	.00	.00	.00
30	.00	.00	.00	.25	---	2.2	.53	.00	.00	.00	.00	.00
31	.00	---	.00	21	---	2.1	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	38.67	185.96	716.8	20.49	0.72	0.00	0.00	0.00	0.00
MEAN	.00	.00	.00	1.25	6.64	23.1	.68	.023	.00	.00	.00	.00
MAX	.00	.00	.00	21	32	180	2.0	.23	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.84	2.1	.08	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	77	369	1420	41	1.4	.0	.0	.0	.0

CAL YR	1986	TOTAL	830.55	MEAN	2.28	MAX	241	MIN	.00	AC-FT	1650
WTR YR	1987	TOTAL	962.64	MEAN	2.64	MAX	180	MIN	.00	AC-FT	1910

GILA RIVER BASIN

259

09513860 SKUNK CREEK NEAR PHOENIX, AZ

LOCATION.--Lat 33°43'50", long 112°07'09", in SE¼ sec.35, T.5 N., R.2 E., Maricopa County, Hydrologic Unit 15070102, on right bank dike of Skunk Creek flood control channel, 300 ft east of frontage road of Interstate Highway 17, 3 mi north of Adobe and 20 mi north of City Hall in Phoenix.

DRAINAGE AREA.--64.6 mi².

PERIOD OF RECORD.--Water years 1960-67 (annual maximums only), October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,472.60 ft above National Geodetic Vertical Datum of 1929. May 1961 to Sept. 30, 1967, crest-stage gage at site 400 ft downstream at datum 6.67 ft lower, and Oct. 1, 1967 to Dec. 29, 1984, at site 300 ft downstream at datum 12.66 ft lower.

REMARKS.--No estimated daily discharges. Records poor.

AVERAGE DISCHARGE.--20 years, 1.60 ft³/s, 1,160 acre-ft/yr; median of yearly mean discharges, 0.72 ft³/s, 520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s Aug. 1, 1964, gage height, 10.48 ft, present datum, from rating curve extended above 6,200 ft³/s; maximum gage height, 12.24 ft Sept. 5, 1970; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	1430	*3,440	*3.68	Feb. 24	1400	119	1.74
Oct. 11	2015	1,250	2.75	July 31	2030	399	2.13
Nov. 18	1930	137	1.78				

No flow for most of year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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	263	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	114	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	9.7	.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	18	.00	.00	.00	.00	.00	.00	.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	.00	.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	---	28	.00	---
TOTAL	396.00	9.70	0.00	0.00	18.00	0.00	0.00	0.00	0.00	28.00	0.00	0.00
MEAN	12.8	.32	.00	.00	.64	.00	.00	.00	.00	.90	.00	.00
MAX	263	9.7	.00	.00	18	.00	.00	.00	.00	28	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	785	19	.0	.0	36	.0	.0	.0	.0	56	.0	.0
CAL YR	1986	TOTAL	563.70	MEAN	1.54	MAX	263	MIN	.00	AC-FT	1120	
WTR YR	1987	TOTAL	451.70	MEAN	1.24	MAX	263	MIN	.00	AC-FT	896	

GILA RIVER BASIN

09516500 HASSAYAMPA RIVER NEAR MORRISTOWN, AZ

LOCATION.--Lat 33°53'06", long 112°39'41", in SW¼SE¼ sec.3, T.6 N., R.4 W., Maricopa County, Hydrologic Unit 15070103, on left bank 600 ft downstream from mouth of San Domingo Wash, 3.0 mi northwest of Morristown and 7 mi southeast of Wickenburg.

DRAINAGE AREA.--774 mi².

PERIOD OF RECORD.--October 1938 to June 1947 (continuous-record station), 1954, 1956, 1964-81 (partial-record station). October 1981 to current year (discharge above 500 ft³/s only).

GAGE.--Water-stage recorder. Datum of gage is 1,831.16 ft above National Geodetic Vertical Datum of 1929. Crest-stage gage at same site and datum 1954, 1956, and 1964-81.

REMARKS.--No estimated daily discharges. Records fair. Only daily discharges above 500 ft³/s are published.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft³/s Sept. 5, 1970, gage height, 19.0 ft, from high-water profile past gage and on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 714 ft³/s Nov. 18, gage height, 9.20 ft. No daily discharges above 500 ft³/s for entire year.

GILA RIVER BASIN

09517000 HASSAYAMPA RIVER NEAR ARLINGTON, AZ

LOCATION.--Lat 33°20'50", long 112°43'30", in NW¼ sec.13, T.1 S., R.5 W., Maricopa County, Hydrologic Unit 15070104, at former U.S. Highway 80, 1.8 mi upstream from mouth and 2.8 mi northeast of Arlington.

DRAINAGE AREA.--1,470 mi², approximately.

PERIOD OF RECORD.--Water years 1961-77 (annual maximums only), October 1977 to current year (discharge above 500 ft³/s only).

GAGE.--Water-stage recorder. Datum of gage is 822.68 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 2, 1984 at datum 9.23 ft higher.

REMARKS.--No estimated daily discharges. Records poor. Only daily discharges above 500 ft³/s are published. Records do not include irrigation return flow past station except where it cannot be separated from natural flow. Small diversions above station for irrigation and livestock.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s Sept. 5, 1970, gage height, 8.40 ft, result of slope-area measurement of peak flow; no natural flow for most of time each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 404 ft³/s Oct. 10, gage height, 3.66 ft; no natural flow for most of year. No daily discharges above 500 ft³/s for entire year.

CORRECTIONS.--The date of the annual maximum discharge for the 1969 water year has been corrected to Sept. 15, 1969. This supersedes the date of the Sept. 15, 1967 given in WRD Ariz. 1971.

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ
(National stream-quality accounting network)

LOCATION.--Lat 33°13'45", long 112°46'00", in SE¼NE¼ sec.28, T.2 S., R.5 W., Maricopa County, Hydrologic Unit 15070101, at Gillespie Dam, 8 mi downstream from Hassayampa River. Gila Bend Canal diverts from left end, and Enterprise Canal diverts from right end, of Gillespie Dam.

DRAINAGE AREA.--49,650 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1935 to November 1939 (monthly discharge only published in WSP 1313), December 1939 to September 1971 (published with records for sta 09519500, Gila River below Gillespie Dam), 1972 and 1973 (water year estimates only, listed in REMARKS for sta 09519500), October 1973 to current year. Low-flow records prior to October 1970 are not equivalent as leakage less than 5 ft³/s is not included.

09518500. Gila Bend Canal: May 1935 to September 1971, October 1973 to current year (since October 1941, monthly discharge only).

09519000. Enterprise Canal: June 1935 to September 1939 (discharge measurements and monthly estimates only), October 1939 to September 1971, April 1974 to current year (since October 1941, monthly discharge only). Published as "Gillespie Canal" prior 1951.

GAGE.--Gila Bend Canal: Water-stage recorder 200 ft downstream from headgates.

Enterprise Canal: Water-stage recorder 600 ft downstream from intake at dam.

REMARKS.--Records good except for estimated daily discharges Dec. 14 to Jan. 12, which are fair. Record is obtained by combining, on a daily basis, the flows of Gila Bend Canal, Enterprise Canal, and Gila River below Gillespie Dam (see sta 09519500).

Many large diversions above station for irrigation, municipal, and industrial use. Flow of Gila River and tributaries above this station is regulated: by San Carlos Reservoir on Gila River - capacity, 1,073,600 acre-ft; by a series of reservoirs on Salt River - capacity, 1,755,000 acre-ft; by Bartlett and Horseshoe Reservoirs on Verde River - capacity, 317,700 acre-ft; and by Lake Pleasant on Agua Fria River - capacity, 157,600 acre-ft.

AVERAGE DISCHARGE.--52 years, 404 ft³/s, 292,700 acre-ft/yr; median of yearly mean discharges, 110 ft³/s, 79,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 124,000 ft³/s Feb. 17, 1980; no flow except for possible leakage of less than 5 ft³/s Nov. 24-27, 1966, July 14, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,520 ft³/s Mar. 25; minimum daily, 49 ft³/s July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	e184	247	e323	354	474	541	184	130	71	79	111
2	e213	e195	263	e365	376	440	478	190	132	71	70	106
3	e196	e214	313	e370	382	399	411	203	122	72	96	99
4	e200	226	297	e330	403	386	390	257	93	77	99	101
5	e228	221	284	e332	393	392	481	210	84	72	107	120
6	e233	218	267	e365	319	396	472	190	92	73	164	181
7	e282	225	289	e343	284	392	341	160	96	71	159	210
8	e213	229	324	e333	305	397	319	155	113	65	131	80
9	e226	242	365	e367	318	390	271	142	112	60	138	71
10	e196	244	353	e336	296	372	255	138	104	49	165	80
11	e276	247	325	e325	315	366	256	143	101	55	150	106
12	e272	244	324	e337	348	357	234	159	94	56	226	193
13	e272	241	304	327	313	349	224	121	71	60	179	201
14	e291	241	e336	291	351	321	200	122	51	64	119	137
15	e285	244	e293	303	361	285	187	129	71	68	109	252
16	e277	212	e326	303	359	306	182	132	84	75	108	257
17	e283	198	e301	402	329	297	195	141	81	89	105	197
18	e275	178	e303	410	341	307	197	157	76	86	104	e222
19	e263	198	e318	408	360	285	192	170	75	84	104	e243
20	e277	246	e310	405	369	291	194	160	77	84	102	e254
21	e284	217	e326	392	371	286	183	154	77	85	103	e289
22	e279	222	e343	366	382	399	179	152	80	84	100	e305
23	e277	232	e329	350	395	990	173	145	81	83	89	e323
24	e266	248	e343	355	417	1480	169	132	77	80	91	343
25	e256	265	e352	367	468	1520	162	121	76	80	95	339
26	e248	266	e334	372	484	1330	180	123	75	83	92	186
27	e243	268	e342	373	583	1050	187	125	74	108	75	283
28	e232	268	e292	377	527	860	193	120	71	99	62	295
29	e205	272	e317	366	---	746	198	116	70	100	83	180
30	e193	264	e310	345	---	654	176	115	71	99	110	242
31	e196	---	e309	313	---	580	---	118	---	81	107	---
TOTAL	7615	6969	9739	10951	10503	17097	7820	4684	2611	2384	3521	6006
MEAN	246	232	314	353	375	552	261	151	87.0	76.9	114	200
MAX	291	272	365	410	583	1520	541	257	132	108	226	343
MIN	178	178	247	291	284	285	162	115	51	49	62	71
AC-FT	15100	13820	19320	21720	20830	33910	15510	9290	5180	4730	6980	11910
(*)	1400	2910	11510	15160	14770	16370	12500	8460	4410	3950	5210	3460
(**)	845	845	1020	867	916	1100	887	657	760	753	904	859

CAL YR	1986	TOTAL	93364	MEAN	256	MAX	881	MIN	41	AC-FT	185200	(*)	102600	(**)	9180
WTR YR	1987	TOTAL	89900	MEAN	246	MAX	1520	MIN	49	AC-FT	178300	(*)	100100	(**)	10410

e Estimated

(*) Diversions, in acre-feet, to Gila Bend Canal (sta 09518500). See remarks above. For records prior to 1972, see sta 09519500.

(**) Diversions, in acre-feet, to Enterprise Canal (sta 09519000). For records prior to 1972, see sta 09519500.

GILA RIVER BASIN

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1950 to September 1971, March 1974 to current year.

Prior to October 1967, published as 09519500, Gila River below Gillespie Dam, Ariz.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1971, April 1974 to September 1981.

WATER TEMPERATURES: December 1950 to September 1971, April 1974 to September 1981.

REMARKS.--Unpublished daily specific conductance measurements for period December 1950 to September 1964 available from district office in Tucson, Ariz.

WATER QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
OCT 1986													
21...	0950	280	3280	8.14	16.5	18.0	32	744	8.8	96	40	290	
NOV													
24...	0950	254	3750	8.21	9.0	13.5	16	749	10.5	104	33	730	
DEC													
18...	0930	271	3600	8.10	9.5	14.0	20	747	9.2	92	28	320	
JAN 1987													
26...	0950	375	3450	7.90	9.0	11.0	8.4	750	6.3	59	34	320	
FEB													
20...	0845	363	3600	8.00	7.0	12.0	16	744	5.7	55	33	K470	
MAR													
24...	1200	1510	1190	7.70	27.0	16.0	99	740	6.6	69	36	K50	
APR													
22...	0925	181	3990	8.10	25.0	20.0	25	745	6.5	74	39	190	
MAY													
21...	0915	153	3860	8.18	23.0	21.0	25	740	6.3	74	33	110	
JUL													
02...	0830	73	4440	8.51	30.0	28.0	20	738	4.4	59	*<10	37	
14...	1045	65	4480	8.60	40.0	31.0	7.0	737	9.5	134	47	70	
AUG													
26...	1040	93	4580	8.45	32.0	27.0	26	742	6.4	84	46	61	
SEP													
23...	1045	91	3860	8.15	29.0	23.0	25	743	7.6	92	13	1800	
DATE		STREP-TOCOC CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR-BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1986													
21...	110	550	310	120	60	460	9	9.7	300	0	242	390	
NOV													
24...	740	640	370	160	59	510	9	9.7	330	0	271	450	
DEC													
18...	280	580	310	130	63	490	9	10	340	0	274	410	
JAN 1987													
26...	K95	600	350	140	60	450	8	10	310	0	250	360	
FEB													
20...	440	640	380	150	63	470	8	12	320	0	259	440	
MAR													
24...	600	260	77	60	26	140	4	5.8	220	0	180	110	
APR													
22...	79	700	440	160	72	580	10	9.2	320	0	257	480	
MAY													
21...	190	680	430	160	67	560	10	9.3	300	0	245	510	
JUL													
02...	K13	750	510	180	74	630	10	10	280	11	247	620	
14...	K8	700	450	160	73	630	11	10	250	24	249	620	
AUG													
26...	73	840	580	200	83	700	11	9.7	270	29	263	660	
SEP													
23...	74	740	500	180	70	610	10	1.4	290	0	243	550	

* Value verified.

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT 1986												
21...	690	1.9	28	1950	1960	2.65	71	7.90	1.30	13.0	9.20	3.80
NOV												
24...	800	2.0	--	2250	2150	3.06	45	--	--	8.00	--	0.890
DEC												
18...	860	1.5	28	2160	2210	2.94	37	6.60	0.800	7.10	7.40	7.20
JAN 1987												
26...	710	1.5	--	1910	1890	2.60	32	--	--	6.40	--	*9.00
FEB												
20...	790	1.6	25	2060	2160	2.80	40	5.40	0.600	6.10	6.00	6.80
MAR												
24...	210	0.60	--	685	663	0.93	384	--	--	1.60	--	1.90
APR												
22...	850	1.5	25	2430	2380	3.30	72	7.40	0.700	8.10	8.10	0.680
MAY												
21...	880	1.8	--	2220	2340	3.02	66	--	--	9.40	--	2.60
JUL												
02...	980	1.5	20	2750	2720	3.74	38	9.10	0.700	9.70	9.80	0.370
14...	920	1.9	--	2770	2590	3.77	12	--	--	9.70	--	0.110
AUG												
26...	1000	1.7	25	2950	2920	4.01	2	8.82	0.380	9.00	9.20	0.050
SEP												
23...	860	2.0	--	2450	2420	3.33	40	--	--	9.40	--	0.800
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1986												
21...	3.00	0.60	4.4	17	77	2.30	--	2.50	7.7	2.3	--	<10
NOV												
24...	--	0.41	1.3	9.3	41	1.20	--	--	--	1.2	--	--
DEC												
18...	7.30	0.0	6.3	13	59	3.40	3.00	2.70	8.3	3.4	0.30	--
JAN 1987												
26...	--	0.0	7.6	14	62	2.90	--	--	--	2.9	--	--
FEB												
20...	6.80	0.50	7.3	13	59	3.00	3.00	2.80	8.6	3.0	0.20	<10
MAR												
24...	--	1.5	3.4	5.0	22	1.50	--	--	--	1.5	--	--
APR												
22...	0.660	6.4	7.1	15	67	1.60	1.10	0.980	3.0	1.6	0.12	<10
MAY												
21...	--	2.4	5.0	14	64	2.50	--	--	--	2.5	--	--
JUL												
02...	0.310	0.23	0.60	10	46	1.20	0.690	0.700	2.1	1.2	0.0	--
14...	--	2.8	2.9	13	56	0.890	--	--	--	0.89	--	--
AUG												
26...	0.050	2.4	2.5	11	51	0.820	0.800	0.700	2.1	0.82	0.10	<10
SEP												
23...	--	3.0	3.8	13	58	2.00	--	--	--	2.0	--	--

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1986											
21...	8	10	100	<10	1300	<1	1	18	<1	<1	12
NOV											
24...	10	10	100	--	1500	<1	<1	2	2	--	12
DEC											
18...	9	9	100	--	1300	<1	<1	10	<1	--	13
JAN 1987											
26...	7	7	<100	--	1100	<1	<1	2	<1	--	12
FEB											
20...	8	7	<100	<10	1300	<1	<1	2	<1	<1	12
MAR											
24...	8	7	32	--	290	<1	<1	<1	<1	--	45
APR											
22...	9	9	70	<0.5	1600	<1	<1	12	1	<1	12
MAY											
21...	9	10	100	--	1700	<1	<1	--	2	--	17
JUL											
02...	9	9	100	--	2100	<1	<1	32	1	--	13
14...	10	10	100	--	2100	<1	<1	9	1	--	9
AUG											
26...	8	8	<100	<10	2200	<1	<1	<1	2	7	13
SEP											
23...	6	8	<100	--	1800	<1	<1	6	<1	--	13

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1986											
21...	6	1600	20	5	<5	180	40	40	<0.10	<0.1	8
NOV											
24...	7	1100	20	<5	<5	--	90	50	<0.10	--	--
DEC											
18...	8	1300	20	<5	<5	--	130	60	<0.10	--	--
JAN 1987											
26...	6	580	20	<5	<5	--	110	100	<0.10	--	--
FEB											
20...	4	900	30	<5	<5	190	170	120	<0.10	<0.1	5
MAR											
24...	3	7500	11	10	<5	--	440	150	<0.10	--	--
APR											
22...	3	1500	5	<5	<5	210	150	76	<0.10	<0.1	10
MAY											
21...	6	1200	<10	<5	<5	--	150	60	<0.10	--	--
JUL											
02...	5	920	<10	<5	<5	--	110	30	<0.10	--	--
14...	5	560	20	16	<5	--	60	20	<0.10	--	--
AUG											
26...	6	1500	20	<5	<5	240	120	20	<0.10	0.2	9
SEP											
23...	6	1400	20	6	<5	--	130	40	<0.10	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER QUALITY DATA

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1986											
21...	7	3	3	<1.0	2100	14	10	10	82	70	53
NOV											
24...	--	3	3	<1.0	--	--	50	20	46	96	66
DEC											
18...	--	4	3	<1.0	--	--	30	20	83	70	51
JAN 1987											
26...	--	3	3	<1.0	--	--	20	20	91	31	31
FEB											
20...	10	3	3	<1.0	2100	<100	*30	30	95	22	22
MAR											
24...	--	1	1	<1.0	--	--	50	9	85	402	1640
APR											
22...	<1	4	4	<1.0	2600	<60	20	11	94	107	52
MAY											
21...	--	4	5	<1.0	--	--	20	20	96	71	29
JUL											
02...	--	6	3	<1.0	--	--	10	10	94	43	8.5
14...	--	5	<1	<1.0	--	--	50	10	99	31	5.4
AUG											
26...	5	6	7	<1.0	3200	38	30	40	99	67	17
SEP											
23...	--	5	5	1.0	--	--	20	20	99	60	15

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09519500 GILA RIVER BELOW GILLESPIE DAM, AZ

LOCATION.--Lat 33°13'45", long 112°46'00", in SE&NE¼ sec.28, T.2 S., R.5 W., Maricopa County, Hydrologic Unit 15070101, at left end of Gillespie Dam, 8 mi downstream from Hassayampa River.

DRAINAGE AREA.--49,650 mi².

PERIOD OF RECORD.--August 1921 to current year. Low-flow records prior to October 1970 are not equivalent as leakage of less than 5 ft³/s not included, and from October 1971 to September 1973, when no leakage was included. Annual estimate of leakage was listed in REMARKS for the 1972 water year. Prior to 1939, published as "at Gillespie Dam."

REVISED RECORDS.--WSP 1213: 1939. WSP 1243: 1924(M). WSP 1926: Drainage area.

GAGE.--Water-stage recorder since July 28, 1924. Datum of gage is 9.95 ft below average elevation of crest of dam, which is 753.46 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 11, 1924, depth of water read on crest at left end of dam. Nov. 11, 1924, to July 22, 1932, datum of gage was at average elevation of dam crest. July 23, 1932, to Apr. 27, 1955, datum of gage was 5.00 ft below average elevation of crest of dam. Apr. 2, 1974 to Jan. 31, 1986, supplementary water-stage recorder and concrete control 70 ft downstream from crest of dam at datum 5.64 ft lower than datum of base gage. Since Jan. 31, 1986, supplementary water-stage recorder at bridge 0.1 mi downstream at different datum.

REMARKS.--Records fair. Flow consists of water passing over the dam, and seepage through the dam, but does not include water diverted to Gila Bend or Enterprise Canals. See sta 09518000, Gila River above diversions, at Gillespie Dam, for records of flow reaching dam, and of diversions to Gila Bend and Enterprise Canals. For diversions and regulation above station, see REMARKS for sta 09518000.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178,000 ft³/s Feb. 16, 1980, gage height, 18.81 ft, present datum; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1891, 250,000 ft³/s, estimated, in February 1891.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,220 ft³/s Mar. 25; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	167	48	186	64	281	243	.00	.00	.00	.00	1.4
2	145	172	67	198	83	247	180	.00	.00	.00	.00	.00
3	129	183	109	164	89	186	114	4.5	.00	.00	3.7	.00
4	131	195	64	124	110	117	93	39	.00	3.6	5.2	.32
5	157	189	20	126	101	90	182	.00	.00	.00	13	19
6	160	186	2.8	159	30	95	173	.00	.00	.00	53	78
7	212	189	25	137	.40	91	45	.00	.00	.00	46	119
8	154	191	60	126	16	96	24	.00	.10	.00	17	14
9	209	203	109	120	30	89	2.8	.00	1.5	.00	25	5.8
10	180	204	124	59	11	73	1.8	.00	.00	.00	47	15
11	260	208	124	48	25	67	1.9	.00	.00	.00	31	40
12	256	206	144	50	55	59	1.7	.45	.00	.00	110	127
13	255	203	131	39	20	52	.93	.00	.00	.00	57	136
14	274	202	148	4.9	59	27	.44	.00	.00	.00	.08	73
15	269	207	115	16	70	4.2	5.3	.00	5.9	2.8	.00	189
16	261	185	138	16	69	25	1.3	.00	.00	.05	.00	192
17	267	172	113	113	41	15	.17	.00	.00	.06	.00	133
18	259	140	105	121	53	22	.05	.00	.00	.00	.00	e160
19	248	150	120	121	70	.63	.04	.00	.00	.00	.00	e180
20	248	201	112	117	75	5.3	.03	.00	.00	.00	.00	e190
21	245	172	118	103	77	1.6	.00	.00	.00	.00	.00	e210
22	239	176	125	79	87	111	.00	.00	.00	.00	.00	e220
23	237	174	111	63	99	689	.00	.00	.00	.00	.00	e235
24	225	159	116	69	145	1180	.00	.00	.00	.00	4.8	266
25	213	128	145	81	221	1220	.00	.00	.00	.00	.00	279
26	206	118	137	86	237	1030	.00	.00	.00	.00	.00	124
27	203	111	155	87	340	754	.00	.00	.00	8.3	.00	223
28	196	106	125	91	319	563	.00	.00	.00	.00	.00	256
29	182	100	170	81	---	450	.00	.00	.00	.00	6.7	141
30	172	77	173	59	---	360	.00	.00	.00	.00	16	203
31	174	---	172	28	---	284	---	.00	---	.00	.92	---
TOTAL	6477	5074	3425.8	2871.9	2596.40	8284.73	1070.46	88.50	7.50	14.81	436.40	3829.52
MEAN	209	169	111	92.6	92.7	267	35.7	2.85	.25	.48	14.1	128
MAX	274	208	173	198	340	1220	243	45	5.9	8.3	110	279
MIN	111	77	2.8	4.9	.40	.63	.00	.00	.00	.00	.00	.00
AC-FT	12850	10060	6800	5700	5150	16430	2120	176	15	29	866	7600

CAL YR 1986 TOTAL 36991.73 MEAN 101 MAX 600 MIN .00 AC-FT 73370
WTR YR 1987 TOTAL 34177.02 MEAN 93.6 MAX 1220 MIN .00 AC-FT 67790

e Estimated

GILA RIVER BASIN

267

09519800 GILA RIVER BELOW PAINTED ROCK DAM, AZ

LOCATION.--Lat 33°04'30", long 113°00'50", in SE¼ sec.18, T.4 S., R.7 W., Maricopa County, Hydrologic Unit 15070201, on left bank 0.3 mi downstream from Painted Rock Dam and 19 mi northeast of Sentinel.

DRAINAGE AREA.--50,910 mi², approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 518.69 ft above National Geodetic Vertical Datum of 1929 (levels by Army Corps of Engineers). Auxiliary gage May 5, 1969, to Mar. 30, 1973, at site 0.3 mi upstream, at datum 2.87 ft higher; Feb. 8, 1979 to current year, at site 0.3 mi upstream, at same datum.

REMARKS.--Records fair except those for periods of estimated daily discharges, which are poor. Many diversions above station for irrigation. Flow above station regulated by many reservoirs, the largest of which is Painted Rock Reservoir - capacity, 2,492,000 acre-ft. (See REMARKS for sta 09518000, Gila River above diversions, at Gillespie Dam.)

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,190 ft³/s, result of a discharge measurement May 3, 1983, gage height, 9.36 ft, maximum gage height, 10.57 ft Feb. 9, 1979; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 47 ft³/s, Mar. 2; no flow Sept. 10-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	e3.8	e2.9	16	26	46	20	24	17	16	16	1.4
2	15	e3.3	3.1	15	26	47	19	24	18	16	15	1.0
3	15	e2.8	3.2	15	24	41	17	26	18	15	12	.78
4	15	e2.4	3.2	14	24	33	16	28	17	14	11	.59
5	16	e1.9	3.3	14	23	29	16	30	15	13	27	.46
6	16	e1.4	3.8	14	23	26	18	31	13	13	23	.34
7	16	e1.4	4.3	9.3	22	25	18	32	13	13	19	.24
8	15	1.4	5.4	4.2	21	24	17	32	13	13	16	.14
9	e15	1.2	7.2	15	20	24	16	32	13	14	14	.01
10	e14	1.1	9.7	16	20	25	16	34	13	14	13	.00
11	e14	1.0	12	15	20	26	16	35	12	13	14	.00
12	e13	1.1	13	15	20	27	15	35	12	13	13	.00
13	e13	1.1	14	15	20	26	14	32	12	13	12	.00
14	e12	1.0	15	15	20	27	15	26	12	13	9.9	.00
15	e12	e1.0	16	15	20	28	16	19	13	12	8.6	.00
16	e11	e2.6	16	15	21	28	17	16	15	13	7.8	.00
17	e11	e2.7	17	14	23	27	19	14	15	13	7.7	.00
18	e10	e2.7	17	15	25	25	20	11	14	13	8.0	.00
19	e9.9	e2.8	16	15	27	23	21	9.3	13	13	8.3	.00
20	e9.4	e2.8	16	15	28	23	22	7.9	12	13	7.8	.00
21	e9.0	e2.8	16	16	30	22	22	7.0	12	13	7.5	.00
22	e8.5	e2.9	16	17	32	20	22	6.4	13	13	7.6	.00
23	e8.0	e2.9	16	18	33	19	22	6.0	14	13	7.6	.00
24	e7.5	e3.0	16	20	33	21	22	5.5	15	14	7.2	.00
25	e7.1	e3.0	16	22	35	23	21	5.5	16	15	6.4	.00
26	e6.6	e3.0	16	24	38	24	21	6.5	17	15	5.0	.00
27	e6.1	e3.1	17	26	43	23	21	8.0	18	15	3.9	.00
28	e5.7	e3.1	17	27	45	23	21	9.6	18	16	3.2	.00
29	e5.2	e3.2	16	27	---	22	22	11	18	17	2.5	.00
30	e4.7	e3.2	16	27	---	21	23	12	17	17	2.0	.00
31	e4.2	---	16	27	---	20	---	14	---	17	1.7	---
TOTAL	338.9	69.7	376.1	532.5	742	818	565	589.7	438	435	317.7	4.96
MEAN	10.9	2.32	12.1	17.2	26.5	26.4	18.8	19.0	14.6	14.0	10.2	.17
MAX	16	3.8	17	27	45	47	23	35	18	17	27	1.4
MIN	4.2	1.0	2.9	4.2	20	19	14	5.5	12	12	1.7	.00
AC-FT	672	138	746	1060	1470	1620	1120	1170	869	863	630	9.8
CAL YR 1986	TOTAL	22198.3	MEAN	60.8	MAX	321	MIN	1.0	AC-FT	44030		
WTR YR 1987	TOTAL	5227.56	MEAN	14.3	MAX	47	MIN	.00	AC-FT	10370		

e Estimated

09520360 GILA RIVER NEAR MOHAWK, AZ

LOCATION.--Lat 32°47'18", long 113°45'48", on section line between sec.25 and 26, T.7 S., R.15 W., Yuma County, Hydrologic Unit 15070201, in center of channel at culvert outlet at Avenue 51E, and 4.0 mi north of Mohawk.

DRAINAGE AREA.--55,430 mi², approximately.

PERIOD OF RECORD.--February to April 1966 (published in WSP 1850-C), April 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 295 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to March 1983 at site 70 ft upstream at datum 6.45 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Painted Rock Dam; capacity of reservoir at Painted Rock Dam is 2,492,000 acre-ft, (see REMARKS for sta 09519800).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft³/s Apr. 30, 1980, gage height, 11.28 ft, site and datum then in use; maximum gage height, 14.20 ft June 7, 8, 1983, present site and datum; no flow most of time most years.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.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	.00	.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	.00	.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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CAL YR 1986	TOTAL	3418.10	MEAN	9.36	MAX	69	MIN	.00	AC-FT	6780		
WTR YR 1987	TOTAL	0.00	MEAN	.00	MAX	.00	MIN	.00	AC-FT	.0		

LOCATION.--Lat 32°45'39", long 114°25'11", in SW¼ sec.4, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, on right bank 440 ft upstream from McPhal bridge on old route of State Highway 95, 3 mi west of Dome, and 12 mi upstream from mouth.

DRAINAGE AREA.--57,850 mi², approximately - includes 373 mi² in Aubrey Valley Playa, a closed basin, but excludes all other closed basins.

PERIOD OF RECORD.--January 1903 to current year. Monthly total, maximum, and minimum daily discharges only for January 1903 to December 1904 and January 1906 to July 1929 in WSP 918 or WSP 1313. Published as "at Yuma and Gila City" 1903, as "near Dome" 1904, and as "at Dome (Gila City)" 1905-6. Records for 1907-29 are published in WSP 918 as "at Yuma and at and near Dome."

REVISED RECORDS.--WSP 918: 1905. WSP 1733: July 1942. WSP 1926: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 139.18 ft above National Geodetic Vertical Datum of 1929. Prior to October 1903 and January 1907 to April 1929, no gage; discharge estimated. October 1903 to December 1906, principal nonrecording gage 4 mi upstream at datum 19.19 ft higher, supplemented by many nonrecording gages at different datums. May 1929 to May 31, 1981, at datum 9.00 ft higher.

REMARKS.--No estimated daily discharge. Records fair below 10 ft³/s, good between 10 ft³/s and 100 ft³/s, and poor above 100 ft³/s. Many diversions above station for irrigation. Flow above station regulated by reservoirs at and above Painted Rock Dam; capacity of reservoir at Painted Rock Dam is 2,492,000 acre-ft. Painted Rock Reservoir, which is for flood control only, was completed in October 1959 (see also REMARKS for sta 09518000).

EXTREMES FOR PERIOD OF RECORD.--1903-29: Maximum daily discharge, 200,000 ft³/s, roughly estimated, Jan. 22, 1916.
1929-59: Maximum discharge, 20,700 ft³/s Feb. 15, 1932, gage height, 25.75 ft, present datum; no flow for part or all of most years.

1959-87: Maximum discharge, 4,820 ft³/s Sept. 18, 1963, gage height, 16.20 ft; no flow for part or all of 1st years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 726 ft³/s Oct. 9, gage height, 12.03 ft; minimum daily, 1.2 ft³/s June 6.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	13	15	16	9.7	12	12	2.7	2.4	6.2	4.2	5.1
2	6.1	12	14	16	10	11	11	2.4	1.8	3.2	5.3	3.4
3	6.3	15	12	15	9.0	11	12	3.3	1.6	3.2	5.1	2.9
4	6.5	16	10	14	9.1	12	12	8.4	2.3	4.2	3.4	4.0
5	6.1	15	10	15	14	12	11	4.3	2.2	2.3	7.9	4.0
6	5.5	18	10	14	16	11	11	3.1	1.2	2.0	10	4.0
7	4.7	15	11	15	12	10	10	3.6	1.3	2.2	4.1	4.0
8	4.6	13	12	13	11	11	11	4.6	1.4	1.7	4.6	4.0
9	157	14	14	11	11	9.7	18	3.0	1.5	1.5	4.0	4.0
10	28	14	14	12	11	9.4	17	3.6	2.0	1.5	3.2	5.2
11	21	13	14	11	9.8	10	41	3.1	1.9	2.3	2.7	3.0
12	21	14	12	11	9.4	19	13	2.8	1.5	104	1.6	2.8
13	18	11	15	15	11	17	11	2.2	2.4	46	11	3.7
14	16	13	18	18	9.5	14	12	1.8	1.8	24	47	4.0
15	15	9.9	13	22	10	14	10	2.2	3.1	3.0	55	2.9
16	15	9.5	12	21	9.7	14	17	2.2	2.6	3.0	6.1	2.7
17	18	10	17	18	9.6	13	20	2.6	1.6	3.0	30	2.9
18	16	11	17	17	9.5	12	7.2	2.4	1.3	3.0	14	4.9
19	14	14	17	15	9.4	11	8.0	2.0	1.4	3.0	17	6.4
20	14	13	16	11	9.3	11	7.2	1.7	1.9	3.2	83	5.6
21	15	17	16	12	9.5	14	5.8	1.4	2.0	17	98	8.1
22	13	12	15	11	9.4	12	6.1	1.8	1.9	6.4	78	3.8
23	11	13	15	10	14	12	5.2	2.0	1.6	3.9	141	3.2
24	13	13	15	11	12	12	12	2.4	1.8	4.0	116	7.6
25	12	14	15	9.5	11	13	5.6	2.5	5.4	4.1	25	4.8
26	12	12	15	13	11	13	6.9	2.7	28	7.6	6.7	13
27	12	15	16	11	12	12	3.7	2.7	143	186	46	11
28	12	18	19	9.6	12	11	2.8	2.2	100	27	85	14
29	11	16	17	10	---	9.2	57	2.0	44	7.4	28	8.7
30	8.8	18	17	9.6	---	8.3	4.3	1.9	3.0	4.4	66	4.9
31	11	---	17	9.5	---	8.0	---	2.0	---	2.6	49	---
TOTAL	530.5	411.4	450	416.2	300.9	368.6	380.8	85.6	367.9	492.9	1057.9	158.6
MEAN	17.1	13.7	14.5	13.4	10.7	11.9	12.7	2.76	12.3	15.9	34.1	5.29
MAX	157	18	19	22	16	19	57	8.4	143	186	141	14
MIN	4.6	9.5	10	9.5	9.0	8.0	2.8	1.4	1.2	1.5	1.6	2.7
AC-FT	1050	816	893	826	597	731	755	170	730	978	2100	315
CAL YR	1986	TOTAL	7909.6	MEAN	21.7	MAX	157	MIN	1.1	AC-FT	15690	
WTR YR	1987	TOTAL	5021.3	MEAN	13.8	MAX	186	MIN	1.2	AC-FT	9960	

GILA RIVER BASIN

09520500 GILA RIVER NEAR DOME, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1983 to September 1986.

WATER TEMPERATURE: October 1983 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 7,000 microsiemens Aug. 15, 1984; minimum observed, 849 microsiemens Jan. 14, 1985.

WATER TEMPERATURES: Maximum observed, 40.0°C Aug. 26, 1986; minimum observed, 7.0°C Dec. 13, 1985

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(00025)	(00300)	(00301)	
NOV 1986											
19...	1000	16	3150	7.80	20.0	16.0	2.2	766	9.0	92	
DEC 18...	1100	18	4000	8.05	18.0	12.0	7.8	770	12.0	112	
JAN 1987											
21...	0900	14	5000	7.80	11.0	5.5	2.1	772	12.0	96	
FEB 18...	0930	7.9	5110	8.00	17.0	11.5	6.7	765	11.1	103	
MAR 19...	0930	12	5000	7.80	20.0	13.0	2.3	760	9.7	94	
APR 16...	1030	70	1100	7.90	31.0	20.0	32	767	9.3	102	
MAY 20...	1030	1.8	4100	7.80	26.0	23.0	1.7	762	10.2	121	
JUN 17...	1205	1.0	2100	7.90	37.5	32.0	1.4	764	10.8	148	
JUL 20...	0830	3.6	1280	7.70	31.0	26.0	0.80	765	7.4	91	
AUG 19...	1045	100	950	8.00	34.5	28.5	2.5	765	8.0	103	
SEP 16...	0915	2.6	4250	7.90	28.0	21.5	1.1	763	8.1	93	
DATE		OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 1986											
19...	25	200	240	610	410	130	69	450	8	7.2	
DEC 18...	23	48	99	680	450	150	75	610	10	7.5	
JAN 1987											
21...	33	26	110	910	630	200	100	700	10	10	
FEB 18...	39	20	60	960	700	220	100	740	11	11	
MAR 19...	38	21	60	850	610	180	97	740	11	9.9	
APR 16...	26	110	420	310	170	76	29	110	3	4.4	
MAY 20...	<10	K8	K10	760	540	170	82	560	9	8.6	
JUN 17...	13	K6	--	440	270	99	47	260	6	5.5	
JUL 20...	<10	38	88	350	200	84	34	140	3	4.0	
AUG 19...	21	K30	43	200	61	64	9.7	82	3	4.1	
SEP 16...	38	260	K30	1000	760	240	100	530	7	7.6	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

271

09520500 GILA RIVER NEAR DOME, AZ--Continued

WATER QUALITY DATA

DATE	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
NOV 1986										
19...	250	0	203	540	610	0.70	--	1960	--	--
DEC 18...	290	0	234	600	950	0.80	--	2540	--	--
JAN 1987										
21...	350	0	284	730	1200	0.90	--	3220	--	--
FEB 18...	320	0	259	710	1300	1.0	--	3270	--	--
MAR 19...	290	0	238	690	1200	0.90	--	3210	--	--
APR 16...	170	0	136	250	110	0.30	--	687	--	--
MAY 20...	270	0	221	540	--	0.60	--	2480	--	--
JUN 17...	210	0	172	420	310	0.50	--	1310	--	--
JUL 20...	190	0	154	290	140	0.20	--	816	--	--
AUG 19...	170	0	139	230	70	0.30	82	606	626	0.82
SEP 16...	300	0	250	420	1100	0.50	--	2590	--	--

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	BORON, DIS- SOLVED (UG/L AS B) (01020)
NOV 1986									
19...	6	<0.100	0.020	1.3	1.3	--	--	0.030	650
DEC 18...	1	<0.100	0.040	0.56	0.60	--	--	0.010	830
JAN 1987									
21...	10	<0.100	0.120	0.38	0.50	--	--	0.020	1000
FEB 18...	24	<0.100	0.090	0.71	0.80	--	--	0.050	1100
MAR 19...	2	<0.100	0.070	1.1	1.2	--	--	0.040	1000
APR 16...	194	0.300	0.050	0.85	0.90	1.2	5.3	0.370	150
MAY 20...	<1	<0.100	0.060	0.64	0.70	--	--	0.020	30
JUN 17...	9	<0.100	0.040	0.66	0.70	--	--	0.030	420
JUL 20...	5	<0.100	0.060	0.34	0.40	--	--	<0.010	200
AUG 19...	11	0.100	0.020	0.38	0.40	0.50	2.2	0.020	110
SEP 16...	2	<0.100	0.080	0.32	0.40	--	--	<0.010	540

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09520500 GILA RIVER NEAR DOME, AZ--Continued

ADDITIONAL NUTRIENT ANALYSES

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 1986									
01...	1400	8.1	2560	8.20	33.0	28.0	754	9.5	124
NOV									
06...	0850	18	2510	7.90	20.5	14.0	758	9.2	90
DEC									
04...	1000	10	4400	8.20	16.0	10.5	769	10.5	95
JAN 1987									
07...	1115	17	3730	7.90	22.5	12.0	762	10.6	100
FEB									
04...	1015	7.9	5000	7.90	19.0	14.0	774	12.0	117
MAR									
05...	0930	13	4400	8.00	20.0	15.0	768	9.4	94
APR									
01...	1020	27	3200	7.90	28.0	16.0	765	10.2	104
MAY									
06...	1030	3.4	5740	7.90	34.0	25.0	770	9.6	117
JUN									
02...	0800	2.1	3600	7.50	29.0	23.0	764	7.6	89
JUL									
01...	0845	7.7	1150	7.70	29.0	24.0	762	7.8	93
AUG									
05...	0845	6.5	1200	7.80	25.5	27.0	764	5.0	63
SEP									
03...	0830	2.4	1150	7.80	29.0	26.0	770	6.4	78

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986									
01...	1880	6	0.300	0.070	0.33	0.40	0.70	3.1	0.020
NOV									
06...	1580	13	<0.100	0.030	0.77	0.80	--	--	0.020
DEC									
04...	2710	1	<0.100	0.050	0.25	0.30	--	--	<0.010
JAN 1987									
07...	2350	2	<0.100	0.070	0.43	0.50	--	--	0.010
FEB									
04...	3180	7	<0.100	0.120	1.4	1.5	--	--	0.020
MAR									
05...	2620	14	<0.100	0.060	1.0	1.1	--	--	0.050
APR									
01...	1880	109	0.100	0.060	1.3	1.4	1.5	6.6	0.030
MAY									
06...	3720	5	<0.100	0.090	0.51	0.60	--	--	0.020
JUN									
02...	2270	10	<0.100	0.040	0.56	0.60	--	--	0.010
JUL									
01...	710	1	<0.100	0.050	0.55	0.60	--	--	0.030
AUG									
05...	770	1	<0.100	0.040	1.5	1.5	--	--	0.020
SEP									
03...	733	6	<0.100	0.050	--	<0.20	--	--	0.030

< Actual value is known to be less than value shown.

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LOCATION.--Lat 32°43'54", long 114°37'55", in SW¹/₄SW¹/₄ sec.26, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on right bank 1,000 ft downstream from Yuma Main Canal wasteway, 0.6 mi downstream from former gaging station on Colorado River at Yuma, 1.1 mi northwest of downtown post office in Yuma, 5.2 mi downstream from Gila River, and 6.4 mi upstream from northerly international boundary.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft³/s Dec. 24, gage height, 16.29 ft; minimum daily, 802 ft³/s June 28.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7430	2960	4150	12100	11300	7600	1780	1780	1140	1310	1330	2190
2	7290	3030	3760	11800	10700	5610	1770	1750	1140	1310	1300	2190
3	7240	2930	3870	11900	8030	4830	1800	1740	1160	1280	1360	2270
4	7060	3500	3710	12500	7870	4190	1770	1740	1150	1300	1300	2230
5	7230	4790	3550	12200	7120	3310	1750	1730	1170	1280	1300	2130
6	7110	5390	3450	12200	6420	2670	1750	1720	1150	1270	1300	2090
7	6690	5070	4180	12200	5810	2400	1760	1650	1190	1280	1300	2100
8	6380	5840	3600	11600	6470	2780	1800	1650	1150	1260	1320	2180
9	4890	6790	3260	11900	5480	2630	1800	1530	1230	1240	1300	2110
10	5210	6280	3790	11800	4540	1800	1780	1470	1240	1270	1290	2020
11	5550	5530	3510	12500	4610	1930	1790	1330	1240	1280	1270	2090
12	5550	5600	3840	12000	4220	2220	1790	1380	1240	1260	1330	2160
13	4660	5820	4150	11700	3950	1940	1770	1350	1250	1320	1750	2340
14	4010	6230	5160	12000	4870	1970	1760	1270	1250	1350	3040	2290
15	3720	6700	5490	11600	4600	2420	1770	1270	1250	1270	3290	2190
16	3590	7270	7400	11500	3970	1870	1770	1270	1270	1230	2970	2200
17	3870	6890	8230	11700	3660	1700	1780	1250	1290	1200	1660	2220
18	3790	7840	8100	11600	3710	1890	1780	1250	1280	1240	1500	2230
19	3910	8050	7810	11800	3680	1930	1780	1240	1260	1280	1370	2160
20	3130	7450	8750	11500	3530	1920	1780	1250	1260	1260	1300	2270
21	2720	7370	10200	10900	3730	1940	1780	1250	1260	1270	1370	2270
22	2850	8010	10600	11200	3890	1980	1790	1260	1250	1270	1430	2270
23	2780	8290	11300	11800	3510	1910	1850	1250	1250	1290	1420	2340
24	2880	7310	12600	11600	3750	1810	1790	1250	1270	1250	1510	2050
25	3000	7180	13000	11900	3580	1800	1790	1330	1250	1230	1560	2070
26	2940	7160	12400	11400	3790	1790	1810	1250	1050	1200	1440	2140
27	3200	7520	12400	10900	5420	1840	1780	1240	963	1250	1460	2110
28	3050	6680	12600	10400	5060	1800	1790	1250	802	1350	1450	2060
29	3180	5700	11800	10600	---	1770	1780	912	1110	1360	2240	2160
30	2980	5100	11100	11200	---	1760	1780	1020	1290	1380	2210	2170
31	2860	---	11300	11000	---	1770	---	1180	---	1310	2240	---
TOTAL	140750	184280	229060	361000	147270	77780	53470	42812	35805	39650	50910	65300
MEAN	4540	6143	7389	11650	5260	2509	1782	1381	1193	1279	1642	2177
MAX	7430	8290	13000	12500	11300	7600	1850	1780	1290	1380	3290	2340
MIN	2720	2930	3260	10400	3510	1700	1750	912	802	1200	1270	2020
AC-FT	279200	365500	454300	716000	292100	154300	106100	84920	71020	78650	101000	129500
CAL YR	1986	TOTAL	3027660	MEAN	8295	MAX	18400	MIN	1930	AC-FT	6005000	
WTR YR	1987	TOTAL	1428087	MEAN	3913	MAX	13000	MIN	802	AC-FT	2833000	

COLORADO RIVER MAIN STEM

09521100 COLORADO RIVER BELOW YUMA MAIN CANAL
WASTEWAY, AT YUMA, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to current year.

REMARKS.--Water samples collected by U.S. Bureau of Reclamation. Unpublished weekly specific conductance, March 1972 to July 1977, available from district office in Tucson.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	OXYGEN DEMAND, CHEM- ICAL	COLI- FORM, FECAL, 0.7	
		(CFS) (00061)	(US/CM) (00095)	(UNITS) (00400)	(DEG C) (00020)	(DEG C) (00010)	(FTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(HIGH LEVEL) (MG/L) (00340)	(COLS./ 100 ML) (31625)	
OCT 1986													
15...	1400	3680	1110	8.00	30.0	21.0	9.5	765	8.8	99	12	160	
NOV													
20...	1400	7340	1000	7.70	27.0	17.5	6.6	766	9.8	102	13	72	
DEC													
17...	1050	8620	1010	8.00	13.0	18.0	7.6	767	10.6	112	12	92	
JAN 1987													
21...	1130	11200	950	7.90	12.5	9.5	9.3	774	11.7	101	13	25	
FEB													
19...	0940	3200	1100	8.00	15.0	13.0	6.1	765	10.3	98	13	64	
MAR													
19...	1420	1980	1210	7.90	22.0	17.5	7.0	760	9.6	101	10	24	
APR													
15...	0900	1780	1230	7.80	28.0	19.0	3.5	770	8.8	94	14	K69	
MAY													
21...	0845	1300	1380	7.90	22.0	21.0	4.3	765	8.2	92	<10	140	
JUN													
18...	0845	1280	1270	7.90	29.0	25.0	6.4	765	7.6	92	<10	110	
JUL													
20...	1045	1250	1370	7.90	34.0	27.0	3.7	762	7.5	95	<10	170	
AUG													
19...	0845	1280	1310	7.90	32.0	25.5	3.9	765	7.6	93	47	K200	
SEP													
16...	1045	2240	1350	7.90	30.0	24.0	10	765	8.3	99	29	280	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1986													
15...	120	310	160	78	28	120	3	3.8	190	0	154	260	
NOV													
20...	93	290	160	73	27	94	2	3.7	170	0	138	250	
DEC													
17...	56	280	150	71	26	91	2	3.7	160	0	132	230	
JAN 1987													
21...	41	270	130	66	25	88	2	4.7	160	0	134	240	
FEB													
19...	110	300	160	76	27	99	3	3.9	170	0	139	260	
MAR													
19...	50	330	180	82	30	130	3	4.1	180	0	144	290	
APR													
15...	110	340	180	87	30	140	3	4.2	190	0	159	290	
MAY													
21...	160	350	180	86	33	150	4	4.3	210	0	172	260	
JUN													
18...	190	350	180	88	31	140	3	4.1	200	0	166	310	
JUL													
20...	170	360	190	91	32	150	4	4.1	200	0	167	300	
AUG													
19...	320	360	200	91	33	150	4	4.6	200	0	166	300	
SEP													
16...	190	330	170	81	30	150	4	4.6	190	0	160	300	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09521100 COLORADO RIVER BELOW YUMA MAIN CANAL
WASTEWAY, AT YUMA, AZ--Continued

WATER QUALITY DATA

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1986												
15...	100	0.40	780	39	0.300	<0.010	--	0.70	1.0	4.4	0.020	160
NOV												
20...	88	0.30	648	21	0.300	<0.010	--	0.30	0.60	2.7	0.030	130
DEC												
17...	81	0.40	650	52	0.300	0.010	0.29	0.30	0.60	2.7	0.020	130
JAN 1987												
21...	93	0.40	613	68	0.300	<0.010	--	0.40	0.70	3.1	0.380	240
FEB												
19...	94	0.40	729	29	0.300	0.040	0.26	0.30	0.60	2.7	0.030	140
MAR												
19...	130	0.40	770	25	0.400	0.040	0.56	0.60	1.0	4.4	0.030	180
APR												
15...	130	0.50	797	34	0.300	0.030	0.27	0.30	0.60	2.7	0.090	180
MAY												
21...	150	0.40	867	<1	0.300	0.040	0.66	0.70	1.0	4.4	0.030	190
JUN												
18...	150	0.50	849	24	0.300	0.060	0.54	0.60	0.90	4.0	0.050	190
JUL												
20...	140	<0.10	852	3	0.300	0.040	0.86	0.90	1.2	5.3	0.050	200
AUG												
19...	150	0.30	847	6	0.300	0.020	0.38	0.40	0.70	3.1	0.040	200
SEP												
16...	150	0.10	859	18	0.300	0.020	0.48	0.50	0.80	3.5	<0.010	330

ADDITIONAL NUTRIENT ANALYSES

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 1986									
02...	0930	7390	970	8.00	21.5	20.0	767	8.9	98
NOV									
06...	1030	5280	1040	7.90	29.0	17.0	761	9.6	100
DEC									
03...	0945	3840	1090	8.00	18.0	13.5	769	9.9	94
JAN 1987									
07...	0920	12000	937	7.80	16.0	12.0	765	10.9	101
FEB									
05...	0945	8260	1000	8.00	20.0	12.0	770	10.8	99
MAR									
05...	1120	3190	1200	8.00	22.0	15.0	768	9.7	96
APR									
02...	0900	1830	1270	8.00	22.0	17.5	766	9.6	100
MAY									
06...	0900	1770	1290	8.00	29.5	22.0	772	8.5	96
JUN									
02...	0915	1190	1380	7.80	31.0	24.0	766	7.7	91
JUL									
01...	1015	1310	1260	7.90	33.5	26.0	762	8.1	100
AUG									
05...	1120	1280	1280	8.00	28.0	31.0	765	7.5	101
SEP									
03...	0945	2250	1350	8.10	34.5	27.5	770	7.5	94

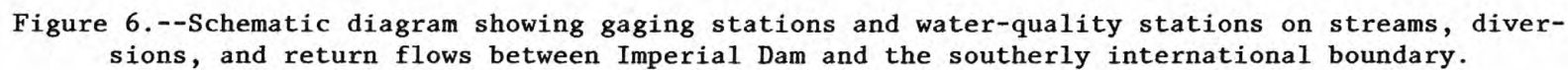
< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM
09521100 COLORADO RIVER BELOW YUMA MAIN CANAL
WASTEWAY, AT YUMA, AZ--Continued

ADDITIONAL NUTRIENT ANALYSES

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, TOTAL (MG/L) AS N) (00600)	NITRO- GEN, TOTAL (MG/L) AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L) AS P) (00665)
OCT 1986									
02...	700	42	0.400	0.030	--	<0.20	--	--	0.030
NOV									
06...	696	5	0.300	0.010	0.29	0.30	0.60	2.7	0.040
DEC									
03...	681	84	0.300	0.050	0.35	0.40	0.70	3.1	<0.010
JAN 1987									
07...	598	62	0.300	0.030	0.47	0.50	0.80	3.5	0.010
FEB									
05...	640	34	0.300	0.020	0.38	0.40	0.70	3.1	0.080
MAR									
05...	735	34	0.300	0.030	0.77	0.80	1.1	4.9	0.040
APR									
02...	810	21	0.300	0.050	0.45	0.50	0.80	3.5	0.020
MAY									
06...	827	24	0.300	0.030	0.27	0.30	0.60	2.7	0.030
JUN									
02...	918	41	0.300	0.050	0.55	0.60	0.90	4.0	0.030
JUL									
01...	793	14	0.300	0.050	0.55	0.60	0.90	4.0	0.080
AUG									
05...	850	23	0.300	0.040	0.86	0.90	1.2	5.3	0.050
SEP									
03...	863	13	0.300	0.030	--	<0.20	--	--	0.100

< Actual value is known to be less than value shown.



COLORADO RIVER MAIN STEM

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09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY
 ABOVE MORELOS DAM, NEAR ANDRADE, CA
 (National stream-quality accounting network)

LOCATION.--Lat 32°43'07", long 114°43'05", in NE¼SE¼ sec.21, T.8 S., R.24 W., Gila and Salt River meridian, in Arizona, Yuma County, Hydrologic Unit 15030108, on left bank at northerly international boundary, 0.5 mi east of Andrade, 1.1 mi upstream from Morelos Dam, 1.1 mi downstream from Rockwood Gate, and 6.4 mi downstream from gaging station on Colorado River below Yuma Main Canal wasteway.

DRAINAGE AREA.--246,700 mi², approximately, including all closed basins entirely within the drainage boundary, also 3,959 mi² in Great Divide basin in southern Wyoming.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1950 to current year. Prior to October 1958 published as "at international boundary."

GAGE.--Water-stage recorder. Datum of gage is mean sea level, National Geodetic Vertical Datum of 1929. Supplementary water-stage recorder 1,680 ft upstream at same datum.

REMARKS.--No estimated daily discharges. This record shows water passing northerly international boundary. Minor diversions to the United States below this station by pumping from ground water for irrigation in the floodway between river and Yuma Levee.

COOPERATION.--Records furnished by International Boundary and Water Commission, U.S. Section (discharge figures rounded in accordance with Geological Survey standard practice).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s Aug. 20, 1983; maximum elevation, 115.65 ft Aug. 18, 19, 1983; minimum discharge, 495 ft³/s Sept. 28, 1970; minimum elevation, 101.72 ft, Nov. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 19,300 ft³/s Dec. 25; minimum daily, 2,340 ft³/s May 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13900	10800	13300	18800	17400	15000	5220	3740	2350	4360	4110	4140
2	14200	11400	12600	17800	16800	14000	5840	3720	2400	3570	4360	4740
3	14200	10700	12500	17800	16400	13200	5560	4440	3180	3220	4590	3800
4	14300	9830	12200	18700	16000	12700	4280	3300	2850	3210	3780	3930
5	14600	10500	12600	18400	15200	11000	4840	3020	3020	4070	3750	3250
6	14300	10600	12500	18000	14600	10800	4800	2970	3350	3670	4120	3050
7	14200	10300	13200	18100	14700	10900	5210	2870	3670	3580	4800	3410
8	13800	10900	12600	17600	15200	11300	5310	2830	2940	3460	3450	4200
9	12300	11900	12100	17800	14400	11000	5170	2850	3510	3200	4130	4560
10	14800	11800	12600	17700	13600	9690	4340	4140	3780	3210	4720	4150
11	15000	10900	12300	18200	13000	9580	4190	2750	3080	3200	4620	4500
12	14900	10700	12600	17300	11900	9450	4360	3170	2890	3230	4550	3700
13	13900	10700	12900	16800	11800	9260	4540	3560	3750	3360	4830	3500
14	12900	10800	13800	16800	13800	9460	5160	2890	3770	3670	5870	3770
15	12400	11200	13800	16700	13600	10500	4510	2730	3070	3830	5270	3720
16	12300	11600	13200	16700	12500	9280	4250	2950	3080	4150	4640	4290
17	12700	11400	13600	17200	11700	8260	4430	4990	4400	3660	4780	4500
18	12700	12300	13100	17800	11700	8170	4240	3790	4100	3700	4280	4240
19	12800	13000	13700	17600	11200	8040	6920	3930	3810	4200	4820	4130
20	11800	12700	13800	16900	11300	7620	5940	3370	4300	4190	3800	4000
21	10900	12300	16100	16500	12200	6900	4620	2860	4440	3940	4020	3870
22	11100	12900	15900	16600	12700	6470	4480	3070	3670	4050	4370	3510
23	10700	13400	16800	17200	11400	5520	3900	2540	4030	3420	4240	4120
24	10700	12500	19100	17500	11500	5320	3550	3220	3820	3370	3750	4620
25	11100	12000	19300	18000	11300	4740	3220	2710	3920	3510	4560	4540
26	11300	11900	18500	17400	12200	4340	3240	3370	3690	3590	4620	4190
27	11100	12400	18100	16400	14000	4370	2960	3930	3590	3670	4540	3670
28	10900	12000	18000	15600	13800	4290	3170	3950	4090	4160	4210	3650
29	10800	12300	17300	15600	---	5010	3590	3040	4430	5020	4070	3790
30	10700	13400	16900	16300	---	5570	3650	2340	5280	4630	3810	4180
31	10800	---	18300	16700	---	4780	---	2540	---	4960	4210	---
TOTAL	392100	349130	453300	536500	375900	266520	135490	101580	108260	117060	135670	119720
MEAN	12650	11640	14620	17310	13420	8597	4516	3277	3609	3776	4376	3991
MAX	15000	13400	19300	18800	17400	15000	6920	4990	5280	5020	5870	4740
MIN	10700	9830	12100	15600	11200	4290	2960	2340	2350	3200	3450	3050
AC-FT	777700	692500	899100	1064000	745600	528600	268700	201500	214700	232200	269100	237500
CAL YR 1986	TOTAL	5388470	MEAN	14760	MAX	24100	MIN	6730	AC-FT	10690000		
WTR YR 1987	TOTAL	3091230	MEAN	8469	MAX	19300	MIN	2340	AC-FT	6131000		

COLORADO RIVER MAIN STEM

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to September 1984.

REMARKS.--Unpublished chemical analyses for water years 1961-68 available from district office in Tucson, Ariz.

WATER QUALITY DATA

		STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	
OCT 1986												
15...	1130	12300	1000	7.90	29.5	20.0	12	766	8.8	97	16	
NOV												
19...	1415	13000	1000	7.80	28.0	17.0	7.9	766	9.6	99	16	
DEC												
17...	1400	14200	1010	7.90	18.5	13.5	7.3	770	10.3	98	--	
JAN 1987												
22...	1115	16400	940	7.80	11.0	9.0	6.8	770	11.3	97	16	
FEB												
19...	1345	11000	1000	8.00	16.0	13.0	4.5	765	10.6	100	11	
MAR												
19...	1220	8280	1010	7.70	21.0	17.0	7.0	760	9.6	100	13	
APR												
16...	0815	4190	1000	7.90	25.0	20.0	7.6	767	8.5	93	18	
MAY												
21...	1130	2640	1210	8.10	27.0	24.0	4.3	766	8.7	103	<10	
JUN												
18...	1130	4110	1090	8.00	30.5	25.0	6.3	765	7.7	93	15	
JUL												
20...	1230	3970	1110	8.00	41.0	27.0	2.0	762	7.2	91	<10	
AUG												
20...	1230	3700	1110	7.90	39.5	28.0	3.0	766	7.8	100	14	
SEP												
16...	1230	4010	1190	7.90	34.0	24.0	7.1	765	8.4	100	32	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)
OCT 1986												
15...	53	47	290	150	72	27	98	3	3.7	180	0	
NOV												
19...	K340	280	290	150	72	26	91	2	4.0	170	0	
DEC												
17...	45	190	290	150	72	26	92	2	3.7	170	0	
JAN 1987												
22...	K11	K28	280	150	71	26	84	2	3.5	160	0	
FEB												
19...	K7	K15	290	160	74	26	90	2	3.9	160	0	
MAR												
19...	K12	21	310	180	76	28	100	3	3.8	160	0	
APR												
16...	30	41	320	180	81	29	110	3	4.0	180	0	
MAY												
21...	K23	22	340	170	85	30	120	3	4.3	200	0	
JUN												
18...	36	240	320	160	79	29	110	3	3.9	180	0	
JUL												
20...	21	90	320	170	82	29	120	3	3.9	180	0	
AUG												
20...	K60	130	300	150	73	28	100	3	4.4	180	0	
SEP												
16...	140	48	330	180	82	30	130	3	4.0	180	0	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

WATER QUALITY DATA

DATE	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG C, SUS- PENDE (MG/L) (00530)	NITRO- GEN NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1986											
15...	138	240	80	0.30	11	730	621	0.99	40	--	<0.010
NOV											
19...	138	250	81	0.30	--	627	--	--	10	--	--
DEC											
17...	138	230	78	0.30	9.7	635	594	0.86	--	--	<0.010
JAN 1987											
22...	132	240	70	0.30	--	600	--	--	27	--	--
FEB											
19...	128	240	81	0.30	9.9	627	603	0.85	19	--	<0.010
MAR											
19...	130	250	91	0.40	--	652	--	--	41	--	--
APR											
16...	146	260	100	0.40	10	699	683	0.95	17	0.260	0.010
MAY											
21...	162	250	120	0.40	--	771	--	--	14	--	--
JUN											
18...	152	260	100	0.40	11	<596	685	0.93	20	--	<0.010
JUL											
20...	152	270	93	<0.10	--	720	--	--	7	--	--
AUG											
20...	150	240	110	0.30	11	648	658	0.88	19	--	<0.010
SEP											
16...	149	240	130	0.40	--	777	--	--	15	--	--

DATE	NITRO- GEN NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1986											
15...	0.200	0.250	<0.010	<0.010	--	0.80	1.0	4.4	0.030	0.020	<0.010
NOV											
19...	0.300	--	<0.010	--	--	0.60	0.90	4.0	0.030	--	--
DEC											
17...	0.300	0.290	0.020	0.020	0.38	0.40	0.70	3.1	0.010	<0.010	<0.010
JAN 1987											
22...	0.400	--	0.040	--	0.26	0.30	0.70	3.1	0.170	--	--
FEB											
19...	0.300	0.320	0.020	0.040	1.2	1.2	1.5	6.6	0.010	<0.010	0.010
MAR											
19...	0.300	--	0.040	--	0.66	0.70	1.0	4.4	0.040	--	--
APR											
16...	0.300	0.270	0.050	0.060	0.35	0.40	0.70	3.1	0.030	0.010	<0.010
MAY											
21...	0.300	--	0.060	--	0.64	0.70	1.0	4.4	0.030	--	--
JUN											
18...	0.500	0.300	0.070	0.050	0.53	0.60	1.1	4.9	0.050	<0.010	<0.010
JUL											
20...	0.200	--	0.060	--	0.64	0.70	0.90	4.0	0.030	--	--
AUG											
20...	0.200	0.190	0.040	0.040	0.46	0.50	0.70	3.1	0.030	0.010	<0.010
SEP											
16...	0.300	--	0.040	--	0.36	0.40	0.70	3.1	<0.010	--	--

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 1986											
15...	--	<10	3	2	99	<0.5	130	1	1	11	<1
NOV											
19...	--	--	3	2	90	--	130	<1	<1	<1	<1
DEC											
17...	--	--	3	2	93	--	--	<1	<1	<1	<1
JAN 1987											
22...	--	--	3	2	93	--	120	<1	<1	3	<1
FEB											
19...	0.03	10	3	2	100	<0.5	130	<1	<1	<1	<1
MAR											
19...	--	--	3	2	96	--	140	<1	<1	<1	<1
APR											
16...	--	<10	3	2	93	<0.5	150	<1	<1	4	<1
MAY											
21...	--	--	4	2	93	--	160	<1	<1	2	<1
JUN											
18...	--	--	2	3	100	--	150	<1	<1	<1	<1
JUL											
20...	--	--	3	2	91	--	150	<1	<1	<1	<1
AUG											
20...	--	<10	3	2	99	<0.5	--	<1	<1	4	<1
SEP											
16...	--	--	2	1	90	--	190	<1	<1	13	<1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

WATER QUALITY DATA

DATE	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 1986											
15...	<3	20	1	1200	<3	5	<5	47	90	6	<0.10
NOV 19...	--	8	4	760	<3	12	<5	--	70	5	--
DEC 17...	--	11	2	1300	3	6	<5	--	90	8	--
JAN 1987											
22...	--	9	2	1900	3	13	<5	--	100	6	--
FEB 19...	<3	10	2	1000	4	10	<5	45	60	7	<0.10
MAR 19...	--	17	3	510	3	80	<5	--	50	11	--
APR 16...	<3	12	<1	340	<3	16	<5	51	60	12	0.10
MAY 21...	--	6	2	280	6	<5	<5	--	80	18	--
JUN 18...	--	15	1	390	<10	28	<5	--	60	10	--
JUL 20...	--	4	<1	440	4	26	<5	--	60	6	--
AUG 20...	<3	7	2	390	6	<5	<5	41	70	3	0.10
SEP 16...	--	4	2	780	<3	<5	<5	--	100	6	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
OCT 1986											
15...	<0.1	<10	<1	3	2	<1.0	940	<6	160	6	--
NOV 19...	--	--	--	2	2	<1.0	--	--	20	4	--
DEC 17...	--	--	--	3	2	<1.0	--	--	20	10	5.1
JAN 1987											
22...	--	--	--	2	2	<1.0	--	--	10	4	--
FEB 19...	<0.1	10	<1	2	2	<1.0	930	<6	10	14	--
MAR 19...	--	--	--	1	2	<1.0	--	--	10	<3	--
APR 16...	0.1	<10	3	2	2	<1.0	1000	<6	<10	4	--
MAY 21...	--	--	--	2	2	<1.0	--	--	<10	10	--
JUN 18...	--	--	--	2	2	<1.0	--	--	<10	20	12
JUL 20...	--	--	--	2	2	<1.0	--	--	120	5	--
AUG 20...	<0.1	10	4	2	2	<1.0	1000	<6	<10	7	--
SEP 16...	--	--	--	2	2	<1.0	--	--	40	5	--

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1986										
15...	--	--	--	--	--	--	--	19	192	6380
NOV 19...	--	--	--	--	--	--	--	16	121	4250
DEC 17...	<0.4	7.7	1.2	5.5	1.1	0.09	3.5	18	318	12200
JAN 1987										
22...	--	--	--	--	--	--	--	90	504	22300
FEB 19...	--	--	--	--	--	--	--	81	225	6680
MAR 19...	--	--	--	--	--	--	--	31	30	671
APR 16...	--	--	--	--	--	--	--	89	21	238
MAY 21...	--	--	--	--	--	--	--	93	22	157
JUN 18...	0.4	7.7	0.8	5.3	0.8	0.10	3.3	92	25	277
JUL 20...	--	--	--	--	--	--	--	93	21	225
AUG 20...	--	--	--	--	--	--	--	97	25	250
SEP 16...	--	--	--	--	--	--	--	76	39	422

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

283

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

ADDITIONAL NUTRIENT ANALYSES

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
							(00025)	(00300)	(00301)	
OCT 1986										
02...	1230	14100	960	8.00	22.0	20.0	767	9.1	100	
NOV										
06...	1215	10500	1000	7.90	22.0	17.0	762	9.2	95	
DEC										
03...	1220	12600	965	8.00	20.0	13.5	770	10.0	95	
JAN 1987										
07...	1400	18100	925	8.00	23.0	13.0	760	10.8	103	
FEB										
04...	1345	16900	936	7.80	21.5	13.0	774	11.0	103	
MAR										
05...	1400	10300	1050	8.00	24.0	15.0	768	10.4	103	
APR										
01...	1445	5800	1100	8.00	27.0	19.0	766	9.5	102	
MAY										
06...	1300	2820	1180	8.00	36.5	24.0	770	9.5	112	
JUN										
02...	1115	2170	1290	7.80	38.0	25.5	766	8.3	101	
JUL										
01...	1130	4670	1110	7.70	36.0	26.0	762	7.9	98	
AUG										
05...	1310	3700	1120	7.90	34.0	31.0	764	7.3	98	
SEP										
03...	1100	3770	1180	8.00	36.0	28.0	770	7.8	99	
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986										
02...	680	24	0.300	0.050	0.25	0.30	0.60	2.7	0.030	
NOV										
06...	642	19	0.300	0.030	1.3	1.3	1.6	7.1	0.140	
DEC										
03...	617	76	0.300	0.040	0.26	0.30	0.60	2.7	<0.010	
JAN 1987										
07...	592	40	0.300	0.040	0.36	0.40	0.70	3.1	0.060	
FEB										
04...	609	33	0.300	0.050	0.85	0.90	1.2	5.3	0.050	
MAR										
05...	641	14	0.300	0.020	0.58	0.60	0.90	4.0	0.040	
APR										
01...	707	18	0.300	0.060	0.44	0.50	0.80	3.5	0.030	
MAY										
06...	758	15	0.300	0.060	0.54	0.60	0.90	4.0	0.030	
JUN										
02...	833	13	0.300	0.050	0.45	0.50	0.80	3.5	0.030	
JUL										
01...	705	24	0.200	0.070	0.63	0.70	0.90	4.0	0.070	
AUG										
05...	720	9	0.200	0.020	0.78	0.80	1.0	4.4	0.040	
SEP										
03...	770	13	0.200	0.050	0.35	0.40	0.60	2.7	0.040	

< Actual value is known to be less than value shown.

Two major diversions for irrigation water are located at Imperial Dam, the Gila Gravity Main Canal, and the All-American Canal. The Gila Gravity Main Canal diverts water for irrigation in the Gila Project which is located entirely in Arizona. The All-American Canal diverts water for irrigation in Imperial Valley in California and the Yuma Project in Arizona and California. Between Imperial Dam and the northerly international boundary with Mexico, water is diverted from these principal canals for the individual diversions of the Gila and Yuma Projects.

Between Imperial Dam and the northerly international boundary with Mexico, flows from irrigated areas enter the Colorado River through many drains and wasteways in Arizona and California. Other return flows enter the Gila River below the gaging station near Dome (09520500).

See figure 6 on p. 278 for schematic diagram showing location of diversions and return flows.

Diversions at and below Imperial Dam, AZ-CA

09522500. GILA GRAVITY MAIN CANAL AT IMPERIAL DAM.--See p. 288.

09522600. NORTH GILA MAIN CANAL.

LOCATION.--Water-stage recorder and sharp-crested weir, in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.23, T.7 S., R.22 W., Yuma County, Hydrologic Unit 15030107, about 700 ft downstream from turnout from Gila Gravity Main Canal and 1.2 mi south of Laguna Dam.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in North Gila Valley.

09522650. NORTH GILA MAIN CANAL NO. 2.

LOCATION.--Water-stage recorder in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.11, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, at turnout from Gila Gravity Main Canal and 3.5 mi downstream from turnout to North Gila Main Canal.

PERIOD OF RECORD.--June 1969 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in North Gila Valley.

09522700. WELLTON-MOHAWK CANAL.

LOCATION.--Three water-stage recorders to record forebay and tailrace elevations and gate openings since June 1, 1974, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.17, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, at turnout from Gila Gravity Main Canal.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in the Dome, Wellton, and Mohawk areas of the lower Gila Valley.

COOPERATION.--Supplementary record of gate openings furnished by Wellton-Mohawk Irrigation District.

09522800. SOUTH GILA MAIN CANAL.

LOCATION.--Sparling flowmeter, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.36, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 110 ft downstream from turnout from Gila Gravity Main Canal.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in South Gila Valley.

COOPERATION.--Daily discharges furnished by Yuma Irrigation District.

09522850. GILA GRAVITY MAIN CANAL AT PUMPING PLANT.

LOCATION.--Intake consisting of 4 pumps, in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.1, T.9 S., R.22 W., Yuma County, Hydrologic Unit 15070201, at end of Gila Gravity Main Canal and head of Yuma Mesa canals.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation on Yuma Mesa and in Yuma Auxiliary Division of Yuma Valley.

COOPERATION.--Records furnished by Yuma Mesa Irrigation and Drainage District.

09522900. UNIT B MAIN CANAL.

LOCATION.--Headworks in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.9 S., R.23 W., Yuma County, Hydrologic Unit 15030108, 5 mi north-east of Somerton.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in Yuma Auxiliary Division of the Yuma Project.

COOPERATION.--Records furnished by Yuma Mesa Irrigation and Drainage District.

09523000. ALL-AMERICAN CANAL NEAR IMPERIAL DAM.--See p. 289.

Diversions at and below Imperial Dam, AZ-CA--Continued

09523200. RESERVATION MAIN CANAL.

LOCATION.--Water-stage recorder and, since Sept. 5, 1975, gate-opening recorder, in NE¼NE¼ sec.35, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, at turnout from All-American Canal and 5.8 mi downstream from Imperial Dam.

PERIOD OF RECORD.--August 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record computed from rated gate on turnout from All-American Canal and shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

COOPERATION.--Record of gate openings furnished by Bard Water District.

09523400. TITSINK CANAL.

LOCATION.--Water-stage recorder and Parshall flume in NE¼SW¼ sec.27, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 0.6 mi downstream from turnout from All-American Canal and 7.2 mi downstream from Imperial Dam.

PERIOD OF RECORD.--August 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09523600. YAQUI CANAL.

LOCATION.--Water-stage recorder and Parshall flume in NW¼SE¼ sec.31, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 700 ft downstream from turnout from All-American Canal and 11.1 mi downstream from Imperial Dam.

PERIOD OF RECORD.--June 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09523800. PONTIAC CANAL.

LOCATION.--Water-stage recorder and Parshall flume in NW¼SW¼ sec.1, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 500 ft downstream from turnout from All-American Canal and 13.1 mi downstream from Imperial Dam.

PERIOD OF RECORD.--August 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09523900. WALAPAI CANAL.

LOCATION.--Water-stage recorder and sharp-crested weir in SE¼SE¼ sec.10, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 100 ft downstream from siphon-drop powerplant forebay and 4.3 mi north of Yuma.

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09524000. YUMA MAIN CANAL AT SIPHON-DROP POWERPLANT.--See p. 290.

09524500. DIVERSIONS FROM YUMA MAIN CANAL BETWEEN SIPHON-DROP POWERPLANT AND YUMA MAIN CANAL WASTEWAY.

LOCATION.--Turnouts for several canals diverting from Yuma Main Canal between siphon-drop powerplant, 4 mi north of Yuma, and Yuma Main Canal wasteway, 1,600 ft upstream from Colorado River siphon, in Imperial County.

PERIOD OF RECORD.--October 1940 to current year (monthly discharge only). Prior to October 1947 in WSP 1313. October 1947 to September 1965 published as supplemental table with records for Yuma Main Canal at siphon-drop powerplant.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

COOPERATION.--Record furnished by Bard Water District.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Diversions at and below Imperial Dam, AZ-CA--Continued

09525500. YUMA MAIN CANAL BELOW COLORADO RIVER SIPHON.--See p. 292.

09526000. DIVERSION FROM YUMA MAIN CANAL FOR MUNICIPAL SUPPLY FOR YUMA.

LOCATION.--Sparling and Venturi flowmeters, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.35, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, on two pipelines, respectively, about 1,000 ft downstream from intake, which is at outlet of Colorado River siphon of Yuma Main Canal, on Arizona side of Colorado River at Yuma.

PERIOD OF RECORD.--June 1945 to current year (monthly discharge only). Prior to October 1973 published as a supplemental table with records for Yuma Main Canal below Colorado River siphon.

REMARKS.--Record shows water for Yuma municipal supply. Figures shown in table herewith are also included in record for Yuma Main Canal below Colorado River siphon (sta 09525500).

COOPERATION.--Records furnished by Yuma County Water Users' Association.

09527500. ALL-AMERICAN CANAL BELOW PILOT KNOB WASTEWAY.--See p. 295.

Diversions at and below Imperial Dam, AZ-CA--Continued

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	North Gila Main Canal 09522600	North Gila Main Canal No. 2 09522650	Wellton-Mohawk Canal 09522700	South Gila Main Canal 09522800	Gila Gravity Main Canal at pumping plant 09522850
October	3,670	1,250	21,420	4,180	18,100
November	3,000	623	19,960	3,480	13,450
December	1,860	512	13,330	2,630	7,150
CAL YR 1986	41,210	10,020	416,560	37,990	257,550
January	2,630	680	17,950	2,140	14,460
February	2,750	567	27,600	2,490	13,220
March	3,250	703	34,520	2,810	15,700
April	3,480	629	40,150	3,710	24,570
May	4,900	779	44,410	3,260	28,770
June	4,820	871	50,030	2,770	32,260
July	3,610	795	52,510	2,410	34,490
August	2,420	368	51,040	3,590	31,570
September	3,530	810	45,110	4,560	25,380
WTR YR 1987	39,920	8,590	418,030	38,020	259,120

Month	Unit B Main Canal 09522900	Reservation Main Canal 09523200	Titsink Canal 09523400	Yaqui Canal 09523600	Pontiac Canal 09523800
October	2,450	3,820	49	576	428
November	1,930	2,510	16	415	459
December	1,340	1,990	28	602	202
CAL YR 1986	33,100	48,050	659	8,690	5,460
January	1,530	2,650	13	562	288
February	1,680	3,650	27	764	421
March	2,260	4,380	75	865	304
April	2,910	5,760	68	1,090	684
May	3,020	4,720	59	856	497
June	3,760	5,130	70	1,010	524
July	4,150	5,740	80	1,090	817
August	3,460	3,760	46	824	499
September	3,140	3,580	0	595	840
WTR YR 1987	31,630	47,700	531	9,240	5,960

Month	Walapai Canal 09523900	Diversions from Yuma Main Canal 09524500	Diversions from Yuma Main Canal for Yuma supply 09526000
October	416	537	1,380
November	516	217	1,230
December	347	265	1,130
CAL YR 1986	5,470	5,980	17,010
January	384	411	1,100
February	484	589	1,060
March	439	521	1,250
April	717	743	1,490
May	605	243	1,700
June	735	629	1,850
July	796	632	1,920
August	562	477	1,860
September	941	747	1,660
WTR YR 1987	6,940	6,010	17,430

NOTE.--Yearly totals given above have been computed from total cfs-days and may differ slightly from the summation of monthly total acre-feet on occasion.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09522500 GILA GRAVITY MAIN CANAL AT IMPERIAL DAM, AZ-CA

LOCATION.--Lat 32°52'34", long 114°27'18", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.6 S., R.21 W., Gila and Salt River meridian, Yuma County, Hydrologic Unit 15030107, on right bank 3,200 ft downstream from intake at east end of Imperial Dam.

PERIOD OF RECORD.--August 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those below 500 ft³/s, which are fair. Gila Gravity Main Canal diverts water from Colorado River at left end of Imperial Dam for irrigation of lands in the Gila Project area in Arizona. Diversions to this canal began Aug. 17, 1943. Diversions to North Gila Valley from this canal began Dec. 16, 1954.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,240 ft³/s May 25, 1965; no flow at canal intake at times in several years when intake gates were closed.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	433	.00	140	504	287	1420	1670	1670	1890	1360	1950
2	1280	388	.00	479	921	902	1080	1170	2030	2110	1150	1960
3	1050	1180	.00	388	854	970	1150	677	1840	1930	1610	2130
4	861	1100	.00	228	921	1080	651	1600	1900	990	1770	1980
5	522	1080	56	676	917	1110	488	1910	1690	992	1710	1550
6	1010	903	628	725	787	713	1360	2030	1470	1770	1430	1430
7	1220	761	301	734	855	726	1740	1960	962	1780	1420	2080
8	1230	402	1030	679	500	552	1680	1540	1830	1880	937	2090
9	1020	367	808	770	1080	991	1470	1030	1680	2160	793	2090
10	445	876	706	540	1360	1150	1550	787	1690	1990	1520	2090
11	229	1060	815	165	1200	1010	988	2030	1590	1480	1700	2060
12	297	919	689	865	1160	877	691	1970	1640	998	1930	1660
13	823	692	468	899	975	928	1410	1690	1130	1790	1940	1420
14	828	568	529	746	593	588	1660	1700	903	1590	1860	2090
15	980	394	802	1000	751	383	1760	1540	1460	1840	1500	2080
16	920	359	725	1000	1240	1210	1800	909	1500	1950	1100	2090
17	899	1020	962	955	1440	1390	1080	562	1710	1520	1700	2050
18	496	731	772	703	1300	1470	623	1530	1890	1120	1560	1600
19	437	746	524	908	1350	1230	360	1730	1740	802	1660	1310
20	1290	814	517	914	1070	946	1650	1680	1240	1870	1730	1100
21	1190	626	353	770	609	809	1700	1610	922	1820	1560	1840
22	1130	328	724	634	522	480	1680	1440	1480	1810	1180	1840
23	983	456	455	542	1150	1340	1540	1050	1640	1970	959	1820
24	643	932	160	477	1200	1680	1410	861	1810	2020	1430	1810
25	531	1200	71	433	1070	1460	1200	1330	1920	1390	1570	1550
26	544	1340	235	626	915	1760	700	1540	1980	1040	1750	1180
27	858	951	307	854	682	1220	1740	1420	1490	1770	1820	948
28	757	841	172	814	500	773	1660	1560	1090	1770	1770	1420
29	877	383	633	789	---	646	1730	1500	1810	1890	1340	1420
30	884	.00	632	618	---	1360	1830	1170	1800	1630	1270	1610
31	732	---	428	488	---	1640	---	818	---	1650	1850	---
TOTAL	26106	21850.00	14502.00	20559	26426	31681	39801	44014	47507	51212	46879	52248
MEAN	842	728	468	663	944	1022	1327	1420	1584	1652	1512	1742
MAX	1290	1340	1030	1000	1440	1760	1830	2030	2030	2160	1940	2130
MIN	229	.00	.00	140	500	287	360	562	903	802	793	948
AC-FT	51780	43340	28760	40780	52420	62840	78950	87300	94230	101600	92980	103600
CAL YR	1986	TOTAL	409619.00	MEAN	1122	MAX	2060	MIN	.00	AC-FT	812500	
WTR YR	1987	TOTAL	422785.00	MEAN	1158	MAX	2160	MIN	.00	AC-FT	838600	

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09523000 ALL-AMERICAN CANAL NEAR IMPERIAL DAM, AZ-CA

LOCATION.--Lat 32°52'17", long 114°28'47", in SE¼NW¼ sec.17, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on left bank 6,000 ft downstream from intake at west end of Imperial Dam and 13.7 mi upstream from turnout to Yuma Main Canal.

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1939 monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above National Geodetic Vertical Datum of 1929 (subject to undetermined changes caused by earthquake of May 18, 1940). Since Aug. 21, 1952, auxiliary water-stage recorder 18.5 mi downstream from base gage.

REMARKS.--No estimated daily discharges. Records excellent. All-American Canal diverts water from Colorado River at Imperial Dam. Water is used for power development and for irrigation in Yuma, Coachella, and Imperial Valleys. Water can be released back to the river through Pilot Knob powerplant and wasteway for power, regulatory purposes, or for downstream use in Mexico. First diversion to All-American Canal began October 1938, but prior to October 1940 was used only for priming canal.

COOPERATION.--Daily discharge figures furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 14,400 ft³/s, Apr. 17, July 15, 16, 1980; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12400	12300	12300	8610	8950	11300	11100	9150	7020	9030	9110	7510
2	12400	12300	12600	8580	9510	12100	11200	8590	7340	8000	9260	8650
3	12400	12300	12600	8570	12600	12500	10300	8970	7980	7520	9940	7700
4	12400	10500	12600	8600	12700	12700	8550	8360	7950	7490	9720	7360
5	12400	9880	12400	8840	12700	12700	8850	8480	8130	8110	9920	6650
6	12300	9960	11600	8820	12700	12700	9110	8580	7960	8650	10100	6160
7	12300	9690	11400	8850	12500	12600	9200	8570	7720	9000	10200	6530
8	12300	9470	12300	8800	12100	12000	10000	8320	7400	9010	8970	7470
9	12300	8760	12400	8780	12700	12700	9840	7980	7840	8950	8960	8170
10	11000	9160	12100	8810	12700	12700	8840	8760	8290	8670	9340	7960
11	10600	9680	12100	8830	12700	12700	8700	8010	7760	8550	9740	8040
12	11300	9920	11700	8810	12700	12700	8470	8660	7700	8410	9740	7070
13	11800	9920	11400	8830	12700	12700	9520	9070	8320	8640	10100	6730
14	12000	9420	10400	8830	12500	12700	10200	8510	8030	9170	9930	6800
15	12200	9020	10200	8780	12400	12800	10200	8010	7940	9530	8550	7270
16	12000	8790	7400	8760	12600	12600	9970	7420	8560	10000	8210	8220
17	11700	8960	6170	8780	12500	12600	9570	8500	9260	9070	9120	7920
18	11700	8350	7130	8810	12600	12200	8280	7430	8970	8800	9470	7520
19	11900	7930	8610	8620	12600	12200	9970	8100	8630	8940	10300	6980
20	12400	8290	8700	8620	12500	11300	9490	7820	8550	8840	9970	6530
21	12400	8270	8550	8630	12600	9760	9420	7290	8100	9240	9460	6720
22	12400	8090	8690	9010	12500	9940	9370	7250	7990	9300	9070	7040
23	12400	7880	8640	9030	12600	9240	9350	6860	8840	9040	8290	7550
24	12400	8030	8660	9030	12600	9390	9020	7270	8820	8860	8270	8310
25	12400	8300	8700	9020	12600	9610	8300	7470	9000	8470	9240	7910
26	12400	7880	8670	8960	12200	9380	8640	7590	8980	8220	9380	7140
27	12300	7680	8650	8980	11600	9050	8520	7790	8960	8750	9210	6700
28	12300	8360	8620	8970	11600	8100	9150	8080	8970	9420	8660	7090
29	12300	9510	8630	8960	---	9220	9600	7230	9350	10300	7330	7470
30	12300	10900	8620	8940	---	10300	9700	6650	10200	10500	6890	7870
31	12300	---	8660	8930	---	10100	---	6820	---	10400	7280	---
TOTAL	375700	279500	311200	273390	343260	352590	282430	247590	250560	276880	283730	221040
MEAN	12120	9317	10040	8819	12260	11370	9414	7987	8352	8932	9153	7368
MAX	12400	12300	12600	9030	12700	12800	11200	9150	10200	10500	10300	8650
MIN	10600	7680	6170	8570	8950	8100	8280	6650	7020	7490	6890	6160
AC-FT	745200	554400	617300	542300	680900	699400	560200	491100	497000	549200	562800	438400
CAL YR 1986	TOTAL	4120130	MEAN	11290	MAX	12600	MIN	6170	AC-FT	8172000		
WTR YR 1987	TOTAL	3497870	MEAN	9583	MAX	12800	MIN	6160	AC-FT	6938000		

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09524000 YUMA MAIN CANAL AT SIPHON-DROP POWERPLANT, NEAR YUMA, AZ

LOCATION.--Lat 32°46'36", long 114°38'05", in SE&SE& sec.10, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on right bank at downstream end of powerplant, 500 ft from turnout from All-American Canal to Yuma Main Canal, 4.0 mi north of Yuma, and 14.9 mi downstream from intake of All-American Canal at Imperial Dam.

PERIOD OF RECORD.--July 1926 to current year. Prior to October 1938, monthly discharge only published in WSP 1313. Diversions from All-American Canal and Yuma Main Canal previously published with this record are listed separately in this report.

GAGE.--Water-stage recorders on two rated by-pass gates to record gate openings prior to Sept. 14, water-stage recorder and rectangular weir thereafter. Datum of gage is 136.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records are fair above 100 ft³/s and poor below. Discharge through bypass gates determined from relationship of forebay elevation and gate openings. Flow to Yuma Main Canal regulated by opening and closing bypass gates. Gates on All-American Canal open and close automatically to maintain a constant forebay elevation. Records of daily discharge show quantity of water diverted from All-American Canal to Yuma Main Canal, except that diverted from forebay of powerplant to Walapai Canal. (See sta 09523900.) Flow through turbines of powerplant was discontinued Dec. 8, 1972.

COOPERATION.--Gate opening changes and forebay elevations (prior to Aug. 29, 1986) furnished by Yuma County Water Users' Association.

EXTREMES.--1930 to current year: Maximum daily discharge, 2,040 ft³/s Nov. 11, 1943; no flow for several days in 1937-39, 1945.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	684	500	137	151	101	106	598	528	526	533	665	521
2	670	327	175	151	139	138	580	332	644	563	573	546
3	722	226	248	233	174	204	532	205	600	545	608	558
4	742	342	499	242	249	259	462	361	592	450	755	547
5	706	320	474	241	528	535	171	566	587	383	805	505
6	660	612	351	279	441	571	227	696	573	453	772	388
7	638	601	283	307	278	406	297	721	456	584	723	351
8	637	472	227	285	156	316	386	735	364	601	606	403
9	621	323	327	252	187	343	680	637	398	610	334	466
10	576	383	391	179	208	433	729	487	494	548	359	479
11	439	453	312	133	316	531	697	484	514	505	382	444
12	376	497	311	170	561	516	560	621	459	405	419	443
13	438	522	266	329	460	515	570	730	410	503	685	406
14	530	443	159	367	386	411	705	795	298	610	701	503
15	560	382	184	349	386	168	730	764	412	703	642	582
16	547	244	216	333	396	235	782	478	559	697	572	623
17	523	235	176	307	433	341	705	25	624	577	565	599
18	442	254	329	244	434	375	491	25	632	492	575	562
19	417	256	378	275	399	502	227	25	611	393	576	536
20	574	390	330	391	335	486	308	25	570	488	585	457
21	585	401	224	354	278	422	380	25	495	550	535	533
22	545	334	323	322	204	281	431	231	462	632	446	621
23	533	230	315	316	325	259	645	587	534	736	292	732
24	485	266	141	301	283	424	707	487	544	796	357	657
25	458	373	71	250	457	509	625	501	490	671	500	692
26	442	406	135	265	419	509	545	532	521	295	608	696
27	498	361	201	346	456	464	613	582	507	235	621	660
28	533	416	169	393	297	410	727	624	405	270	591	692
29	575	377	288	361	---	333	707	634	411	352	478	728
30	571	190	320	352	---	441	659	535	459	722	384	800
31	526	---	205	242	---	556	---	397	---	798	448	---
TOTAL	17253	11136	8165	8720	9286	11999	16476	14375	15151	16700	17162	16730
MEAN	557	371	263	281	332	387	549	464	505	539	554	558
MAX	742	612	499	393	561	571	782	795	644	798	805	800
MIN	376	190	71	133	101	106	171	25	298	235	292	351
AC-FT	34220	22090	16200	17300	18420	23800	32680	28510	30050	33120	34040	33180
CAL YR	1986	TOTAL	163193	MEAN	447	MAX	887	MIN	20	AC-FT	323700	
WTR YR	1987	TOTAL	163153	MEAN	447	MAX	805	MIN	25	AC-FT	323600	

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LOCATION.--Lat 32°44'00", long 114°37'20", in SW¼ sec.26, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, 45 ft downstream from wasteway gates from Yuma Main Canal which are 1,645 ft upstream from intake of Colorado River siphon on Yuma Main Canal, 0.5 mi north of Yuma, and 3.2 mi downstream from siphon-drop powerplant on Yuma Main Canal.

GAGE.--Water-stage recorder for low flows only. Datum of gage is 122.51 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1968, gate-opening record used for low flows only.

EXTREMES.--1930 to current year: Maximum daily discharge, 2,020 ft³/s Dec. 24, 25, 1948; no flow for several days in 1937-39, 1945, 1950, 1971.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	10	11	18	15	11	25	16	12	12	13
2	14	9.9	10	11	15	14	11	16	16	13	12	10
3	21	7.7	10	11	12	13	14	17	15	13	11	11
4	22	79	12	11	14	13	19	22	15	13	11	14
5	19	14	15	19	13	13	15	16	14	13	11	9.6
6	15	13	15	18	14	13	15	16	14	13	11	10
7	12	13	12	12	12	13	15	16	14	13	11	9.2
8	13	13	11	12	12	13	15	15	14	13	11	9.2
9	8.3	13	11	11	12	16	15	15	14	11	16	10
10	8.4	12	11	11	12	15	14	18	14	13	11	10
11	8.5	11	15	10	13	14	15	21	14	16	11	9.9
12	8.2	11	13	9.9	12	14	16	16	15	12	13	13
13	7.7	11	12	9.7	12	14	14	15	17	12	11	9.5
14	7.7	12	11	9.4	12	14	14	14	15	12	11	13
15	7.7	11	11	9.3	12	14	14	17	14	12	11	14
16	7.3	12	11	9.2	12	13	14	13	14	15	11	12
17	13	12	15	8.9	11	12	14	11	17	23	11	12
18	7.7	12	11	8.5	11	15	14	8.8	16	14	10	10
19	7.8	13	11	8.9	11	13	14	8.1	16	13	11	10
20	9.2	14	11	11	9.5	16	14	7.7	16	18	10	11
21	13	12	11	8.5	10	16	13	7.2	19	19	15	10
22	8.5	18	11	8.4	13	13	13	20	19	15	13	11
23	7.8	13	10	8.1	12	13	13	13	13	19	11	86
24	7.7	13	11	8.2	91	13	13	13	11	13	11	15
25	7.7	13	11	7.8	61	12	13	13	15	15	10	11
26	7.7	11	15	8.3	56	12	13	14	11	13	10	13
27	10	11	11	8.0	61	12	13	13	11	13	17	11
28	8.9	10	11	8.7	20	12	13	15	12	13	30	11
29	9.0	10	11	8.7	---	12	13	16	11	14	18	10
30	11	10	11	10	---	11	13	17	16	21	11	19
31	7.8	---	11	16	---	11	---	17	---	12	11	---
TOTAL	329.6	425.6	362	322.5	573.5	414	417	465.8	438	441	384	417.4
MEAN	10.6	14.2	11.7	10.4	20.5	13.4	13.9	15.0	14.6	14.2	12.4	13.9
MAX	22	79	15	19	91	16	19	25	19	23	30	86
MIN	7.3	7.7	10	7.8	9.5	11	11	7.2	11	11	10	9.2
AC-FT	654	844	718	640	1140	821	827	924	869	875	762	828
CAL YR	1986	TOTAL	5048.5	MEAN	13.8	MAX	119	MIN	2.7	AC-FT	10010	
WTR YR	1987	TOTAL	4990.4	MEAN	13.7	MAX	91	MIN	7.2	AC-FT	9900	

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09525500 YUMA MAIN CANAL BELOW COLORADO RIVER SIPHON, AT YUMA, AZ

LOCATION.--Two gages, one at each end of canal siphon passing under Colorado River. At intake, lat 32°43'49", long 114°37'09", in NE¼NE¼ sec.35, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on left bank 1,645 ft downstream from center of Yuma Main Canal wasteway gates and 3.5 mi downstream from siphon-drop power-plant. At outlet, in NW¼NE¼ sec.35, T.16 S., R.22 E., San Bernardino meridian, in Arizona, Yuma County, on right bank. Siphon crossing is 1,300 ft upstream from 4th Avenue bridge over Colorado River at Yuma.

PERIOD OF RECORD.--January 1924 to current year. Prior to October 1938, monthly discharge only published in WSP 1313. Diversion from Yuma Main Canal for municipal supply for Yuma (sta 09526000), published with this record prior to October 1973, is listed separately in this report.

REVISED RECORDS.--WSP 1713: 1958, 1959 (Yuma municipal supply).

GAGE.--Water-stage recorder at each end of siphon. Datum of each gage is 100.62 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1963, at datum 0.05 ft lower. Elevation of sill of inlet is 125.5 ft above NGVD. Prior to Oct. 29, 1938, nonrecording gages at approximately same sites, read simultaneously.

REMARKS.--No estimated daily discharges. Records good except those below 100 ft³/s, which are poor. Daily discharge computed from relation between discharge and head on siphon, which is the difference between intake and outlet gages. Records show quantity of water delivered through Colorado River siphon for irrigation in the Valley Division of the Yuma Project and for supplementary municipal supply for city of Yuma (see sta 09526000).

EXTREMES.--1930 to current year: Maximum daily discharge, 948 ft³/s Aug. 16, 1962; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	635	490	130	143	101	147	542	456	463	490	616	482
2	617	340	151	145	124	140	510	311	571	509	505	492
3	646	262	239	225	145	189	447	185	544	486	558	486
4	675	258	471	220	217	244	417	319	540	412	695	486
5	644	334	437	189	479	465	179	522	559	352	756	468
6	617	599	337	266	397	495	216	652	546	422	726	366
7	601	578	280	296	268	379	275	679	443	559	683	328
8	604	454	233	273	130	288	371	671	344	571	562	374
9	596	327	311	233	128	324	649	568	364	544	323	436
10	545	384	370	166	146	403	684	404	460	486	285	432
11	425	450	298	128	289	506	642	386	463	467	332	424
12	363	487	298	157	527	484	500	577	390	375	386	413
13	428	483	242	315	438	478	531	692	371	467	640	386
14	522	419	152	334	374	393	646	740	274	571	666	439
15	553	380	163	317	364	177	673	732	371	660	613	519
16	534	233	181	312	364	222	696	473	515	618	543	555
17	513	219	149	302	390	300	632	14	559	522	543	532
18	444	239	329	242	390	331	453	16	550	463	552	522
19	417	244	361	265	369	457	216	17	540	371	546	499
20	567	390	305	338	322	434	270	17	509	436	558	410
21	570	388	222	317	272	389	347	18	432	502	505	489
22	545	335	337	314	180	271	402	105	412	568	428	600
23	531	248	284	300	295	250	622	565	502	698	290	636
24	480	274	122	290	192	413	675	456	499	752	318	657
25	459	367	77	244	396	481	591	470	446	609	461	643
26	435	402	135	260	400	476	528	499	453	288	555	633
27	487	371	188	316	384	428	583	553	467	202	555	603
28	516	379	162	363	305	381	668	592	375	235	513	660
29	559	351	277	341	---	318	644	600	375	340	436	686
30	531	202	304	326	---	391	578	506	422	668	370	761
31	490	---	205	214	---	486	---	375	---	737	406	---
TOTAL	16549	10887	7750	8151	8386	11140	15187	13170	13759	15380	15925	15417
MEAN	534	363	250	263	299	359	506	425	459	496	514	514
MAX	675	599	471	363	527	506	696	740	571	752	756	761
MIN	363	202	77	128	101	140	179	14	274	202	285	328
AC-FT	32820	21590	15370	16170	16630	22100	30120	26120	27290	30510	31590	30580
CAL YR	1986	TOTAL	152724	MEAN	418	MAX	811	MIN	16	AC-FT	302900	
WTR YR	1987	TOTAL	151701	MEAN	416	MAX	761	MIN	14	AC-FT	300900	

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09527000 PILOT KNOB POWERPLANT AND WASTEWAY NEAR PILOT KNOB, CA

LOCATION.--Lat 32°44'15", long 114°42'56", in NW¼SW¼ sec.25, T.16 S., R.21 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 2 mi east of summit of Pilot Knob, 6 mi west of Yuma, AZ, and 20.8 mi downstream from intake of All-American Canal at Imperial Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1939 to current year. Prior to October 1943 monthly discharge only, published in WSP 1313. Prior to October 1956, published as Pilot Knob wasteway near Pilot Knob.

GAGE.--Water-stage recorder in forebay on right bank of All-American Canal (also used as auxiliary gage for sta 09527500); tailrace gage with remote recorder logged hourly in control house; calibrated wicket gates for turbine flow and calibrated bypass gates for wasteway flow which are logged for each change. Datum of forebay staff gage is 150.00 ft; that of tailrace staff gage is 0.00 ft; elevation of sill of bypass gates is 147.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Daily discharge computed from head and gate openings on wicket gates. Records show water released through Pilot Knob powerplant and wasteway from All-American Canal and returned to Colorado River through Rockwood gates. Pilot Knob wasteway was completed in summer of 1938 and first flow occurred Feb. 5, 1939. Pilot Knob powerplant was completed in January 1957 and first flow occurred Jan. 14, 1957. See table below for monthly return flow by Pilot Knob wasteway only.

COOPERATION.--Daily discharges furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,930 ft³/s Dec. 6, 1985; no flow for long periods.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6160	8310	9120	6840	6580	8990	3810	1930	1070	2820	2520	1780
2	6350	8660	9250	6000	6390	9070	4140	1860	1100	2170	2880	2600
3	6540	8330	9190	6030	8950	9040	3870	2860	1930	2050	3190	1580
4	6860	6790	8820	6610	8670	8630	2460	1630	1520	2020	2540	1530
5	7050	6060	9240	6230	8380	8050	3460	1280	1670	2770	2520	1100
6	6700	5490	9020	5860	8460	8680	3470	1180	2020	2510	2680	1010
7	7000	5490	9010	6040	8990	8990	3200	1020	2340	2260	3260	1200
8	7050	5480	9060	6060	9010	9010	3690	1090	1670	2180	2300	2020
9	7260	5490	9070	6130	8890	8680	3160	1300	2170	2030	2950	2400
10	9230	5500	9030	6220	8640	8320	2410	2610	2350	2010	3350	2050
11	9290	5490	9040	6380	8250	8070	2350	1260	1640	2010	3200	2240
12	9260	5490	9030	5730	8050	7590	2490	1870	1550	2040	3130	1510
13	9080	5490	9030	5300	8480	7600	2780	2150	2400	2040	3090	1250
14	9010	5490	9020	4890	8970	7770	3070	1560	2380	2330	3090	1420
15	9010	5480	8690	4920	8990	8320	2740	1440	1620	2480	2060	1340
16	9020	5500	6150	4930	8540	7490	2430	1700	1650	2860	1970	1990
17	9020	5510	4440	5400	8190	7020	2480	3700	2920	2370	2770	2000
18	9020	5500	4880	6280	8180	6550	2390	2420	2620	2420	2750	2000
19	9020	5520	6400	5740	7870	6300	4660	2580	2500	2960	3330	1840
20	8880	5530	5570	5300	8300	5670	4000	2050	2920	2670	2570	1720
21	8460	5530	5970	5240	8850	4370	2770	1400	3170	2670	2520	1450
22	8470	5520	5420	5490	8960	4930	2710	1650	2350	2580	2750	1240
23	8220	5510	5870	5760	8500	3610	2030	1210	2620	2120	2810	1640
24	8180	5530	7400	6120	8380	3330	1780	1950	2500	2110	2260	2390
25	8360	5540	7590	6290	8370	3200	1410	1480	2480	2170	2960	2350
26	8550	5530	6810	5700	8830	2610	1510	1980	2590	2350	3080	1910
27	8280	5490	6110	5280	9010	2480	1110	2760	2760	2480	2850	1490
28	8260	5490	6000	5280	9030	2080	1360	2680	3090	2780	2610	1460
29	8080	6670	5420	5060	---	3230	1870	1900	3450	3430	1720	1650
30	8160	8420	5410	5360	---	3900	1970	1220	3880	3100	1620	1900
31	8470	---	6580	5850	---	3130	---	1350	---	3330	1850	---
TOTAL	252300	179830	231640	178320	236710	196710	81580	57070	68930	76120	83180	52060
MEAN	8139	5994	7472	5752	8454	6345	2719	1841	2298	2455	2683	1735
MAX	9290	8660	9250	6840	9030	9070	4660	3700	3880	3430	3350	2600
MIN	6160	5480	4440	4890	6390	2080	1110	1020	1070	2010	1620	1010
AC-FT	500400	356700	459500	353700	469500	390200	161800	113200	136700	151000	165000	103300
(*)	3550	63370	157800	77100	6330	0	0	0	0	0	0	0
CAL YR	1986	TOTAL	2377520	MEAN	6514	MAX	9300	MIN	4100	AC-FT	4716000	(*) 324420
WTR YR	1987	TOTAL	1694450	MEAN	4642	MAX	9290	MIN	1010	AC-FT	3361000	(*) 308150

(*) Return flow, in acre-feet, by Pilot Knob wasteway (included in daily discharge tables).

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09527000 PILOT KNOB POWERPLANT AND WASTEWAY NEAR PILOT KNOB, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to current year.

REMARKS.--Water samples collected by U.S. Bureau of Reclamation.

WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986											
01...	0820	919	7.90	21.5	0.300	0.030	0.37	0.40	0.70	3.1	0.020
15...	0830	942	7.80	23.0	0.200	<0.010	--	0.70	0.90	4.0	<0.010
NOV											
05...	1145	950	7.90	19.0	0.200	0.010	0.69	0.70	0.90	4.0	0.010
19...	1015	931	--	17.0	0.200	<0.010	--	0.40	0.60	2.7	0.020
DEC											
03...	0955	941	--	13.0	0.300	0.060	0.84	0.90	1.2	5.3	0.030
17...	0800	934	--	11.5	0.300	<0.010	--	0.50	0.80	3.5	<0.010
JAN 1987											
07...	0915	899	--	11.5	0.300	0.020	0.48	0.50	0.80	3.5	0.020
21...	0900	916	7.90	10.0	0.400	0.030	0.57	0.60	1.0	4.4	0.050
FEB											
04...	0930	906	7.80	13.0	0.300	0.040	1.2	1.2	1.5	6.6	0.020
18...	1020	926	7.90	14.0	0.300	<0.010	--	<0.20	--	--	0.010
MAR											
04...	1015	932	--	14.0	0.300	<0.010	--	<0.20	--	--	0.020
20...	1120	972	7.90	17.0	0.300	0.030	0.67	0.70	1.0	4.4	0.020
APR											
01...	1015	963	8.00	16.0	0.300	0.020	0.68	0.70	1.0	4.4	0.020
15...	0730	952	7.90	19.0	0.300	0.030	1.6	1.6	1.9	8.4	0.030
MAY											
06...	0938	938	7.90	24.0	0.200	0.030	0.47	0.50	0.70	3.1	0.020
20...	0730	950	7.90	23.5	0.200	0.040	0.66	0.70	0.90	4.0	0.020
JUN											
02...	0645	1050	7.80	24.5	0.200	0.040	0.56	0.60	0.80	3.5	0.020
17...	1030	920	7.90	25.0	0.200	0.030	0.57	0.60	0.80	3.5	0.050
JUL											
01...	1140	978	7.80	26.5	0.200	0.040	--	<0.20	--	--	0.050
21...	0910	931	--	26.0	0.200	0.050	0.45	0.50	0.70	3.1	0.020
AUG											
05...	0735	936	--	28.5	0.200	0.020	0.58	0.60	0.80	3.5	0.020
19...	0845	937	--	28.0	0.200	0.010	0.39	0.40	0.60	2.7	0.020
SEP											
02...	1140	938	--	28.0	0.100	0.040	0.36	0.40	0.50	2.2	0.040
16...	0645	953	--	24.0	0.200	0.030	0.27	0.30	0.50	2.2	<0.010

< Actual value is known to be less than value shown.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09527500 ALL-AMERICAN CANAL BELOW PILOT KNOB WASTEWAY, CA

LOCATION.--Lat 32°44'07", long 114°43'23", in NW¼SE¼ sec.26, T.16 S., R.21 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, on left bank 0.4 mi downstream from Pilot Knob wasteway, 6 mi west of Yuma, Ariz., 15 mi upstream from turnout to Coachella Canal, and 21.2 mi downstream from intake at Imperial Dam.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above National Geodetic Vertical Datum of 1929. Auxiliary water-stage recorder on right bank 0.4 mi upstream used to determine head on Pilot Knob check gates (also used as forebay gage for sta 09527000, Pilot Knob powerplant and wasteway). Datum of auxiliary gage is 150.00 ft above NGVD.

REMARKS.--No estimated daily discharges. Records excellent. Water is used for power development at four sites below station and for irrigation in Coachella and Imperial Valleys.

COOPERATION.--Daily discharges furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,610 ft³/s Apr. 27, 28, 1976; no flow Jan. 4, 1967.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5560	3250	2730	1510	2140	1960	6210	6210	5240	5580	5800	4890
2	5120	2940	2940	2320	2780	2590	5930	5920	5330	5220	5550	5180
3	4890	3520	3010	2260	3180	2860	5560	5590	5360	4840	5640	5270
4	4590	3310	3120	1630	3530	3540	5430	6110	5600	4890	5900	5010
5	4410	3290	2680	2090	3630	4060	4800	6390	5700	4720	6060	4770
6	4770	3650	1990	2570	3710	3380	5120	6510	5240	5400	5970	4590
7	4540	3470	1790	2380	3040	2960	5300	6610	4850	5850	5780	4550
8	4490	3370	2660	2220	2590	2440	5540	6300	5010	5930	5660	4690
9	4270	2750	2900	2210	3190	3250	5660	5930	4910	5960	5190	4950
10	1260	2990	2570	2240	3580	3750	5370	5520	5200	5840	5240	5070
11	1030	3520	2680	2080	4020	3970	5300	5840	5270	5760	5640	5040
12	1510	3740	2400	2640	4070	4430	5120	5860	5290	5680	5690	4810
13	1980	3760	2190	3030	3680	4450	5610	5970	5320	5740	5830	4780
14	2330	3360	1370	3380	2940	4380	5940	5970	5090	5800	5710	4680
15	2410	3010	1520	3360	2690	3900	6260	5660	5500	6020	5600	4960
16	2390	2790	1250	3180	3420	4620	6240	5030	5910	6080	5320	5330
17	2100	2970	1400	2750	3970	5040	5950	4610	5420	5880	5460	5110
18	2050	2340	1830	1990	4060	5150	5040	4760	5420	5650	5750	4770
19	2250	1860	1980	2400	4370	5190	4290	5250	5280	5250	6060	4470
20	2620	2090	3080	2830	3990	5130	4810	5460	4850	5390	6370	4100
21	3030	2110	2540	2930	3300	4860	5870	5500	4300	5680	6030	4480
22	3110	1930	3040	3040	3130	4570	5900	5180	4820	5960	5610	4810
23	3440	1730	2570	2850	3740	4940	6220	4920	5340	5910	5030	4990
24	3520	2060	1080	2510	3940	5240	6210	4760	5420	5730	5230	4990
25	3300	2290	1040	2360	3810	5490	5940	5030	5670	5520	5430	4720
26	3010	1800	1700	2960	2980	5780	6200	4890	5550	5380	5410	4420
27	3360	1650	2320	3410	1860	5730	6340	4360	5370	5640	5540	4390
28	3360	2300	2430	3390	2030	5170	6370	4720	5120	5870	5220	4700
29	3510	2320	2890	3590	---	5110	6520	4630	5270	6050	4940	4810
30	3450	2190	2920	3270	---	5570	6510	4690	5630	6180	4570	4990
31	3200	---	1800	2830	---	5930	---	4980	---	5970	4830	---
TOTAL	100860	82360	70420	82210	93370	135440	171560	169160	158280	175370	172060	144320
MEAN	3254	2745	2272	2652	3335	4369	5719	5457	5276	5657	5550	4811
MAX	5560	3760	3120	3590	4370	5930	6520	6610	5910	6180	6370	5330
MIN	1030	1650	1040	1510	1860	1960	4290	4360	4300	4720	4570	4100
AC-FT	200100	163400	139700	163100	185200	268600	340300	335500	313900	347800	341300	286300
CAL YR	1986	TOTAL	1529520	MEAN	4190	MAX	6930	MIN	980	AC-FT	3034000	
WTR YR	1987	TOTAL	1555410	MEAN	4261	MAX	6610	MIN	1030	AC-FT	3085000	

Return surface flows below Imperial Dam, AZ-CA

095250000. YUMA MAIN CANAL WASTEWAY.--See p. 291.

095270000. PILOT KNOB POWERPLANT AND WASTEWAY.--See p. 293.

095279000. MITTRY LAKE OUTLET CHANNEL.

LOCATION.--Water-stage recorder and sharp-crested weir, in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.14, T.7 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 1,000 ft upstream from outlet to Colorado River and Laguna Dam.

PERIOD OF RECORD.--October 1974 to May 1983, April 1985 to current year (monthly discharge only).

REMARKS.--Record shows return flow to Colorado River from Mittry Lake.

095286000. LAGUNA CANAL WASTEWAY.

LOCATION.--Nonrecording gage and sharp-crested weir, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.14, T.7 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 1,000 ft downstream from Laguna Dam and 0.7 mi upstream from outlet to Colorado River. Water-stage recorder used prior to Oct. 3, 1986.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

095288000. LEVEE CANAL WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 1,000 ft upstream from outlet to Colorado River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

095290000. NORTH GILA DRAIN NO. 1.

LOCATION.--Water-stage recorder, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 0.25 mi upstream from outlet to Colorado River and 5.5 mi downstream from Laguna Dam.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

095290500. NORTH GILA DRAIN NO. 3.

LOCATION.--Drain enters wasteway to Gila River in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.18, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, 1,000 ft upstream from Gila River.

PERIOD OF RECORD.--April 1962 to current year (monthly discharge only).

REMARKS.--Record shows seepage from Gila Gravity Main Canal.

095291000. FORTUNA WASTEWAY.

LOCATION.--Nonrecording gage and sharp-crested weir, in NE $\frac{1}{4}$ sec.30, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, 1.3 mi upstream from Gila River. Water-stage recorder used prior to Nov. 1, 1986.

PERIOD OF RECORD.--October 1960 to September 1963, October 1964 to current year (monthly discharge only).

REMARKS.--Record shows waste water spilled from Gila Gravity Main Canal; flow rarely reaches Gila River.

095291500. NORTH GILA MAIN CANAL WASTEWAY.

LOCATION.--Water-stage recorder, in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.22, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 1,000 ft upstream from outlet to Gila River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

095291600. SOUTH GILA PUMP OUTLET CHANNEL NO. 3.

LOCATION.--In NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.22, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.5 mi upstream from outlet to Gila River.

PERIOD OF RECORD.--January 1965 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells in South Gila Valley.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM
Return surface flows below Imperial Dam, AZ-CA--Continued

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09529200. BRUCE CHURCH DRAIN.

LOCATION.--At culvert in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.21, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.2 mi upstream from outlet to Gila River.

PERIOD OF RECORD.--April 1962 to current year (monthly discharge only).

REMARKS.--Record shows seepage water from parts of secs. 15, 16, and 21 (Bruce Church Ranch).

09529240. SOUTH GILA PUMP OUTLET CHANNEL NO. 2.

LOCATION.--In SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.6 mi upstream from outlet to Gila River.

PERIOD OF RECORD.--January 1962 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells in South Gila Valley.

COOPERATION.--Record furnished by U.S. Bureau of Reclamation.

09529250. BRUCE CHURCH WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.20, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 500 ft upstream from outlet to Gila River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

09529300. WELLTON-MOHAWK MAIN OUTLET DRAIN (CONVEYANCE CHANNEL).

LOCATION.--Water-stage recorder and Parshall flume in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, 7.8 mi upstream from outlet to Gila River (M.O.D.E. 1), which is 0.6 mi upstream from mouth of Gila River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from numerous wells in Wellton-Mohawk Irrigation and Drainage District to lower the water table. Flow can be discharged to the Gila River or Colorado River by any one of or combination of four outlets. These outlets are: M.O.D.E. 1 (release to Gila River about 7.8 mi below station); an overflow flume about 11.3 mi below station releases water to Colorado River; M.O.D.E. 2 (see sta 09531800) releases water to Colorado River above Morelos Dam; and M.O.D.E. 3 (see sta 09531900) releases water to Colorado River below Morelos Dam.

09529360. SOUTH GILA PUMP OUTLET CHANNEL NO. 1.

LOCATION.--In SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.30, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.2 mi upstream from outlet to Gila River, which is 0.6 mi upstream from mouth of Gila River.

PERIOD OF RECORD.--August 1961 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells in South Gila Valley.

COOPERATION.--Record furnished by U.S. Bureau of Reclamation.

09529400. SOUTH GILA DRAIN NO. 2.

LOCATION.--Near center of sec.24, T.8 S., R.23 W., Yuma County, Hydrologic Unit 15030107, at outlet to Colorado River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows ground-water drainage and occasional waste water from South Gila Valley.

09529420. SOUTH GILA TERMINAL WASTEWAY.

LOCATION.--Water-stage recorder and Parshall flume, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.8 S., R.23 W., Yuma County, Hydrologic Unit 15030107, 2.0 mi upstream from outlet to Colorado River.

PERIOD OF RECORD.--March 1965 to current year (monthly discharge only).

REMARKS.--Record shows waste water from South Gila Canal of South Gila Valley.

09529440. SOUTH GILA PUMP OUTLET CHANNEL NO. 4.

LOCATION.--In NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.26, T.8 S., R.23 W., Yuma County, Hydrologic Unit 15030107, 1.5 mi upstream from outlet to Colorado River.

PERIOD OF RECORD.--July 1965 to current year (monthly discharge only).

REMARKS.--Records show water pumped from wells in South Gila Valley.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

Return surface flows below Imperial Dam, AZ-CA--Continued

09529600. RESERVATION DRAIN NO. 7.

LOCATION.--At downstream end of culvert on State Road 24, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.33, T.15 S., R.23 E., San Bernardino Meridian, Imperial County, Hydrologic Unit 15030107, 0.5 mi upstream from outlet to Reservation Main Drain.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage water from sec.34, T.15 S., R.23 E., in Reservation Division.

09529700. RESERVATION MAIN DRAIN NO. 6.

LOCATION.--Nonrecording gage on upstream right piling of Stallnacker Road Bridge, SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.32, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows waste and drainage water from the Reservation Division.

09529800. RESERVATION DRAIN NO. 2.

LOCATION.--At upstream side of bridge on White Road, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.6, T.16 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 0.9 mi upstream from outlet to Reservation Main Drain.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage water from sec.31, T.15 S., R.22 E., in Reservation Division.

09529900. RESERVATION DRAIN NO. 3.

LOCATION.--At Jackson Road Bridge, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.10, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 1.0 mi upstream from outlet to Reservation Main Drain.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage water from Reservation Division upstream from Yuma Main Canal.

09530000. RESERVATION MAIN DRAIN NO. 4.

LOCATION.--Water-stage recorder in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 500 ft upstream from railroad culvert.

PERIOD OF RECORD.--January 1913 to April 1920, October 1921 to March 1925, January 1934 to current year (monthly discharge only) (calendar year discharge only 1934-38). Prior to October 1955, published as California drainage canal.

REMARKS.--Record shows waste and drainage water from area east of Yuma Main Canal on Reservation Division.

09530200. YUMA MESA OUTLET DRAIN.

LOCATION.--In SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.16 S., R.22 E., San Bernardino meridian, Yuma County in Arizona, Hydrologic Unit 15030108, 0.3 mi from outlet to Colorado River.

PERIOD OF RECORD.--July 1970 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells on the Yuma Mesa and conveyed by underground conduit to Colorado River.

COOPERATION.--Records furnished by Bureau of Reclamation.

WATER-QUALITY.--See p. 302.

09530400. RESERVATION DRAIN NO. 11.

LOCATION.--At outlet to Drain 8-B, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.19, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage from sec.20, T.16 S., R.22 E. in Reservation Division.

09530500. DRAIN 8-B.

LOCATION.--Enters Colorado River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 4 mi downstream from outlet of Yuma Main Canal wasteway.

PERIOD OF RECORD.--March 1948 to current year (monthly discharge only). Prior to October 1955, published as Araz Drain.

REMARKS.--Record shows waste and drainage water west of Yuma Main Canal on the Reservation Division.

WATER-QUALITY.--See p. 303.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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Return surface flows below Imperial Dam, AZ-CA--Continued

09531800. MAIN OUTLET DRAIN EXTENSION ABOVE MORELOS DAM (M.O.D.E. 2).

LOCATION.--Nonrecording gage and Parshall flume, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.16 S., R.21 E., San Bernardino meridian, Yuma County in Arizona, Hydrologic Unit 15030107, at outlet to Colorado River, 1.7 mi upstream from Morelos Dam.

PERIOD OF RECORD.--November 1965 to current year (monthly discharge only).

REMARKS.--Record shows water conveyed to Colorado River, 1.7 mi above Morelos Dam, from Wellton-Mohawk Main Outlet Drain (see sta 09529300).

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Return surface flows below Imperial Dam, AZ-CA--Continued

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Mittry Lake Outlet Channel 09527900	Laguna Canal wasteway 09528600	Levee Canal wasteway 09528800	North Gila Drain No. 1 09529000	North Gila Drain No. 3 09529050	Fortuna wasteway 09529100
October	1,470	0	620	611	0	78
November	1,250	46	495	337	0	54
December	757	0	305	290	0	66
CAL YR 1986	13,910	50	4,580	5,810	0	1,030
January	1,120	0	329	299	0	69
February	1,500	0	389	303	0	67
March	1,310	0	213	398	0	101
April	1,280	0	180	346	0	98
May	946	0	136	292	0	91
June	743	0	206	285	0	71
July	728	0	228	273	0	104
August	613	0	151	222	0	114
September	1,270	0	306	308	0	109
WTR YR 1987	12,980	46	3,560	3,960	0	1,020

Month	North Gila Main Canal wasteway 09529150	South Gila Pump Outlet Channel No. 3 09529160	Bruce Church Drain 09529200	South Gila Pump Outlet Channel No. 2 09529240	Bruce Church wasteway 09529250
October	526	710	6.9	1,940	462
November	434	1,250	0	1,840	480
December	389	1,360	0	1,820	252
CAL YR 1986	3,480	10,450	233	20,500	3,140
January	561	284	0	1,960	350
February	345	1,140	0	1,650	382
March	213	1,500	0	1,910	177
April	119	1,110	0	1,770	72
May	113	962	0	1,810	118
June	151	1,090	0	1,670	143
July	195	1,290	0	1,890	200
August	116	821	0	1,760	91
September	225	0	0	1,020	256
WTR YR 1987	3,390	11,510	6.9	21,040	2,980

Month	Wellton-Mohawk Main Outlet Drain 09529300	South Gila Pump Outlet Channel No. 1 09529360	South Gila Drain No. 2 09529400	South Gila Terminal wasteway 09529420	South Gila Pump Outlet Channel No. 4 09529440
October	10,700	2,440	0	112	492
November	10,490	2,120	0	77	476
December	12,470	1,720	0	63	492
CAL YR 1986	118,500	24,210	54	865	6,270
January	12,100	1,860	0	37	492
February	10,650	1,880	0	23	444
March	12,140	2,030	0	25	476
April	11,620	1,930	0	30	476
May	10,410	2,100	0	30	450
June	11,680	2,040	0	59	476
July	13,790	2,290	0	49	492
August	12,460	1,820	0	75	313
September	8,060	1,470	0	124	0
WTR YR 1987	136,600	23,700	0	704	5,080

NOTE.--Yearly totals given above have been computed from total cfs-days and may differ slightly from the summation of monthly total acre-feet on occasion.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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Return surface flows below Imperial Dam, AZ-CA--Continued

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Month	Reservation Drain No. 7 09529600	Reservation Main Drain No. 6 09529700	Reservation Drain No. 2 09529800	Reservation Drain No. 3 09529900	Reservation Main Drain No. 4 09530000	Yuma Mesa Outlet Drain 09530200
October	148	1,650	87	555	5,430	1,830
November	177	1,640	62	409	5,000	1,710
December	216	1,710	60	319	4,530	1,710
CAL YR 1986	1,990	19,030	678	5,760	57,620	22,440
January	250	1,520	61	296	4,540	1,180
February	244	1,520	54	256	4,450	1,040
March	271	1,750	57	303	4,930	179
April	262	1,710	54	268	4,820	930
May	271	1,600	52	272	4,440	2,030
June	223	1,460	58	341	4,200	2,010
July	159	1,660	66	430	4,650	2,040
August	148	1,580	74	488	4,550	2,070
September	143	1,530	85	470	3,700	1,070
WTR YR 1987	2,510	19,330	770	4,410	55,250	17,790

Month	Reservation Drain No. 11 09530400	Drain 8-B 09530500	M.O.D.E. 2 (above Morelos Dam) 09531800
October	121	1,180	0
November	102	946	0
December	115	889	0
CAL YR 1986	1,300	11,080	54
January	120	799	0
February	117	722	0
March	94	672	0
April	65	655	0
May	82	740	0
June	86	803	0
July	70	877	0
August	86	1,010	0
September	87	924	0
WTR YR 1987	1,150	10,220	0

NOTE.--Yearly totals given above have been computed from total cfs-day and may differ slightly from the summation of monthly total acre-feet on occasion.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09530200 YUMA MESA OUTLET DRAIN AT YUMA, AZ

LOCATION.--Lat 32°43'48", long 114°39'27", in SE&SW sec.28, T.16 S., R.22 E., San Bernardino meridian, in Arizona, Yuma County, Hydrologic Unit 15030107, at gaging station, 0.3 mi from outlet to Colorado River, and 0.5 mi west of Joe Henry Memorial Park in Yuma, Ariz.

PERIOD OF RECORD.--July 1972 to September 1983, October 1986 to current year.

COOPERATION.--Water samples collected by U.S. Bureau of Reclamation.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986												
01...	0730	--	2190	7.70	25.0	1.50	0.060	0.34	0.40	1.9	8.4	0.020
15...	0740	--	2070	7.70	26.5	1.70	0.010	0.89	0.90	2.6	12	0.010
NOV												
05...	1100	--	2230	7.60	24.5	1.60	0.020	0.48	0.50	2.1	9.3	0.010
19...	0940	--	2180	--	24.5	1.30	0.060	0.64	0.70	2.0	8.9	0.030
DEC												
03...	0930	--	2130	--	23.5	2.00	0.080	0.22	0.30	2.3	10	0.300
17...	0735	--	2130	--	23.5	1.80	0.060	0.34	0.40	2.2	9.7	0.020
JAN 1987												
07...	0940	--	2050	--	24.5	1.90	0.020	0.48	0.50	2.4	11	0.020
21...	0840	--	2120	7.60	23.5	2.20	0.030	0.87	0.90	3.1	14	0.010
FEB												
04...	0945	--	2270	7.60	25.5	1.20	0.040	0.96	1.0	2.2	9.7	0.020
18...	1045	--	2350	7.60	24.5	1.10	0.070	--	<0.20	--	--	0.010
MAR												
04...	1100	--	2260	--	25.0	1.40	0.030	0.77	0.80	2.2	9.7	0.010
20...	1200	0.0	--	--	--	--	--	--	--	--	--	--
APR												
01...	1000	0.0	--	--	--	--	--	--	--	--	--	--
15...	0700	--	2350	7.70	24.5	2.60	0.020	0.38	0.40	3.0	13	0.020
MAY												
06...	0900	--	2220	7.70	26.0	2.00	0.030	--	<0.20	--	--	0.020
20...	0715	--	2250	7.60	25.5	1.90	0.030	0.47	0.50	2.4	11	0.020
JUN												
02...	0618	--	1390	7.60	25.5	1.90	0.030	0.37	0.40	2.3	10	0.010
17...	0938	--	2270	7.70	25.0	1.90	0.020	0.58	0.60	2.5	11	0.030
JUL												
01...	1200	--	2270	7.70	26.0	1.90	0.070	0.73	0.80	2.7	12	0.060
21...	0935	--	4370	--	26.5	1.80	0.050	0.35	0.40	2.2	9.7	0.040
AUG												
05...	0645	--	2250	--	26.5	1.80	<0.010	--	0.70	2.5	11	0.020
19...	0810	--	2250	--	26.5	1.70	0.010	0.49	0.50	2.2	9.7	0.020
SEP												
02...	1120	--	2330	--	26.5	0.700	0.060	0.34	0.40	1.1	4.9	0.020
16...	0610	--	2230	--	25.5	2.20	0.020	0.18	0.20	2.4	11	<0.010

< Actual value is known to be less than value shown.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

303

09530500 DRAIN 8-B NEAR YUMA, AZ

LOCATION.--Lat 32°44'39", long 114°41'45", in NE¼NW¼ sec.30, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, 0.5 mi upstream from outlet to Colorado River, and 4 mi west of Yuma.

PERIOD OF RECORD.--October 1962 to September 1973, October 1973 to September 1981, October 1986 to current year.

REMARKS.--Unpublished chemical analyses for water years 1962-68 available from district office in Tucson, Ariz.

WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986											
01...	0800	1680	7.80	21.0	0.100	0.230	0.27	0.50	0.60	2.7	0.190
15...	0810	1810	7.90	24.0	0.200	0.230	0.97	1.2	1.4	6.2	0.070
NOV											
05...	1120	1720	7.80	21.0	0.100	0.230	0.27	0.50	0.60	2.7	0.080
19...	1030	1800	--	20.0	<0.100	0.220	0.68	0.90	--	--	0.160
DEC											
03...	1015	1710	--	18.0	0.200	0.330	0.57	0.90	1.1	4.9	0.110
17...	0815	1730	--	18.0	0.100	0.270	0.53	0.80	0.90	4.0	0.040
JAN 1987											
07...	1210	1680	--	20.0	<0.100	0.310	0.39	0.70	--	--	0.020
21...	0914	1690	7.70	16.5	<0.100	0.340	0.76	1.1	--	--	0.120
FEB											
04...	0915	1720	7.70	19.0	<0.100	0.280	0.82	1.1	--	--	0.140
18...	1035	1670	7.80	18.0	<0.100	0.280	0.22	0.50	--	--	0.110
MAR											
04...	1030	1580	--	19.5	<0.100	0.260	2.0	2.3	--	--	0.140
20...	1135	1590	7.70	21.0	<0.100	0.250	0.75	1.0	--	--	0.060
APR											
01...	1024	1590	7.80	18.5	<0.100	0.240	0.76	1.0	--	--	0.060
15...	0745	1530	7.80	19.5	<0.100	0.240	1.1	1.3	--	--	0.100
MAY											
06...	0926	1460	7.80	23.5	<0.100	0.220	0.38	0.60	--	--	0.110
20...	0740	1440	7.90	20.0	<0.100	0.220	0.78	1.0	--	--	0.100
JUN											
02...	0635	1460	7.80	22.0	<0.100	0.220	0.78	1.0	--	--	0.150
17...	1020	1410	7.90	24.0	<0.100	0.180	0.62	0.80	--	--	0.160
JUL											
01...	1130	1400	7.80	26.5	<0.100	0.180	0.42	0.60	--	--	0.150
21...	0925	1370	--	24.5	<0.100	0.190	0.41	0.60	--	--	0.100
AUG											
05...	0725	1380	--	24.5	<0.100	0.190	1.2	1.4	--	--	0.150
19...	0835	1380	--	24.0	<0.100	0.170	0.63	0.80	--	--	0.130
SEP											
02...	1130	1390	--	26.0	<0.100	0.140	0.26	0.40	--	--	0.090
16...	0630	1420	--	22.0	<0.100	0.160	0.24	0.40	--	--	<0.010

< Actual value is known to be less than value shown.

RIO SONOYTA BASIN

SAN SIMON WASH BASIN

09535100 SAN SIMON WASH NEAR PISINIMO, AZ

LOCATION.--Lat 32°02'39", long 112°22'13", in SE¼ sec.9, T.16 S., R.1 W. (unsurveyed), Pima County, Hydrologic Unit 15080101, in Tohono O'odham Indian Reservation, on the right bank about 100 ft downstream from road, just upstream from Gu Vo Wash, and 3.2 mi west of Pisinimo.

DRAINAGE AREA.--569 mi².

PERIOD OF RECORD.--February 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,830 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--15 years, 3.82 ft³/s, 2,770 acre-ft/yr; median of yearly mean discharges, 2.6 ft³/s, 1,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s Sept. 24, 1976, gage height, 10.82 ft, from rating curve extended above 1,700 ft³/s on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 11	1215	*641	*7.03

No flow for most of year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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	109	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.51	.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	2.5	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	1.6	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	2.9	.00	.21	.00	.00	.00	.00	.00	.00	.00	12	.00
10	.94	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.00
11	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	297	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.4	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.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	1.0
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.3
24	.00	.00	.00	.00	.17	.00	.00	.00	.00	.00	.00	.24
25	.00	.00	.00	.00	.26	.00	.00	.00	.00	.00	.00	.11
26	.00	.00	.00	.00	.45	.00	.00	.00	.00	3.9	.00	.10
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.10
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
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	---	.21	.00	---
TOTAL	3.94	0.00	4.31	0.00	0.88	0.00	0.00	0.00	0.00	4.13	424.65	8.90
MEAN	.13	.00	.14	.00	.031	.00	.00	.00	.00	.13	13.7	.30
MAX	2.9	.00	2.5	.00	.45	.00	.00	.00	.00	3.9	297	7.3
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	7.8	.0	8.5	.0	1.7	.0	.0	.0	.0	8.2	842	18

CAL YR	1986	TOTAL	1150.89	MEAN	3.15	MAX	398	MIN	.00	AC-FT	2280
WTR YR	1987	TOTAL	446.81	MEAN	1.22	MAX	297	MIN	.00	AC-FT	886

RIO SONOYTA BASIN

305

SAN SIMON WASH BASIN

09535300 VAMORI WASH AT KOM VO, AZ

LOCATION.--Lat 31°57'04", long 112°20'50", in NW¼ sec.14, T.17 S., R.1 W (unsurveyed), Pima County, Hydrologic Unit 15080101, in Tohono O'Odham Indian Reservation, on right bank 200 ft downstream from road crossing, 0.6 mi south of Kom Vo (Santa Cruz Village) and 5 mi upstream from mouth.

DRAINAGE AREA.--1,250 mi², approximately, of which about 250 mi² is in Mexico.

PERIOD OF RECORD.--February 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,770 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--15 years, 11.2 ft³/s, 8,110 acre-ft/yr; median of yearly mean discharges, 8.5 ft³/s, 6,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s Oct. 3, 1983, gage height, 10.54 ft, from rating curve extended above 550 ft³/s on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 31	2145	*762	*8.75	Aug. 4	0330	438	8.02
Aug. 3	0700	423	7.97				

No flow for most of year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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	89	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	199	e15
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	149	52
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.50	20
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.9
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	e85	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	51	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	.00
14	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.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	162	e14
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	65	227
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	212
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.9	93
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	47
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	e2.0
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	6.5	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	6.0	e.50	.00
31	.00	---	.00	.00	---	.00	---	.00	---	189	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.19	0.00	195.00	896.80	690.90
MEAN	.00	.00	.00	.00	.00	.00	.00	.49	.00	6.29	28.9	23.0
MAX	.00	.00	.00	.00	.00	.00	.00	15	.00	189	199	227
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	.0	.0	30	.0	387	1780	1370

CAL YR 1986 TOTAL 1781.83 MEAN 4.88 MAX 336 MIN .00 AC-FT 3530
WTR YR 1987 TOTAL 1797.89 MEAN 4.93 MAX 227 MIN .00 AC-FT 3570

e Estimated

09535900 QUITOBAQUITO SPRING NEAR LUKEVILLE, AZ

LOCATION.--Lat 31°56'37", long 113°01'10", in SE¼, sec.18, T.17 S., R.7 W. (unsurveyed), Pima County, Hydrologic Unit 15080102, in Organ Pipe Cactus National Monument, in spring outlet channel 50 ft downstream from first source, 500 ft downstream from second source, and 12.8 mi northwest of Lukeville.

PERIOD OF RECORD.--September 1917 (one discharge measurement, published in WSP 499), October 1981 to current year. Gage-heights and discharge measurements collected at this site, January 1974 to May 1976, are in the files of the National Park Service.

GAGE.--Water-stage recorder and V-notch weir. Elevation of gage is 1,080 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Record is for flow from the two principal spring openings. Numerous small spring openings in the area discharge downstream from the gage.

COOPERATION.--Channel upstream is maintained by National Park Service to prevent flow from bypassing gage.

AVERAGE DISCHARGE.--6 years, 0.064 ft³/s, 46 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 0.33 ft³/s Sept. 29, 1983, gage height, 1.51 ft, includes local runoff; minimum, 0.02 ft³/s Aug. 18, 1983, gage height, 1.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.12 ft³/s July 31, 1800 hours, gage height, 1.38 ft, includes local runoff; minimum, 0.02 ft³/s Feb. 7-11, and Aug. 29 to Sept. 9, gage height, 1.27 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.06	.03	.06	.03	.04	.04	.03	.03	.05	.05	.02
2	.06	.06	.03	.06	.03	.04	.04	.04	e.04	.05	.05	.02
3	.06	.06	.03	.06	.03	.04	.04	.04	e.05	.05	.05	.02
4	.06	.06	.03	.06	.03	.04	.04	.04	e.05	.05	.05	.02
5	.06	.06	.03	.06	.03	.03	.04	.04	.05	.05	.05	.02
6	.06	.06	.03	.06	.03	.03	.04	.04	.05	.05	.05	.02
7	.06	.06	.03	.06	.02	.03	.04	.04	.04	.05	.05	.02
8	.06	.06	.03	.06	.02	.03	.04	.04	.03	.05	.05	.02
9	.06	.06	.03	.06	.02	.03	.04	.04	.03	.05	.05	.02
10	.06	.06	.05	.06	.02	.03	.04	.04	.03	.05	.05	.03
11	.06	.06	.07	.06	.03	.03	.04	.04	.03	.05	.06	.04
12	.06	.06	.07	.06	.03	.03	.04	.04	.03	.05	.06	.03
13	.06	.06	.07	.06	.03	.03	.04	.04	.03	.05	.06	.04
14	.06	.06	.07	.06	.03	.03	.04	.03	.03	.05	.06	.04
15	.06	.06	.07	.06	.03	.03	.04	.03	.03	.05	.06	.04
16	.06	.06	.07	.06	.04	.03	.04	.03	.05	.05	.06	.04
17	.06	.06	.07	.06	e.04	.03	.04	.03	.05	.05	.06	.04
18	.06	.05	.07	.06	.04	.03	.04	.03	.05	.05	.05	.04
19	.06	.04	.07	.06	.04	.03	.04	.04	.05	.05	.05	.04
20	.06	.04	.07	.06	.04	.04	.04	.04	.05	.05	.05	.04
21	.06	.03	.07	.06	.04	.04	.04	.04	.05	.05	.05	.04
22	.06	.03	.07	.05	.04	.04	.04	.04	.05	.05	.05	.04
23	.06	.03	.07	.05	.04	.04	.04	.04	.05	.05	.05	.04
24	.06	.03	.07	.05	.04	.04	.04	.04	.05	.04	.05	.04
25	.06	.03	.07	.05	.04	.04	.04	.04	.05	.04	.05	.04
26	.06	.03	.07	.05	.04	.04	.03	.04	.05	.04	.05	.04
27	.06	.03	.07	.05	.04	.04	.03	.04	.05	.05	.05	.04
28	.06	.03	.06	.05	.04	.04	.03	.04	.05	.05	.05	.04
29	.06	.03	.06	.05	---	.04	.03	.04	.05	.05	.02	.05
30	.06	.03	.06	.04	---	.04	.03	.03	.05	.05	.02	.05
31	.06	---	.06	.03	---	.04	---	.03	---	.05	.02	---
TOTAL	1.84	1.45	1.75	1.73	0.93	1.09	1.15	1.16	1.30	1.52	1.53	1.02
MEAN	.059	.048	.056	.056	.033	.035	.038	.037	.043	.049	.049	.034
MAX	.06	.06	.07	.06	.04	.04	.04	.04	.05	.05	.06	.05
MIN	.04	.03	.03	.03	.02	.03	.03	.03	.03	.04	.02	.02
AC-FT	3.6	2.9	3.5	3.4	1.8	2.2	2.3	2.3	2.6	3.0	3.0	2.0
CAL YR 1986	TOTAL	21.61	MEAN	.059	MAX	.08	MIN	.03	AC-FT	43		
WTR YR 1987	TOTAL	16.47	MEAN	.045	MAX	.07	MIN	.02	AC-FT	33		

e Estimated

SULPHUR SPRING VALLEY

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WHITEWATER DRAW BASIN

09537200 LESLIE CREEK NEAR McNEAL, AZ

LOCATION.--Lat 31°35'24", long 109°30'30", in SE¼ sec.20, T.21 S., R.28 E., Cochise County, Hydrologic Unit 15080301, on right bank 10 mi east of McNeal.

DRAINAGE AREA.--79.1 mi².

PERIOD OF RECORD.--October 1969 to September 1977, July 1982 to current year.

GAGE.--Water-stage recorder and concrete control with shallow sharp-crested V-notch weir. Elevation of gage is 4,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years (water years 1970-77, 1983-87), 1.39 ft³/s, 1,010 acre-ft/yr; median of yearly mean discharges, 1.0 ft³/s, 720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,600 ft³/s July 21, 1984, gage height, 8.54 ft, from rating curve extended above 12 ft³/s on basis of slope-area measurements of peak flow at gage height 7.33 ft and 8.54 ft; no flow for many days in 1976 and 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, October 1977 to July 1982, 468 ft³/s, date unknown, gage height, 4.76 ft in gage well.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 4	0615	156	4.26	Aug. 10	2300	112	4.19
Aug. 5	0345	*307	*4.48				

Minimum daily discharge, 0.33 ft³/s July 12-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.79	.71	e.65	.58	.62	.58	.44	.40	.34	.65	.60
2	.85	.80	.71	e.65	.58	.62	.58	.43	.39	.34	.70	.62
3	.83	.81	.71	e.65	.58	.62	.58	.43	.39	.34	2.7	.68
4	.83	.77	.71	e.65	.56	.62	.58	.41	.41	.34	34	.83
5	.76	.75	.71	e.70	.55	.62	.58	.42	.40	.34	84	.87
6	.76	.71	.71	e.70	.63	.62	.58	.43	3.8	.34	1.0	.85
7	.75	.68	.71	e.65	.69	.62	.60	.41	1.4	.34	.77	.84
8	.75	.68	.73	e.65	.68	.62	.60	.41	.53	.35	2.8	.80
9	.75	.71	.70	e.65	.66	.62	.58	.42	.48	.35	2.5	.79
10	.77	.70	.67	e.65	.62	.60	.58	.42	.46	.34	8.2	.83
11	.77	.70	.67	e.65	.60	.62	.58	.42	.47	.34	13	.86
12	.74	.69	.65	e.65	.60	.62	.58	.41	.46	.33	.94	.91
13	.66	.69	.64	e.65	.59	.58	.58	.41	.42	.33	.74	.95
14	.66	.65	e.69	e.65	.58	.57	.58	.42	.42	.33	.66	.94
15	.67	.67	e.70	e.65	.58	.57	.54	.41	.39	.36	.63	.94
16	.65	.69	e.70	e.70	.56	.57	.54	.40	.38	.39	.62	1.1
17	.65	.77	e.80	e.75	.54	.57	.54	.40	.37	.37	.62	1.2
18	.65	.78	e.90	e.70	.54	.57	.53	.40	.37	.38	.67	1.3
19	.68	.77	e.75	e.65	.58	.56	.54	.41	.37	.39	.73	.97
20	.68	.77	e.65	e.65	.56	.57	.54	.44	.37	.40	.78	.89
21	.68	.75	e.65	e.65	.56	.57	.53	.43	.37	.40	.89	.91
22	.75	.71	e.65	e.65	.54	.58	.51	.42	.36	.40	.85	.75
23	.77	.71	e.65	e.65	.56	.57	.50	.40	.36	.43	.77	.80
24	.80	.71	e.65	e.65	.55	.57	.50	.39	.37	.50	.78	.80
25	.82	.71	e.65	e.65	.57	.60	.50	.40	.39	.52	.79	.78
26	.83	.71	e.65	e.65	.64	.59	.45	.38	.38	.52	.73	.77
27	.83	.71	e.65	e.65	.65	.61	.43	.38	.38	.54	.71	.77
28	.82	.71	e.65	e.65	.62	.62	.50	.38	.38	.60	.66	.76
29	.78	.71	e.65	e.62	---	.62	.47	.38	.38	.64	.67	.76
30	.77	.71	e.65	.62	---	.62	.44	.39	.36	.65	.66	.77
31	.77	---	e.65	.60	---	.59	---	.42	---	.64	.63	---
TOTAL	23.30	21.72	21.37	20.34	16.55	18.52	16.22	12.71	16.41	12.88	164.85	25.64
MEAN	.75	.72	.69	.66	.59	.60	.54	.41	.55	.42	5.32	.85
MAX	.85	.81	.90	.75	.69	.62	.60	.44	3.8	.65	84	1.3
MIN	.65	.65	.64	.60	.54	.56	.43	.38	.36	.33	.62	.60
AC-FT	46	43	42	40	33	37	32	25	33	26	327	51

CAL YR 1986 TOTAL 511.70 MEAN 1.40 MAX 169 MIN .58 AC-FT 1010
WTR YR 1987 TOTAL 370.51 MEAN 1.02 MAX 84 MIN .33 AC-FT 735

e Estimated

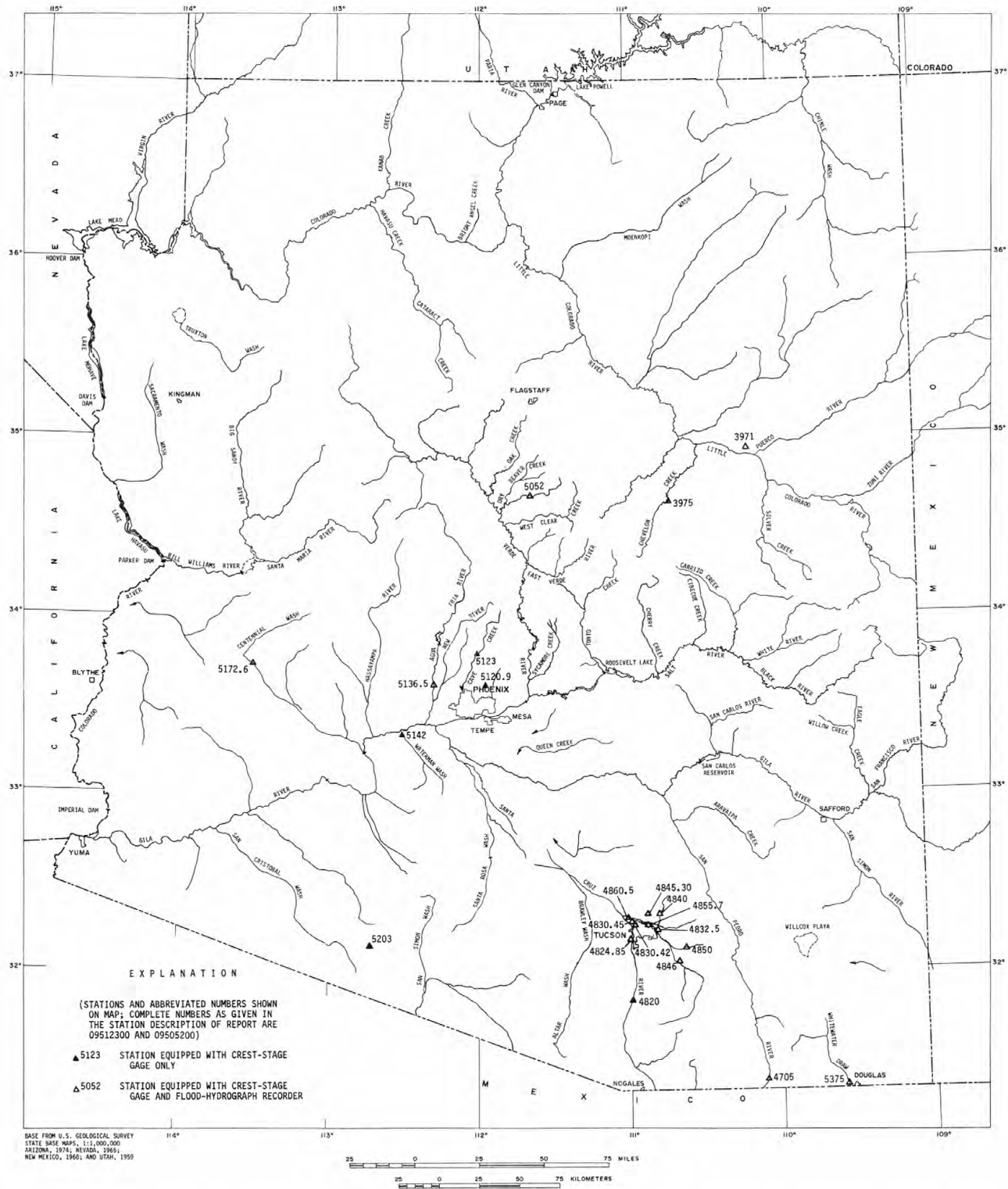


Figure 7.--Map of Arizona showing locations of partial-record gaging stations.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Crest-stage partial-record stations

The following table contains annual maximum discharges of independent peaks at 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 during water year 1987

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft ³ /s)
Little Colorado River basin							
09397100	Leroux Wash near Holbrook, AZ	Lat 34°54'18", long 110°12'03", SE¼NE¼ sec.3, T.17 N., R.20 E., Navajo County, near center of bridge in east-bound lane of Interstate Highway 40, 0.5 mi upstream from mouth and 2.5 mi west of Holbrook.	809	1980-87	7-31-87	10.76	5,400
09397500	Chevelon Creek below Wildcat Canyon near Winslow, AZ	Lat 34°38'11", long 110°42'49", in SW¼ sec.36, T.15 N., R.15 E., Navajo County, Sitgreaves National Forest, on right bank 0.4 mi downstream from Wildcat Canyon and 25 mi south of Winslow.	275	1947-70*, 1982-87	3-14-87	4.82	417
Gila River basin							
09470500	San Pedro River at Palominas, AZ	Lat 31°22'48", long 110°06'38", in SW¼SE¼ sec.33, T.23 S., R.22 E., Cochise County, near left bank on downstream side of pier of bridge on State Highway 92, 0.7 mi east of Palominas, 2.5 mi upstream from Green Brush Draw, 4.5 mi downstream from international boundary, and 12 mi southwest of Bisbee.	a741	1930-33*, 1935-41*, 1950-81*, 1982-87	8-10-87	6.13	978
09482000	Santa Cruz River at Continental, AZ	Lat 31°52'17", long 110°58'46", in SE¼SE¼ sec.11, T.18 S., R.13 E. (unsurveyed), Pima County, Hydrologic Unit 15050301, in Spanish land grant of San Ignacio de La Canoa, on right bank 0.8 mi northeast of Green Valley Post Office and 1.5 mi downstream of town of Continental.	b1,682	1940-46*, 1951-86*, 1987	8- 5-87	3.60	340
09482485	Cholla Wash at Tucson, AZ	Lat 32°12'00", long 110°59'45", in SE¼SE¼NE¼ sec.22, T.14 S., R.13 E., Pima County, 30 ft upstream from culvert on Mission Road, at the northwest corner of the intersection of Mission Road and Silverlake Road.	1.27	1982-87	9- 5-87	3.69	532
09483042	Cemetery Wash at Tucson, AZ	Lat 32°15'50", long 110°58'42", in NE¼NE¼ sec.35, T.13 S., R.13 E., Pima County, 270 ft west of U.S. Highway 89, 300 ft south of projection of Ft. Lowell Road in Tucson.	1.17	1966-87	2-25-87	0.86	52
09483045	Flowing Wells Wash at Tucson, AZ	Lat 32°15'55", long 110°59'40", in SW¼SW¼ sec.26, T.13 S., R.13 E., Pima County, at intersection of Ft. Lowell Road and Flowing Wells Road in Tucson city limits.	3.53	1971-87	2-25-87	2.01	81

See footnotes at end of the table.

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft ³ /s)
Gila River basin--Continued							
09483250	Rob Wash at Tucson, AZ	Lat 32°14'08", long 110°48'58", in NE¼NW¼ sec.9, T.14 S., R.15 E., Pima County, at Speedway Blvd., 0.4 mi east of Pantano Road, and 1 mi north of East Broadway in Tucson city limits.	2.08	1971-87	c1-31-86 10-10-86	c2.21 1.52	c277 65
09484000	Sabino Creek near Tucson, AZ	Lat 32°19'00", long 110°48'35", in SE¼NE¼ sec.9, T.13 S., R.15 E., Pima County, 0.5 mi north of Coronado National Forest boundary, and 12 mi northeast of Tucson city hall.	35.5	1932-74*, 1975-87	8-13-87	2.60	866
09484530	Craycroft Wash Tributary near Tucson, AZ	Lat 32°18'05", long 110°52'13", in NW¼ sec.13, T.13 S., R.14 E., Pima County, at Paseo Arenal, 0.4 mi south of Sunrise Drive and 0.25 mi east of Craycroft Road.	0.038	1982-87	4-26-87	0.97	7.6
09484600	Pantano Wash near Vail, AZ	Lat 32°02'09", long 110°40'37", in SW¼SE¼ sec.14, T.16 S., R.16 E., Pima County, 60 ft upstream from dam, 2.2 mi southeast of Vail, and 20 mi southeast of Tucson city hall.	457	1959-74*, 1975-87	9-24-87	6.96	1,370
09485000	Rincon Creek near Tucson, AZ	Lat 32°07'46", long 110°37'32", in NW¼NE¼ sec.17, T.15 S., R.17 E., Pima County, 9 mi upstream from mouth, and 22 mi southeast of Tucson city hall.	44.8	1952-74*, 1975-87	12- 7-86	4.74	535
09485570	Alamo Wash at Tucson, AZ	Lat 32°15'31", long 110°53'01", in SE¼SE¼NW¼ sec.35 T.13 S., R.14 E., Pima County, 270 ft downstream from Glenn Street, 0.5 mi east of the intersection of Glenn Street and Swan Road.	9.56	1979-87	7-21-86 7-26-87	d5.58 2.65	c2,340 432
09486050	Roller Coaster Wash near Tucson, AZ	Lat 32°18'09", long 111°00'12", in SE¼SE¼NW¼ sec.15, T.13 S., R.13 E., Pima County, at Oracle-Jaynes Road, 0.3 mi upstream from the mouth and 1.4 mi north of Tucson city limits.	1.75	1982-87	8-24-87	2.74	110
09505200	Wet Beaver Creek near Rimrock, AZ	Lat 34°40'29", long 111°40'17", in NW¼SW¼ sec.24, T.15 N., R.6 E., Yavapai County, in Coconino National Forest, on right bank 4.5 mi northeast of Rimrock and 5.7 mi upstream from Red Tank Draw.	111	1961-82*, 1983-87	3-18-87	7.20	1,180
09512090	Indian Bend Wash at Shea Boulevard at Phoenix, AZ	Lat 33°35'05", long 111°58'10", in SW¼SW¼SE¼ sec.20, T.3 N., R.4 E., Maricopa County, on left bank 500 ft upstream from Shea Boulevard bridge.	41.2	1984-87	2-24-87	1.30	250
09512300	Cave Creek near Cave Creek, AZ	Lat 33°47'10", long 112°04'00", in SW¼ sec.12, T.5 N., R.3 E., Maricopa County, on left bank 200 ft upstream from Prescott to Mesa transmission line, 4.8 mi southwest of town of Cave Creek, and 5.0 mi upstream from Cave Creek Dam.	121	1958-67*, 1968-79, 1981-87	----	----	e
09513650	Agua Fria River at El Mirage, AZ	Lat 33°36'24", long 112°18'14", in NW¼NW¼ sec.18, T.3 N., R.1 E., Maricopa County, at Grand Avenue, 0.75 mi southeast of El Mirage.	1,637	1963-79, 1981-87	----	----	e
09514200	Waterman Wash near Buckeye, AZ	Lat 33°19'49", long 112°30'33", in SW¼NE¼ sec.24, T.1 S., R.3 W., Maricopa County, 2.4 mi above mouth, 5.2 mi southeast of Buckeye.	403	1964-87	----	----	e

See footnotes at end of the table.

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis- charge (ft ³ /s)
Gila River basin--Continued							
09517260	Centennial Wash at Narrows Dam near Salome, AZ	Lat 33°43'29", long 113°30'46", in SW¼SE¼ sec.33, T.5 N., R.12 W., La Paz County, on left bank end of Narrows Dam, 7.4 mi southeast of Salome.	684	1982-87	----	----	e
09520300	Alamo Wash tributary near Ajo, AZ	Lat 32°06'00", long 112°46'15", in SW¼ sec.22, T.15 S., R.5 W. (unsurveyed), Pima County, at State Highway 85, 20 mi southeast of Ajo.	.90	1963-75, 1978, 1980, 1982-87	9-23-87	3.04	240
Whitewater Draw basin							
09537500	Whitewater Draw near Douglas, AZ	Lat 31°21'08", long 109°35'04", in SW¼SE¼ sec.10, T.24 S., R.27 E., Cochise County, on downstream side of pier of bridge on U.S. Highway 80, 1.5 mi upstream from international boundary and 2 mi west of Douglas.	1,023	1947-82*, g1983-87	8- 5-87	7.98	381

* Operated as a continuous-record gaging station.

a Includes an area of 649 mi² in Mexico.

b Includes an area of 395 mi² in Mexico.

c Revised

d At different site and datum.

e No evidence of flow during year.

f Includes 1,459 square miles above Lake Pleasant that
is noncontributing except during occasional periods
of spills from Waddell Dam; does not include the
area tributary to McMicken Dam from which water
is diverted to the Agua Fria River. Diversions
from McMicken Dam have negligible effect on peak
flows of the Agua Fria River.

g Record furnished by International Boundary and Water Commission.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by one asterisk (*); measurements of peak flow by two asterisks (**).

Discharge measurements made at miscellaneous sites during water year 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
San Juan River basin						
Laguna Creek	Chinle Wash	Lat 36°44'57", long 110°08'08", un- surveyed, Navajo County, about 7 mi east of Kayenta.	229	1982-86	12-12-86 1-30-87 3-05-87 4-17-87	*1.66 12.0 11.7 *.48
Little Colorado River basin						
Little Colorado River (09385700)	Colorado River	Lat 34°27'02", long 109°21'42", in NE¼SW¼SE¼ sec.10, T.12 N., R.28 E., Apache County, 1.2 mi downstream from Salado Spring, 2.2 mi upstream from irrigation district diversion dam, and 4.2 mi upstream from State Highway 61 bridge in St. Johns.	845	1940-41, 1975-86	10-06-86 10-28-86 12- 3-86	8.80 7.98 8.15
Bright Angel Creek basin						
Bright Angel Creek	Colorado River	Lat 36°06'11", long 112°05'44", in sec.5, T.31 N., R.3 E., unsurveyed, Coconino County, in Grand Canyon National Park, 0.4 mi upstream from mouth and 4 mi northeast of Grand Canyon.	101	1924-74a, 1983	11- 4-86 9- 2-87	20.4 19.1
Gila River basin						
Tanque Verde Creek	Rillito Creek	Lat 32°15'57", long 110°50'27", in SE¼SE¼ sec.30, T.13, S., R.15 E., Pima County, at Sabino Canyon Road, 1 mi downstream from Sabino Creek and 1.2 mi northeast of Tucson city limits.	219	1940-45a 1966-81b 1986	3-12-87	130
Rillito Creek	Santa Cruz River	Lat 32°16'13", long 110°53'25", in NW¼SW¼ sec.26, T.13, S., R.14 E., Pima County, at Swan Road, 0.7 mi north of intersection of Ft. Lowell Road and Swan Road, and 0.7 mi north of Tucson city limits.	--	---	3-12-87	121
Rillito Creek	Santa Cruz River	Lat 32°18'05", long 111°00'38", in NW¼SW¼ sec.15, T.13, S., R.13 E., Pima County, at La Cholla Blvd., 0.6 mi north of intersection of Ruthrauf Road and La Cholla Blvd., and 1.4 mi north of Tucson city limits.	--	---	3-12-87	39.9
Rillito Creek (09485700)	Santa Cruz River	Lat 32°16'15", long 110°54'50", in NW¼SE¼ sec.28, T.13 S., R.14 E., Pima County, at Dodge Blvd, 0.4 mi north of intersection of Ft. Lowell Road and Dodge Blvd, and 0.1 mi north of Tucson city limits.	871	1986	3-12-87	103
Gila River	Colorado River	Lat 33°20'03", long 112°37'22", in SW¼SW¼SW¼ sec.13, T.1 S., R.4 W., Maricopa County, 3 ft downstream from U.S. Highway 80 bridge, and 3.4 mi southwest of Buckeye.	--	1979-81, 1983	11- 4-86	63

a Operated as a continuous-record station.

b Operated at a crest-stage partial-record station.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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MISCELLANEOUS STATION ANALYSES

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	
09379160 LAGUNA CRK NR CHURCH ROCK NR KAYENTA, AZ (LAT 36 44 57N LONG 110 08 08W)												
APR 1987 17...	1300	0.48	720	9.45	25.5	23.5	--	--	--	210	120	
09395650 PUERCO RIVER, NEAR LUPTON, AZ (LAT 35 19 40N LONG 109 04 10W)												
APR 1987 23...	1100	2.3	1330	8.80	22.0	19.0	617	9.2	124	--	0	
342453109241001 LITTLE COLORADO R AB SALADO SPGS NR ST JOHNS, AZ (LAT 34 24 53N LONG 109 24 10W)												
OCT 1986 16...	0900	2.3	2320	8.20	--	14.0	--	--	--	580	210	
MAR 1987 18...	0930	E2.5	2490	8.00	8.5	5.0	--	--	--	630	240	
SEP 23...	0900	2.7	1600	8.20	21.0	16.5	--	--	--	520	260	
09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN NM (LAT 32 38 53N LONG 108 50 43W)												
MAR 1987 25...	0930	366	240	8.20	--	9.0	--	9.8	--	79	0	
09442000 GILA RIVER NEAR CLIFTON, ARIZ. (LAT 32 57 57N LONG 109 18 35W)												
MAR 1987 24...	1430	301	380	8.40	--	14.5	--	8.8	--	100	0	
09448500 GILA R AT HEAD OF SAFFORD VALLEY NR SOLOMON ARIZ (LAT 32 52 06N LONG 109 30 38W)												
MAR 1987 24...	1045	1070	420	8.40	--	11.0	--	9.6	--	120	29	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)
09379160 LAGUNA CRK NR CHURCH ROCK NR KAYENTA, AZ (LAT 36 44 57N LONG 110 08 08W)												
APR 1987 17...	48	22	72	2	3.7	66	26	250	22	0.30	5.3	
09395650 PUERCO RIVER, NEAR LUPTON, AZ (LAT 35 19 40N LONG 109 04 10W)												
APR 1987 23...	--	--	--	--	--	--	--	--	--	--	--	
342453109241001 LITTLE COLORADO R AB SALADO SPGS NR ST JOHNS, AZ (LAT 34 24 53N LONG 109 24 10W)												
OCT 1986 16...	160	45	240	4	16	--	--	430	240	1.8	18	
MAR 1987 18...	160	55	260	5	14	480	0	510	270	2.2	18	
SEP 23...	140	42	190	4	10	--	--	340	190	1.8	17	
09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN NM (LAT 32 38 53N LONG 108 50 43W)												
MAR 1987 25...	23	5.1	20	1	1.6	--	--	19	7.3	1.6	32	
09442000 GILA RIVER NEAR CLIFTON, ARIZ. (LAT 32 57 57N LONG 109 18 35W)												
MAR 1987 24...	31	6.5	38	2	2.6	--	--	41	17	1.6	34	
09448500 GILA R AT HEAD OF SAFFORD VALLEY NR SOLOMON ARIZ (LAT 32 52 06N LONG 109 30 38W)												
MAR 1987 24...	34	8.5	36	1	2.4	--	--	27	36	0.80	33	

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

MISCELLANEOUS STATION ANALYSES

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)
09379160 LAGUNA CRK NR CHURCH ROCK NR KAYENTA, AZ (LAT 36 44 57N LONG 110 08 08W)											
APR 1987 17...	486	511	0.66	--	<0.100	0.570	1.7	--	--	--	--
09395650 PUERCO RIVER, NEAR LUPTON, AZ (LAT 35 19 40N LONG 109 04 10W)											
APR 1987 23...	881	--	--	848	--	--	--	11	--	--	--
342453109241001 LITTLE COLORADO R AB SALADO SPGS NR ST JOHNS, AZ (LAT 34 24 53N LONG 109 24 10W)											
OCT 1986 16...	--	1380	1.87	--	<0.100	<0.010	--	--	--	--	--
MAR 1987 18...	--	1520	2.07	--	<0.100	<0.010	--	--	--	--	--
SEP 23...	--	1090	1.48	--	<0.100	<0.010	--	--	--	--	--
09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN NM (LAT 32 38 53N LONG 108 50 43W)											
MAR 1987 25...	--	164	0.22	--	--	--	--	--	1	10	<0.5
09442000 GILA RIVER NEAR CLIFTON, ARIZ. (LAT 32 57 57N LONG 109 18 35W)											
MAR 1987 24...	--	249	0.34	--	0.400	0.040	0.12	--	2	20	<0.5
09448500 GILA R AT HEAD OF SAFFORD VALLEY NR SOLOMON ARIZ (LAT 32 52 06N LONG 109 30 38W)											
MAR 1987 24...	--	233	0.32	--	--	--	--	--	2	16	<0.5
DATE	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL, RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL, RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL, RECOV- ERABLE (UG/L AS MN) (01055)
09379160 LAGUNA CRK NR CHURCH ROCK NR KAYENTA, AZ (LAT 36 44 57N LONG 110 08 08W)											
APR 1987 17...	120	--	--	--	--	--	14	--	--	--	--
09395650 PUERCO RIVER, NEAR LUPTON, AZ (LAT 35 19 40N LONG 109 04 10W)											
APR 1987 23...	--	--	--	--	30	--	--	16	--	--	220
342453109241001 LITTLE COLORADO R AB SALADO SPGS NR ST JOHNS, AZ (LAT 34 24 53N LONG 109 24 10W)											
OCT 1986 16...	460	--	--	--	--	--	30	--	--	--	--
MAR 1987 18...	490	--	--	--	--	--	10	--	--	--	--
SEP 23...	350	--	--	--	--	--	87	--	--	--	--
09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN NM (LAT 32 38 53N LONG 108 50 43W)											
MAR 1987 25...	20	<1	<1	<1	--	30	32	--	<5	18	--
09442000 GILA RIVER NEAR CLIFTON, ARIZ. (LAT 32 57 57N LONG 109 18 35W)											
MAR 1987 24...	50	<1	<1	<1	--	7	33	--	<5	23	--
09448500 GILA R AT HEAD OF SAFFORD VALLEY NR SOLOMON ARIZ (LAT 32 52 06N LONG 109 30 38W)											
MAR 1987 24...	30	<1	<1	<1	--	14	6	--	<5	37	--

< Actual value is known to be less than value shown.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

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MISCELLANEOUS STATION ANALYSES

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L U-NAT) (80030)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
09379160 LAGUNA CRK NR CHURCH ROCK NR KAYENTA, AZ (LAT 36 44 57N LONG 110 08 08W)										
APR 1987 17...	--	--	--	--	--	--	--	--	--	--
09395650 PUERCO RIVER, NEAR LUPTON, AZ (LAT 35 19 40N LONG 109 04 10W)										
APR 1987 23...	--	--	--	--	--	31	11	8.3	<0.4	<21
342453109241001 LITTLE COLORADO R AB SALADO SPGS NR ST JOHNS, AZ (LAT 34 24 53N LONG 109 24 10W)										
OCT 1986 16...	120	--	--	--	--	--	--	--	--	--
MAR 1987 18...	210	--	--	--	--	--	--	--	--	--
SEP 23...	40	--	--	--	--	--	--	--	--	--
09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN NM (LAT 32 38 53N LONG 108 50 43W)										
MAR 1987 25...	4	2	94	5	6	--	--	--	--	--
09442000 GILA RIVER NEAR CLIFTON, ARIZ. (LAT 32 57 57N LONG 109 18 35W)										
MAR 1987 24...	3	4	140	5	12	--	--	--	--	--
09448500 GILA R AT HEAD OF SAFFORD VALLEY NR SOLOMON ARIZ (LAT 32 52 06N LONG 109 30 38W)										
MAR 1987 24...	1	2	220	7	7	--	--	--	--	--

< Actual value is known to be less than value shown.

GROUND-WATER AREAS AND ABBREVIATIONS

AGF =	Agua Fria basin	LSC =	Lower Santa Cruz basin
ALT =	Altar Valley	LVR =	Lower Verde River
ARA =	Aravaipa Valley	MMU =	McMullen Valley
AVR =	Avra Valley	MNV =	Monument Valley
BIC =	Big Chino Valley	N-C =	New River-Cave Creek
BIS =	Big Sandy Valley	PSC =	Peach Springs Canyon
BWM =	Bill Williams	PRZ =	Puerco-Zuni
BLM =	Black Mesa	RAN =	Ranegras Plain
BRB =	Black River basin	SAC =	Sacramento Valley
BOD =	Bodaway Mesa	SAF =	Safford basin
BUT =	Butler Valley	SRV =	Salt River Valley
CDI =	Canyon Diablo	SBV =	San Bernardino Valley
CHV =	Chevelon	SFP =	San Francisco Peaks
CHN =	Chinle	SFR =	San Francisco River basin
COP =	Coconino Plateau	SSI =	San Simon basin
CHI =	Colorado River, Hoover Dam to Imperial Dam	SSW =	San Simon Wash
CON =	Concho	SHV =	Shivwits
DOU =	Douglas basin	SNO =	Snowflake
DUN =	Duncan basin	STJ =	St. Johns
GIL =	Gila Bend basin	TON =	Tonto basin
GRD =	Gila River from Painted Rock Dam to Texas Hill	TUB =	Tuba City
GSK =	Gila River from head of San Carlos Reservoir to Kelvin	USR =	Upper Salt River basin
GTD =	Gila River from Texas Hill to Dome	USP =	Upper San Pedro basin
GWA =	Grand Wash	USC =	Upper Santa Cruz basin
HAR =	Harquahala Plains	VER =	Upper Verde River
HAS =	Hassayampa basin	VRG =	Virgin River
HOL =	Holbrook	WAT =	Waterman Wash
HOP =	Hopi	WMD =	Western Mexican drainage
HOU =	House Rock	WHM =	White Mountains
HUA =	Hualapai Valley	WRB =	White River basin
KAI =	Kaibito	WIL =	Willcox basin
KAN =	Kanab	WMN =	Williamson Valley
LIC =	Little Chino Valley	YUM =	Yuma
LHA =	Lower Hassayampa		
LSP =	Lower San Pedro basin		

SITE INFORMATION

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
AGF	A-07-01 17DAD	4	13	335650	1121628	15070102	H	343	--	--
	A-08-02 03BDC1	4	25	340404	1120844	15070102	H	60	--	--
	A-09-02 34DDD	4	25	340421	1120758	15070102	H	112	--	--
	A-12-02 01DAC	4	25	342655	1120545	15070102	S	250	--	--
	A-12-02 23BAA	4	25	342450	1120718	15070102	S	140	--	--
	A-13-01 02CAC	4	25	343157	1121348	--	-	--	--	--
	A-14-01 27DBB	4	25	343353	1121444	--	-	--	--	--
	A-14-01 28BBB	4	25	343415	1121614	--	-	--	--	--
	A-15-01 28ACC	4	25	343906	1121547	--	-	--	--	--
	B-14-01 11DAA	4	25	343628	1121830	--	-	--	--	--
	B-14-01 14ACC	4	25	343540	1121957	--	-	--	--	--
	B-14-01 15ABA	4	25	343601	1122053	--	-	--	--	--
	B-14-01 22ADA	4	25	343453	1122034	--	-	--	--	--
ALT	D-16-09 24DAC	4	19	320113	1112213	--	-	--	--	--
	D-16-10 34BAB	4	19	320001	1111836	--	-	--	--	--
	D-17-09 02DDA	4	19	315830	1112306	--	-	--	--	--
	D-18-09 11BAC	4	19	315257	1112345	--	-	--	--	--
	D-18-09 11BCC	4	19	315241	1112403	--	-	--	--	--
	D-19-09 03ACA	4	19	314830	1112431	--	-	--	--	--
	D-19-09 18AAA	4	19	314657	1112715	--	-	--	--	--
	D-20-08 35BDB	4	19	313850	1112957	--	-	--	--	--
	D-20-09 17ABA	4	19	314135	1112631	--	-	--	--	--
	D-21-08 27ADA	4	19	313429	1113015	--	-	--	--	--
	D-22-08 19DEC	4	19	312946	1113345	--	-	--	--	--
	D-22-08 29DBA	4	19	312900	1113232	--	-	--	--	--
	D-22-08 34ABD	4	19	312827	1113033	--	-	--	--	--
ARA	D-07-20 21BBB	4	9	324902	1101849	15050203	I	150	--	--
	D-08-21 18DAD	4	9	324413	1091355	15040006	I	140	--	--
	D-09-22 19DCC	4	9	323753	1100806	15050203	S	---	--	--
AVR	D-11-10 08DDD	4	19	322852	1112021	--	-	--	--	--
	D-11-10 22ADD	4	19	322732	1111817	--	-	--	--	--
	D-11-10 25DDA2	4	19	322621	1111613	--	-	--	--	--
	D-11-10 27DAA	4	19	322636	1111814	--	-	--	--	--
	D-12-10 23ACD	4	19	322219	1111728	--	-	--	--	--
	D-12-11 20AAA	4	19	322245	1111404	--	-	--	--	--
	D-13-11 04DAA	4	19	321936	1111310	--	-	--	--	--
	D-13-11 11ACD	4	19	321851	1111126	--	-	--	--	--
	D-13-11 16ADC	4	19	321801	1111312	--	-	--	--	--
	D-14-10 12ABA	4	19	321256	1111629	--	-	--	--	--
	D-15-10 35AAA	4	19	320511	1111712	--	-	--	--	--
	D-15-11 05CCD	4	19	320850	1111459	--	-	--	--	--
BIC	B-17-02 04DBD	4	25	345302	1122831	15060201	U	187	--	--
	B-17-02 05CBA	4	25	345312	1123008	15060201	S	---	--	--
	B-17-02 06BBB	4	25	345338	1123118	15060201	I	342	--	--
	B-18-03 23BEC	4	25	345608	1123323	15060201	U	61	--	--
	B-19-04 10ADA	4	25	350303	1123956	15060201	S	605	--	--
	B-21-02 14BCC	4	25	351207	1122837	15060201	P	1700	--	--
	B-24-08 17DCD1	4	25	352730	1130810	15060201	-	1788	100	--
BIS	B-16-13 36CCC	4	15	344040	1133510	15030201	H	15	--	--
	B-18-13 34CCD	4	15	345332	1133900	15030201	S	72	--	--
	B-21-10 17CCD1	4	15	351153	1132143	15030201	U	500	--	--
	B-21-13 24BCD	4	15	351119	1133708	15030201	S	404	--	--
	B-22-08 15CCB	4	25	351712	1130654	15030201	U	---	--	--
BLM RES	02 040-00.85X12.17	4	17	363423	1103055	15020018	H	820	--	--
	02 040-04.03X14.68	4	17	363213	1103420	15020018	H	500	--	--
	02 040-05.38X15.27BMOB	4	17	363143	1103550	15020018	U	400	--	--
	04 074-08.95X02.95BMOB	4	17	361225	1102407	15020017	-	2460	--	--
	04 075-00.61X16.21BMOB	4	17	360055	1103040	15020012	U	1683	--	--
	06 096-02.73X03.65	4	5	355648	1104755	15020017	H	361	--	--
	08 037-12.81X16.98	4	1	363013	1095849	14080204	H	720	--	--
	08 038-07.04X10.39	4	17	363558	1100737	14080204	H	1280	--	--
	08 038-09.40X07.08BMOB	4	17	363850	1101008	14080204	U	1338	--	--
	08 039-00.70X01.57BMOB	4	17	364338	1101546	14080204	U	868	--	--
	08 039-02.11 X 02.94	4	17	364226	1101717	14080204	H	890	--	--
	08 039-08.31X05.09	4	17	364034	1102400	14080204	H	933	--	--
	08 039-11.83X08.69	4	17	363727	1102745	14080204	H	314	--	--
	08 054-10.96X00.63BMOB	4	1	362936	1095641	14080204	U	851	--	--
BUT	B-07-14 16AAA	4	12	335725	1134258	--	-	--	--	--
	B-07-15 02DDC	4	12	335823	1134715	--	-	--	--	--
	B-07-15 10ADA	4	12	335810	1134802	--	-	--	--	--
	B-07-15 11CAA	4	12	335748	1134732	--	-	--	--	--
	B-07-15 11DCD	4	12	335729	1134716	--	-	--	--	--
	B-07-15 11DDC	4	12	335729	1134708	--	-	--	--	--
	B-07-15 11DDD	4	12	335729	1134700	--	-	--	--	--
	B-07-15 12AAD	4	12	335807	1134551	--	-	--	--	--
	B-07-15 12DAD	4	12	335744	1134552	--	-	--	--	--
	B-07-15 13ACB	4	12	335717	1134625	--	-	--	--	--
	B-07-15 13DBC	4	12	335648	1134621	--	-	--	--	--
	B-07-15 14ACB	4	12	335713	1134729	--	-	--	--	--
	B-07-15 14DCB	4	12	334647	1135726	--	-	--	--	--
	B-07-15 15AAD1	4	12	335718	1134803	--	-	--	--	--
	B-07-15 15AAD2	4	12	335718	1134804	--	-	--	--	--
	B-07-15 15AAD3	4	12	335718	1134805	--	-	--	--	--
	B-08-13 04DDD1	4	12	340333	1133637	--	-	--	--	--
	B-08-13 04DDD2	4	12	340336	1133642	--	-	--	--	--
	B-08-14 20DAB	4	12	340122	1134403	--	-	--	--	--
	B-08-14 23CDD	4	12	340059	1134116	--	-	--	--	--
	B-08-14 23DDD	4	12	340058	1134047	--	-	--	--	--
	B-08-14 25BDC	4	12	340031	1134030	--	-	--	--	--
	B-08-14 29CDD	4	12	340008	1134430	--	-	--	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
BWM	B-09-09 04CBC	4	25	340852	1131225	15030204	U	860	--	--
	B-10-14 14DBD	4	27	341222	1134059	15030204	I	100	--	--
	B-10-14 23BAC	4	27	341153	1134123	15030204	I	---	--	--
	B-11-04 18CCC	4	25	341714	1124318	15030203	I	325	--	--
	B-11-06 19CBD	4	25	341648	1125552	15030203	I	312	--	--
	B-11-08 20ADB	4	25	341707	1130652	15030203	S	175	--	--
	B-11-10 31CEA	4	27	341508	1132038	15030203	U	2998	--	--
	B-11-11 17ACA2	4	27	341756	1132517	15030203	H	16	--	--
	B-11-11 31BBB1	4	27	341531	1132658	15030203	U	888	--	--
	B-11-16 32CDA	4	27	341454	1135655	15030204	H	50	--	--
	B-12-03 06CDD	4	25	342422	1123641	15030203	-	461	--	--
	B-12-05 02ACD2	4	25	342442	1124444	15030203	I	200	--	--
	B-12-06W31AAD	4	25	342044	1125541	15030203	I	147	--	--
	B-13-04 21DB U PZ2	4	13	342709	1124045	15030203	U	457	--	--
	B-13-04 21DBU-PZ1	4	13	342709	1124045	15030203	U	395	--	--
	B-13-04 26BCC1UNSRV	4	25	342626	1123914	15030203	U	1673	--	--
	B-13-04 27AB U PZ1	4	25	342639	1123942	15030203	Z	---	--	--
	B-13-04 27AB U PZ2	4	25	342639	1123942	15030203	Z	---	--	--
	B-13-04 28DA UNSRV	4	25	342621	1124023	15030203	S	187	--	--
	B-13-06 09DCD	4	25	342823	1125318	15030203	I	52	--	--
	B-13-09 17BCC	4	25	342801	1131348	15030203	P	473	--	--
	B-13-13 07DDB1	4	15	342835	1133913	15030201	H	226	--	--
	B-13-13 07DDB2	4	15	342836	1133913	15030201	H	543	--	--
	B-13-15 17CAC2	4	15	342753	1135119	15030204	U	1025	--	--
	B-14-04 22BAD	4	25	344248	1124008	15060201	S	302	--	--
CHI	B-02-18 09DDC	4	12	333129	1140652	--	-	---	--	--
	B-03-19 29BAB	4	12	333445	1141446	15030106	-	---	--	--
	B-03-21 08ABD	4	12	333718	1142647	15030104	H	604	--	--
	B-04-19 33CCA	4	27	333829	1141348	15030106	H	---	--	--
	B-09-19 07BBB	4	12	340836	1141657	15030104	U	281	--	--
	B-16-20H 11CCD	4	15	344406	1142606	15030103	H	880	--	--
	B-20-22 24DDD	4	15	350557	1143345	15030101	P	515	--	--
	B-21-21 21CBB	4	15	351120	1143200	15030101	H	490	--	--
	B-25-20 15AAA	4	15	353337	1142352	15010014	S	700	--	--
	B-26-20 06ABC	4	15	354027	1142731	--	U	---	--	--
	B-28-21 20AAC	4	15	354838	1143232	15010014	S	---	--	--
	B-30-20 06CAC	4	15	360056	1142816	15010014	P	590	--	--
	C-05-20 24ADD	4	27	325751	1141708	15030104	H	832	--	--
	C-06-20 32ABD2	4	27	325157	1142007	15070201	H	502	462	--
CHN RES	10 071-05.55X01.98	4	1	361317	1093558	14080204	U	200	--	--
CHV	A-15-12 15DDC	4	5	344058	1110331	15020008	S	780	--	--
	A-15-18 19AAA	4	17	344106	1102806	15020010	-	3850	--	--
	A-17-14 17ADD	4	5	345223	1105223	15020008	S	600	--	--
CON	A-11-24 22DBC	4	1	342006	1094708	15020005	U	850	--	--
	A-11-25 18DCC	4	1	342044	1094400	15020002	U	280	--	--
	A-12-26 02BDA	4	1	342817	1093336	15020002	S	---	--	--
	A-12-26 13DCD	4	1	342555	1093216	15020002	U	300	--	--
	A-13-24 22BBD	4	1	343048	1094754	15020002	S	680	--	--
	A-13-26 06DCB	4	1	343302	1093720	15020002	U	447	--	--
	A-13-26 12DDA	4	1	343226	1093131	15020002	S	75	--	--
	A-14-24 29DCC	4	1	343432	1095004	15020002	S	335	--	--
	A-14-25 14CCD	4	1	343623	1094032	15020002	S	350	--	--
	A-14-25E12CDD2	4	1	343716	1093857	15020002	I	452	--	--
	A-14-26 21BCC	4	1	343601	1093558	15020002	I	345	--	--
	A-14-26W18DBC	4	1	343637	1093749	15020002	U	410	--	--
DOU	D-18-26 11ADA	4	3	315309	1093943	--	-	---	--	--
	D-18-26 28AAA2	4	3	315042	1094143	--	-	---	--	--
	D-18-27 08BAC	4	3	315318	1093721	--	-	---	--	--
	D-19-26 09BBB	4	3	314806	1094233	--	-	---	--	--
	D-19-26 23DAA	4	3	314557	1093924	--	-	---	--	--
	D-19-26 29BAB2	4	3	314528	1094303	--	-	---	--	--
	D-19-26 33CDA	4	3	314358	1094148	--	-	---	--	--
	D-20-25 09CAA1	4	3	314225	1094754	--	-	---	--	--
	D-20-25 09CAA2	4	3	314226	1094753	--	-	---	--	--
	D-20-26 17BCD	4	3	314139	1094304	--	-	---	--	--
	D-20-26 23DAA	4	3	314039	1093915	--	-	---	--	--
	D-20-26 25CBC	4	3	313941	1093906	--	-	---	--	--
	D-21-25 15DBB	4	3	313611	1094720	--	-	---	--	--
	D-21-26 02BAA	4	3	313826	1094023	--	-	---	--	--
	D-21-26 02CCD	4	3	313740	1094038	--	-	---	--	--
	D-21-26 24BAA	4	3	313550	1093920	--	-	---	--	--
	D-21-26 32DAD	4	3	313332	1094300	--	-	---	--	--
	D-21-26 36DDD	4	3	313318	1093851	--	-	---	--	--
	D-22-26 04DAD	4	3	313242	1094155	--	-	---	--	--
	D-22-26 29BCC	4	3	312923	1094349	--	-	---	--	--
	D-22-26 31CCD	4	3	312803	1094445	--	-	---	--	--
	D-23-26 13CCC1	4	3	312527	1093957	--	-	---	--	--
	D-23-27 09DAB	4	3	312638	1093559	--	-	---	--	--
	D-23-27 19CBB	4	3	312458	1093842	--	-	---	--	--
	D-23-27 22DDD	4	3	312433	1093449	--	-	---	--	--
	D-23-28 08DDD	4	3	312615	1093042	--	-	---	--	--
	D-23-28 31CCC	4	3	312248	1093238	--	-	---	--	--
	D-24-27 05BDB	4	3	312226	1093728	--	-	---	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
DUN	D-08-32 18CCD	4	11	324351	1090654	15040002	-	---	--	--
	D-08-32 34AD	4	11	324142	1090300	--	-	100	--	--
GRD	C-04-08 26DDD	4	13	330228	1130244	15070201	I	192	--	--
	C-04-08 35BDD	4	13	330203	1130321	15070201	I	272	--	--
	C-04-10 02CBB	4	13	330632	1131614	15070201	-	990	--	--
	C-04-10 22ABB	4	13	330422	1131643	15070201	I	500	--	--
	C-04-11 15BAB	4	27	330514	1132310	15070201	I	510	--	--
	C-04-11 21BBB	4	27	330424	1132430	15070201	I	1302	1165	1290
	C-05-11 03BBB	4	27	330145	1132327	15070201	U	---	--	--
	C-06-12 03ABA1	4	27	325632	1132837	15070201	-	505	--	--
	C-06-12 19BBA	4	27	325353	1133211	15070201	U	1352	--	--
	C-07-11 27DDD	4	27	324658	1132208	15070202	I	678	--	--
	C-07-12 23CDD	4	27	324750	1132750	15070202	U	---	--	--
GSK	D-01-18 11DCC	4	7	332102	1102802	15040007	I	---	--	--
	D-01-18 12CDC	4	7	332108	1102745	15040007	P	---	--	--
	D-03-15 29ABA	4	7	330858	1104951	15050100	U	300	--	--
	D-04-14 21BCD	4	21	330416	1105533	15050100	S	80	--	--
GTD	C-06-14 28BBA	4	27	325300	1134232	15070201	I	1040	--	--
	C-07-16 24ADD	4	27	324824	1135102	15070201	-	---	--	--
	C-07-16 33DAA	4	27	324623	1135409	15070201	-	---	--	--
	C-08-17 12DDD	4	27	324415	1135711	15070201	I	---	--	--
	C-08-17 20DCC	4	27	324229	1140146	15070201	-	---	--	--
	C-08-18 27AAD	4	27	324217	1140525	15070201	U	---	--	--
	C-08-18 31ABB2	4	27	324133	1140859	15070201	-	---	--	--
	C-09-19 04CDD	4	27	323955	1141306	15070201	U	110	--	--
HAR	B-01-08 06AAA	4	13	332749	1130639	--	-	---	--	--
	B-01-08 19CBC	4	13	332440	1130736	--	-	---	--	--
	B-01-09 10BBB	4	13	332658	1131040	--	-	---	--	--
	B-01-09 20BDC	4	13	332449	1131230	--	-	---	--	--
	B-01-09 26CCC	4	13	332335	1130939	--	-	---	--	--
	B-01-10 01CCC	4	13	332704	1131450	--	-	---	--	--
	B-02-08 17CAA	4	13	333057	1130607	--	-	---	--	--
	B-02-08 27BBA	4	13	332937	1130416	--	-	---	--	--
	B-02-08 30AAA2	4	13	332938	1130639	--	-	---	--	--
	B-02-09 03BBB	4	13	333305	1131043	--	-	---	--	--
	B-02-09 07ABB	4	13	333212	1131318	--	-	---	--	--
	B-02-09 14BAB	4	13	333120	1130925	--	-	---	--	--
	B-02-10 05ABB	4	13	333301	1131826	--	-	---	--	--
	B-02-10 17DCA	4	13	333035	1131817	--	-	---	--	--
	B-02-10 26DBB	4	13	332908	1131520	--	-	---	--	--
	B-03-11 08CAC	4	13	333651	1132459	--	-	---	--	--
	B-03-11 34BBB	4	27	333358	1132310	--	-	---	--	--
	B-04-09 30AAC	4	13	333952	1131303	--	-	---	--	--
	B-04-12 04CCA	4	12	334248	1133013	--	-	---	--	--
	C-01-08 04BDA	4	13	332216	1130505	--	-	---	--	--
	C-01-08 06DCC	4	13	332149	1130703	--	-	---	--	--
	C-01-08 14DDD	4	13	332005	1130228	--	-	---	--	--
	C-01-08 16DCC	4	13	332005	1130457	--	-	---	--	--
	C-01-09 18ACB	4	13	332040	1131314	--	-	---	--	--
HAS	B-04-04 19BAA	4	13	334052	1124219	--	-	---	--	--
	B-04-05 05ABB	4	13	334325	1124720	--	-	---	--	--
	B-05-04 24CCD	4	13	334513	1123805	--	-	---	--	--
	B-05-05 22BCC	4	13	334543	1124630	--	-	---	--	--
	B-06-04 02CCC	4	13	335303	1123916	--	-	---	--	--
	B-06-04 13DCD	4	13	335120	1123729	--	-	---	--	--
	B-06-08 20ADC	4	13	335124	1130637	--	-	---	--	--
	B-07-04 07BCC	4	13	335154	1124303	15070103	I	350	--	--
	B-07-05 03BCC2	4	13	335853	1124615	15070103	P	500	--	--
	B-07-05 03DBC	4	13	335828	1124538	15070103	P	300	--	--
	B-08-05 10DAA	4	25	340258	1124520	15070103	-	605	--	--
	B-08-05 18CCC	4	25	340147	1124923	15070103	H	450	--	--
	B-08-05 19CBC	4	25	340112	1124921	15070103	I	350	--	--
	B-09-05 35DBB	4	25	340440	1124436	15070103	S	880	--	--
HOL	B-09-06 05ADD	4	25	340908	1125338	15070103	-	992	--	--
	A-15-23 27DDD	4	17	343950	1095320	15020002	I	600	--	--
	A-15-23 28DCC	4	17	343950	1095440	15020002	I	425	--	--
	A-16-19 36CBC	4	17	344407	1101718	15020008	U	800	--	--
	A-16-22 17CCD	4	17	344644	1100242	15020002	I	450	--	--
	A-17-20 06ACB	4	17	345414	1101536	15020008	I	403	--	--
	A-17-20 10DBA	4	17	345324	1101242	15020008	U	---	--	--
	A-17-20 26DBC	4	17	345023	1101114	15020008	U	570	--	--
	A-17-21 10CBA	4	17	345310	1100625	15020002	U	285	--	--
	A-18-19 17ADC	4	17	345736	1102042	15020008	I	500	--	--
HOU	A-18-19 23DBD	4	17	345635	1101738	15020008	U	550	--	--
	A-42-08 36CBC	4	5	365942	1112925	14070006	-	398	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
HUA	B-22-13 09ABC	4	15	351833	1133956	--	-	---	--	--
	B-22-16 03CBB	4	15	351907	1135828	15010007	H	970	--	--
	B-23-11 09BCC	4	15	352340	1132704	--	-	---	--	--
	B-23-13 32ACA	4	15	352020	1134115	15010007	U	472	--	--
	B-23-13 32DAA	4	15	352003	1134103	--	-	---	--	--
	B-24-12 17CBC	4	15	352747	1133538	15010007	U	440	--	--
	B-24-14 28CAD	4	15	352559	1134620	15010007	U	705	--	--
	B-24-16 01DDD	4	15	352911	1135521	15020016	I	705	--	--
	B-25-09 26DBC	4	3	353109	1131228	15010007	U	1700	--	--
	B-25-10 26CDA	4	25	353104	1131858	--	-	---	--	--
	B-25-10 29BBD1	4	15	353135	1132226	--	-	---	--	--
	B-25-11 26BAD	4	15	353137	1132520	--	-	---	--	--
	B-26-18 03AAA1	4	15	354036	1141106	15010007	H	705	--	--
	B-28-17 31CCC	4	15	354552	1140850	15010007	U	800	--	--
	B-30-17 14DCC	4	15	355855	1140435	15010005	U	650	--	--
KAN	B-40-04 06AAC	4	15	365403	1124528	15010003	I	202	--	--
LHA	B-01-05 08DAB	4	13	332634	1124700	--	-	---	--	--
	B-01-05 15CBB1	4	13	332541	1124545	--	-	---	--	--
	B-01-05 27BBC	4	13	332416	1124543	--	-	---	--	--
	B-01-06 01ABB	4	13	332752	1124923	--	-	---	--	--
	B-01-06 03BBC	4	13	332744	1125154	--	-	---	--	--
	B-01-06 11BCA	4	13	332648	1125044	--	-	---	--	--
	B-01-06 23DCD	4	13	332427	1125013	--	-	---	--	--
	B-02-04 29DCD	4	13	332848	1124057	--	-	---	--	--
	B-02-05 29DAC	4	13	332858	1124707	--	-	---	--	--
	B-02-06 05DAA	4	13	333240	1125305	--	-	---	--	--
	B-02-06 09CBB	4	13	333147	1125303	--	-	---	--	--
	B-02-06 21BBA	4	13	333028	1125251	--	-	---	--	--
	B-02-06 33CAA	4	13	332817	1125234	--	-	---	--	--
	B-02-07 05BBC	4	13	333256	1130014	--	-	---	--	--
	B-02-07 23CCA	4	13	332950	1125657	--	-	---	--	--
	B-02-07 27AAB	4	13	332934	1125728	--	-	---	--	--
	B-03-05 26DAA	4	13	333422	1124350	--	-	---	--	--
	C-01-05 03BAA1	4	13	332236	1124520	--	-	---	--	--
	C-01-05 29ADC	4	13	331844	1124702	--	-	---	--	--
	C-01-05 34ADC1	4	13	331751	1124457	--	-	---	--	--
	C-01-06 14DBB	4	13	332026	1125026	--	-	---	--	--
	C-01-06 18BBB	4	13	332053	1125505	--	-	---	--	--
	C-01-06 19ABB	4	13	332000	1125438	--	-	---	--	--
	C-01-07 14BBB	4	13	332053	1125708	--	-	---	--	--
	C-02-05 08CCC	4	13	331547	1124748	--	-	---	--	--
	C-02-05 16DAA	4	13	331518	1124548	--	-	---	--	--
LIC	B-14-02 14BAD	4	25	343549	1122618	--	-	---	--	--
	B-15-01 01CDC	4	25	344212	1121907	--	-	---	--	--
	B-15-01 25CDB	4	25	343847	1121904	--	-	---	--	--
	B-15-02 17ABA	4	25	344106	1122915	--	-	---	--	--
	B-16-02 02ABD1	4	25	344800	1122605	--	-	---	--	--
	B-16-02 03BAC	4	25	344805	1122732	--	-	---	--	--
	B-16-02 03BBB1	4	25	344809	1122752	--	-	---	--	--
	B-16-02 03DDC4	4	25	344723	1122657	--	-	---	--	--
	B-16-02 11CBB1	4	25	344653	1122649	--	-	---	--	--
	B-16-02 15AAA	4	25	344626	1122651	--	-	---	--	--
	B-16-02 17BDC	4	25	344607	1122943	--	-	---	--	--
	B-16-02 21BAA1	4	25	344534	1122829	--	-	---	--	--
	B-16-02 34ABA2	4	25	344347	1122710	--	-	---	--	--
	B-17-02 35CCC2	4	25	344817	1122648	--	-	---	--	--
	B-17-02N34ACC	4	25	344844	1122723	--	-	---	--	--
	B-17-02N34DDD1	4	25	344819	1122657	--	-	---	--	--
	B-17-02N34DDD3	4	25	344819	1122656	--	-	---	--	--
	B-17-02S34ABA	4	25	344818	1122706	--	-	---	--	--
	B-17-02W27DCC	4	25	344911	1122724	--	-	---	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OPEN INTERVAL (FEET)
LSC	D-03-04 35DCB	4	21	330715	1115457	--	-	---	--	--
	D-03-05 01DDA	4	21	331137	1114720	--	-	---	--	--
	D-03-05 29BCB	4	21	330828	1115228	--	-	---	--	--
	D-03-06 17BDD	4	21	331007	1114547	--	-	---	--	--
	D-03-06 27DBC	4	21	330816	1114338	--	-	---	--	--
	D-04-02 15CBC	4	21	330435	1120858	--	-	---	--	--
	D-04-03 09CDD PZ1	4	21	330517	1120323	--	-	---	--	--
	D-04-03 09CDD PZ2	4	21	330517	1120323	--	-	---	--	--
	D-04-03 13DDD	4	21	330424	1115946	--	-	---	--	--
	D-04-03 15DCC	4	21	330423	1120214	--	-	---	--	--
	D-04-03 16CBB	4	21	330442	1120357	--	-	---	--	--
	D-04-03 20DCD	4	21	330328	1120408	--	-	---	--	--
	D-04-03 35DDD	4	21	330144	1120047	--	-	---	--	--
	D-04-04 16CDD	4	21	330425	1115709	--	-	---	--	--
	D-04-04 20CDD	4	21	330330	1115812	--	-	---	--	--
	D-04-05 15BAD	4	21	330505	1114954	--	-	---	--	--
	D-04-06 05ADD	4	21	330647	1114516	--	-	---	--	--
	D-04-06 23BAA	4	21	330423	1114245	--	-	---	--	--
	D-04-08 02CCC	4	21	330614	1113027	--	-	---	--	--
	D-04-10 30BDD	4	21	330311	1112142	--	-	---	--	--
	D-04-11 07DBB	4	21	330541	1111528	--	-	---	--	--
	D-05-02 02DCD	4	21	330052	1120716	--	-	---	--	--
	D-05-02 22DAD	4	21	325830	1120804	--	-	---	--	--
	D-05-02 36BAD	4	21	325714	1120633	--	-	---	--	--
	D-05-03 01CDD	4	21	330055	1120017	--	-	---	--	--
	D-05-03 02DDD	4	21	330049	1120048	--	-	---	--	--
	D-05-03 03CCC	4	21	330053	1120248	--	-	---	--	--
	D-05-03 12CDD1	4	21	325959	1120017	--	-	---	--	--
	D-05-03 25ADD	4	21	325743	1115945	--	-	---	--	--
	D-05-03 29BCC1	4	21	325745	1120454	--	-	---	--	--
	D-05-06 28CAA	4	21	325735	1114452	--	-	---	--	--
	D-05-07 33DDD	4	21	325618	1113808	--	-	---	--	--
	D-05-07 34DDD	4	21	325618	1113705	--	-	---	--	--
	D-05-08 02AAA	4	21	330146	1112923	--	-	---	--	--
	D-05-08 12AAD	4	21	330047	1112822	--	-	---	--	--
	D-05-08 17BBB2	4	21	330008	1113326	--	-	---	--	--
	D-05-09 03DAB	4	21	330120	1112425	--	-	---	--	--
	D-05-09 14CBB	4	21	325940	1112410	--	-	---	--	--
	D-05-09 18BDD1	4	21	325945	1112751	--	-	---	--	--
	D-05-09 18BDD2	4	21	325944	1112750	--	-	---	--	--
	D-05-09 22CBA	4	21	325848	1112511	--	-	---	--	--
	D-05-09 29ADA	4	21	325807	1112616	--	-	---	--	--
	D-05-09 31ADD	4	21	325707	1112718	--	-	---	--	--
	D-06-02E01CDD2	4	21	325542	1120533	--	-	---	--	--
	D-06-03 11CDD1	4	21	325430	1120022	--	-	---	--	--
	D-06-03 15BDC	4	21	325404	1120130	--	-	---	--	--
	D-06-03 27CCC	4	21	325156	1120151	--	-	---	--	--
	D-06-03S02DDD2	4	21	325524	1115949	--	-	---	--	--
	D-06-04 02CDD	4	21	325523	1115411	--	-	---	--	--
	D-06-04 07CCC	4	21	325434	1115846	--	-	---	--	--
	D-06-04 11CDD	4	21	325430	1115410	--	-	---	--	--
	D-06-04 22CDD	4	21	325247	1115526	--	-	---	--	--
	D-06-04 36DDD	4	21	325102	1115237	--	-	---	--	--
	D-06-04S04DDD3	4	21	325523	1115544	--	-	---	--	--
	D-06-04S06DDD	4	21	325525	1115747	--	-	---	--	--
	D-06-05 09ADD	4	21	325502	1114936	--	-	---	--	--
	D-06-05 16DAD1	4	21	325353	1114933	--	-	---	--	--
	D-06-05 16DAD2	4	21	325356	1114932	--	-	---	--	--
	D-06-05 19DDA PZ1	4	21	325256	1115140	--	-	---	--	--
	D-06-05 19DDA PZ2	4	21	325256	1115140	--	-	---	--	--
	D-06-05 25BBB	4	21	325245	1114726	--	-	---	--	--
	D-06-05 34BDD	4	21	325127	1114903	--	-	---	--	--
	D-06-06 07AAA3	4	21	325519	1114524	--	-	---	--	--
	D-06-06 09DAD	4	21	325448	1114322	--	-	---	--	--
	D-06-06 16ADD	4	21	325409	1114320	--	-	---	--	--
	D-06-06 16CDD	4	21	325339	1114353	--	-	---	--	--
	D-06-06 22CCD	4	21	325201	1114303	--	-	---	--	--
	D-06-06 36DDA	4	21	325112	1114014	--	-	---	--	--
	D-06-07 08ADD	4	21	325503	1113757	--	-	---	--	--
	D-06-07 34BBC	4	21	325142	1113705	--	-	---	--	--
	D-06-07 35DDD	4	21	325102	1113504	--	-	---	--	--
	D-06-08 11ADA1	4	21	325503	1112848	--	-	---	--	--
	D-06-08 14CCC	4	21	325338	1112947	--	-	---	--	--
	D-06-08 21DDD2	4	21	325245	1113058	--	-	---	--	--
	D-06-08 27BDD2	4	21	325220	1113022	--	-	---	--	--
	D-06-08 31CDD	4	21	325102	1113329	--	-	---	--	--
	D-06-08 32DDA	4	21	325111	1113155	--	-	---	--	--
	D-06-08 33ACD2	4	21	325129	1113108	--	-	---	--	--
	D-06-08S02DAD	4	21	325536	1112848	--	-	---	--	--
	D-06-08S04ADD1	4	21	325549	1113052	--	-	---	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
LSC--Cont.	D-06-09 19BBD	4	21	325328	1112735	--	-	---	--	--
	D-06-09N04DDD	4	21	325617	1112448	--	-	---	--	--
	D-06-09N06DAA	4	21	325634	1112648	--	-	---	--	--
	D-07-04 23DDD	4	21	324748	1115441	--	-	---	--	--
	D-07-06 17DDD2	4	21	324825	1114423	--	-	---	--	--
	D-07-06 28DDD	4	21	324639	1114320	--	-	---	--	--
	D-07-07 02ACC	4	21	325037	1113533	--	-	---	--	--
	D-07-07 08BAA	4	21	325005	1113842	--	-	---	--	--
	D-07-07 11CDD	4	21	324917	1113541	--	-	---	--	--
	D-07-07 23ADD	4	21	324757	1113505	--	-	---	--	--
	D-07-07 24DDD	4	21	324732	1113403	--	-	---	--	--
	D-07-07 30CDD	4	21	324640	1113944	--	-	---	--	--
	D-07-07 34CDD2	4	21	324548	1113639	--	-	---	--	--
	D-07-08 05DCC	4	21	325011	1113225	--	-	---	--	--
	D-07-08 09DDD	4	21	324917	1113054	--	-	---	--	--
	D-07-08 17CDD	4	21	324827	1113227	--	-	---	--	--
	D-07-08 30CDD	4	21	324641	1113331	--	-	---	--	--
	D-07-08 31BBA	4	21	324637	1113346	--	-	---	--	--
	D-07-08 33DDD	4	21	324548	1113056	--	-	---	--	--
	D-07-13 15DAA1	4	21	324919	1105857	--	-	---	--	--
	D-08-06 22DDD2	4	21	324216	1114219	--	-	---	--	--
	D-08-06 35DDD2	4	21	324032	1114118	--	-	---	--	--
	D-08-07 09ADD1	4	21	324430	1113712	--	-	---	--	--
	D-08-07 14DDA	4	21	324322	1113505	--	-	---	--	--
	D-08-07 19DDD	4	21	324218	1113916	--	-	---	--	--
	D-08-08 01DDD	4	21	324458	1112747	--	-	---	--	--
	D-08-08 07DDD1	4	21	324405	1113301	--	-	---	--	--
	D-08-08 07DDD2	4	21	324403	1113302	--	-	---	--	--
	D-08-08 14DDD	4	21	324312	1112854	--	-	---	--	--
	D-08-08 18CDD1	4	21	324312	1113330	--	-	---	--	--
	D-08-08 18CDD2	4	21	324311	1113332	--	-	---	--	--
	D-08-08 29BCC	4	21	324152	1113254	--	-	---	--	--
	D-08-08 29BCD	4	21	324151	1113250	--	-	---	--	--
	D-08-09 07ADD	4	21	324429	1112648	--	-	---	--	--
	D-08-10 04BBB2	4	21	324545	1111935	--	-	---	--	--
	D-08-11 31BBB	4	21	324157	1111531	--	-	---	--	--
	D-08-12 19DDC	4	21	324304	1110821	--	-	---	--	--
	D-09-07 04ADD	4	21	324006	1113711	--	-	---	--	--
	D-09-07 22DAA	4	21	323727	1113610	--	-	---	--	--
	D-09-07 25CDD	4	21	323611	1113434	--	-	---	--	--
	D-09-07 25DDA1	4	21	323616	1113405	--	-	---	--	--
	D-09-07 25DDA2	4	21	323616	1113406	--	-	---	--	--
	D-09-07 27DDD1	4	21	323608	1113609	--	-	---	--	--
	D-09-08 29BCC	4	21	323635	1113300	--	-	---	--	--
	D-09-08 30DDD1	4	21	323612	1113306	--	-	---	--	--
	D-09-08 31DAA	4	21	323541	1113305	--	-	---	--	--
	D-09-08 35ADD2	4	21	323545	1112858	--	-	---	--	--
	D-09-10 19AAA	4	21	323755	1112043	--	-	---	--	--
	D-09-10 19ADD	4	21	323730	1112045	--	-	---	--	--
	D-09-13 07CBC	4	21	323942	1110302	--	-	---	--	--
	D-10-10 05DAD	4	21	323442	1111945	--	-	---	--	--
	D-10-10 20DCC	4	21	323152	1112007	--	-	---	--	--
	D-10-11 17CAB2	4	21	323338	1111415	--	-	---	--	--
	D-11-11 11DCD	4	19	322904	1111110	--	-	---	--	--
	D-11-11 16CDD2	4	19	322805	1111331	--	-	---	--	--
	D-11-11 34ADD2	4	19	322554	1111158	--	-	---	--	--
	D-12-11 12BDC	4	19	322411	1111038	--	-	---	--	--
LSC RES	D-09-05 29CDC	4	21	323633	1115222	15050305	H	123	--	--
	D-10-04 33DDC1	4	21	323027	1115700	15050306	S	218	--	--
	D-12-03 23AADUNSURV	4	19	322215	1120141	15050306	S	---	--	--
	D-15-07 18CBB2	4	19	320712	1114050	15050305	P	---	--	--
LSP	D-05-15 25BCD	4	21	325810	1104616	15050203	I	68	--	--
	D-06-16 08CDB	4	21	325513	1104410	15050203	I	119	--	--
	D-06-16 08DAC5	4	21	325526	1104338	15050203	H	54	--	--
	D-07-16 22ADD	4	21	324840	1104120	15050203	I	---	--	--
	D-07-16 22DBD	4	21	324824	1104138	15050203	H	36	--	--
	D-08-16 25DCD	4	21	324208	1103933	15050203	U	2145	--	--
	D-08-17 18BAA	4	21	324437	1103849	15050203	U	75	--	--
	D-09-15 36BBC	4	21	323644	1104612	15050203	H	92	--	--
	D-09-17 04ADA	4	21	324058	1103612	15050203	I	---	--	--
	D-10-17 15BBB	4	21	323413	1103604	15050203	S	285	--	--
	D-12-18 24AAB	4	19	322253	1102700	15050203	I	---	--	--
	D-12-19 19ADB	4	3	322247	1102616	15050203	U	80	--	--
	D-13-18 02BDD	4	19	322003	1102837	15050203	H	249	--	--
	D-13-19 25BBB	4	3	321656	1102153	15050203	I	145	--	--
	D-14-20 34CAA	4	3	321017	1101714	15050203	H	145	--	--
	D-15-20 10CAB	4	3	320836	1101723	15050203	I	---	--	--
LVR	A-03-06 15ABA	4	13	333635	1114321	--	-	---	--	--
	A-03-07 30BAD	4	13	333447	1114029	--	-	---	--	--
	A-04-05 13ABB1	4	13	334148	1114742	--	-	---	--	--
	A-04-07 07BBA	4	13	334243	1114046	--	-	---	--	--
	A-05-06 31DDD	4	13	334341	1114612	--	-	---	--	--
	A-11-10 27DDB	4	7	341551	1111842	15060203	P	400	--	--
	A-12-08 21CDC2	4	7	342417	1113051	15060203	P	152	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OPEN INTERVAL (FEET)
MMU	B-05-12 30DDD	4	27	334429	1133234	--	-	---	--	--
	B-05-12 32ADB	4	27	334412	1133134	--	-	---	--	--
	B-05-13 01ACB	4	27	334827	1133357	--	-	---	--	--
	B-05-13 05CBB	4	27	334817	1133839	--	-	---	--	--
	B-05-13 08DAA	4	27	334427	1133738	--	-	---	--	--
	B-05-13 09BBA	4	27	334750	1133720	--	-	---	--	--
	B-05-13 19BBD2	4	27	334557	1133932	--	-	---	--	--
	B-05-13 28ACC	4	27	334452	1133704	--	-	---	--	--
	B-06-11 05ADD	4	27	335334	1132507	--	-	---	--	--
	B-06-12 13DCD	4	27	335122	1132733	--	-	---	--	--
	B-06-12 15BBB	4	27	335211	1133019	--	-	---	--	--
	B-06-12 19BBA	4	12	335119	1133312	--	-	---	--	--
	B-07-07 17DCC	4	13	335637	1130028	--	-	---	--	--
	B-07-08 15BAA	4	13	335727	1130451	--	-	---	--	--
	B-07-08 20DDD	4	13	335545	1130621	--	-	---	--	--
	B-07-09 10AAA	4	13	335819	1131032	--	-	---	--	--
	B-07-09 33ABB	4	13	335449	1131206	--	-	---	--	--
	B-07-10 33DDA	4	13	335404	1131751	--	-	---	--	--
	B-07-12 26BCC	4	27	335518	1132913	--	-	---	--	--
	B-08-07 33ABC	4	13	335952	1125928	--	-	---	--	--
	B-08-09 28ABB	4	25	340052	1131201	--	-	---	--	--
	B-08-10 35BBB	4	13	340003	1131647	--	-	---	--	--
	B-08-10 36BBB	4	13	340003	1131545	--	-	---	--	--
N-C	A-04-01 01BAA	4	13	334327	1121242	--	U	---	--	--
	A-04-02 11ADB	4	13	334230	1120709	--	T	900	425	600
	A-04-02 14BBB	4	13	334153	1120802	--	U	1186	300	650
	A-04-04 06BBB	4	13	334332	1115942	--	-	---	--	--
	A-05-01 10AAB	4	13	334745	1121426	--	-	---	--	--
	A-05-02 04CAB	4	13	334814	1120947	--	-	---	--	--
	A-05-02 10ABA	4	13	334750	1120824	--	-	---	--	--
	A-05-04 09ABB	4	13	334756	1115704	--	-	---	--	--
	A-06-02 25BDD1	4	13	335010	1120630	--	-	---	--	--
	A-06-02 30AAA	4	13	335033	1121114	--	-	---	--	--
	A-06-04 21DAC	4	13	335052	1115647	--	-	---	--	--
	A-06-05 31CCC2	4	13	334850	1115324	--	-	---	--	--
	A-07-02 24BDA	4	13	335623	1120636	--	-	---	--	--
	A-07-03 30CCC	4	13	335455	1120551	--	-	---	--	--
	B-05-01 14CAB	4	13	334625	1122011	--	K	1222	40	1222
PRZ	A-18-23 06CDC2	4	17	345901	1095640	15020007	U	170	--	--
	A-18-23 06DDC1	4	17	345902	1095613	15020007	I	165	--	--
	A-18-30 20CDD	4	1	345613	1091055	15020004	S	420	--	--
	A-19-29 17ACB2	4	1	350250	1091710	15020007	S	465	--	--
RAN	A-21-28 23AAC	4	1	351224	1092024	15020007	S	175	--	--
	B-04-15 11ADD	4	27	334213	1134603	15030105	U	---	--	--
	B-04-15 13DAA	4	27	334121	1134501	15030105	I	952	--	--
	B-05-15 06BAA2	4	27	334839	1135141	15030105	U	---	--	--
	B-05-15 35BDD2	4	27	334357	1134732	15030105	I	800	--	--
	B-06-16 12AAA	4	27	335257	1135206	15030105	I	422	--	--
	B-06-16 22ADA	4	27	335102	1135413	15030105	I	510	--	--
	B-06-16 33AAA	4	27	334931	1135519	15030105	I	700	--	--
	B-07-17 22ABC1	4	27	335622	1140056	15030105	H	176	--	--
SAC	B-15-16 07BDD	4	15	343923	1135833	15030103	U	---	--	--
	B-15-17 07DCA	4	15	343902	1140431	15030103	U	---	--	--
	B-17-17 19WBAD	4	15	345041	1140812	15030103	-	450	--	--
	B-20-18 22AAC	4	15	350633	1141037	15030103	U	800	--	--
	B-21-17 24CBC	4	15	351123	1140322	15030103	P	140	--	--
	B-21-17 34DDB	4	15	350937	1140442	15030103	U	80	--	--
	B-21-18 21BCC	4	15	351135	1141259	15030103	H	---	--	--
SAF	D-04-22 35ADA	4	9	330240	1100311	15040005	S	75	--	--
	D-05-23 02DBC	4	9	330128	1095724	15040005	I	---	--	--
	D-05-23 03CAB	4	9	330135	1095838	15040005	I	---	--	--
	D-05-23 25DCD	4	9	325742	1095609	15040005	-	---	--	--
	D-05-24 08CCB2	4	9	330029	1095448	15040005	I	---	--	--
	D-05-24 25BBC	4	9	325822	1095036	15040005	-	---	--	--
	D-06-25 25CDD	4	9	325230	1094428	15040005	I	50	--	--
	D-06-25 30DAC	4	9	325248	1094916	15040005	I	170	--	--
	D-06-26 08CCD	4	9	325510	1094247	15040005	N	580	--	--
	D-07-26 18CDA1	4	9	324908	1094330	15040005	I	85	--	--
	D-07-26 22BAB	4	9	324855	1094033	15040005	I	90	--	--
	D-07-27 02ADD	4	9	325115	1093245	15040005	H	60	--	--
SEV	D-23-31 29DCA2	4	3	312340	1091216	15080302	H	250	--	--
	D-24-30 16CCC	4	3	312006	1091806	15080302	-	100	--	--
SFP	A-20-08 18BBB	4	5	350716	1113544	15020015	-	1206	--	--
	A-21-05 02ABC3	4	5	351409	1115003	15060202	U	110	--	--
	A-21-06 35CBA	4	5	350924	1114401	15020015	P	1600	--	--
	A-22-06 27ADA1	4	5	351551	1114411	15020015	U	66	--	--
	A-22-07 32CBB	4	5	351442	1114100	15020015	H	140	--	--
	A-24-05 11CAC	4	5	352831	1115014	15020016	S	346	--	--
	A-25-06 20ACC	4	5	353210	1114624	15020016	-	139	--	--
SFP RES	05 132-00.14X13.82	4	5	351758	1110009	15020008	P	405	--	--
	05 132-00.52X14.00	4	5	351749	1110034	15020008	P	400	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
SNO	A-12-22E19ADD	4	17	342532	1100229	15020002	I	320	--	--
	A-13-21 10CDA	4	17	343150	1100630	15020005	U	416	--	--
	A-13-21 24CCB	4	17	343009	1100435	15020005	I	328	--	--
	A-13-21 34DCC2	4	17	342811	1100612	15020002	H	254	--	--
	A-13-22 30BCD	4	17	342935	1100328	15020005	I	300	--	--
SRV	A-01-01 03BBB	4	13	332753	1121511	--	I	850	200	834
	A-01-01 04AAA2	4	13	332753	1121517	--	U	514	150	355
	A-01-01 19DCD1	4	13	332424	1121735	--	U	100	--	--
	A-01-02 09AAB2	4	13	332702	1120916	--	I	500	140	465
							-	---	480	520
	A-01-02 19BAA	4	13	332521	1121141	--	I	208	60	199
	A-01-02 26AAA	4	13	332423	1120700	--	I	430	20	125
							-	---	65	375
	A-01-03 01DDD	4	13	332707	1115941	--	I	155	25	75
	A-01-03 05BAA	4	13	332752	1120425	--	U	---	--	--
	A-01-03 18BBC	4	13	332600	1120548	--	I	410	--	--
	A-01-03 28ABD	4	13	332415	1120310	--	U	435	162	382
	A-01-04 18DAD	4	13	332532	1115840	--	U	200	50	122
							-	---	139	200
	A-01-05 06BDD	4	13	332738	1115259	--	-	---	--	--
	A-01-05 16ABB	4	13	332614	1115042	--	-	---	--	--
	A-01-05 26DDD	4	13	332337	1114818	--	-	---	--	--
	A-01-06 03ADA	4	13	332746	1114306	--	-	---	--	--
	A-01-06 08CCD2	4	13	332615	1114558	--	-	---	--	--
	A-01-06 14AAA2	4	13	332613	1114205	--	-	---	--	--
	A-01-07 18ACC	4	13	332547	1114027	--	-	---	--	--
	A-01-07 26AAC2	4	13	332414	1113600	--	-	---	--	--
	A-01-08 10DCC	4	21	332614	1113111	--	-	---	--	--
	A-01-08 25CBA	4	13	332357	1112924	--	-	---	--	--
	A-02-01 14BBA	4	13	333122	1121404	--	I	700	180	685
	A-02-01 31DAA	4	13	332816	1121723	--	I	413	200	413
	A-02-02 14CBC2	4	13	333048	1120759	--	I	702	220	685
	A-02-02 18DDD	4	13	333036	1121110	--	I	390	45	205
							-	---	180	215
							-	---	215	340
	A-02-03 07CAA	4	13	333152	1120529	--	U	202	50	192
	A-02-03 35BBC	4	13	332838	1120143	--	I	620	--	--
	A-02-04 22BDD	4	13	333009	1115604	--	-	---	--	--
	A-02-04 23BCC2	4	13	333009	1115531	--	-	---	--	--
	A-02-05 08AAA	4	13	333217	1115123	--	-	---	--	--
	A-02-05 10DDD1	4	13	333132	1114923	--	-	---	--	--
	A-02-05 19ABA	4	13	333033	1115247	--	-	---	--	--
	A-02-06 32ACD	4	13	332825	1114529	--	-	---	--	--
	A-02-07 33BCB	4	13	332833	1113853	--	-	---	--	--
	A-03-01 11DDA	4	13	333648	1121310	--	I	474	150	456
	A-03-01 21CBB	4	13	333513	1121617	--	-	505	237	492
	A-03-01 35ABB	4	13	333358	1121342	--	I	810	252	--
	A-03-02 08BBA2	4	13	333730	1121053	--	I	810	200	810
	A-03-02 22BAA	4	13	333546	1120832	--	U	851	195	840
	A-03-02 24CCB	4	13	333505	1120654	--	I	835	400	643
							-	---	643	825
							-	---	825	838
	A-03-02 29DDA2	4	13	333415	1121007	--	I	1000	500	980
	A-03-03 13BDB3	4	13	333623	1120023	--	-	---	--	--
	A-03-03 32DAA	4	13	333338	1120357	--	P	520	275	450
							-	---	462	520
	A-03-04 02BBB	4	13	333823	1115527	--	-	---	--	--
	A-03-04 17BAA	4	13	333640	1115808	--	-	---	--	--
	A-03-04 24CAA	4	13	333520	1115358	--	-	---	--	--
	A-03-05 21BBA	4	13	333546	1115108	--	-	---	--	--
	A-03-05 25CAB	4	13	333427	1114757	--	-	---	--	--
	A-03-07 06CDA	4	13	333746	1114031	--	-	---	--	--
	A-04-01 14DAD	4	13	334109	1121312	--	I	1280	340	400
							-	---	418	790
	A-04-01 18DAA	4	13	334120	1121722	--	U	771	200	716
	A-04-01 22AAA	4	13	334052	1121414	--	U	723	201	701
	A-04-01 30AAB2	4	13	334000	1121730	--	H	870	145	282
							-	---	360	600
							-	---	600	860
	A-04-02 19BCC	4	13	334033	1121207	--	U	672	154	652
							-	---	652	672
	A-04-02 20CDD	4	13	334011	1121043	--	U	528	160	455
							-	---	465	528
	A-04-02 32DDA	4	13	333837	1121007	--	U	1069	650	840
							-	---	846	1069
	A-04-02 36AAA	4	13	333916	1120558	--	-	---	--	--
	A-04-03 05DCC2	4	13	334236	1120424	--	-	---	--	--
	A-04-03 36AAA1	4	13	333917	1115945	--	-	---	--	--
	A-04-04 13CCC	4	13	334104	1115425	--	-	---	--	--
	A-05-01 33BCC	4	13	334358	1121615	--	H	---	--	--
	A-05-04 25DBD	4	13	334446	1115342	--	-	---	--	--
	A-05-04 33DCD	4	13	334337	1115651	--	-	---	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
SRV--Cont.	B-01-01 03BAA	4	13	332750	1122056	--	I	714	135	696
	B-01-01 12BAA2	4	13	332656	1121852	--	I	403	175	380
	B-01-01 17AAA1	4	13	332604	1122230	--	U	221	45	218
	B-01-01 28BCA2	4	13	332409	1122212	--	I	709	156	300
							-	---	303	470
							-	---	470	709
	B-01-02 05CBB	4	13	332725	1122943	--	U	400	--	--
	B-01-02 16BBB	4	13	332607	1122840	--	I	1100	700	998
							-	---	1008	1100
	B-01-02 28CBD	4	13	332348	1122832	--	I	186	36	--
	B-01-02 36BBC	4	13	332320	1122532	--	U	305	35	164
	B-01-03 19CBB	4	13	332445	1123625	--	I	300	160	287
	B-01-03 21DBB	4	13	332449	1123350	--	I	425	85	425
	B-01-03 34ADD2	4	13	332306	1123221	--	I	1000	60	145
							-	---	400	770
	B-01-03 34BBB	4	13	332330	1123319	--	I	200	74	186
	B-01-04 27ABB	4	13	332416	1123901	--	I	350	70	350
	B-02-01 14CBB	4	13	333052	1122024	--	U	708	145	690
	B-02-01 18CBB2	4	13	333055	1122431	--	I	737	326	720
	B-02-01 20BCC	4	13	333006	1122326	--	I	790	335	629
	B-02-01 21CCB2	4	13	332947	1122227	--	I	1990	256	600
							-	---	974	1572
	B-02-01 33BBB2	4	13	332840	1122227	--	I	318	110	278
	B-02-01 36BBA1	4	13	332842	1121908	--	U	188	60	168
	B-02-02 02BAD	4	13	333258	1122607	--	I	715	--	--
	B-02-02 04DCB	4	13	333223	1122809	--	U	480	--	--
	B-02-02 10CCB	4	13	333129	1122737	--	U	2290	400	670
							-	---	695	1095
							-	---	1090	1859
							-	---	1859	2290
	B-02-02 22ABB	4	13	333028	1122707	--	U	1340	220	557
							-	---	557	1276
							-	---	1276	1340
	B-02-02 24BAA	4	13	333029	1122504	--	I	922	232	910
	B-02-02 25CBB2	4	13	332910	1122533	--	I	1720	180	690
							-	---	1408	1419
							-	---	1431	1438
							-	---	1459	1464
							-	---	1478	1500
							-	---	1513	1576
							-	---	1602	1618
							-	---	1636	1639
							-	---	1659	1679
	B-02-02 27CCC	4	13	332846	1122736	--	I	1000	138	488
							-	---	502	980
							-	---	992	1000
	B-03-01 05ABB	4	13	333818	1122304	--	I	803	275	780
	B-03-01 08ABB1	4	13	333725	1122303	--	U	1200	200	800
							-	---	800	1190
	B-03-01 19CBB	4	13	333516	1122431	--	I	1087	287	1087
	B-03-01 24BBB3	4	13	333539	1121923	--	I	1200	--	--
	B-03-01 27BBB	4	13	333448	1122128	--	U	572	170	560
	B-03-01 29BCC	4	13	333425	1122333	--	I	1400	--	--
	B-03-01 34DBB1	4	13	333330	1122058	--	I	350	180	340
	B-03-02 14BCB2	4	13	333619	1122635	--	I	1607	428	993
							-	---	993	1607
	B-03-02 21ABA	4	13	333541	1122801	--	U	534	280	412
	B-04-01 09BCD	4	13	334218	1122227	--	U	500	182	484
	B-04-01 19BDC	4	13	334030	1122421	--	I	1000	230	485
							-	---	500	982
	B-04-02 05DBB	4	13	334307	1122909	--	HS	600	450	600
	B-04-02 16AAD	4	13	334136	1122739	--	S	---	--	--
	B-04-02 27DCD	4	13	333915	1122655	--	I	1000	220	484
							-	---	500	990
	B-04-02 36BCB	4	13	333858	1122532	--	I	1030	450	--
	B-04-03 04BDB	4	13	334314	1123437	--	H	562	--	--
	B-04-03 14ABA	4	13	334147	1123203	--	H	605	500	580
	B-05-02 24BAB	4	13	334603	1122527	--	H	600	--	--
	B-05-02 30ADD	4	13	334448	1122956	--	H	684	364	384
	B-05-02 35BAA	4	13	334418	1122617	--	I	1155	300	555
							-	---	555	1155
	B-05-03 15AAA	4	13	334654	1123304	--	H	600	500	600
	B-05-03 22ADD	4	13	333038	1123301	--	H	540	500	540
	B-06-02 18DBB	4	13	335138	1123020	--	T	---	--	--
	B-06-02 31BDD	4	13	334908	1123030	--	H	910	800	900
							-	---	902	910
	B-06-03 05ADD	4	13	335331	1123515	--	HS	---	--	--
	B-06-03 33DCB	4	13	334848	1123429	--	C	800	--	--
	C-01-02 08CDA	4	13	332102	1122841	--	U	185	--	--
	C-01-03 08CBD	4	13	332108	1123511	--	U	520	429	520
	C-01-04 03ABB	4	13	332238	1123859	--	U	---	--	--
	C-01-04 03DCB	4	13	332158	1123855	--	I	220	110	200
							-	---	212	220

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
SRV--Cont.	C-01-04 07BDD	4	13	332121	1124209	--	I	210	60	190
	C-01-04 26ABB	4	13	331906	1123800	--	I	450	--	--
	D-01-01 13DDD1	4	13	332003	1121211	--	U	740	--	--
	D-01-02 20DAA	4	13	331933	1121007	--	I	300	90	200
							-	---	200	300
	D-01-03 02BDB	4	13	332221	1120131	--	U	165	--	--
	D-01-04 03BBB2	4	13	332240	1115638	--	-	---	--	--
	D-01-04 26BAA	4	13	331911	1115507	--	-	---	--	--
	D-01-04 27ABB	4	13	331911	1115604	--	-	---	--	--
	D-01-04 28CBC	4	13	331839	1115743	--	-	---	--	--
	D-01-04 36DDD	4	13	331731	1115337	--	-	---	--	--
	D-01-05 23DDD	4	13	331920	1114823	--	-	---	--	--
	D-01-05 36DDD	4	13	331732	1114723	--	-	---	--	--
	D-01-06 04DAA	4	13	332214	1114421	--	-	---	--	--
	D-01-06 11CDD2	4	13	332102	1114245	--	-	---	--	--
	D-01-06 24CCC2	4	13	331918	1114211	--	-	---	--	--
	D-01-06 27DDD2	4	13	331832	1114316	--	-	---	--	--
	D-01-07 03AAA	4	13	332243	1113707	--	-	---	--	--
	D-01-07 25ADD	4	13	331850	1113500	--	-	---	--	--
	D-01-07 31BAC1	4	13	331816	1114052	--	-	---	--	--
	D-01-08 21ADB PZ1	4	21	331953	1113150	--	-	---	--	--
	D-01-08 21ADB PZ2	4	21	331953	1113150	--	-	---	--	--
	D-01-09 07BDC2	4	21	332135	1112818	--	-	---	--	--
	D-01-10 35DBA	4	21	331803	1111729	--	-	---	--	--
	D-02-03 22DDD	4	13	331407	1120148	--	-	---	--	--
	D-02-04 08DBA	4	13	331607	1115759	--	-	---	--	--
	D-02-04 25DDD	4	13	331310	1115333	--	-	---	--	--
	D-02-05 07ADD	4	13	331608	1115233	--	-	---	--	--
	D-02-05 09DDD	4	13	331545	1115027	--	-	---	--	--
	D-02-05 20DDA	4	13	331411	1115129	--	-	---	--	--
	D-02-05 33AAD2	4	13	331256	1115027	--	-	---	--	--
	D-02-06 04BDD	4	13	331707	1114447	--	-	---	--	--
	D-02-06 12DDA1	4	13	331557	1114108	--	-	---	--	--
	D-02-06 26DDD	4	13	331310	1114210	--	-	---	--	--
	D-02-06 31AAA	4	13	331308	1114621	--	-	---	--	--
	D-02-07 03CDD	4	13	331644	1113732	--	-	---	--	--
	D-02-07 04ADD	4	13	331708	1113805	--	-	---	--	--
	D-02-07 12DDD	4	13	331548	1113458	--	-	---	--	--
	D-02-07 25DDD3	4	13	331313	1113503	--	-	---	--	--
	D-02-07 27DDA	4	13	331324	1113400	--	-	---	--	--
	D-02-08 02CBB PZ1	4	21	331703	1113034	--	-	---	--	--
	D-02-08 02CBB PZ2	4	21	331703	1113034	--	-	---	--	--
	D-02-08 20DDA	4	21	331410	1113244	--	-	---	--	--
	D-02-08 27DDD	4	21	331314	1113040	--	-	---	--	--
	D-02-08E07DDD	4	21	331550	1113348	--	-	---	--	--
	D-02-09 36BBD	4	21	331236	1112239	--	-	---	--	--
	D-02-10 16BCB	4	21	331532	1112009	--	-	---	--	--
	D-02-10 21ADB	4	13	331440	1111924	--	-	---	--	--
	D-02-12 07ABA	4	21	331640	1110908	--	-	---	--	--
	D-03-08 04BBA	4	21	331219	1113229	--	-	---	--	--
	D-03-08 19ADD	4	21	330917	1113345	--	-	---	--	--
	D-03-08 20BDC	4	21	330917	1113317	--	-	---	--	--
	D-03-08 35BAA	4	21	330757	1113000	--	-	---	--	--
	D-03-09 09DCD PZ1	4	21	331042	1112543	--	-	---	--	--
	D-03-09 09DCD PZ2	4	21	331042	1112543	--	-	---	--	--
	D-03-09 20DAA	4	21	330916	1112620	--	-	---	--	--
	D-03-09 32ABA	4	21	330757	1112634	--	-	---	--	--
	D-04-09 05AAB2	4	21	330705	1112628	--	-	---	--	--
SSI	027S21W07AAB	4	3	315836	1090115	--	I	400	--	--
	028S21W31BCC	4	3	314935	1090159	--	I	---	--	--
	D-12-27 32AAB	4	3	322110	1093627	15040006	S	250	--	--
	D-12-28 15BCB	4	3	322334	1092858	15040006	H	1000	--	--
	D-12-28 17DDD	4	3	322301	1093009	15040006	S	567	--	--
	D-12-28 25DCC	4	3	322116	1092622	15040006	-	1700	--	--
	D-12-30 02CCA	4	3	322450	1091532	15040006	-	---	--	--
	D-13-28 22BCC	4	3	321721	1092860	15040006	U	892	--	--
	D-13-29 18BDB	4	3	321817	1092537	15040006	S	860	--	--
	D-13-29 24DCC2	4	3	321648	1092020	15040006	U	802	--	--
	D-13-29 28BBB1	4	3	321637	1092354	15040006	I	660	--	--
	D-13-31 29DDA	4	3	321607	1091141	15040006	H	740	--	--
	D-14-31 19BAC	4	3	321210	1091320	15040006	S	1140	--	--
	D-14-31 22ADC	4	3	321200	1090945	15040006	I	800	--	--
	D-14-31 25ADC2	4	3	321109	1090737	15040006	I	600	--	--
	D-14-31 34ACC	4	3	321016	1090956	15040006	I	1000	--	--
	D-14-31 35BCC2	4	3	321016	1090945	15040006	I	800	--	--
	D-15-31 11DCC	4	3	320805	1090850	15040006	I	750	--	--
	D-16-32 21CCC	4	3	320051	1090506	15040006	I	340	--	--
	D-18-32 11CBB	4	3	315227	1090300	--	S	172	--	--
	D-18-32 26BBB	4	3	315012	1090304	--	I	1000	--	--
	D-20-32 05ACC	4	3	314311	1090542	15040006	I	400	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
SSW RES	C-14-01 03ADC	4	19	321419	1122120	15080101	S	590	--	--
	C-19-01 36BDA	4	19	314347	1121934	15080101	-	500	--	--
	D-16-01 18BBD2	4	19	320222	1121856	15080101	H	730	--	--
	D-17-03 24DDB2	4	19	315535	1120059	15080101	P	620	--	--
	D-17-04 34ABD	4	19	315444	1115503	15080101	U	201	--	--
	D-17-05 35AAD	4	19	315444	1114740	15080101	-	827	--	--
	D-19-03H01ABA	4	19	314823	1115909	15080101	P	715	--	--
	D-20-05 24DDD2	4	19	314000	1114634	15080101	H	677	--	--
STJ	A-11-28 22BDA2	4	1	342024	1092203	15020001	U	550	--	--
	A-11-29 07DBB	4	1	342154	1091840	15020002	S	730	--	--
	A-11-29 20BAA	4	1	342033	1091741	15020001	U	1550	--	--
	A-12-28 07CDB	4	1	342700	1092512	15020002	I	720	--	--
	A-12-28 19BAD	4	1	342548	1092503	15020002	I	650	--	--
	A-13-27 15BDC	4	1	343200	1092758	15020002	U	574	--	--
	A-13-28 27BDC	4	1	343020	1092140	15020002	I	162	--	--
	A-13-28 29BCD	4	1	343015	1092348	15020002	H	47	--	--
TON	A-13-29 35AAA	4	1	342946	1091335	15020003	S	327	--	--
	A-14-27 35BDC	4	1	343439	1092703	15020002	S	156	--	--
	A-05-11 18AAA	4	7	334653	1111541	15060105	S	---	--	--
	A-06-10 14ABC2	4	7	335205	1111806	15060105	I	---	--	--
	A-06-11 05CAD	4	7	335322	1111507	15060105	U	69	--	--
	A-09-10 05AAA	4	7	340932	1112040	15060105	S	---	--	--
	A-09-10 20BAA	4	7	340654	1112112	15060105	S	100	--	--
	A-09-10 32BDB	4	7	340458	1112118	15060105	S	---	--	--
TUB RES	A-10-10 27CAA	4	7	341049	1111900	15060105	S	---	--	--
	03 077-07.55X06.55	4	5	360918	1110807	15020018	N	705	--	--
	03 077-13.36X06.44	4	5	360924	1111422	15020018	P	442	--	--
USC	03 077-13.38X05.87	4	5	360953	1111424	15020018	P	612	--	--
	D-10-14 29DCA	4	21	323139	1105508	--	-	---	--	--
	D-11-13 33DCC	4	19	322527	1110110	--	-	---	--	--
	D-12-12 22ADC	4	19	322227	1110559	--	-	---	--	--
	D-12-12 33DAD	4	19	322107	1110653	--	-	---	--	--
	D-13-13 26BAD2	4	19	321638	1105910	--	-	---	--	--
	D-13-14 21CDC2	4	19	321650	1105512	--	-	---	--	--
	D-13-14 22DDD3	4	19	321652	1105336	--	-	---	--	--
	D-13-14 26BBB	4	19	321644	1105322	--	-	---	--	--
	D-13-14 26CCC1	4	19	321558	1105323	--	-	---	--	--
	D-13-14 26CCD1	4	19	321555	1105319	--	-	---	--	--
	D-13-14 26CDD	4	19	321558	1105305	--	-	---	--	--
	D-13-14 26DAC1	4	19	321612	1105240	--	-	---	--	--
	D-13-14 26DAC2	4	19	321612	1105237	--	-	---	--	--
	D-13-14 26DDC	4	19	321558	1105239	--	-	---	--	--
	D-13-14 27ADA1	4	19	321630	1105332	--	-	---	--	--
	D-13-14 27BAC4	4	19	321636	1105413	--	-	---	--	--
	D-13-14 27DDC4	4	19	321555	1105345	--	-	---	--	--
	D-13-14 28DAD	4	19	321612	1105433	--	-	---	--	--
	D-13-14 28DDB	4	19	321601	1105446	--	-	---	--	--
	D-13-14 34AAA4	4	19	321555	1105334	--	-	---	--	--
	D-13-14 34AAD	4	19	321546	1105337	--	-	---	--	--
	D-13-14 34ABB	4	19	321549	1105356	--	-	---	--	--
	D-13-14 34DCC2	4	19	321504	1105359	--	-	---	--	--
	D-13-14 35CCA	4	19	321514	1105317	--	-	---	--	--
	D-13-14 35DDD	4	19	321504	1105232	--	-	---	--	--
	D-14-13 35ADA	4	19	321025	1105848	--	-	---	--	--
	D-14-13 35DAD	4	19	321003	1105842	--	-	---	--	--
	D-14-13 35DCB	4	19	320958	1105902	--	-	---	--	--
	D-14-13 36CAC	4	19	321005	1105817	--	-	---	--	--
	D-14-14 16CCC PZ1	4	19	321229	1105532	--	-	---	--	--
	D-14-14 16CCC PZ2	4	19	321229	1105532	--	-	---	--	--
	D-14-14 16CCC PZ3	4	19	321229	1105532	--	-	---	--	--
	D-14-14 16CCC PZ4	4	19	321229	1105532	--	-	---	--	--
	D-14-16 19CCB	4	19	321140	1104515	--	-	---	--	--
	D-15-13 01BCB2	4	19	320933	1105832	--	-	---	--	--
	D-15-13 01CCA	4	19	320907	1105828	--	-	---	--	--
	D-15-13 01DBC	4	19	320911	1105806	--	-	---	--	--
	D-15-13 02AAA1	4	19	320944	1105839	--	-	---	--	--
	D-15-13 02AAA2	4	19	320944	1105840	--	-	---	--	--
	D-15-13 02ACA	4	19	320927	1105900	--	-	---	--	--
	D-15-13 02ACB	4	19	320933	1105903	--	-	---	--	--
	D-15-13 02BDA	4	19	320937	1105912	--	-	---	--	--
	D-15-13 02CAA	4	19	320915	1105912	--	-	---	--	--
	D-15-13 02DCC2	4	19	320858	1105802	--	-	---	--	--
	D-15-13 11AAB	4	19	320853	1105846	--	-	---	--	--
	D-15-13 11AAD2	4	19	320846	1105838	--	-	---	--	--
	D-15-13 12ACC2	4	19	320834	1105804	--	-	---	--	--
	D-15-13 12BAB	4	19	320849	1105822	--	-	---	--	--
	D-15-13 12BCD	4	19	320833	1105827	--	-	---	--	--
	D-15-13 12CBB	4	19	320819	1105836	--	-	---	--	--
	D-15-13 12CDC	4	19	320803	1105817	--	-	---	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

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SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
USC--Cont.	D-15-13 12DBC	4	19	320821	1105807	--	-	---	--	--
	D-15-13 13AAB	4	19	320801	1105745	--	-	---	--	--
	D-15-13 13AAC	4	19	320750	1105746	--	-	---	--	--
	D-15-13 13ABB1	4	19	320801	1105802	--	-	---	--	--
	D-15-13 13BBC	4	19	320755	1105832	--	-	---	--	--
	D-15-13 13BDA2	4	19	320746	1105811	--	-	---	--	--
	D-15-13 13BDA3	4	19	320746	1105812	--	-	---	--	--
	D-15-13 13BDD	4	19	320737	1105810	--	-	---	--	--
	D-15-13 13CDB	4	19	320723	1105817	--	-	---	--	--
	D-15-13 13DBD2	4	19	320728	1105801	--	-	---	--	--
	D-15-13 13DDA2	4	19	320721	1105743	--	-	---	--	--
	D-15-14 06CAA	4	19	320916	1105707	--	-	---	--	--
	D-15-14 06DCB2	4	19	320904	1105704	--	-	---	--	--
	D-15-14 17BAC	4	19	320750	1105618	--	-	---	--	--
	D-15-14 18CBC2	4	19	320729	1105736	--	-	---	--	--
	D-15-15 16CBB PZ1	4	19	320732	1104922	--	-	---	--	--
	D-15-15 16CBB PZ2	4	19	320732	1104922	--	-	---	--	--
	D-15-15 16CBB PZ3	4	19	320732	1104922	--	-	---	--	--
	D-16-14S06CCD	4	19	320335	1105727	--	-	---	--	--
	D-16-15 05CBC PZ1	4	19	320402	1105028	--	-	---	--	--
	D-16-15 05CBC PZ2	4	19	320402	1105028	--	-	---	--	--
	D-16-15 05CBC PZ3	4	19	320402	1105028	--	-	---	--	--
	D-16-16 09DCD2	4	19	320253	1104237	--	-	---	--	--
	D-17-13 13ADB	4	19	315711	1105754	--	-	---	--	--
	D-17-14 21ACD	4	19	315511	1105452	--	-	---	--	--
	D-18-13 01CDA	4	19	315313	1105808	--	-	---	--	--
	D-18-13 13BAC	4	19	315202	1105815	--	-	---	--	--
	D-18-13 24BCB1	4	19	315105	1105835	--	-	---	--	--
	D-18-14 08ADD	4	19	315245	1105535	--	-	---	--	--
	D-19-13 05ACA2	4	19	314827	1110158	--	-	---	--	--
	D-19-13 09CAA	4	19	314728	1110111	--	-	---	--	--
	D-20-12 02DAC	4	23	314256	1110446	--	-	---	--	--
	D-20-12 03BBB	4	23	314332	1110640	--	-	---	--	--
	D-20-13 06CBA	4	23	314303	1110328	--	-	---	--	--
	D-21-13 19DBC	4	23	313506	1110307	--	-	---	--	--
	D-22-13 25DDD UNSURV	4	23	312848	1105732	--	-	---	--	--
	D-23-13 36ADB	4	23	312313	1105743	--	-	---	--	--
	D-23-14 22CDD1	4	23	312428	1105405	--	-	---	--	--
	D-23-14 36BCB1	4	23	312316	1105227	--	-	---	--	--
	D-24-14 18CBC	4	23	312020	1105726	--	-	---	--	--
	D-24-15 04DDD1UNSURV	4	23	312147	1104828	--	-	---	--	--
	D-24-15 04DDD2UNSURV	4	23	312146	1104827	--	-	---	--	--
USP	D-16-20 27DCC2	4	3	320030	1101720	15050202	I	73	--	--
	D-16-20 34ACD2	4	3	320005	1101709	15050202	I	117	--	--
	D-17-21 05CAC	4	3	315857	1101328	--	-	---	--	--
	D-17-21 32BAB	4	3	315508	1101334	--	-	---	--	--
	D-18-20 01DAD2	4	3	315339	1101455	--	-	---	--	--
	D-18-20 06BDD	4	3	315356	1102030	--	-	---	--	--
	D-18-21 06AAB	4	3	315417	1101400	--	-	---	--	--
	D-19-21 12DBA2	4	3	314738	1100906	--	-	---	--	--
	D-19-21 24BCC	4	3	314600	1100937	--	-	---	--	--
	D-20-20 02DDD	4	3	314300	1101554	--	-	---	--	--
	D-20-20 07BDB	4	3	314244	1102043	--	-	---	--	--
	D-21-20 16ADA1	4	3	313639	1101835	--	-	---	--	--
	D-21-20 22BBB1	4	3	313548	1101823	--	-	---	--	--
	D-21-20 30BA UNSURV	4	3	313458	1102112	--	-	---	--	--
	D-21-21 31CAB	4	3	313343	1101506	--	-	---	--	--
	D-21-22 06ACD2	4	3	313808	1100838	--	-	---	--	--
	D-22-20 10ABB	4	3	313224	1101756	--	-	---	--	--
	D-22-20 24AAA2	4	3	313037	1101527	--	-	---	--	--
	D-22-21 06BCC	4	3	313253	1101520	--	-	---	--	--
	D-22-22 06DAB	4	3	313250	1100823	--	-	---	--	--
	D-23-21 06CCC2	4	3	312712	1101521	--	-	---	--	--
	D-23-21 12DDC	4	3	312620	1100931	--	-	---	--	--
	D-23-22 16BDD	4	3	312554	1100647	--	-	---	--	--
	D-23-22 18BBB	4	3	312614	1100919	--	-	---	--	--
	D-23-22 33DCD2	4	3	312250	1100639	--	-	---	--	--
	D-23-23 06BCC	4	3	312739	1100312	--	-	---	--	--
	D-24-21 03AAB	4	3	312255	1101133	--	-	---	--	--
	D-24-23 06AAA1	4	3	312244	1100216	--	-	---	--	--
USR	A-01-15 09AAD2	4	7	332658	1104932	15060103	-	---	--	--
	A-02-07 02BAA	4	13	333309	1113625	--	-	---	--	--
	D-01-15 13BDA	4	7	332055	1104555	15060103	H	105	--	--
VER	A-13-05 05BDC	4	25	343254	1115054	15060203	P	120	--	--
	A-14-05 17AAC	4	25	343638	1115013	15060202	P	160	--	--
	A-14-10 32DBD	4	5	343314	1111838	15060203	U	600	--	--
	A-15-03 12ADB1	4	25	344250	1115834	15060202	U	400	--	--
	A-15-04 02CCB4	4	25	344312	1115408	15060202	I	300	--	--
	A-15-04 04DDC1	4	25	344307	1115527	15060202	H	250	--	--
	A-16-06 17CBB1	4	25	344655	1114438	15060202	U	530	--	--
	A-17-05 15ABD	4	25	345134	1114900	15060202	U	805	--	--
	A-17-06 30BBB	4	5	344957	1114631	15060202	U	465	--	--
	A-18-07 15CCB2	4	5	345619	1113855	15060202	-	232	--	--
	A-18-07 15CCC1	4	5	345612	1113852	15060202	P	200	--	--
	A-18-07 22BAA2	4	5	345608	1113827	15060202	P	1330	--	--
	A-20-08 18BCC	4	5	350700	1113547	15020015	P	1091	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
VRG	B-41-15 33CAB	4	15	365434	1135547	15010010	H	98	--	--
WAT	C-02-01 19AAD	4	13	331438	1122336	--	-	---	--	--
	C-02-01 20BAD	4	13	331440	1122302	--	-	---	--	--
	C-02-01 33AAA	4	13	331300	1122132	--	-	---	--	--
	C-02-01 33CDD	4	13	331214	1122155	--	-	---	--	--
	C-02-02 05CDC	4	13	331637	1122925	--	-	---	--	--
	C-02-02 09CCC	4	13	331543	1122838	--	-	---	--	--
	C-02-02 12ACC	4	13	331610	1122502	--	-	---	--	--
	C-02-02 25CCC	4	13	331311	1122529	--	-	---	--	--
	C-02-02 27CBB	4	13	331328	1122735	--	-	---	--	--
	C-02-02 27CCC	4	13	331307	1122737	--	-	---	--	--
	C-03-01 07ACC	4	13	331057	1122358	--	-	---	--	--
	C-03-01 19DCC	4	13	330846	1122355	--	-	---	--	--
	C-03-01 21DCC	4	13	330846	1122151	--	-	---	--	--
	C-03-01 28DDD	4	13	330751	1122134	--	-	---	--	--
	C-04-01 23CDB	4	13	330338	1122002	--	-	---	--	--
	D-03-01 07BBB2	4	13	331114	1121817	--	-	---	--	--
	D-04-01 28CDD	4	13	330239	1121552	--	-	---	--	--
WHM	A-05-30 13DBC	4	1	334929	1090753	15040004	P	282	--	--
	A-05-31 17CAA	4	1	334943	1090553	15040004	H	100	--	--
	A-07-27 01CCA1	4	1	340137	1092701	15020001	H	100	--	--
	A-07-27 01CDB	4	1	340135	1092700	15020001	H	100	--	--
	A-07-30 14BDD	4	1	340010	1090901	15020001	H	226	--	--
	A-09-22 36CBB	4	17	340752	1095817	15020005	H	200	--	--
	A-10-22 30ABA	4	17	341429	1100252	15020005	H	750	--	--
WIL	D-09-23 08ABC	4	9	324018	1100054	15050201	S	---	--	--
	D-11-24 17DAA	4	9	322840	1095439	15050201	I	---	--	--
	D-11-24 30AAA	4	9	322718	1095541	15050201	I	---	--	--
	D-12-23 12DBA	4	3	322415	1095654	15050201	I	269	--	--
	D-12-23 14ABB	4	3	322349	1095806	15050201	I	285	--	--
	D-12-24 20CBB	4	3	322234	1095530	15050201	I	200	--	--
	D-13-24 03ADA	4	3	322008	1095234	15050201	-	---	--	--
	D-13-24 05CCB2	4	3	321941	1095531	15050201	I	240	--	--
	D-13-24 16BBB	4	3	321834	1095430	15050201	-	1356	--	--
	D-13-24 35BBC2	4	3	321553	1095225	15050201	I	105	--	--
	D-14-24 14BBA2	4	3	321323	1095217	15050201	H	---	--	--
	D-14-24 30DBA	4	3	321115	1095552	15050201	S	56	--	--
	D-14-26 18BDD	4	3	321303	1094352	15050201	I	500	--	--
	D-15-24 08CAD	4	3	320830	1095509	15050201	I	250	--	--
	D-15-25 25ADA	4	3	320614	1094424	15050201	I	500	--	--
	D-15-25 25CDD	4	3	320542	1094439	15050201	I	566	--	--
	D-15-26 23DCC1	4	3	320633	1093940	15050201	N	727	--	--
	D-16-24 21CCC	4	3	320119	1095450	15050201	I	884	--	--
	D-16-25 09ADD	4	3	320330	1094751	15050201	U	445	--	--
	D-16-25 13CDD	4	3	320213	1094516	15050201	I	381	--	--
	D-16-25 14AAD	4	3	320248	1094545	15050201	I	---	--	--
	D-16-25 16ADD2	4	3	320237	1094751	15050201	S	---	--	--
	D-16-25 36AAA	4	3	320022	1094446	15050201	I	516	--	--
	D-16-26 02AAD	4	3	320435	1093943	15050201	U	700	--	--
	D-16-26 05DAD	4	3	320409	1094245	15050201	I	700	--	--
	D-16-26 06DDA	4	3	320403	1094347	15050201	U	662	--	--
	D-16-26 14DAA	4	3	320232	1093942	15050201	I	---	--	--
	D-16-26 29AAA	4	3	320114	1094247	15050201	I	540	--	--
	D-16-28 04BBB	4	3	320445	1093024	15050201	S	---	--	--
	D-17-24 01DAC	4	3	315855	1095101	15050201	H	128	--	--
	D-17-25 07ADD	4	3	315817	1094952	15050201	H	---	--	--
	D-17-25 08BCC	4	3	315816	1094945	15050201	I	500	--	--
	D-17-26 04ADD	4	3	315910	1094145	15050201	I	500	--	--
	D-17-26 06BAD	4	3	315920	1094416	15050201	-	516	--	--
	D-17-26 12BAA	4	3	315835	1093908	15050201	I	395	--	--
	D-17-27 01DAD	4	3	315858	1093232	15050201	I	1000	--	--
	D-17-27 21BCA	4	3	315642	1093626	15050201	I	951	--	--
	D-17-27 28BAA	4	3	315602	1093607	15050201	I	701	--	--
	D-17-27 31DCC	4	3	315421	1093804	15050201	I	450	--	--
	D-17-27 35BCE	4	3	315454	1093430	15050201	I	400	--	--
	D-17-27 35CCB	4	3	315429	1093429	15050201	I	400	--	--
	D-17-28 06CDA	4	3	315855	1093201	15050201	I	1000	--	--
WMN	B-16-04 14BBB	4	25	344636	1123944	15060201	I	352	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

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SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
YUM	C-08-21 21BCA	4	27	324330	1142526	15070201	U	137	--	--
	C-08-22 25DAC3	4	27	324212	1142748	15070201	U	84	--	--
	C-08-23 27DDD	4	27	324202	1143553	15030107	I	163	--	--
	C-08-24 34DDD	4	27	324102	1144205	15030108	-	---	--	--
	C-09-21 07AAD	4	27	324005	1142636	15070201	U	401	--	--
	C-09-22 04DBC2	4	27	324029	1143113	15070201	U	240	--	--
	C-09-22 11BBB	4	27	324011	1142939	15030108	U	600	--	--
	C-09-22 17DCA	4	27	323840	1143201	15030108	U	191	--	--
	C-09-23 14CCC3	4	27	323827	1143551	15030108	U	170	--	--
	C-09-25 35CBD	4	27	323602	1144804	15030107	U	1201	--	--
	C-10-23 15AAA	4	27	323402	1143550	15030108	I	300	--	--
	C-10-23 31BBB1	4	27	323124	1143955	15030108	U	120	--	--
	C-10-25 26CDB	4	27	323133	1144755	15030107	-	320	--	--
	C-11-21 04DDD	4	27	322943	1142435	15030108	-	350	--	--
	C-11-24 15CCC	4	27	322757	1144300	15030108	U	180	--	--
	C-11-24 23BCB	4	27	322737	1144153	15030108	U	1038	--	--
	C-12-22 06DAA	4	27	322450	1143242	15030108	U	202	--	--

CODES USED TO IDENTIFY STATE, COUNTY, AND
PRIMARY USE OF WATER

State and County		Primary Use of Water	
04	Arizona	C	Commercial
001	Apache	H	Domestic
003	Cochise	I	Irrigation
005	Coconino	K	Mining
007	Gila	N	Industrial
009	Graham	P	Public Supply
011	Greenlee	S	Stock
012	La Paz	T	Institution
013	Maricopa	U	Unused
015	Mohave	Z	Other
017	Navajo		
019	Pima		
021	Pinal		
023	Santa Cruz		
025	Yavapai		
027	Yuma		

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987 STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE		
AGF	A-07-01 17DAD	1678.00	19690716	19790727	40.00	19870204	78.50	19870204	78.50	
	A-08-02 03BDC1	1998.00	19810205	19810205	14.10	19850129	15.74	19870116	14.60	
	A-09-02 34DDD	2020.00	19780504	19840209	34.70	19810205	44.90	19870116	38.75	
	A-12-02 01DAC	4070.00	19780831	19870128	124.80	19780831	130.10	19870128	124.80	
	A-12-02 23BAA	3870.00	19780905	19850129	37.75	19811222	40.76	19870128	37.80	
	A-13-01 02CAC	4603.00	19850305	19850826	83.00	19870901	87.50	19870401	85.20	
								19870901	87.50	
	A-14-01 27DBB	4659.91	19850305	19850305	47.17	19870901	60.90	19870401	47.90	
								19870901	60.90	
	A-14-01 28BBB	4714.98	19850305	19850305	12.44	19870902	59.70	19870401	34.00	
								19870902	59.70	
	A-15-01 28ACC	5072.00	19850305	19850826	304.30	19870901	307.90	19870401	306.60	
								19870901	307.90	
	B-14-01 11DAA	5043.52	19850305	19861009	32.14	19850305	323.30	19861009	32.14	
								19861107	321.60	
								19861124	322.30	
								19861229	323.00	
								19870223	320.60	
								19870304	321.80	
								19870430	320.80	
								19870605	321.40	
								19870901	321.10	
	B-14-01 14ACC	5111.16	19850604	19870401	364.70	19850604	366.90	19870401	364.70	
								19870902	366.60	
	B-14-01 15ABA	5117.42	19860825	19870401	544.80	19870902	547.20	19870401	544.80	
								19870902	547.20	
	B-14-01 22ADA	5184.10	19850305	19870902	327.00	19860228	331.30	19870401	329.90	
								19870902	327.00	
	ALT	D-16-09 24DAC	2650.00	19560105	19590106	145.68	19750321	185.00	19861210	148.20
									19870610	148.30
D-16-10 34BAB		3096.00	19650101	19821229	603.00	19850605	606.00	19861210	605.10	
								19870610	604.10	
D-17-09 02DDA		2744.00	19600105	19841206	181.20	19660114	191.33	19861210	182.70	
								19870610	224.60	
D-18-09 11BAC		2915.00	19580104	19851204	242.60	19760118	266.00	19861210	245.70	
								19870609	244.40	
D-18-09 11BCC		2923.00	19841129	19841129	238.10	19870609	242.30	19870609	242.30	
D-19-09 03ACA		3054.00	19610104	19861210	318.40	19770114	332.00	19861210	318.40	
								19870609	322.40	
D-19-09 18AAA		3277.00	19841127	19861210	445.20	19851204	448.30	19861210	445.20	
								19870609	445.70	
D-20-08 35BDB		3463.00	19730306	19870609	461.60	19770114	481.00	19861210	462.40	
								19870609	461.60	
D-20-09 17ABA		3254.00	19580103	19621221	267.65	19750307	322.10	19861210	294.33	
								19870609	294.40	
D-21-08 27ADA		3465.00	19520916	19851204	310.10	19570925	338.50	19861210	364.30	
								19870609	313.30	
D-22-08 19DBC	3610.00	19511213	19850605	72.57	19771220	100.20	19861210	75.17		
							19870609	76.09		
D-22-08 29DBA	3598.00	19650309	19841127	137.32	19701216	152.50	19861210	144.98		
							19870609	143.87		
D-22-08 34ABD	3450.00	19650309	19750620	116.90	19821229	199.34	19861210	190.35		
							19870609	190.62		
ARA	D-07-20 21BBB	3515.00	19530723	19530723	7.23	19590212	89.32	19870115	45.00	
	D-08-21 18DAD	3880.00	19550201	19840125	19.60	19770202	43.40	19870115	34.80	
	D-09-22 19DCC	4280.00	19491101	19510301	70.53	19750124	104.90	19870115	103.20	
AVR	D-11-10 08DDD	1884.00	19521211	19521211	156.37	19771221	293.50	19861211	243.10	
	D-11-10 22ADD	1915.00	19400417	19400417	141.54	19761207	261.10	19861211	238.80	
								19870604	245.50	
	D-11-10 25DDA2	1953.00	19841129	19870604	251.50	19841129	259.10	19861211	251.60	
								19870604	251.50	
	D-11-10 27DAA	1935.00	19841129	19861211	259.30	19850606	274.59	19861211	259.30	
								19870604	263.90	
	D-12-10 23ACD	2025.80	19540210	19540210	201.84	19580102	227.00	19861211	222.00	
								19870604	223.90	
	D-12-11 20AAA	2016.02	19520122	19520122	222.38	19770113	354.20	19861211	309.90	
								19870604	318.10	
	D-13-11 04DAA	2203.93	19581230	19581230	339.04	19870605	450.70	19861211	446.40	
								19870605	450.70	
	D-13-11 11ACD	2393.00	19851205	19870605	289.00	19851205	308.80	19861211	290.40	
								19870605	289.00	
	D-13-11 16ADC	2295.00	19760203	19770113	478.60	19850606	503.00	19861211	504.70	
	D-14-10 12ABA	2240.00	19630111	19630111	362.78	19761207	429.00	19861211	393.90	
							19870605	393.90		
D-15-10 35AAA	2529.60	19410228	19481007	212.17	19731220	232.08	19861210	227.00		
							19870610	226.80		
D-15-11 05CCD	2368.00	19540210	19540210	306.63	19870605	352.60	19861210	351.80		
							19870605	352.60		
BIC	B-17-02 04DBD	4350.00	19650121	19830215	97.00	19720900	118.00	19870209	99.70	
	B-17-02 05CBA	4380.00	19720900	19840124	136.40	19720900	156.00	19870209	136.70	
	B-17-02 06BBB	4200.00	19521009	19840124	128.20	19630205	138.78	19870209	128.80	
	B-18-03 23BBC	4420.00	19521009	19660210	8.89	19571217	17.76	19870209	16.50	
	B-19-04 10ADA	4563.00	19740205	19860206	65.40	19750312	81.30	19870209	67.00	
	B-21-02 14BCC	5110.00	19860207	19870213	988.20	19860207	1000.00	19870213	988.20	
	B-24-08 17DCD1	5180.00	19870212	19870212	822.50	19880127	822.90	19870212	822.50	

See p. 317 for Ground-Water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
BIS	B-16-13 36CCC	1880.00	19450112	19800305	9.04	19561023	13.64	19870210	10.80		
	B-18-13 34CCD	2479.00	19590129	19760205	40.10	19790326	66.00	19870210	47.40		
	B-21-10 17CCD1	5058.00	19800708	19851226	116.70	19830217	127.00	19870212	125.60		
	B-21-13 24BCD	3620.00	19520400	19780203	370.30	19520400	397.20	19870210	374.20		
	B-22-08 15CCB	5502.00	19800705	19860101	488.00	19800715	492.50	19870221	488.50		
BLMRES	02 040-00.85X12.17	6670.00	19590811	19590811	317.50	19850328	418.70	19870409	414.50		
	02 040-04.03X14.68	6435.00	19521210	19850328	255.80	19810107	290.45	19870409	285.50		R
	02 040-05.38X15.27 BMOB	6345.00	19770201	19770301	215.85	19830126	216.79	19870129	216.30		
	04 074-08.95X02.95 BMOB	6340.00	19770420	19770420	736.00	19870410	785.80	19870410	785.80		
	04 075-00.61X16.21 BMOB	5858.00	19770201	19770201	330.99	19870128	363.30	19870128	363.30		
	06 096-02.73X03.65	5623.00	19810127	19810127	264.66	19840329	265.98	19870407	265.80		R
	08 037-12.81X16.98	6024.00	19570815	19670907	438.30	19850718	536.40	19870304	533.60		
	08 038-07.04X10.39	5960.00	19521007	19870408	420.50	19670829	480.80	19870408	420.50		
	08 038-09.40X07.08 BMOB	5650.00	19770201	19770301	132.07	19870130	171.80	19870130	171.80		
	08 039-00.70X01.57 BMOB	5735.00	19590725	19590725	54.50	19810107	139.65	19870130	136.00		
	08 039-02.11 X 02.94	5885.00	19760317	19790717	227.00	19860326	250.20	19870408	261.80		R
	08 039-08.31X05.09	6040.00	19720207	19790306	120.20	19810107	128.15	19870409	123.10		
	08 039-11.83X08.69	6262.00	19670822	19670822	99.42	19710403	119.88	19870409	115.90		
	08 054-10.96X00.63 BMOB	5863.00	19770201	19770401	373.51	19800124	376.22	19870130	373.90		
BUT	B-07-14 16AAA	1618.00	19860731	19860731	348.20	19861204	349.40	19861204	349.40		
								19870312	348.40		
	B-07-15 02DDC	1425.00	19670525	19720216	148.30	19820125	165.30	19861204	160.10		
	B-07-15 10ADA	1404.00	19850212	19861204	142.00	19860109	145.20	19861204	142.00		
	B-07-15 11CAA	1416.00	19860109	19861204	152.10	19860109	155.80	19861204	152.10		
	B-07-15 11DCD	1427.00	19850212	19861204	171.90	19860109	175.20	19861204	171.90		
	B-07-15 11DDC	1431.00	19850212	19861204	173.20	19860109	176.40	19861204	173.20		
	B-07-15 11DDD	1444.00	19850212	19861204	179.80	19850212	182.20	19861204	179.80		
	B-07-15 12AAD	1478.00	19850212	19861204	215.10	19860109	217.30	19861204	215.10		
	B-07-15 12DAD	1484.00	19850212	19861204	227.10	19860109	229.60	19861204	227.10		
	B-07-15 13ACB	1478.00	19850212	19861204	214.00	19860109	216.90	19861204	214.00		
	B-07-15 13DBC	1493.00	19850212	19861204	231.50	19860109	234.30	19861204	231.50		
	B-07-15 14ACB	1430.00	19850212	19861204	172.80	19860109	176.40	19861204	172.80		
	B-07-15 14DCB	1440.00	19850212	19861204	179.60	19860109	183.10	19861204	179.60		
	B-07-15 15AAD1	1402.00	19850212	19870618	146.60	19860109	151.50	19861204	148.50		
								19870311	147.00		
								19870618	146.60		
	B-07-15 15AAD2	1402.00	19850316	19861204	146.20	19860109	150.50	19861204	146.20		
	B-07-15 15AAD3	1402.00	19850316	19870819	144.55	19860109	149.90	19861204	146.00		
								19870819	144.55		
	B-08-13 04DDD1	1790.00	19850212	19861204	512.40	19850212	513.30	19861204	512.40		
	B-08-13 04DDD2	1785.00	19860109	19861204	508.50	19860109	509.40	19861204	508.50		
	B-08-14 20DAB	1522.00	19850212	19850212	247.00	19860109	247.80	19861204	247.40		
								19870103	247.63		
								19870313	247.50		
	B-08-14 23CDD	1600.00	19830214	19850212	322.50	19860129	324.60	19861204	322.90		
	B-08-14 23DDD	1618.00	19650824	19710224	332.00	19710127	380.50	19861204	345.90		
	B-08-14 25BDC	1645.00	19850212	19850212	370.60	19861204	371.30	19861204	371.30		
	B-08-14 29CDD	1490.00	19830214	19861204	210.90	19860109	211.40	19861204	210.90		
BWM	B-09-09 04CBC	2360.00	19790518	19860129	643.60	19790518	649.30	19861118	647.90		
	B-10-14 14DBD	881.00	19810402	19830308	14.32	19850222	16.30	19861121	15.87		
	B-10-14 23BAC	891.00	19810402	19830308	30.25	19860129	32.83	19861121	32.58		
	B-11-04 18CCC	4455.00	19730427	19800410	8.90	19780221	21.69	19861119	9.81		
	B-11-06 19CBD	3258.00	19530724	19850220	36.20	19690219	77.95	19861119	37.64		
	B-11-08 20ADB	2610.00	19790914	19860128	79.53	19790914	82.52	19861118	80.52		
	B-11-10 31CBA	2160.00	19810401	19850221	640.60	19860129	642.20	19861118	641.80		
	B-11-11 17ACA2	1270.00	19790607	19830307	7.13	19860129	9.73	19861118	9.69		
	B-11-11 31BBB1	1350.00	19790619	19861118	53.68	19790619	57.15	19861118	53.68		
	B-11-16 32CDA	615.00	19790207	19860130	16.35	19861120	18.97	19861120	18.97		
	B-12-03 06CDD	4590.00	19760921	19850220	405.50	19800409	408.80	19861119	405.60		
	B-12-05 02ACD2	3830.00	19730404	19830216	10.22	19760324	41.10	19861119	14.68		
	B-12-06W31AAD	3470.00	19791018	19810408	83.50	19830216	87.60	19861119	85.80		
	B-13-04 21DB U PZ2	4260.00	19730130	19850220	105.30	19730130	109.80	19861119	106.80		
	B-13-04 21DBU-PZ1	4260.00	19840207	19840207	97.00	19861119	101.40	19861119	101.40		
	B-13-04 26BCC1 UNSRV	4380.00	19730117	19850128	243.20	19730417	255.40	19861119	243.25		
	B-13-04 27AB U PZ1	4360.00	19810319	19861119	141.90	19820119	144.52	19861119	141.90		
	B-13-04 27AB U PZ2	4360.00	19800117	19850220	260.30	19800117	284.50	19861119	260.40		
	B-13-04 28DA UNSRV	4205.00	19730131	19820119	69.25	19780315	78.40	19861119	72.10		P
	B-13-06 09DCD	3500.00	19450117	19450117	13.98	19561025	32.83	19861119	15.72		
	B-13-09 17BCC	2590.00	19791109	19791109	31.61	19820305	39.25	19861120	36.14		
	B-13-13 07DDB1	1755.00	19791120	19860130	83.40	19840208	143.90	19861120	87.70		
	B-13-13 07DDB2	1770.00	19850221	19860130	145.30	19861120	147.20	19861120	147.20		
	B-13-15 17CAC2	2080.00	19790208	19850221	667.30	19790208	668.40	19861120	667.30		
	B-14-04 22BAD	4540.00	19741107	19790315	74.17	19770119	97.60	19861119	96.17		
CHI	B-02-18 09DDC	1500.00	19870112	19870112	49.50	19870112	49.50	19870112	49.50		
	B-03-19 29BAB	1010.00	19870112	19870112	120.13	19870112	120.13	19870112	120.13		
	B-03-21 08ABD	560.00	19870112	19870112	310.26	19870112	310.26	19870112	310.26		
	B-04-19 33CCA	917.00	19740403	19850117	25.80	19760203	33.18	19870112	27.18		R
	B-09-19 07BBB	420.00	19870116	19870116	76.10	19870116	76.10	19870116	76.10		
	B-16-20H 11CCD	690.00	19870114	19870114	212.30	19870114	212.30	19870114	212.30		
	B-20-22 24DDD	905.00	19840621	19840621	418.30	19870116	420.90	19870116	420.90		
	B-21-21 21CBB	980.00	19840614	19870115	387.10	19840614	396.30	19870115	387.10		
	B-25-20 15AAA	2814.00	19840621	19870122	597.00	19840621	597.70	19870122	597.00		
	B-26-20 06ABC	2460.00	19840704	19870122	462.40	19840704	462.70	19870122	462.40		
	B-28-21 20AAC	2330.00	19840703	19850829	304.80	19840703	305.00	19870122	304.90		
	B-30-20 06CAC	1325.00	19840620	19850829	56.07	19840620	57.19	19870122	57.00		
	C-05-20 24ADD	832.00	19861215	19861215	632.00	19861215	632.00	19861215	632.00		
	C-06-20 32ABD2	-	19861101	19861101	240.00	19861101	240.00	19861101	240.00		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
CHNRES	10 071-05.55X01.98	5425.00	19660324	19850327	16.08	19660712	29.35	19861211	16.80		
CHV	A-15-12 15DDC	6503.00	19660505	19870501	672.20	19840112	680.20	19870501	672.20		
	A-15-18 19AAA	6115.00	19730511	19770114	838.30	19810123	845.10	19870428	838.70		
	A-17-14 17ADD	5540.00	19641106	19710406	405.70	19870320	407.60	19870320	407.60		
CON	A-11-24 22DBC	6650.00	19741218	19870415	707.00	19810126	710.05	19870415	707.00		
	A-11-25 18DCC	6430.00	19460700	19580821	22.00	19780223	28.48	19870415	26.90		
	A-12-26 02BDA	6295.00	19750506	19750506	68.33	19810414	106.80	19861009	84.82		
								19870318	84.60		
								19870924	85.00		
	A-12-26 13DCD	5970.00	19580000	19580000	40.00	19810924	59.00	19861008	52.41		
								19870318	47.70		
								19870924	55.20		
	A-13-24 22BBD	5740.00	19560817	19840919	133.90	19770919	150.97	19861009	136.80		
								19870318	136.30		
								19870924	136.50		R
	A-13-26 06DCB	5640.00	19740601	19840201	82.20	19850403	170.10	19870414	155.80		R
	A-13-26 12DDA	6105.00	19760415	19810925	29.30	19800430	49.10	19861009	38.20		
								19870318	45.40		R
								19870924	38.80		
	A-14-24 29DCC	5640.00	19560817	19560817	180.00	19800922	280.50	19861009	245.60		R
								19870317	246.00		R
								19870924	242.10		P
	A-14-25 14CCD	5600.00	19750305	19750305	172.40	19810925	226.90	19861010	203.70		
								19870317	191.80		R
								19870925	204.50		R
	A-14-25E12CDD2	5430.00	19530730	19620501	11.66	19820225	34.11	19870414	23.40		
	A-14-26 21BCC	5475.00	19501100	19501100	9.00	19800924	37.10	19861010	29.50		
								19870317	24.60		
								19870925	33.20		
	A-14-26W18DBC	5430.00	19561023	19600420	14.90	19780914	63.03	19870414	27.80		
DOU	D-18-26 11ADA	4333.00	19850128	19860206	185.00	19850128	188.50	19861124	185.70		
	D-18-26 28AAA2	4268.00	19850128	19850128	178.60	19860206	186.20	19861124	186.20		P
	D-18-27 08BAC	4405.00	19841210	19870219	202.60	19860225	204.90	19861124	203.60		
								19870219	202.60		
								19870518	202.80		
								19870819	203.10		
	D-19-26 09BBB	4240.00	19850128	19850128	150.36	19861124	157.20	19861124	157.20		
	D-19-26 23DAA	4300.00	19860128	19861124	278.10	19860206	280.10	19861124	278.10		
	D-19-26 29BAB2	4205.00	19841210	19841210	108.42	19870819	114.60	19861124	113.80		
								19870219	113.70		
								19870518	114.10		
								19870819	114.60		
	D-19-26 33CDA	4188.90	19490713	19490713	51.90	19800123	146.10	19861124	144.40		
	D-20-25 09CAA1	4559.20	19841210	19870518	238.40	19841210	267.40	19870518	238.40		
								19870819	239.90		
	D-20-25 09CAA2	4359.20	19851202	19860528	228.10	19870819	239.90	19861124	229.80		
								19870219	231.80		
								19870819	239.90		
	D-20-26 17BCD	4137.00	19850128	19850128	58.80	19861124	60.20	19861124	60.20		
	D-20-26 23DAA	4168.00	19850128	19861124	108.20	19850128	113.50	19861124	108.20		
	D-20-26 25CBC	4160.00	19841211	19870219	112.20	19860528	125.10	19861124	115.70		
								19870219	112.20		
								19870518	117.90		
								19870819	123.10		
	D-21-25 15DBB	4218.55	19490310	19490310	109.75	19861125	143.05	19861125	143.05		
	D-21-26 02BAA	4130.00	19850129	19861124	104.30	19850129	106.00	19861124	104.30		
	D-21-26 02CCD	4138.00	19850129	19861124	122.10	19850129	126.00	19861124	122.10		
	D-21-26 24BAA	4196.00	19850129	19850129	185.30	19861124	187.70	19861124	187.70		
	D-21-26 32DAD	4075.00	19850129	19861124	69.70	19850129	71.80	19861124	69.70		
	D-21-26 36DDD	4200.00	19730209	19740117	210.80	19810129	236.50	19861125	224.70		
	D-22-26 04DAD	4095.00	19841211	19870219	114.90	19860528	126.60	19861124	120.70		
								19870219	114.90		
								19870223	114.90		
								19870518	120.00		
								19870819	120.30		
	D-22-26 29BCC	4059.00	19861125	19861125	58.50	19861125	58.50	19861125	58.50		
	D-22-26 31CCD	4090.00	19841211	19850311	69.30	19870819	726.00	19861125	71.00		
								19870219	72.10		
								19870519	72.20		
								19870819	726.00		
	D-23-26 13CCC1	4010.00	19850129	19861125	62.10	19860206	63.90	19861125	62.10		
	D-23-27 09DAB	4055.00	19841211	19850312	180.30	19870518	187.50	19861125	186.20		
								19870219	255.20		P
								19870518	187.50		
	D-23-27 19CBB	4002.00	19851202	19851202	57.70	19870819	59.50	19861125	59.20		
								19870219	58.90		
								19870518	59.10		
								19870819	59.50		
	D-23-27 22DDD	4042.00	19520107	19520107	125.86	19861125	194.50	19861125	194.50		
	D-23-28 08DDD	4259.00	19841211	19870819	62.50	19841211	70.14	19861125	64.14		
								19870219	63.60		
								19870518	66.70		
								19870819	62.50		
	D-23-28 31CCC	4040.00	19841211	19841211	238.80	19870819	245.40	19861125	243.80		
								19870219	243.70		
								19870519	244.40		
								19870819	245.40		
	D-24-27 05BDB	4000.00	19420526	19420526	54.30	19740117	71.90	19861125	68.30		

See p. 317 for Ground-water Areas and abbreviations.
See codes used identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
			DATE	HIGHEST	DATE	LOWEST	DATE			
D-08-32 18CCD	3680.00	19490301	19730321	15.94	19561124	28.77	19870205	18.10		
D-08-32 34AD	3740.00	19400130	19410506	38.12	19550630	82.23	19870205	41.80		
C-04-08 26DDD	550.00	19460124	19460124	49.30	19780109	70.10	19870127	60.60		
C-04-08 35BDD	540.00	19530706	19540100	44.75	19830113	79.60	19870127	56.60		
C-04-10 02CBB	710.00	19850122	19860129	291.30	19870127	298.20	19870127	298.20		
C-04-10 22ABB	608.00	19540119	19830114	101.10	19840129	174.90	19870127	108.70		
C-04-11 15BAB	691.00	19670308	19670308	222.80	19810212	297.73	19870127	286.30		
C-04-11 21BBB	674.00	19730100	19730100	254.40	19850122	270.50	19870127	266.20		
C-05-11 03BBB	578.00	19830114	19830114	122.60	19850130	128.40	19870127	123.90		
C-06-12 03ABA1	459.00	19670215	19770208	36.02	19721227	57.78	19870127	51.50		
C-06-12 19BBA	383.00	19450504	19840126	22.80	19500316	44.86	19870127	23.50		
C-07-11 27DDD	540.00	19830113	19870127	251.60	19850121	275.00	19870127	251.60		
C-07-12 23CDD	520.00	19770208	19830113	201.10	19790108	261.38	19870127	204.30		
D-01-18 11DCC	2662.00	19670302	19870122	19.20	19670302	38.70	19870122	19.20		
D-01-18 12CDC	2665.00	19590924	19810127	17.58	19600712	36.84	19870122	19.10		
D-03-15 29ABA	2740.00	19520522	19740213	9.40	19570910	102.11	19861218	89.80		
D-04-14 21BCD	1790.00	19520414	19740213	0.58	19531208	8.33	19861215	6.80		
C-06-14 28BBA	405.00	19560816	19740104	74.53	19750109	139.86	19870127	105.20		
C-07-16 24ADD	301.00	19621116	19750116	16.46	19830118	20.60	19870127	18.30		
C-07-16 33DAA	278.00	19640129	19760116	7.35	19640129	21.18	19870128	9.60		
C-08-17 12DDD	263.00	19770209	19800208	5.49	19790109	15.19	19870128	11.20		
C-08-17 20DCC	248.00	19760116	19800208	7.63	19780127	14.81	19870128	10.70		
C-08-18 27AAD	231.00	19460205	19840126	1.90	19530212	27.06	19870128	4.00		
C-08-18 31ABB2	215.00	19640129	19860129	6.80	19710128	14.33	19870128	10.70		
C-09-19 04CDD	208.00	19460131	19800208	8.70	19460131	23.60	19870128	14.30		
B-01-08 06AAA	1117.00	19841126	19870617	449.40	19841126	489.20	19861201	457.90		
B-01-08 19CBC	1088.00	19841127	19870617	435.50	19841127	458.80	19870617	449.40		
B-01-09 10BBB	1148.00	19841126	19870612	481.60	19841126	516.30	19861201	442.80		
B-01-09 20BDC	1167.00	19841127	19870612	519.30	19851204	540.90	19870617	435.50		
B-01-09 26CCC	1118.00	19841130	19870612	463.30	19841130	484.30	19861201	488.05		
B-01-10 01CCC	1236.00	19780405	19780405	462.50	19851204	490.50	19870612	481.60		
B-02-08 17CAA	1180.00	19841130	19870617	491.50	19841130	529.00	19861202	476.50		
B-02-08 27BBA	1204.00	19841130	19870617	482.70	19851202	486.80	19870612	519.30		
B-02-08 30AAA2	1144.00	19851202	19870617	460.10	19851202	500.80	19861201	468.80		
B-02-09 03BBB	1260.00	19711201	19711201	501.00	19841128	557.30	19870612	463.30		
B-02-09 07ABB	1260.00	19520901	19520901	270.00	19841128	310.60	19861201	481.90		
B-02-09 14BAB	1193.00	19841129	-	-	19841129	520.50	19870617	476.50		
B-02-10 05ABB	1330.00	19630301	19630301	333.70	19870612	387.80	19861201	501.90		
B-02-10 17DCA	1296.00	19841129	19841129	359.20	19870612	364.10	19870617	491.50		
B-02-10 26DBB	1230.00	19841129	19841129	254.00	19870612	257.30	19861201	484.70		
B-03-11 08CAC	1444.00	19860108	19860108	463.10	19870612	465.40	19870612	482.70		
B-03-11 34BBB	1373.00	19841126	19861202	425.30	19841126	437.20	19861201	473.40		
B-04-09 30AAC	1767.00	19860108	19860108	326.20	19860610	334.40	19870612	460.10		
B-04-12 04CCA	1640.00	19841127	19851203	451.40	19870612	459.10	19861201	473.40		
C-01-08 04BDA	1060.00	19841128	19870617	403.00	19851204	417.10	19870617	460.10		
C-01-08 06DCC	1086.00	19841128	19870617	429.40	19841128	448.60	19861201	473.40		
C-01-08 14DDD	990.00	19841128	19841128	214.70	19870617	233.60	19870617	429.40		
C-01-08 16DCC	1035.00	19841128	19841128	347.50	19870612	356.80	19861201	230.60		
C-01-09 18ACB	1305.00	19841129	19870903	667.70	19851204	680.10	19870612	233.60		
							19870612	354.00		
							19870612	356.80		
							19861027	356.80		
							19861203	676.20		
							19870612	675.60		
							19870612	670.00		
							19870903	667.70		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
HAS	B-04-04 19BAA	1417.00	19850114	19850114	178.20	19870615	180.00	19870615	180.00		
	B-04-05 05ABB	1620.00	19850110	19870615	380.10	19860611	381.10	19861216	380.30		
								19870615	380.10		
	B-05-04 24CCD	1720.00	19841219	19860611	413.00	19841219	414.60	19870615	413.10		
	B-05-05 22BCC	1738.00	19850110	19870615	477.10	19860611	480.10	19861216	477.70		
								19870615	477.10		
	B-06-04 02CCC	1970.00	19850110	19850110	184.10	19850605	199.10	19861208	224.00		P
								19870604	196.00		
	B-06-04 13DCD	1970.00	19850110	19861211	430.60	19850605	435.20	19861211	430.60		
								19870604	433.70		
	B-06-08 20ADC	2199.00	19850110	19870615	261.20	19850110	262.70	19870615	261.20		
	B-07-04 07BCC	2030.00	19780104	19800228	12.30	19780104	19.00	19870115	11.40		R
	B-07-05 03BCC2	2180.00	19780511	19790313	117.44	19800227	129.50	19870115	123.40		
	B-07-05 03DBC	2160.00	19810319	19820218	101.20	19850110	117.20	19870115	116.50		R
	B-08-05 10DAA	2580.00	19780426	19820218	411.60	19790314	425.30	19870115	421.90		
	B-08-05 18CCC	2455.00	19780202	19870115	323.80	19800227	332.40	19870115	323.80		
	B-08-05 19CBC	2425.00	19780131	19870115	288.70	19800227	302.00	19870115	288.70		
	B-09-05 35DBB	2640.00	19780223	19870115	403.90	19780223	409.00	19870115	403.90		
	B-09-06 05ADD	2955.00	19780207	19860122	822.00	19800410	825.20	19870115	822.50		
HOL	A-15-23 27DDD	5335.00	19530731	19541010	5.45	19780308	31.50	19870325	17.90		
	A-15-23 28DDC	5352.00	19500823	19500823	7.60	19671005	44.32	19870325	32.20		
	A-16-19 36CBC	5685.00	19680508	19740130	609.70	19860213	621.20	19870428	611.00		
	A-16-22 17CCD	5180.00	19640924	19730319	48.22	19780111	62.70	19870319	50.50		
	A-17-20 06ACB	5040.00	19530730	19770110	6.20	19820224	10.80	19870113	8.10		
	A-17-20 10DBA	5060.00	19691107	19720202	7.70	19810123	16.45	19870428	14.50		
	A-17-20 26DBC	5360.00	19691202	19700301	296.68	19870429	299.20	19870429	299.20		
	A-17-21 10CBA	5165.00	19520703	19820224	49.50	19720310	55.90	19870319	53.60		
	A-18-19 17ADC	5015.00	19680220	19780111	32.30	19680904	61.55	19870429	49.20		
	A-18-19 23DBD	5030.00	19620306	19820224	24.15	19860213	36.30	19870429	35.90		
HOU	A-42-08 36CBC	3735.00	19640702	19800717	40.00	19640702	388.00	19870403	59.00		
HUA	B-22-13 09ABC	3872.00	19800324	19800324	495.30	19861203	522.40	19861203	522.40		
	B-22-16 03CBB	3325.00	19800318	19800318	542.60	19870210	548.10	19870210	548.10		
	B-23-11 09BCC	5077.00	19691007	19691007	189.00	19800519	217.60	19870422	191.90		
	B-23-13 32ACA	3768.00	19440229	19440229	194.78	19780203	258.30	19870210	243.80		
	B-23-13 32DAA	3791.00	19520227	19530211	263.23	19810528	295.20	19861203	292.60		
	B-24-12 17CBC	4255.00	19530723	19790327	141.70	19550602	147.53	19870213	145.10		
	B-24-14 28CAD	3353.00	19431012	19440404	491.52	19851203	546.40	19870210	546.20		
	B-24-16 01DDD	2961.00	19650428	19800128	440.70	19700127	453.60	19870211	451.00		
	B-25-09 26DBC	5480.00	19800924	19800924	1334.00	19860101	1343.00	19870212	1340.60		
	B-25-10 26CDA	5150.00	19870422	19870422	928.80	19870422	928.80	19870422	928.80		
	B-25-10 29BBD1	4950.00	19860114	19860114	184.80	19870422	188.80	19870422	188.80		
	B-25-11 26BAD	4795.00	19840615	19870422	262.30	19860114	272.40	19870422	262.30		
	B-26-18 03AAA1	3300.00	19800320	19800320	553.60	19860101	559.00	19870211	558.60		
	B-28-17 31CCC	3004.00	19650428	19840126	652.50	19650428	654.95	19870211	653.30		
	B-30-17 14DCC	3186.00	19800424	19830218	384.70	19800424	407.90	19870211	387.80		
KAN	B-40-04 06AAC	5140.00	19750722	19810107	79.20	19821201	83.40	19870330	81.40		
LHA	B-01-05 08DAB	1056.80	19850114	19861208	95.40	19850607	102.80	19861208	95.40		
								19870611	96.90		
	B-01-05 15CBB1	980.00	19860609	19861208	33.60	19870611	35.30	19861208	33.60		
								19870611	35.30		
	B-01-05 27BBC	977.30	19850109	19851203	71.20	19850606	74.30	19861209	71.40		
								19870611	72.30		
	B-01-06 01ABB	1082.00	19850114	19851203	111.50	19861209	112.60	19861209	112.60		
								19870611	112.50		
	B-01-06 03BBC	1069.00	19850109	19861209	100.30	19850109	101.50	19861209	100.30		
								19870611	100.60		
	B-01-06 11BCA	1040.70	19850114	19861209	83.10	19861231	84.40	19861209	83.10		
								19861231	84.40		
								19870611	84.30		
	B-01-06 23DCD	987.00	19850109	19851203	141.60	19861208	143.00	19861208	143.00		
								19870611	142.60		
	B-02-04 29DCD	1187.00	19851205	19860609	223.20	19851205	226.90	19870611	223.50		
	B-02-05 29DAC	1127.00	19850114	19850114	140.40	19851203	141.00	19861231	140.60		
								19870611	140.90		
	B-02-06 05DAA	1201.00	19850114	19861231	342.50	19860611	356.70	19861208	345.20		
								19861208	344.20		
								19861231	342.50		
								19870611	346.70		
	B-02-06 09CBB	1175.00	19850109	19861208	297.10	19850606	342.60	19861208	297.10		
								19861231	310.80		
								19870108	311.20		
								19870611	380.50		P
	B-02-06 21BBA	1136.00	19850114	19861231	254.10	19850606	293.40	19861208	254.60		
								19861231	254.10		
								19870611	265.40		
	B-02-06 33CAA	1075.00	19850109	19870108	209.00	19850606	264.80	19861231	209.30		
								19870108	209.00		
								19870611	226.50		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						
				DATE	HIGHEST	DATE	LOWEST	DATE	1987	STATUS
LHA- Cont.	B-02-07 05BBC	1340.00	19850114	19850114	444.10	19870611	449.90	19870611	449.90	
	B-02-07 23CCA	1140.00	19850114	19870501	283.20	19870903	292.20	19861231	285.80	
								19870108	284.20	
								19870501	283.20	
								19870611	285.10	S
								19870903	292.20	
	B-02-07 27AAB	1146.20	19850114	19870108	290.60	19860609	299.60	19870108	290.60	
								19870611	290.60	
	B-03-05 26DAA	1223.00	19850114	19850114	84.80	19870611	86.20	19870611	86.20	
	C-01-05 03BAA1	931.00	19850109	19850109	87.20	19870612	99.90	19861203	91.50	
								19870612	99.90	
	C-01-05 29ADC	788.00	19850109	19861202	42.00	19850606	55.80	19861202	42.00	
								19870612	43.40	
	C-01-05 34ADC1	778.00	19851203	19851203	17.00	19860609	18.80	19861201	17.03	
								19870612	18.00	
	C-01-06 14DBB	891.20	19630118	19630118	182.00	19860609	258.10	19861204	212.70	
								19870611	220.60	
	C-01-06 18BBB	911.80	19850114	19861205	250.30	19851203	268.00	19861205	250.30	
	C-01-06 19ABB	890.00	19850114	19870611	221.20	19850606	229.90	19861210	222.10	
								19870611	221.20	
	C-01-07 14BBB	939.00	19850109	19870611	267.30	19851203	271.80	19861211	268.40	
								19870611	267.30	
	C-02-05 08CCC	779.00	19851203	19861203	44.20	19851203	52.00	19861203	44.20	
								19870612	44.20	
	C-02-05 16DAA	762.00	19851203	19860109	12.50	19861201	16.00	19861201	16.00	
								19870612	15.60	
LIC	B-14-02 14BAD	5170.00	19850306	19850306	16.97	19870901	25.15	19870401	23.17	
								19870901	25.15	
	B-15-01 01CDC	4913.00	19850305	19870401	366.50	19860227	367.90	19870401	366.50	
								19870901	366.70	
	B-15-01 25CDB	4927.00	19850305	19850305	289.20	19870901	291.10	19870401	290.40	
								19870901	291.10	
	B-15-02 17ABA	5056.00	19850306	19870223	298.60	19860825	299.20	19870223	298.60	
								19870401	298.90	
								19870901	298.90	
	B-16-02 02ABD1	4510.00	19860826	19860826	0.03	19860826	0.03	19861124	92.60	P
	B-16-02 03BAC	4535.00	19850305	19870331	2.33	19860826	9.00	19870331	2.33	
	B-16-02 03BBB1	4539.00	19850305	19850305	45.59	19850827	53.22	19870331	46.90	
								19870901	51.40	
	B-16-02 03DDC4	4590.00	19850305	19850827	19.99	19870331	28.00	19870331	28.00	
								19870901	27.98	
	B-16-02 11CBB1	4610.00	19850305	19860826	24.13	19870331	36.34	19870331	36.34	
								19870901	30.20	
	B-16-02 15AAA	4644.00	19850305	19860227	61.88	19870331	67.33	19870331	67.33	
								19870901	66.28	
	B-16-02 17BDC	4700.00	19850306	19870401	161.10	19860825	167.30	19870401	161.10	
								19870902	167.10	
	B-16-02 21BAA1	4738.00	19850306	19870401	211.50	19850826	232.70	19870401	211.50	
								19870902	218.10	
	B-16-02 34ABA2	4800.00	19850306	19870401	261.80	19850826	276.00	19870401	261.80	
								19870901	265.90	
	B-17-02 35CCC2	4515.00	19851126	19870331	0.	19870605	76.90	19861009	80.40	P
								19861107	83.70	P
								19861124	81.40	P
								19861229	3.50	
								19870129	1.90	
								19870331	0.	
								19870430	73.00	
								19870605	76.90	
								19870901	8.60	
	B-17-02N34ACC	4510.00	19850305	19850305	6.85	19860227	8.64	19870331	8.18	
								19870901	8.45	
	B-17-02N34DDD1	4513.00	19850305	19860227	1.20	19850826	19.37	19861009	3.30	
								19861107	3.05	
								19861124	3.60	
								19870304	1.40	
								19870430	3.22	
								19870605	9.76	
								19870901	2.65	
	B-17-02N34DDD3	4515.00	19850305	19870331	28.40	19850826	48.50	19870331	28.40	
								19870901	32.93	
	B-17-02S34ABA	4512.00	19851126	19860109	3.00	19870605	7.20	19870605	7.20	
	B-17-02W27DCC	4470.00	19850305	19870331	8.90	19870901	15.48	19870331	8.90	
								19870901	15.48	

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
LSC	D-03-04 35DCB	1188.00	19851213	19851213	107.90	19870605	139.20	19861201	108.50		
								19870605	139.20		
	D-03-05 01DDA	1243.00	19851213	19870604	163.80	19860527	206.00	19861201	176.50		
								19870604	163.80		
	D-03-05 29BCB	1197.00	19860527	19861201	58.80	19860527	62.40	19861201	58.80		
	D-03-06 17BDD	1288.00	19850220	19861201	134.70	19851213	149.00	19861201	134.70		
								19870603	140.80		
	D-03-06 27DBC	1384.00	19851213	19870604	210.80	19851213	239.20	19870604	210.80		
	D-04-02 15CBC	1227.00	19841116	19841116	347.40	19860610	348.90	19861211	348.20		
								19870611	348.70		
	D-04-03 09CDD PZ1	1147.00	19841108	19860610	141.00	19841108	153.40	19861211	150.30		
								19870609	150.50		
	D-04-03 09CDD PZ2	1147.00	19851217	19861211	162.90	19870609	248.20	19861211	162.90		
								19870609	248.20		
	D-04-03 13DDD	1177.00	19841115	19851217	234.50	19870609	301.90	19861211	238.30		
								19870609	301.90		
	D-04-03 15DCC	1162.00	19780110	19861211	131.80	19780110	160.70	19861211	131.80		
								19870609	147.90		
	D-04-03 16CBB	1152.00	19830119	19841108	145.30	19860610	164.80	19861211	146.60		
								19870611	247.30		P
	D-04-03 20DCD	1165.00	19861211	19861217	159.40	19861211	168.00	19861211	168.00		
								19861217	159.40		
								19870611	245.70		P
	D-04-03 35DDD	1200.00	19851217	19851217	209.70	19861211	218.80	19861211	218.80		
								19870609	346.30		P
	D-04-04 16CDD	1189.00	19861211	19861211	235.60	19861211	235.60	19861211	235.60		
								19870609	353.30		P
	D-04-04 20CDD	1193.00	19841115	19861211	160.90	19870609	194.40	19861211	160.90		
								19870609	194.40		
	D-04-05 15BAD	1292.00	19841112	19861201	90.00	19841112	128.40	19861201	90.00		
								19870605	91.60		
	D-04-06 05ADD	1254.00	19851213	19860527	66.60	19851213	70.60	19870605	91.10		P
	D-04-06 23BAA	1287.00	19851213	19851213	47.40	19870604	71.20	19870604	71.20		
	D-04-08 02CCC	1532.00	19850103	19850103	239.40	19860604	241.20	19861205	241.00		
								19870608	240.20		
	D-04-10 30BDD	1490.00	19841109	19851219	115.30	19841109	128.90	19861218	124.30		
								19870616	127.70		
	D-04-11 07DBB	1560.00	19851219	19851219	17.30	19870618	27.20	19861218	18.50		
								19870618	27.20		
	D-05-02 02DCD	1241.00	19851210	19861217	586.00	19851210	586.80	19861217	586.00		
	D-05-02 22DAD	1322.00	19841115	19841115	606.60	19861217	609.20	19861217	609.20		
								19870603	608.50		
	D-05-02 36BAD	1317.00	19841114	19870302	689.50	19841114	695.70	19861103	692.70		
								19861217	691.50		
								19870106	690.30		
								19870302	689.50		
								19870603	691.80		
								19870902	691.30		
	D-05-03 01CDD	1210.00	19841112	19851217	217.50	19870609	229.70	19861211	218.20		
								19870609	229.70		
	D-05-03 02DDD	1206.00	19841113	19851217	215.30	19870609	239.90	19861211	217.90		
								19870609	239.90		
	D-05-03 03CCC	1195.00	19851217	19851217	201.80	19861212	215.20	19861212	215.20		
								19870609	438.90		P
	D-05-03 12CDD1	1215.00	19630129	19630129	202.40	19870609	240.30	19861211	221.40		
								19870609	240.30		
	D-05-03 25ADD	1240.00	19841106	19851217	228.60	19850621	234.60	19861211	231.30		
								19870611	490.30		P
	D-05-03 29BCC1	1257.00	19841113	19841113	316.50	19870902	326.70	19861031	323.70		
								19861217	323.80		
								19870302	324.60		
								19870603	326.20		
								19870902	326.70		
	D-05-06 28CAA	1465.00	19790122	19790122	31.91	19841029	338.20	19861208	337.50		
								19870604	337.20		
	D-05-07 33DDD	1402.00	19841030	19861211	166.40	19860612	207.30	19861211	166.40		
								19870616	205.10		P
	D-05-07 34DDD	1406.00	19841030	19861211	144.70	19860612	199.40	19861211	144.70		
								19870616	159.00		
	D-05-08 02AAA	1419.00	19841031	19851219	68.70	19841031	101.30	19861218	83.50		
								19870618	94.40		
	D-05-08 12AAD	1418.00	19851219	19851219	45.80	19860610	60.60	19861218	171.30		P
								19870616	283.90		P
	D-05-08 17BBB2	1409.00	19770103	19861212	108.60	19860612	171.40	19861212	108.60		
								19870616	159.70		P
	D-05-09 03DAB	1475.00	19851219	19851219	159.10	19860610	167.50	19861218	163.30		
								19870616	198.20		P
	D-05-09 14CBB	1530.00	19841113	19861212	228.00	19841113	250.50	19861212	228.00		
								19870616	262.50		P
	D-05-09 18BDD1	1464.00	19841109	19851219	130.40	19870616	165.10	19861218	131.90		
								19870616	165.10		
	D-05-09 18BDD2	1464.00	19841109	19851219	154.00	19870616	195.10	19861218	156.00		
								19870616	195.10		
	D-05-09 22CBA	1529.00	19841113	19861212	215.70	19841113	238.80	19861212	215.70		
								19870616	341.00		P

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
LSC- Cont.	D-05-09 29ADA	1520.00	19841113	19861212	178.20	19850620	210.60	19861212	178.20		
								19870616	192.00		
	D-05-09 31ADD	1505.00	19841114	19861212	187.70	19841114	208.90	19861212	187.70		
								19870616	299.00		P
	D-06-02E01CDD2	1318.00	19841120	19870603	698.40	19841120	710.20	19861218	701.50		
								19870603	698.40		
	D-06-03 11CDD1	1275.00	19841115	19841115	206.70	19870603	211.30	19861218	210.30		
								19870603	211.30		
	D-06-03 15BDC	1290.00	19841115	19861218	657.90	19860611	666.50	19861218	657.90		
								19870603	660.20		
	D-06-03 27CCC	1365.00	19851218	19870603	741.70	19851218	757.50	19861218	747.50		
								19870603	741.70		
	D-06-03S02DDD2	1267.00	19841107	19841107	220.40	19870603	233.50	19861212	225.30		
								19870603	233.50		
	D-06-04 02CDD	1295.00	19831205	19861211	560.00	19831205	582.30	19861211	560.00		
								19870603	617.90		P
	D-06-04 07CCC	1289.00	19841102	19841102	250.10	19850621	266.20	19861212	254.60		
								19870603	257.20		
	D-06-04 11CDD	1303.00	19841101	19841101	398.60	19861211	430.50	19861211	430.50		
								19870603	428.10		
	D-06-04 22CDD	1308.00	19851220	19870603	587.20	19861211	611.80	19861211	611.80		
								19870603	587.20		
	D-06-04 36DDD	1347.00	19841101	19861218	514.40	19851218	517.70	19861218	514.40		
								19870603	514.60		
	D-06-04S04DDD3	1286.00	19841112	19841112	233.20	19861211	241.20	19861211	241.20		
								19870603	265.30		P
	D-06-04S06DDD	1277.00	19841107	19861217	593.40	19841107	606.90	19861217	593.40		
								19870603	598.40		
	D-06-05 09ADD	1332.00	19841114	19861208	44.30	19841114	47.48	19861208	44.30		
								19870604	45.10		
	D-06-05 16DAD1	1347.00	19841113	19851217	40.50	19860609	41.90	19861208	40.70		
								19870604	56.40		P
	D-06-05 16DAD2	1346.00	19841113	19851217	37.70	19860609	39.70	19861208	38.10		
								19870604	212.00		P
	D-06-05 19DDA PZ1	1338.00	19841108	19851220	331.10	19860609	338.20	19870603	332.90		
	D-06-05 19DDA PZ2	1338.00	19841108	19861212	314.70	19841108	322.10	19861212	314.70		
								19870603	317.10		
	D-06-05 25BBB	1377.00	19851217	19861208	27.90	19870604	29.20	19861208	27.90		
								19870604	29.20		
	D-06-05 34BDD	1369.00	19841105	19860612	61.20	19851217	61.80	19861208	61.50		
								19870611	61.60		
	D-06-06 07AAA3	1385.00	19841114	19870604	173.70	19841114	191.00	19861208	177.10		
								19870604	173.70		
	D-06-06 09DAD	1395.00	19841031	19870604	300.10	19860610	349.30	19861208	306.30		
								19870604	300.10		
	D-06-06 16ADD	1398.00	19841031	19861208	304.10	19841031	321.80	19861208	304.10		
								19870604	413.40		P
	D-06-06 16CDD	1398.00	19841031	19870604	187.30	19841031	205.10	19861208	190.80		
								19870604	187.30		
	D-06-06 22CCD	1410.00	19841113	19841113	227.70	19861223	234.10	19861223	234.10		
								19870604	261.80		S
	D-06-06 36DDA	1443.00	19841031	19861209	127.00	19841031	143.80	19861209	127.00		
								19870618	396.10		P
	D-06-07 08ADD	1416.00	19841107	19861211	150.60	19841107	175.90	19861211	150.60		
								19870616	-		D
	D-06-07 34BBC	1461.00	19841119	19861209	227.30	19860611	276.80	19861209	227.30		
								19870618	497.10		P
	D-06-07 35DDD	1477.00	19841119	19851218	364.80	19841119	382.00	19870618	548.00		P
	D-06-08 11ADA1	1473.00	19841108	19861212	99.70	19851218	136.60	19861212	99.70		
								19870616	102.30		
	D-06-08 14CCC	1456.00	19770118	19861212	123.80	19770118	190.30	19861212	123.80		
								19870616	143.90		
	D-06-08 21DDD2	1469.00	19841108	19841108	154.40	19841108	154.40	19870421	171.90		R
								19870421	207.10		P
	D-06-08 27BDD2	1470.00	19841113	19870616	154.30	19860612	183.50	19870616	154.30		
	D-06-08 31CDD	1485.00	19841119	19861209	196.00	19851218	205.60	19861209	196.00		
								19870618	197.00		
	D-06-08 32DDA	1487.00	19841114	19841114	218.10	19841114	218.10	19870710	266.70		P
	D-06-08 33ACD2	1485.00	19841114	19841114	205.10	19841114	205.10	19870710	236.20		P
	D-06-08S02DAD	1472.00	19841108	19861212	136.40	19841108	158.30	19861212	136.40		
								19870616	146.10		
	D-06-08S04ADD1	1432.00	19841105	19861212	107.80	19841105	139.70	19861212	107.80		
	D-06-09 19BBD	1517.00	19841108	19861212	134.20	19870616	165.80	19861212	134.20		
								19870616	165.80		
	D-06-09N04DDD	1588.00	19841114	19861212	277.90	19870610	303.30	19861212	277.90		
								19870610	303.30		
	D-06-09N06DAA	1522.00	19520306	19540217	160.92	19870616	261.30	19861212	211.90		
								19870616	261.30		
	D-07-04 23DDD	1360.00	19851217	19861218	444.90	19851217	470.80	19861218	444.90		
								19870603	451.60		
	D-07-06 17DDD2	1440.00	19841107	19860611	108.00	19841107	113.70	19861210	110.40		
								19870611	112.70		
	D-07-06 28DDD	1464.00	19840511	19870611	113.70	19840511	117.90	19861210	114.10		
								19870611	113.70		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
LSC-Cont.	D-07-07 02ACC	1482.00	19841119	19861209	205.70	19841119	222.60	19861209	205.70		
	D-07-07 08BAA	1468.00	19841108	19861208	293.50	19841108	358.40	19861208	293.50		
								19870618	339.10		
	D-07-07 11CDD	1494.00	19841114	19841114	260.50	19850620	299.70	19861209	263.00		
								19870611	268.70		
	D-07-07 23ADD	1513.00	19841116	19861223	275.60	19860611	299.80	19861223	275.60		
								19870618	289.90		
	D-07-07 24DDD	1523.00	19841116	19851218	214.80	19860611	314.80	19861210	274.90		
								19870618	307.30		
	D-07-07 30CDD	1499.00	19851216	19861210	196.30	19870611	202.70	19861210	196.30		
								19870611	202.70		
	D-07-07 34CDD2	1529.00	19841113	19861210	270.90	19860611	274.30	19861210	270.90		
								19870618	273.60		
	D-07-08 05DCC	1501.00	19841115	19861209	211.30	19860611	253.20	19861209	211.30		
								19870618	227.10		
	D-07-08 09DDD	1515.00	19841115	19861209	218.40	19841115	247.90	19861209	218.40		
								19870618	222.60		
	D-07-08 17CDD	1520.00	19841120	19861223	263.90	19841120	294.20	19861223	263.90		
								19870618	280.40		
	D-07-08 30CDD	1536.00	19841119	19861210	274.70	19860611	315.70	19861210	274.70		
	D-07-08 31BBA	1534.00	19841119	19861210	329.20	19850620	381.20	19861210	329.20		
								19870618	364.00		
	D-07-08 33DDD	1564.00	19510116	19510116	186.86	19870618	395.10	19861210	326.60		
								19870618	395.10		
	D-07-13 15DAA1	3600.00	19841218	19841218	8.89	19860530	18.70	19861211	17.90		P
								19870604	22.30		
	D-08-06 22DDD2	1518.00	19851217	19861211	187.10	19860611	194.90	19861211	187.10		S
								19870615	186.70		
	D-08-06 35DDD2	1542.00	19831205	19870615	171.30	19841108	178.80	19861211	171.80		
								19870615	171.30		
	D-08-07 09ADD1	1538.00	19841029	19861211	259.80	19860611	266.10	19861211	259.80		
								19870618	264.70		
	D-08-07 14DDA	1565.00	19841030	19861211	397.00	19860611	446.30	19861211	397.00		
								19870605	437.90		
	D-08-07 19DDD	1548.00	19841106	19851217	222.70	19870615	227.40	19861211	223.10		
								19870615	227.40		
	D-08-08 01DDD	1599.00	19851218	19861212	414.40	19851218	419.60	19861212	414.40		
	D-08-08 07DDD1	1585.00	19841031	19860611	235.00	19870605	245.70	19861211	235.20		
								19870605	245.70		
	D-08-08 07DDD2	1575.00	19841031	19861211	359.40	19860611	402.50	19861211	359.40		
								19870605	395.80		
	D-08-08 14DDD	1611.00	19490222	19490222	188.04	19841112	464.40	19870618	570.00		P
	D-08-08 18CDD1	1583.00	19841031	19861211	331.90	19850618	351.90	19861211	331.90		
								19870605	342.70		
	D-08-08 18CDD2	1583.00	19841031	19861211	387.00	19860611	446.60	19861211	387.00		P
								19870605	534.70		
	D-08-08 29BCC	1607.00	19841112	19851217	441.30	19841112	453.60	19861211	444.90		
	D-08-08 29BCD	1607.00	19841112	19851217	332.20	19870605	374.70	19861211	356.30		
								19870605	374.70		
	D-08-09 07ADD	1635.00	19841112	19851218	458.90	19861212	473.90	19861212	473.90		
								19870618	571.70		P
	D-08-10 04BBB2	1939.00	19841218	19841218	343.80	19861210	346.60	19861210	346.60		
								19870603	346.30		
	D-08-11 31BBB	2105.00	19841213	19841213	443.50	19861211	445.60	19861211	445.60		
								19870604	445.40		
	D-08-12 19DDC	2680.00	19841213	19841213	4.66	19860530	11.60	19861211	10.20		P
								19870604	13.00		
	D-09-07 04ADD	1584.00	19841105	19861204	260.90	19860611	271.00	19861204	260.90		
								19870615	269.90		
	D-09-07 22DAA	1614.00	19841115	19861211	264.60	19860611	282.50	19861211	264.60		
	D-09-07 25CDD	1646.00	19841119	19861211	399.60	19870605	427.70	19861211	399.60		
								19870605	427.70		
	D-09-07 25DDA1	1652.00	19841119	19861211	267.20	19841119	283.00	19861211	267.20		
								19870605	270.20		
	D-09-07 25DDA2	1652.00	19841119	19851119	488.60	19870605	546.20	19861211	497.60		
								19870605	546.20		
	D-09-07 27DDD1	1623.00	19841119	19861211	231.60	19841119	234.70	19861211	231.60		
								19870605	234.50		
	D-09-08 29BCC	1664.00	19841115	19861216	436.60	19870902	499.60	19861216	436.60		
								19870302	439.90		
								19870605	472.40		
								19870902	499.60		
	D-09-08 30DDD1	1668.00	19841115	19861211	319.90	19850618	326.50	19861211	319.90		
								19870605	326.40		S
	D-09-08 31DAA	1666.00	19841115	19851217	487.60	19850618	570.60	19861210	492.60		
								19870605	540.50		S
	D-09-08 35ADD2	1713.00	19841115	19870605	301.70	19841115	491.70	19870605	301.70		
	D-09-10 19AAA	1840.00	19841115	19861208	201.30	19860527	207.50	19861208	201.30		
								19870603	202.40		
	D-09-10 19ADD	1836.00	19851209	19851209	261.90	19861208	269.70	19861208	269.70		
								19870603	268.00		
	D-09-13 07CBC	3115.00	19841213	19841213	45.70	19870603	56.30	19861210	51.50		
								19870603	56.30		
	D-10-10 05DAD	1855.00	19841120	19841120	237.20	19870603	244.50	19861208	237.80		
								19870603	244.50		
	D-10-10 20DCC	1862.00	19841119	19851202	206.00	19850618	207.60	19861208	206.60		
								19870603	206.70		
	D-10-11 17CAB2	2140.00	19851209	19861208	468.00	19860527	468.80	19861208	468.00		
								19870603	468.60		
	D-11-11 11DCD	2148.00	19841127	19870603	453.00	19841127	454.20	19861208	453.80		
								19870603	453.00		
	D-11-11 16CDD2	1968.00	19841126	19861211	288.10	19841126	298.60	19861211	288.10		
								19870604	288.40		
	D-11-11 34ADD2	2008.00	19841127	19870604	300.90	19841127	312.80	19861211	301.50		
								19870604	300.90		
	D-12-11 12BDC	2060.00	19850606	19860526	283.00	19850606	288.90	19861211	284.30		
								19870604	283.60		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

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WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
LSCRES	D-09-05 29CDC	1528.77	19481001	19481001	74.89	19780721	96.70	19870113		78.20	
	D-10-04 33DDC1	1597.60	19531124	19570613	161.95	19860321	197.50	19870113		180.90	
	D-12-03 23AAD UNSURV	1760.62	19150000	19150000	238.00	19700120	256.00	19870113		238.80	
	D-15-07 18CBB2	2520.00	19680400	19771214	547.50	19751103	578.50	19870210		567.30	
LSP	D-05-15 25BCD	1950.00	19500308	19740213	14.80	19730129	26.80	19861215		15.50	
	D-06-16 08CDB	2035.00	19451031	19861215	24.20	19470700	62.00	19861215		24.20	
	D-06-16 08DAC5	2040.00	19680308	19680308	35.61	19810131	41.00	19861215		36.80	
	D-07-16 22ADD	2206.36	19490922	19830107	12.80	19560712	31.30	19861215		14.10	
	D-07-16 22BDD	2230.00	19500303	19720217	23.30	19710121	30.36	19861215		26.00	
	D-08-16 25DCD	2910.00	19480700	19480700	375.00	19780106	496.70	19861216		491.20	
	D-08-17 18BAA	2322.00	19510209	19840104	14.10	19761228	48.20	19861216		26.50	
	D-09-15 36BBC	4500.00	19430000	19790206	19.40	19570513	83.01	19861216		25.80	
	D-09-17 04ADA	2448.39	19540330	19790207	35.80	19810207	48.80	19861216		38.40	
	D-10-17 15BBB	3260.00	19490822	19490822	214.60	19791213	270.20	19861216		247.50	
	D-12-18 24AAB	2940.00	19660408	19850108	33.00	19740212	75.40	19861216		43.70	
	D-12-19 19ADB	3000.00	19491207	19840111	19.50	19761217	53.60	19861218		22.80	
	D-13-18 02BDD	3240.00	19680419	19790209	45.00	19730123	165.30	19861216		105.40	
	D-13-19 25BBB	3153.02	19500800	19860331	28.00	19500800	55.00	19861218		28.20	
	D-14-20 34CAA	3377.00	19491207	19560716	107.85	19791207	121.60	19861219		117.80	
	D-15-20 10CAB	3319.00	19620509	19790213	36.30	19750123	49.60	19861219		41.10	
LVR	A-03-06 15ABA	1674.00	19850104	19850104	340.30	19870603	351.00	19861203		351.00	S
	A-03-07 30BAD	1365.00	19851212	19851212	10.80	19870603	17.67	19861203		13.33	
	A-04-05 13ABB1	2670.00	19850107	19860529	32.10	19870603	37.17	19861203		34.49	
	A-04-07 07BBA	1630.00	19850107	19851212	138.00	19850620	189.90	19861203		140.10	
	A-05-06 31DDD	2351.00	19850110	19850110	500.90	19860529	536.10	19861203		524.30	
	A-11-10 27DDB	5052.00	19750701	19860114	87.60	19790412	128.70	19870106		88.90	
	A-12-08 21CDC2	5790.00	19741108	19870106	49.50	19741108	50.00	19870106		49.50	
MMU	B-05-12 30DDD	1739.00	19530227	19710127	11.37	19700220	122.60	19861205		111.60	
	B-05-12 32ADB	1697.00	19530227	19530227	52.55	19710121	103.90	19861205		101.90	
	B-05-13 01ACB	1862.00	19850227	19861205	367.40	19851202	376.30	19861205		367.40	
	B-05-13 05CBB	2018.00	19630312	19630312	279.46	19861205	463.40	19861205		463.40	
	B-05-13 08DAA	1922.00	19620330	19620330	181.79	19851202	421.50	19861205		417.10	
	B-05-13 09BBA	1935.00	19590128	19590128	182.50	19851202	442.20	19861205		433.70	
	B-05-13 19BBD2	1955.00	19801205	19801205	298.90	19861205	325.60	19861205		325.60	
	B-05-13 28ACC	1918.30	19561123	19571011	194.44	19801209	272.00	19861205		267.30	
	B-06-11 05ADD	1992.00	19460327	19460327	16.00	19861205	223.40	19861205		223.40	
	B-06-12 13DCD	1976.00	19570507	19570507	171.58	19850228	454.60	19861205		453.80	
	B-06-12 15BBB	1955.00	19580702	19600418	185.50	19861205	353.10	19861205		353.10	
	B-06-12 19BBA	1967.00	19651204	19651204	242.60	19851202	437.10	19861209		429.80	V
	B-07-07 17DCD	2409.00	19731004	19801118	465.10	19820107	484.30	19861208		483.80	
	B-07-08 15BAA	2257.00	19590401	19590401	457.85	19861208	582.50	19861208		582.50	
	B-07-08 20DDD	2224.00	19580930	19580930	412.30	19851210	606.20	19861208		605.80	
	B-07-09 10AAA	2173.77	19581001	19581001	373.99	19830128	551.60	19861208		541.90	
	B-07-09 33ABB	2235.00	19801230	19801230	580.60	19861209	597.80	19861209		597.80	
	B-07-10 33DDA	2203.52	19851210	19861208	500.90	19851210	502.30	19861208		500.90	
	B-07-12 26BCC	2098.00	19810825	19810825	320.00	19830127	322.20	19861205		321.30	
	B-08-07 33ABC	2426.00	19801117	19801117	412.10	19820107	413.90	19861208		412.10	
	B-08-09 28ABB	2191.00	19851211	19861208	510.90	19851211	512.20	19861208		510.90	
	B-08-10 35BBB	2209.00	19581001	19581001	417.05	19861208	515.60	19861208		515.60	
	B-08-10 36BBB	2198.00	19580530	19580530	392.68	19861208	508.80	19861208		508.80	
N-C	A-04-01 01BAA	1381.00	19841206	19841206	351.20	19860115	355.00	19861202		352.90	
	A-04-02 11ADB	1430.00	19841130	19841130	363.10	19850625	369.40	19861202		363.40	
	A-04-02 14BBB	1397.00	19841203	19870304	474.90	19850625	477.20	19861202		475.00	
	A-04-04 06BBB	1730.00	19840921	19840921	509.50	19870904	522.60	19861202		518.50	
								19861229		519.00	
								19870305		521.80	
								19870430		520.40	
								19870602		521.10	
								19870706		521.50	
								19870804		522.10	
								19870904		522.60	
	A-05-01 10AAB	1574.00	19841126	19861203	210.30	19870609	239.80	19861203		210.30	
	A-05-02 04CAB	1615.00	19850625	19860606	218.60	19870609	220.60	19861202		219.60	
	A-05-02 10ABA	1650.00	19841126	19841126	288.30	19860606	289.00	19861202		288.40	
	A-05-04 09ABB	2125.00	19850102	19870602	588.30	19850102	603.00	19861202		590.10	
	A-06-02 25BDD1	1822.00	19850110	19861203	279.40	19850110	283.70	19861203		279.40	
	A-06-02 30AAA	1721.00	19841128	19870609	193.70	19850625	195.60	19861203		194.00	
	A-06-04 21DAC	2180.00	19850103	19861202	85.91	19850103	89.20	19861202		85.91	
	A-06-05 31CCC2	2558.00	19850109	19850109	233.50	19861202	259.50	19861202		259.50	
								19861210		242.40	
								19870602		299.80	P
	A-07-02 24BDA	2160.00	19850107	19850107	19.30	19870609	22.90	19861203		21.30	
	A-07-03 30CCC	2140.00	19841212	19841212	72.50	19850625	123.30	19861203		122.60	P
	B-05-01 14CAB	1503.00	19850104	19870605	437.10	19850104	442.60	19861208		437.40	
								19870605		437.10	

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE					1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE		
PRZ	A-18-23 06CDC2	5250.00	19670111	19700306	27.37	19681017	36.68	19870319	35.40	
	A-18-23 06DDC1	5250.00	19700306	19770113	29.55	19830118	37.10	19870319	32.90	
	A-18-30 20CDD	6381.00	19690710	19850418	358.80	19760129	366.80	19870304	359.30	
	A-19-29 17ACE2	6181.00	19600323	19690709	210.00	19850418	219.80	19870304	214.20	
	A-21-28 23AAC	5825.00	19680527	19850418	29.00	19750131	60.40	19870422	31.00	
RAN	B-04-15 11ADD	1226.00	19830208	19830208	292.00	19870126	318.20	19870126	318.20	
	B-04-15 13DAA	1239.00	19781118	19781118	270.00	19870126	329.90	19870126	329.90	
	B-05-15 06BAA2	1156.00	19790110	19790110	227.70	19810212	251.45	19870126	228.50	
	B-05-15 35BDD2	1208.00	19771223	19771223	230.00	19870126	283.00	19870126	283.00	
	B-06-16 12AAA	1205.00	19670808	19670808	275.80	19820125	297.20	19870126	290.00	
	B-06-16 22ADA	1121.00	19480608	19610526	167.40	19840118	198.10	19870126	184.00	
	B-06-16 33AAA	1064.00	19570122	19570122	121.21	19770211	149.98	19870126	134.80	
	B-07-17 22ABC1	921.00	19450109	19451003	26.92	19870126	48.60	19870126	48.60	
SAC	B-15-16 07BDD	2340.00	19870114	19870114	935.20	19870114	935.20	19870114	935.20	
	B-15-17 07DCA	1819.00	19870114	19870114	427.10	19870114	427.10	19870114	427.10	
	B-17-17 19WBAD	1835.00	19730118	19860129	382.80	19750123	387.19	19870114	384.00	
	B-20-18 22AAC	2495.00	19641014	19730118	732.90	19810217	767.70	19870114	744.60	
	B-21-17 24CBC	3330.00	19780417	19780417	118.00	19850116	128.00	19870114	129.00	R
	B-21-17 34DDB	3050.00	19520215	19840117	57.40	19530213	62.59	19870114	59.10	
	B-21-18 21BCC	2665.00	19840116	19840116	897.00	19850115	900.50	19870114	899.50	
SAF	D-04-22 35ADA	2857.54	19391020	19850207	5.73	19580128	41.60	19870202	7.30	
	D-05-23 02DBC	2720.00	19680509	19820125	11.20	19770117	30.45	19870203	13.33	
	D-05-23 03CAB	2790.00	19641100	19810120	61.53	19740218	90.10	19870205	64.90	
	D-05-23 25DCD	2778.00	19680509	19820124	49.00	19710119	55.64	19870323	49.70	
	D-05-24 08CCB2	2750.00	19680327	19791219	36.46	19780209	41.08	19870204	39.10	
	D-05-24 25BEC	3040.00	19680516	19791219	99.30	19770118	178.38	19870323	149.22	
	D-06-25 25CDD	2873.00	19580113	19680509	13.76	19580113	27.98	19870204	17.00	
	D-06-25 30DAC	2885.00	19391030	19740218	13.55	19720118	19.02	19870202	16.80	
	D-06-26 08CCD	3300.00	19651020	19651020	265.20	19801215	270.91	19870205	270.00	
	D-07-26 18CDA1	2961.15	19391228	19690226	53.43	19810123	67.87	19870202	54.70	
	D-07-26 22BAB	2951.17	19400109	19430112	23.19	19480428	58.23	19870203	23.80	
	D-07-27 02ADD	3067.00	19521201	19850208	20.10	19570930	134.94	19870203	22.50	
SBV	D-23-31 29DCA2	4040.00	19850709	19850709	200.00	19860213	234.20	19870325	202.80	P
	D-24-30 16CCC	3800.00	19770126	19830218	29.00	19850301	30.70	19870325	29.90	
SFP	A-20-08 18BBB	6839.75	19621010	19840306	557.70	19650206	606.60	19870225	565.80	
	A-21-05 02ABC3	7135.00	19670315	19730508	11.15	19760119	36.30	19870204	23.70	
	A-21-06 35CBA	7140.00	19541208	19811102	1221.00	19841221	1253.00	19870325	1248.50	
	A-22-06 27ADA1	7310.00	19671024	19790214	23.50	19780208	61.95	19870401	39.40	
	A-22-07 32CBB	7175.00	19681008	19730409	48.65	19760119	137.40	19870211	134.60	R
	A-24-05 11CAC	7389.00	19650706	19801223	260.39	19700324	284.35	19870401	267.50	
	A-25-06 20ACC	6965.00	19661003	19760119	86.05	19780824	97.30	19870401	88.40	
SFPRES	05 132-00.14X13.82	4745.00	19580212	19870410	128.20	19580212	135.00	19870410	128.20	
	05 132-00.52X14.00	4755.00	19590406	19590406	120.40	19670817	144.50	19870410	138.60	
SNO	A-12-22E19ADD	5733.00	19720223	19860417	70.70	19721207	90.10	19870403	76.60	
	A-13-21 10CDA	5632.00	19741219	19760127	135.35	19840301	150.90	19870403	150.00	
	A-13-21 24CCB	5618.00	19520424	19580424	60.21	19700305	97.28	19870403	92.10	
	A-13-21 34DCC2	5658.00	19500914	19530114	74.33	19820216	136.80	19870403	72.30	
	A-13-22 30BCD	5654.00	19600408	19600408	91.35	19860417	143.10	19870403	129.50	
SRV	A-01-01 03BBB	1025.00	19841205	19860109	85.00	19841205	93.50	19870514	131.20	P
	A-01-01 04AAA2	1028.00	19850104	19860109	81.70	19860603	102.70	19861204	89.20	
								19870601	92.50	
	A-01-01 19DCD1	965.00	19841205	19850626	24.80	19860603	27.60	19861204	26.50	
	A-01-02 09AAB2	1058.00	19850107	19851211	84.10	19860605	92.90	19861201	86.70	
								19870604	94.50	P
								19870604	89.10	P
	A-01-02 19BAA	1025.00	19850107	19850624	46.90	19861201	52.40	19861201	52.40	
								19870604	51.00	
	A-01-02 26AAA	1042.00	19841203	19850624	30.30	19861201	41.00	19861201	41.00	
								19870604	39.50	
	A-01-03 01DDD	1138.40	19841129	19870602	42.30	19861201	46.70	19861201	46.70	
								19870602	42.30	
	A-01-03 05BAA	1087.00	19841203	19850624	65.50	19870604	71.35	19870604	71.35	
	A-01-03 18BBC	1058.00	19841203	19851211	51.90	19841203	61.40	19861201	60.00	
								19870512	88.60	P
								19870604	88.20	P
	A-01-03 28ABD	1089.00	19841203	19841203	48.70	19861201	67.30	19861201	67.30	
								19870604	66.80	
	A-01-04 18DAD	1130.00	19851210	19851210	29.40	19861201	36.10	19861201	36.10	
								19870602	31.90	
	A-01-05 06BDD	1201.00	19830124	19831212	77.10	19861201	138.30	19861201	138.30	
								19870602	132.20	
	A-01-05 16ABB	1246.00	19841128	19860606	187.20	19841128	220.80	19861201	194.40	
								19870601	197.00	
	A-01-05 26DDD	1225.00	19630220	19870601	158.00	19630220	204.10	19861201	160.40	
								19870601	158.00	
	A-01-06 03ADA	1400.00	19850207	19870602	432.40	19850620	465.70	19861201	439.30	
								19870602	432.40	
	A-01-06 08CCD2	1288.00	19841127	19870601	280.10	19841127	313.00	19861201	286.40	
								19870601	280.10	

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
SRV-Cont.	A-01-06 14AAA2	1426.00	19841206	19870601	489.40	19841206	527.40	19861201	499.50		
								19870601	489.40		
	A-01-07 18ACC	1481.00	19841206	19870602	546.80	19841206	585.00	19861201	557.00		
								19870602	546.80		
	A-01-07 26AAC2	1570.00	19851218	19851218	523.30	19851218	523.30	19861202	528.90		P
								19870604	528.10		P
	A-01-08 10DCC	1867.00	19860227	19860603	84.20	19870604	85.80	19861203	85.30		
								19870604	85.80		
	A-01-08 25CBA	1745.00	19851230	19860603	280.90	19870609	284.30	19861202	281.10		
								19870609	284.30		
	A-02-01 14BBA	1085.00	19841210	19870604	125.40	19841210	138.50	19861201	129.90		
								19870604	125.40		
	A-02-01 31DAA	1018.00	19860106	19860106	88.00	19870602	92.50	19861204	89.60		
								19870602	92.50		
	A-02-02 14CBC2	1144.00	19630218	19630218	145.10	19841210	174.10	19861201	173.90		
	A-02-02 18DDD	1122.00	19630218	19861201	171.80	19630218	212.30	19861201	171.80		
	A-02-03 07CAA	1160.40	19630218	19630218	87.60	19841205	128.80	19870608	128.00		
	A-02-03 35BBC	1132.00	19841204	19851216	61.80	19870608	71.60	19861201	64.60		
								19870608	71.60		
	A-02-04 22BDD	1290.00	19841128	19841128	274.90	19870601	332.40	19861201	323.70		
								19870601	332.40		
	A-02-04 23BCC2	1270.00	19841128	19870601	356.40	19841128	392.60	19861201	364.50		
								19870601	356.40		
	A-02-05 08AAA	1308.00	19720111	19870430	274.50	19720111	287.80	19861201	275.90		
								19870430	274.50		
								19870601	275.20		
								19870706	275.20		
								19870805	279.50		
								19870904	282.00		
	A-02-05 10DDD1	1328.00	19841218	19870601	301.80	19841218	328.80	19861201	304.80		
								19870601	301.80		
	A-02-05 19ABA	1259.00	19841128	19860603	251.60	19850619	303.80	19861201	252.80		
								19870601	285.90		P
	A-02-06 32ACD	1298.00	19841127	19851210	282.00	19841127	314.50	19861201	289.20		
								19870601	290.90		
	A-02-07 33BCB	1820.00	19841206	19850620	30.00	19870601	33.50	19861201	33.00		
								19870601	33.50		
	A-03-01 11DDA	1191.54	19630214	19630214	256.10	19870604	283.40	19861201	337.90		P
								19870604	283.40		
	A-03-01 21CBB	1127.00	19841212	19860225	223.40	19850624	278.60	19861205	231.70		
								19870602	244.20		
	A-03-01 35ABB	1128.00	19841217	19841217	182.00	19861201	194.20	19861201	194.20		
								19870604	183.50		
	A-03-02 08BBA2	1236.00	19841217	19841217	384.60	19861201	391.50	19861201	391.50		
								19870604	428.00		P
	A-03-02 22BAA	1249.00	19841217	19870604	344.00	19841217	347.60	19861202	345.30		
								19870604	344.00		
	A-03-02 24CCB	1257.00	19841205	19870604	337.40	19861202	339.70	19861202	339.70		
								19870604	337.40		
	A-03-02 29DDA2	1195.00	19851212	19851212	296.60	19870604	302.00	19861202	381.10		P
								19870604	302.00		
	A-03-03 13BDB3	1410.00	19841205	19841205	343.20	19861202	347.60	19861202	347.60		
								19870608	347.40		
	A-03-03 32DAA	1244.00	19841205	19860106	277.00	19841205	283.70	19861202	279.40		
								19870305	282.00		
								19870608	298.20		P
	A-03-04 02BBB	1517.00	19860603	19861202	637.00	19860603	640.80	19861202	637.00		
	A-03-04 17BAA	1414.00	19630116	19630116	283.90	19850104	448.40	19861202	524.80		P
								19870602	516.80		P
	A-03-04 24CAA	1375.00	19841127	19841127	287.90	19861201	297.50	19861201	297.50		
								19870601	294.50		
	A-03-05 21BBA	1435.00	19841218	19870601	282.30	19861201	298.80	19861201	298.80		
								19870601	282.30		
	A-03-05 25CAB	1555.00	19841218	19841218	508.40	19860603	547.60	19861201	524.80		R
								19870601	511.20		
	A-03-07 06CDA	1415.00	19850110	19850110	32.50	19860530	40.50	19861203	36.47		
								19870603	39.70		P
	A-04-01 14DAD	1290.00	19841204	19841204	611.60	19851212	635.30	19861202	775.30		P
	A-04-01 18DAA	1250.00	19841210	19841210	291.20	19870603	324.00	19861210	318.80		
								19870603	324.00		
	A-04-01 22AAA	1280.60	19841205	19860606	481.40	19841205	493.30	19861202	483.10		
								19870609	482.00		
	A-04-01 30AAB2	1230.00	19841210	19841210	366.70	19860609	392.80	19861211	385.60		
								19870604	401.70		R
	A-04-02 19BCC	1276.00	19841204	19841204	457.50	19870609	465.60	19861202	461.70		
								19870609	465.60		
	A-04-02 20CDD	1290.00	19850104	19850624	444.00	19870609	446.80	19861202	445.20		
								19870609	446.80		
	A-04-02 32DDA	1274.00	19841203	19870904	465.95	19870706	472.35	19870430	466.10		
								19870609	471.85		
								19870706	472.35		
								19870804	468.05		
								19870904	465.95		
	A-04-02 36AAA	1376.00	19851213	19851213	568.20	19870304	573.80	19861202	573.20		
								19870304	573.80		
								19870609	571.80		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE							1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE				
SRV-Cont.	A-04-03 05DCC2	1541.00	19851213	19860609	197.80	19851213	199.00	19861202	308.00		P	
	A-04-03 36AAA1	1503.00	19841127	19851213	350.70	19841127	360.00	19861202	326.80		P	
	A-04-04 13CCC	1798.00	19750207	19750207	582.00	19861202	647.20	19861202	356.90		R	
	A-05-01 33BCC	1391.00	19841211	19841211	194.40	19870603	201.60	19870608	433.00		P	
	A-05-04 25DBD	2250.00	19841128	19850618	294.00	19870602	296.40	19861202	647.20			
	A-05-04 33DCD	1923.00	19810930	19811210	707.70	19851213	732.80	19870603	201.60			
	B-01-01 03BAA	993.00	19720107	19860107	88.20	19720107	124.10	19861202	296.00			
	B-01-01 12BAA2	980.00	19630115	19860107	50.60	19630115	106.00	19870602	296.40			
	B-01-01 17AAA1	976.00	19841214	19841214	66.40	19850625	73.50	19861202	791.80		P	
	B-01-01 28BCA2	922.00	19841205	19860108	18.80	19841205	21.50	19861202	132.50		P	
	B-01-02 05CBB	1063.00	19841219	19870601	232.20	19850625	256.40	19870709	52.30			
	B-01-02 16BBB	987.00	19841214	19841214	136.10	19850625	194.90	19861204	55.10			
	B-01-02 28CBD	890.00	19841214	19870601	19.70	19860113	24.60	19870601	67.40			
	B-01-02 36BBC	891.00	19841218	19851206	10.64	19841218	18.20	19870601	68.30			
	B-01-03 19CBB	995.00	19841217	19860109	130.30	19850626	135.80	19870717	63.60		P	
	B-01-03 21DEB	987.00	19841218	19870601	147.30	19850626	151.20	19861204	234.30			
	B-01-03 34ADD2	886.00	19841217	19860110	34.10	19841217	48.70	19870601	232.20			
	B-01-03 34BBB	917.00	19850626	19870601	63.30	19850626	65.50	19861204	145.60			
	B-01-04 27ABB	988.00	19841210	19851210	119.70	19850626	137.50	19870601	151.80			
	B-02-01 14CBB	1057.00	19841220	19860604	199.70	19870601	204.90	19861204	20.40			
	B-02-01 18CBB2	1078.00	19841127	19870601	372.00	19841127	382.70	19870601	19.70			
	B-02-01 20BCC	1042.00	19841127	19851209	295.80	19861205	305.40	19870601	11.40			
	B-02-01 21CCB2	1036.00	19841203	19841203	202.00	19841203	202.00	19861204	12.40			
	B-02-01 33BBB2	1009.00	19841203	19861204	122.00	19841203	125.40	19870601	12.40		P	
	B-02-01 36BBA1	1000.00	19841203	19841203	84.70	19860603	86.90	19861204	160.40		P	
	B-02-02 02BAD	1175.00	19841126	19870601	449.40	19841126	463.30	19870601	135.30		P	
	B-02-02 04DCB	1204.00	19850226	19850226	355.70	19861205	357.80	19861204	148.80			
	B-02-02 10CCB	1158.00	19841126	19860603	386.40	19841126	400.90	19870601	147.30			
	B-02-02 22ABB	1119.00	19841128	19870601	378.50	19841128	397.00	19861205	54.00		P	
	B-02-02 24BAA	1074.00	19841127	19841127	378.20	19841127	378.20	19870601	63.30			
	B-02-02 25CBB2	1055.00	19720112	19870601	305.40	19720112	363.00	19861204	127.80			
	B-02-02 27CCC	1084.00	19841212	19861204	307.10	19850625	329.10	19870601	127.70			
	B-03-01 05ABB	1238.00	19841203	19851205	393.90	19850626	409.00	19861205	202.10			
	B-03-01 08ABB1	1217.00	19860225	19860225	358.50	19870602	379.30	19870601	204.90			
	B-03-01 19CBB	1192.00	19860225	19861208	415.40	19860225	431.20	19861205	381.30			
	B-03-01 24BBB3	1118.00	19850115	19850115	292.50	19870602	326.40	19870601	372.00		P	
	B-03-01 27BBB	1136.00	19841218	19860225	345.30	19860604	352.20	19870722	412.90			
	B-03-01 29BCC	1153.00	19841129	19861208	416.90	19841129	448.90	19861205	305.40			
	B-03-01 34DBB1	1100.00	19841218	19861205	319.40	19841218	340.60	19870601	388.60		P	
	B-03-02 14CB2	1280.00	19841130	19860604	455.30	19841130	473.50	19870702	441.00			
	B-03-02 21ABA	1332.00	19841130	19861208	385.60	19850624	409.10	19861209	324.70			
	B-04-01 09BCD	1341.00	19850102	19861209	380.50	19870605	382.90	19870601	305.40		P	
	B-04-01 19BDC	1320.00	19841206	19861211	466.10	19841206	475.80	19861204	307.10			
	B-04-02 05DBB	1478.00	19841212	19841212	315.30	19870604	318.00	19870601	343.90			
	B-04-02 16AAD	1411.00	19841212	19841212	312.50	19870604	315.00	19861210	399.10			
	B-04-02 27DCD	1332.00	19841203	19860606	443.20	19841203	478.80	19870602	399.60			
	B-04-02 36BCB	1306.00	19841206	19861211	455.30	19850626	476.60	19861208	362.40			
								19870602	379.30			
								19861208	415.40			
								19870602	417.60			
								19861205	317.40			
								19870602	326.40			
								19861205	350.50			
								19870602	351.00			
								19861208	416.90			
								19870602	465.80		P	
								19861205	319.40			
								19870602	326.10		P	
								19861208	464.60			
								19870602	460.20			
								19861208	385.60			
								19870602	389.80			
								19861209	380.50			
								19870605	382.90			
								19861211	466.10			
								19870605	468.90			
								19861211	317.60			
								19870604	318.00			
								19861209	314.90			
								19870604	315.00			
								19861210	458.10			
								19861211	455.30			
								19870608	472.90			

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

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WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
SRV-Cont.	B-04-03 04BDB	1595.00	19841219	19870604	359.00	19841219	360.50	19861209	360.20		
								19870604	359.00		
	B-04-03 14ABA	1500.00	19841219	19841219	300.60	19870604	306.20	19870604	306.20		
	B-05-02 24BAB	1580.00	19841226	19841226	500.20	19870604	501.90	19861209	501.60		
								19870604	501.90		
	B-05-02 30ADD	1571.00	19841212	19841212	387.50	19870604	389.80	19861209	389.60		
								19870604	389.80		
	B-05-02 35BAA	1491.00	19841207	19841207	382.00	19861209	385.50	19861209	385.50		
	B-05-03 15AAA	1710.00	19841219	19861208	481.90	19850627	488.10	19861208	481.90		
								19870604	487.00		P
	B-05-03 22ADD	1649.00	19841219	19860604	423.00	19850627	424.00	19861209	423.60		
								19870604	423.10		
	B-06-02 18DBB	2105.00	19841221	19861208	516.20	19851211	519.70	19861208	516.20		
								19870604	517.10		
	B-06-02 31BDD	1862.00	19841221	19841221	650.80	19851211	655.70	19861208	-		O
								19870604	652.60		
	B-06-03 05ADD	2220.00	19841219	19841219	171.90	19841219	171.90	19870615	172.70		P
	B-06-03 33DCB	1850.00	19841219	19870604	597.60	19841219	600.60	19861208	598.20		
								19870604	597.60		
	C-01-02 08CDA	885.00	19720105	19841221	41.20	19720105	53.00	19861204	43.60		
								19870601	42.70		
	C-01-03 08CBD	838.00	19841217	19860108	13.80	19860604	16.90	19861204	15.80		
								19870601	16.87		
	C-01-04 03ABB	900.00	19841210	19841210	54.20	19860604	56.30	19861204	56.00		
								19870601	57.10		S
	C-01-04 03DCB	870.00	19630122	19841226	36.20	19630122	46.00	19870527	49.60		P
	C-01-04 07BDD	867.00	19841226	19841226	38.70	19870611	43.30	19861204	40.00		
								19870611	43.30		
	C-01-04 26ABB	823.00	19841226	19850626	21.50	19870601	23.50	19861204	89.20		P
								19870601	23.50		
	D-01-01 13DDD1	1010.00	19851211	19860610	56.10	19870903	58.20	19861201	56.80		
								19870501	56.10		
								19870706	56.80		
								19870804	57.60		
								19870903	58.20		
	D-01-02 20DAA	1050.00	19841207	19851211	58.20	19870610	184.00	19861201	58.80		
								19870610	184.00		
	D-01-03 02BDB	1203.00	19841130	19851217	127.00	19861201	136.50	19861201	136.50		
								19870602	135.10		
	D-01-04 03BBB2	1182.00	19841203	19870602	109.30	19841203	121.90	19861202	110.20		
								19870602	109.30		
	D-01-04 26BAA	1176.00	19630215	19860610	103.80	19630215	144.50	19861202	-		W
	D-01-04 27ABB	1171.00	19841128	19870602	94.10	19841128	106.30	19861202	97.30		
								19870602	94.10		
	D-01-04 28CBC	1185.00	19841129	19841129	129.40	19841129	129.40	19861202	120.80		R
								19870602	124.00		P
	D-01-04 36DDD	1183.00	19850104	19870602	102.60	19850104	113.80	19870602	102.60		
	D-01-05 23DDD	1232.00	19841202	19870602	154.60	19841202	172.20	19861201	156.50		
								19870602	154.60		
	D-01-05 36DDD	1252.00	19630201	19870602	153.60	19630201	196.50	19861201	155.10		
								19870602	153.60		
	D-01-06 04DAA	1276.00	19850103	19851216	169.90	19850103	287.50	19861202	211.50		
								19870603	211.70		
	D-01-06 11CDD2	1295.00	19841119	19870603	310.60	19841119	347.50	19861202	326.10		
								19870603	310.60		
	D-01-06 24CCC2	1312.00	19841119	19851213	275.90	19860612	307.90	19861202	277.90		
								19870603	292.80		
	D-01-06 27DDD2	1298.00	19841120	19841120	99.10	19851213	106.20	19861202	101.00		
								19870603	118.70		P
	D-01-07 03AAA	1478.00	19841213	19841213	421.60	19861202	430.80	19861202	430.80		
	D-01-07 25ADD	1458.00	19841210	19850628	329.20	19870604	332.00	19861203	329.80		
								19870604	332.00		
	D-01-07 31BAC1	1337.00	19851210	19870603	198.00	19860612	201.40	19861202	198.50		
								19870603	198.00		
	D-01-08 21ADB PZ1	1565.00	19851230	19861205	424.30	19870608	429.50	19861205	424.30		
								19870608	429.50		
	D-01-08 21ADB PZ2	1565.00	19851230	19861205	315.20	19851230	320.90	19861205	315.20		
								19870608	318.60		
	D-01-09 07BDC2	1751.00	19861202	19861202	766.50	19870609	854.50	19861202	766.50		
								19870609	854.50		
	D-01-10 35DBA	2040.00	19841221	19841221	29.90	19861203	35.50	19861203	35.50		
								19870609	34.60		
	D-02-03 22DDD	1113.00	19850103	19861212	65.40	19850103	74.20	19861212	65.40		
								19870612	78.60		P
	D-02-04 08DBA	1148.00	19850222	19861202	102.40	19850222	105.90	19861202	102.40		
								19870602	169.90		P
	D-02-04 25DDD	1181.00	19850220	19861201	85.90	19870603	169.40	19861201	85.90		
								19870603	169.40		
	D-02-05 07ADD	1196.00	19841129	19861201	114.80	19850618	129.80	19861201	114.80		
								19870602	118.50		
	D-02-05 09DDD	1216.00	19841129	19861201	118.00	19850618	144.00	19861201	118.00		
								19870602	128.10		
	D-02-05 20DDA	1203.00	19841130	19851213	99.90	19860527	134.50	19861201	99.90		
								19870603	112.20		
	D-02-05 33AAD2	1213.00	19841130	19861201	102.00	19860527	140.20	19861201	102.00		
								19870603	123.60		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
SRV- Cont.	D-02-06 04BDD	1285.00	19841205	19851210	207.70	19850620	269.50	19861202	209.80		
								19870603	220.80		
	D-02-06 12DDA1	1349.00	19841205	19841205	263.90	19860612	357.20	19861202	291.60		
								19870603	431.80		P
	D-02-06 26DDD	1372.00	19841203	19861201	193.00	19850627	197.90	19861201	193.00		
								19870604	193.50		
	D-02-06 31AAA	1269.00	19841130	19850627	40.40	19841130	45.90	19861201	42.60		
								19870603	44.40		
	D-02-07 03CDD	1408.00	19841206	19841206	320.10	19860612	447.10	19861202	329.30		
								19870603	449.10		P
	D-02-07 04ADD	1390.00	19841206	19841206	311.90	19860612	415.70	19861202	317.60		
								19870603	391.20		
	D-02-07 12DDD	1457.00	19841210	19841210	337.80	19850626	391.70	19861203	346.70		
								19870604	649.50		P
	D-02-07 25DDD3	1464.00	19841206	19841206	453.90	19870608	570.10	19861205	511.40		P
								19870608	570.10		
	D-02-07 27DDA	1427.00	19841205	19841205	410.00	19860604	539.70	19861205	432.10		
								19870608	606.60		P
	D-02-08 02CBB PZ1	1573.00	19851217	19860603	432.10	19870604	437.20	19861204	437.00		
								19870604	437.20		
	D-02-08 02CBB PZ2	1573.30	19851217	19861204	446.50	19851217	447.40	19861204	446.50		
								19870604	446.60		
	D-02-08 20DDA	1507.00	19841210	19851218	450.60	19850628	575.60	19861205	452.40		
								19870608	580.00		O
	D-02-08 27DDD	1552.00	19841206	19841206	485.10	19860604	524.50	19861205	487.00		
								19870608	499.80		
	D-02-08E07DDD	1480.00	19841212	19841212	352.70	19861203	371.40	19861203	371.40		
								19870604	573.40		P
	D-02-09 36DBD	1750.00	19851230	19851230	576.70	19861202	580.10	19861202	580.10		
								19870609	580.00		
	D-02-10 16BCB	1884.00	19850115	19861202	319.00	19850115	325.10	19861202	319.00		
								19870609	371.00		P
	D-02-10 21ADB	1903.00	19841219	19841219	541.30	19860605	545.70	19861202	543.50		
								19870609	544.60		
	D-02-12 07ABA	2440.00	19851218	19851218	10.20	19860605	11.50	19861202	10.20		
								19870609	30.80		P
	D-03-08 04BBA	1510.00	19841210	19841210	345.60	19850627	578.40	19861205	479.70		
								19870606	504.80		
	D-03-08 19ADD	1541.00	19841205	19870608	524.70	19851219	538.10	19861205	536.80		
								19870608	524.70		
	D-03-08 20BDC	1522.00	19841205	19870608	494.80	19841205	503.80	19861205	495.50		
								19870608	494.80		
	D-03-08 35BAA	1518.00	19841205	19870609	440.70	19850625	463.20	19861205	449.60		
								19870609	440.70		
	D-03-09 09DCD PZ1	1628.00	19851219	19861205	491.80	19860605	498.20	19861205	491.80		
								19861205	494.10		
								19870609	494.30		
	D-03-09 09DCD PZ2	1628.00	19851219	19851219	497.80	19860605	500.30	19870609	499.00		
	D-03-09 20DAA	1595.00	19630213	19630213	364.00	19850625	490.20	19861205	478.80		
								19870608	482.10		
	D-03-09 32ABA	1566.00	19630213	19630213	358.50	19850625	416.70	19861205	413.30		
								19870608	412.80		
	D-04-09 05AAB2	1550.00	19841107	19870608	413.40	19851219	419.70	19861205	416.50		
								19870608	413.40		
SSI	027S21W07AAB	4010.00	19531216	19551005	83.37	19870218	124.40	19870218	124.40		
	028S21W31BCC	4140.00	19540127	19540127	99.32	19740116	161.70	19870212	125.70		
	D-12-27 32AAB	3980.00	19520121	19870217	131.30	19860107	137.40	19870217	131.30		
	D-12-28 15BCB	3680.00	19540127	19540127	83.36	19860107	317.10	19870211	311.60		
	D-12-28 17DDD	3730.00	19470101	19490310	80.20	19751218	297.70	19870217	266.60		
	D-12-28 25DCC	3645.00	19630314	19630314	126.65	19830217	272.00	19870211	250.60		
	D-12-30 02CCA	3750.00	19621126	19621126	21.70	19840223	280.30	19870218	272.20		
	D-13-28 22BCC	3840.00	19630000	19630000	316.60	19860107	478.20	19870212	477.70		
	D-13-29 18BDB	3718.00	19631220	19631220	166.85	19860107	313.80	19870217	311.70		
	D-13-29 24DCC2	3660.00	19571212	19591223	0.15	19741203	127.00	19870219	103.10		
	D-13-29 28BBB1	3750.00	19740000	19740000	2.04	19860107	145.50	19870218	144.90		
	D-13-31 29DDA	3624.00	19540328	19790205	47.40	19550302	64.04	19870212	49.90		
	D-14-31 19BAC	3715.00	19461119	19481220	13.68	19830217	64.20	19870210	57.60		
	D-14-31 22ADC	3690.00	19621017	19621017	54.68	19800305	131.00	19870212	94.40		
	D-14-31 25ADC2	3720.00	19621017	19840222	37.30	19760323	156.80	19870323	40.90		
	D-14-31 34ACC	3775.00	19850130	19870211	137.90	19850130	151.90	19870211	137.90		
	D-14-31 35BCC2	3770.00	19621017	19630226	101.30	19760225	188.30	19870211	153.20		
	D-15-31 11DCC	3900.00	19621018	19630223	149.20	19810213	215.40	19870323	214.00		
	D-16-32 21CCC	4190.00	19531215	19540128	150.84	19800305	207.00	19870218	185.10		
	D-18-32 11CBB	4150.00	19491130	19500928	144.81	19860110	171.30	19870212	167.90		
	D-18-32 26BBB	4125.00	19491128	19491128	74.85	19790216	133.70	19870211	107.30		
	D-20-32 05ACC	4285.00	19621204	19640219	192.43	19751216	267.00	19870209	243.90		
SSWRES	C-14-01 03ADC	1969.00	19550112	19771214	403.80	19820129	412.80	19870210	408.60		
	C-19-01 36BDA	1710.00	19781030	19790308	166.30	19870211	167.00	19870211	167.00		
	D-16-01 18BBD2	1900.00	-	-	-	-	-	19870211	-		P
	D-17-03 24DDB2	2097.00	-	-	-	-	-	19870210	-		P
	D-17-04 34ABD	2301.00	19370000	19831214	115.60	19560627	147.30	19870210	117.50		
	D-17-05 35AAD	2595.00	19531103	19870210	246.40	19531103	395.30	19870210	246.40		
	D-19-03H01ABA	2100.00	-	-	-	-	-	19870210	-		P
	D-20-05 24DDD2	2475.00	19720729	19790815	564.30	19720729	595.00	19870211	-		P
								19870306	575.20		P

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER-LEVEL INFORMATION--Continued

ROUND- ATER REA	LOCAL WELL NUMBER		LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
					DATE	HIGHEST	DATE	LOWEST	DATE			
TJ	A-11-28	22BDA2	6062.00	19801210	19801210	50.00	19861008	59.30	19861008	59.30		
	A-11-29	07DBB	6635.00	19750116	19750116	560.00	19851003	636.00	19861008	633.90		
	A-11-29	20BAA	6520.00	1978	1978	510.00	19851003	520.40	19861008	516.70		
	A-12-28	07CDB	5925.00	19560518	19570406	28.60	19750912	55.18	19861218	36.00		
	A-12-28	19BAD	5925.00	19750318	19800429	17.00	19760909	38.80	19861009	23.80		
									19870318	18.40		
									19870925	20.20		
	A-13-27	15BDC	5845.00	19750211	19790213	256.32	19860107	273.40	19870310	264.30		
	A-13-28	27BDC	5670.00	19440607	19500807	-0.95	19520702	8.93	19870310	3.30		
	A-13-28	29BCD	5800.00	19440607	19681003	6.57	19810121	16.78	19870310	16.40		
	A-13-29	35AAA	6176.00	19570200	19810925	148.30	19570200	212.00	19861009	185.60		
									19870318	185.30		R
									19870925	186.80		
	A-14-27	35BDC	5635.00	19750225	19780511	81.80	19810925	113.60	19861008	106.20		P
									19870318	106.30		P
ON	A-05-11	18AAA	2145.00	19700805	19850118	4.00	19700805	12.00	19870107	5.00		
	A-06-10	14ABC2	2316.00	19770203	19780404	10.85	19770203	15.20	19870107	13.60		
	A-06-11	05CAD	2720.00	19781102	19810325	31.50	19781102	57.50	19870107	36.20		
	A-09-10	05AAA	4200.00	19780905	19810324	74.90	19830315	95.00	19870106	83.90		
	A-09-10	20BAA	3155.00	19780912	19840119	59.40	19860114	62.40	19870106	61.80		
	A-09-10	32BDB	3030.00	19720421	19730301	23.50	19750131	44.00	19870106	30.10		
	A-10-10	27CAA	4760.00	19780910	19840119	20.97	19780910	27.50	19870106	23.70		
UBRES	03 077-07.55X06.55		5108.00	19550900	19550900	57.00	19661013	85.65	19870409	57.10		
	03 077-13.36X06.44		5175.00	19711108	19780207	29.90	19840404	53.27	19870305	49.60		
	03 077-13.38X05.87		5220.00	19710806	19730417	30.45	19800417	55.14	19870305	54.90		
SC	D-10-14	29DCA	3273.00	19841213	19861210	302.90	19850607	309.51	19861210	302.90		
									19870604	308.10		
	D-11-13	33DCC	2772.00	19841210	19860527	542.00	19870603	542.90	19861208	542.70		
									19870603	542.90		
	D-12-12	22ADC	2139.00	19841210	19850620	104.50	19870605	115.20	19861208	106.20		
									19870605	115.20		
	D-12-12	33DAD	2238.00	19851213	19851213	273.00	19870603	325.20	19861213	327.90		P
									19870603	325.20		
	D-13-13	26BAD2	2319.00	19851203	19851203	152.40	19861209	171.90	19861209	171.90		
									19870603	157.60		
	D-13-14	21CDC2	2370.00	19851209	19860501	75.00	19870831	94.30	19861001	82.10		
									19861103	83.60		
									19861208	84.00		
									19870102	85.90		
									19870202	87.80		
									19870302	89.10		
									19870331	88.60		
									19870501	89.90		
									19870529	90.11		
									19870701	91.90		
									19870731	93.30		
									19870831	94.30		
	D-13-14	22DDD3	2520.00	19851209	19860204	120.50	19870302	124.80	19861001	122.10		
									19861103	122.60		
									19861208	121.70		
									19870102	122.70		
									19870202	122.80		
									19870302	124.80		
									19870331	123.10		
									19870529	122.74		
									19870701	122.20		
									19870731	123.20		
									19870831	123.20		
	D-13-14	26BBB	2467.00	19821201	19860801	67.20	19821201	76.20	19861001	68.20		
									19861103	68.60		
									19861208	68.30		
									19870102	68.80		
									19870105	68.80		
									19870202	69.20		
									19870302	69.40		
									19870331	69.20		
									19870501	69.30		
									19870529	69.28		
									19870701	69.10		
									19870731	69.10		
									19870831	69.20		
	D-13-14	26CCC1	2415.00	19851210	19860501	43.50	19870302	79.00	19861001	62.10		
									19861103	67.30		
									19861208	71.60		
									19870102	73.70		
									19870105	73.70		
									19870202	76.20		
									19870302	79.00		
									19870331	66.20		
									19870501	50.70		
									19870529	53.09		
									19870701	60.10		
									19870731	67.00		
									19870831	72.40		

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE					
				DATE	HIGHEST	DATE	LOWEST	DATE	1987 STATUS
USC- Cont.	D-13-14 26CCD1	2418.00	19851210	19860501	51.00	19870302	82.40	19861001	67.80
								19861103	71.90
								19861208	75.30
								19870102	77.60
								19870202	80.30
								19870302	82.40
								19870331	72.00
								19870501	60.00
								19870529	59.70
								19870701	69.80
								19870731	72.10
								19870831	77.40
								19861001	41.60
								19861103	47.30
								19861208	52.50
	D-13-14 26CDD	2419.00	19851210	19860501	20.60	19870302	60.00	19870202	59.00
								19870302	60.00
								19870331	28.70
								19870501	22.20
								19870529	33.55
								19870701	44.30
								19870731	47.80
								19870831	54.50
								19861210	17.40
								19870604	16.50
								19861001	14.80
								19861103	15.70
								19861208	14.70
								19870102	14.60
								19870202	15.40
	D-13-14 26DAC1	2429.00	19851217	19851217	14.50	19861210	17.40	19870302	12.94
								19870331	11.10
								19870501	11.80
								19870529	14.37
								19870701	16.87
								19870731	16.14
								19870831	16.09
								19861001	25.10
								19861103	28.50
								19861208	30.80
								19870102	30.10
								19870202	30.90
								19870302	31.80
								19870331	21.60
								19870501	17.90
	D-13-14 26DDC	2425.00	19851211	19860331	15.80	19870302	31.80	19870529	21.21
								19870701	25.80
								19870731	31.00
								19870831	31.40
								19861001	41.10
								19861103	42.20
								19861208	43.60
								19870202	45.90
								19870302	48.10
								19870331	41.50
								19870501	35.30
								19870529	37.45
								19870701	41.50
								19870731	42.50
								19870831	43.60
	D-13-14 27ADA1	2440.00	19851213	19860501	34.30	19870302	48.10	19861001	46.30
								19861103	50.50
								19861208	51.30
								19870102	51.70
								19870202	54.00
								19870302	52.90
								19870331	34.60
								19870501	38.80
								19870529	44.93
								19870701	49.00
								19870731	50.90
								19870831	51.20
								19861001	107.00
								19861103	108.40
								19861208	109.80
	D-13-14 27BAC4	2418.00	19550505	19700801	19.70	19651013	80.38	19870102	111.20
								19870202	113.10
								19870302	114.40
								19870331	115.30
								19870501	112.90
								19870529	109.01
								19870701	108.90
								19870731	171.10
								19870831	112.00
								19861001	107.00
								19861103	108.40
								19861208	109.80
								19870102	111.20
								19870202	113.10
								19870302	114.40
	D-13-14 27DDC4	2412.00	19851211	19860602	98.70	19870331	115.30	19870331	115.30
								19870501	112.90
								19870529	109.01
								19870701	108.90
								19870731	171.10
								19870831	112.00
								19861001	107.00
								19861103	108.40
								19861208	109.80
								19870102	111.20
								19870202	113.10
								19870302	114.40
								19870331	115.30
								19870501	112.90
								19870529	109.01
19870701	108.90								
19870731	171.10								
19870831	112.00								

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See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

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WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
				DATE	HIGHEST	DATE	LOWEST	DATE			
USC- Cont.	D-13-14 28DAD	2390.00	19811201	19860331	72.60	19821201	132.60	19861001	105.80	R	
								19861103	93.40		
								19861208	95.50		
								19870102	97.50		
								19870202	99.70		
								19870302	101.50		
								19870331	82.90		
								19870501	81.90		
								19870701	95.20		
								19870731	98.10		
	D-13-14 28DDB	2402.00	19650412	19650412	79.41	19821201	147.30	19870831	100.40	P	
								19861001	138.50		
								19861103	139.80		
								19861208	140.70		
								19870102	142.10		
								19870202	143.30		
								19870302	144.10		
								19870331	143.60		
								19870501	143.30		
								19870529	141.46		
	D-13-14 34AAA4	2412.00	19851211	19860702	89.10	19870302	103.90	19870701	143.80		
								19870731	144.70		
								19870831	146.20		
								19861103	96.30		
								19861208	98.50		
								19870102	100.60		
								19870202	102.10		
								19870302	103.90		
								19870331	102.90		
								19870529	162.80		
	D-13-14 34AAD	2421.00	19851217	19860602	122.50	19870501	135.10	19870701	-	P O	
								19870731	98.10		
								19861001	128.40		
								19861103	129.00		
								19861208	129.30		
								19870102	130.90		
								19870202	132.10		
								19870302	133.20		
								19870331	134.00		
								19870501	135.10		
	D-13-14 34ABB	2420.00	19650309	19660419	68.00	19831227	185.80	19870529	131.81		
								19870701	132.60		
								19870731	132.00		
								19870831	133.50		
								19861001	143.50		
								19861103	144.80		
								19861208	146.80		
								19870102	147.40		
								19870105	147.40		
								19870202	148.70		
	D-13-14 34DCC2	2450.00	19870501	19870501	224.90	19870701	225.80	19870302	149.80		
								19870331	150.80		
								19870501	151.70		
								19870529	151.40		
								19870701	150.70		
								19870731	150.80		
								19870831	151.40		
								19861001	221.40		
								19861103	221.90		
								19861208	221.60		
	D-13-14 35CCA	2454.00	19650826	19660322	109.50	19870302	199.20	19870102	222.70		
								19870202	221.90		
								19870302	220.30		
								19870331	222.20		
								19870501	224.90		
								19870529	223.30		
								19870701	225.80		
								19870731	225.70		
								19870831	225.70		
								19861001	219.40		

WATER LEVELS IN FEET BELOW LAND SURFACE

See p. 317 for Ground-water Areas and abbreviations.
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WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						
				DATE	HIGHEST	DATE	LOWEST	DATE	1987	STATUS
USC- Cont.	D-15-13 12BAB	2491.80	19860225	19860225	84.90	19860603	86.95	19861125	86.90	
							19861125	87.62	P	
								19870226	85.81	
								19870226	86.47	P
								19870602	86.06	
								19870602	86.60	P
	D-15-13 12BCD	2485.00	19860219	19861119	84.57	19860827	85.64	19861119	84.57	
								19861119	94.21	P
								19870224	84.91	
	D-15-13 12CBB	2491.00	19860219	19870601	71.65	19860827	81.52	19870224	95.40	P
								19861119	72.35	
								19861119	81.91	P
								19870224	71.90	
								19870224	82.24	P
								19870601	71.65	
	D-15-13 12CDC	2509.00	19860220	19870225	84.69	19860519	85.19	19870601	81.76	P
								19861119	84.97	
								19861119	91.52	P
								19870225	84.69	
								19870225	91.56	P
	D-15-13 12DBC	2513.00	19860220	19861119	90.74	19860827	91.20	19870527	84.88	
								19861119	90.74	
								19861119	95.72	P
								19870224	90.78	
	D-15-13 13AAB	2530.00	19860825	19861119	99.20	19860825	101.30	19870224	96.05	P
								19861119	99.20	
								19861119	112.10	P
								19870525	99.80	
	D-15-13 13AAC	2532.80	19860225	19860225	98.55	19870602	99.40	19870525	113.00	P
								19861124	99.32	
								19861124	99.39	P
								19870226	98.75	
								19870226	99.72	P
								19870602	99.40	
	D-15-13 13ABB1	2523.95	19860220	19861124	96.09	19860521	96.73	19870602	100.90	P
								19861124	96.09	
								19861124	136.20	P
								19870225	96.25	
	D-15-13 13BBC	2513.00	19860225	19860225	82.70	19870525	83.40	19870225	140.36	P
								19861118	83.10	
								19861118	87.40	P
								19870226	83.20	
								19870226	86.40	P
								19870525	83.40	
	D-15-13 13BDA2	2526.00	19860220	19870225	92.73	19860828	93.41	19870525	86.30	P
								19861120	92.93	
								19861120	100.30	P
								19870225	92.73	
								19870225	100.55	P
								19870527	92.93	
	D-15-13 13BDA3	2524.00	19860220	19870527	90.83	19860220	92.70	19870527	100.63	P
								19861120	92.08	
								19861120	98.86	P
								19870225	92.14	
								19870225	98.06	P
								19870527	90.83	
	D-15-13 13BDD	2526.00	19860224	19870602	88.04	19860527	90.35	19870527	100.56	P
								19861124	89.74	
								19861124	101.20	P
								19870226	90.11	
								19870226	102.17	P
								19870602	88.04	
	D-15-13 13CDB	2525.00	19860224	19860224	85.87	19860603	86.82	19870602	101.57	P
								19861128	86.42	
								19861128	105.15	P
								19870225	86.50	
								19870225	105.26	P
								19870601	86.10	
	D-15-13 13DBD2	2532.00	19860224	19861125	89.64	19860224	893.00	19870601	105.52	P
								19861125	89.64	
								19861125	92.65	P
								19870226	90.26	
	D-15-13 13DDA2	2546.00	19860225	19860603	88.24	19870602	100.73	19870226	92.98	P
								19861120	97.40	
								19861125	97.32	
								19861125	98.25	P
								19870227	97.27	
								19870227	98.02	P
								19870602	100.73	
								19870602	102.06	P
	D-15-14 06CAA	2524.00	19841212	19841212	95.40	19870603	108.60	19861210	100.20	
								19870603	108.60	
	D-15-14 06DCB2	2528.00	19841212	19861210	204.87	19841212	212.70	19861210	204.87	
								19870603	245.30	

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND- WATER AREA	LOCAL WELL NUMBER	LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE					
				DATE	HIGHEST	DATE	LOWEST	DATE	1987 S
USC- Cont.	D-15-14 17BAC	2568.00	19860224	19870226	98.97	19860224	99.40	19861124	99.24
								19861124	107.99
								19870226	98.97
								19870226	108.45
	D-15-14 18CBC2	2552.64	19860224	19860602	89.30	19860902	90.11	19861120	89.30
								19861120	95.65
								19870226	89.40
								19870226	91.34
	D-15-15 16CBB PZ1	2842.00	19841212	19870603	296.39	19851204	298.89	19861209	298.69
	D-15-15 16CBB PZ2	2842.00	19841212	19870603	303.55	19851204	306.35	19870603	296.39
	D-15-15 16CBB PZ3	2842.00	19841212	19841212	372.00	19870603	375.34	19861209	304.95
	D-16-14S06CCD	2580.00	19841218	19851205	105.70	19870603	112.80	19870603	303.55
	D-16-15 05CBC PZ1	2867.00	19841212	19841212	308.00	19860528	310.85	19861209	373.44
	D-16-15 05CBC PZ2	2867.00	19841212	19841212	286.10	19870603	288.37	19870603	375.34
	D-16-15 05CBC PZ3	2867.00	19841212	19870603	269.45	19850619	270.65	19861210	108.90
	D-16-16 09DCD2	3235.00	19851205	19851205	537.70	19870603	543.40	19870603	112.80
	D-17-13 13ADB	2705.00	19841211	19850618	116.30	19870604	131.40	19861209	310.25
	D-17-14 21ACD	2800.00	19841211	19851203	193.40	19850618	197.10	19870603	310.65
	D-18-13 01CDA	2799.00	19841218	19870609	159.50	19850618	174.60	19861209	287.47
	D-18-13 13BAC	2825.00	19841211	19851203	131.90	19870604	153.60	19870603	288.37
	D-18-13 24BCB1	2860.00	19841211	19851203	132.40	19870604	158.30	19861209	269.95
	D-18-14 08ADD	2985.00	19841218	19860528	283.00	19870609	285.30	19870603	269.45
	D-19-13 05ACA2	3080.00	19841211	19870604	228.00	19841211	243.10	19861209	543.40
	D-19-13 09CAA	2955.00	19841211	19851203	54.20	19860528	79.50	19861209	541.40
	D-20-12 02DAC	3112.00	19841211	19870604	120.80	19850619	131.40	19870603	543.40
	D-20-12 03BBB	3175.00	19841212	19841212	158.60	19861209	167.30	19861209	128.60
	D-20-13 06CBA	3064.00	19841211	19841211	27.80	19850619	33.40	19870604	131.40
	D-21-13 19DBC	3240.00	19841211	19841211	21.30	19860529	22.82	19861209	193.80
	D-22-13 25DDD UNSURV	3482.00	19841211	19851202	39.30	19870609	49.30	19870604	195.20
	D-23-13 36ADB	3675.00	19841211	19851202	101.50	19870609	107.40	19861209	160.10
	D-23-14 22CDD1	3575.00	19841211	19851202	12.30	19870609	14.60	19870609	159.50
	D-23-14 36BCB1	3620.00	19841211	19841211	12.00	19870609	28.50	19861209	136.00
	D-24-14 18CBC	3960.00	19841211	19870609	209.40	19841211	221.60	19870604	153.60
	D-24-15 04DDD1UNSURV	4018.00	19841211	19851202	88.40	19870609	95.20	19861209	137.60
	D-24-15 04DDD2UNSURV	4018.00	19861209	19861209	281.50	19861209	281.50	19870604	158.30
								19870609	284.40
								19870609	285.30
								19861209	228.30
								19870604	228.00
								19861209	55.30
								19870604	59.20
								19861209	121.20
								19870604	120.80
								19861209	167.30
								19870604	165.00
								19861209	32.60
								19870604	32.10
								19861209	21.50
								19870604	22.40
								19861209	46.00
								19870609	49.30
								19861209	179.00
								19870609	107.40
								19861209	14.10
								19870609	14.60
								19861209	12.90
								19870609	28.50
								19861209	210.70
								19870609	209.40
								19861209	89.70
								19870609	95.20
								19861209	281.50
								19870609	371.50
USP	D-16-20 27DCC2	3510.00	19470922	19810213	39.50	19640226	58.47	19861219	41.10
	D-16-20 34ACD2	3537.00	19500920	19861219	71.70	19760126	90.10	19861219	71.70
	D-17-21 05CAC	3795.00	19850116	19850116	233.30	19861204	239.85	19861204	239.85
	D-17-21 32BAB	3705.00	19850111	19850111	38.80	19860313	48.00	19861204	40.39
	D-18-20 01DAD2	3648.00	19850111	19850111	13.70	19861204	16.60	19861204	16.60
	D-18-20 06BDD	4450.00	19850111	19860313	240.60	19850111	249.10	19861204	244.10
	D-18-21 06AAB	3635.00	19850111	19861204	24.70	19850111	26.50	19861204	24.70
	D-19-21 12DBA2	4045.00	19850111	19861204	217.10	19860313	220.00	19861204	217.10
	D-19-21 24BCC	4030.00	19850111	19860313	190.70	19850111	211.10	19861204	194.60
	D-20-20 02DDD	4183.00	19860313	19860313	96.00	19860313	96.00	19861126	104.20
	D-20-20 07BDB	4340.00	19841211	19870219	217.10	19851203	228.34	19861126	223.32
								19870219	217.10
								19870519	223.80
								19870820	217.40
	D-21-20 16ADA1	4400.00	19841030	19850311	282.30	19870519	287.20	19861126	283.60
								19870219	283.60
								19870519	287.20
								19870820	286.30
	D-21-20 22BBB1	4477.00	19610126	19610126	317.70	19770721	340.60	19861126	333.80
	D-21-20 30BA UNSURV	4710.00	19711101	19711101	559.00	19730910	574.90	19861126	567.90
								19870219	567.50
								19870518	568.50
								19870820	568.50

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

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WATER-LEVEL INFORMATION--Continued

GROUND- TER EA	LOCAL WELL NUMBER		LAND- SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE						1987	STATUS
					DATE	HIGHEST	DATE	LOWEST	DATE			
P- nt.	D-21-21	31CAB	4440.00	19780419	19780419	276.20	19850116	285.70	19861126	320.50	P	
	D-21-22	06ACD2	4130.00	19850115	19861204	26.90	19850115	28.20	19861204	26.90		
	D-22-20	10ABB	4677.00	19840307	19861126	545.10	19840307	547.50	19861126	545.10		
	D-22-20	24AAA2	4605.00	19851203	19851203	379.30	19870223	387.10	19861125	382.20		
									19870223	387.10		
									19870819	383.30		
	D-22-21	06BCC	4480.00	19851204	19851204	334.20	19851204	334.20	19861126	393.60		
	D-22-22	06DAB	4060.00	19841211	19870219	11.80	19841211	15.40	19861125	12.39		
									19870219	11.80		
									19870519	12.10		
									19870820	11.86		
	D-23-21	06CCC2	4825.00	19850118	19850118	6.00	19861125	13.20	19861125	13.20		
	D-23-21	12DDC	4375.00	19850118	19861125	132.40	19860321	133.20	19861125	132.40		
	D-23-22	16BDD	4230.00	19841211	19851203	62.07	19860828	73.36	19861125	63.08		
	D-23-22	18BBB	4360.00	19850118	19861125	129.10	19860321	134.20	19861125	129.10		
	D-23-22	33DCD2	4225.00	19841211	19850311	15.52	19850604	18.90	19861125	16.61		
									19870219	16.55		
									19870519	17.30		
									19870819	18.25		
	D-23-23	06BCC	4503.00	19850905	19870518	349.80	19850905	358.50	19861125	350.30		
									19870219	350.10		
									19870518	349.80		
									19870819	350.70		
	D-24-21	03AAB	4605.00	19841211	19860226	328.70	19851202	331.40	19861125	329.10		
									19870219	329.00		
									19870519	328.90		
	D-24-23	06AAA1	-	19841211	19870518	213.10	19850905	225.86	19870819	328.80		
									19861125	213.70		
									19870219	213.30		
									19870518	213.10		
									19870819	213.10		
R	A-01-15	09AAD2	3237.00	19700216	19790201	8.79	19770119	65.46	19870122	51.90		
	A-02-07	02BAA	1382.00	19851212	19851212	55.30	19861203	60.60	19861203	60.60		
									19870603	58.48		
	D-01-15	13BDA	3800.00	19760113	19850206	6.70	19770119	32.99	19870122	7.21		
R	A-13-05	05BDC	3110.00	19590820	19590820	54.05	19870312	61.30	19870312	61.30		
	A-14-05	17AAC	3190.00	19581125	19800114	29.33	19640102	70.26	19870403	47.30		
	A-14-10	32BBD	6855.00	19660609	19760120	315.50	19770131	348.60	19870312	331.80		
	A-15-03	12ADB1	3265.00	19581014	19591110	15.95	19860107	31.80	19870312	31.20		
	A-15-04	02CCB4	3420.00	19780124	19780124	81.90	19830401	91.19	19870312	89.50		
	A-15-04	04DDC1	3355.00	19590818	19591015	36.76	19770125	60.40	19870312	57.00		
	A-16-06	17CBB1	4170.00	19740426	19850329	403.60	19770801	421.45	19870410	403.90		
	A-17-05	15ABD	4385.00	19731024	19850329	267.10	19740801	503.22	19870403	282.60		
	A-17-06	30BBB	4300.00	19601214	19770125	436.00	19620419	453.92	19870410	437.80		
	A-18-07	15CCB2	6450.00	19650722	19870511	65.60	19760122	157.60	19870511	65.60		
	A-18-07	15CCC1	6435.00	19670111	19850403	114.90	19760122	168.00	19870511	144.90		
	A-18-07	22BAA2	6455.00	19771031	19870511	704.00	19800109	714.60	19870511	704.00		
	A-20-08	18BCC	6832.00	19650414	19650414	432.42	19790104	503.50	19870127	475.00		
G	B-41-15	33CAB	1910.00	19761103	19820303	54.20	19761103	74.60	19870401	56.20	R	
T	C-02-01	19AAD	1111.00	19850107	19870615	336.30	19850107	345.70	19861202	338.30		
									19870615	336.30		
	C-02-01	20BAD	1130.00	19850107	19870615	349.20	19850107	358.50	19861202	351.30		
									19870615	349.20		
	C-02-01	33AAA	1169.00	19850107	19861201	363.90	19870615	370.00	19861201	363.90		
									19870615	370.00		
	C-02-01	33CDD	1142.00	19830103	19861201	334.80	19830103	348.90	19861201	334.80		
									19870615	339.60		
	C-02-02	05CDC	990.00	19850107	19850611	209.80	19861203	211.00	19861203	211.00		
									19870615	210.90		
	C-02-02	09CCC	1023.00	19850107	19861203	312.50	19850611	321.50	19861203	312.50		
									19870615	361.00		
	C-02-02	12ACC	1070.00	19851203	19860530	318.20	19851203	320.40	19861203	320.00		
									19870615	318.30		
	C-02-02	25CCC	1078.00	19850107	19870615	336.40	19851203	347.10	19861202	341.30		
									19870615	336.40		
	C-02-02	27CBB	1115.00	19861202	19870615	398.30	19861202	405.30	19861202	405.30		
									19870615	398.30		
	C-02-02	27CCC	1135.00	19850107	19850107	412.30	19860529	422.40	19861202	520.30		
									19870615	516.50		
	C-03-01	07ACC	1153.00	19850107	19870615	337.60	19860529	342.60	19861202	339.70		
									19870615	337.60		
	C-03-01	19DCC	1225.00	19850107	19870615	397.10	19861202	398.00	19861202	398.00		
									19870615	397.10		
	C-03-01	21DCC	1182.00	19850107	19861201	349.00	19850107	365.50	19861201	349.00		
									19870615	350.00		
	C-03-01	28DDD	1208.00	19850107	19861201	361.90	19860529	373.90	19861201	361.90		
									19870615	407.80		
	C-04-01	23CDB	1345.00	19841022	19841022	475.40	19870415	479.70	19861201	479.50		
									19861222	478.30		
									19861230	479.40		
								19870106	479.60			
								19870113	479.50			
								19870116	479.50			
								19870120	479.50			
								19870305	479.70			
								19870401	478.90			
								19870415	479.70			
								19870615	479.30			
								19870903	479.10			
D-03-01	07BBB2	1272.30	19850107	19850107	417.20	19861201	419.70	19861201	419.70	S		
D-04-01	28CDD	-	19850107	19850107	414.90	19870615	417.50	19870615	420.30			
								19861201	416.90			
								19870615	417.50			

See p. 317 for Ground-water Areas and abbreviations.
See codes used to identify Status at end of table.

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

WATER-LEVEL INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	LAND-SURFACE ALTITUDE	RECORDS BEGAN DATE	WATER LEVELS IN FEET BELOW LAND SURFACE					
				DATE	HIGHEST	DATE	LOWEST	DATE	1987 S
WHM	A-05-30 13DBC	8020.00	19711017	19870301	87.20	19791206	155.20	19870301	87.20
	A-05-31 17CAA	7880.00	19730822	19830316	0.29	19730822	21.50	19861204	3.64
	A-07-27 01CCA1	8280.00	19730726	19770112	41.10	19730726	55.00	19870212	51.70
	A-07-27 01CDB	8260.00	19730726	19850403	20.00	19830316	28.00	19870212	22.90
	A-07-30 14BDD	8021.00	19730806	19750102	153.70	19770112	192.90	19870212	155.30
	A-09-22 36CBB	6745.00	19690700	19870212	21.30	19770111	48.30	19870212	21.30
	A-10-22 30ABA	6485.00	19690327	19850404	521.60	19740213	532.00	19870212	533.80
WIL	D-09-23 08ABC	5150.00	19540520	19630205	209.35	19570124	295.87	19870115	232.50
	D-11-24 17DAA	4475.00	19660204	19660204	274.50	19800130	388.70	19870115	368.40
	D-11-24 30AAA	4369.00	19650212	19650212	170.44	19820121	267.00	19870115	259.20
	D-12-23 12DBA	4280.00	19540129	19540129	92.42	19870115	201.10	19870115	201.10
	D-12-23 14ABB	4275.00	19540611	19550324	88.30	19770203	164.10	19870115	146.40
	D-12-24 20CBB	4245.00	19650210	19840124	122.80	19800130	150.30	19870115	127.60
	D-13-24 03ADA	4224.00	19540126	19750203	10.39	19740114	154.40	19870116	100.60
	D-13-24 05CCB2	4225.00	19540126	19540126	81.58	19770202	139.00	19870116	110.40
	D-13-24 16BBB	4209.00	19420513	19420513	29.69	19770202	129.40	19870116	101.90
	D-13-24 35BBC2	4185.00	19600119	19600119	40.15	19800129	54.90	19870116	51.30
	D-14-24 14BBA2	4167.00	19630206	19630206	9.00	19870128	28.30	19870128	28.30
	D-14-24 30DBA	4187.00	19420513	19551221	16.41	19740114	33.94	19870128	27.90
	D-14-26 18BDD	4278.00	19540127	19540127	69.08	19790214	227.40	19870116	208.60
	D-15-24 08CAD	4165.00	19750212	19750212	41.40	19870114	52.30	19870114	52.30
	D-15-25 25ADA	4220.00	19540126	19540126	41.75	19750210	243.90	19870114	202.60
	D-15-25 25CDD	4220.00	19531002	19540126	39.33	19761222	241.60	19870116	192.40
	D-15-26 23DCC1	4465.00	19650209	19760114	229.20	19860110	320.60	19870128	314.50
	D-16-24 21CCC	4240.00	19590101	19590101	102.80	19750213	172.50	19870114	159.90
	D-16-25 09ADD	4187.00	19530716	19680220	25.30	19870114	50.20	19870114	50.20
	D-16-25 13CDD	4235.00	19530305	19530305	42.80	19761222	246.30	19870114	199.40
	D-16-25 14AAD	4220.00	19710119	19870114	187.60	19761222	221.50	19870114	187.60
	D-16-25 16ADD2	4190.00	19860114	19860114	43.70	19870114	47.50	19870114	47.50
	D-16-25 36AAA	4248.00	19590101	19590101	103.32	19760113	255.70	19870128	220.20
	D-16-26 02AAD	4395.00	19590101	19590101	215.71	19820113	319.50	19870114	273.90
	D-16-26 05DAD	4285.00	19540127	19540127	101.90	19800228	315.40	19870116	268.30
	D-16-26 06DDA	4257.80	19650210	19650210	206.15	19750210	283.50	19870116	233.40
	D-16-26 14DAA	4375.00	19540127	19540127	159.82	19760113	380.80	19870116	322.20
	D-16-26 29AAA	4291.00	19531002	19540127	91.05	19750211	300.40	19870128	272.50
	D-16-28 04BBB	4716.00	19490218	19490218	248.20	19700106	339.60	19870116	328.70
	D-17-24 01DAC	4245.00	19530716	19530716	68.68	19690221	98.13	19870114	97.20
	D-17-25 07ADD	4230.00	19530716	19540000	44.00	19750212	136.40	19870114	119.50
	D-17-25 08BCC	4230.00	19530716	19530716	59.75	19750212	131.50	19870114	120.90
	D-17-26 04ADD	4300.00	19630206	19800228	129.50	19810220	299.90	19870128	250.80
	D-17-26 06BAD	4260.00	19590101	19590101	98.20	19840210	228.70	19870128	219.00
	D-17-26 12BAA	4335.00	19540126	19600122	13.23	19820113	250.40	19870128	235.60
	D-17-27 01DAD	4620.00	19690303	19690303	263.85	19830119	338.00	19870128	284.00
	D-17-27 21BCA	4420.00	19690304	19690304	188.00	19790213	255.80	19870128	238.90
	D-17-27 28BAA	4420.00	19660303	19660303	145.62	19810220	259.00	19870128	224.50
	D-17-27 31DCC	4370.00	19660302	19660302	105.35	19800226	209.90	19870128	193.30
	D-17-27 35BCB	4495.00	19690303	19690303	175.65	19800227	218.80	19870128	212.20
	D-17-27 35CCB	4500.00	19690303	19690303	179.60	19810220	235.00	19870128	216.60
	D-17-28 06CDA	4632.00	19700107	19700107	300.60	19810220	337.90	19870128	308.80
WMN	B-16-04 14BBB	4600.00	19521009	19730320	0.15	19561023	7.78	19870209	1.57
YUM	C-08-21 21BCA	165.00	19430506	19800208	22.81	19430915	54.88	19870128	25.30
	C-08-22 25DAC3	155.00	19540302	19780209	13.08	19540302	25.80	19870128	15.00
	C-08-23 27DDD	134.00	19570131	19770131	10.60	19740110	20.63	19870128	15.00
	C-08-24 34DDD	117.00	19770203	19870107	8.80	19780200	12.20	19870107	8.80
	C-09-21 07AAD	279.00	19611205	19690915	130.00	19630116	145.96	19870128	140.40
	C-09-22 04BEC2	210.00	19570131	19611006	25.18	19680415	75.64	19870128	70.70
	C-09-22 11BBB	217.00	19630208	19740110	72.29	19660324	75.73	19870128	73.20
	C-09-22 17DCA	205.00	19450501	19630208	54.76	19460905	97.63	19870128	64.30
	C-09-23 14CCC3	203.00	19610317	19630917	38.09	19780209	53.63	19870128	51.10
	C-09-25 35CBD	104.00	19630131	19800124	4.93	19790105	21.74	19870128	12.50
	C-10-23 15AAA	194.00	19610710	19660325	67.20	19840124	90.30	19870128	85.60
	C-10-23 31BBB1	173.00	19611128	19660930	79.01	19840124	94.90	19870128	93.90
	C-10-25 26CDB	90.00	19771230	19810106	5.97	19790124	14.62	19870128	8.40
	C-11-21 04DDD	407.00	19820225	19870108	290.00	19821201	291.70	19870108	290.00
	C-11-24 15CCC	156.00	19611229	19640513	75.01	19830210	95.90	19870128	88.60
	C-11-24 23BCB	160.00	19630412	19651014	68.03	19830110	99.50	19870128	93.40
	C-12-22 06DAA	202.00	19611219	19750109	13.19	19821201	145.30	19870128	140.50

STATUS CODES

- D The site was dry.
 O An obstruction was encountered in the well above the water surface (no water level is recorded).
 P The site was being pumped.
 R The site had been pumped recently.
 S A nearby site that taps the same aquifer was being pumped.
 V Foreign substance was present on the surface of the water.
 W The well was destroyed.

QUALITY OF GROUND WATER

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WATER-QUALITY COLLECTION
SITE INFORMATION

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
AGF	A-08-02 03BDC2	04	025	340404	1120843	15070102	H	34.0	--	--
AGF	B-14-01 14ACC	04	025	343540	1121957	15070102	P	496	30.00	--
ALT	D-20-08 35BDB	04	019	313850	1112957	15050304	H	650	495.00 598.00	595.00 650.00
AVR	D-15-10 33DBC2	04	019	330435	1111942	--	-	--	--	--
BIC	B-21-02 14BCC	04	025	351207	1122837	15060201	P	1700	1390.00	1700.00
BIC	B-24-08 17DCD2	04	025	352730	1130810	15060201	P	1750	1500.00	1750.00
BIS	B-16-13 22CCC1	04	015	344219	1133657	15030201	H	188	--	--
BLM	04 56-2.85x14.18	04	017	361737	1101803	--	H	2674	--	--
BLM	06 094-03.32X12.68	04	017	354856	1101832	15020013	P	925.	--	--
BLM	KYDESTEAL SPRING	04	017	361947	1104018	15020018	-	--	--	--
BLM	UN-NAMED SPRING	04	017	364026	1101059	14080204	-	--	--	--
BLM RES	04 056-08.11X01.15	04	017	362901	1102341	15020018	Z	3737	2091.00	3735.00
BLM RES	04 073-12.26X10.09	04	017	360614	1101308	14080204	T	2248	1895.00	2243.00
BLM RES	04 075-05.09X12.30	04	017	360418	1103527	15020017	P	1780	1480.00	1780.00
BLM RES	08 038-04.43X15.39	04	017	363137	1100447	14080204	P	1598	1142.00	1572.00
BLM RES	08 038-13.86X01.43	04	017	364347	1101459	14080204	H	807	475.00 555.00 563.00	480.00 562.00 807.00
BLM RES	10 054-06.30X06.52	04	001	362418	1095146	14080204	P	1425	1175.00	1425.00
BUT	B-07-15 15AAD3	04	012	335718	1134805	--	-	--	--	--
CHI	B-17-22 11DCC	04	015	345159	1143516	15030101	I	--	--	--
CHI	B-18-22 09DBD2	04	003	345727	1143711	--	-	--	--	--
CHI	B-21-21 21CBB	04	015	351120	1143200	15030101	H	490.	--	--
CHI	B-04-19 29BCB	04	012	333946	1141501	--	-	--	--	--
CHI	B-20-22 24DDC	04	015	350557	1133357	--	-	--	--	--
CHI	B-25-20 15AAA	04	015	353337	1142352	--	-	--	--	--
CHI	B-25-20 15AAA	04	015	353337	1142352	15010014	S	700.	--	--
CHI RES	B-09-20 01DBC2	04	012	340853	1141732	15030104	P	400	263.00	400.00
CHN RES	10 072-08.10X12.13	04	001	360429	1095339	14080204	T	2770	2530.00	2770.00
CON	A-12-26 13DCD	04	001	342555	1093216	15020002	U	300	--	--
CON	A-12-26 19ABA	04	001	342551	1093745	15020002	I	--	--	--
CON	A-13-24 22BBD	04	001	343048	1094754	15020002	S	680	--	--
CON	A-13-26 12DDA	04	001	343226	1093131	15020002	S	75.0	--	--
CON	A-14-24 29DCC	04	001	343432	1095004	15020002	S	335	--	--
CON	A-14-25 14CCD	04	001	343623	1094032	15020002	S	350	--	--
CON	A-14-25 14CCD	04	001	343623	1094032	15020002	S	350	--	--
CON	A-14-26 21BCC	04	001	343601	1093558	15020002	I	345	103.00	--
DOU	D-15-26 30DDA	04	003	320550	1094320	--	-	--	--	--
DOU	D-16-24 03BCC	04	003	320420	1095352	--	-	--	--	--
DOU	D-19-25 16ACB	04	003	314701	1094811	--	-	--	--	--
DOU	D-19-27 15DDC	04	003	314624	1093431	--	-	--	--	--
DOU	D-19-28 35AAA	04	003	314430	1092646	--	-	--	--	--
DOU	D-19-30 18DA	04	003	314633	1091840	--	-	--	--	--
DOU	D-20-24 10DDD	04	003	314206	1095227	--	-	--	--	--
DOU	D-20-26 25CBC	04	003	313941	1093906	--	-	--	--	--
DOU	D-20-29 20CDC	04	003	314014	1092422	--	-	--	--	--
DOU	D-21-28 22BDD	04	003	313526	1092855	--	-	--	--	--
DOU	D-22-25 13AAD	04	003	313119	1094502	--	-	--	--	--
DOU	D-22-26 03AAB	04	003	313314	1094058	--	-	--	--	--
DOU	D-22-26 21DDD	04	003	312948	1094151	--	-	--	--	--
DOU	D-22-26 34CCC	04	003	312801	1094149	--	-	--	--	--
DOU	D-22-27 24BCB	04	003	313023	1093335	--	-	--	--	--
DOU	D-22-28 35DAB	04	003	312822	1092734	--	-	--	--	--
DOU	D-23-25 08DAD	04	003	312633	1094907	--	-	--	--	--
DOU	D-23-26 19CBC2	04	003	312445	1094456	--	-	--	--	--
DOU	D-23-26 26ACD	04	003	312407	1094005	--	-	--	--	--
DOU	D-23-28 15DBD	04	003	312534	1092853	--	-	--	--	--
DOU	D-24-26 03DCC2	04	003	312155	1094116	--	-	--	--	--
DOU	D-24-28 12CDB	04	003	312108	1092717	--	-	--	--	--
DOU	D-18-26 34BAD	04	003	314946	1094114	15040006	I	400	100.00	400.00
DOU	D-18-27 11BCB	04	003	315309	1093428	15050201	I	400	200.00	400.00
DOU	D-18-28 22CAC	04	003	315106	1092910	15080301	S	--	--	--
DOU	D-20-25 09BDD2	04	003	314226	1094753	15080301	H	700	--	--
DOU	D-20-28 36CDA	04	003	313836	1092620	15080301	S	346	--	--
DOU	D-21-25 18CDC	04	003	313555	1095045	15080301	S	--	--	--
DOU	D-21-26 09DAA	04	003	313709	1094155	15080301	I	630	207.00	630.00
DOU	D-21-27 28CCC	04	003	313413	1093642	15080301	S	--	--	--
DOU	D-23-27 07DDD	04	003	312617	1093750	15080301	-	149	60.00	145.00
DOU	D-23-27 09DAB	04	003	312638	1093559	15080301	I	500	116.00	496.00
DOU	D-23-27 19AAA	04	003	312520	1093750	15080301	H	96.0	--	--
DOU	D-24-27 10DBB1	04	003	312123	1093511	15080301	P	337	--	--
DOU	D-24-28 06BCD	04	003	312218	1093229	15080301	P	450	292.00	440.00

See codes used to identify State, County, and Primary Use of Water at end of table.

QUALITY OF GROUND WATER
WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
DUN	3.18S.20W.20.324	35	023	324324	1085552	--	-	--	--	--
DUN	D-05-30 10CDD2	04	011	330023	1091452	--	-	--	--	--
DUN	D-05-31 03DBD2	04	011	330130	1090821	--	-	--	--	--
DUN	D-06-30 01BAA	04	011	325655	1091350	15040002	-	280	260.00	--
DUN	D-06-30 02BBB	04	011	325649	1091508	--	-	--	--	--
DUN	D-09-32 03AAA2	04	011	324108	1090254	00000000	I	91.0	--	--
DUN	D-10-32 21DBA2	04	011	323257	1090409	--	-	--	--	--
GIL	C-04-04 04DAA	04	013	330632	1123959	15070101	I	316	--	--
GIL	C-06-06 10BCB	04	013	325518	1125211	--	-	--	--	--
GWA	B-36-15 25DCD	04	015	362908	1135055	15010006	S	548	525.00	548.00
HAR	B-03-11 36BBB	04	027	333358	1132105	15070104	I	912	465.00	580.00
HAR	B-05-09S02BBD	04	013	334830	1131024	15070104	S	--	597.00	912.00
HAR	C-01-09 05CCC	04	013	332149	1131246	15070104	U	1000	--	--
HUA	B-22-16 28BDA2	04	015	351552	1135908	--	-	--	--	--
HUA	B-26-18 03AAA1	04	015	354036	1141106	15010007	H	705	570.00	697.00
HUA	B-29-17 23CCB	04	015	355258	1140503	15010005	P	984	895.00	975.00
LHA	B-02-06 20DAA	04	013	333001	1125304	15070104	I	1032	72.00	529.00
									528.00	1012.00
LIC	B-16-02 03DDC4	04	025	344723	1122657	15060202	H	120	--	--
LIC	B-17-02S34ABB	04	025	344818	1122722	15060202	I	587	176.00	--
LSC	D-04-09 04DDD	04	021	330618	1112518	--	-	--	--	--
LSC	D-06-07 15ADC2	04	021	325407	1113615	--	-	--	--	--
LSC	D-05-03 16CCC2	04	021	325909	1120350	15050303	I	935	640.00	--
LSC	D-05-07 23DDA	04	021	325813	1113604	--	-	--	--	--
LSC	D-06-03 09CCC2	04	021	325432	1120252	15050303	I	1068	400.00	--
LSC	D-06-03 22CDD	04	021	325250	1120126	15050306	I	503	--	--
LSC	D-06-04 04DDD3	04	021	325523	1115543	--	-	--	--	--
LSC	D-06-04N04ABB	04	021	325617	1115606	--	-	--	--	--
LSC	D-07-06 29DDD2	04	021	324645	1114423	15050303	I	270	115.00	--
LSC	D-07-06 34CDD	04	021	324550	1114252	15050303	U	606	200.00	--
LSC	D-09-07 02CDD	04	021	323954	1113531	15050303	I	562	416.00	--
LSC	D-09-07 03ADD	04	021	324007	1113610	15050303	I	1000	250.00	980.00
LSC	D-09-09 34DDD	04	021	323518	1112350	15050303	I	600	91.00	--
LSC	D-10-10 05DDA	04	021	323438	1111945	15050303	I	580	--	--
LSC	D-11-11 35DDD	04	019	322530	1111100	15050303	I	500	400.00	480.00
LVR	A-03-06 15ABB	04	013	333639	1114331	15060203	P	735	450.00	735.00
LVR	A-11-10 34DCA	04	007	341456	1111844	15060105	P	203	103.00	203.00
MMU	B-05-13 10CDB	04	027	334711	1133613	15070104	I	907	247.00	--
MMU	B-07-09 11AAA	04	013	335815	1130930	15070104	I	1202	--	--
N-C	A-04-02 11ADB	04	013	334230	1120709	15070102	T	900	425.00	600
N-C	A-05-02 03DBC	04	013	334803	1120832	--	-	--	--	--
STJ	A-14-27 35BDC	04	001	343439	1092703	15020002	S	156	--	--
TUB	MOENKOPI SCH SP.	04	005	360632	1111311	15020018	-	--	--	--
USC	D-22-13 09BDD3	04	023	313145	1110106	--	-	--	--	--
USC	D-12-12 16DDD	04	019	322252	1110650	15050301	I	234	68.00	225.00
USC	D-13-14 26BBB	04	019	321647	1105322	15050302	U	200	90.00	195.00
USC	D-13-14 26CDD	04	019	321558	1105305	15050302	I	155	0.00	155.00
USC	D-13-14 26DAC2	04	019	321610	1105240	15050302	-	--	--	--
USC	D-13-14 27ADA2	04	019	321630	1105336	15050302	-	--	--	--
USC	D-13-14 27BDB4	04	019	321633	1105413	15050302	-	--	--	--
USC	D-13-14 27DDC4	04	019	321555	1105345	15050302	-	--	--	--
USC	D-13-14 34AAA4	04	019	321555	1105334	15050302	-	--	--	--
USC	D-13-14 34DCC2	04	019	321504	1105359	15050302	-	222	75.00	218.00
USC	D-14-14 02BBB	04	019	321457	1105327	15050302	P	251	150.00	251.00
USC	D-16-15 14ACB	04	019	320238	1104654	15050301	C	905	445.00	900.00
USC	D-17-14 07DDD	04	019	315728	1105639	15050301	I	1500	150.00	728.00
									150.00	720.00
									700.00	1499.00
									1499.00	1500.00
USC	D-19-13 29CBA	04	019	314446	1110228	15050301	N	900	114.00	590.00
									606.00	890.00
USC	D-24-14 05ADB2	04	023	312223	1105542	15050301	N	550	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

QUALITY OF GROUND WATER

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WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
USP	D-17-20 11BDD3	04	003	315816	1101627	--	-	--	--	--
USP	D-17-21 02BBB	04	003	315928	1101035	--	-	--	--	--
USP	D-17-21 31DDA2	04	003	315428	1101348	--	-	--	--	--
USP	D-21-18 18CCB	04	003	313610	1103338	--	-	--	--	--
USP	D-21-19 31CDC	04	003	323058	1102715	--	-	--	--	--
USP	D-21-21 33CBB2	04	003	313340	1101321	--	-	--	--	--
USP	D-22-18 16DAA	04	023	313110	1103042	--	-	--	--	--
USP	D-22-21 36DBA	04	003	312825	1100936	--	-	--	--	--
USP	D-22-23 16CCD	04	003	313038	1100057	--	-	--	--	--
USP	D-23-23 06BCC	04	003	312739	1100312	--	-	--	--	--
USP	D-24-21 03AAB	04	003	312255	1101133	--	-	--	--	--
USP	D-24-22 20BBA	04	003	312006	1100755	15050202	S	272.00	100.	272
USP	D-24-23 06AAA2	04	003	312244	1100217	--	-	--	--	--
USP	D-13-22 28BCB	04	003	321634	1100643	15050202	S	1104	--	--
USP	D-14-21 02AAA	04	003	321458	1100951	15050202	H	620	--	--
USP	D-14-21 25ADB	04	003	321127	1100902	15050202	H	644	--	--
USP	D-14-22 34BDC	04	003	321028	1100527	15050202	S	430	--	--
USP	D-15-20 20DDA	04	003	320639	1101846	15050202	H	135	--	--
USP	D-16-19 16BBA	04	003	320258	1102450	15050202	S	25.0	--	--
USP	D-16-20 08DDD2	04	003	320304	1101858	15050202	I	--	--	--
USP	D-16-21 24ACB	04	003	320148	1100907	15050202	S	--	--	--
USP	D-17-19 10ACC	04	003	315820	1102328	15050202	H	495	--	--
USP	D-17-23 18AAD	04	003	315738	1100205	15050202	H	200	--	--
USP	D-18-20 06BDD	04	003	315356	1102030	15050202	S	350	--	--
USP	D-18-21 01DCA	04	003	315335	1100901	15050202	S	--	--	--
USP	D-18-21 28CBD	04	003	315012	1101236	15050202	I	--	--	--
USP	D-18-23 22BAC	04	003	315130	1095915	15050202	U	--	--	--
USP	D-19-21 36BCA	04	003	314423	1100931	15050202	S	276	--	--
USP	D-19-23 35ACD	04	003	314417	1095751	15050202	S	340	120.00	340.00
USP	D-20-18 05DAB	04	023	314320	1103122	15050202	S	--	--	--
USP	D-20-19 28BDD	04	003	313957	1102436	15050202	S	165	--	--
USP	D-20-20 02DDD	04	003	314300	1101554	15050202	S	--	--	--
USP	D-20-22 11ADB	04	003	314239	1100353	15050202	P	700	430.00	550.00
									550.00	700.00
USP	D-21-20 05ABB	04	003	313825	1101958	15050202	P	402	189.00	392.00
USP	D-21-20 34DCC1	04	003	313321	1101754	15050202	P	655	432.00	653.00
USP	D-21-23 29DBC	04	003	313419	1100136	15050202	H	973	--	--
USP	D-22-20 01BCA	04	003	313253	1101624	15050202	P	504	--	--
USP	D-22-21 18DCD	04	003	313041	1101443	15050202	H	650	--	--
USR	A-02-15 18DBA	04	007	333053	1105154	15060103	U	94.3	--	--
USR	A-01-15 04CBD1	04	007	332717	1105019	15060103	U	194.0	190.7	193.7
									192.00	195.00
USR	A-01-15 04CBD2	04	007	332717	1105019	15060103	U	117.3	114.0	117.0
									112.00	115.00
USR	A-01-15 04CBD3	04	007	332717	1105019	15060103	U	47.1	43.8	46.8
									47.00	50.00
USR	A-01-15 04CBD4	04	007	332717	1105019	15060103	U	99.3	94.1	97.1
USR	A-01-15 04DCC1	04	007	332707	1104955	15060103	U	60.9	57.6	60.6
									57.00	60.00
USR	A-01-15 04DCC2	04	007	332707	1104955	15060103	U	40.4	37.1	40.1
									36.00	39.00
USR	A-01-15 09DBC1	04	007	332629	1104958	15060103	U	118.4	115.1	118.1
									115.00	118.00
USR	A-01-15 09DBC2	04	007	332629	1104958	15060103	U	82.8	79.5	82.5
									79.00	82.00
USR	A-01-15 09DBC3	04	007	332629	1104958	15060103	U	62.7	59.4	62.4
									59.00	62.00
USR	A-01-15 09DBC4	04	007	332629	1104958	15060103	U	36.6	33.3	36.3
									34.00	37.00
USR	A-01-15 09DBC5	04	007	332629	1104958	15060103	U	160.2	155.	158.
USR	A-01-15 09DCD1	04	007	332611	1104951	15060103	U	109.7	106.4	109.4
									106.00	109.00
USR	A-01-15 09DCD2	04	007	332611	1104951	15060103	U	65.0	61.7	64.7
									61.50	64.50
USR	A-01-15 09DCD3	04	007	332611	1104951	15060103	U	36.2	88.	91.
									88.00	91.00
USR	A-01-15 09DCD4	04	007	332611	1104951	15060103	U	36.00	32.9	35.9
									32.00	35.00
USR	A-01-15 09DCD6	04	007	332612	1104946	15060103	U	157.	137.	157.
USR	A-02-15 07BDD1	04	007	333151	1105205	15060103	U	55.8	50.6	53.6
USR	A-02-15 07BDD2	04	007	333151	1105205	15060103	U	124.8	119.6	122.6
USR	A-02-15 07BDD3	04	007	333151	1105205	15060103	U	82.0	76.8	79.8
USR	A-02-15 07BDD4	04	007	333151	1105205	15060103	U	227.1	221.9	224.9
USR	A-02-15 29DBD1	04	007	332904	1105048	15060103	U	112.30	109.0	112.0
									106.00	109.00
USR	A-02-15 29DBD2	04	007	332904	1105048	15060103	U	68.4	65.1	68.1
									62.00	65.00
USR	A-02-15 29DBD3	04	007	332904	1105048	15060103	U	42.00	39.4	42.4
									39.00	42.00
USR	A-02-15 29DBD4	04	007	332904	1105048	15060103	U	181.4	176.2	179.2

See codes used to identify State, County, and Primary Use of Water at end of table.

QUALITY OF GROUND WATER
WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

GROUND-WATER AREA	LOCAL WELL NUMBER	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
WAT	C-02-01 30DBA	04	013	331330	1122350	15070101	I	600	300.00	590.00
WAT	C-02-02 19AAD	04	013	331437	1122944	15070101	H	434	301.00	351.00
WIL	D-10-23 32DAC	04	009	323110	1100037	--	-	--	--	--
WIL	D-11-21 11BCC	04	009	322936	1101058	--	-	--	--	--
WIL	D-11-23 14ABA	04	009	322907	1105755	--	-	--	--	--
WIL	D-11-25 08CBB	04	009	322930	1094923	--	-	--	--	--
WIL	D-13-24 05BAB	04	003	322023	1095513	--	-	--	--	--
WIL	D-13-24 34BAB	04	003	321603	1095311	--	-	--	--	--
WIL	D-13-25 09DCC	04	003	321844	1094754	--	-	--	--	--
WIL	D-14-25 11CAA	04	003	321322	1094553	--	-	--	--	--
WIL	D-15-25 02ADD	04	003	320934	1094523	--	-	--	--	--
WIL	D-15-25 25BEC	04	003	320618	1094519	--	-	--	--	--
WIL	D-15-27 11ADD2	04	003	320846	1093308	--	-	--	--	--
WIL	D-15-28 19ADC	04	003	320703	1093114	--	-	--	--	--
WIL	D-15-28 19DAC	04	003	320648	1093112	--	-	--	--	--
WIL	D-16-25 10DDD	04	003	320307	1094645	--	-	--	--	--
WIL	D-16-26 02AAA	04	003	320445	1093940	--	-	--	--	--
WIL	D-16-28 05BDD	04	003	320420	1093105	--	-	--	--	--
WIL	D-16-29 03CDB	04	003	320402	1092302	--	-	--	--	--
WIL	D-16-29 26CCC2	04	003	320029	1092216	--	-	--	--	--
WIL	D-16-29 30BBD2	04	003	320107	1092612	--	-	--	--	--
WIL	D-17-24 03ACC	04	003	315906	1095321	--	-	--	--	--
WIL	D-17-24 11ACC	04	003	325819	1095225	--	-	--	--	--
WIL	D-17-28 14CCB3	04	003	315703	1092823	--	-	--	--	--
WIL	D-18-24 09DCB	04	003	315241	1095421	--	-	--	--	--
WIL	D-18-29 17CAC	04	003	315155	1092502	--	-	--	--	--
WIL	D-19-26 32ABB	04	003	314437	1094245	--	-	--	--	--
WIL	D-20-27 21BBC	04	003	314056	1093600	--	-	--	--	--
WIL	D-10-24 17DBD	04	009	323347	1095435	15050201	H	711	--	--
WIL	D-11-24 32BAA	04	009	322627	1095511	15050201	I	1000	472.00	1000.00
WIL	D-12-23 12CBC	04	003	322407	1095735	15050201	I	655	135.00	430.00
									560.83	655.00
									556.83	655.00
WIL	D-12-24 32BCB	04	003	322101	1095530	15050201	I	235	86.00	94.00
									143.00	228.00
WIL	D-14-24 14CBB	04	003	321258	1095224	15050201	S	50.0	--	--
WIL	D-14-26 18DAD	04	003	321251	1094320	15050201	-	425	--	--
WIL	D-15-24 20CAC	04	003	320645	1095515	15050201	-	250	--	--
WIL	D-15-26 18AAA	04	003	320812	1094322	15050201	I	575	0.00	317.00
									317.00	575.00
WIL	D-16-26 09DAA	04	003	320325	1094144	15040006	I	460	110.00	460.00
WIL	D-16-28 07CDA	04	003	320315	1093159	15050201	S	295	--	--
WIL	D-17-25 09CCC	04	003	315751	1094844	15050201	I	358	56.00	350.00
WIL	D-17-27 31DDD	04	003	315420	1093740	15050201	I	555	108.00	555.00

CODES USED TO IDENTIFY STATE, COUNTY, AND
PRIMARY USE OF WATER

State and County			Primary Use of Water	
04	Arizona	35	New Mexico	C Commerical
	001 Apache		023 Hidalgo	H Domestic
	003 Cochise			I Irrigation
	005 Coconino			N Industrial
	007 Gila			P Public supply
	009 Graham			S Stock
	011 Greenlee			T Institution
	012 La Paz			U Unused
	013 Maricopa			Z Other
	015 Mohave			
	017 Navajo			
	019 Pima			
	021 Pinal			
	023 Santa Cruz			
	025 Yavapai			
	027 Yuma			

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

LOCAL IDENT- I- FIER	STATION	NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SODIUM AD- SORP- TION RATIO (00931)
AGUA FRIA BASIN										
A-08-02 03BDC2	340404112084301	08-11-87	0830	755	7.70	23.0	486	--	1	
B-14-01 14ACC	343540112195701	08-11-87	1330	512	7.80	18.5	328	--	0.6	
ALTAR VALLEY										
D-20-08 35BDB	313850111295701	08-05-87	1630	40	8.10	31.0	257	--	5	
AVRA VALLEY										
D-15-10 33DBC2	320435111194201	08-20-87	0945	715	7.80	28.5	435	--	2	
BIG CHINO VALLEY										
B-21-02 14BCC	351207112283701	08-11-87	1030	640	7.60	24.5	380	--	2	
		08-31-87	1400	--	--	--	363	--	1	
B-24-08 17DCD2	352730113081002	08-11-87	1245	485	7.50	28.5	266	--	0.6	
BIG SANDY VALLEY										
B-16-13 22CCC1	344219113365701	08-14-87	1100	520	8.70	28.5	305	--	15	
BLACK MESA										
04 56-2.85x14.18	361737110180301	12-11-86	1100	--	9.20	20.0	710	660	35	
06 094-03.32X12.68	354856110183201	12-10-86	1545	2450	8.80	--	1370	1330	66	
KYDESTEA SPRING	361947110401801	04-21-87	1720	2400	7.78	10.0	2150	2280	3	
UN-NAMED SPRING	364026110105901	04-16-87	1655	605	8.05	9.0	381	383	1	
04 056-08.11X01.15	362901110234101	10-31-86	1005	602	9.60	30.0	330	338	25	
		01-29-87	0850	270	9.36	31.5	--	168	--	
04 073-12.26X10.09	360614110130801	04-16-87	1040	500	9.90	27.0	373	279	36	
04 075-05.09X12.30	360418110352701	12-10-86	1200	247	9.60	13.0	201	164	18	
08 038-04.43X15.39	363137110044702	12-11-86	1530	390	9.90	17.0	265	231	28	
08 038-13.86X01.43	364347110145901	12-12-86	0900	300	8.00	15.0	186	181	1	
10 054-06.30X06.52	362418109514601	12-11-86	1345	1010	9.10	21.0	643	633	41	
BUTLER VALLEY										
B-07-15 15AAD3	335718113480501	08-19-87	1245	1130	8.30	27.5	733	--	7	
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-17-22 11DCC	345200114352001	08-13-87	1145	3850	7.40	22.5	2330	--	8	
B-18-22 09DED2	345727114371101	08-13-87	1030	2000	7.40	20.0	1330	--	3	
B-21-21 21CBB	351120114320001	08-13-87	1545	775	8.20	33.5	472	--	13	
B-04-19 29BCB	333346114150101	08-17-87	1515	735	7.50	35.0	509	--	3	
B-20-22 24DDC	350557113335701	08-13-87	--	2580	7.50	37.5	1250	--	5	
B-25-20 15AAA	353337114235201	08-12-87	1600	350	7.80	30.5	219	--	2	
B-09-20 01DBC2	340853114173201	08-19-87	0815	1440	8.00	29.0	845	--	12	
10 072-08.10X12.13	360429109533901	12-11-86	0930	545	8.20	21.0	405	408	9	
CONCHO										
A-12-26 13DCD	342555109321601	10-08-86	1300	910	8.60	15.0	538	--	27	
A-12-26 19ABA	342551109374501	10-09-86	1445	177	7.90	13.5	120	--	0.4	
		03-17-87	1300	145	8.20	15.5	119	--	0.4	
		09-23-87	0730	154	8.00	15.0	131	--	0.4	
A-13-24 22BBD	343048109475401	10-09-86	1200	455	7.50	16.0	261	--	0.5	
		03-18-87	1330	480	7.80	15.0	305	--	0.5	
A-13-26 12DDA	343226109313101	03-18-87	1730	1410	8.00	14.0	828	--	6	
A-14-24 29DCC	343432109500401	10-09-86	1300	635	7.60	14.5	380	--	0.7	
		03-17-87	1700	550	7.80	17.0	349	--	0.6	
		09-24-87	1130	520	7.90	--	367	--	0.6	
A-14-25 14CCD	343623109403201	10-10-86	1115	714	8.00	16.5	429	--	1	
		03-17-87	1530	725	7.90	17.5	443	--	1	
		09-25-87	1415	--	7.60	18.0	466	--	4	
		10-10-86	1115	714	8.00	16.5	429	--	1	
		03-17-87	1530	725	7.90	17.5	443	--	1	
		09-25-87	1415	--	7.60	18.0	466	--	4	
A-14-26 21BCC	343601109355801	10-10-86	0900	959	8.00	16.5	505	--	4	
		09-25-87	1415	800	7.90	17.0	436	--	1	

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
AGUA FRIA BASIN										
A-08-02 03BDC2	290	52	2.0	61	34	40	281	53	0.50	67
B-14-01 14ACC	230	19	1.0	66	16	8.8	149	96	0.40	24
ALTAR VALLEY										
D-20-08 35BDB	52	73	1.9	16	2.9	10	136	29	11	29
AVRA VALLEY										
D-15-10 33DBC2	180	74	2.4	59	8.9	72	154	51	1.2	30
BIG CHINO VALLEY										
B-21-02 14BCC	210	49	1.4	52	19	29	171	99	0.40	16
	220	49	1.6	56	19	32	--	90	0.40	17
B-24-08 17DCD2	200	18	2.6	43	23	15	219	7.2	0.60	19
BIG SANDY VALLEY										
B-16-13 22CCC1	10	110	1.7	3.1	0.64	40	124	48	2.5	19
BLACK MESA										
04 56-2.85x14.18	9	230	1.2	3.0	0.40	35	154	300	1.0	16
06 094-03.32x12.68	14	540	1.8	4.0	0.90	470	264	180	2.5	10
KYDESTE SPRING	1200	210	5.0	250	130	12	226	1400	0.50	11
UN-NAMED SPRING	220	42	3.1	64	15	43	143	110	0.60	7.2
04 056-08.11x01.15	5	120	0.90	0.90	0.60	12	176	62	0.20	21
	--	55	0.80	3.2	<0.01	4.6	112	21	0.20	20
04 073-12.26x10.09	2	100	0.50	0.53	0.07	3.7	227	3.8	0.20	26
04 075-05.09x12.30	2	57	0.50	0.70	0.10	2.4	117	6.4	0.10	20
08 038-04.43x15.39	2	90	0.60	0.80	0.05	2.4	168	11	0.20	17
08 038-13.86x01.43	95	29	1.5	23	9.1	8.2	108	30	0.30	17
10 054-06.30x06.52	6	230	1.4	2.1	0.30	140	194	120	1.7	12
BUTLER VALLEY										
B-07-15 15AAD3	140	190	3.8	50	4.6	320	82	82	0.20	15
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-17-22 11DCC	860	500	7.1	230	69	440	300	870	0.80	24
B-18-22 09DBD2	650	190	0.60	180	47	180	233	570	0.30	19
B-21-21 21CBB	27	150	4.6	10	0.40	64	100	72	9.0	18
B-04-19 29BCB	200	81	4.3	63	9.3	34	155	180	0.70	38
B-20-22 24DDC	540	250	9.2	190	15	650	77	39	3.0	48
B-25-20 15AAA	79	39	3.1	19	7.7	15	118	10	0.60	32
B-09-20 01DBC2	100	250	3.8	37	1.5	250	78	220	2.4	20
10 072-08.10x12.13	39	130	5.2	9.6	3.7	58	172	80	0.50	11
CONCHO										
A-12-26 13DCD	13	210	2.9	3.7	0.82	80	312	42	2.2	8.2
A-12-26 19ABA	66	7.7	8.5	13	8.2	3.2	74	3.8	<0.10	29
	67	7.7	2.7	13	8.4	2.2	84	2.7	<0.10	30
	70	8.0	2.7	14	8.6	4.5	E82	12	0.10	29
A-13-24 22BBD	190	16	2.6	47	17	15	119	80	0.30	11
	220	15	2.4	60	18	16	158	85	0.20	13
A-13-26 12DDA	230	200	1.8	33	37	240	212	140	1.4	33
A-14-24 29DCC	270	24	3.6	67	24	24	--	140	0.30	8.3
	240	21	3.1	60	23	24	158	110	0.30	11
	260	23	3.2	65	23	23	E155	130	0.30	10
A-14-25 14CCD	290	36	5.1	67	29	42	197	120	0.50	9.4
	280	36	4.5	66	28	48	183	140	0.40	10
	280	36	4.5	66	28	48	183	140	0.40	10
	160	110	5.4	43	12	150	E182	53	0.70	9.3
A-14-26 21BCC	150	120	8.2	42	12	160	164	54	0.70	9.0
	290	37	4.7	69	29	42	E156	130	0.40	11

E Estimated

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
AGUA FRIA BASIN										
A-08-02 03BDC2	1.90	0.03	--	--	--	--	220	--	--	--
B-14-01 14ACC	1.60	--	--	--	--	--	20	--	--	--
ALTAR VALLEY										
D-20-08 35BDB	0.590	--	--	--	--	--	130	--	--	--
AVRA VALLEY										
D-15-10 33DBC2	10.0	--	--	--	--	--	100	--	--	--
BIG CHINO VALLEY										
B-21-02 14BCC	2.70	--	--	--	--	--	150	--	--	--
	2.60	--	<10	6	41	--	140	<1	<1	--
B-24-08 17DCD2	1.50	--	--	--	--	--	110	--	--	--
BIG SANDY VALLEY										
B-16-13 22CCC1	1.20	--	--	--	--	--	290	--	--	--
BLACK MESA										
04 56-2.85x14.18	0.470	--	--	--	--	--	290	--	--	--
06 094-03.32X12.68	<0.100	--	--	--	--	--	1600	--	--	--
KYDESTEAL SPRING	<0.100	--	--	--	--	--	80	--	--	--
UN-NAMED SPRING	2.50	--	--	--	--	--	60	--	--	--
04 056-08.11X01.15	1.40	0.77	--	--	--	--	50	--	--	--
	0.770	--	--	--	--	--	40	--	--	--
04 073-12.26X10.09	1.30	--	--	--	--	--	50	--	--	--
04 075-05.09X12.30	1.20	0.06	--	--	--	--	20	--	--	--
08 038-04.43X15.39	1.20	0.03	--	--	--	--	40	--	--	--
08 038-13.86X01.43	0.640	--	--	--	--	--	50	--	--	--
10 054-06.30X06.52	1.00	--	--	--	--	--	400	--	--	--
BUTLER VALLEY										
B-07-15 15AAD3	4.10	--	--	--	--	--	410	--	--	--
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-17-22 11DCC	0.100	--	--	2	100	<10	320	<1	<1	<1
B-18-22 09DBD2	<0.100	--	--	14	71	<0.5	170	<1	1	<1
B-21-21 21CBB	19.0	--	--	29	8	<0.5	490	<1	1	<1
B-04-19 29BCB	1.30	--	--	--	--	--	260	--	--	--
B-20-22 24DDC	0.480	--	--	--	--	--	620	--	--	--
B-25-20 15AAA	4.90	--	--	--	--	--	80	--	--	--
B-08-20 01DBC2	2.80	--	--	6	34	<0.5	480	<1	<1	1
10 072-08.10X12.13	0.690	--	--	--	--	--	170	--	--	--
CONCHO										
A-12-26 13DCD	<0.100	0.03	--	--	--	--	500	--	--	--
A-12-26 19ABA	0.540	0.21	--	--	--	--	20	--	--	--
	0.400	0.25	--	--	--	--	<10	--	--	--
	0.760	0.18	--	--	--	--	10	--	--	--
A-13-24 22BBD	0.150	--	--	--	--	--	20	--	--	--
	<0.100	--	--	--	--	--	10	--	--	--
A-13-26 12DDA	3.10	0.06	--	--	--	--	370	--	--	--
A-14-24 29DCC	0.170	--	--	--	--	--	40	--	--	--
	<0.100	--	--	--	--	--	30	--	--	--
	<0.100	--	--	--	--	--	40	--	--	--
A-14-25 14CCD	0.100	--	--	--	--	--	60	--	--	--
	<0.100	--	--	--	--	--	60	--	--	--
	<0.100	--	--	--	--	--	60	--	--	--
	0.100	--	--	--	--	--	60	--	--	--
	<0.100	--	--	--	--	--	110	--	--	--
	<0.100	--	--	--	--	--	60	--	--	--
	<0.100	--	--	--	--	--	110	--	--	--
A-14-26 21BCC	0.170	--	--	--	--	--	120	--	--	--
	<0.100	--	--	--	--	--	60	--	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
AGUA FRIA BASIN										
A-08-02 03BDC2	--	26	--	--	21	--	--	--	--	--
B-14-01 14ACC	--	12	--	--	<1	--	--	--	--	--
ALTAR VALLEY										
D-20-08 35BDB	--	14	--	--	2	--	--	--	--	--
AVRA VALLEY										
D-15-10 33DBC2	--	8	--	--	2	--	--	--	--	--
BIG CHINO VALLEY										
B-21-02 14BCC	--	21	--	--	<1	--	--	--	--	--
	--	9	<5	17	<1	--	1	150	--	--
B-24-08 17DCD2	--	13	--	--	<1	--	--	--	--	--
BIG SANDY VALLEY										
B-16-13 22CCC1	--	25	--	--	<1	--	--	--	--	--
BLACK MESA										
04 56-2.85x14.18	--	50	--	--	--	--	--	--	--	--
06 094-03.32X12.68	--	40	--	--	--	--	--	--	--	--
KYDESTEAL SPRING	--	20	--	--	--	--	--	--	--	--
UN-NAMED SPRING	--	17	--	--	--	--	--	--	--	--
04 056-08.11X01.15	--	83	--	--	--	--	--	--	--	--
	--	<3	--	--	--	--	--	--	--	--
04 073-12.26X10.09	--	5	--	--	--	--	--	--	--	--
04 075-05.09X12.30	--	88	--	--	--	--	--	--	--	--
08 038-04.43X15.39	--	8	--	--	--	--	--	--	--	--
08 038-13.86X01.43	--	94	--	--	--	--	--	--	--	--
10 054-06.30X06.52	--	24	--	--	--	--	--	--	--	--
BUTLER VALLEY										
B-07-15 15AAD3	--	12	--	--	14	--	--	--	--	--
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-17-22 11DCC	10	790	<5	100	1400	37	--	3100	7	<10
B-18-22 09DBD2	1	250	<5	58	720	2	--	2000	2	4
B-21-21 21CBB	3	24	<5	81	<1	11	--	350	4	41
B-04-19 29BCB	--	4	--	--	2	--	--	--	--	--
B-20-22 24DDC	--	40	--	--	10	--	--	--	--	--
B-25-20 15AAA	--	9	--	--	<1	--	--	--	--	--
B-09-20 01DBC2	7	7	<5	180	<1	6	--	1100	4	6
10 072-08.10X12.13	--	35	--	--	--	--	--	--	--	--
CONCHO										
A-12-26 13DCD	--	97	--	--	9	--	--	--	--	--
A-12-26 19ABA	--	23	--	--	3	--	--	--	--	--
	--	4	--	--	<1	--	--	--	--	--
	--	4	--	--	<1	--	--	--	--	--
A-13-24 22BBD	--	260	--	--	43	--	--	--	--	--
	--	630	--	--	9	--	--	--	--	--
A-13-26 12DDA	--	44	--	--	1	--	--	--	--	--
A-14-24 29DCC	--	660	--	--	42	--	--	--	--	--
	--	1000	--	--	11	--	--	--	--	--
	--	410	--	--	21	--	--	--	--	--
A-14-25 14CCD	--	1400	--	--	40	--	--	--	--	--
	--	820	--	--	15	--	--	--	--	--
	--	130	--	--	30	--	--	--	--	--
	--	1400	--	--	40	--	--	--	--	--
	--	820	--	--	15	--	--	--	--	--
	--	130	--	--	30	--	--	--	--	--
A-14-26 21BCC	--	36	--	--	32	--	--	--	--	--
	--	1500	--	--	19	--	--	--	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SODIUM AD- SORP- TION RATIO (00931)
DOUGLAS BASIN										
D-15-26 30DDA	320550109432001	07-14-87	1400	485	7.40	22.0	295	--	1	
D-16-24 03BCC	320420109535201	07-13-87	1545	1240	7.10	21.5	688	--	1	
D-19-25 16ACB	314701109481101	08-03-87	1123	425	7.60	21.5	266	--	0.7	
D-19-27 15DDC	314624109343101	07-20-87	1600	210	6.60	18.0	140	--	0.4	
D-19-28 35AAA	314430109264601	07-23-87	0915	235	7.90	28.0	144	--	0.5	
D-19-30 18DA	314633109184001	07-22-87	1500	200	6.90	18.5	125	--	0.4	
D-20-24 10DDD	314206109522701	08-03-87	1250	350	7.00	27.5	219	--	1	
D-20-26 25CBC	313941109390601	07-16-87	1130	1090	7.20	21.5	724	--	1	
D-20-29 20CDC	314014109242201	08-04-87	0955	700	7.20	18.0	386	--	0.8	
D-21-28 22BDD	313526109285501	07-23-87	0830	620	7.40	26.0	370	--	0.4	
D-22-25 13AAD	313119109450201	07-22-87	1430	515	7.40	21.0	298	--	0.7	
D-22-26 03AAB	313314109405801	07-21-87	1630	325	8.20	25.5	198	--	8	
D-22-26 21DDD	312948109415101	07-21-87	0930	850	7.30	19.5	540	--	2	
D-22-26 34CCC	312801109414901	07-21-87	0800	1100	7.70	26.0	620	--	5	
D-22-27 24BCB	313023109333501	07-22-87	1240	455	7.60	25.0	275	--	2	
D-22-28 35DAB	312822109273401	07-22-87	1030	880	7.50	24.5	553	--	2	
D-23-25 08DAD	312633109490701	07-20-87	1300	2370	6.80	23.5	2000	--	0.4	
D-23-26 19CBC2	312445109445601	07-23-87	0900	450	7.40	24.0	273	--	0.7	
D-23-26 26ACD	312407109400501	07-21-87	1330	475	7.70	22.0	247	--	1	
D-23-28 15DBD	312534109285301	07-22-87	1100	885	7.60	25.0	480	--	3	
D-24-26 03DCC2	312155109411601	07-22-87	0830	600	7.60	23.0	358	--	2	
D-24-28 12CDB	312108109271701	07-21-87	1310	895	7.50	25.0	573	--	0.6	
		03-15-87	0900	--	--	--	497	--	0.6	
D-18-26 34BAD	314946109411401	07-20-87	1410	325	7.80	26.5	200	--	2	
D-18-27 11BCB	315309109342801	07-20-87	1230	280	8.10	23.0	181	--	2	
D-18-28 22CAC	315106109291001	07-23-87	1200	300	7.80	21.0	188	--	2	
D-20-25 09BDD2	314226109475301	07-21-87	1135	635	7.60	26.5	380	--	2	
D-20-28 36CDA	313836109262001	08-04-87	0830	680	7.50	18.0	425	--	2	
D-21-25 18CDC	313555109504501	07-22-87	1215	410	7.70	24.0	256	--	0.9	
D-21-26 09DAA	313709109415501	07-21-87	1000	315	8.20	27.0	187	--	3	
D-21-27 28CCC	313413109364201	07-22-87	0935	425	7.60	20.0	270	--	1	
D-23-27 07DDD	312617109375001	07-21-87	1145	340	7.80	22.5	206	--	2	
D-23-27 09DAB	312638109355901	07-21-87	0730	355	8.30	27.5	241	--	11	
D-23-27 19AAA	312520109375001	08-04-87	1320	1230	7.60	21.5	757	--	3	
D-24-27 10DBB1	312123109351101	07-21-87	1045	1360	8.90	25.0	722	--	34	
D-24-28 06BCD	312218109322901	07-22-87	0815	505	7.90	25.5	295	--	2	
DUNCAN BASIN										
3.18S.20W.20.324	324324108555201	03-25-87	1300	890	7.50	16.5	567	--	5	
D-05-30 10CDD2	330023109145201	03-26-87	1230	320	8.20	25.0	195	--	3	
D-05-31 03DBD2	330130109082101	03-25-87	1530	520	8.40	15.5	315	--	2	
D-06-30 01BAA	325655109135001	08-12-87	0730	270	8.20	21.5	171	--	2	
D-06-30 02BBB	325649109150801	03-26-87	1445	1640	7.50	20.0	1060	--	7	
D-09-32 03AAA2	324108109025401	08-12-87	0900	440	7.90	16.5	274	--	2	
D-10-32 21DBA2	323257109040901	08-12-87	1200	1360	8.30	28.5	874	--	26	
GILA BEND BASIN										
C-04-04 04DAA	330632112395901	08-12-87	1200	3950	7.30	28.0	2270	--	7	
C-06-06 10BCB	325518112521101	08-12-87	1015	1750	8.30	32.0	1110	--	15	
GRAND WASH										
B-36-15 25DCD	362908113505501	04-01-87	1530	1700	E7.34	21.5	1460	--	0.3	
HARQUAHALA BASIN										
B-03-11 36BBB	333358113210501	08-18-87	1015	1020	8.10	29.0	625	--	9	
B-05-09S02BBD	334830113102401	08-17-87	1015	790	7.60	24.0	449	--	2	
C-01-09 05CCC	332149113124601	08-18-87	1200	1000	8.10	36.0	576	--	9	
HUALAPAI VALLEY										
B-22-16 28BDA2	351552113590801	08-11-87	1500	440	7.80	30.0	279	--	1	
B-26-18 03AAA1	354036114110601	08-12-87	1445	495	7.80	31.0	303	--	1	
B-29-17 23CCB	355258114050301	08-12-87	1245	400	7.90	26.0	243	--	2	
LOWER HASSAYAMPA										
B-02-06 20DAA	333001112530401	08-19-87	1515	1700	7.60	25.0	1030	--	7	
LITTLE CHINO VALLEY										
B-16-02 03DDC4	344723112265701	08-11-87	1600	690	7.70	16.0	420	--	1	
B-17-02S34ABB	344820112272701	08-12-87	0845	315	8.00	19.5	199	--	0.6	

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- IFIER	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
DOUGLAS BASIN										
D-15-26 30DDA	150	40	2.2	45	8.6	24	147	36	1.2	31
D-16-24 03BCC	480	49	3.3	110	50	210	148	120	0.60	27
D-19-25 16ACB	180	20	1.2	57	9.0	7.9	154	25	0.30	35
D-19-27 15DDC	81	8.1	1.2	28	2.7	2.0	67	28	0.30	29
D-19-28 35AAA	86	9.7	1.3	31	2.1	2.2	97	2.7	0.30	37
D-19-30 18DA	69	8.0	1.5	23	2.9	1.6	83	11	0.90	21
D-20-24 10DDD	110	24	1.9	34	6.9	5.8	79	63	0.40	30
D-20-26 25CBC	460	56	3.8	130	34	50	245	220	1.3	38
D-20-29 20CDC	320	33	1.0	95	19	9.0	190	80	0.30	32
D-21-28 22BDD	280	16	1.5	92	12	6.7	230	70	0.40	30
D-22-25 13AAD	210	22	1.7	66	11	12	233	7.4	0.30	33
D-22-26 03AAB	15	68	1.3	4.8	0.80	6.3	129	8.0	5.6	24
D-22-26 21DDD	300	67	2.5	87	20	54	245	110	0.30	34
D-22-26 34CCC	160	150	2.5	47	11	150	210	88	1.0	39
D-22-27 24BCB	130	45	1.4	29	15	12	179	19	0.40	28
D-22-28 35DAB	290	80	1.7	80	21	29	301	96	0.30	28
D-23-25 08DAD	1500	34	2.3	520	52	54	165	1200	0.30	19
D-23-26 19CBC2	190	21	1.5	60	9.8	5.6	207	19	0.70	26
D-23-26 26ACD	150	27	2.8	40	12	8.3	183	16	1.0	24
D-23-28 15BBD	200	92	2.2	53	17	100	183	64	0.40	22
D-24-26 03DCC2	190	50	2.9	55	13	41	207	35	1.2	27
D-24-28 12CDB	400	28	4.6	86	42	6.1	218	230	0.70	34
	400	28	4.3	87	44	4.7	--	230	0.50	32
D-18-26 34BAD	84	33	2.0	30	2.2	10	109	12	4.0	30
D-18-27 11BCB	69	29	1.2	22	3.5	5.9	88	30	1.5	35
D-18-28 22CAC	73	30	1.9	26	2.0	3.7	123	3.3	2.7	44
D-20-25 09BDD2	200	63	2.6	35	26	15	252	42	0.50	25
D-20-28 36CDA	240	59	1.1	71	14	14	296	49	0.50	37
D-21-25 18CDC	160	25	2.4	49	8.9	14	177	8.7	0.60	27
D-21-26 09DAA	53	47	1.8	14	4.3	11	102	12	9.2	25
D-21-27 28CCC	130	35	2.5	42	5.0	8.0	120	43	0.30	26
D-23-27 07DDD	84	39	1.4	25	5.0	11	144	14	0.50	22
D-23-27 09DAB	11	81	1.4	4.4	0.12	11	138	30	0.40	23
D-23-27 19AAA	350	120	2.7	100	23	150	205	200	0.60	32
D-24-27 10BBB1	11	250	2.0	3.0	0.83	230	141	110	2.2	20
D-24-28 06BCD	130	56	2.4	26	16	13	199	30	0.60	26
DUNCAN BASIN										
3.18S.20W.20.324	180	140	2.7	52	11	21	313	110	4.9	37
D-05-30 10CDD2	58	43	1.6	16	4.3	8.6	125	14	1.6	22
D-05-31 03DBD2	170	47	1.1	26	25	10	135	120	0.20	4.7
D-06-30 01BAA	69	30	2.1	19	5.3	6.5	112	14	0.50	23
D-06-30 02BBB	310	260	3.6	83	24	110	452	240	4.8	58
D-09-32 03AAA2	140	39	2.1	42	8.0	11	163	37	2.0	34
D-10-32 21DBA2	24	280	4.2	7.3	1.5	100	228	260	5.0	77
GILA BEND BASIN										
C-04-04 04DAA	910	480	9.1	290	46	970	168	300	0.90	26
C-06-06 10BCB	99	320	3.8	36	2.3	530	39	140	4.0	32
GRAND WASH										
B-36-15 25DCD	1000	18	3.4	310	60	15	E67	980	0.20	23
HARQUAHALA BASIN										
B-03-11 36BBB	91	190	4.2	18	11	77	285	110	2.7	31
B-05-09S02BBD	210	70	2.9	50	21	95	149	21	0.30	25
C-01-09 05CCC	74	180	4.4	15	8.9	120	161	110	2.8	22
HUALAPAI BASIN										
B-22-16 28BDA2	140	31	4.9	27	18	24	145	18	1.1	56
B-26-18 03AAA1	160	35	7.6	23	24	35	147	32	0.70	40
B-29-17 23CCB	110	43	4.3	15	18	15	157	11	1.1	24
LOWER HASSAYAMPA										
B-02-06 20DAA	260	230	3.8	85	11	180	120	350	<0.10	18
LITTLE CHINO VALLEY										
B-16-02 03DDC4	280	43	2.1	64	29	26	275	29	0.40	36
B-17-02S34ABB	130	14	1.6	35	9.6	24	110	9.0	0.30	31

E Estimated

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
DOUGLAS BASIN										
D-15-26 30DDA	4.20	--	--	2	38	<0.5	40	<1	2	<1
D-16-24 03BCC	6.30	0.03	--	2	82	<0.5	50	<1	<1	1
D-19-25 16ACB	4.10	--	--	2	96	<0.5	40	<1	<1	1
D-19-27 15DDC	<0.100	--	--	<1	26	<0.5	<10	<1	<1	1
D-19-28 35AAA	<0.100	--	--	<1	<2	<0.5	<10	<1	<1	<1
D-19-30 18DA	<0.100	--	--	<1	14	<0.5	<10	<1	<1	<1
D-20-24 10DDD	1.10	0.06	--	1	41	<0.5	30	<1	<1	<1
D-20-26 25CBC	10.0	--	--	--	--	--	80	--	--	--
D-20-29 20CDC	0.330	--	--	<1	35	<0.5	90	<1	<1	<1
D-21-28 22BDD	0.650	--	--	<1	54	<0.5	30	<1	<1	<1
D-22-25 13AAD	0.970	--	--	1	420	<0.5	30	1	<1	1
D-22-26 03AAB	0.300	--	--	25	4	<0.5	90	<1	<1	<1
D-22-26 21DDD	3.70	--	--	2	150	<0.5	100	<1	2	<1
D-22-26 34CCC	0.980	--	--	2	51	<0.5	240	<1	1	<1
D-22-27 24BCB	3.90	--	--	<1	25	<0.5	60	<1	<1	1
D-22-28 35DAB	7.60	--	--	<1	130	<0.5	70	<1	<1	<1
D-23-25 08DAD	4.30	--	--	<1	<100	<10	40	<1	<1	1
D-23-26 19CBC2	0.950	--	--	2	170	<0.5	30	<1	<1	<1
D-23-26 26ACD	1.10	--	--	3	130	<0.5	70	2	<1	<1
D-23-28 15DBD	4.00	--	--	2	78	<0.5	70	<1	1	<1
D-24-26 03DCC2	1.70	--	--	8	100	<0.5	100	<1	1	<1
D-24-28 12CDB	0.490	--	--	1	23	<0.5	70	<1	<1	<1
	<0.100	--	--	--	--	--	60	--	--	--
D-18-26 34BAD	2.50	--	--	3	37	<0.5	50	<1	<1	<1
D-18-27 11BCB	<0.100	--	--	1	6	<0.5	40	<1	<1	<1
D-18-28 22CAC	<0.100	--	--	1	5	<0.5	30	1	<1	<1
D-20-25 09BDD2	4.20	--	--	2	79	<0.5	170	<1	<1	1
D-20-28 36CDA	0.220	--	--	<1	33	<0.5	40	<1	<1	<1
D-21-25 18CDC	2.90	--	--	<1	300	<0.5	70	<1	<1	1
D-21-26 09DAA	0.410	--	--	23	12	<0.5	70	<1	<1	<1
D-21-27 28CCC	8.00	--	--	<1	27	<0.5	60	<1	<1	2
D-23-27 07DDD	0.150	--	--	1	57	<0.5	40	<1	1	<1
D-23-27 09DAB	1.50	--	--	--	--	--	90	--	--	--
D-23-27 19AAA	0.790	--	--	1	50	<0.5	150	<1	<1	<1
D-24-27 10DBB1	0.380	--	--	25	2	<0.5	420	<1	<1	1
D-24-28 06BCD	0.950	--	--	<1	96	<0.5	110	<1	<1	<1
DUNCAN BASIN										
3.18S.20W.20.324	<0.100	0.12	--	2	100	<0.5	190	<1	<1	<1
D-05-30 10CDD2	1.90	--	--	20	3	<0.5	70	<1	<1	<1
D-05-31 03DBD2	<0.100	--	--	--	--	--	10	--	--	--
D-06-30 01BAA	0.780	--	--	--	--	--	40	--	--	--
D-06-30 02BBB	<0.100	0.15	--	4	8	<0.5	350	<1	<1	<1
D-09-32 03AAA2	<0.100	0.18	--	2	14	<0.5	70	<1	<1	<1
D-10-32 21DBA2	0.280	--	--	--	--	--	930	--	--	--
GILA BEND BASIN										
C-04-04 04DAA	10.0	--	--	--	--	--	550	--	--	--
C-06-06 10BCB	2.80	--	--	--	--	--	1500	--	--	--
GRAND WASH										
B-36-15 25DCD	2.60	--	--	2	<100	--	90	<1	--	--
HARQUAHALA BASIN										
B-03-11 36BBB	2.10	--	--	5	8	<0.5	520	<1	1	<1
B-05-09S02BBD	17.0	--	--	--	--	--	130	--	--	--
C-01-09 05CCC	3.60	--	--	--	--	--	480	--	--	--
HUALAPAI VALLEY										
B-22-16 28BDA2	2.50	--	--	4	5	<0.5	100	<1	3	<1
B-26-18 03AAA1	3.90	--	--	--	--	--	140	--	--	--
B-29-17 23CCB	4.00	--	--	--	--	--	220	--	--	--
LOWER HASSAYAMPA										
B-02-06 20DAA	18.0	--	--	--	--	--	1600	--	--	--
LITTLE CHINO VALLEY										
B-16-02 03DDC4	5.80	--	--	--	--	--	170	--	--	--
B-17-02S34ABB	1.90	--	--	--	--	--	30	--	--	--

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DOUGLAS BASIN										
D-15-26 30DDA	8	4	<5	24	<1	1	--	390	2	11
D-16-24 03BCC	6	6	9	51	<1	1	--	1600	<10	5
D-19-25 16ACB	7	8	<5	32	<1	<1	--	250	6	210
D-19-27 15DDC	16	21	<5	<4	2	<1	--	99	<1	8
D-19-28 35AAA	5	56	<5	6	10	<1	--	36	<1	25
D-19-30 18DA	46	4	8	13	10	<1	--	91	<1	4900
D-20-24 10DDD	11	4	<5	4	<1	<1	--	200	4	40
D-20-26 25CBC	--	31	--	--	7	--	--	--	--	--
D-20-29 20CDC	9	<3	<5	16	<1	<1	--	410	5	44
D-21-28 22BDD	8	<3	<5	16	3	<1	--	340	5	38
D-22-25 13AAD	11	<3	<5	30	2	<1	--	530	3	16
D-22-26 03AAB	6	<3	<5	59	<1	1	--	67	56	<3
D-22-26 21DDD	16	<3	<5	52	<1	<1	--	1500	11	17
D-22-26 34CCC	22	<3	<5	120	6	28	--	820	8	140
D-22-27 24BCB	9	14	<5	10	22	3	--	420	4	50
D-22-28 35DAB	13	<3	<5	26	25	2	--	2800	<1	72
D-23-25 08DAD	8	220	<5	40	60	<1	--	980	<1	20
D-23-26 19CBC2	21	<3	<5	26	<1	<1	--	370	2	220
D-23-26 26ACD	14	<3	<5	53	1	2	--	490	7	55
D-23-28 15DBD	7	<3	<5	50	13	<1	--	1600	4	48
D-24-26 03DCC2	22	<3	<5	72	<1	6	--	650	5	6
D-24-28 12CDB	6	7	<5	44	16	3	--	8400	<1	42
	--	25	--	--	11	--	--	--	--	--
D-18-26 34BAD	13	<3	<5	41	<1	1	--	200	4	<3
D-18-27 11BCB	9	20	<5	18	1	<1	--	110	2	5
D-18-28 22CAC	5	19	<5	31	7	1	--	100	2	200
D-20-25 09BDD2	19	<3	<5	90	<1	7	--	760	1	88
D-20-28 36CDA	22	19	<5	51	<1	<1	--	530	11	54
D-21-25 18CDC	26	<3	<5	33	11	<1	--	310	1	300
D-21-26 09DAA	10	<3	<5	90	<1	2	--	200	33	3
D-21-27 28CCC	16	23	<5	15	10	<1	--	410	5	200
D-23-27 07DDD	34	11	<5	34	5	<1	--	600	14	270
D-23-27 09DAB	--	<3	--	--	<1	--	--	--	--	--
D-23-27 19AAA	16	9	<5	95	4	<1	--	2400	9	18
D-24-27 10DBB1	8	10	<5	310	<1	6	--	300	53	<3
D-24-28 06BCD	8	<10	<5	32	<1	<1	--	800	9	6
3.18S.20W.20.324	6	10	<5	140	<1	9	--	500	<15	18
DUNCAN BASIN										
D-05-30 10CDD2	4	3	<5	12	<1	2	--	170	30	4
D-05-31 03BDD2	--	8	--	--	96	--	--	--	--	--
D-06-30 01BAA	--	4	--	--	<1	--	--	--	--	--
D-06-30 02BBB	6	42	<5	64	350	15	--	480	<40	190
D-09-32 03AAA2	5	7	<5	21	1	4	--	180	9	35
D-10-32 21DBA2	--	8	--	--	<1	--	--	--	--	--
GILA BEND BASIN										
C-04-04 04DAA	--	20	--	--	10	--	--	--	--	--
C-06-06 10BCB	--	49	--	--	4	--	--	--	--	--
GRAND WASH										
B-36-15 25DCD	<10	30	<5	--	10	<1	<1	--	<10	160
HARQUAHALA BASIN										
B-03-11 36BBB	18	3	<5	25	<1	16	--	590	33	<3
B-05-09S02BBD	--	13	--	--	1	--	--	--	--	--
C-01-09 05CCC	--	4	--	--	<1	--	--	--	--	--
HUALAPAI VALLEY										
B-22-16 28BDA2	3	12	<5	13	<1	16	--	460	19	19
B-26-18 03AAA1	--	6	--	--	<1	--	--	--	--	--
B-29-17 23CCB	--	6	--	--	<1	--	--	--	--	--
LOWER HASSAYAMPA										
B-02-06 20DAA	--	56	--	--	<3	--	--	--	--	--
LITTLE CHINO VALLEY										
B-16-02 03DDC4	--	6	--	--	<1	--	--	--	--	--
B-17-02S34ABB	--	4	--	--	<1	--	--	--	--	--

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SODIUM AD- SORP- TION RATIO (00931)
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	330618111251801	08-06-87	1045	1170	7.80	23.0	661	--	3	
D-06-07 15ADC2	325407111361501	07-29-87	1345	1040	8.80	53.0	582	--	31	
D-05-03 16CCC2	325909112035001	07-28-87	0915	535	8.20	28.5	328	--	7	
D-05-07 23DDA	325813111360401	07-30-87	0915	2390	7.30	7.5	1400	--	9	
D-06-03 09CCC2	325432112025201	07-28-87	0930	540	8.00	28.0	329	--	7	
D-06-03 22CDD	325250112012601	07-28-87	1045	1060	7.70	28.0	635	--	10	
		03-22-87	1110	--	--	--	618	--	10	
D-06-04 04DDD3	325523111554301	07-28-87	1130	1300	7.40	25.0	808	--	3	
D-06-04N04ABB	325617111560601	07-28-87	--	670	7.60	28.0	395	--	3	
D-07-06 29DDD2	324645111442301	08-10-87	0900	2980	7.20	25.0	2130	--	4	
D-07-06 34CDD	324550111425201	08-10-87	1045	1210	7.60	28.5	656	--	5	
D-09-07 02CDD	323954111353101	08-10-87	1330	965	7.50	26.0	610	--	2	
D-09-07 03ADD	324007111361001	08-10-87	1230	565	7.60	26.5	361	--	2	
D-09-09 34DDD	323518111235001	08-13-87	0900	440	7.60	28.5	276	--	2	
D-10-10 05DDA	323438111194501	08-20-87	1145	470	7.80	27.5	294	--	2	
D-11-11 35DDD	322530111110001	08-04-87	0845	950	7.20	24.0	600	--	1	
LOWER VERDE RIVER										
A-03-06 15ABB	333639111433101	08-14-87	0845	615	7.80	32.0	370	--	2	
A-11-10 34DCA	341456111184401	08-24-87	1330	350	7.00	17.5	218	--	0.5	
MCMULLEN VALLEY										
B-05-13 10CDB	334711113361501	08-17-87	1215	810	7.80	32.0	458	--	4	
B-07-09 11AAA	335815113093001	08-17-87	0845	500	7.90	30.0	294	--	3	
NEW RIVER-CAVE CREEK										
A-04-02 11ADB	334230112070901	08-05-87	0830	425	7.90	28.5	268	--	1	
A-05-02 03DBC	334803112083201	08-05-87	1015	510	8.10	32.0	328	--	4	
ST. JOHNS										
A-14-27 35BDC	343439109270301	10-08-86	1700	1900	7.80	15.0	1190	--	12	
		09-23-87	1600	1850	7.60	17.0	1180	--	11	
		03-18-87	1630	2150	7.70	16.5	1310	--	8	
TUBA CITY										
MOENKOPI SCH SP.	360632111131101	04-22-87	0900	270	7.36	16.0	166	161	1	
UPPER SANTA CRUZ BASIN										
D-22-13 09BDD3	3131451111010601	08-05-87	1200	630	7.10	19.0	388	--	1	
D-12-12 16DDD	322252111065001	08-04-87	1100	460	7.40	25.5	282	--	1	
D-13-14 26BBB	321647110532201	06-15-87	1210	690	7.70	25.0	--	--	--	
D-13-14 26CDD	321558110530501	06-16-87	1200	220	7.10	17.0	--	--	--	
D-13-14 26DAC2	321610110524001	06-16-87	1315	320	7.30	19.0	--	--	--	
D-13-14 27ADA2	321630110533601	06-15-87	1030	685	7.30	25.0	--	--	--	
D-13-14 27BDB4	321633110541301	06-15-87	1445	245	7.00	16.0	--	--	--	
D-13-14 27DDC4	321555110534501	06-15-87	1335	295	7.50	19.0	--	--	--	
D-13-14 34AAA4	321555110533401	06-16-87	--	240	7.40	19.0	--	--	--	
D-13-14 34DCC2	321504110535901	06-16-87	--	660	7.20	24.0	--	--	--	
D-14-14 02BBB	321457110532701	08-04-87	1315	450	7.40	23.5	287	--	2	
D-16-15 14ACB	320238110465201	08-04-87	1515	980	7.40	24.5	668	--	1	
D-17-14 07DDD	315728110563901	08-05-87	0645	540	7.50	26.5	347	--	2	
D-19-13 29CBA	314446111022801	08-05-87	0945	760	7.80	22.0	508	--	2	
D-24-14 05ADB2	312223110554201	08-05-87	1330	610	6.90	20.5	371	--	1	
UPPER SAN PEDRO BASIN										
D-17-20 11BDD3	315816110162701	07-28-87	0845	1310	7.60	19.5	868	--	4	
D-17-21 02BBB	315928110103501	08-06-87	0738	340	8.00	25.5	212	--	1	
D-17-21 31DDA2	315428110134801	07-28-87	1100	1060	7.20	18.0	628	--	3	
D-21-18 18CCB	313610110333801	07-29-87	0900	395	7.50	21.0	247	--	0.4	
D-21-19 31CDC	313058110271501	07-29-87	1200	495	7.20	19.0	300	--	0.2	
D-21-21 33CBB2	313340110132101	07-23-87	1430	345	7.60	24.0	209	--	0.6	
D-22-18 16DAA	313110110304201	07-29-87	1110	305	7.50	17.0	189	--	0.3	
D-22-21 36DBA	312825110093601	07-27-87	0715	355	7.50	22.0	229	--	0.5	
D-22-23 16CCD	313038110005701	07-23-87	0900	400	7.40	18.5	236	--	0.5	
D-23-23 06BCC	312739110031201	07-22-87	1115	440	7.30	21.0	256	--	0.4	
D-24-21 03AAB	312255110113301	07-21-87	1300	420	7.30	23.5	258	--	0.7	
D-24-22 20BBA	312006110075501	07-21-87	1445	490	7.30	21.0	311	--	1	
D-24-23 06AAA2	312244110021701	07-22-87	0900	390	7.60	22.0	245	--	0.6	
D-13-22 28BCB	321634110064301	08-05-87	0845	350	8.10	24.0	222	--	4	
D-14-21 02AAA	321458110095101	08-05-87	0930	420	7.90	24.0	261	--	4	
D-14-21 25ADB	321127110090201	08-05-87	1140	350	8.10	21.0	215	--	0.7	
D-14-22 34BDC	321028110052701	08-05-87	1232	345	8.10	23.0	206	--	0.3	

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	280	120	4.1	83	18	190	153	110	0.90	32
D-06-07 15ADC2	9	200	1.2	3.4	0.01	170	74	120	4.4	33
D-05-03 16CCC2	42	97	2.1	9.7	4.3	30	114	84	4.8	18
D-05-07 23DDA	370	360	3.8	120	16	460	87	350	2.4	10
D-06-03 09CCC2	46	100	1.8	9.7	5.2	29	143	52	1.2	32
D-06-03 22CDD	79	200	2.7	20	7.1	110	194	120	1.9	33
	71	190	2.7	18	6.4	100	--	110	1.6	33
D-06-04 04DDD3	380	110	3.0	120	20	160	118	230	0.40	32
D-06-04N04ABB	140	79	2.8	45	6.1	63	122	93	0.30	23
D-07-06 29DDD2	1000	290	5.9	330	47	330	264	800	0.30	42
D-07-06 34CDD	170	150	2.8	55	8.2	130	107	170	0.60	31
D-09-07 02CDD	300	77	3.1	94	15	84	139	120	0.40	32
D-09-07 03ADD	140	63	2.7	45	6.0	35	131	69	0.50	31
D-09-09 34DDD	110	46	2.1	36	4.2	17	132	49	0.60	30
D-10-10 05DDA	130	43	2.5	45	5.4	17	132	64	0.40	30
D-11-11 35DDD	340	61	2.7	110	17	78	192	140	0.40	34
LOWER VERDE RIVER										
A-03-06 15ABB	180	48	2.2	58	12	57	186	29	1.8	45
A-11-10 34DCA	160	14	0.60	39	14	6.4	166	6.5	0.60	33
MCMULLEN VALLEY										
B-05-13 10CDB	140	99	5.2	42	9.2	120	132	53	0.70	26
B-07-09 11AAA	91	65	3.3	20	10	36	143	31	2.6	27
NEW RIVER-CAVE CREEK										
A-04-02 11ADB	130	36	2.9	29	15	13	173	9.9	1.0	40
A-05-02 03DBC	77	80	3.5	15	9.6	15	198	16	4.0	52
ST. JOHNS										
A-14-27 35BDC	170	340	2.1	48	12	170	276	430	2.1	7.7
	210	350	9.2	58	15	170	E287	430	2.0	8.7
	330	310	11	91	25	210	344	440	1.8	9.3
TUBA CITY										
MOENKOPI SCH SP.	85	22	1.3	25	5.5	12	101	19	0.20	13
UPPER SANTA CRUZ BASIN										
D-22-13 09BDD3	240	35	3.3	76	12	22	187	90	0.50	33
D-12-12 16DDD	150	33	2.1	46	7.7	22	130	46	0.40	31
D-13-14 26BBB	--	--	--	--	--	--	127	--	--	--
D-13-14 26CDD	--	--	--	--	--	--	84	--	--	--
D-13-14 26DAC2	--	--	--	--	--	--	131	--	--	--
D-13-14 27ADA2	--	--	--	--	--	--	199	--	--	--
D-13-14 27BDB4	--	--	--	--	--	--	95	--	--	--
D-13-14 27DDC4	--	--	--	--	--	--	111	--	--	--
D-13-14 34AAA4	--	--	--	--	--	--	88	--	--	--
D-13-14 34DCC2	--	--	--	--	--	--	224	--	--	--
D-14-14 02BBB	120	46	1.7	40	4.5	9.6	168	35	0.20	37
D-16-15 14ACB	400	59	2.6	120	24	19	182	300	0.30	30
D-17-14 07DDD	170	43	2.6	56	6.2	13	131	100	0.50	30
D-19-13 29CBA	260	58	2.7	84	13	14	184	180	0.80	33
D-24-14 05ADB2	220	39	2.8	70	12	26	205	46	0.40	34
UPPER SAN PEDRO BASIN										
D-17-20 11BDD3	370	150	3.0	110	22	23	283	300	1.6	28
D-17-21 02BBB	110	27	3.0	27	9.5	9.0	131	13	1.5	36
D-17-21 31DDA2	280	120	1.8	76	22	24	381	87	2.9	39
D-21-18 18CCB	200	14	0.90	45	20	7.9	201	3.0	0.40	30
D-21-19 31CDC	260	8.8	1.0	86	11	6.8	246	19	0.60	16
D-21-21 33CBB2	150	17	0.90	37	13	4.5	163	7.0	0.20	31
D-22-18 16DAA	140	7.0	0.70	49	4.7	4.1	131	15	0.40	25
D-22-21 36DBA	170	13	0.90	56	6.9	5.8	176	9.4	0.20	30
D-22-23 16CCD	170	13	2.4	51	9.9	6.4	121	58	0.60	21
D-23-23 06BCC	210	13	2.0	61	13	7.1	201	18	0.80	18
D-24-21 03AAB	170	20	1.1	60	5.7	7.0	181	17	0.30	37
D-24-22 20BBA	200	30	1.6	65	8.6	7.7	196	46	0.10	26
D-24-23 06AAA2	170	18	2.9	51	9.4	4.4	181	8.6	0.30	29
D-13-22 28BCB	44	64	1.5	14	2.2	5.8	159	5.2	0.60	31
D-14-21 02AAA	56	70	1.9	13	5.7	5.7	203	9.7	0.30	29
D-14-21 25ADB	130	18	2.3	37	8.2	8.7	145	6.8	0.30	30
D-14-22 34BDC	150	9.1	1.2	34	16	22	122	7.9	0.50	31

E Estimated

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- IFIER	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	2.50	--	--	--	--	--	120	--	--	--
D-06-07 15ADC2	1.30	--	--	--	--	--	490	--	--	--
D-05-03 16CCC2	2.10	--	--	--	--	--	200	--	--	--
D-05-07 23DDA	5.40	--	--	--	--	--	730	--	--	--
D-06-03 09CCC2	2.80	--	--	19	--	--	190	--	--	--
D-06-03 22CDD	6.30	--	--	18	--	--	460	--	--	--
	5.00	--	--	--	--	--	490	--	--	--
D-06-04 04DDD3	14.0	--	--	--	--	--	190	--	--	--
D-06-04N04ABB	2.10	--	--	--	--	--	110	--	--	--
D-07-06 29DDD2	28.0	--	--	--	--	--	1200	--	--	--
D-07-06 34CDD	10.0	--	--	--	--	--	180	--	--	--
D-09-07 02CDD	23.0	--	--	--	--	--	90	--	--	--
D-09-07 03ADD	6.70	--	--	--	--	--	90	--	--	--
D-09-09 34DDD	2.60	--	--	--	--	--	70	--	--	--
D-10-10 05DDA	1.70	--	--	--	--	--	60	--	--	--
D-11-11 35DDD	9.40	--	--	--	--	--	60	--	--	--
LOWER VERDE RIVER										
A-03-06 15ABB	1.10	--	--	--	--	--	90	--	--	--
A-11-10 34DCA	0.920	--	--	--	--	--	20	--	--	--
MCMULLEN VALLEY										
B-05-13 10CDB	5.40	--	--	--	--	--	160	--	--	--
B-07-09 11AAA	3.00	--	--	--	--	--	170	--	--	--
NEW RIVER-CAVE CREEK										
A-04-02 11ADB	3.80	--	--	--	--	--	70	--	--	--
A-05-02 03DBC	3.20	--	--	--	--	--	150	--	--	--
ST. JOHNS										
A-14-27 35BDC	3.00	--	--	--	--	--	250	--	--	--
	2.50	--	--	--	--	--	260	--	--	--
	1.40	--	--	--	--	--	270	--	--	--
TUBA CITY										
MOENKOPI SCH SP.	1.70	--	--	--	--	--	40	--	--	--
UPPER SANTA CRUZ BASIN										
D-22-13 09BDD3	0.900	0.25	--	--	--	--	70	--	--	--
D-12-12 16DDD	3.50	--	--	--	--	--	50	--	--	--
D-13-14 26BBB	15.0	--	--	--	--	--	--	--	--	--
D-13-14 26CDD	--	--	--	--	--	--	--	--	--	--
D-13-14 26DAC2	--	--	--	--	--	--	--	--	--	--
D-13-14 27ADA2	7.30	--	--	--	--	--	--	--	--	--
D-13-14 27BDB4	--	--	--	--	--	--	--	--	--	--
D-13-14 27DDC4	--	--	--	--	--	--	--	--	--	--
D-13-14 34AAA4	--	--	--	--	--	--	--	--	--	--
D-13-14 34DCC2	--	--	--	--	--	--	--	--	--	--
D-14-14 02BBB	2.70	0.03	--	--	--	--	30	--	--	--
D-16-15 14ACB	0.850	--	--	--	--	--	90	--	--	--
D-17-14 07DDD	3.80	--	--	--	--	--	70	--	--	--
D-19-13 29CBA	2.70	--	--	--	--	--	100	--	--	--
D-24-14 05ADB2	3.80	1.6	--	--	--	--	80	--	--	--
UPPER SAN PEDRO BASIN										
D-17-20 11BDD3	13.0	--	--	4	27	<0.5	520	<1	<1	<1
D-17-21 02BBB	1.60	--	--	4	120	<0.5	80	<1	<1	<1
D-17-21 31DDA2	5.40	--	--	2	99	<0.5	380	<1	<1	<1
D-21-18 18CCB	0.940	--	--	2	290	<0.5	30	<1	<1	<1
D-21-19 31CDC	0.660	--	--	1	120	<0.5	20	<1	<1	<1
D-21-21 33CBB2	<0.100	--	--	<1	140	<0.5	10	<1	<1	1
D-22-18 16DAA	0.910	--	--	2	160	<0.5	20	<1	<1	<1
D-22-21 36DBA	0.270	--	--	<1	56	<0.5	<10	<1	<1	1
D-22-23 16CCD	0.200	--	--	<1	52	<0.5	<10	2	<1	<1
D-23-23 06BCC	<0.100	--	--	<1	37	<0.5	40	<1	<1	<1
D-24-21 03AAB	0.160	--	--	<1	28	<0.5	30	<1	<1	<1
D-24-22 20BBA	1.60	--	--	1	240	<0.5	40	<1	<1	1
D-24-23 06AAA2	2.70	--	--	3	320	<0.5	40	<1	<1	<1
D-13-22 28BCB	0.520	--	--	4	4	<0.5	60	<1	<1	<1
D-14-21 02AAA	0.810	--	--	2	6	<0.5	170	<1	<1	<1
D-14-21 25ADB	3.70	--	--	5	39	<0.5	40	<1	<1	<1
D-14-22 34BDC	2.20	--	--	4	29	<0.5	40	<1	1	1

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	--	12	--	--	2	--	--	--	--	--
D-06-07 15ADC2	--	<3	--	--	<1	--	--	--	--	--
D-05-03 16CCC2	--	<3	--	--	<1	--	--	--	--	--
D-05-07 23DDA	--	20	--	--	<10	--	--	--	--	--
D-06-03 09CCC2	--	<3	--	--	<1	--	--	--	--	--
D-06-03 22CDD	--	72	--	--	31	--	--	--	--	--
	--	33	--	--	9	--	--	--	--	--
D-06-04 04DDD3	--	6	--	--	3	--	--	--	--	--
D-06-04N04ABB	--	<3	--	--	<1	--	--	--	--	--
D-07-06 29DDD2	--	20	--	--	<10	--	--	--	--	--
D-07-06 34CDD	--	11	--	--	<1	--	--	--	--	--
D-09-07 02CDD	--	5	--	--	<1	--	--	--	--	--
D-09-07 03ADD	--	6	--	--	<1	--	--	--	--	--
D-09-09 34DDD	--	3	--	--	2	--	--	--	--	--
D-10-10 05DDA	--	6	--	--	<1	--	--	--	--	--
D-11-11 35DDD	--	<3	--	--	1	--	--	--	--	--
LOWER VERDE RIVER										
A-03-06 15ABB	--	5	--	--	1	--	--	--	--	--
A-11-10 34DCA	--	<3	--	--	<1	--	--	--	--	--
MCMULLEN VALLEY										
B-05-13 10CDB	--	4	--	--	<1	--	--	--	--	--
B-07-09 11AAA	--	4	--	--	2	--	--	--	--	--
NEW RIVER-CAVE CREEK										
A-04-02 11ADB	--	<3	--	--	<1	--	--	--	--	--
A-05-02 03DBC	--	<3	--	--	<1	--	--	--	--	--
ST. JOHNS										
A-14-27 35BDC	--	37	--	--	7	--	--	--	--	--
	--	310	--	--	7	--	--	--	--	--
	--	50	--	--	10	--	--	--	--	--
TUBA CITY										
MOENKOPI SCH SP.	--	5	--	--	--	--	--	--	--	--
UPPER SANTA CRUZ BASIN										
D-22-13 09BDD3	--	<3	--	--	54	--	--	--	--	--
D-12-12 16DDD	--	<3	--	--	<1	--	--	--	--	--
D-13-14 26BBB	--	--	--	--	--	--	--	--	--	--
D-13-14 26CDD	--	--	--	--	--	--	--	--	--	--
D-13-14 26DAC2	--	--	--	--	--	--	--	--	--	--
D-13-14 27ADA2	--	--	--	--	--	--	--	--	--	--
D-13-14 27BDB4	--	--	--	--	--	--	--	--	--	--
D-13-14 27DDC4	--	--	--	--	--	--	--	--	--	--
D-13-14 34AAA4	--	--	--	--	--	--	--	--	--	--
D-13-14 34DCC2	--	--	--	--	--	--	--	--	--	--
D-14-14 02BBB	--	<3	--	--	2	--	--	--	--	--
D-16-15 14ACB	--	20	--	--	8	--	--	--	--	--
D-17-14 07DDD	--	<3	--	--	2	--	--	--	--	--
D-19-13 29CBA	--	<3	--	--	<1	--	--	--	--	--
D-24-14 05ADB2	--	3	--	--	2	--	--	--	--	--
UPPER SAN PEDRO BASIN										
D-17-20 11BDD3	16	5	<5	170	2	2	--	2900	7	6
D-17-21 02BBB	4	10	<5	72	<1	<1	--	670	4	100
D-17-21 31DDA2	26	8	<5	130	7	1	--	2200	7	25
D-21-18 18CCB	5	7	<5	16	1	<1	--	440	8	33
D-21-19 31CDC	12	22	<5	25	35	<1	--	270	3	50
D-21-21 33CBB2	7	<3	<5	12	<1	<1	--	250	3	<3
D-22-18 16DAA	7	10	<5	15	4	<1	--	110	6	120
D-22-21 36DBA	17	<3	<5	8	<1	<1	--	160	2	190
D-22-23 16CCD	8	19	<5	17	3	<1	--	150	<1	23
D-23-23 06BCC	7	1300	<5	30	160	<1	--	190	<1	850
D-24-21 03AAB	6	<3	<5	38	2	<1	--	110	3	120
D-24-22 20BBA	15	30	<5	37	7	1	--	700	3	17
D-24-23 06AAA2	17	4	<5	27	1	<1	--	430	6	94
D-13-22 28BCB	6	160	<5	64	2	<1	--	60	8	45
D-14-21 02AAA	9	6	<5	30	<1	1	--	140	14	400
D-14-21 25ADB	8	<3	<5	31	<1	<1	--	340	11	390
D-14-22 34BDC	8	7	<5	32	2	<1	--	610	6	390

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SODIUM AD- SORP- TION RATIO (00931)
UPPER SAN PEDRO BASIN--Continued										
D-15-20 20DDA	320639110184601	07-28-87	1730	1570	7.40	--	1090	--	3	
D-16-19 16BBA	320258110245001	07-27-87	1030	160	7.30	32.0	97	--	0.9	
D-16-20 08DDD2	320304110185801	07-27-87	1430	1140	7.50	18.5	755	--	2	
D-16-21 24ACB	320148110090701	08-06-87	0820	535	7.60	19.5	314	--	0.8	
D-17-19 10ACC	315820110232801	07-29-87	0945	340	7.70	25.0	203	--	0.7	
D-17-23 18AAD	315738110020501	07-30-87	1230	--	7.40	24.5	535	--	0.5	
D-18-20 06BDD	315356110203001	07-21-87	0930	425	7.50	23.0	262	--	0.9	
D-18-21 01DCA	315335110090101	07-28-87	1315	305	7.80	24.5	193	--	0.6	
D-18-21 28CBD	315012110123601	07-29-87	0715	620	7.50	20.5	392	--	2	
D-18-23 22BAC	315130109591501	07-29-87	1145	690	7.40	22.5	444	--	0.3	
D-19-21 36BCA	314423110093101	07-28-87	1500	310	8.70	27.5	205	--	3	
D-19-23 35ACD	314417109575101	07-28-87	0930	400	7.60	26.5	207	--	1	
D-20-18 05DAB	314320110312201	07-29-87	0745	--	7.50	18.5	519	--	0.9	
D-20-19 28BDD	313957110243601	07-30-87	0810	440	7.60	19.0	254	--	0.6	
D-20-20 02DDD	314300110155401	07-23-87	1340	420	7.40	24.0	246	--	0.5	
D-20-22 11ADB	314239110035301	07-28-87	1015	685	7.40	27.5	385	--	0.9	
D-21-20 05ABB	313825110195801	07-23-87	1135	355	7.60	22.5	211	--	0.5	
D-21-20 34DCC1	313321110175401	07-22-87	1500	360	7.70	24.0	228	--	0.6	
D-21-23 29DBC	313419110013601	07-28-87	1245	470	7.70	29.0	271	--	0.5	
D-22-20 01BCA	313253110162401	07-23-87	1300	370	7.50	23.0	214	--	0.5	
D-22-21 18DCD	313041110144301	07-23-87	1145	365	7.50	23.0	215	--	0.4	
UPPER SALT RIVER BASIN										
A-02-15 18DBA	333053110515401	08-19-87	1700	3500	6.84	18.5	2810	--	0.8	
A-01-15 04CBD1	332717110501901	11-04-86	1530	3500	6.68	18.0	3450	--	0.7	
		04-30-87	1130	3700	6.60	18.5	3490	--	0.6	
		08-20-87	1735	3600	6.71	18.5	--	--	--	
A-01-15 04CBD2	332717110501902	11-04-86	1240	8700	3.70	17.0	--	--	--	
		04-30-87	1010	7700	3.70	18.0	--	--	--	
		04-30-87	1005	7700	3.70	18.0	10300	--	1	
		08-20-87	1545	7000	3.90	17.5	--	--	--	
A-01-15 04CBD3	332717110501903	08-20-87	1515	3600	4.55	18.0	--	--	--	
		11-04-86	1130	3550	4.52	16.0	--	--	--	
		04-30-87	0930	4000	4.40	19.0	--	--	--	
		04-30-87	0925	4000	4.40	19.0	4050	--	1	
A-01-15 04CBD4	332717110501904	04-30-87	1045	5700	3.85	17.5	6690	--	1	
		11-04-86	1440	5700	3.88	17.0	--	--	--	
		08-20-87	1625	N5300	4.00	17.0	--	--	--	
A-01-15 04DCC1	332707110495501	08-21-87	0945	1900	7.07	18.5	--	--	--	
		04-29-87	1455	1100	7.20	18.5	--	--	--	
		11-07-86	1805	1160	7.50	16.0	--	--	--	
A-01-15 04DCC2	332707110495502	08-21-87	0840	2900	6.88	18.5	--	--	--	
		04-29-87	1540	3600	6.70	19.5	--	--	--	
		11-07-86	1710	3500	7.04	16.0	2610	--	0.8	
A-01-15 09DBC1	332629110495801	11-06-86	1635	7800	3.72	17.0	10200	--	1	
		04-30-87	1540	7300	3.80	17.5	--	--	--	
		08-18-87	1620	8200	3.89	18.0	--	--	--	
A-01-15 09DBC2	332629110495802	08-18-87	1545	6500	3.89	18.0	--	--	--	
		11-06-86	1550	6820	3.71	17.0	--	--	--	
		04-30-87	1620	6000	3.80	17.0	--	--	--	
		04-30-87	1615	6000	3.80	17.0	7110	--	2	
A-01-15 09DBC3	332629110495803	04-30-87	1650	5400	3.85	17.0	--	--	--	
		08-18-87	1445	5400	3.92	17.5	--	--	--	
		11-06-86	1525	3990	3.75	17.5	--	--	--	
A-01-15 09DBC4	332629110495804	08-18-87	1400	3700	4.20	18.5	--	--	--	
		11-06-86	1440	3900	4.00	18.0	--	--	--	
		05-01-87	0850	3600	4.05	17.5	--	--	--	
		05-01-87	0845	3600	4.05	17.5	3510	--	0.9	
A-01-15 09DBC5	332629110495805	11-06-86	1800	4380	6.50	18.5	3620	--	3	
		08-18-87	1815	4000	6.58	19.0	--	--	--	
		04-30-87	1445	4300	6.50	18.5	3730	--	3	
A-01-15 09DCD1	332611110495101	04-29-87	0930	10000	3.65	18.0	--	--	--	
		08-18-87	0856	9300	3.74	18.0	--	--	--	
		11-05-86	0950	6500	3.61	17.0	--	--	--	
A-01-15 09DCD2	332611110495102	04-29-87	1020	5700	3.75	17.5	6990	--	2	
		11-05-86	1100	3720	3.68	16.0	--	--	--	
		04-29-87	1030	5700	3.75	17.5	--	--	--	
		08-18-87	0955	6500	3.82	18.5	6690	--	0.8	
A-01-15 09DCD3	332611110495103	04-29-87	1100	8700	3.65	17.5	11400	--	2	
		08-18-87	1055	8000	3.78	18.0	--	--	--	
		04-29-87	1115	8700	3.65	17.5	--	--	--	
		11-05-86	1140	M4120	3.60	17.0	--	--	--	
A-01-15 09DCD4	332611110495104	04-29-87	1200	3500	3.90	17.5	--	--	--	
		08-18-87	1135	3400	4.14	17.0	--	--	--	
		11-05-86	1220	2240	3.80	18.0	4010	--	0.9	
A-01-15 09DCD6	332612110494601	11-05-86	1430	1980	6.32	19.0	--	--	--	

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)
UPPER SAN PEDRO BASIN--Continued										
D-15-20 20DDA	540	130	4.6	160	34	42	279	470	0.50	35
D-16-19 16BBA	41	13	1.8	13	2.0	4.8	33	21	0.20	21
D-16-20 08DDD2	380	97	3.9	110	25	20	279	300	0.80	22
D-16-21 24ACB	220	27	2.0	66	13	11	222	32	0.80	22
D-17-19 10ACC	130	18	1.2	43	5.0	10	143	4.2	0.80	27
D-17-23 18AAD	430	21	1.2	130	25	11	311	130	1.7	28
D-18-20 06BDD	160	25	1.1	54	6.8	17	142	24	1.3	27
D-18-21 01DCA	120	15	1.5	37	7.3	5.3	139	3.3	0.90	36
D-18-21 28CBD	210	50	3.1	61	14	9.4	177	120	1.0	25
D-18-23 22BAC	350	13	2.3	110	18	12	266	83	1.9	42
D-19-21 36BCA	50	48	3.7	15	3.0	5.3	138	7.7	1.6	23
D-19-23 35ACD	110	32	1.8	28	8.5	43	70	24	0.80	13
D-20-18 05DAB	360	39	2.7	120	15	160	166	18	0.30	26
D-20-19 28BDD	180	19	2.5	54	11	7.3	194	9.6	0.40	26
D-20-20 02DDD	180	16	2.1	53	11	6.0	191	13	0.50	29
D-20-22 11ADB	270	32	2.8	74	20	35	157	50	2.3	30
D-21-20 05ABB	150	13	1.2	51	6.0	5.6	162	5.5	0.50	27
D-21-20 34DCC1	160	17	0.90	45	11	9.2	164	6.4	0.20	33
D-21-23 29DBC	210	17	1.9	60	14	12	187	13	0.20	21
D-22-20 01BCA	170	13	0.90	49	11	3.4	163	6.2	0.20	32
D-22-21 18DCD	170	11	0.80	54	9.2	3.7	167	7.6	0.10	28

UPPER SALT RIVER BASIN

A-02-15 18DBA	1800	70	4.5	520	110	100	212	1800	0.30	44
A-01-15 04CBD1	2400	77	6.1	730	140	96	250	2200	0.10	36
	2500	61	5.3	780	140	110	240	2200	0.30	36
							264			
A-01-15 04CBD2							0			
	2300	110	7.4	460	280	240	0	6900	24	100
							0			
A-01-15 04CBD3										
	2100	100	7.6	600	150	100	0	2700	9.7	84
A-01-15 04CBD4	1900	100	6.5	420	200	150	0	4500	16	98
							0			
A-01-15 04DCC1							182			
							172			
							181			
A-01-15 04DCC2							166			
							166			
	1900	74	4.5	560	110	99	226	1600	0.20	28
A-01-15 09DBC1	2200	120	8.6	440	260	270	0	6900	0.70	97
							0			
A-01-15 09DBC2							0			
							0			
							0			
	2000	150	6.9	470	190	180	0	4600	36	100
A-01-15 09DBC3							0			
							0			
							0			
A-01-15 09DBC4							0			
							0			
							0			
	2000	90	6.8	560	140	110	0	2300	7.3	78
A-01-15 09DBC5	2000	330	28	550	150	150	573	2000	0.20	53
							578			
	2200	330	25	600	160	170	624	2000	0.30	58
A-01-15 09DCD1							0			
							0			
							0			
A-01-15 09DCD2	2000	160	8.0	440	210	210	0	4600	21	110
							0			
							0			
	2100	77	8.2	460	220	190	0	4400	0.20	100
A-01-15 09DCD3	2400	200	9.4	460	310	290	0	7600	32	110
							0			
							0			
							0			
A-01-15 09DCD4							0			
							0			
							0			
	1900	86	8.4	540	140	130	0	2700	9.1	87
A-01-15 09DCD6							215			

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
UPPER SAN PEDRO BASIN--Continued										
D-15-20 20DDA	8.80	--	--	<1	100	<0.5	500	<1	<1	<1
D-16-19 16BBA	<0.100	0.06	--	<1	28	<0.5	20	<1	<1	<1
D-16-20 08DDD2	1.60	--	--	4	60	<0.5	320	<1	<1	<1
D-16-21 24ACB	1.40	--	--	<1	110	<0.5	10	<1	<1	<1
D-17-19 10ACC	1.80	0.03	--	3	77	<0.5	50	<1	<1	<1
D-17-23 18AAD	<0.100	--	--	<1	69	<0.5	20	<1	<1	<1
D-18-20 06BDD	4.60	--	--	<1	21	<0.5	30	<1	<1	<1
D-18-21 01DCA	0.520	--	--	<1	44	<0.5	30	<1	<1	<1
D-18-21 28CBD	0.240	0.06	--	13	56	<0.5	80	<1	1	<1
D-18-23 22BAC	<0.100	--	--	1	46	<0.5	20	<1	<1	<1
D-19-21 36BCA	1.80	--	--	17	47	<0.5	110	<1	<1	<1
D-19-23 35ACD	3.00	0.18	--	4	22	<0.5	60	<1	<1	<1
D-20-18 05DAB	8.40	--	--	<1	620	<0.5	70	<1	<1	<1
D-20-19 28BDD	1.50	--	--	<1	280	<0.5	90	<1	<1	<1
D-20-20 02DDD	<0.100	--	--	1	150	<0.5	40	<1	<1	<1
D-20-22 11ADB	10.0	--	--	11	45	<0.5	150	<1	<1	<1
D-21-20 05ABB	0.810	--	--	<1	100	<0.5	30	<1	<1	<1
D-21-20 34DCC1	1.40	--	--	<1	130	<0.5	<10	<1	<1	<1
D-21-23 29DBC	4.20	--	--	<1	260	<0.5	70	<1	<1	<1
D-22-20 01BCA	<0.100	--	--	<1	89	<0.5	<10	<1	<1	<1
D-22-21 18DCD	<0.100	--	--	<1	58	<0.5	10	<1	<1	2
UPPER SALT RIVER BASIN										
A-02-15 18DBA	<0.100	--	<10	--	30	0.8	70	<1	--	40
A-01-15 04CBD1	--	--	40	--	67	<0.5	50	<1	--	30
	<0.100	--	90	--	31	6	50	9	--	<9
A-01-15 04CBD2	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	1200
	--	--	18000	--	14	150	630	300	--	--
A-01-15 04CBD3	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	1200
	--	--	9200	--	18	42	140	46	--	1200
A-01-15 04CBD4	--	--	99000	--	11	110	420	180	--	--
	--	--	--	--	--	--	--	--	--	--
A-01-15 04DCC1	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
A-01-15 04DCC2	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
A-01-15 09DBC1	--	--	20	--	52	<1	80	<3	--	<9
	--	--	190000	--	15	130	570	370	--	1100
A-01-15 09DBC2	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	780
A-01-15 09DBC3	--	--	12000	--	8	190	450	210	--	700
	--	--	--	--	--	--	--	--	--	--
A-01-15 09DBC4	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	550
A-01-15 09DBC5	--	--	17000	--	13	35	100	26	--	550
	--	--	140	--	24	<1	130	<3	--	<9
	<0.100	0.03	100	--	19	3	120	<3	--	<150
A-01-15 09DCD1	--	--	--	--	--	--	--	--	--	1100
	--	--	--	--	--	--	--	--	--	--
A-01-15 09DCD2	--	--	100000	--	6	200	420	200	--	920
	--	--	--	--	--	--	--	--	--	920
	--	--	11000	--	7	97	400	130	--	--
A-01-15 09DCD3	--	--	210000	--	12	180	700	360	--	1400
	--	--	--	--	--	--	--	--	--	1400
A-01-15 09DCD4	--	--	--	--	--	--	--	--	--	870
	--	--	--	--	--	--	--	--	--	--
A-01-15 09DCD6	--	--	24000	--	18	65	110	37	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- IFIER	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
UPPER SAN PEDRO BASIN--Continued										
D-15-20 20DDA	13	20	<5	130	21	<1	--	2600	5	2100
D-16-19 16BBA	27	510	<5	4	130	<1	--	73	1	240
D-16-20 08DDD2	30	6	<5	89	140	1	--	1900	5	22
D-16-21 24ACB	9	20	<5	8	4	1	--	240	4	480
D-17-19 10ACC	10	4	<5	22	2	1	--	150	6	180
D-17-23 18AAD	11	42	<5	29	41	2	--	1100	3	14
D-18-20 06BDD	4	<3	<5	16	<1	<1	--	120	<1	30
D-18-21 01DCA	9	6	<5	13	7	<1	--	230	4	460
D-18-21 28CBD	4	4	<5	96	<1	3	--	1100	8	<3
D-18-23 22BAC	2	160	<5	12	1400	<1	--	180	1	20
D-19-21 36BCA	9	19	<5	56	5	3	--	330	11	48
D-19-23 35ACD	11	150	<5	37	18	3	--	350	2	50
D-20-18 05DAB	22	10	<5	25	13	2	--	550	4	190
D-20-19 28BDD	12	13	8	31	6	<1	--	330	4	240
D-20-20 02DDD	15	7	<5	31	<1	<1	--	500	4	120
D-20-22 11ADB	9	5	<5	60	5	9	--	880	2	59
D-21-20 05ABB	32	<3	5	10	<1	<1	--	160	3	4
D-21-20 34DCC1	8	<3	<5	10	<1	<1	--	210	2	<3
D-21-23 29DBC	6	11	<5	36	42	<1	--	360	<1	280
D-22-20 01BCA	13	<3	<5	8	1	<1	--	210	2	3
D-22-21 18DCD	16	<3	<5	9	<1	<1	--	150	1	15
UPPER SALT RIVER BASIN										
A-02-15 18DBA	<10	3600	<10	160	25000	10	--	2000	<6	11
A-01-15 04CBD1	100	920	<30	210	12000	<30	--	1500	35	57
	160	3000	130	400	8200	<30	--	1500	<18	46
A-01-15 04CBD2	--	--	--	--	--	--	--	--	--	--
	98000	2000000	<30	650	52000	<30	--	1400	110	14000
A-01-15 04CBD3	--	--	--	--	--	--	--	--	--	--
	22000	200000	70	350	60000	<30	--	2200	<18	4200
A-01-15 04CBD4	53000	1000000	<30	400	34000	<30	--	1400	150	8500
A-01-15 04DCC1	--	--	--	--	--	--	--	--	--	--
A-01-15 04DCC2	--	--	--	--	--	--	--	--	--	--
	50	<9	<30	56	5	<30	--	1500	<18	1700
A-01-15 09DBC1	110000	1700000	210	540	47000	<100	--	1100	440	14000
A-01-15 09DBC2	--	--	--	--	--	--	--	--	--	--
	77000	1240000	90	830	34000	<30	--	1100	220	10000
A-01-15 09DBC3	--	--	--	--	--	--	--	--	--	--
A-01-15 09DBC4	--	--	--	--	--	--	--	--	--	--
	16000	130000	10	330	48000	<10	--	2100	13	2000
A-01-15 09DBC5	120	1900	<30	260	6900	<30	--	1500	<18	32
	50	590	30	710	9000	<30	--	1600	<18	1000
A-01-15 09DCD1	--	--	--	--	--	--	--	--	--	--
	66000	1000000	90	750	48000	<30	--	1500	160	9400
A-01-15 09DCD2	--	--	--	--	--	--	--	--	--	--
	66000	1100000	<10	340	49000	<10	--	1500	290	7800
A-01-15 09DCD3	120000	2000000	130	840	62000	<30	--	1100	380	17000
A-01-15 09DCD4	--	--	--	--	--	--	--	--	--	--
	22000	200000	<100	290	61000	<100	--	2200	<60	2800
A-01-15 09DCD6	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SODIUM AD- SORP- TION RATIO (00931)
UPPER SALT RIVER BASIN--Continued										
A-02-15 07BDD1	333151110520501	08-19-87	1010	3750	6.13	18.0	--	--	--	
		11-06-86	0905	3500	6.14	18.0	--	--	--	
		03-10-87	1510	3370	6.30	18.0	--	--	--	
		04-28-87	1430	M3400	6.20	18.0	3180	--	0.8	
A-02-15 07BDD2	333151110520502	08-19-87	1100	1250	7.39	19.5	--	--	--	
		11-06-86	1035	1160	7.40	19.0	--	--	--	
		04-28-87	1530	1450	7.05	19.0	893	--	0.6	
A-02-15 07BDD3	333151110520503	11-05-86	1700	3500	6.10	17.5	3100	--	0.8	
		04-28-87	1630	3750	6.05	18.0	--	--	--	
		08-19-87	1240	3900	6.07	18.5	--	--	--	
		03-10-87	1600	3390	6.16	18.0	--	--	--	
A-02-15 07BDD4	333151110520504	04-28-87	1830	410	7.58	21.0	260	--	0.7	
		08-19-87	1400	420	7.65	21.0	--	--	--	
		11-06-86	1200	430	7.69	20.5	254	--	0.9	
		04-28-87	1830	410	7.58	21.0	260	--	0.7	
		08-19-87	1400	420	7.65	21.0	--	--	--	
		11-06-86	1200	430	7.69	20.5	254	--	0.9	
A-02-15 29DBD1	332904110504801	04-27-87	1600	4300	4.68	18.0	--	--	--	
		08-20-87	0945	4300	4.83	18.0	--	--	--	
		11-07-86	0930	4450	4.76	18.0	--	--	--	
A-02-15 29DBD2	332904110504802	04-28-87	1110	4800	4.17	18.0	--	--	--	
		08-20-87	1225	5000	4.27	18.0	--	--	--	
		11-07-86	1415	4600	4.21	17.0	--	--	--	
A-02-15 29DBD3	332904110504803	04-28-87	1150	3100	5.70	18.0	2750	--	0.9	
		08-20-87	1300	3200	5.63	18.0	--	--	--	
		11-07-86	1515	3600	5.72	17.0	--	--	--	
A-02-15 29DBD4	332904110504804	11-07-86	1215	530	7.62	18.5	327	--	1	
A-02-15 29DBD4	332904110504804	08-20-87	1115	420	7.65	19.0	--	--	--	
		04-28-87	1000	N420	7.50	19.0	275	--	1	
WATERMAN WASH										
C-02-01 30DBA	331330112235001	08-03-87	1330	2050	8.20	33.5	1040	--	16	
C-02-02 19AAD	331437112294401	08-04-87	0915	1240	8.20	28.5	640	--	15	
WILLCOX BASIN										
D-10-23 32DAC	323110110003701	07-14-87	1645	140	7.60	22.0	102	--	0.6	
D-11-21 11BCC	322936110105801	07-14-87	1250	375	7.80	18.5	250	--	0.6	
D-11-23 14ABA	322907110575501	07-13-87	1540	180	7.90	22.5	120	--	0.7	
D-11-25 08CBB	322930109492301	07-15-87	1635	485	6.80	16.0	320	--	0.9	
D-13-24 05BAB	322023109551301	07-15-87	0800	480	9.20	46.0	--	--	--	
D-13-24 34BAB	321603109531101	07-14-87	1015	320	8.00	19.0	244	--	3	
D-13-25 09DCC	321844109475401	07-13-87	1515	740	7.80	23.0	449	--	2	
D-14-25 11CAA	321322109455301	07-15-87	1530	820	7.50	20.0	469	--	3	
D-15-25 02ADD	320934109452301	07-15-87	1245	790	7.20	16.5	481	--	2	
D-15-25 25BBC	320618109451901	07-14-87	0800	956	7.20	18.0	542	--	1	
D-15-27 11ADD2	320846109330801	07-16-87	1145	825	7.30	19.0	485	--	3	
D-15-28 19ADC	320703109311401	07-14-87	1245	490	7.70	25.5	292	--	1	
D-15-28 19DAC	320648109311201	07-14-87	1145	490	7.70	23.5	292	--	0.8	
D-16-25 10DDD	320307109464501	07-14-87	0930	2050	7.60	18.0	1520	--	2	
D-16-26 02AAA	320445109394001	07-14-87	1300	303	8.20	28.0	187	--	8	
D-16-28 05BDD	320420109310501	07-13-87	1300	360	8.00	25.5	234	--	1	
D-16-29 03CDB	320402109230201	07-15-87	0930	1060	7.50	19.5	782	--	0.9	
D-16-29 26CCC2	320029109221601	07-15-87	1400	275	7.50	15.5	194	--	1	
D-16-29 30BBD2	320107109261201	07-13-87	1615	420	7.10	18.0	276	--	0.7	
D-17-24 03ACC	315906109532101	07-16-87	1100	390	7.60	25.0	252	--	1	
D-17-24 11ACC	315819109522501	07-15-87	1015	520	7.50	23.5	306	--	1	
D-17-28 14CCB3	315703109282301	07-15-87	1200	--	7.70	18.5	201	--	1	
D-18-24 09DCB	315241109542101	07-15-87	1315	500	7.40	25.5	303	--	0.5	
D-18-29 17CAC	315155109250201	07-16-87	1230	325	7.00	--	203	--	0.9	
D-19-26 32ABB	314437109424501	07-16-87	1545	345	7.80	22.0	213	--	2	
D-20-27 21BBC	314056109360001	07-16-87	1338	270	7.80	28.0	183	--	0.8	
D-10-24 17BDB	323347109543501	07-15-87	1415	405	7.40	23.0	247	--	0.9	
D-11-24 32BAA	322627109551101	07-14-87	1005	165	8.20	22.5	109	--	1	
D-12-23 12CBC	322407109573501	07-13-87	1300	325	7.90	19.5	195	--	0.9	
D-12-24 32BCB	322101109553001	07-15-87	1015	580	7.70	19.0	360	--	0.7	
D-14-24 14CBB	321258109522401	07-14-87	1200	610	8.00	20.0	394	--	6	
D-14-26 18DAD	321251109432001	07-15-87	1400	1180	7.90	--	663	--	3	
D-15-24 20CAC	320645109551501	07-13-87	1320	4100	7.50	22.5	3120	--	12	
D-15-26 18AAA	320812109432201	07-14-87	1415	500	7.60	23.0	295	--	1	
D-16-26 09DAA	320325109414401	07-14-87	1115	360	7.60	23.5	230	--	1	
D-16-28 07CDA	320315109315901	07-14-87	1445	220	8.10	18.0	142	--	0.6	
D-17-25 09CCC	315751109484401	07-15-87	0815	600	7.30	24.0	356	--	2	
D-17-27 31DDD	315420109374001	07-16-87	1415	235	8.10	22.0	164	--	2	

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)
UPPER SALT RIVER BASIN--Continued										
A-02-15 07BDD1	--	--	--	--	--	--	117	--	--	--
	--	--	--	--	--	--	116	--	--	--
	--	--	--	--	--	--	--	--	--	--
A-02-15 07BDD2	2200	80	4.0	640	150	100	--	2100	0.20	59
	--	--	--	--	--	--	153	--	--	--
	--	--	--	--	--	--	147	--	--	--
A-02-15 07BDD3	600	31	2.5	180	36	20	154	490	0.20	29
	2100	79	3.9	620	140	95	85	2000	0.20	61
	--	--	--	--	--	--	92	--	--	--
	--	--	--	--	--	--	102	--	--	--
A-02-15 07BDD4	180	20	2.1	47	16	9.9	182	21	0.30	28
	--	--	--	--	--	--	193	--	--	--
	170	27	1.4	43	15	11	174	24	0.20	28
	180	20	2.1	47	16	9.9	182	21	0.30	28
	--	--	--	--	--	--	193	--	--	--
A-02-15 29DBD1	170	27	1.4	43	15	11	174	24	0.20	28
	--	--	--	--	--	--	3	--	--	--
	--	--	--	--	--	--	14	--	--	--
A-02-15 29DBD2	--	--	--	--	--	--	2	--	--	--
	--	--	--	--	--	--	0	--	--	--
	--	--	--	--	--	--	0	--	--	--
A-02-15 29DBD3	1900	85	5.7	560	120	92	30	1800	0.60	38
	--	--	--	--	--	--	26	--	--	--
	--	--	--	--	--	--	29	--	--	--
A-02-15 29DBD4	190	41	2.5	49	16	13	179	72	0.50	25
A-02-15 29DBD4	--	--	--	--	--	--	187	--	--	--
	170	28	3.0	45	14	10	187	30	0.60	24
WATERMAN WASH										
C-02-01 30DBA	90	340	7.0	28	4.8	440	68	130	2.3	17
C-02-02 19AAD	46	220	4.3	16	1.5	210	70	100	6.4	17
WILLCOX BASIN										
D-10-23 32DAC	46	9.5	0.70	12	3.8	2.8	56	2.8	0.40	32
D-11-21 11BCC	150	16	0.80	42	12	9.4	138	27	0.30	52
D-11-23 14ABA	57	12	0.80	16	4.0	9.5	59	3.1	0.50	31
D-11-25 08CBB	190	28	0.60	46	17	12	108	120	0.70	29
D-13-24 05BAB	--	100	1.1	1.1	<0.01	13	159	36	9.0	69
D-13-24 34BAB	67	47	1.3	21	3.5	9.9	130	16	3.0	62
D-13-25 09DCC	230	60	1.6	63	18	34	157	120	1.0	33
D-14-25 11CAA	210	88	1.2	48	21	97	201	50	2.2	37
D-15-25 02ADD	260	76	2.9	67	22	34	313	52	1.3	35
D-15-25 25BBC	320	57	2.7	100	17	78	143	78	1.1	33
D-15-27 11ADD2	230	93	0.50	74	12	23	261	73	3.2	30
D-15-28 19ADC	170	33	1.8	56	7.3	26	161	32	1.9	33
D-15-28 19DAC	190	25	1.9	59	9.5	32	152	29	1.2	33
D-16-25 10DDD	820	150	3.7	280	28	110	132	800	0.60	35
D-16-26 02AAA	12	62	0.50	4.7	0.10	4.5	113	19	3.2	24
D-16-28 05BDD	130	25	2.0	40	7.3	7.5	134	20	1.1	33
D-16-29 03CDB	500	45	1.2	160	23	17	312	310	1.5	29
D-16-29 26CCC2	86	24	1.4	27	4.4	4.3	102	20	2.2	48
D-16-29 30BBD2	170	19	1.0	57	7.2	8.4	111	80	1.0	35
D-17-24 03ACC	130	30	1.9	33	12	12	124	44	1.6	36
D-17-24 11ACC	180	34	2.2	50	13	24	148	50	1.4	32
D-17-28 14CCB3	97	23	1.1	30	5.4	8.8	103	26	0.60	41
D-18-24 09DCB	220	17	0.60	74	7.8	16	184	45	1.2	27
D-18-29 17CAC	110	21	1.1	30	9.2	12	91	36	0.60	27
D-19-26 32ABB	81	40	2.0	29	2.1	12	117	22	2.5	29
D-20-27 21BBC	100	19	1.5	32	5.8	11	121	10	1.3	28
D-10-24 17DBD	150	24	1.4	41	11	12	161	16	1.2	40
D-11-24 32BAA	39	18	0.80	14	0.98	3.0	71	2.7	0.50	24
D-12-23 12CBC	110	20	1.5	34	5.5	16	91	10	0.20	25
D-12-24 32BCB	220	22	1.8	68	12	32	84	100	0.30	29
D-14-24 14CBB	60	110	2.5	21	1.9	23	199	49	8.0	55
D-14-26 18DAD	290	120	2.2	83	21	280	81	65	1.4	20
D-15-24 20CAC	880	800	7.3	200	90	1300	143	600	1.9	23
D-15-26 18AAA	160	39	2.2	48	9.0	43	146	30	1.6	30
D-16-26 09DAA	110	32	1.8	38	2.6	15	90	51	1.8	31
D-16-28 07CDA	81	12	0.80	29	2.1	11	73	15	1.0	25
D-17-25 09CCC	190	47	4.8	59	11	21	186	59	1.9	29
D-17-27 31DDD	52	30	1.1	18	1.8	5.9	95	5.8	2.4	39

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- IFIER	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
UPPER SALT RIVER BASIN--Continued										
A-02-15 07BDD1	--	--	--	--	--	--	--	--	--	--
A-02-15 07BDD2	<0.100	0.18	<10	--	29	<1	70	5	--	10
A-02-15 07BDD3	2.50	--	30	--	18	<0.5	30	1	--	<3
A-02-15 07BDD4	<0.100	0.18	20	--	27	<1	70	<3	--	<9
A-02-15 07BDD4	1.40	--	40	--	12	<0.5	20	1	--	<3
A-02-15 29DBD1	1.40	--	<10	--	10	<0.5	20	<1	--	<3
A-02-15 29DBD2	--	--	40	--	12	<0.5	20	1	--	<3
A-02-15 29DBD3	--	--	<10	--	10	<0.5	20	<1	--	<3
A-02-15 29DBD4	--	--	--	--	--	--	--	--	--	870
A-02-15 29DBD4	--	--	--	--	--	--	--	--	--	820
A-02-15 29DBD4	--	--	210	--	50	<0.5	70	9	--	150
A-02-15 29DBD4	--	--	20	--	17	3	30	<1	--	4
A-02-15 29DBD4	1.60	--	<10	--	16	<0.5	20	<1	--	<3
WATERMAN WASH										
C-02-01 30DBA	7.60	--	--	--	--	--	570	--	--	--
C-02-02 19AAD	5.20	--	--	--	--	--	480	--	--	--
WILLCOX BASIN										
D-10-23 32DAC	1.00	0.06	--	<1	24	<0.5	20	<1	<1	2
D-11-21 11BCC	1.60	0.06	--	1	4	<0.5	20	<1	<1	<1
D-11-23 14ABA	1.80	--	--	<1	31	<0.5	30	<1	<10	1
D-11-25 08CBB	0.140	--	--	<1	32	<0.5	20	<1	<1	1
D-13-24 05BAB	0.310	--	--	64	<2	<0.5	140	<1	<1	2
D-13-24 34BAB	0.530	--	--	10	7	<0.5	70	<1	<1	<1
D-13-25 09DCC	5.30	0.03	--	2	95	<0.5	90	<1	1	<1
D-14-25 11CAA	0.660	0.03	--	5	66	<0.5	100	<1	<1	1
D-15-25 02ADD	0.500	--	--	2	150	<0.5	100	<1	1	2
D-15-25 25BBC	20.0	--	--	2	99	<0.5	80	<1	<1	1
D-15-27 11ADD2	4.30	0.03	--	<1	34	<0.5	40	<1	1	<1
D-15-28 19ADC	0.960	--	--	2	10	<0.5	40	<1	1	1
D-15-28 19DAC	2.10	--	--	1	7	<0.5	40	<1	<1	<1
D-16-25 10DDD	7.80	--	--	1	27	<0.5	200	<1	<1	1
D-16-26 02AAA	0.170	--	--	5	2	<0.5	60	<1	2	1
D-16-28 05BDD	3.70	--	--	2	13	<0.5	40	<1	1	<1
D-16-29 03CDB	1.60	--	--	10	27	<0.5	50	<1	<1	1
D-16-29 26CCC2	0.150	--	--	<1	3	<0.5	40	<1	<1	<1
D-16-29 30BBD2	0.230	0.03	--	<1	33	<0.5	10	<1	2	1
D-17-24 03ACC	1.40	--	--	2	20	<0.5	40	<1	2	<1
D-17-24 11ACC	2.40	--	--	1	88	<0.5	50	<1	<1	<1
D-17-28 14CCB3	0.580	--	--	2	8	0.9	30	1	<1	<1
D-18-24 09DCB	0.850	--	--	1	33	<0.5	10	<1	2	1
D-18-29 17CAC	2.70	0.06	--	--	--	--	<10	--	--	--
D-19-26 32ABB	0.860	--	--	4	51	<0.5	70	<1	<1	2
D-20-27 21BBC	0.400	--	--	5	51	<0.5	30	<1	<1	1
D-10-24 17DBD	0.690	--	--	<1	30	<0.5	20	<1	<1	1
D-11-24 32BAA	0.530	--	--	1	23	1	30	<1	<2	<1
D-12-23 12CBC	6.40	--	--	<1	14	<0.5	20	<1	<1	<1
D-12-24 32BCB	10.0	0.03	--	<1	21	0.9	10	<1	<1	<1
D-14-24 14CBB	0.930	--	--	22	6	<0.5	130	<1	<1	<1
D-14-26 18DAD	4.70	--	--	2	210	<0.5	80	<1	<1	<1
D-15-24 20CAC	0.680	--	--	<1	<100	<10	500	<1	<1	1
D-15-26 18AAA	0.850	--	--	2	53	<0.5	50	<1	<1	1
D-16-26 09DAA	0.590	--	--	1	13	<0.5	80	<1	2	1
D-16-28 07CDA	0.400	--	--	2	10	<0.5	<10	<1	<1	1
D-17-25 09CCC	2.40	--	--	20	50	<0.5	130	<1	<1	<1
D-17-27 31DDD	0.650	--	--	2	6	<0.5	40	<1	<10	2

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- IFIER	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
UPPER SALT RIVER BASIN--Continued										
A-02-15 07BDD1	--	--	--	--	--	--	--	--	--	--
A-02-15 07BDD2	80	24	70	220	44000	30	--	2300	<18	38
A-02-15 07BDD3	<10	10	<10	24	19	<10	--	840	<6	9
A-02-15 07BDD4	30	140	<30	200	48000	<30	--	2200	<18	24
A-02-15 29DBD1	<10	7	<10	19	16	<10	--	320	8	6
A-02-15 29DBD2	<10	<3	<10	22	100	<10	--	320	6	<3
A-02-15 29DBD3	<10	7	<10	19	16	<10	--	320	8	6
A-02-15 29DBD4	<10	<3	<10	22	100	<10	--	320	6	<3
A-02-15 29DBD5	--	--	--	--	--	--	--	--	--	--
A-02-15 29DBD6	--	--	--	--	--	--	--	--	--	--
A-02-15 29DBD7	--	--	--	--	--	--	--	--	--	--
A-02-15 29DBD8	160	710	500	100	25000	<10	--	1600	<6	500
A-02-15 29DBD9	10	5	<10	24	680	10	--	320	<6	<3
A-02-15 29DBD10	20	13	<10	21	450	<10	--	260	<6	48
WATERMAN WASH										
C-02-01 30DBA	--	6	--	--	<1	--	--	--	--	--
C-02-02 19AAD	--	7	--	--	<1	--	--	--	--	--
WILLCOX BASIN										
D-10-23 32DAC	5	4	<5	7	1	<1	--	62	8	9
D-11-21 11BCC	20	4	<5	16	3	1	--	220	12	37
D-11-23 14ABA	6	<3	6	8	1	<1	--	78	8	<3
D-11-25 08CBB	16	35	10	29	4	<1	--	240	<1	420
D-13-24 05BAB	11	5	<5	65	<1	8	--	9	50	<3
D-13-24 34BAB	3	11	<5	21	<1	2	--	130	20	6
D-13-25 09DCC	7	6	<5	55	3	1	--	560	8	50
D-14-25 11CAA	8	62	<5	45	6	8	--	950	15	24
D-15-25 02ADD	6	19	<5	51	1	<1	--	850	4	17
D-15-25 25BBC	12	<3	19	57	<1	<1	--	770	5	3
D-15-27 11ADD2	3	33	<5	33	2	2	--	330	1	36
D-15-28 19ADC	2	<3	<5	22	1	<1	--	340	3	200
D-15-28 19DAC	1	6	<5	12	<1	<1	--	350	4	120
D-16-25 10DDD	2	<3	<5	100	1	<1	--	1400	3	<3
D-16-26 02AAA	2	<3	<5	22	<1	1	--	28	2	<3
D-16-28 05BDD	7	16	<5	24	2	<1	--	390	6	770
D-16-29 03CDB	7	130	<5	31	32	22	--	700	1	230
D-16-29 26CCC2	2	26	<5	23	4	<1	--	63	<1	260
D-16-29 30BBD2	3	5	<5	12	<1	<1	--	220	1	54
D-17-24 03ACC	9	<3	<5	47	<1	4	--	370	9	<3
D-17-24 11ACC	11	<3	<5	59	1	6	--	370	6	<3
D-17-28 14CCB3	4	14	<5	10	<1	<1	--	170	11	29
D-18-24 09DCB	45	56	<5	17	7	8	--	160	1	92
D-18-29 17CAC	--	9	--	--	1	--	--	--	--	--
D-19-26 32ABB	4	8	<5	52	1	<1	--	310	<10	<3
D-20-27 21BBC	6	<3	21	32	<1	2	--	200	5	52
D-10-24 17BBD	27	9	<5	27	3	3	--	190	2	110
D-11-24 32BAA	11	<3	<5	8	<1	<1	--	120	10	7
D-12-23 12CBC	7	3	<5	15	1	<1	--	230	<10	3
D-12-24 32BCB	6	<3	<5	22	2	<1	--	400	7	72
D-14-24 14CBB	3	82	<5	58	<1	5	--	120	13	7
D-14-26 18DAD	<1	<3	<5	94	2	<1	--	890	8	14
D-15-24 20CAC	10	50	<5	330	10	<1	--	4400	24	90
D-15-26 18AAA	9	<3	<5	26	1	<1	--	430	2	<3
D-16-26 09DAA	2	3	<5	38	<1	<1	--	300	1	<3
D-16-28 07CDA	2	33	<5	14	2	1	--	76	2	100
D-17-25 09CCC	9	<3	<5	140	<1	<1	--	1100	3	<3
D-17-27 31DDD	2	<3	<5	21	1	<1	--	83	4	4

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
18 124-05.56X13.70	351810109055301		12-05-86	1500	1450	8.25	11.5	914	848
A-18-24 09ABB	345850109475001		12-02-86	1215	1550	8.00	16.0	934	938
A-18-24 16BBB1	345757109482001		12-06-86	0930	1620	8.15	14.5	1680	1600
A-19-25 01BBA1	350451109383401		12-05-86	1230	1160	8.10	15.5	703	698
A-19-25 11DAA1	350338109384801		12-05-86	1000	1400	7.90	15.5	937	1180
A-21-27 25CAD	351119109255301		12-01-86	1315	1300	7.50	14.5	858	797
A-21-27 35ACB1	351047109265001		12-03-86	1730	1060	7.80	14.0	702	676
A-21-28 13CBC	351254109194501		12-04-86	1000	1100	7.60	13.0	748	692
			12-04-86	0945	1100	7.60	13.0	747	661
			12-04-86	1015	1100	7.60	13.0	747	654
A-21-28 13CDC	351241109193101		12-04-86	1450	860	7.40	14.0	512	431
A-21-28 14DAA1	351302109195901		12-04-86	1130	1530	7.30	15.0	1050	1040
A-21-28 23AAC	351224109202401		12-02-86	1625	1060	7.75	13.0	699	669
A-21-28 30AAA1	351157109241701		12-04-86	1730	2100	7.60	15.0	1540	1470
A-21-28 30AAA2	351152109241601		12-01-86	1530	1700	7.30	14.5	1160	1090
A-22-31 08AAD1	351933109041701		12-03-86	1300	2550	7.80	11.0	1800	1790
A-22-31 09DDB1	351858109031701		12-03-86	1530	910	7.90	14.0	543	556

LOCAL IDENT- IFIER	SODIUM AD- SORP- TION RATIO (00931)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	ALKA- LITY WAT WH TOT FET FIELD CACO3 (00410)	SULFATE SOLVED (MG/L AS SO4) (00945)
18 124-05.56X13.70	13	110	300	1.2	30	9.3	76	418	240
A-18-24 09ABB	15	86	300	1.5	25	5.8	91	450	220
A-18-24 16BBB1	43	38	590	0.90	10	3.2	390	678	260
A-19-25 01BBA1	10	100	220	1.8	30	6.8	52	449	100
A-19-25 11DAA1	10	140	270	1.5	41	10	50	358	330
A-21-27 25CAD	4	340	160	2.6	100	21	61	265	340
A-21-27 35ACB1	6	160	180	7.6	47	11	43	218	270
A-21-28 13CBC	4	300	140	2.0	92	16	51	236	290
	4	290	140	2.0	90	16	52	236	290
	4	290	140	1.9	91	16	51	236	290
A-21-28 13CDC	2	290	63	6.0	75	24	36	261	140
A-21-28 14DAA1	0.7	740	43	7.9	210	53	61	311	480
A-21-28 23AAC	3	280	120	2.9	88	15	50	216	280
A-21-28 30AAA1	4	720	220	1.8	190	59	140	249	760
A-21-28 30AAA2	4	460	200	2.5	130	32	88	355	480
A-22-31 08AAD1	12	340	470	3.2	100	22	150	341	840
A-22-31 09DDB1	11	57	190	0.40	18	2.9	31	368	65

LOCAL IDENT- IFIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ALPHA, TOTAL, COUNT- ING ERROR (PCI/L) (01502)	BETA, TOTAL, COUNT- ING TOTAL ERROR (PCI/L) (03501)	BETA, TOTAL, COUNT- ING ERROR (PCI/L) (03502)	LEAD 210 DIS- SOLVED (PCI/L) (17503)	LEAD 210 DIS- SOLVED COUNT ERROR (PCI/L) (17504)	RADIUM 226, DIS- SOLVED (PCI/L) (09503)
18 124-05.56X13.70	0.80	6.2	<30	6.0	4.0	3.0	0.4	0.3	0
A-18-24 09ABB	1.2	20	<50	4.0	2.0	3.0	0.3	0.4	0.1
A-18-24 16BBB1	1.4	16	<140	10	10	6.0	0	0.3	0
A-19-25 01BBA1	1.1	22	<65	4.0	5.0	3.0	0.8	0.4	0.2
A-19-25 11DAA1	1.2	19	<25	8.0	15	3.0	0.6	0.4	0
A-21-27 25CAD	0.80	14	<39	5.0	3.0	3.0	0.6	0.4	0.1
A-21-27 35ACB1	0.70	12	<18	4.0	7.0	3.0	0.5	0.4	0.9
A-21-28 13CBC	0.80	15	<20	5.0	6.0	3.0	0.9	0.4	0.1
	0.80	15	<20	6.0	6.0	3.0	0.7	0.4	0
	0.80	15	<20	4.0	6.0	3.0	0.9	0.4	0.1
A-21-28 13CDC	0.50	11	<36	4.0	7.0	3.0	0.4	0.4	0
A-21-28 14DAA1	1.0	7.4	<40	7.0	19	3.0	0.7	0.4	4.3
A-21-28 23AAC	0.50	13	--	5.0	1.0	3.0	0.3	0.4	0.3
A-21-28 30AAA1	0.60	15	<100	8.0	<2.0	4.0	0.4	0.4	0.1
A-21-28 30AAA2	0.50	15	--	7.0	12	4.0	0.7	0.4	0
A-22-31 08AAD1	0.50	9.9	<20	9.0	4.0	5.0	0.3	0.3	0.1
A-22-31 09DDB1	0.80	14	20	6.0	8.0	3.0	<0.1	0.3	0.1

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987--Continued

LOCAL IDENT- IFIER	RADIUM 226 DISS. COUNT- ING ERROR (PCI/L) (09504)	RADIUM 228, TOTAL COUNT- ING ERROR (PCI/L) (11501)	RADIUM 228, TOTAL COUNT- ING ERROR (PCI/L) (11502)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR) (01082)	THORIUM 230 DIS- SOLVED COUNT ERROR (PCI/L) (26503)	THORIUM 230 DIS- SOLVED COUNT ERROR (PCI/L) (26504)	URANIUM TOTAL (UG/L AS U3O8) (22706)	URANIUM NATURAL TOTAL (UG/L AS U) (28011)
18 124-05.56X13.70	0.1	0	0.5	730	0	0.1	--	20
A-18-24 09ABB	0.1	<0.4	0.6	540	<0.1	0.1	0	1.0
A-18-24 16BBB1	0.2	<0.2	2.8	500	0	0.3	--	24
A-19-25 01BBA1	0.1	<0.6	0.5	380	0	0.1	--	9.0
A-19-25 11DAA1	0.1	0.7	0.5	850	0	0.1	--	38
A-21-27 25CAD	0.1	1.2	0.6	840	0.2	0.1	20	16
A-21-27 35ACB1	0.1	<0.1	0.4	890	0.2	0.1	--	16
A-21-28 13CBC	0.1	<0.3	0.4	760	0.4	0.1	--	16
	0.1	0.5	0.6	760	0	0.1	--	20
	0.1	<0.3	0.6	780	0	0.2	--	16
A-21-28 13CDC	0.1	0.4	0.6	930	0	0.1	--	10
A-21-28 14DAA1	0.2	3.1	0.5	3400	0	0.1	--	19
A-21-28 23AAC	0.1	<0.4	0.6	720	0	0.1	8	8.0
A-21-28 30AAA1	0.1	0.5	0.5	1800	0.1	0.1	--	19
A-21-28 30AAA2	0.1	1.2	1.3	1300	0	0.1	20	23
A-22-31 08AAD1	0.1	1.3	0.6	1600	0.2	0.2	20	22
A-22-31 09ddb1	0.1	0.3	0.5	410	0.4	0.2	40	38

< Actual value is known to be less than value shown.

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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).

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)	2.590×10^0	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

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