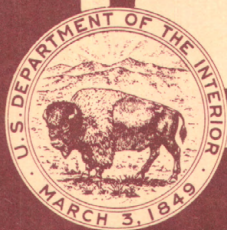
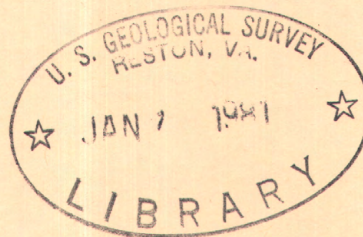


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Water Resources Data for Texas

Part 2. Water Quality Records



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

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

CALENDAR FOR WATER YEAR 1973

1972

OCTOBER

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1973

Water Resources Data

for

Texas

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Prepared in cooperation with

Texas Water Development Board
Corps of Engineers, U.S. Army

Water resources records, 1973, for Texas are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Texas
Part 1. Surface Water Records
2. Water Resources Data for Texas
Part 2. Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Federal Building
300 East 8th Street
Austin, Texas 78701

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

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

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WATER RESOURCES DATA FOR TEXAS, 1973

Part 2. Water Quality Records

INTRODUCTION

Water resources data for the 1973 water year for Texas include records of data for the chemical, physical, and biological characteristics of surface water. Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently, and at some sites data were recorded on punched paper tape at 15-, 30-, or 60-minute intervals. The records were collected by the Water Resources Division of the U.S. Geological Survey under the direction of I. D. Yost, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Texas.

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

COOPERATION

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

Texas Water Development Board, Harry P. Burleigh,
executive director.
Corps of Engineers, U.S. Army.
City of Houston.
International Boundary and Water Commission.
Environmental Protection Agency.
Sabine River Compact Administration.

Agencies furnishing assistance were:

The Brazos River Authority, the Colorado River Municipal Water District, the Dow Chemical Company, the Guadalupe-Blanco River Authority, the Lower Colorado River Authority, the Lower Neches Valley Authority, the Mitchell Development Corporation of the Southwest, the Red Bluff Water Power Control District, the Sabine River Authority, the San Antonio City Water Board, the Tarrant County Water Control and Improvement District No. 1, the Texas Water Quality Board, the Trinity River Authority, the Upper Neches River Municipal Water Authority, the West Central Texas Municipal Water District, and the cities of Arlington, Austin, and Dallas.

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined below. See also table for converting English units to International System of units (SI) on page 17.

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

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

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet,

approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

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

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate incubation membrane filter method.

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

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

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

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

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

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

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

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

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

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

Partial-record station is a particular site where limited stream-flow 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) (Guy, 1969).

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

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

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

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

Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

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

Particle size 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 (Guy, 1969).

Pesticides include insecticides and herbicides.

Insecticides are substances or a mixture of substances intended to prevent, destroy, or repel insects.

Technical names for insecticides analyzed are:

Aldrin should contain not less than 95 percent of 1,2,3,4,10, 10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo-exo-5,8-dimethanonaphthalene.

Chlordane 1,2,4,5,6,7,8, 8-octachloro-3a,4,7,7a-tetrahydro-4,7-methanoindane.

DDD 1,1-dichloro-2,2-bis (p-chlorophenyl) ethane.

DDE 1,1-dichloro-2,2-bis (p-chlorophenyl) ethylene.

DDT 1,1,1-trichloro-2,2-bis (p-chlorophenyl) ethane.

Diazinon O,O-diethyl O- (2-isopropyl-6-methyl-4-pyrimidyl) phosphorothioate.

Dieldrin should contain not less than 85 percent of 1,2,3,4,10, 10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo-exo-5,8-dimethanonaphthalene.

Endrin 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8, 8a-octahydro-1,4-endo-endo-5,8-dimethanonaphthalene.

Heptachlor 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene.

Heptachlor epoxide 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro-4,7-methanoindan.

Lindane 1,2,3,4,5,6-hexachlorocyclohexane, 99 percent or more of gamma isomer.

α -BHC α -1,2,3,4,5,6-hexachlorocyclohexane.

Methyl parathion 0,0-dimethyl 0-p-nitrophenyl phosphorothioate.

Malathion S-[1,2-bis (ethoxycarbonyl) ethyl] 0,0-dimethyl phosphorodithioate.

Parathion 0,0-diethyl 0-p-nitrophenyl phosphorothioate.

Toxaphene chlorinated camphene containing 67 to 69 percent chlorine.

Herbicides are substances or a mixture of substances intended to control or destroy any vegetation.

Technical names for herbicides analyzed are:

2,4-D 2,4-dichlorophenoxyacetic acid.

2,4,5-T 2,4,5-trichlorophenoxyacetic acid.

Silvex 2-(2,4,5-trichlorophenoxy) propionic acid.

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.

Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting chiefly of minute plants (as diatoms and blue-green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

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

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

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

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

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

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

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

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

of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

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

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

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

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

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir. See also table for converting English Units to International Units (SI) on page 17.

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each water-quality station, gaging 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 and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07227500 which appears just to left of the station name includes the 2-digit part number "07" plus the 6-digit downstream order number "227500". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 7 (Lower Mississippi River basin) and Part 8 (Western Gulf of Mexico basins). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads. Discharge records for streams in Texas have been released in the report, "Water Resources Data for Texas, 1973, Part 1. Surface Water Records".

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record

for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Data on the quality of surface water were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently.

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

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/l) and water temperatures in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per millions and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Fahrenheit may be converted to degrees Celsius by using the table on page 12.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," p. 5).

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970), and by Goerlitz and Brown (1972). One

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

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

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32) \text{ or } ^{\circ}\text{F} = 9/5 (^{\circ}\text{C}) + 32.$$

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 the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute 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 is possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between the reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

Temperature

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

Sediment

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

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

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

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

WATER SUPPLY PAPERS

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

Table 4.--Water-supply paper numbers and parts,
water years 1941-70

<u>Year</u>	<u>Parts 1-14</u>	<u>Year</u>	<u>Parts 7-8</u>	<u>Year</u>	<u>Parts 7-8</u>
1941	942	1950	1188	1962	1944
1942	950	1951	1199	1963	1950
1943	970	1952	1252	1964	1957
1944	1022	1953	1292	1965	1964
1945	1030	1954	1352	1966	1994
1946	1050	1955	1402	1967	2014
1947	1102	1956	1452	1968	C2096
1948	A1133	1957	1522		D2097
1949	A1163	1958	1573	1969	BC2146
----	----	1959	1644		BD2147
----	----	1960	1744	1970	BC2156
----	----	1961	1884		BD2157

A Parts 7-14. B In Press. C Part 7. D Part 8.

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- _____ 1957, Some fundamentals of particle size analysis: Rept. 12.
- _____ 1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.
- _____ 1961, The single stage sampler for suspended sediment: Rept. 13.
- _____ 1963, Determinations of fluvial sediment discharge: Rept. 14.

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

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

Multiply English units	By	To obtain SI units
Length		
inches (in)	25.4	millimeters (mm)
	.0254	meters (m)
feet (ft)	.3048	meters (m)
miles (mi)	1.609	kilometers (km)
Area		
acres	4047	square meters (m ²)
	.4047	square hectometer (hm ²)
	.004047	square kilometers (km ²)
square miles (mi ²)	2.590	square kilometers (km ²)
Volume		
million gallons (10 ⁶ gal)	3.785x10 ⁻³	cubic hectometers (hm ³)
cubic feet (ft ³)	28.32	cubic decimeters (dm ³)
	.02832	cubic meters (m ³)
acre-feet (acre-ft)	1233	cubic meters (m ³)
	1.233x10 ⁻³	cubic hectometers (hm ³)
	1.233x10 ⁻⁶	cubic kilometers (km ³)
Flow		
cubic feet per second (ft ³ /s)	28.32	cubic decimeters per second (dm ³ /s)
	.02832	cubic meters per second (m ³ /s)
Mass		
ton (short)	.9072	tonne (t)

WATER QUALITY RECORDS

ARKANSAS RIVER BASIN

19

07227448 PUNTA de AGUA CREEK NEAR CHANNING, TEX.

LOCATION.--Lat 35°40'03", long 102°28'48", Hartley County, at gaging station at bridge 0.5 mile (0.8 km) downstream from Rita Blanca Creek and 8.5 miles (13.7 km) southwest of Channing on Farm Road 767.

DRAINAGE AREA.--3,568 mi² (9,241 km²) of which 2,068 mi² (5,356 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1973 (Discontinued).

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 08...	1440	2.9	35	28	77	100	460	32	83	64
DEC. 13...	1225	2.0	36	26	83	98	484	33	84	49
JAN. 17...	1520	16	35	26	68	74	418	18	66	39
FFB. 22...	1055	6.5	30	41	60	66	444	0	66	36
MAR. 28...	1400	23	26	42	37	72	356	0	65	32
MAY 02...	1120	.87	24	62	86	100	652	0	98	56

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 08...	3.0	--	653	380	0	--	1040	8.7	16.0
DEC. 13...	4.0	--	652	400	0	2.1	1040	8.7	1.0
JAN. 17...	3.8	.2	537	340	0	1.7	860	8.5	10.0
FFB. 22...	3.7	.03	521	350	0	1.5	851	8.3	2.0
MAR. 28...	3.7	.1	453	260	0	2.0	740	8.3	13.5
MAY 02...	5.8	.00	756	510	0	2.0	1210	8.1	13.0

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER AT TASCOSA, TEX.

LOCATION.--Lat 35°31'10", long 102°15'30", Oldham County, at gaging station at bridge on U.S. Highway 385, 0.8 mile (1.3 km) northwest of Tascosa, and 1.0 mile (1.6 km) southwest of Boys Ranch.

DRAINAGE AREA.--18,536 mi² (48,000 km²), of which approximately 3,823 mi² (9,902 km²) is noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

Biochemical analyses: October 1968 to September 1973.

Water temperatures: October 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 6,140 micromhos Mar. 15; minimum daily, 485 micromhos July 23.

Water temperatures: Minimum, freezing point on many days during winter months.

EXTREMES, October 1968 to September 1973.--Specific conductance: Maximum daily, 6,520 micromhos Mar. 3, 1971; minimum daily, 252 micromhos July 21, 1972.

Water temperatures: Maximum, 35.0°C Aug. 5, 1969, June 22, 1972; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANFOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
02...	1900	500	7.0	42	16	170	--	4.1	210	0	170	140
NOV.												
08...	1150	38	9.2	69	46	--	600	--	220	0	350	790
DEC.												
13...	1500	36	13	56	42	--	400	--	230	0	260	520
JAN.												
17...	1115	33	14	58	38	310	--	6.0	238	0	220	400
31...	0815	25	--	--	--	--	--	--	324	0	370	740
FEB.												
21...	1540	23	15	72	54	--	620	--	224	0	380	820
MAR.												
15...	0900	22	12	94	68	--	1100	--	210	0	510	1600
20...	1800	2.8	--	--	--	--	--	--	276	0	440	750
APR.												
18...	1130	178	--	--	--	--	--	--	248	0	230	260
20...	0900	104	7.9	44	26	290	--	5.2	230	0	240	300
MAY												
15...	1520	23	--	--	--	--	--	--	264	0	370	640
21...	1300	32	12	79	64	--	900	--	212	0	610	1100
JUNE												
13...	0900	20	6.1	57	28	--	240	--	148	0	260	280
JULY												
25...	0800	320	13	44	15	200	--	5.3	238	0	120	200
AUG.												
16...	0900	3.0	8.1	68	41	--	500	--	228	0	380	590
SEP.												
16...	1300	68	12	42	17	--	160	--	199	0	110	180

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FIL- TRABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.											
02...	.7	--	--	.40	--	655	--	170	0	5.6	1110
NOV.											
08...	.6	--	--	.50	--	1970	--	360	180	14	3370
DEC.											
13...	.7	--	--	.20	--	1410	--	310	120	9.9	2600
JAN.											
17...	1.2	--	--	.20	--	1160	--	300	110	7.8	2040
31...	--	--	--	--	--	--	34	410	140	--	3290
FEB.											
21...	.9	--	--	.20	--	2070	--	400	220	13	3540
MAR.											
15...	.6	--	--	.80	--	3530	--	510	340	22	6140
20...	--	.19	.01	.20	.00	--	258	360	130	--	3360
APR.											
18...	--	--	--	--	.64	--	1090	210	5	--	1700
20...	.6	--	--	.60	--	1030	--	220	28	8.6	1760
MAY											
15...	--	--	--	--	.06	--	77	390	170	--	3120
21...	--	--	--	.02	--	2910	--	460	290	18	4860
JUNE											
13...	.4	--	--	.20	--	951	--	260	140	6.6	1620
JULY											
25...	.5	--	--	.80	--	722	--	170	0	6.6	1240
AUG.											
16...	.6	--	--	.20	--	1700	--	340	150	12	2860
SEP.											
16...	.5	--	--	.60	--	624	--	180	12	5.4	1060

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVFL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	PHENOLS (UG/L)
OCT.											
02...	8.0	23.0	--	--	--	--	--	--	--	--	--
NOV.											
08...	8.0	11.0	--	--	--	--	--	--	--	--	--
DEC.											
13...	8.2	1.0	--	--	--	--	--	--	--	--	--
JAN.											
17...	8.0	8.5	--	--	--	--	--	--	--	--	--
31...	8.3	3.5	--	25	10.9	83	3	.9	620	2	--
FEB.											
21...	7.9	9.0	--	--	--	--	--	--	--	--	--
MAR.											
15...	7.4	6.0	--	--	--	--	--	--	--	--	--
20...	8.4	16.0	10	110	9.3	94	6	.4	1700	0	--
APR.											
18...	8.1	17.0	--	270	7.9	81	18	1.4	8700	100	0
20...	7.8	10.0	--	--	--	--	--	--	--	--	--
MAY											
15...	8.3	23.5	--	50	7.6	88	4	.7	900	17	--
21...	8.0	29.0	--	--	--	--	--	--	--	--	--
JUNE											
13...	7.2	20.0	--	--	--	--	--	--	--	--	--
JULY											
25...	7.6	19.0	--	--	--	--	--	--	--	--	--
AUG.											
16...	7.6	20.0	--	--	--	--	--	--	--	--	--
SEP.											
16...	7.3	22.0	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT.											
26...	0845	10.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
FEB.											
20...	2115	9.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
APR.											
18...	1130	17.0	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT.										
26...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB.										
20...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR.										
18...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT.										
26...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB.										
20...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR.										
18...	0	.0	0	.00	.00	.00	.00	.02	.00	.01

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	6087	1630	980	16100	300	4930	210	3450	220
NOV.	1224	2710	1630	5390	590	1950	330	1090	300
DEC.	1068	2560	1540	4440	550	1590	310	894	290
JAN. 1973....	755.0	2820	1690	3450	620	1260	340	693	310
FEB.	791	3030	1820	3890	680	1450	360	769	320
MAR.	925.4	2550	1530	3820	550	1370	310	775	290
APR.	4017	2050	1230	13300	410	4450	260	2820	250
MAY	958.4	4040	2420	6260	950	2460	480	1240	400
JUNE	115.4	2760	1660	517	600	187	330	103	300
JULY	5052.6	813	490	6680	76	1040	120	1640	150
AUG.	3225.33	1370	820	7140	230	2000	180	1570	200
SEP.	781.12	2420	1450	3060	510	1080	300	633	280
TOTAL	25000.25	--	--	74000	--	23800	--	15700	--
WTD. AVG. ...	68.5	1830	1100	--	350	--	230	--	230

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	2410	2270	2540	2660	3410	2510	3400	3540	---	1820	---
2	1110	2260	1900	2550	2880	3440	2000	3340	3520	---	1190	---
3	1100	2650	2230	2670	3120	3890	1510	3750	3920	---	2420	2370
4	1090	2940	2580	3160	2280	3680	2340	4100	3750	---	1190	2390
5	1100	3000	2950	2440	3140	3680	3200	4340	---	---	1230	2040
6	1140	3080	2800	3040	2410	3350	3860	3930	---	---	1230	2090
7	1290	3240	2900	3100	3400	3230	3860	3950	---	---	1180	2070
8	1510	3360	2800	3200	3500	3090	1740	3630	---	---	1280	2150
9	1760	3490	2840	3300	3100	3100	1730	3520	---	---	1420	2600
10	2580	3220	2870	3400	3130	2610	1980	3510	---	---	1670	2850
11	2630	2630	2800	3400	3150	1470	2600	3520	---	---	1890	3300
12	2900	3040	2700	3500	3040	2310	2940	3600	---	---	2140	2200
13	3240	2920	2600	3400	3080	2970	3930	3480	1620	---	2340	2200
14	3300	2500	2700	3000	3060	4140	2060	2970	1910	1700	1990	2250
15	3300	2750	2500	2500	3320	6140	1670	3170	2000	1780	1970	2540
16	3270	2960	2600	1580	3150	2480	1660	3300	---	1780	2860	1060
17	3270	3040	2500	2060	2880	2870	1640	4710	---	---	2860	1380
18	3280	2600	2200	1750	3180	2850	1650	4690	---	---	2900	2930
19	2600	1800	2300	3150	3190	3260	1750	4660	---	---	---	4240
20	962	1610	2000	3210	3170	3370	1790	5620	---	---	---	2180
21	1180	2070	2250	3810	3440	3400	1940	4860	---	---	---	2330
22	2710	2200	2250	3500	2990	3510	1910	3530	---	---	---	2600
23	2610	2370	2660	3120	3010	2520	2120	4030	---	485	---	2820
24	1630	2610	2650	3140	2860	1930	2270	4020	---	1520	---	3210
25	1590	2460	3060	3050	2890	2260	1190	4200	---	1240	---	---
26	1900	2680	3000	2950	3180	3020	645	4620	---	1200	---	---
27	2000	2610	2850	2680	3180	3030	1860	4660	---	1290	---	---
28	2350	2690	2870	2960	3250	3040	2550	4660	---	1120	---	---
29	2800	2750	2860	2970	---	2640	2890	4800	---	1170	---	---
30	2810	3070	3060	2920	---	2670	3390	3970	---	1420	---	---
31	2530	---	3080	2950	---	1890	---	3580	---	1290	---	---
MONTH	2150	2700	2630	2940	3060	3070	2240	4000	---	---	---	---

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	9.0	10.0	5.0	2.0	11.0	8.0	20.0	20.0	---	20.0	---
2	23.0	4.0	3.0	3.0	1.0	8.0	10.0	10.0	15.0	---	21.0	---
3	12.0	15.0	0.0	0.0	5.0	7.0	7.0	20.0	25.0	---	22.0	26.0
4	24.0	8.0	0.0	0.0	4.0	8.0	9.0	21.0	20.0	---	20.0	27.0
5	24.0	9.0	0.0	0.0	15.0	10.0	7.0	15.0	---	---	22.0	19.0
6	12.0	15.0	0.0	0.0	8.0	4.0	11.0	17.0	---	---	21.0	17.0
7	20.0	13.0	0.0	0.0	3.0	18.0	6.0	18.0	---	---	23.0	15.0
8	21.0	11.0	0.0	0.0	0.0	11.0	0.0	12.0	---	---	22.0	20.0
9	15.0	7.0	0.0	0.0	0.0	7.0	1.0	23.0	---	---	24.0	30.0
10	20.0	5.0	0.0	0.0	0.0	5.0	10.0	18.0	---	---	24.0	28.0
11	21.0	14.0	0.0	0.0	8.0	7.0	10.0	18.0	---	---	26.0	22.0
12	19.0	8.0	0.0	0.0	9.0	10.0	20.0	18.0	---	---	24.0	25.0
13	23.0	3.0	1.0	0.0	3.0	15.0	18.0	16.0	20.0	---	19.0	26.0
14	20.0	1.0	0.0	0.0	10.0	15.0	12.0	13.0	23.0	---	32.0	20.0
15	13.0	8.0	0.0	0.0	12.0	6.0	11.0	22.0	---	24.0	24.0	17.0
16	23.0	11.0	0.0	10.0	0.0	14.0	9.0	22.0	---	25.0	20.0	22.0
17	23.0	4.0	0.0	8.5	0.0	8.0	13.0	21.0	---	---	19.0	12.0
18	13.0	5.0	0.0	5.0	5.0	10.0	22.0	14.0	---	---	---	19.0
19	5.0	4.0	0.0	3.0	3.0	11.0	11.0	17.0	---	---	---	18.0
20	5.0	3.0	0.0	5.0	11.0	15.0	10.0	30.0	---	---	---	17.0
21	9.0	4.0	5.0	2.0	9.0	10.0	20.0	29.0	---	---	---	25.0
22	16.0	---	3.0	0.0	1.0	15.0	11.0	25.0	---	---	---	15.0
23	10.0	2.0	10.0	0.0	12.0	10.0	17.0	20.0	---	24.0	---	20.0
24	10.0	2.0	9.0	5.0	0.0	5.0	15.0	22.0	---	21.0	---	21.0
25	15.0	2.0	8.0	0.0	8.0	7.0	13.0	26.0	---	19.0	---	---
26	14.0	0.0	6.0	4.0	15.0	10.0	6.0	18.0	---	22.0	---	---
27	10.0	3.0	8.0	0.0	16.0	8.0	8.0	18.0	---	20.0	---	---
28	17.0	---	8.0	2.0	10.0	16.0	19.0	20.0	---	20.0	---	---
29	9.0	3.0	9.0	6.0	---	6.0	15.0	10.0	---	27.0	---	---
30	5.0	2.0	5.0	6.0	---	5.0	21.0	21.0	---	28.0	---	---
31	0.0	---	5.0	5.0	---	4.0	---	24.0	---	20.0	---	---
MONTH	15.5	6.5	3.0	2.0	6.0	9.5	11.5	19.5	---	---	---	---

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.

LOCATION.--Lat 35°28'13", long 101°52'45", Potter County, at gaging station at bridge on U.S. Highways 87 and 287, 1,500 feet (457 m) downstream from Pitcher Creek, 1.4 miles (2.3 km) downstream from East Amarillo Creek, 1.7 miles (2.7 km) downstream from Panhandle and Santa Fe Railway Co. bridge, and 19 miles (31 km) north of Amarillo.

DRAINAGE AREA.--19,445 mi² (50,360 km²) of which 4,069 mi² (10,539 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1948 to October 1949, February 1950 to September 1973.

Biochemical analyses: January 1969 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Water temperatures: August 1949 to September 1973.

Sediment records: August 1949 to September 1952.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 4,300 micromhos Mar. 17; minimum daily, 731 micromhos July 29.

Water temperatures: Maximum, 39.0°C July 7; minimum, freezing point on many days during winter months.

EXTREMES, July 1948 to September 1973.--Specific conductance: Maximum daily, 4,880 micromhos Mar. 6, 1971; minimum daily, 346 micromhos Oct. 29, 1964.

Water temperatures: Maximum, 39.0°C July 7, 1973, minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- RONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
DATE	TIME												
OCT.													
02...	1215	525	7.5	56	18	190	--	4.3	224	0	200	180	
25...	1505	360	11	61	22	330	--	4.4	220	0	250	360	
NOV.													
18...	1130	35	9.5	76	25	--	270	--	162	0	240	350	
DEC.													
05...	1430	10	16	100	41	430	--	7.5	286	0	370	560	
30...	0830	31	.4	120	49	--	530	--	274	0	450	670	
JAN.													
18...	0930	121	14	83	36	320	--	5.0	252	0	280	400	
FEB.													
20...	2000	38	15	120	48	510	--	8.3	238	0	450	670	
22...	1515	3.2	16	110	45	--	480	--	212	0	410	630	
MAR.													
12...	1030	347	12	53	20	--	240	--	212	0	210	240	
APR.													
18...	1000	259	10	62	27	--	330	--	242	0	300	340	
JULY													
23...	1030	62	16	59	15	77	--	6.0	195	0	9.6	85	
AUG.													
16...	1115	20	21	83	30	--	230	--	186	0	270	280	
29...	1130	.43	34	72	32	--	180	--	288	0	180	190	
SEP.													
08...	1020	40	39	50	22	--	120	--	204	0	110	140	
DATE		DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.													
02...		.7	--	--	--	.30	--	763	--	--	210	30	5.7
25...		.6	.55	.05	.50	.90	1.4	1150	1710	233	240	62	9.1
NOV.													
18...		.6	--	--	--	2.6	--	1060	--	--	290	160	6.9
DEC.													
05...		.9	.34	.15	2.4	.60	.90	1670	220	24	430	190	9.0
30...		.9	--	--	--	3.6	--	1970	--	--	500	270	10
JAN.													
18...		1.2	--	--	--	1.5	--	1280	--	--	360	150	7.5
FEB.													
20...		.9	.55	.15	5.4	.50	1.8	1950	26	9	500	300	9.9
22...		1.0	--	--	--	8.9	--	1840	--	--	470	300	9.7
MAR.													
12...		.6	--	--	--	1.3	--	896	--	--	210	41	7.2
APR.													
18...		.9	1.0	.11	.92	.60	1.4	1200	1240	120	270	69	8.9
JULY													
23...		.6	--	--	--	.09	--	451	--	--	210	48	2.3
AUG.													
16...		1.0	--	--	--	1.7	--	1020	--	--	330	180	5.6
29...		1.5	.86	.74	.20	2.0	4.3	850	19	4	310	75	4.5
SEP.													
08...		2.0	--	--	--	1.0	--	592	--	--	220	48	3.7

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 25...	1505	15.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
FEB. 20...	2000	9.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
APR. 18...	1000	14.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
AUG. 29...	1130	22.5	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 25...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 20...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 29...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 25...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	0	.0	0	.00	.00	.00	.00	.20	.00	.00
APR. 18...	0	.0	0	.01	.00	.00	.00	.06	.01	.01
AUG. 29...	0	.0	0	.04	.00	.00	.00	.05	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	8576	1700	1010	23400	300	6950	240	5560	280
NOV.	1515	2400	1450	5930	470	1920	340	1390	380
DEC.	957.0	2820	1720	4440	580	1500	410	1060	430
JAN. 1973....	1295.0	2650	1610	5630	540	1890	380	1330	410
FEB.	1105	3160	1930	5760	660	1970	460	1370	480
MAR.	4359	2260	1370	16100	440	5180	320	3770	360
APR.	7532	1860	1110	22600	340	6910	260	5290	300
MAY	743.4	2480	1500	3010	490	984	360	723	390
JUNE	196.0	1560	930	492	270	143	210	111	260
JULY	7272.2	1350	790	15500	220	4320	180	3530	230
AUG.	6019.88	1420	840	13700	240	3900	190	3090	240
SEP.	445.53	1810	1080	1300	330	397	250	301	290
TOTAL	40016.01	--	--	118000	--	36100	--	27500	--
WTD. AVG. ...	110	1820	1090	--	330	--	250	--	300

ARKANSAS RIVER BASIN

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07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	1780	2760	2300	3060	3210	1850	2480	1610	1380	1520	1620
2	1280	1240	2900	2970	2730	3550	2090	2550	1400	1440	1460	1770
3	1290	2000	2720	2630	2680	3540	991	2700	1640	1400	1280	1770
4	1290	2580	2670	2480	2710	3460	1490	2540	1630	1360	1630	1700
5	1260	2850	2660	2850	3200	3770	1780	2320	1640	1380	1040	1670
6	1300	2850	2720	2680	3190	3380	2590	2440	1590	1380	1340	1690
7	1380	2900	2120	2570	3180	3800	2620	2310	1590	1610	1510	1610
8	1470	2960	2520	3210	3480	3680	2700	2300	1520	1540	1410	1060
9	1650	3080	2080	2540	2900	2430	2500	2200	1690	1520	1530	1100
10	1810	2920	1970	2230	3550	2930	2090	1940	1630	1560	1560	1440
11	2000	2650	2750	2100	3330	1720	2170	1850	1560	1500	1030	1410
12	2240	3040	2650	1500	3470	1510	2480	1720	1490	1650	1000	1530
13	2460	3250	2900	3080	3190	2180	2670	1770	1520	1670	1700	2450
14	2640	2260	2980	3160	3120	2640	2990	2550	1520	753	1710	2530
15	2920	2960	2930	2970	3260	2990	2860	2510	1580	1650	1500	1990
16	2850	2760	3130	2550	3160	3580	2080	2440	1610	1690	1710	1760
17	2920	2560	3060	2170	3310	4300	2030	2360	1660	1720	1730	2050
18	3090	2000	2980	2140	3370	2670	1990	2270	1700	1670	1750	1900
19	2900	2790	2610	1730	3280	2640	2080	2120	1680	1600	1640	1920
20	2730	1800	2440	2970	3170	2640	2060	2200	1610	1610	1670	2220
21	838	2330	2630	3130	3290	2920	2120	1720	1620	1590	1620	2690
22	1200	2500	2860	3210	3090	2770	2060	2060	1640	1500	1650	2400
23	2490	2710	2840	2510	3250	2640	2140	3880	1630	792	1750	1670
24	2660	2200	2630	2160	3310	1270	2370	2990	1560	1490	1770	1510
25	2020	2360	3110	2860	3200	2420	2160	2710	1430	1530	1770	1410
26	1870	2460	3050	3190	3090	2220	1660	2490	1310	1450	1750	1530
27	1950	2640	3070	3080	3050	2380	1210	2690	1440	1400	1850	1100
28	2170	2600	3170	3180	3120	2450	1660	2080	1440	1570	1640	1330
29	2340	2720	3110	3030	---	2460	2160	1690	1370	731	1600	1360
30	2530	2730	3210	3290	---	2550	2390	1640	1380	1150	1640	1550
31	2480	---	3190	3140	---	2170	---	1570	---	1700	1620	---
MONTH	2040	2550	2790	2700	3170	2800	2130	2290	1560	1450	1560	1720

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	5.0	5.0	5.0	3.0	10.0	9.0	16.0	20.0	25.0	24.0	23.0
2	20.0	7.0	6.0	0.0	5.0	14.0	8.0	13.0	24.0	27.0	22.0	24.0
3	16.0	9.0	1.0	5.0	3.0	7.0	5.0	13.0	17.0	23.0	25.0	20.0
4	15.0	10.0	1.0	0.0	6.0	9.0	6.0	14.0	25.0	28.0	22.0	25.0
5	16.0	12.0	0.0	0.0	6.0	10.0	4.0	15.0	24.0	21.0	23.0	21.0
6	13.0	14.0	0.0	0.0	5.0	5.0	9.0	12.0	24.0	36.0	21.0	15.0
7	14.0	15.0	0.0	0.0	4.0	7.0	7.0	14.0	27.0	39.0	23.0	16.0
8	16.0	14.0	0.0	1.0	0.0	9.0	2.0	20.0	26.0	29.0	23.0	19.0
9	17.0	8.0	0.0	0.0	1.0	10.0	6.0	19.0	24.0	25.0	24.0	24.0
10	19.0	7.0	0.0	1.0	0.0	6.0	4.0	19.0	23.0	24.0	25.0	24.0
11	20.0	9.0	0.0	1.0	3.0	6.0	7.0	20.0	28.0	26.0	22.0	26.0
12	19.0	9.0	1.0	3.0	7.0	10.0	15.0	17.0	23.0	24.0	21.0	25.0
13	22.0	6.0	1.0	3.0	3.0	14.0	13.0	15.0	26.0	21.0	25.0	29.0
14	19.0	5.0	0.0	2.0	2.0	13.0	13.0	13.0	29.0	19.0	24.0	28.0
15	14.0	3.0	1.0	3.0	4.0	14.0	16.0	16.0	24.0	21.0	24.0	20.0
16	16.0	5.0	2.0	4.0	4.0	14.0	12.0	21.0	24.0	22.0	25.0	18.0
17	17.0	3.0	1.0	5.0	1.0	8.0	16.0	12.0	24.0	25.0	24.0	12.0
18	13.0	3.0	3.0	3.0	6.0	8.0	17.0	24.0	20.0	24.0	23.0	15.0
19	7.0	4.0	3.0	2.0	6.0	7.0	10.0	25.0	17.0	25.0	23.0	20.0
20	6.0	3.0	3.0	5.0	1.0	11.0	12.0	20.0	20.0	26.0	25.0	22.0
21	11.0	4.0	5.0	3.0	3.0	16.0	13.0	24.0	25.0	25.0	26.0	22.0
22	12.0	0.0	9.0	0.0	4.0	10.0	13.0	21.0	19.0	25.0	23.0	22.0
23	11.0	0.0	5.0	0.0	3.0	11.0	19.0	20.0	24.0	22.0	23.0	19.0
24	10.0	3.0	2.0	1.0	3.0	8.0	17.0	22.0	25.0	26.0	25.0	20.0
25	9.0	5.0	4.0	1.0	9.0	6.0	15.0	16.0	28.0	21.0	25.0	24.0
26	11.0	3.0	0.0	8.0	8.0	12.0	8.0	23.0	25.0	25.0	22.0	24.0
27	12.0	3.0	4.0	2.0	7.0	10.0	9.0	18.0	28.0	22.0	26.0	14.0
28	14.0	2.0	4.0	0.0	10.0	10.0	16.0	20.0	23.0	24.0	24.0	17.0
29	14.0	1.0	5.0	0.0	---	7.0	19.0	28.0	24.0	22.0	24.0	20.0
30	9.0	2.0	4.0	3.0	---	6.0	14.0	19.0	22.0	23.0	22.0	16.0
31	1.0	---	2.0	4.0	---	7.0	---	20.0	---	21.0	23.0	---
MONTH	14.0	6.0	2.5	2.0	4.0	9.5	11.0	18.5	24.0	24.5	23.5	21.0

ARKANSAS RIVER BASIN

07228000 CANADIAN RIVER NEAR CANADIAN, TEX.

LOCATION.--Lat 35°56'01", long 100°22'06", Hemphill County, at gaging station on U.S. Highways 60 and 83, 1.6 miles (2.6 km) northeast of Canadian.

DRAINAGE AREA.--22,866 mi² (59,222 km²) of which 4,688 mi² (12,142 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1968 to September 1973.
Pesticide analyses: October 1971 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 25...	0950	5.9	25	79	37	320	--	6.0	278	0
DEC. 05...	1045	24	23	120	54	--	370	--	304	0
FEB. 20...	1710	69	18	100	48	340	--	13	240	0
APR. 17...	1330	571	18	82	28	--	230	--	220	0
JUNE 20...	1100	.42	28	74	26	--	180	--	312	0
AUG. 29...	1515	.42	31	49	17	--	78	--	262	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 25...	110	500	1.5	.18	.00	.06	.02	.02	1210
DEC. 05...	110	680	2.5	.19	.04	.80	.2	.05	1510
FEB. 20...	240	540	1.7	.45	.02	1.3	.2	.10	1420
APR. 17...	160	320	1.1	1.5	.01	.28	.1	.67	952
JUNE 20...	79	240	1.1	.16	.00	.00	.00	.03	771
AUG. 29...	12	94	1.0	1.0	.00	.02	.04	.04	411

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 25...	350	120	7.4	2160	8.1	10.5	9.2	82	.9
DEC. 05...	530	280	6.9	2760	8.2	.0	12.1	83	1.6
FEB. 20...	450	260	6.9	2470	8.3	12.0	11.3	106	3.0
APR. 17...	320	140	5.5	1640	8.2	19.0	7.6	81	6.7
JUNE 20...	290	36	4.4	1360	7.9	20.5	8.5	91	1.5
AUG. 29...	190	0	2.4	712	8.0	30.5	9.8	129	2.5

ARKANSAS RIVER BASIN

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07228000 CANADIAN RIVER NEAR CANADIAN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 25...	0950	10.5	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	1710	12.0	.00	.00	.00	.00	.00	.00	.00	.00
APR. 17...	1330	19.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 29...	1515	30.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 25...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
APR. 17...	.00	.0	.0	.00	.00	.00	.00	.10	.00	.00
AUG. 29...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

ARKANSAS RIVER BASIN

07233500 PALO DURO CREEK NEAR SPEARMAN, TEX.

LOCATION.--Lat 36°12'08", long 101°18'20", Hansford County, at gaging station at bridge on State Highway 15, 6 miles (9.7 km) west of Spearman, and 18 miles (29.0 km) upstream from Horse Creek.

DRAINAGE AREA.--960 mi² (2,486 km²) of which 520 mi² (1,347 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 05...	0940	2.9	21	46	26	34	236	0	60	24
NOV. 03...	1555	3.3	17	40	26	24	208	6	39	13
JAN. 11...	1610	.36	18	46	16	24	172	0	54	17
FFB. 15...	0945	.29	16	52	26	27	264	0	50	15
MAR. 24...	1310	533	11	56	10	17	215	0	12	14
25...	1630	164	19	50	7.4	16	170	0	24	12
APR. 24...	1200	1.4	7.2	44	11	26	142	0	50	25
JUNE 01...	0935	3.6	23	54	19	45	188	0	99	30
AUG. 08...	1450	19	21	45	14	14	188	0	25	9.9
SFP. 11...	0920	3.7	18	40	16	27	192	0	32	16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 05...	1.6	.7	332	220	26	1.0	562	8.1	15.5
NOV. 03...	1.5	4.2	288	210	26	.7	476	8.5	13.0
JAN. 11...	1.0	2.3	271	180	40	.8	451	7.9	1.0
FFB. 15...	1.7	.5	320	240	20	.8	549	7.7	.0
MAR. 24...	.5	2.0	235	180	5	.5	425	7.0	9.0
25...	.5	1.8	221	160	16	.6	370	7.4	7.0
APR. 24...	.7	1.8	242	160	39	.9	439	7.9	18.5
JUNE 01...	1.1	2.2	373	210	58	1.3	609	7.3	18.0
AUG. 08...	1.3	1.0	227	170	16	.5	401	7.1	30.0
SFP. 11...	1.1	2.1	253	170	8	.9	454	7.8	20.0

ARKANSAS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE ARKANSAS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

07227900 LAKE MEREDITH NEAR SANFORD, TEX. (Lat 35°42'38", long 101°33'03")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 05...	1120	542500	7.6	54	23	--	250	--	200	0	250	260
FEB. 15...	1115	531700	4.6	56	23	--	250	--	206	0	250	250
MAY 03...	1330	545000	.8	61	26	240	--	6.1	212	0	250	270
JUNE 14...	1110	533500	2.1	62	26	250	--	6.1	214	0	260	260

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORAL UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 05...	.8	.30	942	230	65	7.3	1560	7.9	21.5	--	--
FEB. 15...	.8	.07	942	230	65	7.2	1560	7.9	--	--	--
MAY 03...	.8	.08	960	260	86	6.6	1650	7.9	13.0	--	250
JUNE 14...	.6	.00	972	260	86	6.7	1680	8.1	20.5	0	240

07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.

LOCATION.--Lat 34°50'15", long 101°24'49", Armstrong County, at gaging station at bridge on Farm Road 284, 13 miles (21 km) northeast of Wayside.

DRAINAGE AREA.--4,211 mi² (10,906 km²), of which 3,281 mi² (8,498 km²) is noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

Water temperatures: November 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 45,700 micromhos July 21; minimum daily, 660 micromhos May 22.

Water temperatures: Minimum, freezing point on several days during December and January.

EXTREMES, November 1967 to September, 1969, October 1970 to September 1973.--Specific conductance: maximum daily, 47,300 micromhos May 5, 1971; minimum daily, 660 micromhos May 22, 1973.

Water temperatures: Maximum, 38.0°C Oct. 14, 1968; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
31...	1100	77	11	56	6.2	140	150	0	190	95
NOV.										
04...	1540	3.2	--	540	120	2000	104	0	1800	3000
DEC.										
01...	1500	2.8	--	500	86	1500	112	0	1700	2100
JAN.										
03...	1615	2.6	--	350	67	840	74	0	1300	1100
FEB.										
16...	1230	.98	--	600	130	2600	156	0	1900	4000
MAR.										
11...	1415	34	--	68	20	200	148	0	310	170
13...	1330	15	--	350	75	450	154	0	1200	550
APR.										
21...	1300	6.0	--	520	--	1800	76	0	1900	2400
MAY										
21...	1515	8.8	18	200	35	260	182	0	700	230
JUNE										
10...	1400	1.1	28	620	150	3400	84	0	2200	5100
12...	1225	.62	27	660	160	4200	104	0	2300	6400
JULY										
20...	1615	.03	--	--	--	--	--	--	--	14000
23...	1150	163	--	64	14	160	186	0	240	110
AUG.										
17...	1100	.03	--	820	220	7300	174	0	2700	11000
SEP.										
17...	1245	2.3	--	330	140	1100	134	0	1000	1800

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
31...	--	1.9	583	160	42	4.7	856	8.0	3.0
NOV.									
04...	--	--	7520	1800	1800	--	11600	8.1	20.0
DEC.									
01...	--	--	5920	1600	1500	16	8910	8.0	18.0
JAN.									
03...	--	--	3680	1150	1100	11	5450	8.0	9.0
FEB.									
16...	--	--	9310	2000	1900	--	14600	8.0	10.0
MAR.									
11...	--	--	835	250	130	5.4	1380	8.1	15.0
13...	--	--	2700	1200	1000	5.7	3680	8.1	15.0
APR.									
21...	--	--	6750	1600	1500	--	10000	7.8	20.0
MAY									
21...	.7	1.6	1530	640	490	4.5	2140	7.6	30.0
JUNE									
10...	--	--	11600	2200	2100	--	17400	8.0	29.0
12...	--	--	13900	2300	2200	--	20900	7.9	29.0
JULY									
20...	--	--	--	--	--	--	43500	--	33.0
23...	--	--	687	220	64	4.7	1100	8.0	25.0
AUG.									
17...	--	--	22500	3000	2800	--	34500	7.4	28.0
SEP.									
17...	--	--	4550	1400	1300	13	7310	7.7	15.0

07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	183.04	2440	1690	833	470	230	570	282	710
NOV.	218.4	4950	3280	1930	1160	683	900	530	1440
DEC.	52.78	13600	8990	1280	3770	538	1970	281	1950
JAN. 1973....	74.20	13600	9030	1810	3820	764	1900	380	1950
FEB.	40.30	13400	8490	924	3500	381	1870	203	1940
MAR.	466.0	2960	1910	2410	560	703	620	783	860
APR.	692.6	2370	1640	3070	430	811	550	1030	690
MAY	1636.0	1380	930	4120	240	1050	290	1290	400
JUNE	438.53	1680	1150	1360	330	387	350	416	490
JULY	617.10	2170	1460	2430	410	683	450	752	630
AUG.	95.72	2010	1320	341	390	100	390	100	580
SEP.	199.09	2090	1370	736	460	245	360	193	610
TOTAL	4713.76	--	--	21200	--	6580	--	6240	--
WTD. AVG. ...	12.9	2490	1670	--	520	--	490	--	650

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35600	1590	8910	7100	10700	7360	4050	5960	3510	---	---	---
2	35800	4650	9420	12900	12900	12500	6440	6600	700	---	2020	---
3	36100	9140	8080	5450	16000	13400	5230	7190	4360	---	5940	---
4	35600	11600	9180	8220	14000	13500	5920	8080	6010	36800	---	---
5	37400	14000	7640	5430	14000	13800	6590	8450	7820	36500	---	---
6	---	15200	16200	10500	14600	14000	6250	9140	9350	---	---	30000
7	---	17300	19500	13600	13600	15400	7330	10000	10400	---	11900	2070
8	---	17600	11000	16800	14200	11100	5870	9100	12400	---	830	9490
9	---	16500	17700	20000	16700	12700	6710	8900	14900	2120	1460	29000
10	---	19500	17700	23000	12500	1200	6470	9400	17400	1930	7980	29000
11	---	19600	16300	26100	12800	1380	7290	10600	19300	2500	18800	32400
12	---	1400	16000	29300	12900	2450	7290	11100	5370	20000	28100	30300
13	---	2050	11000	11300	15600	3680	6740	11200	6240	1830	27500	32500
14	---	6010	8990	10300	17000	5510	7320	8080	8550	910	6930	---
15	35000	8970	17100	9350	13900	6700	6980	8080	17800	4260	30500	2500
16	35500	10100	17100	10600	14600	6630	8860	10000	29000	11400	31100	670
17	---	11300	11100	11100	11100	7570	7790	10900	28500	25700	34500	7310
18	35400	6990	9430	14200	10900	7890	8260	11200	34900	31300	36000	13800
19	32200	10200	13300	13400	13600	8860	9330	11700	34900	37600	---	18100
20	3500	11000	13400	12800	15500	8400	10900	1420	35600	43500	---	23700
21	2830	9760	15900	13900	15300	8970	10000	820	36500	45700	---	31000
22	15700	11600	14900	14600	13800	8890	10500	660	36500	810	---	32600
23	15600	11500	15300	14200	10800	9810	1230	1830	38200	1230	---	28100
24	21600	8740	17700	17200	11300	8040	920	5560	37400	2700	---	32200
25	25000	11100	16100	13900	12000	6530	940	6610	40000	8430	---	33500
26	20600	10600	17700	13100	13500	6790	1110	7630	38900	10600	---	24700
27	24200	12100	14400	38400	13700	9770	2630	10300	39600	14600	---	13400
28	25500	12000	13400	33500	13600	7330	3800	12500	39500	2110	---	23100
29	26300	12000	12800	12100	---	8970	4800	10600	45600	17200	---	23000
30	25000	15100	14800	12800	---	1550	5530	13600	40000	15000	---	33200
31	1140	---	16900	12200	---	2640	---	2930	---	---	---	---
MONTH	---	10970	13840	15080	13610	8170	6100	8070	23310	---	---	22320

RED RIVER BASIN

07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	8.0	18.0	5.0	6.0	15.0	15.0	17.0	16.0	---	---	---
2	15.0	10.0	19.0	3.0	14.0	18.0	10.0	20.0	20.0	---	29.0	---
3	24.0	19.0	2.0	9.0	10.0	10.0	12.0	22.0	31.0	---	27.0	---
4	25.0	20.0	1.0	0.0	15.0	19.0	10.0	10.0	33.0	---	---	---
5	27.0	18.0	3.0	2.0	18.0	17.0	6.0	18.0	30.0	35.0	---	---
6	---	19.0	0.0	0.0	13.0	15.0	20.0	17.0	34.0	---	---	---
7	---	5.0	2.0	---	7.0	9.0	8.0	18.0	---	---	28.0	25.0
8	---	15.0	5.0	---	3.0	15.0	6.0	22.0	34.0	---	30.0	26.0
9	---	10.0	0.0	---	8.0	10.0	7.0	21.0	30.0	---	29.0	24.0
10	---	10.0	0.0	---	15.0	8.0	15.0	---	29.0	33.0	32.0	19.0
11	---	13.0	0.0	---	12.0	15.0	16.0	22.0	30.0	31.0	33.0	30.0
12	---	13.0	0.0	0.0	5.0	15.0	10.0	20.0	29.0	30.0	33.0	25.0
13	---	5.0	5.0	7.0	8.0	15.0	23.0	15.0	29.0	29.0	---	30.0
14	---	11.0	0.0	6.0	5.0	15.0	20.0	12.0	31.0	24.0	35.0	---
15	21.0	15.0	3.0	11.0	7.0	5.0	23.0	23.0	31.0	31.0	32.0	---
16	17.0	12.0	3.0	7.0	10.0	15.0	15.0	28.0	30.0	32.0	28.0	15.0
17	---	3.0	7.0	8.0	7.0	12.0	25.0	29.0	27.0	33.0	28.0	15.0
18	15.0	5.0	5.0	10.0	10.0	18.0	22.0	30.0	33.0	24.0	---	14.0
19	8.0	10.0	8.0	15.0	15.0	7.0	13.0	32.0	19.0	31.0	---	22.0
20	8.0	5.0	4.0	12.0	9.0	12.0	23.0	28.0	30.0	33.0	---	19.0
21	20.0	5.0	9.0	8.0	10.0	14.0	20.0	30.0	29.0	31.0	---	27.0
22	17.0	15.0	17.0	6.0	4.0	21.0	25.0	24.0	31.0	29.0	---	26.0
23	7.0	6.0	10.0	11.0	13.0	15.0	25.0	15.0	29.0	25.0	---	23.0
24	9.0	7.0	5.0	7.0	19.0	8.0	24.0	28.0	31.0	32.0	---	23.0
25	15.0	5.0	5.0	7.0	10.0	8.0	15.0	31.0	34.0	25.0	---	25.0
26	11.0	9.0	---	5.0	16.0	20.0	9.0	24.0	35.0	26.0	---	25.0
27	15.0	8.0	18.0	6.0	8.0	9.0	18.0	15.0	30.0	30.0	---	15.0
28	18.0	11.0	7.0	0.0	10.0	21.0	25.0	23.0	28.0	30.0	---	23.0
29	17.0	5.0	8.0	11.0	---	10.0	15.0	30.0	31.0	25.0	---	21.0
30	7.0	3.0	4.0	10.0	---	8.0	25.0	28.0	32.0	33.0	---	27.0
31	3.0	---	8.0	7.0	---	15.0	---	22.0	---	---	---	---
MONTH	---	10.0	6.0	6.5	10.5	13.5	16.5	22.5	29.5	---	---	---

07298200 TULE CREEK NEAR SILVERTON, TEX.

LOCATION.--Lat 34°32'38", long 101°25'40", Briscoe County, at gaging station at bridge on Farm Road 284, 1.0 mile (0.2 km) downstream from Rock Creek, 8.6 miles (13.8 km) northwest of Silverton.

DRAINAGE AREA.--1,150 mi² (2,980 km²), of which 960 mi² (2,490 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 15...	1205	.08	45	34	89	140	436	18	270	52
JAN. 16...	1015	.48	34	28	68	110	360	12	190	40
FFB. 20...	1300	.13	37	58	82	140	512	0	260	50
MAR. 27...	1120	.10	31	51	92	160	500	0	320	66
APR. 30...	1010	.09	24	58	85	150	492	0	290	63
JUNE 05...	1135	4.9	10	33	13	55	142	0	110	13
SEP. 19...	1625	2.4	8.7	40	16	60	148	0	150	12

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 15...	6.6	.04	892	450	62	2.9	1290	8.5	2.0
JAN. 16...	6.7	.3	662	350	34	2.5	1010	8.4	1.5
FFB. 20...	8.9	.5	885	480	62	2.7	1340	8.1	10.5
MAR. 27...	9.1	.06	978	510	96	3.1	1480	8.3	12.0
APR. 30...	8.2	.05	915	490	91	2.9	1430	8.2	17.0
JUNE 05...	1.2	.3	310	140	19	2.1	504	7.6	22.0
SEP. 19...	.5	.6	362	170	44	2.0	617	6.9	27.5

RED RIVER BASIN

07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.

LOCATION.--Lat 34°34'23", long 100°44'43", Hall County, at gaging station at bridge on Farm Road 657, 7.6 miles (12.2 km) southwest of Lakeview.

DRAINAGE AREA.--6,792 mi² (17,591 km²) of which 4,769 mi² (12,352 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.
Water temperatures: July 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 25,500 micromhos Apr. 12; minimum daily, 1,510 micromhos July 15.

EXTREMES, July 1968 to September 1973.--Specific conductance: Maximum daily 26,200 micromhos Mar. 18, 19, 1969; minimum daily, 1,510 micromhos July 15, 1973.
Water temperatures (July 1968 to September 1969): Minimum, freezing point Dec. 22, 24, 28, 1968, Mar. 8, 9, 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 21...	0845	2.6	--	540	130	1800	96	0	1900	2600
NOV. 14...	1137	32	--	370	55	1230	174	0	1000	1900
DEC. 14...	1120	.07	--	510	190	2500	96	0	1900	3800
JAN. 27...	0931	.75	--	580	220	3100	148	0	2000	4900
FEB. 06...	1510	.21	--	440	170	750	166	0	1600	1100
MAR. 24...	0830	690	--	480	95	1400	144	0	1400	2200
APR. 04...	1515	78	--	660	160	3700	104	0	1850	6000
MAY 23...	0700	194	20	310	53	810	148	0	860	1200
JUNE 02...	0900	2300	18	220	33	360	126	0	570	540
SEP. 07...	1430	671	--	320	39	510	124	0	860	760

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 21...	--	--	6990	1900	1800	--	10400	8.1	10.0
NOV. 14...	--	--	4620	1200	1000	16	7630	8.0	9.5
DEC. 14...	--	--	8980	2000	2000	--	13700	7.9	.0
JAN. 27...	--	--	11000	2400	2200	--	17000	8.1	5.0
FEB. 06...	--	--	4200	1800	1700	7.6	6070	8.1	4.0
MAR. 24...	--	--	5520	1600	1500	16	8680	7.9	9.0
APR. 04...	--	--	12400	2300	2200	--	19300	8.0	13.0
MAY 23...	--	2.7	3360	990	870	11	5400	7.7	26.0
JUNE 02...	.4	1.0	1810	670	570	6.1	2740	7.9	22.0
SEP. 07...	--	--	2540	950	840	1.3	3770	7.2	24.0

07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	20.31	10200	6850	376	2540	139	1810	99	1850
NOV.	1140.45	8170	4980	15300	2040	6280	1070	3300	1670
DEC.	28.45	18600	12000	923	5240	402	2440	187	2600
JAN. 1973....	62.15	19200	12400	2080	5550	932	2280	382	2660
FEB.	9.28	15000	9760	244	4220	106	2010	50	2280
MAR.	6174.75	8490	5460	91000	2200	36600	1240	20600	1690
APR.	9329	8820	5650	142000	2300	57900	1270	32000	1720
MAY	3576.91	6580	4190	40400	1600	15500	1030	9910	1520
JUNE	1575.41	3980	2600	11100	890	3780	720	3060	1290
JULY	1842.57	3760	2500	12500	810	4020	760	3770	1270
AUG.	3169.55	3800	2580	22000	810	6940	830	7110	1270
SEP.	8389.47	4010	2700	61100	880	19900	840	19000	1290
TOTAL	35318.30	--	--	399000	--	152000	--	99500	--
WTD. AVG. ...	96.8	6470	4190	--	1600	--	1040	--	1510

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) - WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7870	22200	15000	18100	16800	15000	5520	16800	---	12000	6940
2	---	6370	22800	14000	15000	12100	11600	11100	3250	---	15000	7750
3	---	6820	19000	18400	9640	12800	8000	16900	10500	---	8500	---
4	---	8800	17300	14500	9800	11000	19300	20100	13600	---	9120	2530
5	---	9700	17400	17500	9900	9380	20300	18700	15600	5940	8100	3100
6	---	10600	17100	14400	10300	13600	24200	18000	17300	8370	7280	5460
7	---	5110	14600	15000	11500	15200	23800	17100	19400	---	3630	2250
8	---	5090	14500	15800	19200	16800	22500	15700	19800	---	4060	5690
9	---	5000	14100	16500	10600	18100	21600	14700	20100	---	3140	9000
10	---	4920	15000	17200	12800	8610	25000	14700	20500	---	4980	13800
11	---	4820	16000	18400	15000	7320	25400	16500	20800	---	7030	14100
12	---	5000	17700	19000	17700	12400	25500	16200	19400	---	11000	17000
13	---	5170	18600	20000	16300	15000	17300	18000	19200	---	15400	13000
14	---	7630	13700	22500	13700	17500	13600	19600	16900	3250	16500	16300
15	---	7500	20200	17600	10800	20800	10900	16100	15600	1510	14000	16500
16	---	10000	19800	21400	13500	22100	14700	15300	14400	13300	7080	3690
17	---	12500	18500	25100	12200	21600	22300	14600	14400	---	7120	6040
18	---	9170	15500	23000	13500	21500	20700	13800	14300	---	7050	7330
19	---	12000	18000	20000	14300	21400	8730	10200	12000	---	7500	9480
20	11000	15000	21000	18200	13000	20200	12200	15300	10000	---	7860	10100
21	10400	20900	21000	15000	11900	20000	18200	9630	8000	---	7950	9500
22	11000	22700	15000	12400	15000	19800	19000	11700	6700	---	7150	8260
23	12000	22000	14600	16600	16400	14900	19100	4580	6500	6680	7080	8240
24	13000	19300	14200	18400	16900	8160	7180	5400	6300	5840	7010	8220
25	14000	15000	14000	18000	12900	10000	11000	6600	6130	8490	7380	8500
26	13000	10000	13600	18200	15900	13000	4660	7820	6800	7600	7450	18500
27	13500	15000	13400	17000	15800	11400	8150	7800	---	5260	7550	4810
28	14000	22000	13000	17700	15900	17800	10300	7780	8000	7720	7640	8260
29	14400	21100	14100	18900	---	9870	7190	9290	8600	2700	---	9950
30	13700	21800	16900	12000	---	6800	16800	6680	9350	7590	---	10300
31	9190	---	16000	16000	---	9680	---	16400	---	8860	---	---
MONTH	---	11630	16740	17540	13840	14700	16140	12960	13110	---	8410	9120

RED RIVER BASIN

07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.0	8.0	---	5.0	15.0	---	12.0	---	---	---	19.0
2	---	10.0	1.0	3.0	---	19.0	10.0	23.0	22.0	---	23.0	---
3	---	10.0	---	10.0	0.0	16.0	6.0	22.0	---	---	20.0	---
4	---	7.0	6.0	2.0	---	---	13.0	20.0	25.0	---	20.0	---
5	---	---	0.0	2.0	---	16.0	7.5	13.0	25.0	34.0	---	---
6	---	14.0	2.0	0.0	4.0	15.0	17.0	---	25.0	32.0	30.0	17.0
7	---	20.0	0.0	---	5.0	---	12.0	25.0	30.0	---	28.0	24.0
8	---	15.0	2.0	---	4.0	12.0	---	24.0	---	---	25.0	20.0
9	---	---	0.0	---	2.0	14.0	13.0	26.0	20.0	---	32.0	---
10	---	17.0	---	---	0.0	7.0	16.0	30.0	---	---	25.0	23.0
11	---	5.0	---	---	---	---	20.0	25.0	31.0	---	22.0	20.0
12	---	---	1.0	---	11.0	18.0	23.0	14.0	28.0	---	---	29.0
13	---	7.0	2.0	---	7.0	---	19.0	---	---	---	30.0	33.0
14	---	9.5	0.0	9.0	10.0	9.0	20.0	18.0	29.0	23.0	37.0	26.0
15	---	4.0	4.0	13.0	4.0	18.0	---	25.0	---	---	32.0	18.0
20	---	---	4.0	3.0	11.0	23.0	17.0	---	---	---	30.0	27.0
21	10.0	6.0	11.0	---	8.0	13.0	12.0	34.0	---	---	31.0	---
22	---	11.0	8.0	2.0	---	---	22.0	26.0	28.0	---	28.0	20.0
23	---	7.0	4.0	12.0	6.0	28.0	25.0	26.0	---	32.0	---	---
24	---	5.0	---	8.0	2.0	9.0	15.0	25.0	---	30.0	21.0	22.0
25	---	1.0	---	---	11.0	---	15.0	---	28.0	26.0	20.0	---
26	---	---	---	8.0	19.0	16.0	11.0	12.0	---	27.0	---	20.0
27	---	8.0	---	5.0	18.0	10.0	14.0	---	---	32.0	19.0	16.0
28	---	10.0	6.0	---	15.0	15.0	10.0	20.0	---	22.0	---	15.0
29	---	3.0	14.0	10.0	---	14.0	10.0	25.0	---	23.0	---	13.0
30	10.0	0.0	0.0	10.0	---	10.0	15.0	22.0	22.0	28.0	---	---
31	5.0	---	---	---	---	5.0	---	27.0	---	22.0	---	---
MONTH	---	---	---	---	7.5	---	15.5	22.5	---	---	---	---

RED RIVER BASIN

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07299300 LITTLE RED RIVER NEAR TURKEY, TEX.

LOCATION.--Lat 34°32'27", long 100°46'13", Hall County, at gaging station at bridge on Farm Road 657, 10 miles (16 km) upstream from mouth, and 14.5 miles (23.3 km) northeast of Turkey.

DRAINAGE AREA.--139 mi² (360 km²).

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

Water temperatures: July 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 103,000 micromhos Jan. 11, minimum daily, 6,950 micromhos June 2.

EXTREMES, July 1968 to September 1973.--Specific conductance: Maximum daily, 118,000 micromhos Apr. 1, 1970; minimum daily, 6,270 micromhos June 14, 1972.

Water temperatures (July 1968 to September 1969): Maximum, 36.0°C July 23, 1969; minimum, freezing point on several days during December 1968, January and March 1969.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 23...	1145	.54	--	1500	370	--	16000	--	132	0
NOV. 13...	1730	9.6	--	760	170	--	4100	--	92	0
DEC. 01...	1105	.93	--	1600	510	--	23000	--	100	0
JAN. 03...	1435	.49	--	1200	340	--	10000	--	228	0
FEB. 27...	1640	.16	--	1500	290	--	13000	--	164	0
MAR. 24...	0820	46	--	800	160	--	3600	--	204	0
APR. 26...	1500	390	--	620	46	--	1100	--	82	0
MAY 04...	1825	4.0	--	1200	240	--	7100	--	104	0
JUNE 02...	0845	185	15	460	54	--	1100	--	84	0
JULY 24...	1935	.10	12	1000	160	5400	--	26	102	0
AUG. 03...	0835	.93	--	1300	240	--	7700	--	132	0
SEP. 06...	1915	1030	--	640	55	--	2000	--	120	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA.MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 23...	3400	25000	--	45900	5200	5100	--	64700	7.7	15.0
NOV. 13...	2100	6600	--	13800	2600	2500	--	21600	8.0	9.0
DEC. 01...	3900	38000	--	67000	6200	6100	--	90900	7.8	8.0
JAN. 03...	3000	16000	--	30900	4500	4300	--	45000	7.9	11.0
FEB. 27...	3500	21000	--	39100	5000	4900	--	55300	8.0	12.0
MAR. 24...	2000	5800	--	12400	2600	2500	--	19300	7.9	9.0
APR. 26...	1600	1700	--	5150	1800	1700	12	7800	7.8	12.0
MAY 04...	2900	12000	--	23100	4100	4000	--	34700	7.9	22.0
JUNE 02...	1200	1700	.8	4530	1400	1300	13	6950	7.9	23.0
JULY 24...	2400	8800	--	17900	3200	3100	42	27100	7.6	31.0
AUG. 03...	3100	13000	--	25000	4300	4200	--	38300	7.4	22.0
SEP. 06...	1600	3200	--	7590	1800	1700	--	12000	7.6	16.0

RED RIVER BASIN

07299300 LITTLE RED RIVER NEAR TURKEY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	71.47	32800	22200	4280	11500	2220	2400	463	--
NOV.	91.95	49600	35000	8680	18900	4680	2900	719	--
DEC.	12.72	69800	50200	1720	27700	951	3410	117	--
JAN. 1973....	20.47	83500	60600	3350	33000	1820	4510	249	--
FEB.	8.97	76600	55400	1340	30100	729	4260	103	--
MAR.	663.92	30700	20500	36700	10300	18500	2470	4420	--
APR.	2027.0	14800	9640	52800	4420	24200	1640	8950	--
MAY	73.24	34300	23200	4600	11900	2350	2630	520	--
JUNE	259.99	8300	5440	3820	2150	1510	1310	917	1700
JULY	465.17	16000	10400	13000	4630	5810	1870	2340	--
AUG.	995.12	11800	7760	20800	3410	9160	1500	4040	--
SEP.	2062.04	16200	10600	59100	4940	27500	1750	9720	--
TOTAL	6752.06	--	--	210000	--	99400	--	32600	--
WTD. AVG. ...	18.5	17500	11500	--	5450	--	1790	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48000	35500	90900	44000	49500	52800	25000	23700	42000	35000	31300	50400
2	47900	48700	83400	42800	49700	50600	33100	26300	6950	54600	36600	50700
3	48000	49600	75800	45000	49900	50100	45600	25200	15000	54400	38300	51000
4	48500	51200	68300	82300	49600	50600	28400	34700	27600	50000	40900	9340
5	48000	50600	60200	67900	49300	51200	33700	38600	38300	16300	44600	16300
6	48700	50100	58500	67200	49000	50800	36500	41200	44100	28600	48300	12000
7	47900	48500	50400	73500	47800	51000	42500	43700	45900	41400	25000	16700
8	48000	48200	46700	80700	47300	37500	37500	49400	47200	43700	8760	20200
9	48100	48300	49500	93700	47000	86800	55900	47700	49100	45200	12300	30500
10	47700	48400	48800	98500	58100	27900	53100	49600	49900	49300	15500	40800
11	48500	47700	48100	103000	55000	32000	53700	51400	50800	50400	24500	39200
12	48100	47500	45000	102000	51300	42700	55900	51400	50500	51500	30500	35100
13	48200	21600	76000	101000	48500	52500	45500	52600	50700	47400	36500	24800
14	48400	26800	81200	95000	48600	62200	42800	53700	49600	15600	37100	41200
15	48300	36100	81500	88900	48000	62100	18300	53200	52200	17500	36400	37100
16	47900	40000	84100	79000	47700	64300	12800	55000	52200	26800	37700	9430
17	48000	45100	83300	86700	48000	62400	25400	54000	53600	33000	41800	17800
18	48100	40400	82500	80000	47800	62400	30000	53200	54800	38800	45800	26700
19	47600	43000	78000	73200	47500	62400	13100	51700	56600	44300	48200	37400
20	46000	65000	73300	67200	47500	62100	12400	51100	54000	45200	50600	42700
21	33600	83800	62400	61000	48400	59700	18200	50400	53800	46400	51200	43500
22	35000	93800	53000	56300	49000	60000	22300	57000	54800	45800	50000	44800
23	64700	83800	51100	51600	86700	57300	20000	56500	52500	30000	50300	45300
24	57500	85500	50000	49600	90300	28700	11100	57100	52800	27100	50500	46000
25	54400	95900	49000	54000	78000	32000	10800	55000	53100	38200	50700	45000
26	52800	75000	48000	58900	69100	40900	9270	52900	55500	41700	50800	18000
27	51000	56500	47000	87100	55300	48000	9110	52300	49900	45400	50900	24700
28	49900	81200	46900	75000	58200	51300	14300	51700	54700	15900	51600	20300
29	50000	86500	48500	62000	---	31600	19700	51300	52500	14500	52300	30000
30	45300	91700	46500	51100	---	26200	24500	50900	51100	19200	52000	32300
31	30000	---	47000	50300	---	18700	---	29700	---	25100	51300	---
MONTH	47870	57530	61770	71890	54360	49320	28680	47490	47390	36720	40400	31980

RED RIVER BASIN

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07299300 LITTLE RED RIVER NEAR TURKEY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.0	8.0	---	6.0	17.0	---	22.0	---	30.0	---	20.0
2	15.0	10.0	2.0	4.0	---	18.0	10.0	22.0	23.0	30.0	24.0	---
3	25.0	12.0	---	11.0	0.0	15.0	6.0	25.0	---	31.0	22.0	20.0
4	26.0	8.0	6.0	4.0	---	---	12.0	22.0	27.0	35.0	23.0	21.0
5	17.0	---	3.0	3.0	---	17.0	20.5	15.0	26.0	---	---	23.0
6	20.0	19.0	0.0	0.0	5.0	18.0	19.0	---	28.0	32.0	29.0	16.0
7	18.0	18.0	5.0	---	7.0	---	11.0	25.0	---	22.0	28.0	19.0
8	---	16.0	9.0	0.0	5.0	11.0	---	26.0	---	---	23.0	20.0
9	---	---	0.0	0.0	5.0	15.0	15.0	27.0	27.0	32.0	22.0	---
10	25.0	18.0	---	---	0.0	8.0	16.0	20.0	---	31.0	24.0	23.0
11	27.0	7.0	0.0	2.0	---	---	20.0	26.0	30.0	---	23.0	22.0
12	26.0	---	8.0	---	13.0	19.0	24.0	15.0	30.0	27.0	---	28.0
13	---	9.0	7.0	0.0	9.0	---	20.0	---	28.0	28.0	31.0	32.0
14	19.0	6.0	2.0	---	12.0	9.0	22.0	17.0	26.0	22.0	36.0	25.0
15	---	5.0	6.0	13.0	5.0	20.0	21.0	24.0	29.0	---	30.0	18.0
16	25.0	---	0.0	12.0	7.0	19.0	11.0	27.0	22.0	30.0	29.0	16.0
17	---	7.0	---	11.0	3.0	7.0	20.0	---	---	23.0	---	16.0
18	17.0	3.0	6.0	---	---	---	20.0	29.0	25.0	22.0	23.0	16.0
19	9.0	---	---	9.0	13.0	15.0	---	15.0	25.0	23.0	---	24.0
20	---	---	5.0	4.0	12.0	22.0	14.0	---	31.0	---	33.0	28.0
21	10.0	5.0	11.0	---	9.0	12.0	12.0	31.0	32.0	22.0	32.0	---
22	---	10.0	7.0	3.0	---	---	---	27.0	30.0	---	25.0	20.0
23	15.0	8.0	5.0	14.0	7.0	15.0	22.0	28.0	25.0	33.0	---	---
24	17.0	6.0	---	10.0	3.0	9.0	13.0	27.0	---	31.0	20.0	25.0
25	15.0	2.0	---	---	---	---	15.0	---	26.0	31.0	19.0	29.0
26	12.0	---	---	8.0	20.0	17.0	12.0	17.0	32.0	22.0	---	20.0
27	16.0	17.0	---	5.0	12.0	12.0	12.0	---	27.0	31.0	20.0	17.0
28	13.0	10.0	6.0	---	16.0	14.0	10.0	24.0	29.0	23.0	---	15.0
29	---	4.0	12.0	11.0	---	15.0	---	26.0	---	---	27.0	14.0
30	11.0	2.0	2.0	10.0	---	10.0	16.0	21.0	23.0	31.0	27.0	---
31	6.0	---	---	---	---	5.0	---	26.0	---	25.0	---	---
MONTH	---	---	---	---	---	---	15.5	23.5	---	---	---	21.0

RED RIVER BASIN

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.

LOCATION.--Lat 34°34'09", long 100°11'37", Childress County, at gaging station at bridge on U.S. Highways 62 and 83, 3.1 miles (5.0 km) downstream from Salt Creek, and 10.0 miles (16.1 km) north of Childress.

DRAINAGE AREA.--7,725 mi² (20,008 km²), of which 4,769 mi² (12,352 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.
Water temperatures: July 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 91,900 micromhos July 3; minimum daily, 7,840 micromhos June 3.
Water temperatures: Maximum, 36.0°C July 3; minimum, freezing point on many days during winter months.

EXTREMES, July 1968 to September 1973.--Specific conductance: Maximum daily, 98,100 micromhos June 18, July 28, and Aug. 9, 1970; minimum daily, 3,000 micromhos Aug. 13, 1971.
Water temperatures: Maximum, 38.0°C Aug. 20, 1969; minimum, freezing point on many days during winter months.

REMARKS.--Conductivity is recorded continuously at this station. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
04...	1545	2.7	--	1700	380	--	19000	--	112	0
NOV.										
02...	0830	368	--	730	140	--	4100	--	180	0
DEC.										
30...	1300	30	--	1500	300	--	15000	--	108	0
JAN.										
16...	0100	34	--	1200	300	--	10000	--	136	0
FEB.										
28...	1230	8.5	--	1600	250	--	17000	--	132	--
MAR.										
11...	0845	1330	--	660	120	--	3700	--	140	0
APR.										
27...	1230	3130	--	550	80	--	2000	--	130	0
MAY										
27...	0845	48	--	760	170	--	6700	--	112	0
JUNE										
03...	0800	357	14	340	56	--	1300	--	120	0
JULY										
25...	0930	1.4	9.1	1800	430	23000	--	54	98	0
AUG.										
25...	0800	.72	--	1800	430	--	22000	--	104	0
SEP.										
13...	0900	3.6	--	1300	270	--	13000	--	112	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
04...	4400	30000	55600	5800	5700	--	77300	7.7	29.0
NOV.									
02...	1900	6500	13400	2400	2200	--	21000	8.2	5.0
DEC.									
30...	3700	24000	44600	4900	4800	--	63900	7.8	7.0
JAN.									
16...	2800	16000	30500	4100	4000	--	45500	7.9	11.0
FEB.									
28...	2300	28000	48400	4900	4800	--	70700	8.0	--
MAR.									
11...	1700	5800	12000	2200	2000	--	18700	7.9	7.0
APR.									
27...	1500	3000	7180	1700	1600	--	11100	8.1	--
MAY									
27...	2100	10000	20300	2600	2500	--	31200	7.9	--
JUNE									
03...	940	2100	4800	1100	980	18	7840	8.0	12.0
JULY									
25...	5100	36000	65900	6300	6200	126	90700	7.5	22.0
AUG.									
25...	5100	34000	63100	6300	6200	--	88000	7.4	21.0
SEP.									
13...	3400	20000	37500	4300	4200	--	55800	7.3	20.0

RED RIVER BASIN

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07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (Ft ³ /s)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	870.14	32700	21700	50900	11100	26200	2320	5440	--
NOV.	1620.3	38700	25500	112000	13300	58200	2560	11200	--
DEC.	281.1	71400	50200	38100	27100	20600	4000	3040	--
JAN. 1973....	348.5	59400	41100	38600	22100	20700	3480	3280	--
FEB.	254.0	65100	44300	30400	24000	16400	3310	2270	--
MAR.	7536.9	23200	15200	309000	7580	154000	1890	38500	--
APR.	17811	14500	9450	455000	4200	202000	1700	81700	--
MAY	4538.77	19700	12900	158000	6250	76600	1770	21700	--
JUNE	6859.0	11700	7450	138000	3320	61500	1330	24600	--
JULY	1323.70	26500	17900	64000	8930	31900	2190	7830	--
AUG.	3774.13	16700	11000	112000	5090	51900	1750	17800	--
SEP.	8970.32	11600	7550	183000	3470	84100	1220	29600	--
TOTAL	54187.86	--	--	1690000	--	804000	--	247000	--
WTD. AVG. ...	148	17600	11500	--	5500	--	1690	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77900	36000	69500	71400	68100	73600	17200	26600	42800	88300	29700	78200
2	77000	21000	66900	72600	70400	75000	21600	20600	10100	90700	46200	81000
3	79100	24200	68200	63300	73300	75300	28300	24500	7840	91900	66900	81300
4	77300	36300	73800	68200	73800	76200	21300	36800	12400	90300	73000	25000
5	77100	46700	73700	68600	74300	77500	28300	48800	20400	51000	78300	10400
6	81000	56200	79900	68600	75400	78700	35700	49600	28600	52000	81400	10900
7	78200	67600	79900	66500	73500	79900	40600	61900	39600	67600	85100	8740
8	78800	72700	75100	67100	72500	36900	42000	56800	50100	75600	17600	11500
9	78800	76000	69900	68800	67300	46300	42700	66100	58100	81000	15200	14000
10	82200	76000	70200	67500	69700	21300	38200	67000	64500	82300	12500	20700
11	81600	76300	75000	62000	69500	18700	41000	70800	69100	74500	11400	32000
12	80400	55000	71700	65400	72100	19400	45700	72900	70600	81700	19100	45500
13	79200	39200	69300	62900	73900	28300	18600	73600	70800	78500	30300	55800
14	80100	60000	70300	51500	76200	36700	15800	71800	71400	76200	75600	22900
15	82000	34900	71500	43400	75200	33500	15500	67200	77200	63300	60800	30200
16	80100	40500	70100	45500	74900	43900	13200	65700	58600	25300	68800	8520
17	80400	49200	71800	50500	75200	52200	12900	73900	73700	36500	73300	10500
18	81000	33100	71800	51200	74900	61100	30400	78300	79000	65900	74800	11500
19	76200	48300	72300	54900	72300	64300	13400	78300	81800	84400	77900	16800
20	46100	38000	73200	58700	73800	68800	13600	81000	81800	84700	79200	25800
21	18000	39200	74700	63100	75400	70000	18700	81200	82500	84300	78300	24500
22	38500	47800	75000	61400	61700	73500	32700	22500	82500	84000	82100	23600
23	50000	49700	73900	71600	54700	22000	39500	21200	84600	87600	84400	11000
24	56500	51100	76200	72400	63300	22800	12400	11600	86600	88500	85100	39300
25	68200	55000	75400	70900	61000	21000	15700	13200	86600	90700	88000	19900
26	66500	58000	75100	60100	64300	35600	15400	18400	87000	78800	85100	9790
27	66900	53400	74800	66500	66900	37500	11300	31200	88100	60500	86200	11000
28	70700	57400	74000	68200	70700	44100	21700	47500	82500	45000	84400	11000
29	70500	62500	69200	75700	---	38300	16600	67200	84600	24200	63100	25100
30	50900	64600	63900	68200	---	24700	23500	73900	86700	13800	74100	23200
31	30900	---	68700	69100	---	15000	---	37500	---	17700	78600	---
MONTH	69100	50860	72420	63740	70510	47490	24780	52180	64000	68280	63440	26900

RED RIVER BASIN

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER • WATER YEAR.OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	7.0	3.0	5.0	5.0	10.0	8.0	15.0	20.0	25.0	30.0	21.0
2	14.0	5.0	2.0	5.0	10.0	10.0	10.0	12.0	17.0	25.0	22.0	21.0
3	20.0	7.0	3.0	8.0	0.0	9.0	6.0	10.0	12.0	36.0	34.0	26.0
4	29.0	15.0	0.0	1.0	5.0	5.0	6.0	18.0	20.0	33.0	25.0	30.0
5	12.0	9.0	6.0	0.0	5.0	8.0	5.0	11.0	22.0	25.0	21.0	21.0
6	13.0	11.0	0.0	---	4.0	10.0	10.0	10.0	27.0	23.0	28.0	20.0
7	15.0	9.0	0.0	0.0	8.0	15.0	10.0	22.0	22.0	28.0	23.0	20.0
8	15.0	11.0	0.0	0.0	0.0	15.0	2.0	22.0	22.0	23.0	26.0	20.0
9	20.0	11.0	0.0	0.0	0.0	10.0	1.0	29.0	19.0	26.0	21.0	20.0
10	25.0	8.0	0.0	0.0	0.0	10.0	3.0	31.0	20.0	22.0	---	23.0
11	---	16.0	0.0	0.0	0.0	7.0	10.0	24.0	21.0	23.0	27.0	20.0
12	28.0	15.0	0.0	0.0	5.0	10.0	11.0	10.0	22.0	30.0	24.0	25.0
13	18.0	7.0	1.0	0.0	5.0	15.0	10.0	9.0	22.0	30.0	23.0	20.0
14	20.0	4.0	0.0	7.0	7.0	10.0	15.0	9.0	21.0	22.0	23.0	20.0
15	15.0	4.0	0.0	10.0	5.0	10.0	13.0	12.0	30.0	20.0	23.0	15.0
16	16.0	10.0	10.0	11.0	1.0	11.0	8.0	21.0	25.0	20.0	21.0	12.0
17	27.0	4.0	2.0	11.0	2.0	18.0	12.0	16.0	20.0	22.0	35.0	15.0
18	15.0	3.0	4.0	9.0	2.0	15.0	22.0	12.0	35.0	29.0	25.0	15.0
19	15.0	5.0	4.0	5.0	4.0	---	18.0	26.0	11.0	24.0	23.0	20.0
20	14.0	2.0	5.0	4.0	7.0	15.0	10.0	17.0	25.0	25.0	22.0	30.0
21	10.0	4.0	4.0	5.0	5.0	17.0	13.0	20.0	25.0	22.0	23.0	22.0
22	11.0	5.0	4.0	0.0	5.0	22.0	22.0	18.0	31.0	21.0	24.0	21.0
23	15.0	3.0	3.0	0.0	0.0	18.0	11.0	30.0	26.0	32.0	24.0	20.0
24	10.0	3.0	3.0	8.0	5.0	11.0	13.0	18.0	20.0	30.0	25.0	29.0
25	13.0	3.0	6.0	5.0	6.0	10.0	11.0	18.0	30.0	22.0	21.0	22.0
26	10.0	2.0	4.0	5.0	8.0	15.0	9.0	18.0	34.0	28.0	30.0	20.0
27	10.0	4.0	10.0	5.0	6.0	10.0	18.0	15.0	29.0	32.0	27.0	15.0
28	11.0	0.0	10.0	0.0	10.5	12.0	9.0	13.0	23.0	31.0	27.0	19.0
29	13.0	3.0	15.0	0.0	---	10.0	15.0	20.0	28.0	21.0	25.0	9.0
30	24.0	5.0	7.0	14.0	---	9.0	20.0	18.0	25.0	22.0	31.0	10.0
31	5.0	---	9.0	13.0	---	10.0	---	21.0	---	25.0	31.0	---
MONTH	16.5	6.5	3.5	4.5	4.5	12.0	11.0	17.5	23.5	25.5	25.5	20.0

RED RIVER BASIN

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07299570 RED RIVER NEAR QUANAH, TEX.

LOCATION.--Lat 34°24'47", long 99°44'03", Hardeman County, at gaging station at bridge on State Highway 283, 8 miles (13 km) north of Quanah, and 30 miles (48 km) upstream from Salt Fork Red River.

DRAINAGE AREA.--8,321 mi² (21,551 km²) of which 4,769 mi² (12,352 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973 (discontinued).
Pesticide analyses: March 1968 to September 1973 (discontinued).

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
24...	1250	24	11	950	180	6300	--	19	130	0	2400	10000
30...	1730	74	6.8	500	110	--	2400	--	92	0	1300	3900
DEC.												
04...	1420	11	13	980	270	--	6900	--	120	0	2600	11000
JAN.												
08...	1350	21	13	930	250	--	5600	--	87	0	2800	8900
FEB.												
12...	1530	13	17	970	250	--	6400	--	144	0	2900	10000
20...	1900	7.3	13	920	240	--	5300	--	153	0	2700	8400
MAR.												
20...	1325	16	13	980	230	--	6300	--	152	0	2800	10000
APR.												
17...	1025	193	11	510	120	--	2900	--	123	0	1600	4500
25...	--	1700	13	520	87	--	2200	--	124	0	1400	3400
MAY												
31...	1350	14	14	780	200	--	3600	--	148	0	2400	5700
AUG.												
08...	1115	.28	14	960	250	--	5300	--	120	0	2800	8400
29...	1845	.25	19	1100	280	--	6100	--	128	0	2900	10000
SEP.												
08...	1150	1740	14	570	82	--	2500	--	120	0	1600	3900

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
24...	.4	.3	20100	3100	3000	49	30200	7.9	15.0	--	--
30...	--	--	8230	1700	1600	--	13300	8.0	7.5	--	--
DEC.											
04...	--	--	21900	3600	3400	--	32700	7.9	6.0	--	--
JAN.											
08...	--	--	18400	3400	3300	--	26800	7.4	.0	--	--
FEB.											
12...	--	.4	20700	3400	3300	--	32900	7.5	14.5	--	--
20...	.5	.2	17600	3300	3200	--	26100	7.5	13.0	--	--
MAR.											
20...	--	--	20500	3400	3300	--	32500	7.5	16.5	--	--
APR.											
17...	.5	.3	9630	1800	1600	--	15000	7.9	14.5	8.2	84
25...	--	--	7750	1700	1600	--	12100	7.6	19.0	--	--
MAY											
31...	--	--	12800	2800	2700	--	19100	7.6	24.5	--	--
AUG.											
08...	--	--	17800	3400	3400	--	26200	7.0	27.5	--	--
29...	.4	.01	20500	3900	3800	--	29400	7.9	26.0	--	--
SEP.											
08...	--	--	8760	1800	1700	--	13600	7.4	--	--	--

RED RIVER BASIN

07299570 RED RIVER NEAR QUANAH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 24...	1250	15.0	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	1300	13.0	.00	.00	.00	.00	.00	.00	.00	.00
APR. 17...	1025	14.5	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 29...	1845	26.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 24...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	.00	.0	.0	.00	.00	.00	.00	.03	.00	.00
APR. 17...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 29...	.00	.0	.0	.00	.00	.00	.04	.00	.00	.00

RED RIVER BASIN

47

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.

LOCATION.--Lat 34°57'27", long 100°13'14", Collingsworth County, at gaging station at bridge on U.S. Highway 83, 4 miles (6 km) downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 miles (7.2 km) south of Lutie, and 7.2 miles (11.6 km) north of Wellington.

DRAINAGE AREA.--1,222 mi² (3,165 km²) of which 209 mi² (541 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 3,780 micromhos June 21; minimum daily, 807 micromhos Apr. 24.

Water temperatures: Maximum, 37.0°C July 7.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 4,190 micromhos May 11, 1970; minimum daily, 807 micromhos Apr. 24, 1973.

Water temperatures: Maximum, 37.0°C July 13, 1969, June 17, 1972, July 7, 1973; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
NOV. 04...	1200	7.3	--	520	110	--	220	--	88	0	1600
DEC. 21...	1100	61	--	230	67	--	150	--	88	0	720
JAN. 17...	1330	22	--	340	85	--	200	--	172	0	1020
FEB. 24...	0415	59	--	310	49	--	330	--	144	0	1100
MAR. 30...	0930	486	--	200	56	--	150	--	144	0	630
APR. 19...	0900	552	--	180	42	--	130	--	126	0	560
MAY 23...	0800	168	16	300	59	--	180	--	146	0	860
JUNE 02...	1730	972	12	120	25	--	81	--	118	0	330
JULY 10...	1600	8.2	21	560	93	180	--	4.5	132	0	1600
AUG. 07...	0645	11	20	560	95	--	170	--	72	0	1600
SEP. 16...	0635	96	13	120	27	--	110	--	148	0	350

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 04...	370	--	--	2830	1800	1700	2.3	3500	8.1	18.0
DEC. 21...	250	--	--	1460	850	780	2.2	2180	7.9	10.0
JAN. 17...	310	--	--	2040	1200	1100	2.6	2750	8.0	12.0
FEB. 24...	310	--	--	2170	980	860	4.6	2580	8.2	15.0
MAR. 30...	200	--	--	1310	740	620	2.3	1880	--	10.0
APR. 19...	160	--	--	1140	620	520	2.3	1610	8.3	16.0
MAY 23...	240	.5	1.0	1730	980	860	2.4	2280	7.7	18.0
JUNE 02...	92	.4	.6	716	400	300	1.8	1090	8.1	25.0
JULY 10...	260	--	.8	2810	1800	1700	1.9	3220	7.8	33.0
AUG. 07...	260	.6	.6	2800	1800	1700	5.7	3220	7.6	30.0
SEP. 16...	110	.7	.8	811	420	290	2.3	1200	7.8	22.0

RED RIVER BASIN

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	346.5	3410	2820	2640	300	281	1630	1520	1740
NOV.	914	3310	2730	6740	290	716	1580	3900	1680
DEC.	819	3140	2580	5710	280	619	1480	3270	1580
JAN. 1973....	755	3000	2450	4990	260	530	1390	2830	1500
FEB.	1047	3060	2500	7070	270	763	1430	4040	1530
MAR.	2827	2250	1780	13600	190	1450	960	7330	1060
APR.	8424	1350	960	21800	110	2500	430	9780	540
MAY	1033	2980	2430	6780	260	725	1380	3850	1490
JUNE	3121.1	1550	1140	9610	130	1100	550	4630	650
JULY	319.0	3200	2630	2270	280	241	1510	1300	1620
AUG.	349.0	2840	2310	2180	250	236	1300	1220	1410
SEP.	866.7	2510	2010	4700	220	515	1110	2600	1210
TOTAL	20821.3	--	--	88100	--	9680	--	46300	--
WTD. AVG. ...	57.0	2020	1570	--	170	--	820	--	930

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3100	3500	3200	2350	3030	3110	2690	2650	2500	3300	3300	3130
2	3160	3550	3180	3070	2770	2600	2460	2600	1090	3260	3280	3120
3	3190	3540	3190	2660	2990	2910	2110	2870	1650	3240	3270	3100
4	3240	3500	3210	2830	3180	3020	2320	2970	2200	3170	3240	2690
5	3260	3480	3340	3070	3150	3130	2650	2970	2440	3290	3220	1850
6	3260	3460	3770	3230	3150	3110	2910	2880	2560	3390	3250	2770
7	3100	3420	3550	3420	3190	3160	2700	2820	2660	3300	3270	3350
8	3180	3420	3340	3590	3160	2810	2120	3060	2960	3300	2310	3510
9	3260	3450	3420	3500	3350	2550	2340	3170	3100	3320	1750	3460
10	3140	3390	3480	3550	3250	1750	2580	3130	3140	3220	2620	3320
11	3020	3430	3550	3580	3200	2080	2740	3230	3170	3310	2980	3340
12	3350	3250	3510	3640	3230	2230	2660	3230	3160	3300	3320	2060
13	3220	3070	3430	3520	3070	2370	2170	3220	3110	3180	3400	2720
14	3210	3470	3370	3110	3150	2520	2070	3220	3170	3280	3300	3280
15	3240	3470	3400	2410	3210	2860	1750	3150	3100	3260	3340	3370
16	3270	3460	3590	2130	3230	2940	2320	3130	2940	3250	3260	1200
17	3280	3410	3500	2750	3250	2960	2620	3220	3030	3210	3220	1760
18	3220	3150	3410	2990	3170	3020	2820	3320	3170	3230	3190	2300
19	3200	3000	3400	3070	3080	3080	1610	3260	3330	3220	3200	2830
20	3160	3470	2400	3400	3060	3140	2060	3100	3210	3200	3190	2910
21	3750	3500	2180	3380	3160	2990	2440	2640	3780	3250	3220	3110
22	3770	3750	2630	3360	3100	3000	2810	3220	3260	3010	3210	3170
23	3580	3500	2810	3200	3030	3060	1860	2280	3260	2560	3170	3100
24	3510	3100	2960	3290	2580	1980	807	2820	3270	3280	3180	3120
25	3500	3190	3130	3170	2790	2130	2100	3170	3270	3140	3150	3220
26	3500	3070	3260	3060	2920	2570	2430	3210	3310	3180	3130	2780
27	3490	3350	3240	2750	3020	2600	2400	3250	3320	3210	3150	3140
28	3450	3310	3240	2930	3160	2570	2350	3290	3340	2620	3150	2710
29	3500	3320	3230	3090	---	2540	2520	3390	3380	3540	3120	3160
30	3300	3320	3020	3290	---	1880	2680	3310	3220	3410	3110	3200
31	3400	---	2900	3100	---	2040	---	3360	---	3300	3010	---
MONTH	3320	3380	3220	3110	3090	2670	2340	3070	2970	3220	3110	2890

RED RIVER BASIN

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07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.0	---	5.0	5.0	11.0	20.0	---	30.0	35.0	31.0	26.0
2	15.0	10.0	12.0	5.0	10.0	10.0	12.0	20.0	25.0	25.0	28.0	---
3	27.0	16.0	---	10.0	---	15.0	8.0	14.0	30.0	36.0	---	---
4	29.0	18.0	5.0	3.0	18.0	---	10.0	20.0	16.0	25.0	---	22.0
5	25.0	---	3.0	---	15.0	20.0	---	14.0	28.0	---	34.0	21.0
6	18.0	13.0	0.0	0.0	10.0	15.0	---	---	30.0	33.0	30.0	---
7	25.0	14.0	5.0	---	5.0	18.0	10.0	16.0	25.0	37.0	30.0	20.0
8	---	12.0	10.0	0.0	0.0	9.0	---	26.0	30.0	30.0	22.0	23.0
9	31.0	15.0	5.0	1.0	5.0	15.0	10.0	28.0	28.0	35.0	32.0	---
10	20.0	20.0	---	---	10.0	10.0	15.0	26.0	---	33.0	35.0	24.0
11	30.0	16.0	0.0	0.0	---	15.0	20.0	23.0	31.0	30.0	---	23.0
12	30.0	---	---	0.0	10.0	---	18.0	20.0	30.0	28.0	31.0	30.0
13	21.0	---	12.0	5.0	5.0	---	12.0	---	28.0	25.0	32.0	---
14	---	20.0	10.0	5.0	12.0	10.0	16.0	18.0	34.0	30.0	35.0	32.0
15	---	10.0	---	9.0	13.0	18.0	21.0	28.0	---	---	35.0	25.0
16	---	5.0	0.0	7.0	---	10.0	20.0	32.0	25.0	31.0	28.0	22.0
17	22.0	10.0	---	12.0	5.0	8.0	24.0	28.0	---	30.0	---	16.0
18	14.0	5.0	10.0	---	---	---	20.0	34.0	30.0	30.0	32.0	---
19	10.0	---	9.0	5.0	5.0	---	16.0	---	28.0	30.0	---	30.0
20	12.0	10.0	---	9.0	15.0	20.0	14.0	---	30.0	30.0	35.0	30.0
21	14.0	8.0	10.0	---	10.0	10.0	---	20.0	30.0	32.0	30.0	31.0
22	13.0	15.0	8.0	9.0	---	---	---	28.0	30.0	---	30.0	---
23	11.0	---	---	10.0	15.0	17.0	23.0	18.0	---	28.0	30.0	---
24	20.0	---	---	5.0	15.0	10.0	14.0	30.0	34.0	30.0	---	25.0
25	17.0	4.0	---	---	---	---	17.0	30.0	30.0	28.0	---	30.0
26	13.0	10.0	12.0	10.0	19.0	12.0	14.0	---	35.0	32.0	32.0	20.0
27	12.0	10.0	10.0	5.0	17.0	---	20.0	---	30.0	33.0	26.0	18.0
28	14.0	10.0	9.0	---	16.0	10.0	20.0	26.0	28.0	26.0	32.0	32.0
29	---	8.0	15.0	8.0	---	12.0	---	30.0	30.0	---	28.0	24.0
30	15.0	10.0	5.0	10.0	---	10.0	20.0	30.0	36.0	35.0	30.0	22.0
31	---	---	---	8.0	---	12.0	---	27.0	---	30.0	32.0	---
MONTH	---	11.5	---	---	10.5	---	16.5	---	29.5	30.5	---	---

RED RIVER BASIN

07301200 McCLELLAN CREEK NEAR McLEAN, TEX.

LOCATION.--Lat 35°19'45", long 100°36'32", Gray County, at bridge on State Highway 273, 5 miles (8.0 km) upstream from mouth, and 6.6 miles (10.6 km) north of McLean.

DRAINAGE AREA.--759 mi² (1,966 km²) of which 299 mi² (774 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
03...	0930	1.9	23	44	24	130	132	0	140	170
30...	0900	8.7	21	47	18	110	160	0	110	130
DEC.										
05...	1050	9.0	23	58	22	120	190	0	130	150
27...	0930	11	21	74	28	99	246	0	120	130
JAN.										
08...	1315	19	22	71	18	98	228	0	110	120
FEB.										
13...	1120	13	22	54	19	110	172	0	120	130
MAR.										
20...	1135	16	22	71	19	110	232	0	120	120
APR.										
04...	1035	26	24	42	21	120	136	0	140	140
12...	1000	21	21	79	18	100	250	0	110	120
26...	1045	74	17	70	15	86	252	0	79	92
MAY										
03...	1150	28	21	84	17	97	258	0	110	110
16...	1025	21	--	--	--	--	--	--	--	--
21...	1430	12	--	--	--	--	--	--	--	--
29...	1120	8.7	22	70	20	120	218	0	140	140
JUNE										
13...	1435	5.3	23	54	19	130	172	0	140	150
SEP.										
07...	0815	.82	25	82	18	150	264	0	110	200
27...	1145	6.2	20	69	28	100	212	0	130	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
03...	.7	.03	599	210	100	4.0	1020	8.1	13.5
30...	.7	.2	523	190	61	3.5	855	8.0	11.0
DEC.									
05...	.7	.2	601	240	78	3.5	991	8.3	.0
27...	.8	.2	598	300	98	2.5	1000	8.1	1.0
JAN.									
08...	.6	.1	546	250	64	2.7	970	7.9	1.0
FEB.									
13...	.6	.2	546	210	72	3.3	942	7.9	4.5
MAR.									
20...	.6	.1	582	260	64	3.0	991	7.9	14.0
APR.									
04...	.6	.5	562	190	80	3.9	947	8.0	8.0
12...	.5	.1	579	270	66	2.7	971	7.7	13.0
26...	.5	.5	486	240	30	2.4	830	8.1	9.5
MAY									
03...	.5	.2	573	280	68	2.5	967	7.9	18.5
16...	--	--	--	--	--	--	1000	--	19.5
21...	--	--	--	--	--	--	1020	--	31.5
29...	.6	.08	629	260	78	3.4	1060	7.7	22.0
JUNE									
13...	.7	.1	606	210	72	4.0	1000	7.9	29.0
SEP.									
07...	.7	.06	715	280	62	4.0	1220	8.1	18.0
27...	.2	.00	597	290	110	2.6	1090	7.3	15.5

RED RIVER BASIN

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07301300 NORTH FORK RED RIVER NEAR SHAMROCK, TEX.

LOCATION.--Lat 35°15'51", long 100°14'29", Wheller County, at gaging station at bridge on U.S. Highway 83, 2.5 miles (4.0 km) north of Shamrock, 16 miles (26 km) upstream from Oklahoma-Texas State line, and 23 miles (37 km) downstream from McClellan Creek.

DRAINAGE AREA.--1,082 mi² (2,802 km²) of which 379 mi² (982 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.										
02...	1120	19	18	200	49	300	156	0	360	600
DEC.										
27...	1115	20	18	210	53	280	114	0	470	540
JAN.										
10...	1105	1.3	20	330	64	270	86	0	840	520
FFB.										
13...	1715	20	20	200	47	240	90	0	450	480
MAR.										
21...	0935	14	19	220	48	230	142	0	490	440
APR.										
04...	1300	90	19	200	43	250	204	0	470	410
25...	1235	338	18	180	36	150	174	0	360	290
MAY										
03...	0910	65	18	180	32	160	210	0	360	280
16...	1235	27	--	--	--	--	--	--	--	--
21...	0955	18	15	400	56	170	152	0	1100	260
SEP.										
06...	1320	7.6	11	280	40	120	90	0	760	180
27...	0900	118	11	230	43	34	120	0	490	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.									
02...	.6	.5	1610	700	570	4.9	2470	8.2	10.0
DEC.									
27...	.6	.4	1630	740	650	4.4	2430	8.1	4.0
JAN.									
10...	--	.5	2100	1100	1000	3.6	3110	7.6	1.0
FFB.									
13...	.5	.00	1490	700	630	3.9	2510	7.7	4.5
MAR.									
21...	.5	.05	1510	750	630	3.6	2450	7.8	8.0
APR.									
04...	.5	.3	1500	690	520	4.2	2280	7.9	13.0
25...	.6	.3	1130	590	450	2.7	1850	8.0	19.0
MAY									
03...	.6	.4	1130	590	420	2.8	1750	7.7	9.0
16...	--	--	--	--	--	--	2280	--	25.5
21...	.5	.7	2050	1200	1100	2.1	2620	7.4	23.0
SEP.									
06...	.3	.6	1430	860	790	1.7	1950	7.5	16.0
27...	.0	.3	1020	750	650	.5	1610	7.3	16.5

RED RIVER BASIN

07301410 SWEETWATER CREEK NEAR KELTON, TEX.

LOCATION.--Lat 35°28'23", long 100°07'14", Wheeler County, at gaging station at bridge on Farm Road 592, 5 miles (8 km) north of Kelton, 8 miles (13 km) upstream from Texas-Oklahoma State line and 8.5 miles (13.7 km) northeast of Wheeler.

DRAINAGE AREA.--287 mi² (743 km²), of which 20 mi² (52 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	0920	0.4	20	110	36	73	120	0	400	44
NOV. 02...	1420	3.5	26	92	24	120	372	0	190	64
DEC. 06...	1030	5.6	29	62	28	63	196	0	180	38
JAN. 10...	1400	8.0	26	44	20	54	164	0	120	32
FEB. 14...	1010	12	26	58	20	51	190	0	130	31
MAR. 21...	1500	17	25	100	21	52	310	0	140	32
APR. 25...	1030	92	24	67	16	51	272	0	70	28
MAY 21...	1205	1.6	23	110	24	61	298	0	200	40
31...	0850	15	25	110	23	62	296	0	200	37
JULY 24...	1330	4.5	16	71	16	72	204	0	170	38
AUG. 07...	1510	1.8	22	130	35	79	188	0	400	50
SEPT. 12...	0930	3.5	27	130	26	80	284	0	290	41

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.5	.5	750	420	330	1.5	1070	8.3	14.5
NOV. 02...	.7	1.2	705	330	25	2.9	1050	8.3	13.0
DEC. 06...	.6	1.0	501	270	110	1.7	766	8.2	.0
JAN. 10...	.7	.7	383	190	58	1.4	607	7.9	1.0
FEB. 14...	.6	.7	413	230	72	1.5	651	8.2	2.0
MAR. 21...	.6	.6	532	340	87	1.2	842	7.6	15.0
APR. 25...	.6	.4	392	230	10	1.4	635	8.2	15.5
MAY 21...	.6	.5	616	380	140	1.4	957	7.8	23.0
31...	.6	.9	611	370	130	1.4	922	7.7	16.0
JULY 24...	.7	.5	485	240	76	2.0	765	7.2	31.0
AUG. 07...	.6	.6	813	470	320	1.6	1180	7.4	32.5
SEPT. 12...	.5	1.1	736	420	190	1.7	1050	8.1	21.0

07307600 NORTH PEAASE RIVER NEAR CHILDRESS, TEX.

LOCATION.--Lat 34°16'30", long 100°17'05", Cottle County, at gaging station on bridge on U.S. Highways 62 and 83, 12.2 miles (19.6 km) south of Childress.

DRAINAGE AREA.--1,434 mi² (3,714 km²).

PERIOD OF RECORD.--Chemical analyses: March to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
MAR.										
15...	1730	25	17	320	96	1300	176	0	960	2100
MAY										
01...	1410	36	16	360	110	1300	152	0	1000	2100
09...	0720	75	10	310	60	1000	136	0	840	1600
21...	1515	.03	--	680	140	2900	132	0	1700	4700
25...	0700	11	15	380	100	1500	156	0	1200	2300
JUNE										
03...	1345	352	15	190	34	320	146	0	500	470
08...	0615	7.2	13	520	95	2200	108	0	1400	3500
AUG.										
09...	0750	94	--	280	40	680	188	0	660	1100
14...	1010	.07	--	--	--	--	--	--	--	3100
SEP.										
06...	1105	165	--	300	30	750	84	0	690	1200
30...	0910	11	--	620	110	3700	128	0	1600	5800

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
MAR.									
15...	--	--	4920	1200	1000	17	7990	8.2	15.5
MAY									
01...	--	--	5000	1300	1200	15	7980	8.0	23.5
09...	--	.70	3850	1000	900	14	6340	7.6	14.0
21...	--	--	10200	2300	2200	--	16200	7.5	34.5
25...	--	--	5480	1400	1200	17	8830	7.9	19.0
JUNE									
03...	.7	.90	1610	600	480	5.7	2440	7.6	25.0
08...	--	--	7750	1700	1600	--	12300	8.0	19.0
AUG.									
09...	--	--	2800	850	700	10	4370	7.5	22.0
14...	--	--	--	--	--	--	10900	--	27.0
SEP.									
06...	--	--	3030	880	820	11	4830	7.6	17.0
30...	--	--	11900	2000	1900	--	18800	7.6	15.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	--	--	--	--	--	--	--	--	--
NOV.	--	--	--	--	--	--	--	--	--
DEC.	--	--	--	--	--	--	--	--	--
JAN. 1973....	--	--	--	--	--	--	--	--	--
FEB.	--	--	--	--	--	--	--	--	--
MAR.	--	--	--	--	--	--	--	--	--
APR.	--	--	--	--	--	--	--	--	--
MAY	355.99	10700	6670	6410	2930	2820	1260	1210	1620
JUNE	3172.76	3010	1930	16500	670	5780	500	4320	630
JULY	34.07	5550	3480	320	1380	127	790	73	950
AUG.	187.10	3440	2190	1110	810	412	530	270	680
SEP.	2689.54	2770	1780	12900	610	4450	480	3470	590
TOTAL	6439.46	--	--	37200	--	13600	--	9340	--
WTD. AVG. ...	42.1	3360	2150	--	780	--	540	--	670

RED RIVER BASIN

07307600 NORTH PEASE RIVER NEAR CHILDRESS, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	7640	14600	---	10700	12000
2	---	---	---	---	---	---	---	9000	2960	---	---	7500
3	---	---	---	---	---	---	---	10500	2360	---	---	8710
4	---	---	---	---	---	---	---	11900	2940	---	---	2500
5	---	---	---	---	---	---	---	13300	4750	---	---	2290
6	---	---	---	---	---	---	---	14700	7710	---	---	4020
7	---	---	---	---	---	---	---	16100	10100	---	---	1780
8	---	---	---	---	---	---	---	17800	12300	---	10800	2010
9	---	---	---	---	---	---	---	6340	15100	---	3260	3140
10	---	---	---	---	---	---	---	11900	17500	---	2790	4610
11	---	---	---	---	---	---	---	13300	18100	---	5740	8410
12	---	---	---	---	---	---	---	14500	19000	---	11700	7240
13	---	---	---	---	---	---	---	16600	19300	---	11800	5130
14	---	---	---	---	---	---	---	18600	18900	---	10900	11600
15	---	---	---	---	---	---	---	22200	20400	6290	9060	16500
16	---	---	---	---	---	---	---	20600	17600	6280	---	6510
17	---	---	---	---	---	---	---	19000	19100	12000	---	2910
18	---	---	---	---	---	---	---	17200	17500	---	---	3450
19	---	---	---	---	---	---	---	15700	16300	---	---	6600
20	---	---	---	---	---	---	---	15300	16200	---	---	11600
21	---	---	---	---	---	---	---	16200	16000	---	---	12500
22	---	---	---	---	---	---	---	14300	16000	---	---	15300
23	---	---	---	---	---	---	---	5480	16200	---	---	15900
24	---	---	---	---	---	---	---	11700	13500	---	---	15100
25	---	---	---	---	---	---	---	8830	---	---	---	14300
26	---	---	---	---	---	---	---	15000	---	---	---	4660
27	---	---	---	---	---	---	---	16600	---	---	---	6030
28	---	---	---	---	---	---	---	15900	---	5030	---	8340
29	---	---	---	---	---	---	---	15600	---	3850	---	15900
30	---	---	---	---	---	---	---	14600	---	7750	---	18800
31	---	---	---	---	---	---	---	15300	---	11800	---	---
MONTH	---	---	---	---	---	---	---	14250	13930	---	---	8510

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	17.0	19.0	---	21.0	---
2	---	---	---	---	---	---	---	---	17.0	---	---	---
3	---	---	---	---	---	---	---	---	25.0	---	---	23.0
4	---	---	---	---	---	---	---	6.5	20.0	---	---	---
5	---	---	---	---	---	---	---	---	17.0	---	---	19.0
6	---	---	---	---	---	---	---	---	17.0	---	---	17.0
7	---	---	---	---	---	---	---	24.0	19.0	---	---	19.0
8	---	---	---	---	---	---	---	13.0	19.0	---	26.0	21.0
9	---	---	---	---	---	---	---	14.0	18.0	---	22.0	24.0
10	---	---	---	---	---	---	---	18.0	19.0	---	25.0	22.0
11	---	---	---	---	---	---	---	---	19.0	---	26.0	22.0
12	---	---	---	---	---	---	---	16.0	20.0	---	37.0	21.0
13	---	---	---	---	---	---	---	14.0	20.0	---	23.0	20.0
14	---	---	---	---	---	---	---	14.0	20.0	---	24.0	21.0
15	---	---	---	---	---	---	---	10.0	22.0	21.0	24.0	18.0
16	---	---	---	---	---	---	---	12.0	23.0	20.0	---	17.0
17	---	---	---	---	---	---	---	12.0	22.0	22.0	---	17.0
18	---	---	---	---	---	---	---	15.0	---	---	---	15.0
19	---	---	---	---	---	---	---	16.0	20.0	---	---	15.0
20	---	---	---	---	---	---	---	19.0	14.0	---	---	28.0
21	---	---	---	---	---	---	---	19.0	16.0	---	---	20.0
22	---	---	---	---	---	---	---	27.0	18.0	---	---	20.0
23	---	---	---	---	---	---	---	16.0	18.0	---	---	23.0
24	---	---	---	---	---	---	---	19.0	26.0	---	---	21.0
25	---	---	---	---	---	---	---	19.0	---	---	---	18.0
26	---	---	---	---	---	---	---	20.0	---	---	---	19.0
27	---	---	---	---	---	---	---	15.0	---	---	---	17.0
28	---	---	---	---	---	---	---	13.0	---	---	---	13.0
29	---	---	---	---	---	---	---	14.0	---	22.0	---	14.0
30	---	---	---	---	---	---	---	16.0	---	22.0	---	15.0
31	---	---	---	---	---	---	---	16.0	---	23.0	---	---
MONTH	---	---	---	---	---	---	---	16.0	---	---	---	19.0

RED RIVER BASIN

55

07307660 NORTH PEASE RIVER NEAR KIRKLAND, TEX.

LOCATION.--Lat 34°16'06", long 100°10'19", Cottle County, at ranch road crossing, 0.6 mile (1.0 km) south of Buckle L Ranch House and 11.5 miles (18.5 km) southwest of Kirkland.

PERIOD OF RECORD.--Chemical analyses: March to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAR. 16...	1420	10	16	440	130	2200	158	0	1200	3400
MAY 01...	1530	33	16	420	110	1600	152	0	1100	2700
21...	1415	.95	--	1100	260	7900	108	0	3100	13000
JUNE 12...	1220	4.9	--	930	190	5700	116	0	2400	9100
JULY 03...	0700	.05	--	1200	300	8700	88	0	3200	14000
AUG. 14...	1300	1.4	--	1000	210	6200	96	0	2600	10000
SEP. 26...	1715	118	7.9	350	43	230	74	0	600	600

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAR. 16...	--	--	7500	1600	1500	--	12100	8.1	16.5
MAY 01...	--	--	6090	1500	1400	18	9900	7.9	23.5
21...	--	--	25000	3900	3800	--	37500	7.4	32.5
JUNE 12...	--	--	18300	3100	3000	--	27100	7.5	28.0
JULY 03...	--	--	27500	4300	4200	--	41200	7.5	22.0
AUG. 14...	--	--	20000	3400	3300	--	31500	--	36.0
SEP. 26...	.4	.60	1860	1000	980	3.1	3200	7.5	--

RED RIVER BASIN

07307750 MIDDLE PEASE RIVER NEAR PADUCAH, TEX.

LOCATION.--Lat 34°12'31", long 100°18'03", Cottle County, at gaging station at bridge on U.S. Highways 62 and 83, 11.8 miles (19.0 km) north of Paducah.

DRAINAGE AREA.--1,086 mi² (2,813 km²), of which 65 mi² (168 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analysis: May to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAR. 15...	1750	--	14	250	84	470	160	0	800	720
MAY 01...	1310	22	15	320	84	490	152	0	750	--
07...	1705	12	16	340	89	490	88	0	1100	740
14...	1900	9.3	15	320	85	440	88	0	1100	660
JUNE 02...	0845	2400	8.3	110	7.0	19	138	0	180	24
03...	1245	74	13	270	55	220	113	0	720	380
SEP. 06...	1030	14	--	160	13	24	94	0	370	30

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAR. 15...	--	.10	2420	970	840	6.5	3430	8.1	15.0
MAY 01...	--	.02	2690	1100	1000	6.3	3890	8.0	23.0
07...	--	.01	2810	1200	1100	6.1	4010	7.8	26.0
14...	--	.20	2620	1200	1100	5.6	3680	7.9	18.0
JUNE 02...	.2	.70	414	290	180	.5	646	8.1	18.0
03...	.3	.40	1710	900	810	3.2	2430	7.6	26.0
SEP. 06...	--	--	646	460	380	.5	931	7.4	--

RED RIVER BASIN

07307780 MIDDLE PEASE RIVER NEAR KIRKLAND, TEX.

LOCATION.--Lat 34°14'17", long 100°07'46", Cottle County, 0.3 mile (3.2 km) upstream from mouth, and 10.5 miles (16.9 km) southwest of Kirkland.

PERIOD OF RECORD.--Chemical analyses: March to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
MAR. 15...	1430	--	14	410	120	1800	180	0	1200
MAY 01...	1650	30	14	590	140	3100	138	0	1600
21...	1105	4.0	--	1100	220	7700	136	0	3000
JUNE 12...	0850	4.6	--	1200	230	8900	124	0	3300
JULY 02...	1840	.01	--	1200	240	7900	120	0	3300
24...	0900	.54	--	1200	250	9200	136	0	3400
AUG. 14...	1435	2.6	--	1300	260	9600	104	0	3400
SEP. 27...	0845	14	8.5	800	130	4900	108	0	2000

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAR. 15...	2900	--	--	6550	1500	1400	10700	7.8	15.5
MAY 01...	5000	--	--	10600	2000	1900	16700	7.9	24.0
21...	12000	--	--	24400	3700	3600	37900	7.3	27.0
JUNE 12...	14000	--	--	27700	3900	3800	40800	7.5	21.5
JULY 02...	12000	--	--	25200	4000	3900	38300	7.5	31.0
24...	14000	--	--	28600	4100	4000	41700	7.4	24.0
AUG. 14...	15000	--	--	29800	4300	4200	44900	7.7	38.0
SEP. 27...	7900	.4	.04	15800	2500	2400	24500	7.6	17.5

07307800 PEASE RIVER NEAR CHILDRESS, TEX.

LOCATION.--Lat 34°13'39", long 100°04'24", Cottle County, at gaging station at bridge on Farm Road 104, 0.8 mile (1.3 km) upstream from Catfish Creek, 4.4 miles (7.1 km) downstream from confluence of North and Middle Forks, and 17 miles (27 km) southeast of Childress.

DRAINAGE AREA (revised).-- 2,754 mi² (7,133 km²), of which 559 mi² (1,448 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

Water temperatures: July 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 38,400 micromhos Jan. 10;

minimum daily, 3,100 micromhos Sept. 12.

Water temperatures: Maximum, 33.0°C May 19, Aug. 18, 19; minimum, freezing point Feb. 9.

EXTREMES, July 1968 to September 1973.--Specific conductance: Maximum daily, 42,900 micromhos May 28, 1971;

minimum daily, 2,000 micromhos Sept. 5, 1972.

Water temperatures: Maximum, 37.0°C Aug. 10, 12, 14, 15, 1969; minimum, freezing point Feb. 7, 1971, Feb. 9, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
31...	1030	156	--	330	55	--	1300	--	112	0
NOV.										
02...	1100	88	--	490	100	--	2600	--	124	0
DEC.										
04...	0400	11	--	1100	200	--	6500	--	72	0
JAN.										
15...	1720	126	--	600	120	--	2900	--	156	0
FEB.										
28...	1100	29	--	850	68	--	3800	--	118	0
MAR.										
11...	1500	892	--	200	54	--	630	--	166	0
APR.										
25...	1620	464	--	240	39	--	540	--	152	0
MAY										
09...	0900	152	--	580	60	--	2000	--	150	0
21...	1210	5.4	--	1000	210	--	6600	--	144	0
JUNE										
02...	1100	10200	11	390	26	--	390	--	82	0
JULY										
02...	1550	.55	--	1100	210	--	6000	--	124	0
25...	1300	.31	12	920	160	3200	--	12	152	0
AUG.										
10...	1230	299	--	300	35	--	790	--	102	0
14...	1530	6.1	--	--	--	--	--	--	--	--
SEP.										
07...	1430	18	--	200	25	--	370	--	132	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
31...	800	2200	--	4720	1000	960	18	7880	7.6	8.0
NOV.										
02...	1300	4100	--	8600	1600	1600	--	13800	8.2	11.0
DEC.										
04...	2700	10000	--	21100	3500	3400	--	30300	7.7	7.0
JAN.										
15...	1600	4700	--	9990	2000	1900	--	16400	8.0	8.0
FEB.										
28...	1600	6400	--	12800	2400	2300	--	20300	8.0	11.0
MAR.										
11...	570	960	--	2490	720	580	10	4010	7.9	14.0
APR.										
25...	580	840	--	2320	760	640	8.5	3690	8.1	21.0
MAY										
09...	1400	3200	--	7350	1700	1600	--	11600	8.0	16.0
21...	2800	10000	--	21200	3400	3300	--	32000	7.7	28.5
JUNE										
02...	1000	580	1.4	2440	1100	1000	5.2	3310	7.9	20.0
JULY										
02...	2900	9500	--	19700	3600	3500	--	28900	7.6	35.0
25...	2600	5100	--	12000	3000	2900	26	18000	7.9	31.0
AUG.										
10...	760	1200	--	3190	900	820	11	5260	7.8	32.0
14...	--	9600	--	--	--	--	--	27900	7.2	38.0
SEP.										
07...	500	550	--	1710	610	500	6.5	2690	7.4	23.0

RED RIVER BASIN

07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1068.44	11200	7060	20400	3370	9710	1060	3060	--
NOV.	715.0	24900	16500	31800	7980	15400	2350	4540	--
DEC.	278.6	32000	22200	16700	11100	8350	2800	2110	--
JAN. 1973....	910.9	19700	12600	30900	6110	15000	1750	4300	--
FEB.	781	24000	15300	32300	7770	16400	1820	3840	--
MAR.	5603.1	7370	4550	68800	1840	27900	1000	15100	1100
APR.	6465	6210	3830	66900	1470	25600	920	16000	970
MAY	866.6	17600	11100	25900	5000	11700	1930	4530	--
JUNE	4383.02	4570	2860	33900	800	9450	970	11500	800
JULY	853.08	7550	4720	10900	1920	4420	1020	2350	1120
AUG.	1435.86	8350	5180	20100	2180	8440	1070	4140	1200
SEP.	5250.98	5150	3210	45500	1180	16700	810	11500	860
TOTAL	28611.58	--	--	404000	--	169000	--	83000	--
WTD. AVG. ...	78.4	8300	5230	--	2190	--	1070	--	1200

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18100	13900	31600	32100	26000	21100	6180	13900	26400	20900	28000	13500
2	24000	17000	32400	38000	26600	27000	8020	14000	3500	19500	28700	26700
3	30500	22000	29500	22100	26600	27100	12800	18100	4400	18800	28600	26700
4	25000	25000	30300	14700	27100	25500	11000	18100	4960	19100	29900	26000
5	22000	27000	32100	22500	27000	28300	13400	20100	8720	29400	30000	6500
6	18700	28700	31600	34500	27000	29300	13400	21800	13200	30000	30500	4980
7	17500	28300	32200	34500	30900	29300	13700	22900	16100	31700	30900	3490
8	19000	34200	32000	34700	30700	28900	15800	24700	22000	32400	8620	3670
9	24000	35000	31100	37400	31400	29000	15800	13200	19400	32300	5140	5660
10	30900	36200	31100	38400	31300	10200	12300	16300	25200	30900	5260	8140
11	30900	36600	31300	38200	27400	4290	14100	24700	22200	31000	11800	13900
12	31700	31000	31300	37500	21900	4330	16200	23000	26600	31400	20200	3100
13	31900	31000	31800	35900	22000	8370	12600	26200	27900	23700	25500	3200
14	31500	33000	29700	15900	25000	8410	12100	26100	23900	11500	32100	9950
15	31700	36000	28700	12900	27400	9770	4850	25400	28800	33400	32700	19100
16	31500	31900	28600	8620	27500	11700	6580	25400	24100	20900	31600	20100
17	31700	32200	32200	16500	27700	14900	7950	25600	27600	25000	22800	10100
18	30000	21300	32800	16400	26000	16700	11200	25900	23700	27500	21900	13100
19	28600	22000	35000	27600	26500	17400	14700	31900	26600	29400	21100	13000
20	26700	29800	32500	24100	26400	18600	8560	32100	20600	21800	30000	21200
21	6150	27700	31400	21300	23800	19800	10400	33300	28600	32000	30100	23500
22	15800	27600	31500	19800	23900	21400	15200	30300	28500	31900	30000	23500
23	24400	29000	34000	21900	17700	12200	19000	7680	29100	32100	20200	28400
24	33700	31300	37600	22100	21900	5280	3190	13700	29200	30000	19800	31200
25	28000	28000	37400	22000	23900	4520	3690	24900	18900	31300	19800	32500
26	24400	27000	37500	19000	17700	5990	6170	22400	29100	30700	19700	10800
27	35000	26600	32100	19000	17100	9210	3410	28000	29100	30000	18500	9780
28	25400	26800	32000	20600	20300	11600	5820	23400	19200	6770	18200	10900
29	20000	30000	32000	24300	---	11200	7740	28100	19800	4950	7350	20100
30	12000	32100	37900	24300	---	6650	9750	30300	18400	10200	8500	27100
31	9920	---	31800	24200	---	4800	---	31200	---	15300	14400	---
MONTH	24860	28610	32350	25190	25310	15570	10520	23310	21530	25030	22000	15660

07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	8.0	10.0	11.0	11.0	---	18.0	---	19.0	24.0	23.0	22.0
2	16.0	11.0	9.0	10.0	10.0	13.0	---	16.0	20.0	24.0	26.0	32.0
3	18.0	12.0	5.0	9.0	14.0	19.0	14.0	20.0	25.0	24.0	24.0	32.0
4	23.0	20.0	7.0	8.0	18.0	21.0	14.0	20.0	23.0	25.0	25.0	23.0
5	24.0	20.0	6.0	5.0	12.0	---	15.0	18.0	29.0	25.0	25.0	20.0
6	18.0	16.0	2.0	5.0	10.0	---	17.0	20.0	30.0	27.0	24.0	18.0
7	22.0	15.0	4.0	6.0	7.0	---	15.0	24.0	30.0	30.0	---	32.0
8	19.0	15.0	5.0	2.0	4.0	15.0	8.0	26.0	31.0	32.0	26.0	22.0
9	19.0	13.0	2.0	3.0	0.0	17.0	8.0	16.0	32.0	32.0	30.0	30.0
10	25.0	10.0	3.0	4.0	1.0	9.0	14.0	30.0	28.0	28.0	32.0	24.0
11	28.0	28.0	2.0	---	6.0	14.0	21.0	22.0	20.0	27.0	30.0	22.0
12	28.0	28.0	5.0	7.0	8.0	11.0	21.0	20.0	20.0	23.0	30.0	21.0
13	23.0	20.0	7.0	16.0	4.0	16.0	16.0	20.0	20.0	30.0	32.0	21.0
14	20.0	10.0	4.0	8.0	6.0	14.0	23.0	19.0	24.0	29.0	30.0	21.0
15	24.0	12.0	4.0	8.0	10.0	11.0	23.0	23.0	23.0	30.0	29.0	20.0
16	27.0	14.0	8.0	7.0	6.0	15.0	15.0	19.0	23.0	28.0	30.0	23.0
17	13.0	9.0	8.0	9.0	7.0	16.0	15.0	20.0	21.0	27.0	29.0	18.0
18	13.0	11.0	11.0	9.0	16.0	15.0	21.0	21.0	23.0	31.0	33.0	20.0
19	10.0	9.0	14.0	9.0	12.0	18.0	18.0	33.0	18.0	31.0	33.0	19.0
20	12.0	7.0	13.0	10.0	7.0	11.5	23.0	26.0	28.0	30.0	30.0	27.0
21	8.0	7.0	13.0	10.0	9.0	16.0	21.0	20.0	31.0	29.0	30.0	20.0
22	19.0	9.0	14.0	5.0	9.0	---	26.0	20.0	30.0	29.0	24.0	21.0
23	12.0	4.0	13.0	8.0	15.0	18.0	22.0	17.0	23.0	28.0	24.0	21.0
24	13.0	4.0	14.0	8.0	15.0	---	---	20.0	27.0	30.0	29.0	22.0
25	13.0	10.0	10.0	7.0	15.0	10.0	21.0	20.0	21.0	31.0	25.0	---
26	15.0	8.0	13.0	7.0	15.0	9.0	15.0	22.0	22.0	29.0	24.0	25.0
27	15.0	9.0	14.0	7.0	14.0	10.0	14.0	24.0	22.0	30.0	24.0	20.0
28	12.0	10.0	10.0	6.0	11.0	14.0	22.0	20.0	23.0	27.0	24.0	17.0
29	11.0	7.0	14.0	10.0	---	13.0	22.0	17.0	23.0	24.0	24.0	17.0
30	12.0	9.0	8.0	9.0	---	11.0	19.0	17.0	20.0	25.0	22.0	27.0
31	8.0	---	9.0	7.0	---	12.0	---	18.0	---	25.0	22.0	---
MONTH	17.5	12.0	8.5	7.5	9.5	14.0	18.0	21.0	24.5	28.0	27.0	22.5

RED RIVER BASIN

07308200 PEASE RIVER NEAR VERNON, TEX.

LOCATION.--Lat 34°10'44", long 99°16'40", Wilbarger County, at gaging station at bridge on U.S. Highway 283, 1.9 miles (3.1 km) north of Vernon, and 10 miles (16 km) upstream from mouth.

DRAINAGE AREA.--3,448 mi² (9,034 km²) of which 559 mi² (1,448 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 31...	1505	1370	7.8	180	99	390	90	0	410
NOV. 07...	1550	54	10	520	110	1900	116	0	1300
DEC. 04...	1700	26	11	700	210	3000	88	0	1800
JAN. 08...	1630	20	8.8	700	150	2600	88	0	1700
FEB. 12...	1125	50	9.0	700	180	2700	112	0	1900
MAR. 20...	1115	83	11	510	130	1900	140	0	1400
APR. 25...	1115	1490	11	330	50	690	124	0	850
MAY 31...	0950	17	11	720	160	2700	152	0	2000
JULY 02...	1145	3.0	14	660	150	2200	144	0	1800
AUG. 06...	1825	22	12	480	89	1200	160	0	1200

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 31...	850	--	1980	850	780	5.8	3360	8.1	7.0
NOV. 07...	3100	--	6960	1700	1600	--	11500	8.1	18.0
DEC. 04...	5000	--	10800	2600	2500	--	16300	7.9	6.0
JAN. 08...	4400	--	9610	2400	2300	--	15000	7.6	.0
FEB. 12...	4500	--	9980	2500	2400	--	15200	7.6	9.0
MAR. 20...	3100	--	7230	1800	1700	--	11300	7.7	11.5
APR. 25...	1100	.7	3100	1000	930	9.4	4870	7.4	18.0
MAY 31...	4400	--	10100	2500	2300	24	15000	7.5	19.5
JULY 02...	3600	--	8480	2200	2100	--	12800	7.2	31.0
AUG. 06...	2000	.5	5030	1600	1400	13	8020	7.2	30.5

RED RIVER BASIN

63

07308400 CHINA CREEK NEAR ELECTRA, TEX.

LOCATION.--Lat 34°06'20", long 98°53'58", Wichita County, at bridge on county black-top road, 5.3 miles (8.5 km) northeast of Electra.

DRAINAGE AREA.--37 mi² (96 km²).

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1973.

WATER QUALITY DATA: WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 08...	0855	1.4	8.2	240	130	810	214	0	99	1800
DEC. 05...	0800	.30	5.7	380	350	1700	172	0	92	4100
FEB. 12...	1705	.76	.6	330	200	1300	138	0	140	3000
MAR. 20...	0815	1.3	2.2	250	130	890	220	0	93	2000
APR. 25...	1635	27	7.3	65	26	160	112	0	23	360
MAY 31...	1630	.10	7.4	77	73	430	526	0	90	640
AUG. 14...	1830	.10	1.3	110	52	380	240	0	37	760
SFP. 12...	1800	.50	8.1	66	27	200	188	0	26	360

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 08...	.2	.1	3240	1100	940	11	5970	8.2	11.5
DEC. 05...	--	--	6680	2400	2300	--	12300	8.0	8.0
FEB. 12...	--	--	5130	1600	1500	14	9250	7.8	11.5
MAR. 20...	--	.3	3480	1200	980	11	6380	7.9	10.0
APR. 25...	.2	.4	694	270	180	4.3	1330	7.8	19.0
MAY 31...	.9	.8	1580	490	61	8.5	2840	8.2	24.0
AUG. 14...	.4	.9	1460	490	290	7.5	2840	7.5	29.5
SFP. 12...	.4	2.4	788	280	120	5.1	1510	7.4	25.5

RED RIVER BASIN

07308500 RED RIVER NEAR BURKBURNETT, TEX.

LOCATION.--Lat 34°06'30", long 98°32'00", Wichita County, at gaging station at bridge on U.S. Highways 277 and 281, 2 miles (3.2 km) northeast of Burkburnett.

DRAINAGE AREA.--20,570 mi² (53,280 km²) of which 5,936 mi² (15,374 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

Water temperatures: July 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 14,400 micromhos Nov. 30; minimum daily, 890 micromhos July 31.

Water temperatures: Maximum, 33.0°C July 18; minimum, freezing point on several days during December and January.

EXTREMES, July 1968 to September 1970, October 1971 to September 1973.--Specific conductance: Maximum daily, 17,400 micromhos July 30, 1972; minimum daily, 889 micromhos Sept. 24, 1970.

Water temperatures: Maximum, 35.0°C July 10, 1969; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 31...	1130	3210	--	64	15	--	190	--	108	0	110
NOV. 04...	1045	3420	--	92	19	--	340	--	100	0	190
DEC. 04...	1325	80	--	250	280	--	2300	--	204	0	1300
JAN. 22...	1715	12000	--	140	38	--	520	--	132	0	320
FEB. 01...	1030	835	--	300	82	--	1200	--	118	0	800
MAR. 10...	1500	1500	--	190	55	--	700	--	152	0	460
APR. 07...	1730	1760	--	280	54	--	790	--	162	4	720
MAY 09...	1730	660	--	400	110	--	1200	--	136	0	1000
JUNE 13...	0800	690	12	320	76	--	890	--	160	0	890
JULY 31...	1515	10200	9.9	80	13	120	--	5.7	132	0	140
AUG. 22...	0730	115	--	350	96	--	1200	--	132	0	1000
SEP. 08...	1055	11700	--	99	15	--	200	--	108	0	210

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	310	--	--	748	220	130	5.7	1390	7.7	11.0
NOV. 04...	540	--	--	1220	310	220	8.3	2110	8.2	13.0
DEC. 04...	3700	--	--	7940	1800	1600	--	12900	8.1	5.0
JAN. 22...	850	--	--	1940	520	410	9.9	3200	8.1	7.0
FEB. 01...	2000	--	--	4440	1100	1000	16	6880	8.2	6.0
MAR. 10...	1200	--	--	2630	700	570	12	4310	8.1	14.0
APR. 07...	1200	--	--	3170	920	780	11	4950	8.4	15.0
MAY 09...	2100	--	--	4900	1400	1300	14	8170	8.2	25.0
JUNE 13...	1400	--	.1	3670	1100	980	12	5930	7.8	24.0
JULY 31...	190	.3	.6	630	250	140	3.3	1060	7.4	28.0
AUG. 22...	1900	--	--	4590	1300	1200	14	7430	8.0	25.0
SEP. 08...	300	--	--	885	310	220	4.9	1570	7.9	18.0

RED RIVER BASIN

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07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	18512.6	3220	1910	95500	830	41500	350	17300	590
NOV.	38290	2600	1520	157000	670	69300	250	25900	490
DEC.	3035	11700	7210	59100	3340	27400	1190	9760	1870
JAN. 1973....	33743	3960	2410	220000	1080	98600	390	35600	700
FEB.	9845	9670	5950	158000	2650	70400	1100	29300	1560
MAR.	68559	4880	2980	552000	1290	239000	560	103000	840
APR.	179605	3420	2070	1010000	830	400000	430	210000	620
MAY	24330	6990	4270	280000	1820	120000	860	56600	1160
JUNE	60607	3190	1910	312000	760	124000	400	65600	580
JULY	15687	3060	1860	78900	730	30900	410	17300	560
AUG.	13988	5000	3050	115000	1240	46800	650	24700	860
SEP.	72923	3430	2050	403000	800	158000	450	88100	620
TOTAL	539124.6	--	--	3440000	--	1430000	--	683000	--
WTD. AVG. ...	1477	3900	2360	--	980	--	470	--	690

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3240	1200	13900	7880	6880	11400	2530	5950	6420	8120	1200	4090
2	1510	1740	11000	10200	7580	11700	2680	6160	3670	8020	2330	4800
3	2070	1990	13100	6020	8270	12000	1940	6530	3480	8510	2480	3310
4	2650	2110	12900	6870	9120	12200	2910	6950	3220	8610	3410	3660
5	3610	3020	12700	7500	9250	12500	5740	7340	1980	9050	4840	1730
6	4050	4990	12600	8220	9390	7500	3740	7470	1810	7410	6820	1730
7	4450	7090	12700	9380	9500	5000	4950	8310	2100	7550	10500	1410
8	4750	7240	12000	11000	9450	5700	6400	8410	2690	7680	7400	1540
9	5300	7450	11500	11000	9590	6000	6110	8170	3400	7810	7830	2070
10	5860	7660	11500	9000	9720	2820	6260	8170	4120	8160	7690	2250
11	6440	7980	12100	7290	10400	4110	7100	8250	4730	8190	8420	2610
12	6710	8210	11500	10000	10500	5900	7430	7720	5480	8480	8350	3210
13	6840	7450	11100	12000	10400	4560	7510	8080	5930	8770	9710	3540
14	7150	6850	10700	11900	10700	4750	6010	8440	6140	8250	9440	3050
15	7330	8050	10800	11500	10700	6020	5480	8270	6200	8100	9050	3450
16	7550	8410	11200	10300	10900	6060	5000	8340	6260	7350	9440	3240
17	7550	8210	11300	7920	10800	6310	3830	8500	6100	8230	11300	4200
18	7950	8210	11400	9680	10800	6470	1820	8660	6300	7140	9060	10000
19	8210	8000	11500	13100	10700	6850	1600	8800	6830	6450	7250	8890
20	8020	7840	11900	13300	10600	7280	2270	8980	7200	6560	6480	8060
21	4160	8750	11900	10400	10500	7740	2500	9160	3450	6570	7060	8660
22	3330	9500	12200	4300	10600	8010	4010	9200	4500	6560	7430	8600
23	4420	12600	12400	2210	10200	8270	4420	8550	5500	6550	7740	8410
24	4460	11100	12900	1490	10200	6380	3610	8270	5940	7130	8010	8200
25	5440	13900	12300	1770	10500	4000	3660	6870	6370	7810	8010	7950
26	4670	14300	11600	2060	10900	7520	4000	4880	6810	7950	8450	8100
27	5380	14300	11300	3100	11300	8740	3480	4880	7250	8100	8660	7200
28	5980	13600	10900	3500	11600	8150	3540	4870	7680	8130	8780	3620
29	7550	14200	10700	3940	---	7630	4730	4740	7740	7420	8480	3060
30	5530	14400	10400	4810	---	4750	5750	5230	7790	1320	7150	2900
31	1210	---	10900	6240	---	2380	---	6020	---	890	7570	---
MONTH	5270	8350	11770	7670	10040	7050	4370	7420	5240	7320	7430	4780

RED RIVER BASIN

07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	8.0	6.0	5.0	6.0	---	16.0	---	24.0	---	24.0	26.0
2	22.0	8.0	6.0	5.0	---	---	13.0	20.0	22.0	31.0	24.0	29.0
3	24.0	12.0	6.0	7.0	9.0	---	13.0	22.0	21.0	---	25.0	26.0
4	27.0	13.0	5.0	5.0	13.0	---	14.0	22.0	25.0	29.0	23.0	25.0
5	24.0	15.0	---	---	---	---	14.0	20.0	23.0	---	24.0	21.0
6	20.0	18.0	0.0	0.0	---	---	14.0	22.0	23.0	29.0	28.0	20.0
7	24.0	12.0	0.0	0.0	7.0	---	15.0	22.0	22.0	---	30.0	21.0
8	22.0	15.0	1.0	0.0	2.5	---	9.0	25.0	23.0	---	24.0	18.0
9	---	---	1.0	0.0	---	---	6.0	25.0	---	28.0	24.0	25.0
10	27.0	9.0	0.0	---	4.0	14.0	7.0	28.0	26.0	25.0	25.0	---
11	27.0	10.0	0.0	0.0	9.0	---	13.0	27.0	28.0	25.0	31.0	24.0
12	29.0	12.0	1.0	---	14.0	16.0	14.0	25.0	23.0	---	24.0	24.0
13	29.0	10.0	0.0	3.0	9.0	16.0	17.0	---	24.0	24.0	32.0	24.0
14	28.0	8.0	1.0	2.0	9.0	11.0	18.0	17.0	24.0	23.0	29.0	22.0
15	18.0	6.0	0.0	2.0	10.0	11.0	17.0	15.0	25.0	28.0	27.0	26.0
16	25.0	10.0	1.0	1.0	---	11.0	---	17.0	25.0	32.0	29.0	25.0
17	20.0	9.0	---	7.0	---	12.0	15.0	---	---	31.0	27.0	20.0
18	18.0	7.0	9.0	9.0	---	13.0	15.0	18.0	31.0	33.0	31.0	18.0
19	8.0	---	12.0	8.0	8.0	14.0	17.0	21.0	25.0	31.0	---	24.0
20	10.0	5.0	11.0	10.0	18.0	10.0	18.0	---	21.0	32.0	28.0	24.0
21	15.0	4.0	11.0	7.0	10.0	10.0	---	23.0	23.0	29.0	25.0	26.0
22	15.0	3.0	9.0	7.0	6.0	11.0	22.0	22.0	---	26.0	25.0	27.0
23	13.0	3.0	11.0	12.0	5.0	15.0	23.0	19.0	23.0	29.0	23.0	24.0
24	15.0	5.0	9.0	7.0	8.0	---	22.0	22.0	---	31.0	23.0	25.0
25	15.0	7.0	---	6.0	15.0	10.0	19.0	21.0	---	29.0	27.0	27.0
26	12.0	9.0	6.0	7.0	---	15.0	15.0	25.0	---	---	30.0	---
27	14.0	5.0	---	7.0	14.0	12.0	18.0	---	---	30.0	27.0	---
28	12.0	4.0	---	---	10.5	---	17.0	22.0	28.0	32.0	22.0	21.0
29	16.0	4.0	18.0	2.0	---	17.0	---	25.0	---	25.0	23.0	18.0
30	16.0	4.0	9.0	3.0	---	---	21.0	25.0	30.0	25.0	23.0	---
31	11.0	---	9.0	8.0	---	13.0	---	25.0	---	28.0	23.0	---
MONTH	19.0	8.5	5.5	5.0	---	---	15.5	22.0	---	---	26.0	23.5

RED RIVER BASIN

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07311600 NORTH FORK WICHITA RIVER NEAR PADUCAH, TEX.

LOCATION.--Lat 33°57'02", long 100°03'52", Cottle County, at gaging station at county bridge, 4 miles (6.4 km) downstream from Cottonwood Creek, 7 miles (11.3 km) downstream from Salt Creek, 12 miles (19.3 km) upstream from Middle Fork, and 14 miles (22.5 km) southeast of Paducah.

DRAINAGE AREA.--540 mi² (1,400 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 25,600 micromhos July 10, 11; minimum daily, 2,620 micromhos July 22.

Water temperatures: Maximum, 34.0 °C July 4, Aug. 10.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 37,500 micromhos Sept. 22, 1968; minimum daily, 710 micromhos Sept. 25, 1971.

Water temperatures: Maximum, 34.0°C July 4, Aug. 10, 1973; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
18...	0935	9.5	--	860	200	--	4700	--	164	0
NOV.										
02...	1015	13	--	480	98	--	2400	--	148	0
DEC.										
20...	1105	12	--	820	210	--	4400	--	188	0
JAN.										
25...	1115	14	--	650	150	--	3400	--	104	0
MAR.										
12...	1030	26	--	280	73	--	1300	--	126	0
APR.										
02...	1300	16	--	710	160	--	3800	--	140	0
JUNE										
04...	1135	15	8.4	730	160	--	4200	--	108	0
JULY										
03...	1315	8.6	6.0	870	190	4800	--	17	148	0
AUG.										
31...	1640	10	--	890	190	--	5200	--	132	0
SEP.										
13...	1800	99	--	180	35	--	580	--	88	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
18...	2500	7400	15700	2900	2800	--	23900	7.7	--
NOV.									
02...	1300	3700	8010	1600	1500	--	12900	8.2	--
DEC.									
20...	2400	7000	14900	2900	2800	--	22600	7.9	--
JAN.									
25...	1800	5400	11500	2200	2200	--	17800	8.0	--
MAR.									
12...	820	2000	4520	1000	896	18	7590	8.0	--
APR.									
02...	2200	6000	13000	2400	2300	--	19600	8.1	--
JUNE									
04...	2200	6600	13900	2500	2400	--	21200	7.8	25.0
JULY									
03...	2700	7600	16200	3000	2800	38	24500	7.6	30.0
AUG.									
31...	2600	8100	17000	3000	2900	--	25400	7.7	30.0
SEP.									
13...	450	930	2210	600	530	10	3580	7.6	28.0

RED RIVER BASIN

07311600 NORTH FORK WICHITA RIVER NEAR PADUCAH, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG/L)
OCT. 1972....	376.6	21500	13800	14100	6490	6600	2220	2250	--
NOV.	354.8	20600	13400	12800	6260	6000	2150	2060	--
DEC.	371	22400	14700	14700	6890	6900	2350	2360	--
JAN. 1973....	464	20300	13200	16500	6180	7740	2130	2670	--
FEB.	364	21500	14400	14200	6800	6680	2290	2250	--
MAR.	571	17300	11400	17500	5280	8140	1860	2870	--
APR.	490	21300	14200	18800	6610	8750	2330	3080	--
MAY	390.1	22000	14600	15400	6860	7230	2330	2450	--
JUNE	305.9	22200	14600	12100	6880	5680	2360	1950	--
JULY	509.8	14300	9270	12800	4300	5920	1570	2150	--
AUG.	389.7	19600	12600	13200	5940	6250	1960	2060	--
SEP.	628	14500	9110	15400	4260	7220	1450	2460	--
TOTAL	5214.9	--	--	178000	--	83100	--	28600	--
WTD. AVG. ...	14.3	19300	12600	--	5900	--	2030	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21600	12300	22300	22400	21500	21600	19800	21800	22700	24000	22000	23800
2	22100	12900	22400	22300	21300	21800	19600	21700	19800	24600	22100	24100
3	22200	16500	22500	22000	21500	21900	20200	22100	21700	24500	23000	24200
4	22600	18900	21100	21500	21400	22000	20600	22000	21200	24800	23400	24500
5	22700	19500	19800	21800	21700	22000	20900	22100	20800	25100	23600	24500
6	22900	20700	22700	22100	21500	22200	21100	21900	20100	25300	24000	20000
7	23400	21300	22700	22300	21700	22200	21100	21800	20700	25400	24200	8240
8	23700	21600	22700	22500	21600	22200	21300	22000	21300	25200	16000	10800
9	23500	22100	22400	22400	21600	22200	21200	22000	21500	25500	12300	18800
10	23400	22000	22600	22500	21500	11200	21400	21100	21600	25600	13500	18900
11	23600	22000	22400	22400	21700	3380	21500	20900	21600	25600	13800	21300
12	23600	22600	22400	22200	21600	7590	21500	22000	21800	25500	15800	21300
13	23500	22100	22500	22300	21700	12800	21400	21500	21900	22400	17300	3580
14	23900	22000	22300	22100	21600	16400	21600	21600	22500	19500	18600	7500
15	24100	22000	22400	22200	21500	17600	21500	21600	22200	20500	20900	9470
16	24100	22900	22400	22200	21500	18800	21700	21700	22100	21500	21700	13500
17	24200	22400	22400	21500	21500	19600	21600	21600	22700	23100	21800	17100
18	23900	22400	22500	21400	21600	20200	21800	22200	22900	24100	22300	18200
19	24400	22300	22500	21700	21400	20000	21800	22200	23400	24400	22600	19300
20	23000	22200	22600	21700	21500	20500	21700	22400	23600	24900	22600	20000
21	20000	22300	22500	15000	21400	21100	22000	22500	23400	25000	23100	20900
22	20500	22200	22500	13600	21300	21200	21900	22200	23500	2620	23700	21000
23	19200	22300	22400	13400	21200	21400	21900	21800	23700	11300	23900	21200
24	20700	22000	22500	17900	21100	21300	21400	21900	23600	14500	24000	21800
25	22000	22300	22700	17800	21200	21000	21100	21400	24100	17500	24300	22000
26	22100	22100	22400	18500	21300	20800	21300	22100	24100	19000	24200	11000
27	22200	22400	22600	19500	21300	20700	21500	22900	24200	20700	24600	9750
28	22000	22500	22600	20400	21500	20600	21600	23200	24000	21900	24500	13500
29	22700	22400	22400	20900	---	20700	21900	23100	24000	21400	24800	16200
30	20300	22300	22300	21200	---	15000	21900	23100	24200	20900	25000	18400
31	15000	---	22400	21100	---	19800	---	23100	---	22400	25400	---
MONTH	22360	21120	22350	20670	21470	19020	21330	22050	22500	21890	21580	17490

RED RIVER BASIN

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07311600 NORTH FORK WICHITA RIVER NEAR PADUCAH, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	14.0	10.0	8.0	9.0	---	18.0	20.0	20.0	26.0	30.0	29.0
2	22.0	12.0	8.0	4.0	8.0	---	15.0	17.0	---	27.0	30.0	28.0
3	25.0	16.0	4.0	---	5.0	---	14.0	24.0	26.0	30.0	24.0	25.0
4	19.0	14.0	7.0	---	8.0	16.0	11.0	22.0	25.0	34.0	24.0	27.0
5	22.0	---	9.0	---	7.0	11.0	9.0	18.0	20.0	25.0	29.0	27.0
6	21.0	16.0	0.0	---	15.0	16.0	17.0	21.0	20.0	32.0	24.0	---
7	17.0	14.0	2.0	---	10.0	12.0	14.0	19.0	22.0	25.0	30.0	25.0
8	20.0	15.0	2.0	---	---	17.0	---	19.0	22.0	25.0	31.0	25.0
9	23.0	14.0	3.0	---	---	11.0	---	24.0	23.0	29.0	28.0	28.0
10	24.0	11.0	3.0	---	4.0	---	---	20.0	23.0	28.0	34.0	30.0
11	25.0	12.0	0.0	---	10.0	---	10.5	23.0	23.0	28.0	30.0	21.0
12	24.0	13.0	5.0	---	12.0	13.0	---	19.0	25.0	29.0	26.0	25.0
13	25.0	11.0	0.0	---	8.0	15.0	---	20.0	24.0	23.0	25.0	28.0
14	20.0	9.0	3.0	---	10.0	13.0	---	19.0	25.0	---	30.0	26.0
15	27.0	9.0	2.0	---	3.0	11.0	---	14.0	31.0	22.0	33.0	21.0
16	25.0	8.0	2.0	11.0	8.0	10.0	---	16.0	20.0	32.0	27.0	15.0
17	25.0	7.0	8.0	12.0	7.0	9.0	21.0	20.0	26.0	30.0	31.0	17.0
18	21.0	---	5.0	13.0	---	12.0	23.0	25.0	---	27.0	26.0	21.0
19	12.0	---	12.0	13.0	---	12.0	18.0	24.0	22.0	30.0	28.0	25.0
20	---	6.0	8.5	15.0	8.0	10.0	19.0	---	29.0	33.0	28.0	22.0
21	---	---	11.0	---	10.0	11.0	20.0	30.0	21.0	25.0	30.0	24.0
22	19.0	9.0	9.0	9.0	---	12.0	19.0	23.0	23.0	19.0	30.0	22.0
23	18.0	8.0	8.0	10.0	---	14.0	20.0	26.0	22.0	31.0	28.0	25.0
24	15.0	7.0	9.0	7.0	12.0	---	24.0	23.0	25.0	29.0	28.0	23.0
25	15.0	9.0	15.0	6.0	---	---	21.0	23.0	29.0	30.0	26.0	---
26	15.0	4.0	10.0	---	---	---	---	22.0	23.0	29.0	25.0	---
27	14.0	10.0	6.0	---	13.5	20.0	22.0	20.0	31.0	28.0	29.0	22.0
28	13.0	9.0	9.0	1.0	---	25.0	15.0	20.0	29.0	32.0	27.0	20.0
29	15.0	8.0	8.0	4.0	---	---	23.0	18.0	25.0	---	29.0	17.0
30	20.0	5.0	9.0	13.0	---	---	20.0	24.0	31.0	30.0	24.0	19.0
31	---	---	5.0	9.0	---	16.0	---	20.0	---	25.0	30.0	---
MONTH	20.0	10.5	6.0	---	---	---	---	21.0	24.5	28.0	28.0	23.5

RED RIVER BASIN

07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.

LOCATION.--Lat 33°52'12", long 99°56'48', Foard County, at gaging station at ranch road, 2.0 miles (3.2 km) upstream from Middle Fork and 15.0 miles (24.1 km) southwest of Crowell.

DRAINAGE AREA.--591 mi² (1,531 km²).

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 27,400 micromhos July 8; minimum daily, 3,030 micromhos July 23.

EXTREMES, October 1970 to September 1973.--Specific conductance: Maximum daily, 35,300 micromhos May 3, 1971; minimum daily, 861 micromhos Sept. 5, 1972.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
04...	1120	12	--	780	180	--	3900	--	140	0
18...	1155	12	--	880	170	--	4600	--	120	0
NOV.										
08...	1605	12	--	700	170	--	3500	--	112	0
DEC.										
07...	1410	19	--	840	220	--	4200	--	146	0
JAN.										
11...	1730	14	7.0	200	44	670	--	9.3	132	0
MAR.										
29...	1630	15	--	700	180	--	2900	--	144	0
APR.										
11...	1220	17	--	750	210	--	3500	--	160	0
MAY										
23...	1330	15	--	--	--	--	--	--	130	0
JUNE										
12...	1155	12	2.6	840	200	--	4400	--	120	0
JULY										
14...	--	1310	--	430	41	--	420	--	96	0
25...	0915	14	--	360	74	--	1600	--	116	0
AUG.										
10...	1000	45	--	520	110	--	2500	--	120	0
SEP.										
12...	1710	11	--	530	120	--	2600	--	82	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
04...	2200	6200	--	13200	2700	2600	--	20400	7.8	20.0
18...	2600	7200	--	15500	2900	2800	--	23400	7.8	22.0
NOV.										
08...	2100	5600	--	12100	2400	2400	--	18700	7.8	16.5
DEC.										
07...	2400	6700	--	14400	3000	2900	--	21800	7.8	.0
JAN.										
11...	540	1000	.07	2580	690	580	11	4250	8.0	2.0
MAR.										
29...	2100	4600	--	10500	2500	2400	--	16500	7.9	13.0
APR.										
11...	2300	5600	--	12400	2800	2600	--	19100	8.1	15.0
MAY										
23...	--	6500	--	--	--	--	--	21300	6.9	14.5
JUNE										
12...	2700	6800	--	15000	2900	2800	--	22000	8.0	25.5
JULY										
14...	1100	660	--	2680	1200	1200	5.1	4260	7.8	--
25...	980	2600	--	5640	1200	1100	20	9340	7.3	24.5
AUG.										
10...	1500	4000	--	8630	1800	1700	--	13800	7.5	27.0
SEP.										
12...	1600	4100	--	8970	1800	1700	--	14100	7.6	27.0

RED RIVER BASIN

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07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	585	17400	11100	17600	5150	8130	1890	2990	--
NOV.	444	17000	10900	13000	5000	6000	1870	2240	--
DEC.	415	21200	14000	15700	6490	7270	2330	2610	--
JAN. 1973....	557	20000	13000	19600	5950	8950	2260	3400	--
FEB.	409	20500	13400	14800	6070	6700	2420	2670	--
MAR.	924	11700	7270	18100	3140	7820	1470	3680	--
APR.	539	19600	12800	18600	5770	8400	2310	3360	--
MAY	400.5	21300	14300	15400	6470	7000	2550	2760	--
JUNE	317.4	21800	14900	12700	6730	5770	2650	2270	--
JULY	876.2	10900	7160	16900	3030	7170	1480	3490	--
AUG.	561.2	12600	8240	12500	3610	5470	1570	2390	--
SEP.	595.0	13400	8580	13800	3930	6320	1470	2370	--
TOTAL	6623.3	--	--	189000	--	85000	--	34200	--
WTD. AVG. ...	18.1	16200	10600	--	4750	--	1910	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19200	7600	21300	21700	19300	18200	15100	21500	21800	26600	14400	22000
2	19800	9260	21600	21300	20500	18400	15600	21700	22000	26300	10900	23100
3	20300	11000	21400	20600	22200	18600	17000	21400	21100	26200	13700	23600
4	20400	11700	21500	20400	23000	18800	19700	21600	21300	25800	17600	20500
5	23800	12700	21700	20700	23500	19000	20300	22000	21400	26600	19400	14500
6	23900	13500	21600	20900	23700	18900	20300	21900	21800	27100	20200	13500
7	24100	16000	21800	21300	22800	19200	20000	22200	21600	27300	20600	11700
8	24200	18700	21200	21500	21300	19000	19200	22100	21700	27400	5540	16100
9	24500	19200	21500	21700	21800	19200	19300	20100	22000	26900	11100	9700
10	24600	19700	20800	22000	21900	12200	19000	20700	21900	27100	13800	10500
11	24600	19800	21000	21800	22200	3220	19100	20500	22100	26400	10800	12000
12	24600	18500	20500	22100	22400	4980	19600	20800	22000	25000	10300	14100
13	24800	16000	20200	21900	22800	7430	19000	21000	21800	24500	14300	14100
14	25400	18300	20000	21800	23000	10000	19200	20900	21500	5510	16900	9140
15	24600	18000	20400	22300	23000	12600	19100	21000	21300	8750	16000	6840
16	24700	18200	20600	22400	22600	14900	19400	21300	21400	12700	16400	10300
17	24700	18500	20900	22300	21300	16300	20100	21100	21500	14800	18100	10600
18	23400	18900	21100	22300	20500	17100	20000	21200	22100	16600	19900	10700
19	22200	18700	21200	22600	19600	17600	20400	21500	22200	18100	19100	11900
20	20000	18500	21100	22400	18800	18100	20300	21600	22200	19400	25800	13400
21	11700	19000	21300	19600	17900	18400	20600	21400	22200	18400	22400	14500
22	10600	19300	21400	15400	16700	18200	20500	21000	22200	12100	21900	15200
23	14900	19700	21400	16700	16400	13500	20900	21300	22300	3030	21600	15500
24	17200	19800	21500	17400	16600	11900	19900	21100	22300	6100	22100	15800
25	17900	20100	21400	17700	16600	13200	20600	21000	22400	9340	22200	16100
26	18100	20500	21200	18200	17000	14500	20900	21400	22400	11600	21900	12800
27	18200	20200	21300	18500	17200	15100	21100	21600	22400	13500	22100	13500
28	18700	20600	21300	19000	17600	16000	21400	21300	22100	14600	22400	14600
29	19200	20900	21200	19300	---	16500	21600	21400	21600	15200	22400	15000
30	18000	21200	21400	19100	---	10300	21400	21600	21800	15300	22500	15400
31	8660	---	21500	19500	---	14600	---	21400	---	10300	22300	---
MONTH	20550	17470	21170	20460	20440	15030	19690	21310	21880	18340	18020	14220

RED RIVER BASIN

07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.

LOCATION.--Lat 33°51'12", long 99°57'44", Foard County, at gaging station at ranch road, 3.0 miles (4.8 km) upstream from mouth, and 11.1 miles (17.9 km) northwest of Truscott.

DRAINAGE AREA.--161 mi² (417 km²).

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 19,900 micromhos July 12, 13; minimum daily, 8,720 micromhos July 15.

EXTREMES, October 1970 to September 1973.--Specific conductance: Maximum daily, 19,900 micromhos July 12, 13, 1973; minimum daily, 880 micromhos Sept. 4, 1972.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 04...	1740	3.1	--	840	220	2800	41	0
NOV. 09...	1215	4.5	--	780	160	2300	80	0
FEB. 01...	1735	5.4	--	740	190	1700	128	0
MAY 31...	1530	5.6	--	950	230	2700	50	0
JUNE 13...	1300	5.6	7.5	920	200	3000	50	0
JULY 04...	1200	4.9	--	1000	230	3300	44	0
SEP. 12...	1520	7.0	--	800	170	2500	52	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	2600	4400	10900	3000	3000	15600	7.9	25.5
NOV. 09...	2200	3700	9200	2600	2500	13700	7.8	13.0
FEB. 01...	2300	3300	8680	2620	2520	12600	8.1	8.0
MAY 31...	2800	4400	11100	3300	3300	16100	7.3	26.5
JUNE 13...	2900	4600	11700	3100	3100	16800	7.7	28.0
JULY 04...	3100	5200	12800	3500	3400	18600	6.9	31.0
SEP. 12...	2400	4000	9900	2700	2700	14900	7.8	28.0

RED RIVER BASIN

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07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	336.6	11900	8170	7420	3320	3020	1940	1770	--
NOV.	265.6	12700	8490	6090	3410	2440	2070	1480	--
DEC.	139.7	14800	10000	3790	3940	1480	2550	960	--
JAN. 1973....	159.3	14000	9450	4060	3690	1590	2400	1030	--
FEB.	139.6	13200	8910	3360	3470	1310	2270	857	--
MAR.	322.4	13000	8790	7650	3420	2970	2250	1960	--
APR.	158.8	12700	8560	3670	3330	1430	2190	940	--
MAY	160.8	15700	10700	4640	4280	1860	2640	1150	--
JUNE	168.5	16700	11400	5200	4510	2050	2870	1310	--
JULY	314.8	16300	11100	9470	4490	3820	2720	2310	--
AUG.	253.1	15300	10400	7120	4090	2800	2630	1800	--
SEP.	475.7	13000	8490	10900	3440	4420	2050	2630	--
TOTAL	2894.9	--	--	73400	--	29200	--	18200	--
WTD. AVG. ...	7.93	13900	9380	--	3730	--	2330	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15600	9500	14800	14400	12900	13700	11900	13100	15400	18300	13300	17300
2	15700	10500	14900	14300	12700	13700	11900	13200	15100	18400	12700	16200
3	15500	12300	14500	14300	12800	13800	12100	13200	15000	18500	13600	16700
4	15600	12800	14400	14400	12800	13900	12300	13400	15000	18700	13600	17200
5	16000	13100	14700	14300	13000	14000	12400	13600	15600	18800	13300	14900
6	15900	13200	13100	14300	13200	14000	12400	14000	15700	19100	13600	10300
7	15200	13300	14800	14300	13300	14100	12600	14500	15900	19200	14800	10900
8	15600	13200	15100	14300	13300	14200	12600	15000	16200	19400	14700	11600
9	15700	13700	15100	14400	13400	14200	12700	15500	16300	19500	14100	11500
10	15700	14000	15100	14500	13400	14000	12700	16000	16400	19600	11400	12400
11	15700	14200	15200	14600	13200	13600	12700	16500	16500	19700	14000	13900
12	15700	13000	15200	14700	13200	13500	12700	16700	16700	19900	14500	14900
13	15700	10000	15200	14700	13200	13500	12800	16700	16800	19900	15100	14700
14	15700	11000	15100	14600	13300	13500	12800	16600	16900	14100	16200	14800
15	15700	14300	15100	14500	13300	13400	12700	16400	16900	8720	16400	14800
16	15800	13900	15200	14400	13400	13300	12700	16500	17000	12400	16800	14800
17	16000	13900	15200	14200	13400	13100	12800	16600	17100	15600	17000	14400
18	16100	14100	15200	14200	13300	13000	12900	16600	17200	17100	17300	14000
19	16300	14300	15100	14200	13300	13000	13000	16700	17200	17900	17500	13900
20	14000	17200	15000	14100	13400	13000	13200	16700	17300	18000	17600	14000
21	9600	17800	14700	13500	13300	13100	13300	16600	17400	17800	17700	14000
22	10000	19400	14700	13700	13300	13200	13300	16600	17400	17800	17900	14300
23	11000	16800	14600	13400	13300	12900	13400	16100	17500	17700	18000	14000
24	14000	17100	14600	13400	13300	12800	13100	15900	17600	18000	18200	14600
25	15000	15500	14600	13300	13200	12800	13000	16100	17600	18500	18300	14600
26	15700	15600	14600	13200	13300	12800	12900	16100	17700	18800	18400	14400
27	15000	15000	14600	13300	13300	12800	12700	16100	17800	18800	18400	13900
28	14800	16000	14600	13300	13200	12900	12900	16200	17900	18900	18900	13900
29	13900	15600	14500	13200	---	12900	13000	16000	17900	19000	18800	13900
30	13000	15000	14700	13100	---	11300	13000	16000	18000	18500	18600	13900
31	10100	---	14700	13100	---	11400	---	16000	---	14500	18300	---
MONTH	14690	14180	14800	14010	13210	13270	12750	15650	16770	17780	16100	14160

RED RIVER BASIN

07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.

LOCATION.--Lat 33°49'14", long 99°47'10", Knox County, at gaging station at bridge on State Highway 283, 4.5 miles (7.2 km) north of Truscott.

DRAINAGE AREA.--937 mi² (2,427 km²).

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

Water temperatures: July 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 26,900 micromhos July 10; minimum daily, 2,500 micromhos Sept. 6.

Water temperatures: Maximum, 39.0°C Aug. 22.

EXTREMES, October 1968 to September 1973.--Specific conductance: Maximum daily, 33,800 micromhos Aug. 19, 1970; minimum daily, 840 micromhos Sept. 23, 1969.

Water temperatures: Maximum daily, 39.0°C Aug. 21, 23, 1969, Aug. 22, 1973; minimum daily, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 21...	1830	910	--	220	39	--	590	--	76	0
NOV. 02...	1030	79	--	380	81	--	1100	--	102	0
DEC. 20...	1430	20	--	820	250	--	3300	--	164	0
JAN. 23...	1730	71	--	520	170	--	2000	--	106	0
FEB. 01...	1000	33	--	750	160	--	2500	--	126	0
MAR. 13...	0730	94	--	340	85	--	780	--	120	0
APR. 03...	1700	50	--	450	180	--	1500	--	84	0
MAY 23...	1015	22	--	680	160	--	2900	--	116	0
JUNE 30...	1800	15	4.3	1000	250	--	4900	--	102	0
JULY 25...	1625	25	7.5	350	72	1200	--	13	116	0
AUG. 15...	0400	15	--	600	130	--	2300	--	108	0
SEP. 06...	1210	856	--	120	20	--	190	--	100	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 21...	580	940	2410	710	650	9.6	3570	7.8	15.0
NOV. 02...	1100	1800	4430	1300	1200	13	6990	8.2	10.0
DEC. 20...	2300	5500	12300	3100	3000	--	18700	7.7	9.5
JAN. 23...	1700	3200	7580	2000	1900	--	11600	8.1	8.0
FEB. 01...	2100	4000	9680	2500	2400	--	14600	8.0	6.0
MAR. 13...	1000	1200	3510	1200	1100	9.8	5330	8.0	16.0
APR. 03...	1300	2600	6020	1800	1780	--	10100	7.5	16.0
MAY 23...	2200	4400	10400	2300	2200	--	15500	8.0	21.5
JUNE 30...	3200	7600	17000	3600	3500	--	24700	8.0	30.0
JULY 25...	970	1900	4540	1200	1100	15	7470	7.6	31.0
AUG. 15...	1700	3600	8380	2000	2000	--	13100	7.8	35.0
SEP. 06...	320	280	988	390	310	4.2	1640	7.5	18.0

RED RIVER BASIN

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07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1568	8290	5430	23000	2310	9770	1160	4900	1350
NOV.	1156	11900	7530	23500	3290	10300	1510	4710	1840
DEC.	591	18800	12300	19600	5500	8780	2320	3710	2790
JAN. 1973....	1178.0	12300	8050	25600	3370	10700	1790	5700	1900
FEB.	863	16000	10700	25000	4530	10600	2310	5380	2410
MAR.	2239	9020	5810	35100	2350	14200	1380	8330	1450
APR.	1315	12900	8050	28600	3530	12500	1660	5890	1980
MAY	807	16400	11000	24100	4700	10200	2370	5160	2460
JUNE	612.5	17900	12100	20100	5320	8810	2400	3980	2670
JULY	2787.5	5660	3470	26100	1390	10500	810	6090	990
AUG.	1272.0	8630	5470	18800	2240	7680	1240	4250	1390
SEP.	2402.4	6190	3860	25000	1570	10200	890	5760	1060
TOTAL	16791.4	--	--	294000	--	124000	--	63900	--
WTD. AVG. ...	46.0	10100	6490	--	2740	--	1410	--	1590

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14800	5810	17900	19200	14600	16700	9530	17400	21000	24600	12300	20000
2	15800	7000	18000	19200	15300	17300	11300	17900	8000	24400	12200	18900
3	16700	9770	18100	17500	15900	17500	10100	18200	14100	25000	13900	20200
4	17200	9460	17900	17100	16200	17900	11200	18400	14000	25400	11300	8000
5	17700	11200	18000	17100	16600	18000	12500	18500	20600	25700	14200	3500
6	18100	11300	18600	17100	16600	17900	13700	18200	15400	25800	13400	2500
7	18500	12600	19000	17100	16600	18500	14500	18700	17200	26100	17100	3500
8	18600	13500	19100	18000	14000	18400	14500	18900	17800	26500	7060	3700
9	19100	14300	19300	18500	15300	18400	14800	19200	20400	26500	2960	10000
10	19400	15100	18600	19000	15600	6020	15300	7500	20600	26900	5530	8000
11	19600	16300	18500	19200	15500	7150	15600	10300	21100	26700	10000	9380
12	19600	15000	18200	19200	15900	3700	15800	12400	21300	9000	12100	10000
13	19800	7000	18600	18000	16500	5470	14400	15400	21300	4500	11900	6000
14	19900	10000	19100	17800	16600	8450	15000	16600	21600	4000	12400	7550
15	20300	13200	18500	16000	16800	9400	15200	18200	22100	3260	12900	6000
16	20300	14700	18600	16000	16900	11300	15600	18000	22400	6570	15700	7000
17	20500	16000	18900	15900	16800	12700	15800	18900	22000	9480	16200	8180
18	20800	16400	18800	16400	16700	13900	16300	18900	22100	10500	16500	11300
19	21000	16500	18800	16600	16600	14300	16300	19400	22900	12200	17100	10400
20	20600	16700	18800	17200	16700	15400	16800	19800	23000	13200	17500	11400
21	3750	16900	18900	7830	16700	15600	16900	20200	23300	16000	18100	11800
22	5290	17100	19100	7530	16100	16000	15200	19100	23200	10300	19200	13000
23	7820	17100	19200	11600	15600	16200	11800	17000	23900	4000	20000	14100
24	10400	17100	19200	13800	15800	10900	7000	19400	24100	4500	20000	14900
25	12900	16800	19200	9500	16100	12200	10900	19400	24100	7470	20200	15800
26	14000	17400	19200	8260	16200	13100	12000	20000	24700	12000	21300	7250
27	15000	17600	19300	12100	16300	15100	14000	20400	24100	9220	21200	6730
28	15600	17600	19100	11700	16900	14800	15400	20500	24600	12600	22000	12000
29	15900	17800	19000	13100	---	15300	16200	21400	24500	9000	22500	14900
30	16100	17700	19100	14400	---	4560	16500	21300	24700	11300	22500	14800
31	4000	---	19300	13500	---	6500	---	21500	---	3000	22500	---
MONTH	16100	14160	18770	15340	16120	13180	14000	18100	21000	14700	15540	10360

RED RIVER BASIN

07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	12.0	5.0	5.0	6.0	15.0	20.0	25.0	28.0	38.0	31.0	---
2	18.0	10.0	---	4.0	4.0	10.0	14.0	22.0	27.0	27.0	31.0	32.0
3	24.0	10.0	1.0	8.0	12.0	---	16.0	27.0	30.0	---	25.0	25.0
4	25.0	17.0	2.0	3.0	15.0	---	18.0	16.0	25.0	29.0	30.0	26.0
5	25.0	15.0	---	---	12.0	11.0	16.0	20.0	30.0	27.0	29.0	---
6	18.0	15.0	1.0	---	13.0	15.0	14.0	25.0	32.0	36.0	31.0	18.0
7	22.0	15.0	0.0	---	---	20.0	18.0	16.0	30.0	35.0	35.0	22.0
8	19.0	15.0	0.0	---	---	14.0	8.0	17.0	23.0	35.0	25.0	29.0
9	21.0	13.0	1.0	---	5.0	12.0	8.0	31.0	30.0	29.0	29.0	30.0
10	26.0	10.0	0.0	---	5.0	10.0	18.0	22.0	29.0	32.0	26.0	28.0
11	26.0	---	---	---	10.0	14.0	21.0	23.0	26.0	31.0	---	30.0
12	19.0	13.0	3.0	---	10.0	19.0	15.5	22.0	28.0	26.0	35.0	---
13	---	9.0	0.0	---	9.0	16.0	18.0	21.0	31.0	25.0	35.0	29.0
14	30.0	9.0	0.0	0.0	9.0	18.0	---	17.0	31.0	25.0	35.0	25.0
15	21.0	7.0	0.0	4.0	0.0	12.0	---	27.0	38.0	24.0	35.0	22.0
16	19.0	7.0	---	---	3.0	16.0	---	28.0	33.0	26.0	35.0	---
17	---	5.0	4.0	---	---	20.0	---	28.0	30.0	34.0	26.0	18.0
18	16.0	8.0	5.0	10.0	---	18.0	25.0	21.0	28.0	33.0	32.0	23.0
19	9.0	---	10.0	6.0	9.0	13.0	24.0	34.0	28.0	31.0	35.0	27.0
20	10.0	5.0	10.0	11.0	11.0	18.0	18.0	32.0	30.0	28.0	30.0	25.0
21	15.0	5.0	6.0	8.0	10.0	20.0	---	30.0	30.0	35.0	26.0	30.0
22	15.0	7.0	10.0	4.0	2.0	12.0	19.0	28.0	20.0	25.0	39.0	30.0
23	13.0	---	11.0	8.0	12.0	16.0	18.0	21.5	33.0	28.0	30.0	29.0
24	15.0	5.0	10.0	8.0	---	15.0	25.0	28.0	35.0	35.0	---	25.0
25	15.0	5.0	11.0	5.0	11.0	15.0	23.0	25.0	28.0	31.0	25.0	30.0
26	11.0	5.0	9.0	---	11.0	13.0	15.0	---	35.0	33.0	31.0	25.0
27	11.0	6.0	9.0	6.0	7.0	15.0	---	26.0	36.0	33.0	27.0	21.0
28	14.0	---	---	3.0	12.0	20.0	25.0	---	31.0	28.0	---	29.0
29	14.0	5.0	9.0	6.0	---	16.0	30.0	31.0	26.0	25.0	34.0	29.0
30	18.0	5.0	9.0	2.0	---	18.0	21.0	30.0	30.0	28.0	---	18.0
31	7.0	---	11.0	2.0	---	20.0	---	29.0	---	25.0	27.0	---
MONTH	18.0	9.0	5.5	---	8.5	15.5	18.5	25.0	29.5	30.0	30.5	26.0

RED RIVER BASIN

77

07311780 SOUTH FORK WICHITA RIVER NEAR GUTHRIE, TEX.

LOCATION.--Lat 33°37'29", long 100°13'04", King County, at gaging station at ranch road, 3.9 miles (6.3 km) upstream from Willow Creek, and 6.1 miles (9.8 km) east of Guthrie.

DRAINAGE AREA.--239 mi² (619 km²).

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 45,300 micromhos Aug. 10; minimum daily, 11,000 micromhos Mar. 11.

EXTREMES, August 1970 to September 1973.--Specific conductance: Maximum daily, 47,300 micromhos Aug. 11, 1971; minimum daily, 2,230 micromhos Aug. 25, 1971.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.								
03...	1130	5.1	--	1000	280	7300	162	0
NOV.								
28...	1050	5.0	--	1100	260	7600	140	0
FEB.								
06...	1130	5.0	--	1300	160	8000	170	0
MAR.								
10...	1500	115	--	610	120	3400	140	0
MAY								
01...	1540	5.5	--	1000	250	7500	150	0
JUNE								
11...	1615	4.8	8.1	1100	260	7900	146	0
JULY								
24...	0920	6.2	--	1200	280	8800	128	0
AUG.								
09...	1630	5.6	--	1200	280	9100	120	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.								
03...	2800	12000	23300	3800	3600	33900	--	23.0
NOV.								
28...	2800	12000	24000	3700	3600	34900	7.8	8.0
FEB.								
06...	2800	13000	25300	3800	3700	36600	8.0	11.0
MAR.								
10...	1400	5500	11100	2000	1900	17500	8.0	--
MAY								
01...	2800	12000	23600	3600	3500	33800	8.0	24.0
JUNE								
11...	3000	13000	25000	3800	3700	38100	7.9	26.5
JULY								
24...	3200	14000	27400	4100	4000	41800	7.4	25.0
AUG.								
09...	3300	14000	28300	4100	4000	42700	7.5	32.0

RED RIVER BASIN

07311780 SOUTH FORK WICHITA RIVER NEAR GUTHRIE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	152.8	33100	22700	9380	11500	4740	2780	1140	--
NOV.	151.6	33600	23100	9440	11700	4780	2770	1130	--
DEC.	152.0	35700	24600	10100	12500	5120	2910	1190	--
JAN. 1973....	156.1	35300	24300	10200	12300	5200	2880	1210	--
FEB.	134.0	36400	25100	9080	12800	4620	2840	1030	--
MAR.	242.1	28600	19600	12800	9940	6500	2330	1520	--
APR.	164.4	33300	23300	10300	11800	5240	2780	1230	--
MAY	148.4	35100	24600	9850	12500	5000	2910	1170	--
JUNE	142.7	37700	24700	9530	12500	4820	2990	1150	--
JULY	160.6	41200	26900	11700	13700	5950	3130	1360	--
AUG.	192.2	37800	24900	12900	12600	6540	2970	1540	--
SEP.	191.6	36100	23600	12200	11900	6170	2840	1470	--
TOTAL	1988.5	--	--	127000	--	64700	--	15100	--
WTD. AVG. ...	5.45	35100	23800	--	12000	--	2820	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33800	24800	34300	36600	36800	36800	33900	33800	35700	40100	42600	39200
2	34000	29300	34100	36100	36600	37400	34000	34100	36000	40100	43100	39100
3	33900	32100	34800	34800	36700	37100	34200	34000	36600	40800	43600	39100
4	34300	33000	35500	34100	36500	37400	34100	34300	36800	41800	43600	39400
5	34200	33400	34500	33800	36600	37200	34300	34200	37200	42100	43900	39600
6	34400	33200	35600	33500	36600	36900	33900	34200	37700	42100	43300	39800
7	35100	34200	35600	32700	36900	37300	34100	34500	37900	42400	43300	39900
8	34500	34300	35700	32700	36900	37700	33800	34700	37800	41700	44000	28900
9	34200	34400	35200	33500	35400	37900	33900	34600	37700	41900	44600	25100
10	34000	34600	35000	34500	35200	19800	34000	34800	37900	41900	45300	28000
11	34200	35400	35700	35200	34800	11000	34100	34900	38100	42000	25200	31900
12	34500	35200	34700	35400	35700	19700	33800	34900	38400	41400	22500	34400
13	34100	35000	35400	35700	37200	24500	32800	34700	38200	40600	28800	34800
14	35000	35100	35300	35400	37500	29800	32200	35000	37600	40200	34200	35900
15	36000	35200	35400	35300	37800	31900	31900	34900	37200	40500	36200	37100
16	34600	34600	36000	35600	36900	33100	33600	34700	37100	40600	37400	37700
17	35000	34700	35900	35900	36500	33300	33700	35000	37200	40300	38200	38800
18	35900	33200	35700	36300	36100	33200	34300	35100	37500	40500	38500	38700
19	36500	33500	35600	36100	36100	33300	34500	35400	38000	40400	38500	37400
20	34000	33700	35800	36500	36200	33100	35500	35300	38600	39700	38900	37600
21	28700	33100	36600	34600	36800	33400	35600	35400	38900	40100	39400	37700
22	26700	33600	36100	35000	36400	33300	34200	34700	38600	40500	39800	37800
23	30100	34100	36300	35400	35600	32400	29100	35000	38400	40600	40000	38400
24	33000	33600	36600	36000	34900	32800	30400	35300	38200	41800	40000	38400
25	33400	33800	36300	35700	35500	33100	30000	36000	38100	42400	40100	38400
26	33400	34400	37500	35800	36400	33300	31700	36100	38000	42900	40200	36000
27	32400	34100	36500	36300	37000	33900	32500	36300	38100	42400	40200	36500
28	32700	34900	36200	36500	36900	33700	32800	36700	38400	42600	40500	36000
29	32300	34700	35700	36400	---	33600	33300	37000	38400	42100	40800	36100
30	31400	34000	35700	36600	---	33500	33700	37300	38100	41100	40600	36400
31	28100	---	36000	36700	---	33700	---	37500	---	39600	40400	---
MONTH	33370	33640	35650	35310	36380	32420	33330	35170	37750	41200	39280	36470

RED RIVER BASIN

79

07311790 SOUTH FORK WICHITA RIVER AT ROSS RANCH, NEAR BENJAMIN, TEX.

LOCATION (revised).--Lat 33°39'18", long 100°00'49", King County, at gaging station at ranch road, 1.6 miles (2.6 km) downstream from Ox Yoke Creek, and 13.7 miles (22.0 km) northwest of Benjamin.

DRAINAGE AREA.--499 mi² (1,292 km²).

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 42,300 micromhos Aug. 26; minimum daily, 5,000 micromhos Oct. 22.

EXTREMES, August 1970 to September 1973.--Specific conductance: Maximum daily, 43,900 micromhos May 16, 17, 1971; minimum daily, 2,300 micromhos Aug. 27, 1971

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.								
02...	1645	6.1	--	1000	280	5100	100	0
16...	1525	6.2	--	1100	290	5600	94	0
21...	1645	171	--	650	140	2800	90	0
DEC.								
18...	1555	8.8	--	1000	240	4910	158	0
JAN.								
24...	1250	13	--	810	220	3700	144	0
FEB.								
05...	1630	12	--	950	230	3900	140	0
JUNE								
13...	0940	4.6	1.7	1100	280	5400	102	0
JULY								
23...	1640	1.7	--	1300	370	7200	80	0
AUG.								
14...	0930	5.8	--	1300	370	7700	71	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.								
02...	2900	8400	17700	3700	3600	26400	7.7	25.0
16...	3000	9200	19300	4000	3900	28600	7.8	25.5
21...	1700	4600	10000	2200	2100	15700	7.5	--
DEC.								
18...	2800	7900	16900	3500	3400	25100	7.7	10.5
JAN.								
24...	2300	6000	13000	3000	2800	19400	8.0	5.5
FEB.								
05...	2300	6600	14100	3300	3200	21000	8.0	12.0
JUNE								
13...	3200	8700	18700	3800	3800	27000	7.8	23.0
JULY								
23...	3700	12000	24400	4800	4800	36600	7.4	31.0
AUG.								
14...	3500	13000	25500	4800	4700	38400	7.0	24.5

RED RIVER BASIN

07311790 SOUTH FORK WICHITA RIVER AT ROSS RANCH, NEAR BENJAMIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	566.8	13500	9030	13800	4020	6150	1700	2600	--
NOV.	452.2	16400	11000	13400	5000	6110	1950	2380	--
DEC.	245.3	25400	17100	11300	8010	5310	2820	1860	--
JAN. 1973....	413.3	20900	14000	15700	6540	7300	2350	2620	--
FEB.	352.0	20400	13700	13000	6370	6060	2310	2200	--
MAR.	777.2	15300	10200	21400	4550	9550	1970	4130	--
APR.	769.4	15600	10400	21700	4680	9710	2040	4230	--
MAY	325.3	22500	15100	13300	7110	6240	2700	2370	--
JUNE	177.0	24800	16700	7980	7920	3790	2960	1410	--
JULY	66.7	35700	23800	4280	11600	2090	3560	642	--
AUG.	62.25	38100	25300	4260	12400	2090	3590	604	--
SEP.	219.0	29100	19200	11400	9250	5470	2930	1740	--
TOTAL	4426.45	--	--	152000	--	69900	--	26800	--
WTD. AVG. ...	12.1	18900	12700	--	5850	--	2240	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26200	7000	23000	27800	20100	21600	16900	18300	26200	32900	35800	35800
2	26400	9000	23400	27900	20600	21900	17500	19000	22900	33700	35500	38300
3	26700	11000	23800	26000	21100	21900	17900	19800	19600	34100	35700	38500
4	26600	13000	24000	24500	20900	22400	18700	20400	20700	34400	35800	39100
5	26900	15000	24300	25100	21000	22600	19600	20600	21500	34600	36100	33000
6	27100	17000	24900	25300	20900	22500	19700	20200	22200	34800	36100	25600
7	27500	18800	24500	25600	20800	23100	20000	20900	23000	34900	36600	23000
8	27000	19200	24400	25400	19900	23300	20100	21500	23600	35500	37500	25900
9	27700	19300	25000	25700	19500	23400	20300	21400	24500	35800	38000	27700
10	27200	19500	25200	25900	19900	14900	20200	22400	25100	36000	37500	29300
11	27800	19900	25000	26000	20000	11500	20300	23500	26000	36200	37500	31700
12	28100	20300	25300	25800	20200	15200	20400	23800	26200	36200	37500	33100
13	28200	20200	25600	25500	20400	13100	19800	23600	27000	36200	38000	32100
14	28500	20600	25500	25100	20800	12900	20300	23000	28600	35500	38400	29000
15	28600	20900	25700	24700	21200	13700	20100	22600	29000	35500	39000	29900
16	28600	21400	25800	24900	21300	14600	20300	22900	29400	35700	39000	31000
17	28900	21700	25500	24700	21100	15400	20700	23500	29600	36000	39300	31800
18	29100	21400	25100	24900	20600	16200	21200	24200	30200	35500	40100	31300
19	28500	21300	25400	25200	20700	16700	21400	24400	30500	35400	39900	30900
20	25000	21100	25600	25600	21100	17300	21900	25400	30700	35700	39900	30400
21	14000	21400	25900	16400	21200	17900	22100	25000	30900	36000	39800	30700
22	5000	21800	25700	15000	20800	18300	8590	24200	31000	36300	40400	31300
23	7000	22000	26000	16500	19000	17300	12800	23800	31100	36600	41000	31500
24	7500	22300	26200	19400	19900	11100	14600	24400	31300	36900	41500	31900
25	8500	22200	26500	19100	20100	14600	14400	24700	31500	37200	41800	32300
26	10000	22400	26900	18600	20300	15800	15000	25100	31800	37400	42300	28600
27	10900	22500	26700	18400	20700	17200	15000	25600	32100	37400	41600	28100
28	11600	22600	27000	18800	20800	17500	16700	26100	32600	37400	40600	26900
29	12000	22800	27300	19300	---	17900	17400	26400	32300	37600	40300	28400
30	11000	22700	27500	19500	---	15400	18300	26600	32700	36000	40200	29400
31	9000	---	27800	19800	---	15600	---	27000	---	35800	39800	---
MONTH	21200	19340	25500	22980	20530	17510	18410	23240	27790	35780	38790	30880

RED RIVER BASIN

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07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.

LOCATION.--Lat 33°38'39", long 99°48'02", Knox County, at gaging station at bridge on State Highway 283, 4 miles (6.4 km) north of Benjamin.

DRAINAGE AREA.--584 mi² (1,513 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 33,700 micromhos Aug. 23; minimum daily, 901 micromhos Sept. 6.

Water temperatures: Maximum, 36.0°C Aug. 19; minimum, freezing point on several days during December, January and February.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 48,900 micromhos May 13, 1971; minimum daily, 901 micromhos Sept. 6, 1973.

Water temperatures: Maximum, 38.0°C Sept. 7, 1969; minimum, freezing point on many days during winter months.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT. 31...	0800	1040	--	180	46	--	320	--	84	0
NOV. 02...	0800	93	--	480	95	--	760	--	118	0
DEC. 01...	0815	16	--	780	180	--	2700	--	108	0
JAN. 27...	0830	34	--	660	280	--	2000	--	136	0
MAR. 24...	0800	198	--	360	100	--	540	--	120	0
JUNE 02...	0800	27	9.4	470	140	--	1600	--	132	0
11...	0800	5.0	5.7	1100	340	--	4400	--	128	0
JULY 02...	0800	1.9	4.2	1300	440	5900	--	46	162	0
AUG. 12...	1150	3.8	--	580	120	--	1000	--	88	0
SEP. 06...	0800	840	--	160	23	--	140	--	114	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	500	530	1620	640	570	5.6	2590	7.7	7.0
NOV. 02...	1400	1200	4000	1600	1500	8.3	5890	8.3	8.0
DEC. 01...	2100	4500	10300	2700	2600	--	15200	7.9	4.0
JAN. 27...	2200	3400	8560	2800	2700	--	12700	8.1	3.5
MAR. 24...	1200	790	3110	1300	1200	6.4	4210	7.9	12.0
JUNE 02...	1700	2300	6290	1800	1600	16	9580	7.9	21.0
11...	3200	7200	16300	4100	4000	--	23600	7.8	21.0
JULY 02...	3800	9800	21400	5100	5000	36	31600	8.0	24.0
AUG. 12...	1500	1800	5090	1900	1900	10	7690	7.3	29.5
SEP. 06...	400	210	986	500	400	2.7	1510	7.5	16.5

RED RIVER BASIN

07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	2526.1	4460	2850	19400	1070	7290	760	5160	1070
NOV.	930	11400	7750	19500	3170	7970	1810	4530	2120
DEC.	373.0	20500	13800	13900	6310	6360	2520	2540	3500
JAN. 1973....	585.0	15800	10600	16800	4470	7060	2410	3810	2790
FEB.	677	15300	10300	18800	4300	7860	2370	4330	2710
MAR.	1970	8770	6100	32500	2260	12100	1670	8900	1720
APR.	1613	9630	6670	29000	2560	11200	1730	7520	1850
MAY	438.6	18800	12800	15200	5570	6590	2640	3130	3240
JUNE	199.6	21400	14700	7940	6560	3540	2890	1560	3300
JULY	469.85	5560	3690	4680	1490	1890	860	1090	1240
AUG.	167.41	9120	6100	2760	2290	1030	1640	742	1780
SEP.	1904.6	5010	3330	17100	1300	6690	810	4180	1150
TOTAL	11856.16	--	--	198000	--	79600	--	47500	--
WTD. AVG. ...	32.5	9120	6170	--	2480	--	1480	--	1770

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21100	5810	15200	15300	14300	15800	10800	13800	22100	28100	6480	5040
2	21400	5890	16500	15600	14900	16400	11600	14700	18000	31600	16700	5760
3	22100	8190	17200	14100	15800	16700	11600	15400	18400	31500	21200	10500
4	22000	9180	17200	19300	16100	17400	12600	16200	17600	32300	14100	3760
5	22300	10000	15000	17800	16500	17800	13500	16800	18700	30300	24700	2650
6	22200	10900	17900	15800	16700	17200	14200	16600	20400	---	30200	901
7	22600	11900	19400	16400	16100	17800	14500	16800	21200	---	31900	2910
8	22800	12800	19600	15400	14200	18400	14600	17400	22100	---	32400	7090
9	22900	13400	18900	16900	13900	18800	14600	18200	22700	---	32200	19100
10	23100	14600	21000	17300	14300	5450	15600	19000	23000	---	5000	19900
11	23400	15400	20600	18400	15300	8680	15800	19600	23500	---	7500	19900
12	23500	13000	20800	23700	15000	11500	16300	20000	21800	---	7690	11700
13	23600	13300	21400	23300	15800	9860	14300	20400	23800	---	8430	2360
14	23900	13400	20800	20200	16200	11500	13400	20500	23900	3600	14400	3270
15	24400	15500	22000	19600	16500	11100	14900	20400	25000	2720	10000	13800
16	24500	16400	21700	19100	16700	11100	16400	20400	25600	4270	13200	25100
17	24700	17200	21400	18800	16600	11600	16600	20800	25700	8820	22800	25000
18	25000	17100	21800	19600	15300	12400	16700	21400	26300	18000	28900	23800
19	24500	17200	22200	20200	15300	12700	17600	21700	26900	14700	31700	24800
20	24100	17500	22000	20500	15800	13400	18000	22200	26900	22600	33200	25900
21	2290	17000	22000	11600	16300	14200	18300	22300	26500	24800	33100	26900
22	3500	17500	22200	13000	16500	14700	8000	22100	26600	21900	33500	26900
23	4440	17700	22300	13900	13900	5660	5830	22400	26800	17400	33700	26900
24	7710	17400	22500	15300	13500	4490	3810	21600	27700	19600	32100	27000
25	9950	16800	22600	15000	14400	10300	8180	21800	27200	21400	31900	27300
26	11600	17200	22800	12500	15100	9550	8920	21900	27500	22600	31500	7490
27	12700	17600	22700	12700	15500	12100	10400	23200	27900	23600	31300	3840
28	14000	18400	23100	14300	16000	9460	11800	23600	27700	23800	31200	7980
29	15100	18900	22500	14900	---	12000	13400	24100	27600	10900	31000	18800
30	15600	18700	22800	14700	---	5280	13500	24300	27000	18200	31000	23400
31	2400	---	22800	14800	---	6380	---	24500	---	10000	31200	---
MONTH	18170	14530	20670	16770	15450	12250	13190	20130	24200	---	24010	14990

07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	7.0	4.0	5.5	6.5	15.0	18.5	19.5	20.5	27.0	22.0	23.0
2	16.5	8.0	7.0	4.0	0.0	10.0	12.0	13.5	21.0	24.0	21.0	31.5
3	24.0	6.0	6.5	5.0	9.0	11.0	9.0	13.0	28.5	24.0	23.0	24.0
4	23.5	10.0	1.5	3.0	13.5	16.0	8.0	14.5	21.5	25.0	22.0	22.0
5	19.0	16.0	9.5	2.0	9.0	11.5	14.0	18.0	19.0	24.0	32.0	20.0
6	18.5	14.5	2.0	1.5	7.0	14.0	10.5	23.0	19.5	---	21.0	16.5
7	23.0	11.0	5.5	0.0	10.0	10.0	13.5	14.0	21.0	---	23.0	20.0
8	25.5	10.0	0.0	0.0	1.5	14.0	---	18.0	21.0	---	23.0	21.0
9	21.0	12.0	1.5	0.0	0.0	13.0	10.5	18.5	21.0	---	23.0	29.0
10	21.5	9.0	3.0	0.0	1.0	9.5	17.0	20.0	28.0	---	24.0	24.0
11	21.0	9.0	0.0	0.0	9.0	20.0	17.0	22.0	21.5	---	23.0	23.5
12	20.5	---	3.0	0.0	6.5	11.5	---	18.5	22.0	---	29.5	23.0
13	21.0	10.5	0.0	1.5	6.5	16.0	21.5	23.0	23.5	---	24.0	19.0
14	21.0	9.0	0.0	5.0	4.0	10.0	21.0	15.5	22.0	22.0	24.0	22.0
15	20.5	5.5	0.0	2.0	4.5	10.0	19.5	19.5	24.0	23.5	24.0	19.5
16	18.5	3.5	3.5	4.5	3.5	10.0	---	16.0	24.5	23.5	21.5	22.0
17	20.0	5.0	5.0	9.0	7.0	8.0	21.0	17.0	34.5	26.0	24.0	18.0
18	20.0	8.0	3.5	8.5	11.0	16.0	---	18.5	25.0	25.0	24.0	15.5
19	10.0	9.0	4.5	7.0	5.5	11.0	21.0	20.5	24.0	24.0	36.0	18.5
20	9.0	4.5	5.0	8.0	5.5	9.5	24.0	35.0	18.5	24.0	24.0	21.0
21	13.0	3.5	5.5	7.0	9.0	9.5	24.0	22.0	19.5	25.5	23.5	23.0
22	13.0	3.5	4.0	4.0	6.5	12.0	19.5	21.0	21.0	26.5	21.5	23.0
23	14.0	6.0	6.0	0.0	4.0	15.5	17.0	19.5	22.0	24.5	21.0	28.0
24	15.0	5.0	10.5	1.5	5.5	12.0	21.0	21.0	28.0	24.0	21.5	22.0
25	11.5	4.0	---	6.0	14.0	10.5	19.5	20.0	21.0	23.5	23.0	23.0
26	12.0	3.5	1.5	5.0	10.5	8.0	---	22.0	21.5	23.0	29.0	23.5
27	13.0	5.5	4.5	3.5	8.0	11.0	---	24.0	23.0	23.0	23.0	19.0
28	13.0	4.0	7.0	4.5	11.0	10.0	19.5	15.5	24.5	26.5	23.5	14.5
29	18.0	3.5	8.0	0.0	---	10.5	19.0	18.5	24.0	26.5	24.0	16.0
30	18.5	1.5	6.0	3.0	---	12.0	19.5	19.0	24.5	23.5	24.0	24.5
31	7.0	---	8.0	6.0	---	9.5	---	19.5	---	24.5	24.0	---
MONTH	17.5	7.0	4.0	3.5	7.0	12.0	17.5	19.5	23.0	---	24.0	21.5

RED RIVER BASIN

07311900 WICHITA RIVER NEAR SEYMOUR, TEX.

LOCATION.--Lat 33°42'01", long 99°23'18", Baylor County, at gaging station at bridge on Ranch Road 1919, 6 miles (9.7 km) upstream from head of Lake Kemp, 10 miles (16.1 km) downstream from confluence of North and South Forks, and 10.5 miles (16.9 km) northwest of Seymour.

DRAINAGE AREA.--1,874 mi² (4,854 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 21,300 micromhos July 1; minimum daily, 900 micromhos Sept. 6.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 30,800 micromhos Feb. 12, 1969; minimum daily, 735 micromhos Sept. 22, 1969.

Water temperatures (1967-72): Maximum, 37.0°C Aug. 11, 1969; minimum, freezing point Dec. 29, 1969, Jan. 5, 1971.

REMARKS --Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
02...	0825	38	--	600	140	--	2000	--	48	--
05...	1540	29	--	620	160	--	2100	--	134	0
21...	1800	3310	--	90	18	--	260	--	116	0
24...	1125	246	--	280	46	--	500	--	80	0
NOV.										
10...	1100	80	--	500	120	--	1400	--	130	0
DEC.										
21...	1117	36	--	780	200	--	3000	--	124	0
JAN.										
02...	1630	34	--	680	640	--	1500	--	98	0
FEB.										
08...	1235	114	--	570	97	--	1700	--	164	0
MAR.										
26...	0820	162	--	370	100	--	850	--	108	0
MAY										
30...	1830	31	--	900	230	--	3400	--	112	0
JUNE										
04...	1130	77	6.2	920	250	--	3800	--	144	0
JULY										
25...	1530	61	8.3	670	130	3000	--	19	118	0
AUG.										
13...	1530	51	--	390	70	--	1100	--	104	0
SEP.										
06...	1600	1800	--	67	13	--	150	--	148	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
02...	1600	3400	7810	2100	2000	--	12000	6.3	--
05...	1700	3600	8200	2200	2100	--	12800	7.8	27.0
21...	220	380	1020	300	200	6.4	1680	8.1	--
24...	720	830	2420	900	830	7.2	3630	7.9	--
NOV.									
10...	1400	2400	5850	1700	1600	15	8930	8.1	--
DEC.									
21...	2200	4900	11100	2800	2700	--	16600	7.7	6.5
JAN.									
02...	2100	3800	8770	4300	4200	--	13800	8.0	12.0
FEB.									
08...	1400	2800	6660	1800	1700	--	10200	8.2	0.0
MAR.									
26...	1200	1300	3900	1300	1200	10	5990	7.9	11.0
MAY									
30...	2600	5500	12600	3200	3100	--	18700	8.0	6.0
JUNE									
04...	2900	6000	13900	3300	3200	--	20400	7.9	--
JULY									
25...	1900	4700	10400	2200	2100	28	16200	7.8	--
AUG.									
13...	1100	1800	4450	1300	1200	14	7080	7.4	--
SEP.									
06...	160	180	635	220	99	4.3	1070	7.6	17.0

RED RIVER BASIN

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07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	13096	2390	1520	53600	590	20700	340	12000	510
NOV.	7851	4160	2720	57600	1110	23500	600	12600	770
DEC.	1205	16300	10900	35500	4810	15700	2150	7010	2570
JAN. 1973....	2969	12600	8050	64500	3460	27800	1720	13800	2030
FEB.	1712	13500	8690	40200	3750	17300	1810	8360	2160
MAR.	9222	4500	2740	68300	1040	26000	700	17500	820
APR.	6313	6230	3830	65200	1550	26400	900	15300	1080
MAY	1652	15100	9730	43400	4310	19200	1920	8550	2400
JUNE	782.0	17000	11500	24300	4890	10300	2470	5220	2680
JULY	4516.1	4430	2680	32700	1020	12400	580	7020	810
AUG.	1636.2	7030	4530	20000	1880	8300	1020	4510	1200
SEP.	9084.3	2850	1710	41800	610	15000	440	10700	580
TOTAL	60038.6	--	--	547000	--	223000	--	123000	--
WTD. AVG. ...	164	5340	3380	--	1370	--	760	--	950

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12100	1260	14700	17400	15000	14600	3620	12000	16900	21300	4140	14600
2	12000	2330	14700	16500	15400	14600	4140	13100	15700	21200	4760	4000
3	12900	3000	14900	13800	15200	14600	5000	13600	16000	19200	7460	5480
4	12900	4500	14900	12000	15100	14800	5500	13800	18500	17200	9280	4000
5	12900	6230	14900	12500	15300	14900	6500	14300	17000	16100	9280	1700
6	12900	6190	15300	13000	15000	8000	8000	14000	14700	18500	10400	900
7	14200	7240	15300	13500	14100	10000	10000	14600	17200	19300	11600	1400
8	14300	7950	15800	13500	10200	12000	12000	15000	17000	19500	12300	2600
9	14200	8370	15800	17200	10600	14000	13000	13800	15600	19300	13400	3000
10	14200	8930	15800	16700	11000	2810	13200	14300	15300	19000	6000	3830
11	14200	14800	15700	16500	12100	3340	13000	15300	15800	12700	6000	4000
12	14300	14800	16700	15500	12600	4480	13400	16400	16100	16700	5500	5000
13	14500	8970	16800	13800	12800	4700	12900	14600	16100	10000	7000	4100
14	15100	9330	16800	17200	13300	5000	11600	13500	16800	5000	9320	3500
15	15100	9330	16800	13500	13500	5400	11100	13100	17300	2890	10500	6200
16	15700	10800	16700	14500	13800	6000	10900	14500	18400	2550	5000	6600
17	15600	10800	16700	15400	13500	7000	13300	15300	18100	3510	6100	7700
18	15600	10800	16700	14500	13000	8000	13800	16200	18500	4060	7940	7360
19	15700	10800	16700	14800	13300	9000	11600	16800	18600	5660	8300	6960
20	12000	10800	16700	15000	13600	10000	9000	17200	18900	7580	10000	7240
21	2100	11800	16600	10900	14200	11000	12500	17400	18900	8510	12700	8170
22	2010	13500	16700	7080	14000	12300	4120	15700	18900	9500	13800	9900
23	2080	14800	17200	12000	13000	12000	3240	16400	18900	10400	15400	10900
24	3630	14800	17200	17100	13400	6150	2870	17100	19000	10100	16400	11200
25	4830	14800	17400	14000	14100	5710	3760	15000	19000	14000	16000	11400
26	4360	14800	17400	12000	14400	5990	4490	17100	18900	7100	16200	6000
27	8380	14800	17400	13000	14700	8570	6800	17400	18900	7420	16000	2600
28	8380	14800	17400	13600	15000	9860	9020	18500	18800	8590	15100	4500
29	11600	14800	17400	13900	---	10300	10200	18600	18800	3000	15000	6000
30	2990	14000	17400	14200	---	1600	11300	18700	17900	2640	15000	7200
31	1040	---	17300	14600	---	2700	---	18500	---	3500	15100	---
MONTH	10700	10340	16380	14170	13610	8690	9000	15540	17550	11160	10680	5930

RED RIVER BASIN

07312100 WICHITA RIVER NEAR MABELLE, TEX.

LOCATION.--Lat 33°45'36", long 99°08'33", Baylor County, at gaging station at bridge on U.S. Highways 183 and 283, 0.3 mile (0.5 km) downstream from Lake Kemp Dam, 6 miles (10 km) north of Mabelle, and 13 miles (21 km) northeast of Seymour.

DRAINAGE AREA.--2,086 mi² (5,403 km²), all of which is above Lake Kemp Dam.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 4,530 micromhos Apr. 11, Aug. 8; minimum daily, 1,070 micromhos Apr. 24.

Water temperatures: Maximum, 31.0°C Sept. 9; minimum, 3.0°C Dec. 15, 16.

EXTREMES, October 1968 to September 1973.--Specific conductance: Maximum daily, 6,190 micromhos May 25, 1971; minimum daily, 1,070 micromhos Apr. 24, 1973.

Water temperatures: Maximum, 32.0°C Sept. 4, 1972; minimum, 3.0°C Dec. 15, 16, 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS- POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 09...	1745	11	--	220	54	--	610	--	128	0	590
NOV. 15...	0840	1600	--	200	37	--	510	--	94	0	500
DEC. 22...	1045	7.2	--	200	46	--	520	--	110	0	520
JAN. 04...	2150	122	--	150	20	--	460	--	76	0	420
FEB. 21...	1530	7.8	--	200	57	--	560	--	114	0	560
MAR. 30...	1655	2.3	--	53	21	--	170	--	108	0	160
APR. 19...	1650	3.1	--	50	29	--	160	--	168	0	150
MAY 29...	1725	213	5.2	210	52	--	610	--	108	0	600
JUNE 29...	1435	205	5.5	220	56	--	650	--	114	0	630
JULY 31...	1910	18	7.5	66	22	140	--	4.1	164	0	140
AUG. 07...	1255	.94	9.1	220	70	--	710	--	132	0	660
SEP. 13...	1200	1.9	7.8	78	31	--	290	--	114	0	260

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 09...	970	--	--	2510	760	660	10	3940	8.1	26.0
NOV. 15...	800	--	--	2100	640	560	8.7	3350	8.1	14.0
DEC. 22...	840	--	--	2180	690	600	8.6	3510	8.1	6.0
JAN. 04...	690	--	--	1780	460	400	9.4	2850	8.2	6.0
FEB. 21...	900	--	--	2340	740	650	9.0	3820	8.2	10.0
MAR. 30...	240	--	--	703	220	130	5.1	1300	7.3	16.0
APR. 19...	220	--	--	689	240	110	4.5	1210	8.2	22.0
MAY 29...	950	--	.07	2480	740	650	9.7	3950	7.8	22.0
JUNE 29...	1000	--	.05	2640	780	690	10	4150	8.1	27.0
JULY 31...	210	.5	.5	683	260	120	3.9	1130	7.6	26.0
AUG. 07...	1100	--	.2	2860	840	730	11	4550	8.0	30.0
SEP. 13...	420	.7	.6	1140	320	230	7.0	1920	7.5	24.5

RED RIVER BASIN

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07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	9301	3450	2150	54000	830	20900	520	13100	650
NOV.	30572.0	3400	2120	175000	820	67700	510	42100	640
DEC.	1601.8	3340	2080	9000	800	3460	500	2160	630
JAN. 1973....	4035.1	3500	2190	23900	850	9260	520	5670	660
FEB.	4420.9	3630	2270	27100	880	10500	540	6450	680
MAR.	3871.0	3890	2440	25500	940	9820	590	6170	730
APR.	910.52	3400	2120	5210	820	2020	510	1250	640
MAY	3112.79	3910	2450	20600	940	7900	590	4960	740
JUNE	2750.90	4050	2550	18900	980	7280	620	4610	760
JULY	9960.7	4270	2680	72100	1030	27700	650	17500	810
AUG.	6318.69	4370	2750	46900	1060	18100	660	11300	820
SEP.	5300.54	4230	2650	37900	1020	14600	640	9160	800
TOTAL	82155.94	--	--	516000	--	199000	--	124000	--
WTD. AVG. ...	255	3720	2330	--	900	--	560	--	700

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3580	3680	3310	3760	3600	4000	3900	4070	3910	4180	4090	4300
2	3560	3430	3340	3700	3620	4020	4050	4380	3590	4220	4010	4320
3	3460	3410	3310	3400	3620	3870	3840	4340	4140	4220	4160	4320
4	3480	3530	3300	2850	3610	3900	4280	4440	4230	4200	4380	4330
5	3480	3550	3300	3410	3610	4000	3970	4440	4280	4250	4380	4330
6	3480	3450	3320	3420	3610	3900	4280	4400	4330	4240	4470	2260
7	3480	3460	3320	3450	3620	4000	4160	4330	4300	4240	4520	3090
8	3470	3420	3320	3460	3640	3970	4290	4280	4010	4260	4530	3590
9	3670	3360	3320	3460	3660	4020	4340	3060	4010	4250	4510	3960
10	3480	3380	3350	3460	3640	2990	4400	3650	4020	4270	4330	4120
11	3590	3340	3350	3480	3770	3490	4530	4340	4050	4270	4350	4140
12	3500	3380	3340	3480	3750	3880	4520	4390	4030	4260	4350	4200
13	3510	3330	3340	3460	3770	3880	4000	4190	4040	4290	4340	2820
14	3510	3340	3420	3420	3710	3910	4130	4260	4040	4300	4350	3520
15	3500	3350	3530	3450	3690	3890	4390	4340	4070	4290	4350	4260
16	3510	3350	3490	3460	3710	3890	2370	3870	4070	4290	4350	4260
17	3510	3340	3490	3460	3670	3900	3740	3880	4060	4310	4360	4250
18	3510	3330	3510	3480	3780	3910	4050	3870	4200	4310	4350	4250
19	3490	3330	3460	3490	3690	3910	1210	3860	4360	4330	4360	4250
20	3490	3300	3420	3510	3730	3910	3910	3890	4370	4330	4370	4300
21	3490	3310	3700	3550	3820	3910	3910	3880	4450	4320	4370	4270
22	3520	3770	3510	3570	3640	4320	1490	3870	4430	4310	4370	4280
23	3540	3820	3530	3570	3700	3950	2630	3880	4460	4330	4400	4280
24	3540	3700	3570	3570	3750	3530	1070	3890	4470	4320	4390	4320
25	3550	3580	3430	3550	3890	3980	2700	3890	4520	4330	4390	4300
26	3380	3910	3600	3550	3760	4270	3050	3930	4130	4330	4380	4310
27	3570	4010	3500	3520	3840	4400	3700	3940	4130	4340	4380	4230
28	3370	4130	3640	3550	3930	4430	4310	3950	4130	4330	4380	4290
29	3290	3540	3480	3560	---	3930	4100	3950	4150	3250	4380	4240
30	3320	3410	3530	3560	---	1300	4090	3950	4150	3370	4400	4240
31	3380	---	3560	3580	---	1960	---	3970	---	1130	4390	---
MONTH	3490	3510	3440	3490	3710	3780	3650	4040	4170	4120	4360	4050

RED RIVER BASIN

07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	16.0	10.0	6.0	5.0	---	16.0	20.0	23.0	26.0	30.0	26.0
2	22.0	16.0	10.0	---	5.0	10.0	15.0	21.0	25.0	27.0	26.0	26.0
3	24.0	15.0	9.0	6.0	5.0	14.0	15.0	16.0	25.0	28.0	27.0	25.0
4	23.0	15.0	8.0	6.0	5.0	10.0	22.0	17.0	22.0	27.0	30.0	---
5	23.0	15.0	8.0	5.0	6.0	10.0	18.0	17.0	25.0	28.0	30.0	24.0
6	22.0	15.0	7.0	5.0	6.0	13.0	13.0	---	22.0	28.0	28.0	22.0
7	23.0	16.0	6.0	6.0	6.0	11.0	14.0	20.0	21.0	28.0	30.0	24.0
8	22.0	15.0	7.0	6.0	5.0	17.0	9.0	26.0	23.0	28.0	27.0	22.0
9	26.0	15.0	6.0	6.0	6.0	11.0	---	28.0	23.0	28.0	25.0	31.0
10	25.0	15.0	4.0	6.0	5.0	12.0	10.0	20.0	24.0	26.0	27.0	24.0
11	24.0	15.0	5.0	4.0	9.0	13.0	13.0	18.0	24.0	27.0	28.0	27.0
12	24.0	15.0	5.0	4.0	11.0	13.0	15.0	20.0	23.0	26.0	27.0	22.0
13	23.0	13.0	7.0	4.0	7.0	14.0	21.0	20.0	23.0	27.0	27.0	24.0
14	23.0	14.0	4.0	5.0	8.0	13.0	15.0	16.0	24.0	27.0	27.0	25.0
15	22.0	14.0	3.0	4.0	4.0	12.0	21.0	14.0	25.0	27.0	26.0	24.0
16	23.0	12.0	3.0	4.0	5.0	13.0	14.0	22.0	25.0	26.0	27.0	---
17	24.0	---	7.0	5.0	5.0	13.0	17.0	19.0	25.0	27.0	28.0	23.0
18	22.0	12.0	5.0	5.0	10.0	14.0	22.0	20.0	26.0	27.0	26.0	23.0
19	22.0	11.0	---	6.0	6.0	14.0	22.0	20.0	23.0	27.0	27.0	23.0
20	20.0	10.0	5.0	6.0	8.0	13.0	16.0	20.0	20.0	29.0	28.0	24.0
21	22.0	10.0	9.0	6.0	10.0	13.0	17.0	---	24.0	27.0	29.0	24.0
22	19.0	9.0	6.0	5.0	10.0	14.0	22.0	24.0	23.0	27.0	28.0	24.0
23	18.0	8.0	6.0	5.0	---	---	18.0	23.0	26.0	27.0	27.0	24.0
24	---	---	5.0	6.0	8.0	13.0	16.0	23.0	28.0	28.0	28.0	27.0
25	17.0	10.0	5.0	5.0	13.0	13.0	17.0	21.0	29.0	27.0	27.0	24.0
26	17.0	10.0	5.0	5.0	8.0	10.0	15.0	22.0	26.0	28.0	26.0	23.0
27	17.0	8.0	5.0	5.0	13.0	13.0	12.0	22.0	26.0	28.0	25.0	22.0
28	17.0	9.0	6.0	5.0	10.0	19.0	6.0	22.0	26.0	27.0	25.0	22.0
29	17.0	8.0	7.0	5.0	---	14.0	18.0	22.0	27.0	28.0	26.0	25.0
30	20.0	9.0	7.0	5.0	---	19.0	19.0	20.0	26.0	27.0	26.0	24.0
31	17.0	---	8.0	6.0	---	16.0	---	21.0	---	26.0	26.0	---
MONTH	21.5	12.5	6.5	5.0	7.5	13.0	16.0	20.5	24.5	27.0	27.0	24.0

07312700 WICHITA RIVER NEAR CHARLIE, TEX.

LOCATION.--Lat 34°03'11", long 98°17'47", Clay County, at gaging station at bridge on Farm Road 810, 3.0 miles (4.8 km) southeast of Charlie, and 5.7 miles (9.2 km) northwest of Petrolia.

DRAINAGE AREA.--3,439 mi² (8,907 km²), of which 2,086 mi² (5,403 km²) is above Lake Kemp Dam and 143 mi² (370 km²) is above Lake Wichita Dam.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Chemical and biochemical analyses: October 1968 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 4,730 micromhos Mar. 6; minimum daily, 574 micromhos Nov. 1.

Water temperatures: Maximum, 32.0°C July 4, 5, 6; minimum, freezing point Jan. 8, 10, 11, 12.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 10,000 micromhos Apr. 25, 1972; minimum daily, 384 micromhos Aug. 16, 1971.

Water temperatures: Maximum, 33.0°C July 31, 1970; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
24...	0930	785	7.8	91	22	250	--	4.6	138	0
31...	0903	2750	--	85	21	--	220	--	92	0
NOV.										
01...	0945	4340	6.6	36	9.2	--	83	--	71	0
02...	0805	5590	6.8	33	8.6	--	70	--	72	0
04...	0840	6020	5.8	70	16	--	190	--	78	0
DEC.										
04...	1500	260	11	210	67	--	550	--	216	0
06...	1535	230	7.5	140	43	--	350	--	144	0
JAN.										
10...	1612	100	6.4	110	38	--	260	--	116	0
FEB.										
02...	1643	780	6.2	150	41	--	440	--	116	0
20...	0950	186	7.9	160	54	--	410	--	186	0
MAR.										
13...	1732	814	8.9	60	23	--	140	--	130	0
APR.										
16...	1500	275	7.8	160	58	--	420	--	192	0
19...	1705	891	8.3	100	39	--	280	--	130	0
MAY										
04...	1905	206	9.3	200	71	--	510	--	228	0
JUNE										
19...	1600	525	6.0	140	49	--	460	--	128	0
JULY										
31...	1940	911	9.6	98	28	250	--	4.9	188	0
AUG.										
30...	1130	160	7.3	220	78	--	670	--	164	0
31...	1626	174	8.6	220	76	--	690	--	156	0
SEP.										
14...	1823	166	8.3	160	58	--	470	--	156	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
24...	160	420	.3	.76	.01	.13	.8	1.8	1020
31...	200	350	--	--	--	--	--	--	920
NOV.									
01...	60	130	.1	--	--	--	1.3	--	366
02...	32	120	.1	--	--	--	.9	--	312
04...	160	300	.0	--	--	--	.4	--	779
DEC.									
04...	450	960	.3	.29	.09	.85	.6	.80	2360
06...	300	620	.3	--	--	--	1.4	--	1540
JAN.									
10...	170	500	.1	--	--	--	1.1	--	1150
FEB.									
02...	370	720	.4	--	--	--	.9	--	1790
20...	320	720	.3	.46	.03	.94	.7	.79	1770
MAR.									
13...	66	260	.3	--	--	--	1.5	--	626
APR.									
16...	310	740	.3	.78	.08	.18	.8	.95	1790
19...	120	560	.3	--	--	--	.7	--	1180
MAY									
04...	350	940	--	--	--	--	1.4	--	2190
JUNE									
19...	160	900	.3	3.6	.06	.23	.8	1.6	1780
JULY									
31...	98	470	.3	--	--	--	1.2	--	1060
AUG.									
30...	540	1200	.4	1.4	.09	.06	.7	1.1	2750
31...	560	1200	--	--	--	--	1.4	--	2810
SEP.									
14...	380	800	--	--	--	--	1.2	--	1960

RED RIVER BASIN

07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
24...	320	200	6.1	1850	7.6	13.0	6.0	57	7.4
31...	300	220	5.5	1600	7.9	14.0	--	--	--
NOV.									
01...	130	70	3.2	665	7.8	13.0	--	--	--
02...	120	59	2.8	604	7.8	10.0	--	--	--
04...	240	180	5.3	1370	7.9	10.5	--	--	--
DEC.									
04...	800	630	8.4	4000	7.4	17.0	9.2	96	2.1
06...	530	410	6.6	2550	8.2	4.5	--	--	--
JAN.									
10...	420	330	5.5	2040	8.1	.0	--	--	--
FFB.									
02...	540	450	8.1	2870	8.0	7.0	--	--	--
20...	620	470	7.1	3060	7.7	7.0	9.7	80	4.8
MAR.									
13...	240	140	3.9	1170	7.9	15.0	--	--	--
APR.									
16...	630	470	7.2	3010	6.7	19.0	6.7	72	4.0
19...	410	300	6.1	2150	8.2	18.5	--	--	--
MAY									
04...	780	590	7.9	3650	8.3	21.0	--	--	--
JUNF									
19...	540	440	8.5	3240	7.3	25.0	3.9	47	2.7
JULY									
31...	360	210	5.8	1820	7.7	26.0	--	--	--
AUG.									
30...	870	740	9.8	4580	8.1	27.5	8.3	105	5.0
31...	870	740	10	4450	8.1	28.0	--	--	--
SEP.									
14...	640	510	8.0	3230	8.2	26.0	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	11317	2630	1550	47400	640	19600	280	8560	500
NOV.	65817	1950	1120	199000	460	81700	190	33800	370
DEC.	6919	3530	2110	39400	870	16300	390	7290	680
JAN. 1973....	11581	2650	1560	48800	650	20300	280	8760	510
FEB.	14525	3100	1840	72200	760	29800	340	13300	590
MAR.	15186	2630	1550	63600	640	26200	280	11500	500
APR.	21322	1700	960	55300	400	23000	150	8640	320
MAY	5794	3790	2270	35500	940	14700	430	6730	730
JUNE	10344	2550	1500	41900	620	17300	270	7540	490
JULY	10084	3100	1840	50100	760	20700	340	9260	590
AUG.	7916	2790	1650	35300	680	14500	300	6410	530
SEP.	12638	3020	1790	61100	740	25300	330	11300	580
TOTAL	193443	--	--	750000	--	309000	--	133000	--
WTD. AVG. ...	530	2450	1430	--	590	--	250	--	470

RED RIVER BASIN

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07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4340	574	2000	2570	2610	3300	1800	2940	3780	3960	1300	4190
2	4560	640	2520	3980	2870	3350	814	3270	2800	3850	1440	4160
3	4520	730	3260	2660	2950	3290	1820	3370	1090	3750	1570	4130
4	4390	1410	3520	1930	2950	3260	1640	3650	2630	3770	1920	4340
5	4350	1550	1890	1790	2870	2530	1680	3790	3730	3770	2430	3810
6	4190	1680	2550	1760	2930	4730	1860	3870	4500	3720	2720	2840
7	4380	1780	4010	2600	2920	2990	1800	3330	3730	3610	2920	1460
8	4400	1890	1730	3210	2950	3940	1970	3880	3200	3610	3080	2400
9	4460	2000	3400	2720	2930	3760	2120	3850	3170	3780	3260	1880
10	4600	2420	3910	2040	2960	3340	2320	3810	3300	3870	3420	2190
11	4620	2620	3990	3390	3090	2300	2510	3910	3450	3870	2520	2570
12	4360	2740	3770	4660	3300	1800	2750	3860	3460	3690	2800	2710
13	4440	2530	3960	3880	3090	1170	2870	3820	3520	3740	3330	2980
14	4500	2820	4100	3660	3080	1950	2770	3830	3420	3760	3840	3270
15	4440	2850	4250	3300	3080	2420	2880	3850	3220	3730	3620	3370
16	4480	2970	3730	3280	3080	2990	2980	3770	3530	3880	3770	3610
17	4430	2990	3580	3300	3000	3310	2830	4150	1100	3750	3700	3770
18	4450	2980	3660	3240	2990	3280	2460	4090	2220	2570	3700	3900
19	4560	2880	3710	3680	2740	3520	2150	3950	3260	3220	3720	3960
20	4370	2970	3780	3710	3050	3620	1560	4130	2130	3700	3860	3960
21	3000	3060	3870	3820	3550	3530	2090	4220	1960	4060	3760	3840
22	1730	3150	3910	3800	3980	3450	1930	4170	2290	2390	3860	3900
23	1650	3270	3940	3620	4090	3580	1110	3880	2720	3490	3980	3900
24	1920	3180	4090	4250	3480	796	1530	3670	3150	3780	4000	3880
25	2560	3150	4100	4070	4720	1650	1140	3770	3270	4060	3960	3880
26	3110	3340	4410	2190	3400	2270	1410	3710	3520	3330	4020	4460
27	3510	3310	4410	2150	3310	2670	1220	4040	3680	3410	4030	1580
28	3860	3300	4420	1780	3340	3250	1950	4190	3630	3460	4100	2630
29	3980	3370	4220	2420	---	3350	2250	4060	3720	3390	4260	2230
30	3290	3470	3840	2590	---	3670	2590	3790	3860	1960	4310	3790
31	1300	---	3830	2610	---	3350	---	3720	---	1820	4450	---
MONTH	3830	2520	3620	3050	3190	2980	2030	3820	3100	3510	3340	3320

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	13.0	9.5	8.0	7.0	12.0	13.5	24.0	24.5	30.5	26.5	26.0
2	21.0	10.0	10.0	6.5	7.0	12.0	14.0	20.5	23.5	---	25.5	28.5
3	22.0	10.0	9.0	6.5	8.5	14.5	13.5	20.5	21.0	30.5	28.5	28.0
4	23.5	10.5	7.0	4.5	9.0	14.0	13.5	21.0	24.5	32.0	24.5	28.5
5	24.0	11.5	7.0	4.5	13.0	14.5	15.0	21.0	25.5	32.0	28.0	24.0
6	21.0	---	4.5	3.0	9.5	15.0	14.5	21.0	26.5	32.0	28.0	22.0
7	21.0	14.0	3.5	---	8.0	15.5	15.0	23.0	26.5	30.5	29.0	21.0
8	24.0	13.5	4.0	0.0	5.5	15.5	13.5	24.5	26.5	30.0	29.0	24.0
9	24.0	13.5	4.0	0.5	5.0	15.0	11.0	25.5	26.5	29.5	29.0	25.0
10	24.5	13.5	3.5	0.0	5.5	14.5	13.0	28.0	---	29.5	28.0	26.5
11	25.0	13.5	2.0	0.0	6.0	15.0	---	26.5	26.5	28.5	30.0	28.5
12	25.0	13.0	4.0	0.0	8.5	15.0	18.0	22.0	25.5	29.0	29.5	28.0
13	25.5	12.0	---	0.5	8.5	15.0	20.5	22.0	25.5	30.5	30.0	29.0
14	25.5	11.5	3.0	1.0	8.5	15.5	20.0	20.5	28.0	29.0	31.0	26.0
15	22.0	11.0	3.0	5.0	8.0	14.5	18.5	20.5	26.5	26.5	30.0	25.5
16	23.5	10.0	4.0	6.5	6.5	14.5	18.0	24.0	29.0	29.0	29.0	25.5
17	24.5	10.0	3.0	14.0	5.5	15.0	16.5	23.5	26.0	28.0	29.0	21.0
18	20.5	9.0	6.0	13.0	7.0	15.0	19.0	26.0	28.0	28.5	29.5	20.5
19	14.5	9.0	8.5	11.5	8.5	16.0	18.5	27.0	24.5	29.5	30.5	21.5
20	12.0	9.0	9.0	12.0	9.5	15.0	19.5	24.5	25.5	---	30.5	24.0
21	---	8.0	8.0	9.5	10.0	15.0	21.0	29.0	29.0	30.5	30.5	25.5
22	17.0	9.0	8.5	8.5	8.0	16.0	20.5	24.5	26.5	29.5	30.0	26.0
23	15.5	6.5	9.0	8.5	9.5	16.0	21.5	25.5	29.0	30.0	29.5	26.0
24	14.5	6.5	7.0	8.5	11.0	14.5	20.5	26.5	26.5	29.5	29.5	25.5
25	14.5	7.0	8.5	7.0	12.0	15.5	19.5	24.5	29.5	30.0	29.5	25.5
26	13.5	---	8.5	6.0	10.5	13.5	17.0	25.0	29.5	29.0	29.0	24.0
27	13.5	8.0	9.0	6.0	11.0	13.0	16.5	23.5	30.5	29.5	28.5	22.0
28	13.0	8.0	8.5	4.5	11.0	15.0	18.5	23.5	26.5	26.0	28.0	21.0
29	14.0	8.0	12.0	4.5	---	15.0	21.0	24.5	29.0	28.0	26.5	21.0
30	15.5	8.5	10.0	5.0	---	16.0	21.0	25.5	29.5	26.5	27.0	22.0
31	14.0	---	9.5	6.0	---	15.0	---	25.5	---	26.0	28.0	---
MONTH	19.5	10.5	7.0	5.5	8.5	15.0	17.5	24.0	26.5	29.5	28.5	24.5

RED RIVER BASIN

07315000 LITTLE WICHITA RIVER NEAR HENRIETTA, TEX.

LOCATION.--Lat 33°50'02", long 98°12'31", Clay County, at gaging station at bridge on State Highway 148, 1.5 miles (2.4 km) northwest of Henrietta, 4 miles (6.4 km) upstream from Turkey Creek, and 5 miles (8.0 km) upstream from Dry Fork Little Wichita River.

DRAINAGE AREA.--1,037 mi² (2,686 km²).

PERIOD OF RECORD.--Chemical analyses: December 1952 to January 1956, March 1959 to September 1966, January 1968 to September 1973.

Water temperatures: December 1952 to January 1956, March 1959 to September 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 02...	1625	428	7.3	8.5	3.6	7.1	42	0	3.2	7.0
JULY 30...	1155	956	7.6	10	4.4	12	42	0	3.0	20
SEP. 11...	1600	4.7	11	18	6.0	32	65	0	4.8	54

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 02...	.1	1.0	62	36	2	.5	112	7.2	12.0
JULY 30...	.2	.7	81	43	9	.8	146	7.8	24.0
SEP. 11...	.2	1.1	163	70	16	1.7	296	6.8	27.0

RED RIVER BASIN

93

07315200 EAST FORK LITTLE WICHITA RIVER NEAR HENRIETTA, TEX.

LOCATION.--Lat 33°48'46", long 98°05'05", Clay County, at gaging station at bridge on U.S. Highway 82, 5.8 miles (9.3 km) upstream from Little Wichita River, 6.4 miles (10.3 km) east of Henrietta, and 8.9 miles (14.3 km) west of Ringgold.

DRAINAGE AREA.--178 mi² (461 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1968, October 1969 to September 1973.
Sediment records: October 1965 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 07...	1615	1.4	6.6	22	6.0	26	60	0	8.8	55
JAN. 15...	1545	6.5	2.1	28	9.0	46	87	0	14	85

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 07...		.2	.05	155	80	30	1.3	304	8.0	--
JAN. 15...		.2	.07	228	110	36	1.9	446	8.2	2.0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
APR. 24...	1510 249		20.0	1910	1280	99	100	70	76	81	91	98

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, at gaging station at bridge on U.S. Highway 81, 0.5 mile (0.8 km) downstream from Chicago, Rock Island and Pacific Railroad Co. bridge, 1.2 miles (1.9 km) south of Terral, Oklahoma, and 3.6 miles (5.8 km) downstream from Little Wichita River.

DRAINAGE AREA.--28,723 mi² (74,393 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 8,210 micromhos Aug. 14; minimum daily, 500 micromhos Nov. 2.

Water temperatures: Maximum, 30.0°C July 3; minimum, freezing point Dec. 10, 16.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 10,700 micromhos Apr. 23, 1970; minimum daily, 500 micromhos Nov. 2, 1972.

Water temperatures: Maximum, 31.0°C June 19, 21, 1970; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 24...	0845	5760	13	110	20	240	--	5.4	144	0	220
NOV. 02...	1400	45500	9.4	36	5.8	--	57	--	102	0	39
DEC. 06...	1035	576	12	260	74	--	920	--	228	0	580
JAN. 26...	0800	4300	10	70	16	150	--	4.5	128	0	120
FEB. 14...	1205	1120	3.6	230	66	--	740	--	180	0	540
MAR. 27...	0945	10100	10	58	14	--	100	--	128	0	81
APR. 02...	1245	23200	9.0	79	16	--	180	--	140	0	130
MAY 21...	0800	856	8.5	300	97	--	970	--	196	0	800
JUNE 09...	1115	2880	12	150	33	--	300	--	148	0	340
JULY 06...	1045	424	9.6	240	79	790	--	8.7	216	0	620
AUG. 14...	0815	1200	13	370	78	--	1400	--	144	0	960
SEP. 20...	0930	2300	14	350	69	--	1200	--	140	0	960

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 24...	390	.4	1.8	1070	350	230	5.7	1870	7.4	12.0
NOV. 02...	76	.2	1.6	280	110	30	2.3	490	7.7	11.0
DEC. 06...	1500	--	.80	3480	950	770	13	5920	8.3	1.5
JAN. 26...	250	.4	1.4	687	240	140	4.2	1240	7.7	5.0
FEB. 14...	1200	--	1.2	2920	860	710	11	4860	7.3	8.0
MAR. 27...	170	.2	1.4	502	200	97	3.2	917	7.0	12.0
APR. 02...	290	.3	1.2	785	260	150	5.0	1380	8.2	12.0
MAY 21...	1600	--	.20	3870	1200	990	12	6310	8.2	25.0
JUNE 09...	500	.3	.50	1420	520	400	5.8	2300	8.2	26.0
JULY 06...	1300	--	.80	3170	930	760	11	5290	7.9	28.0
AUG. 14...	2200	--	--	5030	1200	1100	17	8210	8.2	27.0
SEP. 20...	2000	--	1.0	4670	1200	1000	16	7620	7.6	22.0

RED RIVER BASIN

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07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	31385	2080	1230	104000	480	40700	250	21200	380
NOV.	179603	1230	710	344000	250	121000	140	67900	240
DEC.	14537	5750	3500	137000	1500	58900	710	27900	980
JAN. 1973....	80503	2210	1310	285000	520	113000	260	56500	400
FEB.	32968	4470	2710	241000	1100	97900	550	49000	770
MAR.	136598	2420	1440	531000	570	210000	290	107000	430
APR.	274960	2090	1240	921000	480	356000	250	186000	380
MAY	48128	5270	3200	416000	1300	169000	650	84500	900
JUNE	166144	1630	960	431000	360	161000	190	85200	300
JULY	28026	2940	1760	133000	710	53700	360	27200	520
AUG.	52274	2170	1290	182000	500	70600	260	36700	390
SEP.	98705	2800	1680	448000	670	179000	340	90600	490
TOTAL	1143831	--	--	4170000	--	1630000	--	840000	--
WTD, AVG. ...	3134	2270	1350	--	530	--	270	--	410

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5400	614	5270	5880	2870	5550	1760	4400	4150	4670	931	5530
2	4790	500	5660	5630	3350	5800	1360	4180	3710	4690	1150	5760
3	3480	579	6180	5170	3720	5590	1690	4150	779	5020	1280	5730
4	3250	664	6170	2360	3980	5600	1780	4320	1000	5200	1420	4690
5	2750	1270	5750	1600	4270	6360	1880	4540	1400	5310	1680	3990
6	2810	1660	5920	2200	4450	2580	2730	4690	1590	5340	2150	3470
7	3020	1800	6310	3000	4440	3740	2720	4830	1610	5600	2680	2470
8	3350	2190	6380	3200	3360	1130	3100	5420	1860	6100	3300	1490
9	3670	2780	5820	3400	4000	1120	3600	5320	2300	6100	3780	1580
10	3990	2880	5830	3600	4190	2290	4130	5890	2580	4710	3520	1540
11	4270	2820	5520	3800	4300	2780	3980	5950	2890	4300	3330	2000
12	4410	3110	5300	4000	4570	1270	4050	5810	2970	4090	4330	2000
13	4550	3260	5090	4200	4650	2930	4390	5930	3540	4710	1640	2340
14	4650	3240	5580	4550	4860	3320	4640	6450	3880	4690	8210	2740
15	4880	2740	5460	4650	4780	3360	4760	5790	3140	4410	7040	3110
16	4990	2290	5170	4830	4850	3730	4650	6150	2840	1420	6690	2720
17	5190	2790	5280	5110	4780	4070	3410	6150	4000	2130	6630	2850
18	5100	3200	5620	3460	4790	4170	2670	6150	3690	3670	6430	3560
19	5190	3310	5500	2210	5270	4320	1590	6130	3060	4410	5870	3860
20	5150	3310	5430	2800	5600	4420	1360	6230	2690	4660	6500	7620
21	4270	2910	5300	4000	5680	4580	772	6310	1370	4830	6330	6940
22	1980	2860	5460	5000	5710	4950	747	6190	1770	4040	6370	6670
23	4040	3200	5690	3600	5600	5000	1800	6210	1130	4350	5750	6450
24	1870	3630	5720	1540	5810	2910	1520	6270	2050	4350	5330	6670
25	1530	3860	5890	1260	5940	1330	1270	5180	2730	3630	5440	6940
26	1930	4160	5890	1240	6210	1000	1710	5030	3340	1830	5550	6610
27	3180	4390	6110	1230	5500	917	3660	6130	3730	2970	5620	5960
28	3690	4830	6310	1170	5600	2320	2920	5560	3880	3700	5530	5600
29	3610	5180	6500	1490	---	2910	2760	5160	4020	3230	4960	3040
30	3370	5070	6240	1890	---	4340	4030	4600	4290	2130	4630	2200
31	1240	---	6570	2840	---	3800	---	4260	---	1620	5220	---
MONTH	3730	2840	5770	3260	4750	3490	2710	5460	2730	4130	4490	4200

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	11.0	6.0	6.0	5.0	12.0	13.0	23.0	24.0	27.0	24.0	26.0
2	17.0	11.0	8.0	6.0	5.0	13.0	12.0	19.0	23.0	27.0	25.0	26.0
3	12.0	11.0	10.0	6.0	5.0	11.0	12.0	17.0	21.0	30.0	26.0	26.0
4	20.0	11.0	5.0	4.0	7.0	11.0	12.0	19.0	23.0	28.0	25.0	26.0
5	20.0	11.0	6.0	---	7.0	7.0	13.0	19.0	23.0	28.0	25.0	24.0
6	19.0	14.0	1.5	---	8.0	14.0	13.0	21.0	23.0	28.0	25.0	22.0
7	18.0	14.0	2.0	---	10.0	13.0	14.0	20.0	24.0	28.0	26.0	24.0
8	20.0	13.0	4.0	---	4.0	14.0	---	20.0	25.0	29.0	26.0	23.0
9	20.0	15.0	1.0	---	3.0	14.0	---	21.0	26.0	26.0	27.0	24.0
10	28.0	13.0	0.0	---	4.0	15.0	12.0	22.0	27.0	27.0	27.0	26.0
11	23.0	13.0	2.0	---	4.0	12.0	12.0	24.0	20.0	26.0	28.0	25.0
12	24.0	12.0	---	---	8.0	13.0	14.0	23.0	25.0	27.0	28.0	26.0
13	22.0	12.0	2.0	---	10.0	15.0	16.0	21.0	25.0	26.0	28.0	26.0
14	22.0	9.0	2.0	2.0	8.0	14.0	17.0	20.0	23.0	26.0	27.0	25.0
15	21.0	8.0	2.0	3.0	6.0	13.0	18.0	20.0	23.0	27.0	28.0	24.0
16	19.0	8.0	0.0	4.0	6.0	12.0	16.0	20.0	26.0	25.0	26.0	27.0
17	21.0	8.0	4.0	8.0	5.0	12.0	16.0	20.0	27.0	28.0	27.0	20.0
18	21.0	9.0	4.0	9.0	6.0	14.0	16.0	21.0	27.0	27.0	27.0	20.0
19	11.0	7.0	6.0	7.0	7.0	16.0	17.0	20.0	27.0	28.0	27.0	24.0
20	11.0	7.0	8.0	9.0	6.0	12.0	19.0	25.0	25.0	27.0	28.0	22.0
21	16.0	9.0	7.0	8.0	9.0	13.0	20.0	25.0	25.0	27.0	28.0	24.0
22	16.0	9.0	6.0	7.0	7.0	12.5	21.0	25.0	25.0	28.0	28.0	26.0
23	15.0	---	10.0	6.0	7.0	16.0	21.0	17.0	25.0	27.0	26.0	26.0
24	12.0	---	7.0	5.0	11.0	16.0	21.0	25.0	28.0	29.0	25.0	24.0
25	14.0	---	4.0	5.0	10.0	12.0	20.0	24.0	26.0	29.0	26.0	24.0
26	13.0	---	5.0	5.0	10.0	12.0	19.0	23.0	26.0	27.0	25.0	24.0
27	11.0	---	7.0	7.0	10.0	12.0	16.0	22.0	26.0	28.0	27.0	23.0
28	12.0	7.0	8.0	4.0	10.0	14.0	16.0	20.0	29.0	28.0	26.0	19.0
29	14.0	6.0	11.0	4.0	---	15.0	18.0	20.0	26.0	25.0	24.0	20.0
30	16.0	6.0	10.0	5.0	---	11.0	20.0	22.0	27.0	25.0	26.0	21.0
31	4.0	---	7.0	6.0	---	13.0	---	22.0	---	26.0	25.0	---
MONTH	17.0	10.0	5.0	---	7.0	13.0	16.0	21.5	25.0	27.0	26.5	24.0

RED RIVER BASIN

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07316000 RED RIVER NEAR GAINESVILLE, TEX.

LOCATION.--Lat 33°43'40", long 97°09'35", Cook County, at gaging station at bridge on U.S. Highway 77, 5 miles (8.0 km) downstream from Fish Creek, and 7 miles (11.3 km) north of Gainesville.

DRAINAGE AREA.--30,782 mi² (79,725 km²) of which 5,936 mi² (15,374 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1944 to April 1946, October 1952 to September 1963, October 1966 to September 1973.

Pesticide analyses: April 1968 to September 1973.

Water temperatures: October 1952 to September 1963, October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 6,870 micromhos Sept. 23, minimum daily, 535 micromhos Nov. 3.

EXTREMES, May 1944 to April 1946, October 1952 to September 1963, October 1966 to September 1973.--Specific conductance: Maximum daily, 11,100 micromhos July 16, 1972; minimum daily, 176 micromhos Nov. 4, 1958. Water temperatures (1952-63, 1966-72): Maximum, 35.0°C July 13, 1954; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 25...	0925	1320	3.4	57	14	--	120	--	110	0	89
NOV. 03...	1715	43100	5.8	40	7.3	--	61	--	117	0	41
29...	0830	2040	9.5	180	53	--	550	--	146	0	440
DEC. 06...	1445	1060	11	230	66	--	800	--	232	0	470
JAN. 25...	1730	9450	8.5	90	23	--	270	--	126	0	160
FEB. 08...	1730	2780	9.0	130	37	--	360	--	164	0	280
MAR. 02...	1730	1110	8.5	210	72	--	610	--	244	0	420
APR. 16...	1705	6480	8.5	92	29	--	320	--	172	0	200
MAY 17...	2100	1380	10	240	78	--	820	--	168	0	660
JULY 18...	0930	1670	8.3	150	49	460	--	7.5	176	0	340
AUG. 18...	2000	892	12	270	57	--	1000	--	144	0	710
SEP. 23...	1900	1720	13	320	63	--	1100	--	132	0	870

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 25...	200	.3	1.1	544	200	110	3.8	945	7.8	13.0
NOV. 03...	86	.2	.80	303	130	34	2.3	535	8.1	12.0
29...	920	.3	.60	2240	680	560	9.2	3580	8.1	6.5
DEC. 06...	1350	--	1.0	3050	840	650	12	4840	8.2	--
JAN. 25...	440	.1	1.2	1060	320	220	6.5	1880	8.0	6.5
FEB. 08...	590	.4	.90	1490	480	350	7.1	2550	8.0	5.5
MAR. 02...	1100	.4	.80	2510	820	620	9.3	4130	8.0	14.5
APR. 16...	490	.4	1.2	1230	350	210	7.5	2140	8.2	--
MAY 17...	1300	--	.60	3210	920	780	12	5010	8.2	23.0
JULY 18...	790	--	.50	1900	580	440	8.3	3160	7.7	27.5
AUG. 18...	1600	--	1.1	3710	910	790	14	6240	8.2	30.0
SEP. 23...	1700	--	1.1	4170	1100	950	15	6870	8.1	25.0

RED RIVER BASIN

07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 01...	1825	21.5	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 01...	1410	7.0	.00	.00	.00	.00	.00	.00	.00	.00
APR. 16...	1705	--	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 13...	1230	25.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 01...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.01
FEB. 01...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.01
APR. 16...	.00	.0	.0	.00	.00	.00	.00	.03	.00	.01
JUNE 13...	.00	.0	.0	.00	.00	.00	.00	.04	.00	.01

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	21273	2110	1230	70600	510	29300	220	12600	400
NOV.	233980	1220	680	430000	270	171000	120	75800	240
DEC.	22697	4720	2850	175000	1200	73500	530	32500	860
JAN. 1973....	106409	2020	1180	339000	490	141000	210	60300	390
FEB.	54350	2940	1750	257000	740	109000	320	47000	550
MAR.	167890	1880	1090	494000	450	204000	190	86100	360
APR.	354410	1490	850	813000	350	335000	150	144000	290
MAY	67280	3860	2320	421000	980	178000	430	78100	710
JUNE	253540	1550	880	602000	360	246000	160	110000	300
JULY	30937	3310	1980	165000	840	70200	370	30900	610
AUG.	81557	2040	1190	262000	490	108000	210	46200	390
SEP.	99745	2470	1450	391000	610	164000	260	70000	460
TOTAL	1494068	--	--	4420000	--	1830000	--	794000	--
WTD. AVG. ...	4093	1890	1100	--	450	--	200	--	360

RED RIVER BASIN

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07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4550	761	4170	5070	1600	4720	1650	2580	4530	2110	1300	4320
2	4250	750	4330	5570	2000	4130	1400	3510	4070	1910	1050	4590
3	4060	535	4390	4190	2290	3730	1380	3810	1000	3150	1100	4490
4	4190	558	4430	4740	2540	4050	1680	3600	1500	3570	1180	4390
5	4410	800	4590	3850	3010	2490	1680	3400	1020	3830	1260	4000
6	5100	1000	4840	2970	3320	1930	1770	3000	1480	4100	1350	3100
7	4220	1350	5010	2500	3330	2020	1920	2420	1350	4370	1500	2370
8	4080	1590	4950	2800	2550	1910	2050	3240	1270	4300	1660	1720
9	3340	1690	4980	3100	2330	1390	2550	3800	1340	4330	1950	1820
10	3240	1900	5030	3400	1800	849	2270	4050	1420	4380	2010	1570
11	2990	2410	5080	3800	2060	1020	2930	4160	1950	4440	2400	1560
12	3000	2670	5120	3900	2740	1470	3760	4320	2100	4380	3020	1770
13	3100	2560	4920	3300	3120	2000	3570	4750	2350	4000	4800	1800
14	3220	2560	5020	2980	3450	2140	3600	4810	2680	3700	3170	1960
15	3340	2840	4800	2800	3690	2830	1800	4310	2650	2720	5400	2110
16	3660	3040	4680	3450	3900	2130	2140	4720	2720	3140	5600	2400
17	3730	2700	4600	3550	4080	3050	2050	5010	3040	3530	5800	2510
18	3890	2320	4590	3500	4090	3330	2200	4890	2460	3550	6240	2830
19	3990	2350	4600	3730	4080	3100	1800	4870	2550	2260	5950	2650
20	4090	2820	4610	3010	4090	3650	1670	4860	2860	2220	5720	2840
21	4060	3110	4610	2270	4070	3780	1200	4840	3080	2250	5500	3900
22	3990	3180	4690	2710	3950	3840	835	4920	2740	3880	5250	5200
23	3820	2850	4810	3050	4100	3440	638	4760	1530	4320	5550	6870
24	2830	2740	4850	2890	4560	3690	561	4910	1420	3370	5700	6500
25	1390	2880	4780	1880	4650	3340	934	4850	1320	4370	5890	6160
26	1700	3170	4620	1340	4530	2040	912	4810	1380	4240	5660	5800
27	1550	3510	4730	1220	4580	993	1100	4770	2000	4110	5460	3840
28	1480	3750	4830	1180	4810	722	1300	4600	1600	3480	4760	3400
29	1810	3650	4890	981	---	1090	1980	5090	2500	3300	4440	3000
30	2310	4020	4820	1160	---	1750	2660	4570	2300	3200	4130	2800
31	1730	---	4910	1310	---	2100	---	4840	---	2800	4370	---
MONTH	3330	2340	4750	2960	3400	2540	1870	4290	2140	3530	3840	3410

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	14.0	---	13.5	8.0	14.0	---	22.0	---	29.5	---	28.5
2	22.0	12.5	10.0	7.0	8.0	14.5	14.0	20.0	24.5	29.5	---	30.0
3	23.0	12.0	9.0	9.0	9.0	15.0	15.0	20.5	24.0	32.0	---	---
4	24.0	13.0	5.5	6.0	10.5	15.0	14.0	21.0	23.0	30.0	---	29.0
5	25.0	---	9.0	4.0	10.5	15.0	14.0	20.0	23.5	31.0	---	---
6	22.0	14.0	---	3.5	10.0	17.0	14.0	18.0	23.0	---	27.5	---
7	22.0	14.0	2.5	---	8.0	13.5	---	21.5	24.5	30.5	28.0	24.5
8	23.0	14.0	4.0	---	5.5	17.0	13.0	23.0	26.0	29.5	29.0	25.0
9	22.0	15.0	4.0	---	5.0	16.0	11.5	---	---	30.0	28.0	28.0
10	25.0	14.0	---	---	---	17.0	14.5	26.0	25.0	29.5	30.0	26.0
11	25.0	13.5	---	---	6.0	17.0	14.5	27.0	26.5	30.0	---	28.0
12	25.0	13.0	2.5	---	10.0	17.0	17.0	23.0	---	29.5	30.5	27.0
13	26.0	12.5	3.0	---	10.0	16.5	19.0	23.0	27.0	---	30.5	27.0
14	---	10.0	3.0	2.0	8.5	17.0	20.0	22.0	27.5	---	32.0	---
15	24.0	8.0	---	5.0	8.0	14.5	16.0	22.5	27.5	27.0	31.5	25.5
16	23.0	9.0	3.0	7.5	7.5	15.0	17.0	23.0	27.5	28.5	---	25.5
17	25.0	9.5	---	12.0	7.5	14.0	17.0	23.0	27.5	29.0	---	---
18	20.5	9.0	---	12.0	6.5	15.5	17.5	25.0	29.5	27.5	30.0	21.0
19	14.0	8.0	---	12.0	7.5	14.0	---	---	---	30.0	30.5	23.5
20	14.0	7.0	---	12.0	9.0	15.0	22.0	---	27.0	30.5	---	25.5
21	16.5	6.5	7.0	10.0	10.0	15.0	---	---	27.0	32.0	---	---
22	---	7.0	8.0	9.0	7.5	14.5	21.0	25.0	29.0	31.0	29.0	---
23	14.5	7.0	9.0	12.0	8.5	15.0	22.0	25.0	28.0	32.0	30.0	25.0
24	15.0	7.0	9.0	7.5	10.5	15.0	23.0	25.0	---	32.0	---	25.0
25	13.0	8.0	---	6.5	11.5	13.0	21.0	23.0	29.0	32.0	30.0	24.0
26	13.0	8.0	9.0	6.5	10.0	16.0	18.0	---	28.5	---	30.0	---
27	13.0	9.0	8.5	7.0	12.0	13.5	---	22.0	30.0	32.0	---	23.0
28	13.0	8.5	9.0	5.5	12.5	15.5	18.0	22.0	29.5	---	29.0	---
29	15.0	6.5	15.0	6.0	---	15.5	21.0	22.0	28.5	---	28.5	---
30	16.0	8.0	12.0	6.5	---	16.0	20.0	24.0	---	---	28.0	---
31	15.0	---	15.0	8.0	---	---	---	25.5	---	---	29.0	---
MONTH	19.5	10.5	---	---	9.0	15.5	17.5	23.0	27.0	---	---	---

RED RIVER BASIN

07316200 MINERAL CREEK NEAR SADLER, TEX.

LOCATION.--Lat 33°42'08", long 96°50'51", Graystone County, at gaging station at bridge on Farm Road 901, 1.4 miles (2.3 km) north of Sadler, and 2.0 miles (3.2 km) upstream from Mustang Creek.

DRAINAGE AREA.--26.0 mi² (67.3 km²).

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 25...	1455	.09	7.0	22	4.6	42	94	0	30	37
NOV. 28...	1450	.77	11	54	13	110	232	0	80	96
JAN. 04...	1405	9.6	6.8	22	5.4	26	61	0	27	36
FEB. 13...	1455	5.7	11	69	18	71	156	0	110	110
MAR. 27...	1400	3.0	11	110	41	140	112	0	120	380
APR. 17...	1505	17	9.8	47	11	42	107	0	63	69
JUNE 06...	1825	5.6	9.5	40	9.0	36	109	0	49	50
JULY 18...	1405	2.0	8.9	26	5.8	28	88	0	28	31
AUG. 15...	1415	.10	2.2	75	22	160	368	0	96	160
SEP. 18...	1650	.49	10	62	13	100	264	0	67	98

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 25...	.3	.80	192	74	0	2.1	338	7.6	17.0
NOV. 28...	.2	4.1	495	190	0	3.5	823	8.3	8.0
JAN. 04...	.2	1.3	159	77	27	1.3	286	7.5	5.0
FEB. 13...	.3	1.1	469	240	120	2.0	784	8.1	11.5
MAR. 27...	.1	.01	862	440	350	3.0	1560	--	13.5
APR. 17...	.2	.70	298	160	75	1.4	536	7.5	--
JUNE 06...	.3	.70	251	140	47	1.3	438	7.3	25.5
JULY 18...	.3	1.2	176	89	17	1.3	310	7.1	28.5
AUG. 15...	.2	.40	691	280	0	4.1	1260	7.9	30.0
SEP. 18...	.1	2.0	492	210	0	3.1	886	8.0	20.5

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 25...	1455	.09	17.0	32	.01
NOV. 28...	1450	.78	8.0	170	.36
JAN. 04...	1405	9.5	5.0	58	1.5
FEB. 13...	1455	5.6	11.5	33	.51
MAR. 27...	1400	3.0	13.5	4	.03
APR. 17...	1505	16	--	898	39
MAY 08...	1405	14	20.5	123	4.9
JUNE 06...	1825	5.5	25.5	196	3.0
JULY 18...	1405	2.0	28.5	252	1.4
AUG. 15...	1415	.10	30.0	20	.01
SEP. 18...	1650	.49	20.5	5	.01

RED RIVER BASIN

101

07316230 SANDY CREEK NEAR SADLER, TEX.

LOCATION.--Lat 33°44'14", long 96°51'04", Grayson County, at bridge on Farm Road 901, and 3.9 miles (6.3 km) north of Sadler.

DRAINAGE AREA.--24 mi² (62 km²).

PERIOD OF RECORD.--Chemical analyses: December 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 25...	1120	.01	7.0	49	19	52	45	0	62	150
NOV. 28...	1333	.18	9.4	180	65	290	76	0	110	820
JAN. 04...	1110	7.5	5.5	18	6.3	21	38	0	22	42
FEB. 13...	1130	3.9	11	84	32	100	82	0	93	280
MAR. 27...	1125	1.6	10	90	35	56	180	0	130	140
APR. 17...	1525	--	9.1	49	15	60	64	0	53	150
JUNE 06...	1210	15	9.1	36	11	40	67	0	34	92
JULY 18...	1220	.86	10	110	34	120	72	0	140	330
AUG. 15...	1135	.02	11	600	190	780	130	0	170	2600
SEP. 18...	1420	.16	9.0	170	60	130	91	0	32	600

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 25...	.3	.3	362	200	160	1.6	670	7.0	13.0
NOV. 28...	.2	.1	1510	720	650	4.7	2780	7.9	7.0
JAN. 04...	.2	.5	136	71	40	1.1	263	7.1	4.0
FEB. 13...	.2	.2	645	340	270	2.4	1180	7.8	14.5
MAR. 27...	.3	1.0	559	370	220	1.3	963	--	13.0
APR. 17...	.2	.3	365	180	130	1.9	689	7.1	--
JUNE 06...	.2	.4	257	140	80	1.5	483	7.2	24.5
JULY 18...	.3	.1	782	410	350	2.7	1450	7.1	27.5
AUG. 15...	.0	.2	4410	2300	2200	7.1	7900	7.1	30.5
SEP. 18...	.0	.2	1050	670	600	2.2	2260	7.1	20.5

RED RIVER BASIN

07331600 RED RIVER AT DENISON DAM, NEAR DENISON, TEX.

LOCATION.--Lat 33°49'08", long 96°33'47", Grayson County, at gaging station, 1,800 feet (549 m) downstream from Denison Dam powerhouse, 0.4 mile (0.6 km) upstream from Shawnee Creek, and 4.5 miles (7.2 km) north of Denison.

DRAINAGE AREA.--39,720 mi², (102,880 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1944 to September 1973.

Water temperatures: October 1945 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,920 micromhos on several days during November and December; minimum daily, 1,160 micromhos Apr. 27.

EXTREMES, May 1944 to September 1973.--Specific conductance (1944-69, 1972-73): Maximum daily, 3,520 micromhos Aug. 14, 1944; minimum daily, 656 micromhos Oct. 16, 1945.

Water temperatures (1945-69): Maximum, 31.0°C July 17, 1969; minimum, 3.0°C Feb. 2-4, 7, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.											
16...	0900	3790	4.8	90	26	240	--	5.2	120	0	210
NOV.											
15...	0900	1220	5.9	120	28	--	230	--	124	0	200
DEC.											
05...	0900	2080	5.7	94	28	--	260	--	120	0	210
JAN.											
31...	0900	3850	6.1	86	25	240	--	4.9	124	0	200
FEB.											
21...	0845	3120	6.2	89	24	--	230	--	124	0	180
MAR.											
30...	0900	10300	11	86	22	--	200	--	130	0	170
APR.											
27...	0900	29600	6.0	72	20	--	140	--	140	0	130
MAY											
09...	0900	9770	6.2	81	22	--	180	--	140	0	160
JUNE											
12...	1230	26700	7.7	86	22	--	210	--	144	0	170
JULY											
27...	0900	4270	6.5	76	21	150	--	4.6	142	0	140
AUG.											
14...	0900	3620	9.9	84	22	--	200	--	152	0	160
SEP.											
05...	0830	190	10	86	22	--	190	--	164	0	150

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
16...	400	.3	.03	1040	330	230	5.8	1850	7.4	23.5
NOV.										
15...	410	.3	.70	1050	400	300	4.9	1910	7.8	15.5
DEC.										
05...	420	.3	.40	1070	350	250	5.9	1900	7.8	12.0
JAN.										
31...	370	.4	.10	988	320	220	5.7	1750	7.9	6.5
FEB.										
21...	360	.3	.60	958	320	220	5.5	1690	7.6	6.5
MAR.										
30...	320	.3	.60	875	300	200	5.0	1550	7.0	12.0
APR.										
27...	220	.3	.07	656	260	150	3.7	1160	8.2	15.5
MAY										
09...	290	.3	.30	811	290	180	4.6	1400	8.2	16.5
JUNE										
12...	330	.2	.60	900	300	190	5.2	1520	8.2	21.0
JULY										
27...	250	.2	.10	718	280	160	3.9	1250	7.9	28.0
AUG.										
14...	310	.2	.30	855	300	180	4.9	1460	8.0	25.5
SEP.										
05...	300	.3	1.1	838	300	170	4.7	1440	8.3	25.5

RED RIVER BASIN

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07331600 RED RIVER AT DENISON DAM, NEAR DENISON, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	52664	1840	1060	151000	400	56900	200	28400	330
NOV.	54955	1890	1090	162000	410	60800	210	31200	340
DEC.	77653	1890	1090	229000	410	86000	210	44000	340
JAN. 1973....	73304	1790	1030	204000	390	77200	200	39600	330
FEB.	183498	1710	980	486000	370	183000	190	94100	320
MAR.	295026	1630	940	749000	350	279000	180	143000	310
APR.	492820	1430	820	1090000	290	386000	160	213000	290
MAY	358339	1370	780	755000	280	271000	150	145000	290
JUNE	519420	1370	780	1090000	280	393000	150	210000	290
JULY	110400	1330	760	227000	270	80500	150	44700	280
AUG.	132150	1330	760	271000	270	96300	150	53500	280
SEP.	121865	1270	730	240000	250	82300	140	46100	280
TOTAL	2472094	--	--	5650000	--	2050000	--	1090000	--
WTD. AVG. ...	6773	1480	850	--	310	--	160	--	300

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	1850	1920	1850	1750	1710	1520	1370	1370	1370	1540	1280
2	1830	1860	1910	1840	1750	1740	1510	1290	1360	1350	1490	1290
3	1830	1860	1910	1820	1740	1730	1510	1310	1350	1250	1250	1300
4	1830	1860	1920	1810	1740	1700	1500	1330	1340	1380	1240	1300
5	1830	1850	1900	1820	1730	1680	1510	1350	1350	1280	1230	1440
6	1830	1850	1900	1820	1720	1710	1500	1380	1330	1290	1220	1420
7	1830	1860	1900	1810	1730	1680	1500	1410	1320	1280	1440	1260
8	1830	1870	1910	1810	1730	1680	1490	1380	1320	1270	1470	1260
9	1830	1870	1920	1800	1720	1690	1480	1400	1340	1270	1470	1260
10	1830	1890	1910	1800	1710	1680	1530	1410	1360	1270	1240	1260
11	1830	1890	1900	1790	1700	1670	1500	1410	1390	1240	1230	1360
12	1840	1890	1900	1780	1700	1660	1500	1400	1520	1230	1230	1380
13	1840	1900	1890	1780	1700	1680	1500	1400	1450	1260	1230	1270
14	1840	1910	1890	1780	1700	1650	1500	1400	1430	1300	1460	1280
15	1840	1910	1890	1780	1700	1650	1510	1390	1400	1380	1460	1280
16	1850	1900	1890	1780	1700	1650	1530	1360	1410	1470	1460	1270
17	1850	1910	1880	1780	1700	1640	1530	1360	1420	1230	1230	1270
18	1850	1900	1890	1780	1690	1640	1520	1370	1430	1470	1230	1270
19	1850	1910	1860	1780	1690	1630	1530	1390	1450	1470	1240	1270
20	1850	1920	1880	1780	1690	1630	1530	1400	1390	1270	1240	1310
21	1850	1910	1870	1780	1690	1610	1530	1410	1370	1270	1450	1290
22	1850	1910	1870	1780	1690	1600	1520	1380	1380	1270	1450	1280
23	1860	1910	1860	1760	1680	1590	1520	1420	1330	1270	1450	1270
24	1870	1920	1860	1770	1680	1580	1520	1430	1280	1470	1260	1260
25	1850	1920	1860	1760	1680	1570	1510	1430	1230	1470	1260	1260
26	1870	1910	1850	1750	1680	1560	1210	1430	1360	1480	1270	1260
27	1870	1920	1850	1750	1690	1570	1160	1420	1390	1250	1270	1250
28	1860	1910	1850	1750	1690	1560	1220	1420	1420	1250	1440	1250
29	1850	1910	1850	1750	---	1560	1280	1420	1400	1240	1440	1240
30	1850	1910	1850	1750	---	1550	1330	1370	1380	1240	1440	1240
31	1840	---	1850	1750	---	1540	---	1390	---	1480	1280	---
MONTH	1840	1890	1880	1790	1710	1640	1470	1390	1380	1320	1340	1290

RED RIVER BASIN

105

07332600 BOIS D'ARC CREEK NEAR RANDOLPH, TEX.

LOCATION.--Lat 33°28'32", long 96°12'52", Fannin County, at gaging station at bridge on State Highway 11, 2.3 miles (3.7 km) upstream from Henson Creek, and 2.4 miles (3.9 km) east of Randolph.

DRAINAGE AREA.--72 mi² (186 km²).

PERIOD OF RECORD.--Chemical analyses: February 1967 to September 1973, (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.										
02...	1607	42	7.8	44	3.5	9.2	134	0	18	5.0
07...	1225	77	8.0	49	2.9	8.8	144	0	17	6.8
DEC.										
18...	1325	19	6.2	90	4.7	20	268	0	39	14
JAN.										
17...	1415	23	5.4	96	4.0	25	284	0	42	14
FEB.										
28...	1300	20	4.5	92	3.0	19	268	0	39	12
APR.										
11...	1125	13	3.3	49	3.0	33	165	0	40	17
MAY										
16...	1130	13	4.9	80	3.0	37	273	0	39	17
JUNE										
20...	1230	77	10	60	2.0	20	191	0	22	10
JULY										
25...	1020	2.1	8.8	51	2.5	27	170	0	32	15
AUG.										
28...	1308	.08	3.2	38	2.5	53	166	0	45	25

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.									
02...	.3	2.2	164	120	14	.4	267	7.9	14.5
07...	.3	2.0	173	130	16	.3	282	8.2	15.0
DEC.									
18...	.4	1.9	315	240	24	.6	520	8.1	2.5
JAN.									
17...	.4	3.8	344	260	24	.7	550	8.1	12.0
FEB.									
28...	.4	1.6	309	240	22	.5	528	8.1	11.5
APR.									
11...	.4	1.4	233	140	0	1.2	386	7.7	12.5
MAY									
16...	.4	.8	319	210	0	1.1	522	7.7	19.5
JUNE									
20...	.3	2.1	228	160	1	.7	387	7.5	23.5
JULY									
25...	.4	.2	222	140	0	1.0	379	7.5	30.0
AUG.									
28...	.2	.3	250	100	0	2.2	459	7.1	26.0

RED RIVER BASIN

07336750 LITTLE PINE CREEK NEAR KANAWHA, TEX.

LOCATION.--Lat 33°50'26", long 95°15'55", Red River County, at bridge on Farm Road 410, 1.6 miles (2.57 km) south of Kanawha, and 2.5 miles (4.0 km) upstream from mouth.

DRAINAGE AREA.--75.4 mi² (195.3 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 31...	1545	650	4.2	6.5	1.7	2.5	16	0	11	2.6
NOV. 14...	1015	529	5.5	8.5	1.2	5.9	18	0	13	6.3
DEC. 19...	1545	32	10	16	3.4	14	24	0	42	15
FEB. 01...	1740	585	6.7	11	2.1	7.1	27	0	18	7.0
MAR. 15...	1310	592	10	18	2.2	10	35	0	32	10
APR. 17...	1720	535	5.4	6.5	3.1	6.0	24	0	10	7.4
MAY 15...	1135	14	7.8	11	3.1	14	25	0	22	18
JUNE 19...	1230	9.2	11	21	3.8	19	52	0	37	19
JULY 24...	1040	.29	8.3	19	3.2	15	56	0	23	14

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	.0	.1	37	23	10	.2	61	6.1	17.0
NOV. 14...	.0	.5	52	26	11	.5	85	6.6	11.0
DEC. 19...	.0	.2	113	54	34	.8	189	6.9	5.0
FEB. 01...	.0	.2	66	36	14	.5	112	6.3	8.5
MAR. 15...	.0	.1	100	54	25	.6	182	6.7	16.0
APR. 17...	.0	.4	52	29	9	.5	86	6.6	16.0
MAY 15...	.1	.4	90	40	20	1.0	147	6.6	18.0
JUNE 19...	.2	.5	139	68	25	1.0	233	7.1	24.5
JULY 24...	.2	.9	115	61	15	.8	194	6.7	29.5

RED RIVER BASIN

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07336800 PECAN BAYOU NEAR CLARKSVILLE, TEX.

LOCATION.--Lat 33°41'07", long 94°59'41", Red River County, at gaging station at bridge on Farm Road 1159, 0.2 mile (0.3 km) downstream from Tanyard Bayou, 4.3 miles (6.9 km) upstream from Little White Oak Creek, and 6.0 miles (9.7 km) northeast of Clarksville.

DRAINAGE AREA.--100 mi² (260 km²).

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 31...	1705	9.4	11	20	5.1	15	9	0	65	12
NOV. 01...	1155	115	6.8	8.5	2.1	11	7	0	34	8.4
14...	1635	14	8.8	7.2	1.7	7.6	14	0	17	8.0
DEC. 20...	1725	43	8.0	6.5	1.7	8.0	14	0	17	8.0
FEB. 02...	1135	560	6.7	7.5	1.0	7.5	18	0	15	6.0
MAR. 14...	1825	153	6.5	10	2.0	8.0	22	0	12	14
APR. 18...	1555	509	6.0	7.0	2.1	4.9	22	0	9.2	6.0
MAY 16...	1130	15	5.2	8.5	1.7	9.5	27	0	14	8.2
JUNE 20...	1050	5.1	8.7	14	3.4	7.0	48	0	9.6	9.5
JULY 24...	1640	2.6	5.8	14	2.9	9.2	53	0	7.2	10

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	.0	3.1	146	71	64	.8	235	5.7	18.5
NOV. 01...	.0	.5	76	30	24	.9	129	5.8	14.5
14...	.0	.3	59	25	14	.7	98	6.6	10.5
DEC. 20...	.0	.05	56	23	12	.7	93	6.1	7.0
FEB. 02...	.0	.09	53	23	8	.7	85	6.6	7.0
MAR. 14...	.0	.09	64	33	15	.6	97	6.7	20.0
APR. 18...	.0	.2	47	26	8	.4	73	6.3	20.5
MAY 16...	.0	.2	61	28	6	.8	108	6.2	20.5
JUNE 20...	.0	.4	78	49	10	.4	150	6.5	25.0
JULY 24...	.0	.5	77	47	4	.6	154	6.3	36.0

07336820 RED RIVER NEAR DEKALB, TEX.

LOCATION.--Lat 33°41'15", long 94°41'39", Bowie County, at gaging station at bridge on U.S. Highway 259, 13 miles (20.9 km) north of DeKalb.

DRAINAGE AREA.--47,348 mi² (122,631 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: October 1970 to September 1973.

Water temperatures: January 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,740 micromhos Oct. 16, 17, 18, 19; minimum daily, 168 micromhos Nov. 9.

Water temperatures: Maximum, 32.0°C July 6; minimum, 1.5 °C Jan. 12.

EXTREMES, January 1968 to September 1973.--Specific conductance: Maximum daily, 1,740 micromhos Oct. 16, 17, 18, 19, 1972; minimum daily, 132 micromhos Mar. 25, 1968.

Water temperatures: Maximum, 34.0°C on several days during July and August, 1969 and 1970; minimum, 1.0°C Jan. 8, 9, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
OCT.													
03...	1500	2120	5.0	82	23	--	150	--	168	0	140	240	
18...	1055	3350	3.8	90	33	--	250	--	136	0	200	410	
NOV.													
06...	1120	35400	6.5	22	3.4	--	12	--	75	0	14	13	
18...	1200	15700	6.6	31	5.5	--	39	--	82	0	38	54	
DEC.													
06...	0925	3640	9.7	58	16	--	100	--	140	0	93	160	
09...	1035	5140	8.2	50	11	--	68	--	148	0	57	95	
JAN.													
13...	1120	9560	6.5	63	18	--	140	--	108	0	130	230	
29...	1530	22800	8.0	36	7.3	--	49	--	96	0	46	70	
FEB.													
01...	1000	14500	8.0	26	4.2	--	22	--	76	0	26	28	
MAR.													
01...	1540	6450	8.2	56	15	--	73	--	130	0	72	120	
APR.													
18...	1305	65400	5.2	32	6.4	--	34	--	86	0	32	53	
26...	0900	129000	10	40	6.8	--	55	--	92	0	54	82	
MAY													
16...	1650	17100	6.3	68	16	--	120	--	140	0	100	200	
JUNE													
12...	1420	77600	8.8	62	13	--	120	--	120	0	97	190	
14...	0730	58600	8.6	64	15	--	120	--	136	0	96	180	
JULY													
25...	0920	4680	6.8	77	20	150	--	4.5	166	0	130	240	
AUG.													
07...	1600	6260	7.5	76	21	--	120	--	220	0	98	180	
29...	1900	5000	7.0	78	20	--	150	--	160	0	130	240	
SEP.													
11...	1055	22800	6.0	32	5.2	--	24	--	92	0	25	35	
DATE		DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.													
03...	.3	.34	.00	.04	.1	.23	719	72	26	300	160	3.7	
18...	.2	--	--	--	.3	--	1050	--	--	360	250	5.6	
NOV.													
06...	.1	--	--	--	.2	--	109	--	--	69	8	.6	
18...	.1	--	--	--	.2	--	215	--	--	100	33	1.7	
DEC.													
06...	.2	.28	.00	.10	.3	.07	503	35	10	210	96	3.0	
09...	.2	--	--	--	.6	--	365	--	--	170	50	2.3	
JAN.													
13...	.1	--	--	--	.2	--	642	--	--	230	140	4.1	
29...	.1	.00	.01	.06	.2	2.3	264	416	36	120	41	1.9	
FEB.													
01...	.1	--	--	--	.2	--	152	--	--	82	20	1.1	
MAR.													
01...	.1	--	--	--	.3	--	414	--	--	200	94	2.2	
APR.													
18...	.2	.22	.01	.01	.3	.85	206	892	76	110	36	1.4	
26...	.2	--	--	--	--	--	293	--	--	130	52	2.1	
MAY													
16...	.3	--	--	--	.5	--	583	--	--	240	120	3.5	
JUNE													
12...	.2	.16	.00	.20	.2	.34	551	468	68	210	110	3.6	
14...	.2	--	--	--	.1	--	549	--	--	220	110	3.4	
JULY													
25...	.3	--	--	--	.05	--	711	--	--	270	140	3.9	
AUG.													
07...	.3	.26	.00	.03	.08	.14	620	108	4	280	96	3.2	
29...	.2	--	--	--	.1	--	695	--	--	280	150	3.8	
SEP.													
11...	.2	--	--	--	.4	--	174	--	--	100	26	1.0	

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

RED RIVER BASIN

07336820 RED RIVER NEAR DEKALB, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSIT (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSIT (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSIT (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSIT (UG/KG)	DI- ELDRIN (UG/L)
OCT. 03...	1500	22.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
JAN. 29...	1530	6.0	.00	.0	.00	.0	.00	.9	.00	.0	.00
APR. 18...	1305	17.5	.00	.0	.00	.0	.00	.0	.00	.0	.00
JUNE 12...	1420	25.0	.00	--	.00	--	.00	--	.00	--	.00
AUG. 07...	1600	30.0	--	.0	--	2.0	--	2.5	--	1.4	--

DATE	DI- ELDRIN IN BOTTOM DE- POSIT (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSIT (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSIT (UG/KG)	CHLOR- DANE (UG/L)
OCT. 03...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 29...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 12...	--	.00	--	.00	--	.00	--	.00	--	.0
AUG. 07...	.0	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSIT (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSIT (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 03...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JAN. 29...	0	.0	0	.00	.00	.00	.00	.02	.00	.00
APR. 18...	0	.0	0	.01	.00	.00	.00	.07	.00	.00
JUNE 12...	--	.0	--	.00	.00	.00	.00	.05	.00	.07
AUG. 07...	0	--	0	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	96865	1060	600	157000	190	49700	110	28800	250
NOV.	846770	296	160	366000	31	70900	26	59400	94
DEC.	219290	1000	570	337000	170	101000	100	59200	240
JAN. 1973....	334430	549	310	280000	82	74000	54	48800	150
FEB.	541970	740	420	615000	120	176000	76	111000	190
MAR.	1277100	534	300	1030000	79	272000	53	183000	140
APR.	1465800	622	350	1390000	97	384000	63	249000	160
MAY	1009400	799	450	1230000	130	354000	82	223000	200
JUNE	1267200	721	410	1400000	120	411000	74	253000	180
JULY	206950	1150	650	363000	200	112000	120	67100	270
AUG.	175000	1120	640	302000	200	94500	120	56700	270
SEP.	404330	610	340	371000	94	103000	61	66600	160
TOTAL	7845105	--	--	7840000	--	2200000	--	1410000	--
WTD. AVG. ...	21493	657	370	--	100	--	66	--	170

RED RIVER BASIN

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07336820 RED RIVER NEAR DEKALB, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	723	232	634	729	281	717	761	826	620	1160	1260	1260
2	637	233	680	827	666	623	853	894	711	1210	1160	1250
3	1220	204	697	820	711	693	835	927	587	1170	957	1260
4	1320	226	872	618	506	469	802	829	377	1130	890	1260
5	1530	186	951	521	581	344	829	755	353	1090	802	1190
6	1460	184	888	640	668	268	879	826	363	1210	763	1100
7	1340	230	849	500	746	240	1100	806	464	1160	855	995
8	1300	238	717	475	792	286	1150	861	471	1120	1290	518
9	1290	168	644	669	705	403	1190	600	511	1120	1300	277
10	1450	258	918	574	399	507	1210	429	761	1150	1310	334
11	1600	255	1310	609	440	423	1210	431	865	1140	1230	315
12	1680	425	1240	1000	478	493	1150	547	911	1120	1260	278
13	1630	457	964	1130	662	375	1040	611	1000	1050	1240	288
14	1540	468	735	1050	739	397	1080	681	967	1160	1110	297
15	1600	579	863	1060	827	437	1040	853	895	1180	1210	484
16	1740	263	968	1040	946	518	906	1020	986	1150	1020	747
17	1740	218	1100	1010	1100	560	632	1090	1000	1140	918	529
18	1740	389	1140	753	1190	623	413	1140	958	1120	1070	579
19	1740	420	1180	758	1250	705	346	1170	899	1010	1070	681
20	1710	540	1210	660	1250	816	372	1180	995	1030	935	811
21	1620	656	1120	405	1270	913	406	1190	792	1060	1060	922
22	1710	393	1280	305	1210	1070	467	1200	779	1140	1110	976
23	1720	271	1200	305	1300	1150	557	1190	563	1180	1050	935
24	1630	314	1020	300	1190	1300	585	1100	637	1250	1100	1090
25	1360	759	1200	216	1110	977	478	1190	785	1210	1240	1100
26	355	699	1160	191	1180	642	520	1090	928	1120	1230	1010
27	360	554	1000	180	1170	508	466	995	1060	1190	1230	1060
28	374	463	892	540	1080	485	389	923	1130	1230	1240	1080
29	457	554	808	485	---	547	507	851	1150	1230	1250	865
30	462	636	724	300	---	620	704	724	1180	1280	1260	371
31	425	---	677	260	---	670	---	647	---	1230	1240	---
MONTH	1270	382	956	611	873	606	763	890	790	1150	1120	795

TEMPERATURE (DEG. C) OF WATER + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	16.0	6.5	9.0	7.5	10.5	14.5	18.5	---	27.5	28.0	28.0
2	20.5	15.5	---	8.0	7.0	10.5	14.5	18.0	26.0	27.5	27.5	28.0
3	21.0	15.5	10.0	7.0	7.0	11.0	14.0	19.5	25.0	28.0	27.5	27.5
4	21.5	14.5	9.5	7.5	8.0	12.5	14.0	18.0	23.0	31.5	28.0	27.0
5	23.0	14.5	9.0	7.5	9.0	12.0	13.0	19.0	22.0	28.5	27.0	25.5
6	23.5	14.0	7.0	6.5	9.5	13.5	14.5	19.0	21.5	32.0	27.0	24.5
7	22.0	14.0	5.0	---	10.0	13.5	13.5	19.5	22.0	29.0	27.5	25.0
8	23.0	13.5	5.0	4.0	9.0	14.5	14.0	19.5	23.0	29.0	28.0	25.0
9	22.0	13.5	5.5	3.0	7.0	15.5	12.0	19.5	24.0	29.0	28.0	25.0
10	22.0	13.5	5.0	3.0	5.5	16.5	11.0	21.0	24.0	29.0	28.5	25.5
11	23.0	13.0	3.5	2.0	---	16.0	12.0	22.0	24.5	29.0	27.0	26.5
12	24.0	13.0	3.5	1.5	5.5	16.0	14.0	22.0	24.5	28.0	29.5	26.5
13	25.5	13.5	3.0	2.0	7.0	17.0	14.0	22.0	24.0	28.0	29.5	29.0
14	24.5	12.0	3.5	3.0	7.0	16.5	14.0	21.5	24.0	29.0	30.0	25.5
15	23.5	11.0	3.5	4.0	7.0	16.5	15.5	21.0	24.5	28.5	29.5	25.5
16	24.0	10.5	4.5	4.5	7.5	14.5	16.5	21.5	25.0	28.0	28.5	25.0
17	23.0	10.5	4.0	7.0	6.0	13.5	16.5	21.0	25.5	28.0	28.0	24.5
18	25.0	9.5	4.0	9.0	6.0	14.0	16.0	22.0	26.0	28.5	30.0	22.5
19	20.5	9.0	5.0	9.0	6.5	14.5	18.0	23.0	26.5	29.0	31.5	23.0
20	16.5	8.5	5.5	9.0	8.0	14.5	19.0	24.5	26.0	29.5	29.0	24.0
21	16.0	8.5	7.0	9.0	8.5	14.0	20.0	24.0	25.5	30.0	29.5	24.5
22	18.0	7.5	6.0	8.5	8.0	14.0	20.0	24.5	25.0	29.5	29.5	25.0
23	17.0	7.5	8.0	8.0	8.0	13.5	22.5	25.0	26.0	30.5	28.5	25.0
24	15.5	7.0	7.0	7.5	8.5	14.0	20.0	24.0	26.5	30.5	28.5	25.5
25	15.0	7.5	7.0	8.0	9.5	14.0	20.0	24.5	27.0	31.0	29.0	25.5
26	14.5	7.5	7.0	8.0	11.0	13.0	19.5	24.0	27.0	31.0	29.0	26.0
27	14.0	7.5	6.0	---	10.0	13.0	18.0	23.5	27.5	30.5	29.0	26.0
28	13.5	8.0	7.0	8.0	9.0	13.0	18.5	21.5	28.0	31.0	28.5	25.0
29	14.5	7.5	9.0	5.5	---	14.0	19.0	21.0	27.5	30.0	28.0	23.5
30	15.0	6.5	11.0	5.5	---	14.5	19.0	23.0	27.0	29.5	27.0	22.5
31	17.0	---	9.5	6.5	---	14.5	---	24.0	---	28.0	27.5	---
MONTH	20.0	11.0	6.0	6.0	8.0	14.0	16.0	21.5	25.0	29.5	28.5	25.5

RED RIVER BASIN

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TEX.

LOCATION.--Lat 33°21'20", long 95°35'39", Delta County, at gaging station at bridge on State Highways 19 and 154, 1.0 mile (1.6 km) downstream from Big Creek, 1.0 mile (1.6 km) upstream from Brushy Creek, and 5.6 miles (9.0 km) southeast of Cooper.

DRAINAGE AREA.--527 mi² (1,365 km²).

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1966, October 1967 to September 1973.

Water temperatures: October 1958 to September 1966, October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 4,710 micromhos Aug. 14; minimum daily, 100 micromhos Oct. 28, Sept. 27.

Water temperatures: Maximum, 29.0°C July 29; minimum, freezing point Jan. 11, 12, 13.

EXTREMES, October 1958 to September 1966, October 1967 to September 1973. Specific conductance: Maximum daily, 4,710 micromhos Aug. 14, 1973; minimum daily, 92 micromhos Dec. 11, 1960.

Water temperatures: Maximum, 36.0°C Aug 6, 1960, Aug. 10, 1962; minimum, freezing point on Jan 31, 1966, Jan. 11, 12, 13, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 16...	1130	.57	8.2	18	8.5	--	110	--	274	0	46
NOV. 13...	1120	447	7.2	17	2.3	--	13	--	59	0	12
DEC. 04...	0740	8.6	9.9	45	4.5	--	36	--	167	0	40
JAN. 12...	0820	39	10	32	3.7	--	12	--	112	0	10
FEB. 26...	0750	15	8.8	62	8.6	--	43	--	232	0	43
MAR. 11...	0740	10900	5.5	17	1.4	--	4.1	--	56	0	6.4
APR. 15...	0840	42	3.5	76	8.4	--	74	--	234	12	58
MAY 16...	0715	34	8.7	30	3.2	--	12	--	104	0	15
JUNE 18...	1525	38	12	46	4.0	--	17	--	156	0	22
JULY 02...	0745	1.8	12	48	4.7	20	--	4.3	162	6	24
AUG. 14...	0700	.82	7.8	150	19	--	850	--	154	0	30
SEP. 27...	0735	2790	4.7	12	2.4	--	5.9	--	48	0	6.0

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 16...	35	.4	.60	367	80	0	5.5	569	7.8	25.0
NOV. 13...	12	.2	.80	96	52	4	.8	166	7.5	14.5
DEC. 04...	20	.2	.30	239	130	0	1.4	398	8.3	8.0
JAN. 12...	12	.1	.80	136	95	3	1.2	263	7.3	.0
FEB. 26...	33	.2	.70	316	190	0	1.4	571	8.3	10.0
MAR. 11...	1.6	.2	.50	66	48	2	.3	116	7.5	18.0
APR. 15...	77	--	1.1	429	220	12	2.2	724	8.5	16.0
MAY 16...	6.4	.2	1.0	131	88	3	.6	221	8.2	19.0
JUNE 18...	9.4	.3	1.2	193	130	3	.6	325	8.3	28.0
JULY 02...	14	.3	.40	215	140	0	.7	352	8.5	27.0
AUG. 14...	1500	--	.50	2660	450	330	17	4710	7.6	26.0
SEP. 27...	3.6	.2	.40	61	40	0	.4	100	7.2	23.0

RED RIVER BASIN

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07342500 SOUTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	7071.29	144	81	1550	5.7	109	8.7	166	51
NOV.	19851	162	92	4930	6.6	354	10	536	57
DEC.	8772.1	200	120	2840	8.3	197	13	308	71
JAN. 1973....	16154.8	196	110	4800	8.1	353	13	567	70
FEB.	17253	180	100	4660	7.4	345	12	559	64
MAR.	44521	176	100	12000	7.2	865	11	1320	62
APR.	54321	167	95	13900	6.8	997	11	1610	59
MAY	6937.2	206	120	2250	8.6	161	14	262	73
JUNE	18198.4	204	120	5900	8.5	418	14	688	73
JULY	377.14	340	200	204	18	18	25	25	120
AUG.	128.53	601	360	125	40	14	47	16	210
SEP.	38134.8	149	84	8650	6.0	618	9.1	937	52
TOTAL	231720.26	--	--	61800	--	4450	--	6990	--
WTD. AVG. ...	635	173	99	--	7.1	--	11	--	61

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	675	170	366	437	202	370	367	260	310	340	340	420
2	731	147	374	449	175	266	394	179	230	352	339	426
3	667	137	383	410	205	252	424	180	220	369	343	433
4	530	153	398	300	235	195	465	240	200	388	345	442
5	506	162	405	250	250	165	491	277	190	404	349	280
6	559	185	408	255	273	205	521	296	180	412	351	107
7	609	133	412	188	210	240	536	320	197	427	355	129
8	626	154	426	190	157	267	570	311	206	444	357	143
9	646	175	437	207	152	305	603	305	241	458	361	192
10	630	204	444	230	167	156	685	330	254	481	364	216
11	609	215	441	248	183	116	682	348	272	498	1500	226
12	599	227	350	263	193	161	697	180	245	508	2220	231
13	591	200	212	274	203	174	683	166	228	534	4400	236
14	582	180	180	288	264	210	683	173	230	565	4710	223
15	577	222	181	306	296	261	500	193	230	601	3950	214
16	572	228	171	331	325	302	195	221	243	564	430	226
17	574	234	186	360	353	326	185	244	294	360	418	238
18	576	210	215	390	372	345	219	265	320	300	404	252
19	534	168	225	409	392	365	215	284	342	240	434	264
20	568	178	251	432	414	388	123	303	365	220	419	276
21	571	187	272	257	434	420	133	318	384	241	389	284
22	150	209	293	206	457	445	180	334	330	258	434	294
23	103	236	307	229	481	470	201	347	320	635	488	303
24	283	252	310	243	484	280	180	355	326	577	473	300
25	395	268	324	250	557	171	141	364	283	564	426	310
26	280	358	339	153	571	180	164	225	291	429	399	315
27	104	351	359	170	390	212	196	199	300	382	391	100
28	100	324	386	186	450	245	211	230	303	358	391	113
29	163	366	406	202	---	267	230	268	311	348	395	156
30	138	369	418	219	---	301	256	278	322	349	398	198
31	164	---	434	246	---	334	---	301	---	345	399	---
MONTH	465	220	333	277	316	271	371	268	272	418	870	252

RED RIVER BASIN

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	16.0	5.0	6.0	9.0	11.0	15.0	20.0	23.0	26.0	25.0	25.0
2	18.0	12.0	7.0	7.0	9.0	13.0	15.0	19.0	22.0	27.0	24.0	25.0
3	18.0	12.0	10.0	7.0	8.0	13.0	15.0	19.0	22.0	27.0	24.0	25.0
4	18.0	12.0	8.0	6.0	8.0	13.0	14.0	18.0	21.0	28.0	24.0	25.0
5	18.0	13.0	8.0	6.0	10.0	13.0	13.0	18.0	22.0	27.0	23.0	25.0
6	20.0	14.0	6.0	5.0	10.0	15.0	14.0	19.0	21.0	27.0	23.0	23.0
7	19.0	15.0	4.0	5.0	11.0	15.0	14.0	19.0	22.0	27.0	25.0	23.0
8	18.0	13.0	4.0	2.0	7.0	15.0	14.0	20.0	23.0	26.0	26.0	25.0
9	19.0	13.0	5.0	1.0	5.0	17.0	11.0	21.0	24.0	26.0	25.0	25.0
10	19.0	14.0	4.0	1.0	3.0	18.0	10.0	21.0	25.0	26.0	26.0	26.0
11	20.0	12.0	5.0	0.0	3.0	18.0	11.0	23.0	25.0	26.0	26.0	26.0
12	20.0	12.0	3.0	0.0	6.0	17.0	13.0	21.0	23.0	26.0	26.0	26.0
13	20.0	14.5	2.0	0.0	9.0	19.0	15.0	21.0	24.0	25.0	27.0	25.0
14	21.0	13.0	2.0	1.0	9.0	18.0	15.0	20.0	24.0	26.0	26.0	24.0
15	22.0	11.0	2.0	2.0	7.0	18.0	16.0	19.0	25.0	27.0	25.0	23.0
16	21.0	9.0	3.0	3.0	6.0	16.0	16.0	19.0	25.0	26.0	25.0	22.0
17	21.0	9.0	2.0	6.0	7.0	15.0	16.0	20.0	26.0	27.0	24.0	22.0
18	22.0	9.0	2.0	9.0	7.0	15.0	16.0	20.0	28.0	26.0	25.0	21.0
19	18.0	8.0	5.0	8.0	6.0	16.0	18.0	20.0	27.0	27.0	25.0	21.0
20	15.0	7.0	5.0	10.0	7.0	15.0	22.0	22.0	25.0	27.0	28.0	22.0
21	16.0	7.0	7.0	12.0	8.0	15.0	23.0	23.0	25.0	27.0	26.0	23.0
22	18.0	5.0	6.0	10.0	8.0	14.0	22.0	24.0	25.0	28.0	26.0	24.0
23	18.0	5.0	7.0	8.0	8.0	15.0	21.0	24.0	25.0	28.5	25.0	24.0
24	16.0	6.0	7.0	6.0	8.0	15.0	20.0	23.0	26.0	28.0	25.0	24.0
25	14.0	6.0	5.0	7.0	9.0	14.0	19.0	23.0	25.0	28.0	25.0	25.0
26	13.0	5.0	6.0	6.0	10.0	13.0	19.0	22.0	25.0	28.0	25.0	25.0
27	10.0	7.0	5.0	6.0	10.0	12.0	17.0	21.0	26.0	27.0	25.0	23.0
28	11.0	7.0	6.0	6.0	10.0	13.0	17.0	21.0	27.0	27.0	25.0	22.0
29	12.0	6.0	9.0	5.0	---	15.0	19.0	21.0	26.0	29.0	24.0	22.0
30	15.0	5.0	10.0	5.0	---	16.0	19.0	21.0	26.0	27.0	24.0	22.0
31	16.0	---	8.0	6.0	---	15.0	---	22.0	---	25.0	25.0	---
MONTH	17.5	10.0	5.5	5.0	8.0	15.0	16.5	21.0	24.5	27.0	25.0	24.0

RED RIVER BASIN

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07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.

LOCATION.--Lat 33°28'25", long 95°35'15", Delta County, at gaging station at bridge on State Highways 19 and 24, 2.3 miles (3.7 km) upstream from Auds Creek, and 8.7 miles (14.0 km) northeast of Cooper.

DRAINAGE AREA.--276 mi² (715 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,190 micromhos Aug. 14, 15; minimum daily, 217 micromhos Oct. 30.

Water temperatures: Maximum, 33.0°C July 22, 26; minimum, freezing point Dec. 16, Jan. 9.

EXTREMES, October 1968 to September 1973.--Specific conductance: Maximum daily 2,290 micromhos Sept. 17, 1969; minimum daily, 191 micromhos Oct. 12, Dec. 10, 1971.

Water temperatures: Maximum, 35.0°C June 22, 1970; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED PHOSPHATE (K) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 31...	1430	2550	6.4	34	2.7	--	14	--	98	0	34
NOV. 08...	1715	71	8.0	44	5.2	--	21	--	130	0	49
DEC. 19...	1145	65	7.0	81	7.3	--	54	--	213	0	96
JAN. 16...	0800	34	6.5	94	8.6	--	54	--	242	0	130
FEB. 23...	0820	63	6.2	79	11	--	65	--	176	0	158
MAR. 06...	0735	166	7.1	73	2.6	--	22	--	168	0	73
MAY 24...	0730	7.2	5.9	86	10	--	91	--	168	0	200
JUNE 15...	0754	210	9.4	54	4.2	--	27	--	158	0	55
JULY 14...	0730	1.8	6.2	100	14	120	--	3.3	156	0	300
AUG. 24...	0745	.09	.6	56	7.3	--	65	--	116	0	120
SEP. 06...	0840	9050	6.2	58	3.0	--	9.8	--	180	0	22

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 31...	3.9	.4	1.0	148	96	16	.6	231	7.9	12.0
NOV. 08...	11	.3	.7	206	130	24	.8	340	8.3	15.0
DEC. 19...	48	.3	1.7	406	230	58	1.5	591	8.1	6.5
JAN. 16...	36	.2	1.5	451	270	72	1.4	733	8.2	3.0
FEB. 23...	50	.3	.8	460	240	100	1.8	825	8.2	8.0
MAR. 06...	15	.4	1.2	291	190	46	--	482	8.5	15.0
MAY 24...	74	.4	.02	553	260	120	2.5	910	8.3	24.0
JUNE 15...	12	.5	1.5	247	150	22	1.0	400	8.3	26.0
JULY 14...	110	.4	.00	732	320	190	3.0	1140	7.7	28.0
AUG. 24...	60	.5	.1	372	170	74	2.2	630	8.0	23.0
SEP. 06...	3.2	.4	.7	195	160	10	.3	288	7.7	22.0

RED RIVER BASIN

07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	8613.87	273	160	3720	5.8	135	28	651	120
NOV.	9106	331	200	4920	9.4	231	42	1030	130
DEC.	3089	453	280	2340	18	150	71	592	160
JAN. 1973....	8106	376	230	5030	12	263	52	1140	140
FEB.	10046	339	200	5420	9.8	266	44	1190	130
MAR.	25539	311	190	13100	8.1	559	37	2550	130
APR.	23211	291	170	10700	6.9	432	32	2010	120
MAY	4864.9	376	230	3020	12	158	52	683	140
JUNE	8542.0	355	210	4840	11	254	47	1080	140
JULY	316.78	525	330	282	27	23	88	75	180
AUG.	91.92	554	340	84	31	7.7	95	24	190
SEP.	17534.7	294	170	8050	7.1	336	33	1560	120
TOTAL	119061.17	320	190	61500	--	2810	--	12600	--
WTD. AVG. ...	326	320	190	--	8.8	--	39	--	130

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	305	747	747	304	480	672	320	490	840	857	796
2	1020	252	775	754	388	373	689	310	480	885	910	794
3	1040	320	796	480	486	470	705	400	580	913	923	817
4	1040	414	805	456	567	268	708	494	340	948	923	849
5	1050	462	811	510	628	362	744	573	314	966	940	450
6	1060	350	829	581	678	482	757	590	332	985	949	288
7	1090	334	817	450	320	487	778	370	421	1010	976	305
8	1080	331	820	413	246	524	783	383	502	1040	1000	400
9	1090	379	823	466	351	400	796	474	546	1060	1030	419
10	1100	436	836	540	473	230	764	552	563	1090	1050	425
11	1120	498	799	624	559	265	783	597	350	1080	1100	467
12	1110	538	410	669	628	424	814	303	316	1110	1120	518
13	1100	330	370	714	674	543	833	397	350	1120	1150	370
14	1100	317	402	726	704	602	762	514	394	1140	1190	360
15	1110	372	306	731	727	619	480	582	400	1150	1190	425
16	1110	429	372	733	756	671	305	646	461	800	520	481
17	---	487	450	738	782	717	401	710	481	370	410	526
18	---	360	523	749	800	750	490	752	511	343	439	566
19	---	341	588	600	812	746	253	802	525	372	471	609
20	---	402	617	653	815	749	340	835	342	422	493	668
21	1130	462	650	399	822	757	510	868	469	442	523	698
22	550	526	682	491	822	762	420	875	473	456	550	736
23	619	568	721	599	825	766	340	898	512	461	583	770
24	548	603	697	650	791	390	234	910	535	459	630	782
25	552	647	705	400	789	347	353	550	583	515	644	792
26	548	641	725	279	788	438	499	472	631	532	671	774
27	500	650	746	369	782	538	594	463	688	576	694	267
28	423	663	762	477	768	611	656	546	734	623	708	289
29	476	716	784	554	---	663	706	623	766	667	872	371
30	217	742	796	625	---	697	727	674	808	714	836	454
31	231	---	800	450	---	712	---	705	---	778	797	---
MONTH	853	463	676	569	646	543	597	587	497	770	811	549

RED RIVER BASIN

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07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	15.0	5.0	6.0	8.0	12.0	14.0	20.0	24.0	28.0	---	---
2	22.0	10.0	7.0	7.0	---	12.0	15.0	19.0	24.0	27.0	23.0	25.0
3	16.0	15.0	12.0	6.0	7.0	11.0	15.0	17.0	23.0	28.0	22.0	24.0
4	16.0	16.0	8.0	5.0	8.0	13.0	11.0	18.0	21.0	28.0	23.0	23.0
5	19.0	18.0	8.0	5.0	11.0	12.0	11.0	20.0	20.0	26.0	21.0	22.0
6	21.0	15.0	4.0	5.0	11.0	15.0	14.0	20.0	21.0	27.0	27.0	22.0
7	18.0	---	3.0	3.0	13.0	14.0	14.0	18.0	24.0	26.0	25.0	23.0
8	18.0	15.0	3.0	2.0	4.0	15.0	14.0	20.0	26.0	28.0	31.0	---
9	20.0	13.0	4.0	0.0	1.0	18.0	8.0	22.0	26.0	28.0	24.0	27.0
10	20.0	12.0	3.0	---	---	18.0	9.0	23.0	26.0	28.0	25.0	25.0
11	21.0	11.0	6.0	---	3.0	14.0	10.0	25.0	26.0	28.0	24.0	26.0
12	21.0	11.0	2.0	---	7.0	16.0	15.0	20.0	27.0	30.0	25.0	25.0
13	22.0	14.0	6.0	2.0	10.0	18.0	17.0	21.0	24.0	26.0	26.0	24.0
14	21.0	10.0	3.0	7.0	9.0	16.0	14.0	20.0	24.0	28.0	25.0	23.0
15	21.0	8.0	2.0	9.0	6.0	16.0	17.0	19.0	26.0	29.0	24.0	22.0
16	21.0	8.0	0.0	3.0	9.0	15.0	15.0	19.0	27.0	29.0	25.0	22.0
17	---	7.0	2.0	10.0	5.0	11.0	15.0	20.0	25.0	30.0	25.0	22.0
18	---	9.0	2.0	14.0	6.0	13.0	16.0	20.0	26.0	26.0	27.0	19.0
19	---	7.0	5.0	10.0	4.0	17.0	18.0	21.0	26.0	30.0	25.0	20.0
20	---	6.0	8.0	11.0	7.0	14.0	22.0	24.0	23.0	28.0	26.0	23.0
21	19.0	5.0	9.0	12.0	9.0	13.0	22.0	25.0	---	28.0	25.0	24.0
22	18.0	5.0	5.0	6.0	8.0	13.0	21.0	25.0	25.0	33.0	25.0	25.0
23	18.0	5.0	5.0	6.0	8.0	13.0	20.0	24.0	27.0	29.0	25.0	25.0
24	14.0	6.0	8.0	5.0	8.0	16.0	17.0	24.0	26.0	29.0	23.0	24.0
25	12.0	7.0	5.0	7.0	---	12.0	19.0	23.0	23.0	28.0	24.0	24.0
26	12.0	5.0	5.0	6.0	10.0	10.0	18.0	21.0	26.0	33.0	24.0	25.0
27	10.0	---	5.0	6.0	9.0	11.0	15.0	28.0	26.0	27.0	25.0	23.0
28	12.0	7.0	6.0	6.0	10.0	14.0	17.0	18.0	28.0	26.0	23.0	20.0
29	14.0	7.0	12.0	3.0	---	16.0	19.0	19.0	28.0	30.0	24.0	19.0
30	15.0	5.0	12.0	4.0	---	18.0	20.0	22.0	26.0	26.0	24.0	22.0
31	12.0	---	---	9.0	---	13.0	---	23.0	---	27.0	25.0	---
MONTH	17.5	9.5	5.5	6.5	7.5	14.0	15.5	21.0	25.0	28.0	24.5	23.0

RED RIVER BASIN

07343200 SULPHUR RIVER NEAR TALCO, TEX.

LOCATION.--Lat 33°23'11", long 95°07'57", Titus County, at gaging station at bridge on U.S. Highway 271, 2.2 miles (3.5 km) northwest of Talco, and 3.2 miles (5.1 km) downstream from Mustang Creek.

DRAINAGE AREA.--1,365 mi² (3,535 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Pesticide analyses: January 1969 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 866 micromhos Oct. 21; minimum daily, 144 micromhos Apr. 20, 21.

Water temperatures: Maximum, 30.0°C July 24; minimum, 2.0°C Dec. 17, Jan 7, 10, 12, 14.

EXTREMES, October 1966 to September 1973.--Specific conductance: Maximum daily, 1,230 micromhos Aug. 18, 1972; minimum daily, 144 micromhos Apr. 20, 21, 1973.

Water temperatures: Maximum, 34.0°C July 14, 15, 1969; minimum, freezing point Jan. 7, 8, 10, 12, 13, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
03...	1745	19	6.0	67	7.1	--	73	--	180	0	120	61
18...	1025	1.0	6.4	66	11	--	79	--	138	0	47	150
NOV.												
16...	1545	581	6.2	28	2.0	--	12	--	92	0	17	5.6
19...	0800	2820	8.0	44	3.0	--	19	--	136	0	37	9.0
28...	0750	138	8.6	57	5.3	--	28	--	162	0	60	19
DEC.												
06...	1050	43	10	76	8.4	--	39	--	212	0	86	31
11...	0840	154	7.7	9.0	2.8	--	13	--	23	0	20	14
JAN.												
02...	1540	53	8.8	80	7.9	--	49	--	220	0	100	35
29...	1150	6580	9.0	28	2.5	--	13	--	98	0	16	5.8
FEB.												
19...	0715	137	9.4	70	6.2	--	32	--	190	5	72	22
APR.												
15...	0720	230	6.5	56	8.6	--	90	--	118	0	130	95
18...	1605	8300	6.8	32	2.2	--	9.7	--	101	0	17	4.1
MAY												
08...	0725	1380	7.8	52	3.4	--	21	--	152	0	46	10
JUNE												
12...	1620	177	12	48	4.9	--	10	--	148	0	27	7.8
JULY												
16...	0700	19	11	97	8.5	62	--	4.0	286	0	120	48
AUG.												
07...	1720	.70	8.6	68	5.6	--	61	--	244	0	71	36
25...	0715	9.0	7.3	73	6.8	--	68	--	166	0	130	59

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
03...	.4	.25	.00	.06	.4	.10	421	47	9	200	52	2.3
18...	.4	--	--	--	.2	--	433	--	--	210	97	2.4
NOV.												
16...	.2	--	--	--	.5	--	118	--	--	78	3	.6
19...	.0	--	--	--	.02	--	187	--	--	120	11	.7
28...	.2	--	--	--	.4	--	260	--	--	160	31	1.0
DEC.												
06...	.2	.27	.01	.05	.4	.16	356	30	10	220	50	11
11...	.1	--	--	--	.7	--	81	--	--	34	15	1.0
JAN.												
02...	.1	--	--	--	1.1	--	394	--	--	230	52	1.4
29...	.2	.35	.01	.05	.5	.46	125	402	46	80	0	.6
FEB.												
19...	.2	--	--	--	.5	--	310	--	--	200	39	1.0
APR.												
15...	.2	--	--	--	.4	--	448	--	--	180	78	2.9
18...	.2	.31	.02	.04	.9	.50	126	456	60	89	6	.4
MAY												
08...	.3	--	--	--	.6	--	218	--	--	140	19	.8
JUNE												
12...	.2	.23	.01	.22	.6	.09	186	208	40	140	19	.4
JULY												
16...	.4	--	--	--	.02	--	488	--	--	280	42	1.6
AUG.												
07...	.4	.30	.00	.00	.04	.07	371	12	6	190	0	1.9
25...	.4	--	--	--	.00	--	430	--	--	210	74	2.0

07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

RED RIVER BASIN

07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 03...	1745	21.0	.00	.0	.00	2.8	.00	4.1	.00	3.8	.00
JAN. 29...	1150	6.0	.00	.0	.00	7.6	.00	16	.01	14	.00
APR. 18...	1605	18.0	.00	--	.00	--	.01	--	.02	--	.01
JUNE 12...	1620	27.0	.00	.0	.00	3.3	.01	25	.01	14	.01

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 03...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 29...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	--	.00	--	.00	--	.00	--	.00	--	.0
JUNE 12...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 03...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JAN. 29...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 18...	--	.0	--	.01	.00	.00	.00	.62	.00	.02
JUNE 12...	0	.0	0	.00	.00	.00	.00	.08	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	15779.0	210	120	5110	5.5	234	16	682	79
NOV.	87251	191	110	25900	4.9	1150	13	3060	72
DEC.	38851	238	140	14700	6.5	682	22	2310	89
JAN. 1973....	53014	231	140	20000	6.3	902	20	2860	87
FEB.	66774	248	150	27000	6.9	1240	24	4330	93
MAR.	224846	222	130	78900	6.0	3640	19	11500	83
APR.	201587	209	120	65300	5.5	2990	16	8710	78
MAY	25360	284	170	11600	8.7	596	30	2050	110
JUNE	67270	220	130	23600	5.9	1070	18	3270	82
JULY	1041.2	538	330	928	29	82	79	222	190
AUG.	414.95	719	440	493	44	49	110	123	250
SEP.	95165.1	217	130	33400	5.8	1490	18	4630	81
TOTAL	877353.25	--	--	307000	--	14100	--	43700	--
WTD. AVG. ...	2404	221	130	--	6.0	--	18	--	83

RED RIVER BASIN

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07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	766	190	461	597	300	663	231	241	406	523	580	612
2	740	185	470	628	266	444	311	331	383	541	582	611
3	710	176	490	639	233	308	370	255	287	559	587	606
4	567	164	524	444	261	287	460	275	326	576	595	610
5	505	175	551	393	276	228	532	300	173	589	601	498
6	507	210	571	409	311	204	557	265	170	608	608	330
7	514	244	593	415	371	251	563	267	200	627	615	233
8	601	183	366	164	356	259	594	300	210	643	621	219
9	675	166	276	188	229	268	601	315	221	653	630	172
10	725	190	290	217	182	300	548	318	250	683	636	200
11	755	220	320	248	179	231	619	347	248	700	621	226
12	780	241	332	300	204	186	671	310	303	717	592	281
13	808	255	300	336	254	162	683	278	478	735	636	287
14	824	200	237	340	269	189	687	221	376	759	715	280
15	827	220	235	388	289	204	743	236	362	777	653	263
16	837	223	209	419	313	225	375	277	265	779	651	230
17	844	257	178	476	387	196	229	317	275	782	653	276
18	846	284	197	528	473	230	215	349	299	600	659	314
19	851	211	230	560	515	230	250	382	413	490	752	331
20	855	195	252	590	552	234	144	410	403	440	777	346
21	866	191	320	422	588	243	144	444	360	445	819	360
22	786	218	365	320	623	252	161	482	362	435	835	373
23	330	250	397	294	654	260	262	504	374	411	766	390
24	332	283	497	282	684	244	172	536	422	431	728	407
25	212	318	470	318	700	211	227	561	449	469	700	435
26	215	366	505	255	680	188	181	580	449	507	700	465
27	210	334	520	205	665	195	175	300	460	560	653	299
28	202	430	523	198	589	224	207	204	474	579	636	233
29	160	454	545	198	---	249	224	286	496	577	623	190
30	180	455	568	212	---	266	232	310	515	579	623	179
31	197	---	586	247	---	255	---	329	---	576	616	---
MONTH	588	250	399	362	407	254	379	340	347	592	660	342

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	16.0	6.0	7.5	8.5	11.0	15.0	20.0	22.0	27.0	28.0	27.0
2	20.0	12.0	7.0	8.0	8.0	12.0	15.5	20.0	25.0	28.5	27.0	26.0
3	19.0	12.0	9.5	8.0	8.0	12.5	15.5	19.0	24.0	29.0	26.0	25.0
4	19.0	12.0	8.0	7.0	8.5	13.0	14.0	19.0	22.0	29.0	---	26.0
5	20.0	12.5	8.0	7.5	10.0	12.0	13.5	19.0	21.0	29.0	25.0	25.0
6	21.0	14.0	6.5	7.0	11.0	14.5	15.0	20.5	20.5	28.5	24.5	24.0
7	20.0	12.5	6.0	2.0	12.0	14.0	15.0	20.0	21.5	28.0	25.5	25.0
8	18.5	13.5	5.5	4.5	10.0	15.0	14.0	20.0	23.0	28.0	26.0	24.0
9	20.0	13.5	5.5	3.0	5.0	16.5	12.0	22.0	24.0	28.0	26.0	25.0
10	20.0	13.5	5.0	2.0	3.0	17.0	11.5	23.0	26.0	28.0	27.0	26.0
11	20.0	12.5	4.0	2.5	3.5	15.0	11.5	24.0	27.0	28.0	25.5	27.0
12	20.0	13.0	4.0	2.0	5.5	17.0	14.0	24.5	26.0	27.0	26.5	27.0
13	21.0	13.5	4.0	6.0	8.0	18.0	15.5	21.0	25.5	27.0	27.0	25.0
14	21.5	14.0	4.0	2.0	9.0	17.0	15.0	21.0	24.5	28.0	27.5	25.0
15	22.0	12.0	4.0	2.5	8.0	17.5	17.0	20.5	25.5	28.0	27.0	24.0
16	21.0	11.0	3.0	4.0	7.0	16.5	17.0	20.0	26.0	27.0	27.0	22.0
17	21.5	9.5	2.0	7.0	7.0	17.0	16.0	21.0	26.0	28.0	27.0	23.0
18	19.0	9.5	3.0	10.0	7.0	15.5	16.0	21.5	27.0	27.0	27.0	23.0
19	19.0	13.0	5.0	9.0	6.0	16.0	17.5	22.0	27.5	27.5	27.5	24.0
20	17.0	7.0	7.0	11.5	7.5	15.0	21.0	24.0	27.0	29.0	---	25.5
21	16.0	7.0	6.0	12.0	8.5	14.0	22.0	24.0	25.5	29.0	27.5	25.0
22	18.0	6.0	6.0	9.5	9.0	14.0	22.0	25.5	26.0	29.0	28.0	24.0
23	17.0	6.0	6.0	8.5	9.0	14.5	21.0	25.5	26.0	29.0	26.5	25.0
24	17.0	6.0	6.0	7.0	8.5	17.0	21.0	25.0	27.0	30.0	27.0	25.0
25	15.0	7.5	6.0	7.5	9.0	15.5	19.0	24.5	28.0	29.5	27.0	28.0
26	14.0	6.0	6.0	7.0	10.0	12.0	19.0	23.5	22.5	29.5	27.5	27.0
27	12.0	6.5	6.0	6.5	10.0	12.0	18.0	23.0	22.0	29.5	27.0	26.5
28	11.0	7.0	6.0	6.5	10.5	13.0	17.0	21.5	23.5	29.5	26.5	22.5
29	12.0	6.5	9.0	5.0	---	14.5	19.0	21.0	28.0	29.0	25.5	21.5
30	14.5	6.0	9.0	5.0	---	15.0	19.0	22.0	28.0	27.5	25.5	22.0
31	16.5	---	8.0	7.0	---	15.0	---	23.5	---	28.0	26.0	---
MONTH	18.0	10.5	6.0	6.5	8.0	15.0	16.5	22.0	25.0	28.5	26.5	25.0

RED RIVER BASIN

07343480 WHITE OAK CREEK NEAR MOUNT VERNON, TEX.

LOCATION.--Lat 33°16'25", long 95°14'20", Franklin County, at bridge on State Highway 37 and 6.0 miles (9.7 km) north of Mount Vernon.

DRAINAGE AREA.--434 mi² (1,123 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 17...	1255	7.2	9.0	14	6.1	17	47	0	36	14
NOV. 17...	1530	900	7.7	7.2	2.4	7.2	28	0	9.6	6.2
DEC. 21...	1625	138	8.4	10	4.6	15	26	0	30	15
FEB. 06...	1405	181	7.8	10	5.6	17	33	0	32	16
MAR. 16...	1105	330	10	13	5.2	19	38	0	29	22
APR. 26...	1415	9880	8.2	10	3.7	5.8	39	0	10	6.2
MAY 18...	0945	43	10	16	4.9	28	52	0	35	26
JUNE 23...	1525	39	13	23	10	44	62	0	63	46
JULY 04...	1635	7.5	12	26	11	34	82	0	57	40
27...	1315	4.4	9.9	19	6.7	22	73	0	28	22
AUG. 31...	1450	3.6	3.1	26	10	34	115	0	28	38

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 17...	.2	.4	121	60	22	1.0	203	6.7	26.0
NOV. 17...	.1	.5	57	28	5	.6	93	6.7	9.0
DEC. 21...	.0	.7	99	44	23	1.0	169	7.0	7.0
FEB. 06...	.0	.6	107	48	21	1.1	180	6.7	11.5
MAR. 16...	.0	.5	119	54	23	1.1	190	6.6	16.0
APR. 26...	.1	.4	65	40	8	.4	110	6.5	19.0
MAY 18...	.2	1.3	152	60	17	1.6	246	6.6	19.0
JUNE 23...	.0	3.5	244	100	49	1.9	431	6.5	26.0
JULY 04...	.0	.6	223	110	42	1.4	419	6.6	29.5
27...	.0	.7	147	75	15	1.1	278	6.9	29.5
AUG. 31...	.0	.9	200	110	12	1.4	393	6.6	26.5

RED RIVER BASIN

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07343500 WHITEOAK CREEK NEAR TALCO, TEX.

LOCATION.--Lat. 33°19'20", long 95°05'33", Titus County, at gaging station on U.S. Highway 271, 2.4 miles (3.9 km) upstream from Ripley Creek, and 2.7 miles (4.3 km) south of Talco.

DRAINAGE AREA.--494 mi² (1,279 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 462 micromhos Feb. 26, July 10; minimum daily, 55 micromhos Nov. 4.

Water temperatures: Maximum, 28.5°C on several days during July and September; minimum, 1.5°C Jan. 12.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 1,220 micromhos June 15, 1972; minimum daily, 33 micromhos May 16, 1969.

Water temperatures: Maximum, 34.0°C July 15, 1969; minimum, freezing point on Jan. 8, 1968, Jan. 10, 13, 14, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 19...	1015	2.1	8.5	13	5.0	--	17	--	40	0	35
NOV. 04...	0735	4750	6.2	3.6	1.9	--	4.4	--	18	0	6.8
17...	1035	838	6.7	7.0	2.3	--	6.6	--	24	0	10
28...	0800	246	8.3	8.8	3.9	--	14	--	32	0	22
DEC. 30...	0815	46	11	17	8.2	--	26	--	40	0	53
JAN. 16...	0810	126	9.8	13	4.8	--	20	--	31	0	39
FEB. 25...	0735	78	.0	21	11	--	38	--	47	0	79
MAR. 20...	0720	181	10	16	7.1	--	19	--	46	0	38
APR. 17...	0710	2030	4.6	7.0	3.1	--	7.8	--	23	0	14
MAY 26...	0745	79	12	22	8.6	--	58	--	66	0	53
JULY 05...	0730	15	13	22	9.1	36	--	6.1	85	0	47
AUG. 13...	0745	1.9	9.4	20	8.2	--	29	--	100	0	26
SEP. 30...	0825	553	6.2	5.5	2.2	--	4.9	--	21	0	7.2

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 19...	14	.1	.4	114	53	20	1.0	192	6.7	--
NOV. 04...	2.8	.1	.09	35	17	2	.5	55	6.5	12.5
17...	6.4	.1	.5	53	27	7	.6	90	6.8	9.0
28...	13	.1	.3	87	38	12	1.0	158	7.2	7.0
DEC. 30...	30	.1	.5	168	76	43	1.3	304	7.3	9.5
JAN. 16...	20	.0	.7	125	52	27	1.2	215	7.0	4.0
FEB. 25...	41	.1	.6	216	97	58	1.7	397	7.9	9.0
MAR. 20...	22	.2	.6	138	69	31	1.0	251	6.9	--
APR. 17...	8.8	.1	.3	58	30	11	.6	106	7.0	15.5
MAY 26...	74	.2	.8	263	90	36	2.7	461	7.3	22.0
JULY 05...	42	.3	.4	219	92	23	1.6	375	--	28.0
AUG. 13...	26	.2	.08	168	84	2	1.4	286	7.1	27.0
SEP. 30...	5.0	.1	.4	43	23	6	.4	71	6.5	21.5

RED RIVER BASIN

07343500 WHITEOAK CREEK NEAR TALCO, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	8163.64	80	48	1060	5.9	130	9.4	207	25
NOV.	35372	72	42	4010	4.7	449	7.3	697	22
DEC.	26756	94	54	3900	7.0	506	11	795	28
JAN. 1973....	20688	146	84	4690	12	670	21	1170	40
FEB.	27232	109	63	4630	8.6	632	14	1030	31
MAR.	67737	98	57	10400	7.4	1350	12	2190	29
APR.	69871	89	51	9620	6.5	1230	11	2080	27
MAY	3726	242	140	1410	22	221	40	402	63
JUNE	27810	89	51	3830	6.5	488	11	826	27
JULY	1574.2	211	120	510	19	81	34	145	56
AUG.	23.90	269	160	10	25	1.6	45	2.9	70
SEP.	11888.9	84	49	1570	6.0	193	9.6	308	25
TOTAL	300842.64	--	--	45600	--	5950	--	9850	--
WTD. AVG. ...	824	97	56	--	7.3	--	12	--	29

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	68	207	293	118	382	160	160	240	388	280	---
2	98	65	210	328	109	273	186	201	308	388	248	---
3	101	57	212	362	105	206	178	240	168	387	241	299
4	130	55	215	417	102	173	186	294	134	384	245	327
5	134	56	219	343	111	118	225	294	81	375	246	450
6	144	62	224	281	120	113	255	333	65	379	250	109
7	157	68	228	188	150	98	265	322	70	389	253	75
8	163	80	227	210	106	105	283	307	74	403	257	67
9	169	85	209	165	94	120	392	301	84	413	260	65
10	174	95	146	129	86	132	286	319	97	462	263	74
11	177	107	190	127	81	115	354	349	112	305	262	94
12	182	115	149	121	83	70	360	356	140	178	268	101
13	186	120	110	133	88	67	346	369	170	204	286	120
14	189	107	93	152	106	69	326	255	181	216	302	113
15	193	101	85	176	163	85	306	146	273	256	306	110
16	194	84	74	215	211	110	145	178	242	290	302	123
17	198	90	75	242	233	151	106	217	246	262	301	140
18	200	91	71	265	258	220	91	243	266	118	299	167
19	193	92	77	287	277	234	86	324	268	133	298	156
20	197	88	83	318	294	251	70	285	275	164	297	156
21	201	78	99	307	312	269	63	258	316	166	296	161
22	190	79	136	249	332	290	64	259	330	162	296	166
23	250	82	166	199	355	310	76	263	317	175	295	170
24	121	88	194	182	374	280	87	277	389	178	293	174
25	90	101	220	168	397	89	87	290	417	188	295	184
26	80	138	236	135	462	86	89	400	433	206	295	189
27	94	115	254	116	417	80	90	333	425	213	296	191
28	68	145	272	105	388	81	94	201	415	217	297	193
29	65	158	293	94	---	86	100	207	402	221	294	130
30	61	192	304	97	---	100	117	176	395	223	---	71
31	61	---	318	103	---	135	---	203	---	226	---	---
MONTH	147	95	181	210	212	158	182	270	244	267	280	156

RED RIVER BASIN

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07343500 WHITEOAK CREEK NEAR TALCO, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	15.5	5.5	7.0	8.5	11.0	14.5	19.0	24.0	27.0	27.0	---
2	18.0	13.5	6.5	7.0	8.0	12.0	14.5	18.5	23.5	28.0	26.0	26.0
3	18.0	12.5	9.5	7.0	8.0	12.0	15.0	18.0	23.5	28.0	26.5	27.0
4	18.0	12.5	8.5	7.0	8.5	14.0	13.0	17.0	21.5	28.0	26.0	27.0
5	18.5	12.5	8.5	7.0	10.0	12.5	13.0	18.0	21.0	28.0	25.5	25.0
6	19.5	14.0	6.5	7.0	10.5	14.5	14.0	19.0	20.5	27.5	25.5	24.0
7	19.0	14.0	5.5	7.5	11.5	14.0	14.0	19.5	21.5	28.0	26.0	25.0
8	18.5	13.5	5.0	4.5	9.0	15.5	13.0	19.5	22.0	27.5	26.0	25.0
9	19.0	13.5	6.0	2.5	5.5	17.5	10.5	20.5	24.0	27.5	26.0	24.0
10	19.5	13.0	5.0	2.0	4.0	19.0	11.0	22.0	25.0	27.0	27.0	26.5
11	19.5	12.5	4.0	2.0	4.0	17.5	10.0	23.5	25.0	26.5	26.0	26.0
12	19.5	12.0	4.0	1.5	6.0	17.0	12.0	23.0	24.0	26.0	27.0	27.0
13	19.5	13.0	4.0	2.0	8.0	19.0	14.0	22.0	24.0	25.5	27.0	25.5
14	20.5	12.0	4.0	2.0	8.0	17.5	13.5	20.0	24.0	26.5	27.5	25.0
15	22.0	11.0	4.0	3.0	8.0	18.0	15.0	19.0	24.5	27.0	27.0	24.0
16	21.0	10.0	3.0	4.0	6.0	16.0	16.0	19.0	25.5	26.0	27.0	25.0
17	21.0	9.0	2.0	7.0	7.0	14.5	15.5	19.5	25.5	26.0	27.0	22.0
18	22.0	9.0	3.0	9.5	6.5	15.0	16.0	20.0	26.0	25.5	27.0	23.0
19	20.0	8.5	5.0	9.0	6.0	16.0	17.5	21.0	27.0	26.0	27.0	23.5
20	17.5	7.5	6.0	10.5	7.0	14.5	20.5	22.0	25.5	27.0	---	25.0
21	17.5	7.0	6.0	11.0	8.0	14.0	21.0	23.0	25.5	27.5	27.0	25.0
22	18.5	6.0	6.0	9.0	9.0	15.0	21.5	24.0	25.0	28.0	27.0	24.0
23	17.0	5.5	6.0	8.0	8.0	14.5	21.0	24.5	25.5	28.5	26.5	25.0
24	16.0	6.0	7.0	7.0	8.0	16.0	21.0	24.0	26.0	28.5	27.0	25.0
25	11.0	6.5	7.0	7.5	9.0	14.5	20.0	23.0	26.0	28.5	27.0	28.0
26	13.5	6.0	6.0	7.0	10.0	12.0	19.0	22.0	26.0	28.5	---	28.5
27	12.0	6.0	6.0	7.0	10.0	12.0	17.5	22.0	26.5	28.5	27.0	26.0
28	11.0	7.0	6.0	6.5	10.0	13.5	17.0	21.0	27.0	25.5	26.5	24.0
29	12.0	6.0	8.5	5.0	---	15.0	18.0	20.5	27.0	28.5	26.0	21.5
30	14.0	6.0	9.5	4.5	---	15.5	18.5	21.0	27.0	28.0	---	21.5
31	15.5	---	8.0	6.5	---	14.5	---	22.0	---	27.0	---	---
MONTH	17.5	10.0	6.0	6.0	8.0	15.0	16.0	21.0	24.5	27.5	26.5	25.0

RED RIVER BASIN

07343850 WHITE OAK CREEK NEAR OMAHA, TEX.

LOCATION.--Lat 33°16'30", long 94°44'30", Morris County, at bridge on U.S. Highway 259, and 6.2 miles (10.0 km) north of Omaha.

DRAINAGE AREA.--773 mi² (2,002 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 18...	--	2.6	8.5	12	4.9	21	38	0	34	19
NOV. 16...	1135	1000	82	8.0	2.9	14	27	0	17	15
JAN. 04...	1030	271	10	16	7.8	32	36	0	49	43
FEB. 07...	1410	2600	5.1	7.5	2.3	12	25	0	18	11
MAR. 15...	1650	5950	5.5	9.5	4.4	1.5	26	0	16	4.8
APR. 26...	1000	6170	6.0	10	2.9	7.8	39	0	9.6	7.7
MAY 16...	1825	271	13	24	11	40	50	0	71	52
JUNE 22...	1430	89	11	17	8.7	23	48	0	40	32
JULY 04...	1000	13	11	24	9.7	37	69	0	53	48
JULY 26...	1035	24	7.7	11	5.5	17	43	0	23	18
AUG. 30...	0845	.61	3.6	26	13	65	76	0	53	100

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 18...	.2	.4	120	50	19	1.3	205	6.9	--
NOV. 16...	.0	.2	79	32	10	1.1	134	6.5	10.0
JAN. 04...	.0	.2	177	72	42	1.6	304	7.0	6.5
FEB. 07...	.0	.1	68	28	8	1.0	121	6.5	13.0
MAR. 15...	.0	.1	55	42	21	.1	83	6.6	18.5
APR. 26...	.0	.3	64	37	5	.6	114	6.7	19.5
MAY 16...	.2	.7	239	110	65	1.7	412	6.9	22.0
JUNE 22...	.0	.8	159	78	39	1.1	298	6.5	26.5
JULY 04...	.0	.3	218	100	43	1.6	430	6.4	29.0
JULY 26...	.0	.6	106	50	15	1.0	208	6.5	29.5
AUG. 30...	.0	.3	299	120	56	2.6	574	6.5	26.0

RED RIVER BASIN

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07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TEX.

LOCATION.--Lat 33°01'15", long 94°52'55", Camp County, at gaging station at bridge on State Highway 11, 0.5 mile (0.8 km) upstream from Louisiana and Arkansas Railway Co. bridge and 5.2 miles (8.4 km) east of Pittsburg.

DRAINAGE AREA.--366 mi² (948 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 709 micromhos Oct. 25; minimum daily, 101 micromhos Apr. 16.

Water temperatures: Maximum, 30.0°C on several days during July; minimum, 3.0°C Jan. 12.

EXTREMES, October 1968 to September 1969, October 1971 to September 1973.--Specific conductance: Maximum daily, 941 micromhos Sept. 1, 1972; minimum daily, 69 micromhos July 30, 1969.

Water temperatures: Maximum, 32.0°C Aug. 20, 1969; minimum, 3.0°C Jan. 12, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 12...	1050	4.8	10	20	7.3	--	45	--	72	0	33
NOV. 02...	1420	587	10	8.0	3.2	--	13	--	18	0	22
DEC. 20...	1725	228	13	12	6.3	--	23	--	22	0	42
JAN. 23...	1115	1040	10	5.0	9.6	--	20	--	24	0	35
FEB. 28...	1630	1120	8.8	9.6	4.1	--	16	--	26	0	26
MAR. 16...	1800	84	15	15	8.4	--	32	--	30	0	50
APR. 26...	1430	2600	5.2	6.8	2.2	--	9.9	--	20	0	16
MAY 14...	1410	233	4.4	5.6	2.2	--	6.0	--	17	0	12
JUNE 25...	1850	80	20	18	7.6	--	43	--	38	0	48
JULY 29...	1850	34	13	15	9.2	--	25	--	48	0	28
AUG. 29...	1115	27	15	20	8.2	59	--	8.4	64	0	38
SEP. 02...	1945	5.6	1.2	24	9.0	--	71	--	90	0	37
SEP. 02...	1750	5.3	10	23	8.5	--	79	--	91	0	42

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 12...	54	.4	2.3	215	90	21	2.2	383	7.2	19.5
NOV. 02...	15	.1	.8	84	33	18	1.0	145	6.4	15.0
DEC. 20...	30	.1	.3	139	56	38	1.3	238	7.0	5.0
JAN. 23...	25	.1	1.1	122	52	32	1.2	213	7.7	10.0
FEB. 28...	19	.1	.2	98	41	20	1.1	168	8.0	8.0
MAR. 16...	44	.1	.7	183	72	47	1.6	322	7.9	8.0
APR. 26...	9.6	.1	.2	61	26	10	.8	104	6.8	13.0
MAY 14...	6.4	.1	.06	45	23	9	.5	83	6.7	17.0
JUNE 25...	57	.3	1.9	221	76	45	2.1	373	7.7	23.0
JULY 29...	39	.2	1.5	160	75	36	1.3	280	7.5	28.0
AUG. 29...	80	.4	3.6	276	84	31	2.8	476	7.3	29.0
SEP. 02...	90	.5	2.7	289	97	23	3.1	536	7.8	29.0
SEP. 02...	93	.6	3.8	318	92	18	3.6	583	7.9	28.0

RED RIVER BASIN

07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	901.6	265	150	365	35	85	43	105	58
NOV.	4855	204	120	1570	24	315	33	433	46
DEC.	9103	224	130	3200	27	664	37	909	50
JAN. 1973....	12482	226	130	4380	28	944	37	1250	50
FEB.	10954	192	110	3250	22	651	31	917	44
MAR.	30784	153	87	7230	16	1330	24	1990	36
APR.	32022	140	79	6830	14	1210	21	1820	33
MAY	6550	237	140	2480	30	531	39	690	52
JUNE	15629	165	94	3970	18	760	26	1100	38
JULY	627.8	339	200	339	50	85	43	73	72
AUG.	428.7	327	190	220	47	54	43	50	70
SEP.	2200.2	212	120	713	25	149	34	202	47
TOTAL	126537.3	--	--	34500	--	6780	--	9540	--
WTD. AVG. ...	347	177	100	--	20	--	28	--	40

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	361	131	355	230	197	410	211	202	285	310	321	350
2	380	143	365	260	160	382	233	219	201	326	295	500
3	444	183	375	293	179	250	253	238	208	329	304	440
4	320	200	385	303	197	161	266	242	141	325	320	380
5	314	217	390	290	211	178	290	240	106	322	330	310
6	298	230	395	279	250	178	288	237	126	350	347	190
7	283	244	410	275	298	146	271	240	123	367	364	165
8	294	249	420	255	162	147	260	250	153	369	386	154
9	302	200	330	210	142	162	242	236	169	396	426	160
10	321	242	250	225	143	177	207	237	177	409	558	166
11	339	250	265	250	163	153	220	246	186	436	444	187
12	370	307	230	287	180	152	212	224	197	450	397	244
13	373	231	225	313	201	149	224	224	209	451	328	229
14	400	156	205	338	262	165	210	214	211	426	251	248
15	463	154	185	344	302	186	245	216	213	470	239	256
16	499	206	180	368	322	134	101	219	216	467	246	278
17	528	210	185	370	322	160	106	239	216	425	260	310
18	549	250	200	375	344	184	110	289	217	254	264	326
19	518	257	240	393	346	212	119	311	217	289	287	301
20	551	248	260	384	365	264	147	322	217	316	307	304
21	633	238	280	183	380	220	175	319	271	305	386	331
22	588	268	310	212	396	281	200	316	250	313	345	396
23	525	270	330	213	390	300	176	322	249	320	326	394
24	585	288	370	250	392	180	121	341	248	326	292	392
25	709	270	375	260	417	107	109	373	245	380	277	392
26	524	348	380	172	359	104	111	314	256	380	303	402
27	280	348	383	162	360	104	116	313	273	404	324	400
28	291	322	386	168	403	124	131	308	273	410	340	373
29	188	326	390	193	---	157	160	334	280	350	420	375
30	170	345	300	208	---	200	192	275	295	324	496	402
31	152	---	250	233	---	233	---	295	---	301	488	---
MONTH	405	244	310	268	280	192	190	270	214	365	344	312

RED RIVER BASIN

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07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	14.0	7.0	---	9.0	---	15.0	---	25.5	---	29.0	28.0
2	20.0	15.0	8.0	---	10.0	12.0	16.0	22.0	25.0	29.0	29.0	28.0
3	20.0	14.0	12.0	8.0	10.0	---	15.0	23.0	24.0	29.0	28.0	---
4	---	---	9.0	8.0	10.0	12.0	16.0	20.0	23.0	30.0	---	27.0
5	21.0	15.0	10.0	---	10.0	13.0	16.0	21.0	23.0	30.0	28.0	---
6	22.0	15.0	8.0	6.0	11.0	14.0	---	21.0	23.0	---	28.0	26.0
7	20.0	---	---	---	12.0	15.0	16.0	21.0	23.0	30.0	28.0	---
8	21.0	14.0	8.0	---	9.0	16.0	---	21.0	24.0	30.0	28.0	25.0
9	21.0	15.0	8.0	---	8.0	18.0	16.0	20.0	25.0	29.0	27.5	---
10	21.0	14.0	8.0	---	6.0	---	17.0	21.0	25.0	29.0	28.0	25.0
11	20.0	14.0	---	---	7.0	19.0	16.0	21.0	25.0	30.0	28.0	26.0
12	22.0	13.0	5.0	3.0	---	20.0	16.0	22.0	25.0	30.0	28.0	26.0
13	---	13.0	5.0	4.0	7.0	20.0	17.0	22.0	26.0	30.0	28.0	25.0
14	---	13.0	4.0	5.0	7.0	---	17.0	21.0	26.0	29.0	27.0	25.0
15	21.0	12.0	4.0	6.0	7.0	20.0	---	21.0	27.0	29.0	27.0	26.0
16	21.0	10.0	---	6.0	8.0	19.0	15.0	21.0	26.0	28.0	27.0	---
17	23.0	---	4.0	6.0	7.0	18.0	16.0	22.0	27.0	27.0	29.0	25.0
18	21.0	13.0	4.0	10.0	8.0	19.0	16.0	22.0	27.0	28.0	28.0	25.0
19	20.0	12.0	5.0	10.0	9.0	19.0	20.0	22.0	---	28.0	28.0	25.0
20	19.0	12.0	5.0	10.0	---	17.0	22.0	22.0	27.0	28.0	28.0	25.0
21	19.0	8.0	5.0	10.0	10.0	15.0	22.0	---	27.0	27.0	29.0	25.0
22	19.0	8.0	6.0	10.0	9.0	15.0	22.0	25.0	28.0	29.0	28.0	25.0
23	19.0	8.0	8.0	10.0	9.0	---	22.0	25.0	27.0	29.0	29.0	25.0
24	19.0	8.0	---	9.0	10.0	12.0	21.0	25.0	28.0	29.0	29.0	25.0
25	16.0	8.0	6.0	---	10.0	12.0	22.0	23.0	27.0	30.0	28.0	26.0
26	15.0	8.0	6.0	9.0	12.0	13.0	22.0	---	26.0	30.0	28.0	26.0
27	15.0	8.0	7.0	9.0	12.0	13.0	24.0	---	27.0	30.0	29.0	---
28	14.0	8.0	7.0	8.0	12.0	14.0	22.0	---	28.0	---	29.0	25.0
29	14.0	7.0	8.0	8.0	---	15.0	22.0	22.5	28.0	29.0	29.0	25.0
30	14.0	7.0	8.0	8.0	---	---	21.0	23.0	---	29.0	29.0	26.0
31	14.0	---	8.0	8.0	---	14.0	---	21.0	---	30.0	28.0	---
MONTH	19.0	11.5	7.0	---	9.0	16.0	18.5	22.0	26.0	29.0	28.0	25.5

RED RIVER BASIN

07346045 BLACK CYPRESS BAYOU AT JEFFERSON, TEX.

LOCATION.--Lat 32°46'40", long 94°21'26", Marion County, at gaging station on U.S. Highway 59, 1.1 miles (1.8 km) north of Jefferson, and 2.0 miles (3.2 km) upstream from Texas and Pacific Railway Co. bridge.

DRAINAGE AREA.--365 mi² (945 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 25...	1050	23	17	4.0	1.5	4.9	9	0	9.2	6.4
NOV. 28...	1610	445	16	3.2	1.2	4.9	6	0	8.0	6.8
JAN. 05...	1235	417	15	3.0	1.6	5.2	8	0	8.6	6.8
FEB. 13...	1200	675	13	3.0	1.1	6.4	8	0	7.0	6.0
MAR. 19...	1730	2460	10	4.8	1.0	3.0	16	0	4.8	3.0
APR. 17...	1315	2380	5.5	1.5	1.0	1.4	4	0	2.4	2.5
26...	1130	2860	9.4	3.5	1.0	.4	8	0	2.8	2.0
MAY 02...	1125	1180	5.0	5.0	.6	2.9	12	0	4.4	3.6
JUNE 05...	1200	410	10	3.5	.8	2.9	6	0	5.2	4.5
JULY 10...	1205	54	18	4.5	2.1	2.3	14	0	3.2	6.5
AUG. 22...	0750	10	16	4.8	1.9	4.8	16	0	3.6	9.0

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 25...	.0	.2	48	16	9	.5	62	6.5	15.0
NOV. 28...	.0	.2	44	13	8	.6	53	6.3	8.0
JAN. 05...	.0	.1	45	14	7	.6	57	6.0	7.0
FEB. 13...	.0	1.0	45	12	5	.8	49	6.3	8.0
MAR. 19...	.0	.08	35	16	3	.3	42	6.1	15.5
APR. 17...	.0	.4	18	8	5	.2	33	6.2	--
26...	.0	.4	25	13	6	.0	38	5.5	19.0
MAY 02...	.2	1.3	29	15	5	.3	45	6.0	19.5
JUNE 05...	.0	.5	32	12	7	.4	46	5.9	20.5
JULY 10...	.0	.3	45	20	9	.2	64	5.7	26.0
AUG. 22...	.0	.2	49	20	7	.5	75	5.9	24.5

RED RIVER BASIN

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07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.

LOCATION.--Lat 32°42'46", long 94°20'44", Marion County, at gaging station at bridge on U.S. Highway 59, 0.3 mile (0.5 km) downstream from Texas and Pacific Railway Co. bridge, and 3.5 miles (5.6 km) south of Jefferson.

DRAINAGE AREA.--675 mi² (1,748 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 950 micromhos Aug. 5; minimum daily, 39 micromhos Apr. 20.

Water temperatures: Maximum, 29.5 °C July 30, Aug. 1; minimum, 2.0°C Jan. 12,13.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 1,350 micromhos Nov. 9, 1969; minimum daily, 39 micromhos Apr. 20, 1973.

Water temperatures: Maximum, 30.5°C Aug. 6, 8, 1970; minimum, 1.5°C Jan. 9, 10, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
03...	1200	97	12	5.5	1.3	--	23	--	9	0	30	21
27...	1530	221	7.8	4.5	2.4	--	13	--	6	0	14	20
NOV.												
29...	1420	509	16	7.5	3.0	--	28	--	8	0	19	47
DEC.												
05...	1630	309	22	10	4.1	--	35	--	15	0	26	55
06...	1600	279	20	10	4.6	--	45	--	10	0	26	76
JAN.												
09...	0930	765	18	7.0	2.6	--	23	--	10	0	25	31
30...	1010	708	17	6.0	2.7	--	16	--	12	--	18	23
MAR.												
25...	0800	3020	8.7	5.2	1.7	--	7.0	--	13	0	11	8.8
APR.												
18...	0950	1400	11	6.8	1.7	--	9.4	--	17	0	10	14
26...	1045	11500	6.0	5.0	1.1	--	4.7	--	14	0	5.2	6.4
MAY												
30...	1700	205	20	10	4.2	--	65	--	20	0	12	110
JUNE												
12...	0845	2730	12	5.0	1.3	--	6.2	--	13	0	11	6.6
JULY												
21...	0920	75	22	7.0	2.5	13	--	3.0	27	0	11	19
AUG.												
07...	1350	42	19	15	5.1	--	150	--	21	0	18	240
22...	1240	20	16	16	5.5	--	140	--	20	0	12	240
SEP.												
22...	1530	155	20	10	3.8	--	23	--	24	0	20	35

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
03...	.0	.31	.00	.06	.3	.10	98	122	38	19	12	2.3
27...	.0	--	--	--	.2	--	66	--	--	21	16	1.2
NOV.												
29...	.0	--	--	--	.1	--	125	--	--	31	24	2.2
DEC.												
05...	.0	.25	.00	.02	.08	.03	160	13	4	42	30	2.3
06...	.0	--	--	--	.01	--	187	--	--	44	36	2.9
JAN.												
09...	.0	--	--	--	.09	--	112	--	--	28	20	1.9
30...	.0	.22	.01	.00	.02	.05	89	20	2	26	16	1.4
MAR.												
25...	.1	--	--	--	.1	--	49	--	--	20	9	.7
APR.												
18...	.0	.27	.01	.06	.1	.22	61	18	8	24	10	.8
26...	.1	--	--	--	.3	--	37	--	--	17	6	.5
MAY												
30...	.1	--	--	--	1.1	--	232	--	--	42	26	4.4
JUNE												
12...	.0	.20	.03	.17	.1	.05	49	21	16	18	7	.6
JULY												
21...	.1	--	--	--	.1	--	91	--	--	28	6	1.1
AUG.												
07...	.1	.31	.00	.02	.4	.11	463	20	6	58	42	8.5
22...	.1	--	--	--	.5	--	445	--	--	62	46	7.8
SEP.												
22...	.1	--	--	--	.2	--	125	--	--	41	21	1.6

RED RIVER BASIN

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 03...	1200	18.5	.00	.0	.00	2.3	.00	1.6	.00	5.2	.00
JAN. 30...	1010	5.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
APR. 18...	0950	16.5	--	.0	--	.0	--	.0	--	.0	--
JUNE 12...	0845	23.0	.00	--	.00	--	.00	--	.00	--	.00
AUG. 07...	1350	26.0	--	.0	--	.0	--	.0	--	.0	--

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 03...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 30...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.0	--	.0	--	.0	--	.0	--	.0	--
JUNE 12...	--	.00	--	.00	--	.00	--	.00	--	.0
AUG. 07...	.0	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 03...	0	.0	0	.00	.00	.00	.00	.00	.00	.01
JAN. 30...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 18...	0	--	0	.00	.00	.00	.00	.00	.00	.01
JUNE 12...	--	.0	--	.00	.00	.00	.00	.00	.00	.01
AUG. 07...	0	--	20	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	2313.8	138	87	544	23	144	14	87	25
NOV.	12991	148	93	3260	25	877	15	526	26
DEC.	25931	165	100	7000	30	2100	16	1120	27
JAN. 1973....	19558	163	100	5280	29	1530	16	845	27
FEB.	29456	132	84	6680	22	1750	14	1110	24
MAR.	57999	102	67	10500	14	2190	11	1720	22
APR.	123340	68	49	16300	6.0	2000	9.1	3030	18
MAY	27028	138	87	6350	23	1680	14	1020	25
JUNE	48025	83	57	7390	9.7	1260	10	1300	20
JULY	3137	148	93	788	25	212	15	127	26
AUG.	936	539	310	783	130	329	42	106	63
SEP.	17074	113	74	3410	17	784	12	553	23
TOTAL	367788.8	--	--	68300	--	14900	--	11500	--
WTD. AVG. ...	1008	105	69	--	15	--	12	--	22

RED RIVER BASIN

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	273	120	300	230	108	198	91	82	217	176	152	334
2	241	135	254	220	99	180	98	84	186	166	166	292
3	167	150	260	218	111	171	95	93	176	168	167	233
4	144	168	268	215	114	150	102	103	100	171	170	219
5	189	178	296	179	121	137	107	118	75	172	950	201
6	172	188	320	173	125	142	112	124	60	174	911	122
7	163	150	332	173	130	136	122	128	64	140	826	103
8	148	132	333	150	125	131	122	142	68	120	601	99
9	146	113	323	168	116	127	121	154	64	139	537	96
10	148	122	139	170	119	124	123	179	58	130	522	94
11	153	133	135	165	123	121	130	210	63	140	525	94
12	161	152	127	164	124	120	134	111	69	142	530	95
13	165	144	121	159	131	121	138	101	72	154	533	94
14	169	131	113	154	127	111	145	174	72	161	534	92
15	171	111	106	154	129	107	138	187	78	150	535	94
16	174	121	107	156	132	104	100	261	90	155	536	99
17	176	117	125	161	135	106	104	233	95	159	537	106
18	177	111	135	165	136	106	107	212	100	139	537	116
19	176	110	146	171	140	98	45	207	104	137	600	138
20	178	121	152	176	143	94	39	208	107	132	670	157
21	176	132	154	156	152	96	52	210	111	130	861	176
22	166	129	165	161	165	97	62	215	117	132	855	200
23	177	150	188	164	175	98	72	228	123	145	761	216
24	198	176	202	170	182	96	71	253	134	151	598	223
25	152	167	202	176	190	82	65	277	140	140	462	226
26	133	169	191	139	199	86	60	276	143	132	386	229
27	125	176	184	122	204	93	57	270	144	130	607	200
28	123	185	186	136	198	89	60	276	145	129	714	173
29	110	222	195	135	---	90	58	289	150	133	651	174
30	107	242	200	146	---	90	67	360	156	144	544	179
31	105	---	196	149	---	84	---	280	---	145	514	---
MONTH	163	149	199	167	141	116	93	195	109	146	564	162

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	15.5	7.0	8.5	6.5	10.0	---	18.5	22.0	25.5	29.5	26.0
2	19.5	15.5	7.0	8.0	7.5	11.0	16.0	19.0	23.0	26.0	29.0	25.5
3	18.0	15.5	---	---	7.5	11.5	15.0	18.5	23.0	26.5	28.0	25.0
4	17.5	15.0	8.0	7.0	8.0	---	14.0	18.0	23.5	27.0	29.0	25.0
5	18.5	14.5	9.0	7.0	9.0	13.0	14.0	18.0	21.0	27.0	28.5	23.5
6	---	14.0	9.0	7.0	---	14.0	14.0	18.0	20.5	26.0	28.0	24.0
7	19.0	15.0	7.5	6.0	11.0	14.5	13.5	19.5	21.0	---	26.5	24.5
8	19.5	14.5	6.5	---	11.0	15.0	---	20.0	21.5	---	25.0	---
9	19.5	14.0	6.5	3.5	9.0	16.0	12.0	19.5	21.5	26.0	25.5	25.0
10	19.5	14.0	6.5	3.0	7.5	---	11.5	20.0	22.5	26.0	26.0	25.0
11	19.5	13.0	6.5	2.5	6.0	18.0	12.0	21.0	23.0	26.0	---	25.0
12	20.0	13.0	6.0	2.0	6.0	18.0	13.0	20.5	23.0	26.0	---	24.0
13	21.0	14.0	5.5	2.0	7.5	18.5	14.0	---	22.5	25.5	---	24.5
14	22.0	13.0	5.0	3.0	9.0	19.0	14.5	19.0	22.5	26.0	---	24.5
15	23.0	12.0	5.0	3.5	8.5	18.5	15.0	19.0	23.0	25.5	---	23.0
16	22.5	11.0	4.5	4.5	7.5	17.5	16.5	18.0	24.0	25.0	---	22.5
17	22.5	10.0	3.5	6.0	7.0	16.0	16.0	---	25.0	25.5	---	22.5
18	---	---	---	7.5	7.0	16.0	16.5	18.0	---	25.5	25.5	22.0
19	19.0	---	4.5	9.0	7.5	16.0	17.5	19.5	25.0	25.5	---	21.5
20	---	8.0	5.5	10.0	8.5	15.0	17.5	20.0	25.0	26.0	26.5	22.0
21	19.0	7.0	7.0	10.5	9.0	---	---	21.0	25.0	26.0	26.5	22.5
22	19.0	7.5	7.5	10.5	8.5	14.0	19.5	22.5	24.0	26.5	26.0	23.0
23	18.0	7.0	7.0	9.0	9.0	14.0	20.0	23.0	24.0	26.5	25.0	23.5
24	17.0	7.0	7.0	---	9.0	15.0	19.5	23.5	24.0	27.0	26.5	23.0
25	16.0	7.0	7.0	7.5	---	14.5	19.5	22.5	24.5	28.0	25.5	23.5
26	14.5	7.0	7.0	7.5	10.0	14.0	19.0	21.0	24.5	28.0	26.0	24.5
27	13.0	7.5	7.0	---	10.5	13.0	17.5	---	---	---	26.0	---
28	13.0	6.0	6.5	6.5	10.0	14.5	17.0	21.0	25.0	28.0	26.0	24.0
29	---	7.5	7.0	6.0	---	15.0	18.0	21.0	---	27.5	26.0	23.5
30	14.0	7.0	8.0	6.0	---	15.0	18.0	21.5	25.5	29.5	25.0	24.0
31	15.0	---	8.5	6.0	---	15.0	---	---	---	29.0	26.0	---
MONTH	18.5	11.0	6.5	6.5	8.5	15.0	16.0	20.0	23.5	26.5	---	24.0

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

07299840 GREENBELT RESERVOIR NEAR CLARENDON, TEX. (Lat 35°00'02", long 100°53'40")

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 08...	1605	12	48	17	40	5.5	176	0	80	40	.5
JUNE 14...	0920	8.9	47	17	37	5.1	175	0	75	40	.5

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 08...	.10	331	190	46	1.3	560	7.8	2.0	0	200
JUNE 14...	.00	317	190	44	1.2	549	7.7	23.0	0	70

07312200 BEAVER CREEK NEAR ELECTRA, TEX. (Lat 33°54'21", long 98°54'17")

			INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
DATE	TIME							
NOV.								
01...	1145	4190	8.0	2100	23800		99	100
02...	1545	837	10.5	2370	5360		--	--
08...	1145	247	11.5	595	397		--	--
FEB.								
13...	1030	66	8.5	288	52		99	--
MAR.								
31...	0830	2690	12.0	2770	20100		--	--
31...	0945	2690	12.0	2540	18400		94	97
APR.								
03...	1325	1325	13.0	916	3280		--	--
26...	0915	116	16.5	1040	326		96	98
DATE		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
NOV.								
01...	--	--	72	81	88	95	98	
02...	--	--	--	--	--	--	--	
08...	--	--	--	--	--	--	--	
FEB.								
13...	--	--	87	91	92	96	97	
MAR.								
31...	--	--	--	--	--	--	--	
31...	99	100	65	67	71	80	88	
APR.								
03...	--	--	--	--	--	--	--	
26...	99	100	53	65	67	74	83	

RED RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

07312500 WICHITA RIVER AT WICHITA FALLS, TEX. (Lat 33°54'30", long 98°32'05")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
NOV. 01...	1450	5860	10.5	1100	17400	94	95
MAR. 31...	1120	1620	12.5	8830	38600	99	100
APR. 03...	1135	430	13.5	949	1100	--	--
27...	1155	319	17.5	942	811	99	100

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
NOV. 01...	97	100	82	83	87	90	93
MAR. 31...	--	--	52	62	73	86	95
APR. 03...	--	--	--	--	--	--	--
27...	--	--	61	73	82	92	98

07312600 LAKE WICHITA AT WICHITA FALLS, TEX. (Lat 33°50'38", long 98°32'20")

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JUNE 26...	2000	3.0	65	17	160	6.7	122	0	72	300	.2

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JUNE 26...	.30	677	230	130	4.5	1290	6.9	24.0	0	120

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

07314500 LITTLE WICHITA RIVER NEAR ARCHER CITY, TEX. (Lat 33°39'45", long 98°36'46")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDIMENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
NOV.							
01...	1300	1290	10.0	1860	6480	98	99
04...	1130	84	13.5	336	76	--	--
JAN.							
17...	0720	7.4	4.5	168	3.4	99	100
APR.							
03...	0910	33	11.5	1240	110	--	--
27...	0930	241	15.5	432	281	96	99

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
NOV.						
01...	100	79	86	89	93	95
04...	--	--	--	--	--	--
JAN.						
17...	--	84	94	97	99	99
APR.						
03...	--	--	--	--	--	--
27...	100	57	67	75	86	95

07314800 LAKE ARROWHEAD NEAR HENRIETTA, TEX. (Lat 33°45'51", long 98°22'17")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC.												
05...	1400	141100	4.0	41	12	73	7.8	143	0	9.4	140	.2

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC.										
05...	.90	360	150	35	2.6	698	7.8	5.5	10	90

07315600 FARMERS CREEK RESERVOIR NEAR NACONA, TEX. (Lat 33°52'57", long 97°39'09")

DATE	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC.										
07...	1.8	38	16	54	6.1	116	0	40	100	.3

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC.										
07...	.00	317	160	66	1.9	608	8.0	4.5	0	140

RED RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

07315950 MOSS LAKE NEAR GAINESVILLE, TEX. (Lat 33°47'05", long 97°12'35")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JUNE 19...	1000	23180	7.2	30	30	51	3.8	12	158	0	17

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 19...	15		.3	.08	185	140	13	.4	345	7.6	26.5

07335390 PAT MAYSE LAKE NEAR CHICOTA, TEX. (Lat 33°51'10", long 95°32'38")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JUNE 12...	1820	120600	1.1	280	10	21	2.0	6.6	64	0	14

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 12...	3.9		.2	.50	82	60	8	.4	155	6.5	25.0

07345500 ELLISON CREEK RESERVOIR NEAR DAINGERFIELD, TEX. (Lat 32°55'05", long 94°43'35")

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JUNE 12...	1125	6.5	140	60	20	4.1	11	20	0	46

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 12...	17		.4	.50	117	67	50	.6	219	5.4	27.0

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

07345900 LAKE O THE PINES NEAR JEFFERSON, TEX. (Lat 32°45'04", long 94°29'59")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 12...	1030	309000	5.1	270	40	9.2	2.6	6.1	24	0	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 12...	8.4	.2	.10	58	34	14	.5	110	5.7	24.0

SABINE RIVER BASIN

08017500 SABINE RIVER NEAR EMORY, TEX.

LOCATION.--Lat 32°46'23", long 95°47'56", Rains County, at gaging station at bridge on State Highway 19, 3.7 miles (6.0 km) upstream from Sandy Creek, and 7.2 miles (11.6 km) south of Emory.

DRAINAGE AREA.--888 mi² (2,300 km²), including Little and Yellow Steer Sloughs.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967, to September 1973 (discontinued).

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTERRER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
DEC. 05...	1125	.85	7.8	22	4.6	13	81	0	22
JAN. 29...	1025	211	1.6	22	3.7	12	92	0	11
APR. 18...	1820	1190	1.3	22	3.2	9.1	84	0	11
JUNE 11...	1320	4080	2.6	25	2.8	9.2	90	0	12
AUG. 08...	1030	.70	1.3	28	3.4	10	102	0	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)
DEC. 05...	9.4	.1	.27	.00	.02	.06	.09	119	74
JAN. 29...	5.5	.2	.25	.01	.02	.02	.12	101	70
APR. 18...	4.6	.2	.30	.01	.06	.2	.31	93	68
JUNE 11...	4.2	.2	.15	.00	.06	.4	.05	102	74
AUG. 08...	5.2	.2	.25	.00	.05	.1	.07	113	84

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
DEC. 05...	8	.7	207	6.5	9.0	8.1	70	1.8
JAN. 29...	0	.6	182	7.1	4.5	11.3	87	1.4
APR. 18...	0	.5	178	7.1	16.5	9.6	98	3.6
JUNE 11...	0	.5	183	6.4	23.5	6.8	79	.8
AUG. 08...	0	.5	211	6.7	27.0	4.5	56	1.9

SABINE RIVER BASIN

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08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.

LOCATION.--Lat 32°40'20", long 95°36'36", Van Zandt County, at gaging station at bridge on U.S. Highway 80, and 5.5 miles (8.8 km) east of Grand Saline.

DRAINAGE AREA.--91.4 mi² (237 km²).

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1973.

Water temperatures: February 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 26,200 micromhos Oct. 21; minimum daily, 126 micromhos June 5.

Water temperatures: Maximum, 32.0°C on several days during July and August; minimum, 2.0°C Jan. 9, 10, 12, 13.

EXTREMES, February 1968 to September 1973.--Specific conductance: Maximum daily, 50,200 micromhos Aug. 23, 1970; minimum daily, 78 micromhos Dec. 10, 1971.

Water temperatures: Maximum, 35.0°C Aug. 18, 19, 26, 1968, July 11, 1970; minimum, 2.0°C on several days during January 1970 and January 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.											
10...	1730	.20	1.1	150	18	4800	--	18	119	0	260
NOV.											
21...	1145	32	13	22	9.2	--	160	--	17	0	78
DEC.											
10...	0800	10	21	85	30	--	2300	--	42	0	260
JAN.											
19...	0900	24	17	63	28	720	--	4.6	36	0	210
FEB.											
10...	1545	43	9.6	24	9.6	--	100	--	24	0	73
MAR.											
26...	0900	748	7.8	12	5.6	--	53	--	26	0	36
APR.											
16...	1145	4050	3.2	6.0	2.8	14	--	3.0	15	0	17
MAY											
25...	1700	5.6	17	47	20	--	240	--	69	0	160
JUNE											
01...	1435	3.0	16	54	23	--	390	--	72	0	170
JULY											
20...	1345	1.8	4.9	70	28	--	1000	--	64	0	200
AUG.											
23...	1155	1.3	4.0	73	31	--	1300	--	69	0	130
SEP.											
10...	0915	10	13	22	6.1	--	86	--	17	0	70

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
10...	7600	--	--	12800	450	360	99	21900	7.5	24.0
NOV.										
21...	240	.2	.20	531	93	79	7.1	982	6.9	7.5
DEC.										
10...	3600	--	--	6370	340	300	--	11200	6.8	5.0
JAN.										
19...	1100	--	.30	2190	270	240	19	3970	7.1	11.0
FEB.										
10...	160	.2	.20	391	100	80	4.4	722	6.9	6.0
MAR.										
26...	77	.3	.20	206	53	32	3.2	390	6.8	14.0
APR.										
16...	22	.1	.50	77	26	14	1.2	142	6.8	16.0
MAY										
25...	360	.2	.30	872	200	140	7.4	1570	7.0	25.0
JUNE										
01...	600	.2	.20	1290	230	170	11	2370	6.9	26.0
JULY										
20...	1600	.0	2.6	2900	290	240	26	5310	7.0	29.0
AUG.										
23...	2100	.0	.30	3710	310	250	33	7060	7.1	26.5
SEP.										
10...	130	.0	.40	333	80	66	4.2	624	6.3	26.0

SABINE RIVER BASIN

08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	189.83	4440	2430	1250	1300	666	170	87	250
NOV.	811.7	1910	1030	2260	440	964	160	351	210
DEC.	1603.7	1830	980	4240	420	1820	160	693	200
JAN. 1973....	2511	1560	830	5630	360	2440	150	1020	170
FEB.	1274	1400	740	2550	320	1100	140	482	160
MAR.	7045	530	260	4950	110	2090	51	970	59
APR.	12538	298	130	4400	49	1660	29	982	33
MAY	276.9	1300	690	516	290	217	130	97	140
JUNE	12423.0	294	130	4360	48	1610	29	973	33
JULY	68.1	3330	1820	335	910	167	170	31	230
AUG.	61.2	3350	1830	302	920	152	170	28	230
SEP.	497.38	1440	770	1030	330	443	140	188	160
TOTAL	39299.81	--	--	31800	--	13300	--	5900	--
WTD. AVG. ...	108	602	300	--	130	--	56	--	65

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) ; WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16800	4000	2330	3360	2870	1930	1170	768	2370	1910	6540	796
2	17500	1270	3160	2270	1260	3120	1160	828	2500	1900	6760	762
3	17700	1960	3240	3540	1370	2070	1120	828	1800	1840	6620	761
4	18200	1560	4350	1770	1230	2150	1740	831	336	1810	5250	760
5	18600	1140	6540	1880	1720	1710	1650	926	126	1870	4440	852
6	19000	1290	9330	2910	1920	1660	1390	983	175	1980	3560	1800
7	20300	3000	6000	2160	2440	1780	1610	1700	209	2060	2880	1400
8	20700	1160	5040	1090	900	1480	2470	1350	479	2940	2900	1030
9	21300	872	4680	1050	732	1400	1590	1110	983	3510	3180	747
10	21700	1070	10000	1280	722	400	1020	1020	716	3150	4280	624
11	22100	1110	6670	1720	762	317	861	1080	726	2770	4190	710
12	22200	1950	3000	2100	878	511	1110	974	776	3620	3400	775
13	22500	2430	1470	1600	1180	1060	1270	999	1210	3330	2670	708
14	23200	3140	1160	2900	1800	942	1910	934	1070	3490	2640	1160
15	23700	3500	1190	3320	2300	1110	2650	767	864	4400	1660	2200
16	24800	2150	901	2370	2150	805	142	785	824	3640	1440	1530
17	25200	2110	809	2380	2620	519	233	908	884	2290	953	1770
18	25600	2450	1040	2950	2700	712	477	978	946	8230	811	1700
19	25600	1450	1290	3970	2660	802	759	1120	1120	6170	748	1930
20	25900	1880	2220	3340	2850	970	717	1200	1280	5310	1460	1640
21	26200	1000	2290	2820	1750	1040	795	1710	1420	3370	7680	1710
22	12000	2020	2700	2060	1680	1120	885	1750	1680	2960	8490	1580
23	6900	1610	3080	2610	1890	1220	684	1650	1640	2540	7080	1640
24	5650	1470	3200	3220	2230	260	304	1650	1580	2550	6120	1600
25	7460	1360	2410	2340	1700	340	135	1570	2080	2060	4890	1580
26	5500	3520	2640	1300	1430	390	178	1470	2290	1800	3570	1550
27	2160	2420	2870	805	3080	720	614	4000	2780	1770	2330	1490
28	2340	1620	2970	1180	2080	695	774	3330	2290	1450	1530	1420
29	2720	1560	3120	980	---	799	660	4400	2080	1160	906	1280
30	5200	1880	3690	818	---	1170	690	3610	1910	6000	953	1490
31	6540	---	3800	1130	---	1280	---	2600	---	8400	929	---
MONTH	16620	1930	3460	2170	1820	1110	1030	1540	1300	3230	3580	1300

SABINE RIVER BASIN

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08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	16.0	9.0	10.0	10.0	13.0	18.0	20.0	26.0	29.0	30.0	26.0
2	25.0	13.0	11.0	7.0	10.0	14.0	18.0	21.0	23.0	30.0	30.0	27.0
3	25.0	14.0	12.0	7.0	9.0	13.0	16.0	20.0	24.0	30.0	28.0	28.0
4	22.0	14.0	10.0	7.0	10.0	---	15.0	19.0	22.0	31.0	21.0	27.0
5	22.0	14.0	10.0	9.0	12.0	16.0	15.0	22.0	23.0	30.0	23.0	24.0
6	22.0	15.0	8.0	8.0	12.0	12.0	14.0	21.0	25.0	31.0	25.0	23.0
7	23.0	12.0	6.0	6.0	14.0	16.0	15.0	20.0	25.0	26.0	30.0	24.0
8	20.0	15.0	7.0	3.0	8.0	17.0	14.0	21.0	26.0	26.0	29.0	25.0
9	20.0	12.0	6.0	2.0	6.0	18.0	10.0	21.0	25.0	31.0	28.0	27.0
10	24.0	15.0	5.0	2.0	6.0	19.0	13.0	24.0	25.0	31.0	29.0	26.0
11	24.0	13.0	5.0	3.0	5.0	19.0	11.0	25.0	25.0	31.0	26.0	28.0
12	24.0	16.0	5.0	2.0	9.0	18.0	15.0	23.0	25.0	30.0	28.0	26.0
13	23.0	15.0	5.0	2.0	11.0	20.0	20.0	23.0	25.0	28.0	32.0	27.0
14	25.0	13.0	5.0	3.0	11.0	19.0	17.0	21.0	25.0	28.0	27.0	25.0
15	22.0	10.0	5.0	5.0	8.0	19.0	16.0	23.0	25.0	27.0	30.0	23.0
16	23.0	10.0	5.0	6.0	9.0	19.0	16.0	22.0	26.0	27.0	28.0	22.0
17	23.0	10.0	4.0	9.0	8.0	15.0	17.0	21.0	27.0	28.0	27.0	23.0
18	25.0	10.0	5.0	11.0	8.0	17.0	20.0	22.0	27.0	32.0	29.0	23.0
19	20.0	10.0	9.0	11.0	8.0	17.0	20.0	21.0	28.0	32.0	26.0	22.0
20	19.0	8.0	11.0	12.0	9.0	17.0	21.0	23.0	25.0	29.0	26.0	24.0
21	18.0	7.5	11.0	13.0	12.0	17.0	---	25.0	25.0	30.0	27.0	24.0
22	19.0	7.0	9.0	10.0	11.0	15.0	22.0	25.0	26.0	30.0	27.0	24.0
23	20.0	7.0	8.0	10.0	11.0	16.0	22.0	25.0	30.0	32.0	25.0	24.0
24	18.0	8.0	9.0	7.0	10.0	14.0	20.0	24.0	26.0	31.0	30.0	27.0
25	15.0	9.0	9.0	8.0	10.0	16.0	21.0	25.0	29.0	32.0	25.0	27.0
26	15.0	9.0	9.0	9.0	12.0	14.0	20.0	22.0	29.0	32.0	25.0	27.0
27	12.0	9.0	8.0	8.0	12.0	14.0	20.0	26.0	30.0	31.0	27.0	26.0
28	13.0	9.0	8.0	8.0	12.0	15.0	20.0	21.0	30.0	30.0	26.0	22.0
29	13.0	7.0	11.0	7.0	---	17.0	20.0	22.0	30.0	28.0	25.0	20.0
30	12.0	8.0	12.0	7.0	---	17.0	20.0	24.0	28.0	29.0	27.0	24.0
31	18.0	---	11.0	9.0	---	15.0	---	25.0	---	31.0	24.0	---
MONTH	20.0	11.0	8.0	7.0	10.0	16.5	17.5	22.5	26.0	30.0	27.0	25.0

SABINE RIVER BASIN

08018500 SABINE RIVER NEAR MINEOLA, TEX.

LOCATION.--Lat 32°36'46", long 95°29'08", Wood County, at gaging station at bridge on U.S. Highway 69, 3.5 miles (5.6 km) south of Mineola, 4.5 miles (7.2 km) upstream from Missouri Pacific Railway Lines bridge, and 16.2 miles (26.1 km) upstream from Lake Fork Creek.

DRAINAGE AREA.--1,357 mi² (3,515 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 3,500 micromhos Oct. 1; minimum daily, 104 micromhos June 8.

Water temperatures: Maximum, 29.0°C July 26; minimum, 2.0°C Jan. 12.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 11,400 micromhos June 3, 1971; minimum daily, 70 micromhos Dec. 12, 1971.

Water temperatures: Maximum, 29.0°C on several days during summer months; minimum, 2.0°C Jan. 7, 10, 1968, Jan. 9, 1970, Jan. 12, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 11...	0900	16	4.6	19	5.8	120	--	4.3	46	0	40
NOV. 21...	1040	209	10	19	7.2	--	120	--	26	0	54
DEC. 19...	1515	848	8.9	12	4.7	--	29	--	21	0	37
JAN. 27...	0700	1130	9.4	20	6.8	64	--	4.6	28	0	48
FEB. 11...	0700	2180	7.0	10	3.6	--	16	--	26	0	22
MAR. 13...	1700	4200	6.9	12	3.6	--	17	--	29	0	24
APR. 27...	0700	12500	5.5	9.0	2.6	6.9	--	3.2	30	0	11
MAY 28...	0700	390	3.4	27	4.8	--	43	--	78	0	35
JUNE 01...	1230	348	3.6	25	4.0	--	22	--	86	0	21
JULY 18...	0700	98	4.6	30	5.8	87	--	3.7	90	0	33
AUG. 02...	0700	24	5.7	26	5.0	--	26	--	89	0	19
SEP. 09...	0700	1060	6.6	7.5	1.9	--	17	--	26	0	12

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 11...	180	.3	.2	394	72	34	6.0	752	7.3	--
NOV. 21...	190	.2	.3	421	77	56	6.2	803	6.7	7.5
DEC. 19...	38	.2	.6	142	49	32	1.8	252	7.3	4.5
JAN. 27...	100	.2	.3	268	78	55	3.1	481	7.1	9.0
FEB. 11...	20	.2	.2	93	40	18	.8	172	6.7	7.0
MAR. 13...	22	.1	.2	100	45	21	1.1	185	6.9	19.0
APR. 27...	9.2	.1	.3	64	33	9	.5	109	6.6	18.0
MAY 28...	55	.2	.5	209	87	23	2.0	395	7.0	23.0
JUNE 01...	23	.2	.5	143	79	8	1.1	264	6.9	22.5
JULY 18...	130	.3	.2	342	99	25	3.8	656	7.0	26.0
AUG. 02...	31	.2	1.6	164	85	12	1.2	301	7.2	26.0
SEP. 09...	20	.1	.1	78	26	5	1.5	143	6.5	25.0

SABINE RIVER BASIN

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08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1810	864	480	2350	180	880	61	298	90
NOV.	5919	506	280	4470	93	1490	52	831	79
DEC.	8498	492	270	6200	89	2040	51	1170	79
JAN. 1973....	16590	411	230	10300	69	3090	42	1880	70
FEB.	16493	356	200	8910	56	2490	37	1650	62
MAR.	74097	215	120	24000	27	5400	22	4400	41
APR.	117665	163	91	28900	19	6040	17	5400	34
MAY	55522	215	120	18000	27	4050	22	3300	41
JUNE	122480	156	87	28800	18	5950	16	5290	33
JULY	4173	295	160	1800	41	462	31	349	53
AUG.	515.4	446	250	348	78	109	46	64	75
SEP.	8790.6	212	120	2850	27	641	22	522	41
TOTAL	482353.0	--	--	137000	--	32600	--	23200	--
WTD. AVG. ...	1185	210	120	--	28	--	22	--	40

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3500	569	611	957	287	857	225	191	264	224	302	861
2	2970	490	583	1160	654	780	259	197	243	224	301	875
3	2040	405	657	1010	440	1140	265	201	744	224	320	855
4	1780	149	657	820	374	777	262	205	248	222	500	842
5	2240	198	794	583	352	744	267	214	128	222	393	730
6	2240	244	867	351	430	709	262	206	120	225	380	375
7	1810	251	884	461	503	502	259	208	109	230	403	376
8	1410	301	1110	778	508	705	310	214	104	227	409	242
9	1090	500	1710	432	400	559	409	216	120	228	404	143
10	874	544	1690	234	295	157	474	218	135	238	429	142
11	755	583	1230	260	172	155	329	217	165	241	454	178
12	700	515	1240	336	184	191	278	213	178	272	471	190
13	650	415	991	383	242	185	317	231	185	300	488	193
14	677	620	706	540	456	178	357	245	193	366	495	193
15	717	1600	423	725	460	190	407	207	198	352	506	204
16	687	1250	402	941	437	207	202	215	205	400	510	300
17	640	1160	314	882	372	221	140	217	207	637	529	252
18	616	451	245	730	434	251	131	219	205	656	497	261
19	594	430	252	821	467	242	128	228	204	600	498	274
20	583	837	283	974	536	237	125	227	204	525	539	236
21	544	776	377	691	622	238	173	229	202	450	546	238
22	469	482	557	839	768	237	209	227	202	350	560	241
23	451	454	760	532	557	241	215	234	204	303	574	261
24	901	636	760	482	759	205	219	235	205	275	602	273
25	2000	481	851	532	800	159	145	232	207	257	636	247
26	2500	486	848	371	850	210	128	245	208	269	668	279
27	1320	635	848	381	935	173	109	294	215	291	725	215
28	1090	1180	760	323	939	152	120	395	221	268	796	212
29	557	918	854	219	---	166	163	306	225	269	499	112
30	237	774	795	237	---	192	182	235	222	287	669	110
31	538	---	877	258	---	208	---	259	---	342	811	---
MONTH	1200	611	772	588	508	360	236	235	209	322	513	330

SABINE RIVER BASIN

08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	16.0	6.0	9.0	9.0	12.0	15.0	20.0	22.5	26.0	27.0	26.0
2	17.0	14.0	9.0	9.0	9.0	14.0	15.0	19.0	25.0	26.0	26.0	25.0
3	17.0	14.0	9.0	8.0	9.0	13.0	15.0	18.0	25.0	27.0	25.0	26.0
4	17.0	13.0	9.0	8.0	10.0	14.0	14.0	18.0	20.0	27.0	26.0	26.0
5	19.0	13.0	9.0	8.0	11.0	14.0	12.0	23.0	22.0	27.0	24.0	24.0
6	20.0	14.0	8.0	7.0	11.0	16.0	14.0	20.0	21.0	27.0	24.0	24.0
7	20.0	15.0	7.0	7.0	13.0	15.0	14.0	19.0	21.0	27.0	25.0	23.0
8	17.0	13.0	7.0	5.0	10.0	15.0	14.0	20.0	23.0	26.0	26.0	24.0
9	20.0	14.0	7.0	4.0	7.0	18.0	12.0	20.0	24.0	26.0	26.0	25.0
10	20.0	14.0	6.0	4.0	6.0	18.0	11.0	21.0	24.0	27.0	26.0	25.0
11	20.0	14.0	6.0	3.0	7.0	17.0	11.0	23.0	25.0	27.0	27.0	25.0
12	---	13.0	6.0	2.0	6.0	18.0	13.0	22.0	24.0	26.0	27.0	25.0
13	21.0	15.0	4.0	3.0	8.0	19.0	15.0	18.0	24.0	25.0	27.0	25.0
14	21.0	12.0	5.0	7.0	5.0	18.0	16.0	18.0	14.0	26.0	27.0	24.0
15	22.0	13.0	5.0	4.0	6.0	18.0	17.0	19.0	15.0	27.0	25.0	24.0
16	22.0	10.0	5.0	5.0	6.0	17.0	17.0	19.0	22.0	26.0	26.0	23.0
17	23.0	9.0	5.0	8.0	6.0	16.0	16.0	20.0	21.0	27.0	26.0	23.0
18	23.0	10.0	6.0	12.0	9.0	15.0	16.0	19.0	26.0	26.0	25.0	22.0
19	20.0	10.0	4.5	12.0	8.0	17.0	17.0	20.0	26.0	27.0	26.0	22.0
20	18.0	9.0	7.0	11.0	8.0	15.0	20.0	22.0	25.0	27.0	26.0	23.0
21	18.0	7.5	10.0	11.0	10.0	15.0	21.0	26.0	25.0	---	26.0	23.0
22	19.0	7.0	5.0	9.0	10.0	15.0	21.0	24.0	25.0	27.0	25.0	24.0
23	18.0	7.0	9.0	9.0	10.0	15.0	21.0	24.0	24.0	28.0	25.0	23.0
24	17.0	8.0	8.0	8.0	10.0	17.0	20.0	23.0	25.0	28.0	25.0	23.0
25	16.0	8.0	8.0	8.0	10.0	15.0	19.0	23.0	25.0	28.0	25.0	25.0
26	15.0	7.0	5.0	8.0	11.0	14.0	20.0	23.0	25.0	29.0	25.0	25.0
27	13.0	8.0	5.0	9.0	12.0	14.0	18.0	23.0	25.0	28.0	25.0	23.0
28	12.0	8.0	7.0	7.0	---	14.0	16.0	23.0	26.0	28.0	25.0	23.0
29	14.0	8.0	10.0	6.0	---	15.0	18.0	20.0	26.0	28.0	23.0	22.0
30	14.0	7.0	11.0	7.0	---	15.0	19.0	20.0	26.0	28.0	24.0	23.0
31	16.0	---	9.0	9.0	---	15.0	---	22.0	---	27.0	24.0	---
MONTH	18.0	11.0	7.0	7.0	9.0	15.5	16.0	21.0	23.5	27.0	25.5	24.0

SABINE RIVER BASIN

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08018950 DRY CREEK NEAR QUITMAN, TEX.

LOCATION.--Lat 32°47'52", long 95°27'50", Wood County, on State Highway 154 and 182, 0.8 mile (1.3 km) west of Quitman and 2.5 miles (4.0 km) upstream from mouth.

DRAINAGE AREA.--63.6 mi² (165 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 11...	1300	.86	10	18	8.3	77	56	0	44	110
NOV. 21...	0850	13	12	30	11	110	16	0	58	200
DEC. 19...	1010	55	9.4	24	9.7	72	18	0	53	130
JAN. 30...	1310	60	10	24	9.7	69	16	0	59	120
MAR. 13...	0940	143	9.4	19	11	32	26	0	46	66
APR. 27...	1250	260	5.0	13	6.7	29	14	0	30	56
JULY 03...	0800	2.4	17	32	12	110	36	0	70	180
AUG. 22...	1610	1.0	6.5	14	7.3	53	60	0	36	65

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 11...	.1	.5	296	79	33	3.8	532	7.1	20.0
NOV. 21...	.2	.2	421	120	110	4.2	763	7.2	--
DEC. 19...	.2	.2	310	100	85	3.1	582	7.0	3.5
JAN. 30...	.2	.08	304	100	87	3.0	560	6.6	7.0
MAR. 13...	.0	.04	197	92	71	2.5	425	6.2	--
APR. 27...	.1	.2	148	60	49	1.6	289	6.4	17.0
JULY 03...	.0	.7	441	130	98	4.1	861	6.5	28.0
AUG. 22...	.0	.4	214	65	16	2.9	426	6.6	27.0

SABINE RIVER BASIN

08019000 LAKE FORK CREEK NEAR QUITMAN, TEX.

LOCATION.--Lat 32°45'45", long 95°27'48", Wood County, at gaging station on State Highway 37, 0.3 mile (0.5 km) downstream from Dry Creek, and 2.4 miles (3.9 km) south of Quitman.

DRAINAGE AREA.--585 mi² (1,515 km²).

PERIOD OF RECORD.--Chemical analyses: December 1961 to June 1965, November 1967 to September 1973.
Water temperatures: December 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,800 micromhos Oct. 5; minimum daily, 84 micromhos Mar. 12.
Water temperatures: Minimum, 3.5°C Dec. 19.

EXTREMES, November 1967 to September 1973.--Specific conductance: Maximum daily, 2,800 micromhos Oct. 5, 1972; minimum daily, 37 micromhos Dec. 11, 1971.
Water temperatures: Maximum, 29.0°C on several days during summer months in 1969, July 29, 1972; minimum, 2.0°C Jan. 10, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 30...	0800	446	6.9	9.0	4.3	18	--	5.7	19	0	27
NOV. 09...	0800	239	11	9.5	4.2	--	17	--	26	0	24
DEC. 19...	1220	1600	7.4	5.8	3.8	--	15	--	19	0	22
JAN. 01...	0800	71	18	38	16	77	--	4.6	26	0	110
FEB. 12...	0800	2300	6.8	6.5	3.2	--	8.2	--	23	0	8.4
MAR. 13...	1020	5190	6.5	7.5	3.0	--	6.4	--	25	0	13
APR. 27...	0955	5280	6.9	8.8	2.2	--	6.6	--	33	0	8.8
MAY 12...	0800	83	17	27	12	--	52	--	40	0	79
JUNE 16...	0800	195	14	21	9.4	--	39	--	45	0	58
JULY 20...	0800	90	11	13	5.0	20	--	5.7	40	0	25
AUG. 11...	0800	5.3	.3	14	5.3	--	29	--	15	1	53
SEP. 05...	0800	.72	4.6	15	6.4	--	64	--	79	0	33

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 30...	28	.2	.4	110	40	25	1.2	185	6.7	15.0
NOV. 09...	21	.1	.4	102	41	20	1.2	174	7.2	14.0
DEC. 19...	16	.2	.5	81	30	15	1.2	141	7.0	3.5
JAN. 01...	140	.2	.05	416	160	140	2.6	728	7.1	7.0
FEB. 12...	13	.2	.2	58	29	10	.7	125	6.9	10.0
MAR. 13...	6.6	.1	.4	57	31	11	.5	98	6.9	--
APR. 27...	5.2	.1	.4	56	31	4	.5	93	7.3	16.0
MAY 12...	80	.2	.5	289	120	84	2.1	502	7.1	--
JUNE 16...	54	.2	.6	220	91	54	1.8	372	7.3	--
JULY 20...	31	.2	.6	134	53	20	1.2	224	7.4	--
AUG. 11...	35	.2	.00	145	57	44	1.7	277	8.8	--
SEP. 05...	72	.3	.3	236	64	0	3.5	442	7.1	--

SABINE RIVER BASIN

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08019000 LAKE FORK CREEK NEAR QUITMAN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	2159.67	246	140	816	36	210	34	198	55
NOV.	11702	191	110	3480	24	758	25	790	43
DEC.	12720	288	160	5500	44	1510	41	1410	63
JAN. 1973....	17879	332	190	9170	53	2560	48	2320	73
FEB.	21431	261	150	8680	39	2260	37	2140	58
MAR.	58353	166	93	14700	19	2990	21	3310	38
APR.	72302	144	81	15800	15	2930	18	3510	33
MAY	5951	307	170	2730	48	771	44	707	67
JUNE	30627	146	82	6780	15	1240	18	1490	34
JULY	1152.8	322	180	560	51	159	46	143	70
AUG.	51.09	368	210	29	61	8.4	54	7.4	80
SEP.	4596.93	132	74	918	12	149	16	199	31
TOTAL	238925.49	--	--	69200	--	15500	--	16200	--
WTD. AVG. ...	655	190	110	--	24	--	25	--	43

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	170	481	728	310	752	365	195	555	480	330	571
2	592	189	507	702	386	636	332	226	521	493	332	557
3	962	183	510	708	324	512	363	253	600	503	338	532
4	1800	144	519	714	244	467	400	253	263	508	342	504
5	2800	130	560	620	225	378	432	231	136	512	352	442
6	2260	120	611	473	269	368	451	266	138	504	375	400
7	1820	133	613	443	349	366	493	334	96	504	402	157
8	1490	177	600	413	408	362	584	380	101	517	402	149
9	1180	174	704	387	327	353	668	408	125	518	416	109
10	1080	159	800	283	185	272	493	438	113	518	398	100
11	912	196	630	246	133	97	502	462	153	525	277	104
12	825	228	650	241	125	84	482	502	164	521	377	132
13	828	244	644	321	172	99	500	510	203	389	401	131
14	825	280	453	399	277	104	595	450	257	344	389	142
15	750	276	381	435	347	150	484	252	333	343	389	105
16	713	168	270	478	405	227	164	291	372	362	367	106
17	679	175	165	527	447	318	126	285	366	509	343	126
18	654	171	133	577	487	318	113	294	418	159	322	146
19	635	430	138	615	534	344	118	322	433	156	313	161
20	709	310	196	631	571	362	138	364	454	224	338	170
21	687	191	291	652	606	444	203	409	461	239	354	185
22	524	188	360	500	635	455	183	438	258	244	373	203
23	400	220	402	413	659	483	128	469	253	257	399	229
24	544	269	441	415	790	357	117	486	274	348	599	229
25	400	317	482	410	751	162	110	520	308	348	598	417
26	294	450	518	400	734	109	103	539	347	349	604	241
27	320	440	550	369	888	100	93	620	368	349	524	246
28	263	410	570	297	741	104	108	848	398	349	524	296
29	185	438	612	169	---	139	133	666	425	353	490	188
30	185	464	645	160	---	204	168	564	444	385	478	103
31	181	---	734	194	---	277	---	648	---	379	528	---
MONTH	859	248	489	449	440	303	305	417	311	393	409	239

SABINE RIVER BASIN

08019000 LAKE FORK CREEK NEAR QUITMAN, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	15.0	12.0	7.0	11.0	12.0	---	---	21.0	---	---	---
2	23.0	15.0	12.0	8.0	9.0	12.0	18.0	---	21.0	28.5	---	---
3	20.0	15.0	12.0	8.0	9.0	12.0	---	---	31.0	---	---	---
4	19.0	15.0	10.0	8.0	9.0	12.0	18.0	---	---	---	---	---
5	19.0	15.0	10.0	8.0	10.0	12.0	19.0	---	---	---	---	---
6	18.0	15.0	9.0	7.0	9.0	14.0	19.0	---	---	---	---	---
7	18.0	15.0	8.0	7.0	10.0	14.0	19.0	---	---	---	---	---
8	18.0	14.0	8.0	6.0	9.0	14.0	---	---	---	---	---	---
9	18.0	14.0	8.0	5.0	9.0	15.0	---	---	---	---	---	---
10	17.0	14.0	7.0	5.0	9.0	15.0	---	---	---	---	---	---
11	17.0	14.0	6.0	5.0	9.0	15.0	---	---	---	---	---	---
12	17.0	14.0	5.0	4.0	10.0	15.0	---	---	---	---	---	---
13	17.0	14.0	5.0	4.0	10.0	18.0	---	---	---	---	---	---
14	17.0	14.0	5.0	4.0	10.0	18.0	---	---	---	---	---	---
15	18.0	14.0	5.0	5.0	10.0	18.0	---	---	---	---	---	---
16	18.0	14.0	5.0	5.0	10.0	18.0	---	---	---	---	---	---
17	19.0	14.0	5.0	5.0	10.0	18.0	---	---	---	---	---	---
18	19.0	14.0	5.0	9.0	10.0	19.0	---	---	---	---	---	---
19	19.0	14.0	3.5	8.0	10.0	---	---	---	---	---	---	---
20	18.0	14.0	5.0	7.0	10.0	19.0	---	---	---	---	---	---
21	---	13.0	5.0	10.0	---	20.0	---	---	---	---	---	---
22	18.0	13.0	5.0	10.0	10.0	20.0	---	---	---	---	26.0	---
23	18.0	13.0	5.0	10.0	10.0	20.0	---	---	---	---	---	---
24	16.0	13.0	5.0	10.0	10.0	20.0	---	---	---	---	---	---
25	16.0	13.0	5.0	---	10.0	20.0	---	---	---	---	---	---
26	16.0	12.0	5.0	10.0	10.0	20.0	---	---	---	---	---	---
27	16.0	12.0	5.0	11.0	10.0	20.0	16.0	---	---	---	---	---
28	16.0	12.0	5.0	10.0	10.0	20.0	---	---	---	---	---	---
29	15.0	12.0	5.0	10.0	---	21.0	---	21.0	---	---	---	---
30	15.0	12.0	5.0	11.0	---	21.0	---	---	---	---	---	---
31	15.0	---	7.0	11.0	---	21.0	---	21.0	---	---	---	---
MONTH	17.5	13.5	6.5	7.5	9.5	17.0	---	---	---	---	---	---

SABINE RIVER BASIN

151

08019500 BIG SANDY CREEK NEAR BIG SANDY, TEX.

LOCATION.--Lat 32°36'12", long 95°05'32", Upshur County, at gaging station at bridge on State Highway 155, 0.5 mile (0.8 km) upstream from St. Louis Southwestern Railway Lines bridge, 1.6 miles (2.6 km) northeast of Big Sandy, and 6.5 miles (10.5 km) upstream from mouth.

DRAINAGE AREA.--231 mi² (598 km²).

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 12...	1530	15	13	5.0	2.1	14	13	0	4.4	25
NOV. 16...	1040	86	16	8.0	2.9	25	9	0	13	46
DEC. 13...	1630	143	15	7.5	3.0	25	9	0	15	44
MAR. 14...	1610	1140	8.9	7.0	4.0	20	22	0	22	26
APR. 18...	1515	3280	2.5	3.5	2.5	4.7	7	0	12	7.5
23...	1545	620	7.0	6.5	4.6	16	18	0	17	26
MAY 31...	1320	115	15	8.0	3.9	19	18	0	9.6	37
JULY 05...	1105	43	15	7.0	3.1	13	19	0	5.6	26
AUG. 22...	1025	31	14	4.8	6.3	4.4	13	0	4.6	22

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 12...	.0	.2	70	21	10	1.3	119	6.8	19.0
NOV. 16...	.0	.1	115	32	25	1.9	205	6.2	10.0
DEC. 13...	.0	.07	114	31	24	2.0	203	6.0	4.5
MAR. 14...	.0	.1	99	34	16	1.5	141	6.2	19.0
APR. 18...	.0	.1	36	19	13	.5	79	5.9	--
23...	.1	.4	88	35	20	1.2	140	6.1	--
MAY 31...	.0	.3	103	36	21	1.4	199	6.1	22.0
JULY 05...	.0	.3	80	30	14	1.0	153	6.0	24.5
AUG. 22...	.0	.3	63	38	27	.3	122	6.0	23.5

SABINE RIVER BASIN

08020000 SABINE RIVER NEAR GLADEWATER, TEX.

LOCATION.--Lat 32°31'37", long 94°57'36", Gregg County, at gaging station at bridge on U.S. Highway 271, 0.4 mile (0.6 km) downstream from Glade Creek, and 1.2 miles (1.9 km) southwest of Gladewater.

DRAINAGE AREA.--2,791 mi² (7,229 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 02...	1800	111	11	34	10	200	35	0	51
DEC. 05...	1320	369	18	14	5.6	49	20	0	36
JAN. 30...	1325	2320	11	14	6.1	41	22	0	40
APR. 17...	1900	5380	6.0	7.0	1.8	8.9	18	0	11
JUNE 11...	1550	16900	9.2	8.8	1.7	11	24	0	14
AUG. 07...	1108	165	12	14	4.0	23	48	0	15

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 02...	340	.3	.33	.00	.06	.03	.05	660	130
DEC. 05...	78	.3	.35	.01	.05	.1	.08	211	58
JAN. 30...	62	.2	.23	.01	.02	.2	.23	186	60
APR. 17...	12	.1	.25	.01	.05	.3	.27	57	25
JUNE 11...	13	.0	.21	.00	.09	.1	.07	70	29
AUG. 07...	32	.4	.26	.00	.00	.2	.09	125	51

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 02...	100	7.6	1220	6.8	21.5	9.8	110	3.4
DEC. 05...	42	2.8	368	6.4	10.0	10.1	89	1.1
JAN. 30...	42	2.3	324	6.8	6.5	10.5	85	1.6
APR. 17...	10	.8	102	6.8	16.0	8.8	88	3.4
JUNE 11...	9	.9	113	6.4	24.0	4.4	52	.9
AUG. 07...	12	1.4	225	6.3	27.5	6.6	82	5.3

SABINE RIVER BASIN

153

08020200 PRAIRIE CREEK NEAR GLADEWATER, TEX.

LOCATION.--Lat 32°28'45", long 94°57'14", Gregg County, at gaging station on State Highway 135, 0.7 miles (1.1 km) upstream from Little Caney Creek, 3.5 miles (5.6 km) upstream from mouth and 4.0 miles (6.4 km) south of Gladewater.

DRAINAGE AREA.--48.9 mi² (126.7 km²).

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 13...	1030	.97	18	6.2	3.1	11	24	0	6.8	18
NOV. 15...	1245	66	17	7.5	3.0	16	14	0	13	28
DEC. 13...	1205	147	15	6.0	2.7	11	12	0	12	20
FEB. 02...	1630	423	14	9.0	.6	14	12	0	11	24
APR. 18...	1015	301	12	6.5	4.3	.9	18	0	3.4	12
MAY 30...	1610	11	20	7.5	4.0	9.5	20	0	8.4	21
JULY 05...	1635	7.7	21	7.0	4.8	4.7	26	0	5.2	14
AUG. 21...	1155	2.8	19	7.0	3.1	6.2	20	0	7.2	14

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 13...	.0	.2	76	28	8	.9	120	6.7	19.5
NOV. 15...	.0	.2	92	31	20	1.2	147	6.9	10.5
DEC. 13...	.0	.05	73	26	16	.9	118	6.2	4.5
FEB. 02...	.0	.1	79	25	15	1.2	126	6.4	7.0
APR. 18...	.0	.2	49	34	19	.1	100	5.9	--
MAY 30...	.0	.3	82	35	19	.7	138	6.2	21.0
JULY 05...	.0	.3	71	37	16	.3	118	6.3	25.0
AUG. 21...	.0	.00	66	30	14	.5	106	6.1	25.0

SABINE RIVER BASIN

08020700 RABBIT CREEK AT KILGORE, TEX.

LOCATION.--Lat 32°23'17", long 94°54'11", Gregg County, at gaging station on State Highway 31, at Kilgore, 0.4 mile (0.6 km) upstream from Big Caney Creek, 4.4 miles (7.1 km) upstream from Peavine Creek, and 14 miles (22.5 km) upstream from mouth.

DRAINAGE AREA.--75.8 mi² (196 km²).

PERIOD OF RECORD.--Chemical analyses: March 1965 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 24...	1405	20	10	13	6.0	94	13	0	16	170
NOV. 27...	1320	51	20	20	9.2	130	8	0	20	240
JAN. 08...	1645	154	14	13	5.7	73	14	0	16	130
FEB. 12...	1340	3.7	22	20	8.8	120	6	0	20	230
MAR. 17...	1640	127	17	14	6.1	76	21	0	32	120
APR. 17...	1110	665	9.1	7.5	2.7	26	11	0	8.4	48
MAY 01...	1400	76	12	14	5.3	89	16	0	14	160
JUNE 04...	1515	1430	3.0	6.0	2.4	26	5	0	4.6	50
JULY 13...	1825	18	26	25	10	240	20	0	14	420
AUG. 24...	1015	4.6	22	20	11	120	33	0	16	220

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 24...	.1	.3	312	57	46	5.4	601	6.2	16.5
NOV. 27...	.1	.2	442	88	82	5.9	829	6.5	9.0
JAN. 08...	.1	.09	261	56	45	4.2	480	6.5	4.0
FEB. 12...	.2	.1	424	86	81	5.7	800	6.3	8.0
MAR. 17...	.0	.2	280	60	43	4.3	486	6.3	13.5
APR. 17...	.0	.3	108	30	21	2.1	215	5.9	--
MAY 01...	.2	.4	300	57	44	5.1	552	6.3	19.5
JUNE 04...	.0	.4	96	25	21	2.3	206	5.6	21.0
JULY 13...	.0	.4	747	100	88	10	1460	6.3	26.0
AUG. 24...	.0	.2	420	95	68	5.2	840	6.5	24.0

08022000 SABINE RIVER NEAR TATUM, TEX.

LOCATION.--Lat 32°22'11", long 94°27'28", Panola County, at gaging station at bridge on State Highway 43, 5.1 miles (8.2 km) northeast of Tatum, 5.2 miles (8.4 km) upstream from Potters Creek, and 5.6 miles (9.0 km) downstream from Cherokee Bayou.

DRAINAGE AREA.--3,493 mi² (9,047 km²).

PERIOD OF RECORD.--Chemical analyses: February 1952 to September 1973.

Pesticide analyses: March 1968 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: February 1952 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 811 micromhos Oct. 13; minimum daily, 99 micromhos June 16.

Water temperatures: Minimum, 7.0°C Nov. 30, Jan. 10, 11.

EXTREMES, February 1952 to September 1973.--Specific conductance: Maximum daily, 3,040 micromhos Jan. 13, 1966; minimum daily, 82 micromhos Dec. 24, 1971.

Water temperatures (1952-62, 1964-73): Maximum 38.0°C July 8, 1969; minimum 2.0°C Jan. 12, 13, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
DATE	TIME												
OCT.													
03...	0900	174	10	12	4.6	--	43	--	31	0	30	62	
28...	1700	3240	13	11	3.9	47	--	4.2	15	0	24	76	
NOV.													
30...	1805	1040	17	11	4.6	--	35	--	23	0	27	52	
DEC.													
05...	1510	628	16	14	4.9	--	52	--	26	0	31	80	
14...	0800	3740	12	7.8	3.0	--	34	--	15	0	19	50	
JAN.													
02...	0800	1190	18	14	5.8	53	--	3.2	20	0	37	88	
30...	1145	3280	12	12	5.6	--	32	--	20	0	33	51	
FEB.													
15...	0800	3760	11	12	4.5	--	27	--	18	0	30	42	
MAR.													
22...	1220	7900	8.3	9.5	3.0	--	16	--	26	0	18	21	
APR.													
18...	0740	6520	9.0	8.5	2.6	--	17	--	21	0	15	25	
22...	0800	8160	6.5	8.0	2.9	--	11	--	25	0	11	16	
MAY													
23...	0800	2390	11	18	5.2	--	39	--	62	0	24	52	
JUNE													
11...	1845	8020	9.8	8.5	1.9	--	11	--	21	0	10	17	
16...	0800	16000	9.0	6.0	2.2	--	9.1	--	16	0	10	14	
JULY													
27...	0800	398	14	18	5.8	70	--	3.7	58	0	31	110	
AUG.													
07...	1235	326	12	13	3.9	--	40	--	39	0	18	59	
23...	1700	187	2.1	16	5.4	--	66	--	32	14	20	95	
SEP.													
11...	1000	2840	10	8.0	2.8	--	23	--	20	0	18	32	
DATE		DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.													
03...		.2	.29	.12	.75	.3	.19	179	32	12	49	24	2.7
28...		.7	--	--	--	.4	--	189	--	--	44	31	3.1
NOV.													
30...		.2	--	--	--	.5	--	160	--	--	46	28	2.2
DEC.													
05...		.2	.27	.02	.24	.3	.21	213	28	7	55	34	3.0
14...		.2	--	--	--	.6	--	136	--	--	32	20	2.8
JAN.													
02...		.3	--	--	--	.2	--	230	--	--	59	42	3.0
30...		.2	.27	.01	.08	.1	.32	156	62	9	53	37	1.9
FEB.													
15...		.2	--	--	--	.3	--	137	--	--	48	34	1.7
MAR.													
22...		.1	--	--	--	.2	--	90	--	--	36	15	1.2
APR.													
18...		.1	.49	.01	.06	.1	.24	8	80	0	32	15	1.3
22...		.1	--	--	--	.02	--	68	--	--	32	12	.8
MAY													
23...		.2	--	--	--	.6	--	182	--	--	66	16	2.1
JUNE													
11...		.2	.21	.01	.11	.1	.06	69	40	12	29	12	.9
16...		.1	--	--	--	.1	--	59	--	--	24	11	.8
JULY													
27...		.3	--	--	--	.1	--	278	--	--	69	21	3.7
AUG.													
07...		.2	.44	.02	.02	.2	.11	166	28	12	48	17	2.5
23...		.3	--	--	--	.01	--	235	--	--	62	36	3.6
SEP.													
11...		.3	--	--	--	.07	--	104	--	--	31	15	1.8

SABINE RIVER BASIN

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSIT (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSIT (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSIT (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSIT (UG/KG)	DI- ELDRIN (UG/L)
OCT. 03...	0900	21.0	.00	.0	.00	1.4	.00	.7	.00	.0	.00
JAN. 30...	1145	7.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
APR. 18...	0740	16.5	--	.0	--	.0	--	.0	--	.0	--
JUNE 11...	1845	24.0	.00	--	.00	--	.00	--	.00	--	.00
AUG. 07...	1235	28.0	--	.0	--	.0	--	.0	--	.0	--

DATE	DI- ELDRIN IN BOTTOM DE- POSIT (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSIT (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSIT (UG/KG)	CHLOR- DANE (UG/L)
OCT. 03...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 30...	.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.0	--	.0	--	.0	--	.0	--	.0	--
JUNE 11...	--	.00	--	.00	--	.00	--	.00	--	.0
AUG. 07...	.0	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSIT (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSIT (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 03...	0	.0	4	.02	.00	.00	.00	.00	.00	.01
JAN. 30...	5	.0	0	.01	.00	.00	.00	.06	.00	.07
APR. 18...	0	--	0	.00	.00	.00	.00	.03	.00	.02
JUNE 11...	--	.0	--	.00	.00	.00	.00	.00	.00	.05
AUG. 07...	0	--	0	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	16900	326	180	8210	62	2830	26	1190	50
NOV.	59450	284	160	25700	53	8510	23	3690	46
DEC.	71376	306	170	32800	58	11200	24	4630	48
JAN. 1973....	70700	325	180	34400	62	11800	26	4960	50
FEB.	104480	268	150	42300	49	13800	22	6210	44
MAR.	189170	210	120	61300	36	18400	18	9190	38
APR.	301650	165	93	75700	26	21200	14	11400	34
MAY	291963	171	96	75700	28	22100	15	11800	34
JUNE	287653	152	86	66800	23	17900	14	10900	32
JULY	32289	338	190	16600	65	5670	26	2270	51
AUG.	10905	355	190	5590	69	2030	28	824	53
SEP.	47082	252	140	17800	46	5850	20	2540	43
TOTAL	1483618	--	--	463000	--	141000	--	69600	--
WTD. AVG. ...	4065	206	120	--	35	--	17	--	38

SABINE RIVER BASIN

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	397	260	323	302	286	371	173	134	338	362	274	350
2	415	276	297	424	321	402	137	137	200	275	225	280
3	342	530	355	336	229	320	179	134	138	205	255	216
4	296	278	377	330	220	291	165	135	112	283	300	220
5	360	450	395	389	204	180	171	132	119	285	340	173
6	465	280	400	342	208	242	169	134	125	295	320	140
7	467	203	426	314	241	383	174	138	115	285	380	236
8	465	248	513	306	270	233	200	147	135	295	354	332
9	448	326	540	330	323	360	211	159	115	365	376	302
10	480	202	392	409	289	307	221	208	120	299	450	331
11	516	198	449	316	319	165	231	175	125	269	330	250
12	408	244	370	333	236	281	227	183	115	350	370	239
13	811	234	204	292	232	370	250	192	133	252	480	219
14	668	215	200	353	274	303	280	215	175	330	510	205
15	578	270	341	330	274	165	282	254	175	506	430	210
16	570	265	268	282	212	291	284	219	99	434	436	194
17	572	245	256	355	259	404	226	228	126	398	446	195
18	646	215	330	314	301	177	164	212	121	379	550	188
19	700	219	320	305	376	162	138	245	122	460	600	147
20	600	303	303	290	224	179	136	264	223	484	480	200
21	523	377	306	363	259	175	136	253	135	392	450	229
22	556	253	280	327	215	160	126	303	165	343	600	245
23	484	266	225	364	234	158	140	321	172	449	550	261
24	247	203	240	381	275	173	141	273	190	391	390	290
25	283	375	300	350	345	169	145	280	190	330	460	356
26	300	227	385	239	372	183	128	284	183	424	410	340
27	388	413	250	326	421	172	151	300	205	508	460	323
28	359	380	286	332	437	166	144	314	229	451	405	296
29	204	386	393	295	---	188	127	276	211	521	484	254
30	316	287	219	279	---	168	129	313	237	400	464	291
31	243	---	329	278	---	175	---	304	---	268	426	---
MONTH	455	288	331	329	281	241	180	221	162	364	420	250

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	---	11.0	8.0	11.0	---	11.0	15.0	18.0	---	---	---
2	29.0	15.0	12.0	9.0	8.0	12.0	---	14.0	---	---	---	---
3	29.0	16.0	11.0	9.0	10.0	---	---	14.0	---	---	---	---
4	28.0	17.0	9.0	10.0	---	11.0	13.0	14.0	---	---	---	---
5	28.0	13.0	10.0	8.0	10.0	12.0	---	---	---	---	---	---
6	26.0	17.0	12.0	9.0	11.0	---	10.0	16.0	18.0	---	---	---
7	28.0	12.0	10.0	9.0	11.0	11.0	11.0	16.0	23.0	---	---	---
8	28.0	11.0	8.0	8.0	9.0	10.0	11.0	16.0	---	---	---	---
9	29.0	12.0	11.0	8.0	8.0	12.0	10.0	16.0	---	---	---	---
10	27.0	11.0	11.0	7.0	8.0	12.0	18.0	17.0	---	---	---	---
11	28.0	12.0	10.0	7.0	9.0	10.0	11.0	17.0	---	---	---	---
12	27.0	11.0	---	8.0	10.0	8.0	13.0	17.0	---	---	---	---
13	27.0	10.0	8.0	9.0	9.0	10.0	---	15.0	---	---	---	---
14	27.0	10.0	8.0	9.0	8.0	12.0	13.0	17.0	---	---	---	---
15	21.0	11.0	9.0	---	8.0	12.0	14.0	15.0	---	---	---	---
16	20.0	11.0	8.0	10.0	9.0	10.0	13.0	15.0	---	---	---	---
17	27.0	10.0	8.0	9.0	8.0	9.0	15.0	17.0	---	---	---	---
18	29.0	11.0	8.0	10.0	8.0	12.0	14.0	15.0	---	---	---	---
19	18.0	11.0	8.0	9.0	8.0	13.0	15.0	17.0	---	---	---	---
20	24.0	10.0	9.0	9.0	9.0	11.0	14.0	17.0	---	---	---	---
21	23.0	11.0	8.0	8.0	9.0	11.0	15.0	16.0	---	---	---	---
22	18.0	9.0	9.0	11.0	9.0	16.0	14.0	16.0	19.0	---	---	---
23	18.0	10.0	---	9.0	10.0	11.0	15.0	15.0	---	---	28.0	---
24	20.0	10.0	---	9.0	11.0	11.0	14.0	17.0	---	---	---	---
25	20.0	10.0	---	9.0	10.0	13.0	14.0	17.0	---	---	---	---
26	17.0	10.0	8.0	9.0	11.0	13.0	13.0	17.0	---	---	---	---
27	15.0	8.0	8.0	10.0	12.0	12.0	13.0	---	---	---	---	---
28	15.0	11.0	9.0	10.0	12.0	13.0	15.0	16.0	---	---	---	---
29	16.0	10.0	8.0	10.0	---	15.0	15.0	18.0	---	---	---	---
30	15.0	7.0	8.0	11.0	---	12.0	15.0	18.0	---	---	---	---
31	18.0	---	8.0	11.0	---	12.0	---	18.0	---	---	---	---
MONTH	23.5	11.5	9.0	9.0	9.5	11.5	13.5	16.0	---	---	---	---

SABINE RIVER BASIN

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08025360 SABINE RIVER AT TOLEDO BEND DAM NEAR BURKEVILLE, TEX.

LOCATION.--Lat 31°10'25", long 93°33'57", Newton County, immediately below Toledo Bend Dam, and 15 miles (24 km) northeast of Burkeville.

DRAINAGE AREA.--7,178 mi² (18,591 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 18...	0800	3.7	16	4.9	26	60	0	8.0
DEC. 13...	0915	4.5	12	4.1	28	55	0	11
FEB. 08...	--	3.2	12	3.9	22	45	0	10
APR. 03...	1445	2.7	12	2.4	24	40	0	15
JUNE 26...	1420	3.3	9.5	3.5	18	25	0	19
AUG. 22...	1510	2.0	8.8	3.9	15	26	0	17

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)
OCT. 18...	42	.1	.12	.00	.41	.02	.03	131	60
DEC. 13...	36	.0	.11	.00	.13	.01	.02	123	47
FEB. 08...	32	.1	.10	.00	.02	.3	.00	107	46
APR. 03...	30	.1	.20	.00	.18	.4	.01	108	40
JUNE 26...	26	.0	.30	.00	.10	.00	.00	91	38
AUG. 22...	22	.1	.13	.00	.03	.00	.14	82	38

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	RIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 18...	11	1.5	260	6.4	15.0	1.8	18	2.7
DEC. 13...	2	1.8	233	7.9	10.0	10.7	95	1.6
FEB. 08...	9	1.4	208	7.6	9.5	11.6	102	1.1
APR. 03...	7	1.6	203	7.0	16.5	10.2	104	.8
JUNE 26...	18	1.3	179	6.8	28.0	9.0	114	1.4
AUG. 22...	17	1.1	166	6.4	29.5	7.8	101	1.0

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.

LOCATION.--Lat 31°03'50", long 93°31'10", Newton County, at gaging station at bridge on State Highway 63, 10 miles (16 km) northeast of Burkeville, and 17 miles (27 km) downstream from Toledo Bend Dam.

DRAINAGE AREA.--7,482 mi² (19,378 km²).

PERIOD OF RECORD.--Chemical analyses: May 1968 to September 1973.

Chemical and biochemical analyses: May 1968 to September 1973.

Pesticide analyses: October 1972 to September 1973.

Water temperatures: May 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 352 micromhos Mar. 15, 16; minimum daily, 44 micromhos Dec. 15.

Water temperatures: Maximum, 30.0°C July 20, Aug. 11; minimum, 8.0°C Jan. 10.

EXTREMES, October 1969 to September 1973.--Specific conductance: Maximum daily, 352 micromhos Mar. 15, 16, 1973; minimum daily, 35 micromhos Dec. 30, 1969.

Water temperatures: Maximum, 31.0°C July 19, Aug. 9, Sept. 7, 1970; minimum, 5.0°C Jan. 8, 10, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
01...	1730	315	--	--	--	--	--	--	9.2	24	--
14...	1715	1120	9.0	14	2.9	28	60	0	8.4	34	.1
18...	1045	640	4.5	10	4.6	23	46	0	13	31	.0
21...	1700	341	--	--	--	--	--	--	7.2	26	--
27...	1530	545	--	--	--	--	--	--	8.0	12	--
NOV.											
07...	1600	295	15	6.2	2.1	13	28	0	7.2	16	.0
14...	1600	664	--	--	--	--	--	--	6.4	18	--
18...	1545	445	--	--	--	--	--	--	5.2	11	--
26...	1530	545	--	--	--	--	--	--	6.0	14	--
DEC.											
07...	--	380	--	--	--	--	--	--	8.0	16	--
13...	1030	2000	5.8	10	3.7	19	40	0	9.2	28	.0
15...	--	3390	--	--	--	--	--	--	4.0	9.5	--
21...	--	9980	--	--	--	--	--	--	7.2	28	--
28...	--	6940	2.0	12	3.7	24	50	0	8.4	34	.1
JAN.											
01...	--	7060	--	--	--	--	--	--	9.6	34	--
09...	--	15800	--	--	--	--	--	--	9.2	31	--
18...	--	13500	6.0	10	3.9	18	39	0	9.6	27	.0
25...	--	8760	--	--	--	--	--	--	11	32	--
FEB.											
01...	--	16400	--	--	--	--	--	--	10	32	--
08...	--	7300	4.6	10	3.4	20	40	0	8.8	28	.1
13...	--	7540	5.1	7.5	2.3	15	24	0	10	22	.0
21...	--	6940	--	--	--	--	--	--	12	30	--
28...	--	6700	--	--	--	--	--	--	8.8	7.0	--
MAR.											
07...	1615	4420	--	--	--	--	--	--	8.4	7.0	--
13...	1545	7360	3.9	8.5	1.2	23	35	0	10	26	.1
25...	1600	19000	--	--	--	--	--	--	13	27	--
31...	1600	26700	--	--	--	--	--	--	12	30	--
APR.											
03...	1555	17400	3.6	10	3.2	20	37	0	12	27	.1
07...	1530	15500	--	--	--	--	--	--	10	30	--
17...	1530	22600	4.2	5.5	1.0	10	20	0	6.4	12	.0
24...	1645	18000	--	--	--	--	--	--	12	30	--
30...	1600	15500	--	--	--	--	--	--	14	30	--
MAY											
06...	--	28900	4.4	8.0	2.9	16	23	0	14	24	.0
15...	--	18400	--	--	--	--	--	--	14	26	--
24...	--	7980	--	--	--	--	--	--	17	26	--
31...	--	8060	--	--	--	--	--	--	18	27	--
JUNE											
10...	1830	765	12	7.0	2.6	14	28	0	9.2	18	.0
15...	1730	16900	--	--	--	--	--	--	16	24	--
22...	2005	24500	--	--	--	--	--	--	18	25	--
26...	1510	16000	3.7	9.2	3.7	16	22	0	19	25	.0
30...	1810	15000	--	--	--	--	--	--	18	24	--
JULY											
05...	1745	13800	--	--	--	--	--	--	11	24	--
13...	1910	11000	--	--	--	--	--	--	18	24	--
23...	1835	2000	--	--	--	--	--	--	14	22	--
28...	1950	2990	7.6	8.0	3.7	15	29	0	12	22	.1
AUG.											
07...	1855	3300	--	--	--	--	--	--	19	24	--
12...	1740	300	9.0	8.0	3.7	13	32	0	9.6	20	.0
22...	1600	3300	4.6	9.5	2.7	17	29	0	16	22	.1
24...	1945	9000	--	--	--	--	--	--	14	22	--
31...	1730	8000	--	--	--	--	--	--	14	22	--
SEP.											
04...	1750	8000	--	--	--	--	--	--	14	22	--
12...	1855	8670	--	--	--	--	--	--	10	22	--
21...	1910	7160	--	--	--	--	--	--	13	22	--
28...	1810	7140	5.0	9.0	2.8	14	28	0	13	20	.0

SABINE RIVER BASIN

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08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.											
01...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	.4	--	128	--	--	47	0	1.8
18...	.06	.00	.12	.00	.03	109	13	7	44	6	1.5
21...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
07...	--	--	--	.1	--	74	--	--	24	1	1.2
14...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	.06	.00	.07	.05	.02	96	38	14	40	7	1.3
15...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	.1	--	110	--	--	45	4	1.6
JAN.											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	.2	--	94	--	--	41	9	1.2
25...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
01...	--	--	--	--	--	--	--	--	--	--	--
08...	.10	.00	.04	.4	.01	97	28	19	39	6	1.4
13...	--	--	--	.2	--	75	--	--	28	8	1.2
21...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	.07	--	90	--	--	26	0	2.0
25...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
APR.											
03...	.19	.00	.10	.4	.02	96	23	6	38	8	1.4
07...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	.03	--	49	--	--	18	2	1.0
24...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	.05	--	80	--	--	32	13	1.2
15...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
10...	--	--	--	.4	--	--	--	--	28	5	--
15...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
26...	.27	.00	.07	.01	.00	88	24	22	38	20	1.1
30...	--	--	--	--	--	--	--	--	--	--	--
JULY											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	.00	--	82	--	--	35	11	1.1
AUG.											
07...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	.02	--	79	--	--	35	9	1.0
22...	.13	.00	.01	.00	.00	86	44	27	35	11	1.2
24...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
04...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	.00	--	78	--	--	34	11	1.0

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WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT.											
01...	165	--	27.0	70	--	--	--	--	--	--	--
14...	237	7.4	25.0	30	--	--	--	--	--	--	--
18...	214	5.9	24.0	--	--	7.4	87	2.1	15	10	0
21...	181	--	25.0	60	--	--	--	--	--	--	--
27...	101	--	26.0	120	--	--	--	--	--	--	--
NOV.											
07...	121	7.0	26.0	60	--	--	--	--	--	--	--
14...	125	--	24.0	70	--	--	--	--	--	--	--
18...	81	--	23.0	70	--	--	--	--	--	--	--
26...	101	--	22.0	40	--	--	--	--	--	--	--
DEC.											
07...	105	--	21.0	120	--	--	--	--	--	--	--
13...	184	7.9	9.0	70	25	11.3	97	2.1	16	--	--
15...	44	--	19.0	140	--	--	--	--	--	--	--
21...	188	--	12.0	45	--	--	--	--	--	--	--
28...	224	7.2	13.0	30	--	--	--	--	--	--	--
JAN.											
01...	218	--	11.0	25	--	--	--	--	--	--	--
09...	205	--	9.5	45	--	--	--	--	--	--	--
18...	187	6.9	12.0	50	--	--	--	--	--	--	--
25...	211	--	12.0	40	--	--	--	--	--	--	--
FEB.											
01...	203	--	14.0	40	--	--	--	--	--	--	--
08...	186	7.4	9.0	45	15	11.3	97	1.0	9.0	30	0
13...	149	6.4	11.0	70	--	--	--	--	--	--	--
21...	201	--	12.0	40	--	--	--	--	--	--	--
28...	69	--	14.0	160	--	--	--	--	--	--	--
MAR.											
07...	66	--	19.0	160	--	--	--	--	--	--	--
13...	175	7.4	15.0	70	--	--	--	--	--	--	--
25...	183	--	15.0	40	--	--	--	--	--	--	--
31...	202	--	14.0	30	--	--	--	--	--	--	--
APR.											
03...	189	6.9	15.0	10	7	9.5	93	.8	13	30	0
07...	201	--	16.0	40	--	--	--	--	--	--	--
17...	92	7.1	18.5	50	--	--	--	--	--	--	--
24...	197	--	19.0	40	--	--	--	--	--	--	--
30...	198	--	22.0	40	--	--	--	--	--	--	--
MAY											
06...	163	6.2	20.0	40	--	--	--	--	--	--	--
15...	175	--	23.0	35	--	--	--	--	--	--	--
24...	180	--	24.0	40	--	--	--	--	--	--	--
31...	178	--	24.0	40	--	--	--	--	--	--	--
JUNE											
10...	149	6.7	27.0	50	--	--	--	--	--	--	--
15...	164	--	24.0	60	--	--	--	--	--	--	--
22...	171	--	25.0	40	--	--	--	--	--	--	--
26...	176	6.8	29.0	30	8	8.8	113	.8	8.5	--	--
30...	178	--	27.0	40	--	--	--	--	--	--	--
JULY											
05...	146	--	27.0	40	--	--	--	--	--	--	--
13...	171	--	27.0	40	--	--	--	--	--	--	--
23...	165	--	28.0	40	--	--	--	--	--	--	--
28...	163	6.2	29.0	60	--	--	--	--	--	--	--
AUG.											
07...	170	--	26.0	35	--	--	--	--	--	--	--
12...	155	7.1	28.0	50	--	--	--	--	--	--	--
22...	169	6.4	29.0	40	15	8.5	109	1.2	12	10	0
24...	163	--	29.0	40	--	--	--	--	--	--	--
31...	165	--	27.0	40	--	--	--	--	--	--	--
SEP.											
04...	166	--	25.0	50	--	--	--	--	--	--	--
12...	166	--	25.0	50	--	--	--	--	--	--	--
21...	159	--	27.0	40	--	--	--	--	--	--	--
28...	155	7.1	26.0	50	--	--	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
OCT. 18...	1045	640	24.0	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 08...	0930	7300	9.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 03...	1555	17400	15.0	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 22...	1600	3300	29.0	.00	.0	.00	.0	.00	.0	.00	.0

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
OCT. 18...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 08...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 03...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 18...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 08...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 03...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
AUG. 22...	0	.0	0	.01	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	16966	183	92	4210	27	1240	12	550	38
NOV.	13801	103	56	2090	14	522	7.9	294	20
DEC.	122872	191	96	31800	28	9290	12	3980	40
JAN. 1973....	374060	209	100	101000	31	31300	13	13100	44
FEB.	248980	189	95	63900	28	18800	12	8070	39
MAR.	424690	217	110	126000	33	37800	13	14900	45
APR.	586400	191	96	152000	28	44300	12	19000	40
MAY	575220	182	92	143000	27	41900	11	17100	38
JUNE	355015	175	89	85300	26	24900	11	10500	36
JULY	249400	169	86	57900	25	16800	11	7410	35
AUG.	130380	165	84	29600	24	8450	11	3870	34
SEP.	163953	158	81	35900	23	10200	10	4430	32
TOTAL	3261737	--	--	833000	--	246000	--	103000	--
WTD. AVG. ...	8936	188	95	--	28	--	12	--	39

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COLOR (PLATINUM-COBALT UNITS) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	80	70	25	40	160	40	40	40	40	60	40
2	60	100	70	30	40	200	30	40	40	40	60	60
3	70	100	70	25	60	140	30	40	60	40	60	60
4	40	100	70	25	60	160	30	40	40	30	50	50
5	50	120	70	30	60	160	40	30	40	40	50	60
6	40	70	70	30	40	160	40	40	40	70	35	120
7	40	60	120	25	40	160	40	50	40	---	35	60
8	50	60	130	40	60	20	40	40	40	40	40	120
9	30	70	140	45	60	40	40	40	40	40	50	120
10	40	70	140	30	60	40	30	40	50	40	50	50
11	30	70	120	35	40	30	40	40	40	40	40	50
12	30	70	140	40	40	50	40	40	40	40	50	50
13	30	70	120	35	70	70	40	40	40	40	40	60
14	30	70	140	40	70	70	40	40	40	40	40	40
15	30	70	140	40	70	70	50	35	60	40	40	70
16	20	70	100	40	40	80	50	---	70	40	40	60
17	20	70	80	40	40	40	50	40	40	40	50	40
18	20	70	90	50	40	40	50	40	40	40	40	40
19	30	70	35	60	40	40	40	40	40	50	50	40
20	30	70	20	70	50	40	30	40	40	50	40	40
21	60	70	45	70	40	40	40	30	60	50	40	40
22	70	70	35	70	45	40	40	30	40	40	40	40
23	70	40	30	70	50	40	40	35	40	40	40	50
24	80	70	25	60	30	40	40	40	40	50	40	40
25	70	40	30	40	30	40	40	30	40	60	50	60
26	70	40	30	40	30	60	40	40	40	50	40	50
27	120	65	25	40	60	70	30	40	40	60	40	40
28	100	70	30	60	160	30	30	40	40	60	40	50
29	120	60	30	40	---	30	30	40	40	40	---	40
30	120	50	25	40	---	40	40	40	40	40	40	60
31	100	---	30	40	---	30	---	40	---	40	40	---
MONTH	55	70	75	42	50	70	38	38	43	44	44	55

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	101	59	218	203	66	205	197	183	178	150	159
2	186	139	60	219	203	66	205	197	182	177	150	149
3	162	101	59	225	188	66	196	195	174	175	171	145
4	185	118	59	224	187	66	207	195	188	171	153	166
5	176	118	59	216	189	66	205	193	187	146	152	151
6	198	118	58	216	204	66	201	163	183	146	169	119
7	198	136	105	217	207	66	201	166	182	160	170	169
8	200	141	111	216	192	191	201	182	183	175	170	104
9	198	141	112	205	192	193	201	188	164	171	176	103
10	238	125	112	217	192	344	206	188	149	171	176	163
11	220	125	112	217	200	348	204	177	182	171	153	163
12	220	126	112	217	200	300	204	177	180	171	155	166
13	220	126	112	216	149	182	206	179	175	171	169	161
14	237	125	45	214	149	348	206	178	176	170	169	161
15	217	126	44	214	168	352	172	175	164	172	173	151
16	216	83	77	214	198	352	173	175	150	171	173	132
17	218	82	77	213	198	348	92	175	174	171	167	158
18	201	81	78	187	198	179	181	177	178	170	157	157
19	201	82	223	188	199	182	181	177	179	171	143	159
20	201	82	221	188	201	193	191	178	168	170	162	159
21	181	82	188	189	201	198	192	180	179	172	171	159
22	142	82	197	189	201	198	192	180	171	171	169	155
23	142	98	222	190	201	186	190	182	174	165	165	144
24	134	99	222	189	202	185	197	180	175	157	163	162
25	129	100	222	211	202	183	198	179	177	172	165	162
26	129	101	221	210	203	162	194	184	178	174	160	163
27	101	101	223	211	203	162	194	182	178	170	166	163
28	100	60	224	189	69	199	196	181	177	163	165	155
29	100	99	220	206	---	199	195	181	177	155	165	159
30	100	101	220	208	---	185	198	179	178	170	165	155
31	101	---	218	209	---	202	---	178	---	170	165	---
MONTH	175	107	138	208	189	195	193	181	176	168	164	153

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WATER TEMPERATURE (DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	25.0	22.5	11.0	14.0	15.0	15.0	22.0	24.0	27.0	27.0	28.0
2	27.0	25.0	22.0	11.0	13.0	15.0	15.0	21.0	25.0	28.0	26.0	27.0
3	27.0	25.0	22.0	12.0	13.0	15.0	17.0	20.0	25.0	27.0	26.0	28.0
4	27.5	25.0	22.0	11.0	13.0	17.0	16.0	20.0	26.0	27.0	27.0	25.0
5	27.0	25.0	22.0	10.0	13.0	18.0	17.0	20.0	24.0	27.0	27.0	---
6	27.0	25.5	22.0	10.0	13.0	19.0	16.0	20.0	26.0	25.0	27.0	26.0
7	27.0	26.0	21.0	10.0	13.5	19.0	16.0	20.0	22.0	25.0	26.0	27.0
8	27.0	25.0	21.0	10.0	12.0	19.0	16.0	20.0	24.0	25.0	25.0	27.0
9	22.0	25.0	21.0	9.5	12.0	19.0	16.0	22.0	27.0	28.0	26.0	28.0
10	26.0	25.0	21.0	8.0	10.0	20.0	16.0	21.0	27.0	29.0	27.0	27.0
11	26.0	25.0	21.0	8.5	11.5	19.0	16.0	23.0	28.0	28.0	30.0	28.0
12	26.0	25.0	21.0	9.0	11.0	10.5	17.0	23.0	28.0	28.0	28.0	25.0
13	26.0	24.0	20.5	9.0	11.0	15.0	16.0	23.0	27.0	27.0	27.0	28.0
14	25.0	24.0	20.0	11.0	10.0	16.0	16.0	23.0	25.0	28.0	26.0	28.0
15	25.0	24.0	19.0	12.0	11.0	16.0	18.0	23.0	24.0	26.0	27.0	28.0
16	25.0	24.0	20.5	11.0	11.0	15.0	18.0	---	24.0	27.0	26.0	27.0
17	25.0	23.0	18.0	12.0	11.0	15.0	18.5	24.0	24.0	29.0	26.0	29.0
18	25.0	23.0	17.0	12.0	11.0	15.0	18.0	26.0	25.0	27.0	26.0	27.0
19	25.5	23.0	14.0	11.0	12.0	16.0	18.0	24.0	24.0	29.0	28.0	28.0
20	26.0	22.5	15.0	11.0	11.0	17.0	---	25.0	25.0	30.0	28.0	27.0
21	25.0	23.0	12.0	11.0	12.0	17.0	18.0	24.0	24.0	---	27.0	27.0
22	25.0	23.0	15.0	11.0	12.0	17.0	19.0	23.0	25.0	26.0	28.0	29.0
23	25.5	22.5	14.0	10.5	12.0	16.0	18.0	23.0	26.0	28.0	27.0	25.0
24	26.0	22.0	14.0	11.5	13.0	16.0	19.0	24.0	27.0	26.0	29.0	26.0
25	26.0	22.0	13.0	12.0	13.0	15.0	20.0	24.0	28.0	27.0	27.0	26.0
26	26.0	22.0	12.0	11.0	13.0	15.0	20.0	24.0	---	27.0	28.0	26.0
27	26.0	22.0	13.0	11.0	13.0	15.0	20.0	23.0	29.0	28.0	27.0	27.0
28	25.5	22.0	13.0	11.0	14.0	15.0	20.0	24.0	28.0	29.0	26.0	26.0
29	25.0	22.0	14.0	10.0	---	14.0	20.0	25.0	28.0	29.0	---	26.0
30	25.0	22.0	12.0	10.0	---	14.0	22.0	25.0	27.0	29.0	27.0	25.0
31	25.0	---	11.0	12.5	---	14.0	---	24.0	---	28.0	27.0	---
MONTH	26.0	23.5	17.5	10.5	12.0	16.0	17.5	23.0	25.5	27.5	27.0	27.0

SABINE RIVER BASIN

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08028500 SABINE RIVER NEAR BON WEIR, TEX.

LOCATION.--Lat 30°44'49", long 93°36'30", Newton County, at gaging station at bridge on U.S. Highway 190, 0.7 mile (1.1 km) upstream from Quicksand Creek, 0.8 mile (1.3 km) upstream from Gulf, Colorado and Santa Fe Railway Co. bridge, and 2.0 miles (3.2 km) east of Bon Weir.

DRAINAGE AREA.--8,229 mi² (21,313 km²).

PERIOD OF RECORD.--Chemical analyses: January 1970 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 353 micromhos Mar. 21, 22, 23; minimum daily, 36 micromhos May 1.
Water temperatures: Maximum, 30.0°C July 23, Sept. 14; minimum, 6.0°C Jan. 11, 12, 13.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
01...	0725	2930	--	--	--	--	--	--	--	12	25	--
08...	0800	1450	--	--	--	--	--	--	--	43	36	--
14...	0630	400	--	--	--	--	--	--	--	38	36	--
17...	1450	1310	6.0	12	3.6	36	4.2	57	0	25	37	.2
29...	0730	1510	--	--	--	--	--	--	--	17	12	--
NOV.												
03...	0750	1200	--	--	--	--	--	--	--	14	13	--
12...	0730	566	--	--	--	--	--	--	--	8.4	10	--
15...	0815	1200	14	7.3	1.4	9.0	2.6	24	0	5.8	14	.1
22...	0815	1630	--	--	--	--	--	--	--	10	10	--
30...	0615	985	--	--	--	--	--	--	--	15	21	--
DEC.												
02...	0820	1200	--	--	--	--	--	--	--	18	21	--
05...	1335	1690	13	8.9	4.1	25	2.5	40	0	20	24	.2
16...	0755	7600	--	--	--	--	--	--	--	8.8	5.0	--
17...	0735	6100	--	--	--	--	--	--	--	8.8	26	--
31...	0730	8000	--	--	--	--	--	--	--	9.2	29	--
JAN.												
02...	1530	8870	--	--	--	--	--	--	--	7.6	28	--
09...	0715	15000	--	--	--	--	--	--	--	8.8	30	--
18...	1040	16200	5.3	10	3.9	22	3.6	46	0	10	31	.1
19...	1315	12500	--	--	--	--	--	--	--	8.4	27	--
31...	0810	16800	--	--	--	--	--	--	--	9.2	26	--
FEB.												
01...	--	19200	--	--	--	--	--	--	--	7.2	26	--
08...	0935	9000	7.3	10	3.2	19	4.0	44	0	11	26	.3
12...	0730	10000	--	--	--	--	--	--	--	9.6	21	--
19...	0845	9700	--	--	--	--	--	--	--	13	28	--
28...	0915	8400	--	--	--	--	--	--	--	14	26	--
MAR.												
03...	0900	5500	--	--	--	--	--	--	--	13	26	--
12...	1400	9130	--	--	--	--	--	--	--	10	24	--
24...	0815	21800	--	--	--	--	--	--	--	7.4	15	--
31...	0710	30200	--	--	--	--	--	--	--	12	29	--
APR.												
04...	--	16600	--	--	--	--	--	--	--	13	29	--
15...	1250	16200	--	--	--	--	--	--	--	15	24	--
18...	1700	34100	5.8	7.0	1.8	11	2.6	23	0	8.0	16	.1
22...	0825	38800	--	--	--	--	--	--	--	13	28	--
30...	1730	16700	--	--	--	--	--	--	--	12	24	--
MAY												
01...	--	16600	--	--	--	--	--	--	--	2.0	3.5	--
09...	0715	38100	--	--	--	--	--	--	--	9.6	17	--
16...	0800	19000	--	--	--	--	--	--	--	14	24	--
16...	1315	19000	6.8	8.5	2.1	17	3.3	26	0	15	25	.2
24...	1400	8220	--	--	--	--	--	--	--	13	26	--
JUNE												
09...	1315	4500	--	--	--	--	--	--	--	20	25	--
15...	--	20000	--	--	--	--	--	--	--	14	16	--
22...	1620	22000	--	--	--	--	--	--	--	17	24	--
30...	1600	17000	--	--	--	--	--	--	--	18	24	--
JULY												
06...	--	14000	--	--	--	--	--	--	--	14	16	--
13...	0800	10400	--	--	--	--	--	--	--	18	24	--
23...	1555	8000	--	--	--	--	--	--	--	13	20	--
30...	1230	1570	--	--	--	--	--	--	--	19	20	--
AUG.												
03...	1745	6300	--	--	--	--	--	--	--	11	17	--
10...	1000	4000	--	--	--	--	--	--	--	20	22	--
17...	1205	4040	--	--	--	--	--	--	--	16	21	--
24...	0705	5740	--	--	--	--	--	--	--	15	22	--
SEP.												
04...	1420	1050	--	--	--	--	--	--	--	14	20	--
15...	0945	10200	--	--	--	--	--	--	--	12	18	--
23...	1710	2200	--	--	--	--	--	--	--	16	20	--
30...	1650	7600	--	--	--	--	--	--	--	9.2	20	--

SABINE RIVER BASIN

08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.											
01...	--	--	--	--	--	207	--	25.0	60	--	--
08...	--	--	--	--	--	332	--	25.0	100	--	--
14...	--	--	--	--	--	332	--	25.0	120	--	--
17...	155	153	45	0	2.3	265	6.6	27.0	40	6.6	.4
29...	--	--	--	--	--	146	--	25.0	120	--	--
NOV.											
03...	--	--	--	--	--	147	--	25.0	130	--	--
12...	--	--	--	--	--	93	--	24.0	100	--	--
15...	91	67	24	4	.8	90	6.9	14.0	120	8.7	3.1
22...	--	--	--	--	--	105	--	18.0	100	--	--
30...	--	--	--	--	--	177	--	22.0	70	--	--
DEC.											
02...	--	--	--	--	--	177	--	22.0	70	--	--
05...	143	118	39	6	1.7	190	7.2	16.0	30	9.6	2.4
16...	--	--	--	--	--	51	--	20.0	120	--	--
17...	--	--	--	--	--	176	--	16.0	70	--	--
31...	--	--	--	--	--	199	--	16.0	40	--	--
JAN.											
02...	--	--	--	--	--	218	--	10.0	40	--	--
09...	--	--	--	--	--	205	--	12.0	35	--	--
18...	120	109	41	3	1.5	198	6.7	11.5	--	11.0	1.6
19...	--	--	--	--	--	186	--	12.0	50	--	--
31...	--	--	--	--	--	190	--	15.0	70	--	--
FEB.											
01...	--	--	--	--	--	180	--	15.0	70	--	--
08...	122	103	38	2	1.3	187	7.1	11.0	40	9.9	1.7
12...	--	--	--	--	--	153	--	16.0	70	--	--
19...	--	--	--	--	--	196	--	--	70	--	--
28...	--	--	--	--	--	196	--	18.0	60	--	--
MAR.											
03...	--	--	--	--	--	195	--	18.0	70	--	--
12...	--	--	--	--	--	172	--	17.0	60	--	--
24...	--	--	--	--	--	114	--	18.0	70	--	--
31...	--	--	--	--	--	200	--	16.0	40	--	--
APR.											
06...	--	--	--	--	--	206	--	16.0	50	--	--
15...	--	--	--	--	--	171	--	17.0	50	--	--
18...	76	64	25	6	1.0	115	6.5	17.0	--	8.3	2.4
22...	--	--	--	--	--	182	--	17.0	50	--	--
30...	--	--	--	--	--	158	--	17.0	60	--	--
MAY											
01...	--	--	--	--	--	36	--	18.0	80	--	--
09...	--	--	--	--	--	120	--	19.0	90	--	--
16...	--	--	--	--	--	168	--	23.0	40	--	--
16...	104	91	30	9	1.4	159	6.9	22.5	40	7.6	1.2
24...	--	--	--	--	--	177	--	24.0	40	--	--
JUNE											
09...	--	--	--	--	--	184	--	26.0	50	--	--
15...	--	--	--	--	--	124	--	24.0	140	--	--
22...	--	--	--	--	--	167	--	25.0	70	--	--
30...	--	--	--	--	--	179	--	28.0	40	--	--
JULY											
06...	--	--	--	--	--	125	--	--	60	--	--
13...	--	--	--	--	--	172	--	27.0	40	--	--
23...	--	--	--	--	--	158	--	30.0	50	--	--
30...	--	--	--	--	--	178	--	28.0	50	--	--
AUG.											
03...	--	--	--	--	--	124	--	29.0	60	--	--
10...	--	--	--	--	--	182	--	28.0	50	--	--
17...	--	--	--	--	--	165	--	28.0	50	--	--
24...	--	--	--	--	--	165	--	28.0	40	--	--
SEP.											
04...	--	--	--	--	--	196	--	27.0	60	--	--
15...	--	--	--	--	--	146	--	27.5	70	--	--
23...	--	--	--	--	--	166	--	27.0	50	--	--
30...	--	--	--	--	--	160	--	26.0	50	--	--

SABINE RIVER BASIN

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08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	145	179	198	180	196	203	36	181	158	158	---
2	207	147	177	218	180	194	206	186	183	180	174	---
3	212	147	97	198	180	195	204	151	194	159	124	---
4	210	146	97	197	157	176	202	165	192	180	139	196
5	208	118	97	200	156	178	205	175	182	122	141	---
6	---	120	97	199	156	178	206	173	182	125	132	---
7	213	119	97	205	156	178	204	158	171	157	180	---
8	332	120	97	205	156	175	200	145	181	170	148	---
9	334	120	97	205	156	178	202	120	184	171	180	120
10	334	119	52	205	157	178	201	150	135	171	182	125
11	332	120	52	205	---	172	201	155	154	169	180	156
12	333	93	52	206	153	172	200	175	145	173	179	157
13	332	96	52	205	154	173	202	161	124	172	199	157
14	332	95	51	184	154	173	202	161	163	170	196	144
15	264	96	51	182	154	175	171	166	124	170	163	146
16	263	96	51	183	155	173	172	168	133	171	172	143
17	269	95	176	182	155	173	175	161	167	175	165	145
18	269	96	176	183	155	348	175	163	156	170	171	156
19	269	106	176	186	196	349	175	171	146	173	165	157
20	264	107	176	186	195	348	174	174	169	175	179	161
21	269	107	176	188	195	353	174	177	134	171	167	163
22	248	105	176	190	195	353	182	177	167	174	162	159
23	247	107	177	188	195	353	182	179	171	158	179	166
24	---	106	194	188	195	114	183	177	168	166	165	182
25	219	108	194	188	197	195	183	177	172	167	---	167
26	245	175	194	188	198	198	182	178	174	184	---	167
27	245	177	194	188	198	198	183	178	177	174	---	167
28	245	177	193	182	196	198	183	180	179	184	---	161
29	146	179	193	181	---	198	173	178	179	140	---	165
30	147	177	193	180	---	198	158	178	179	139	---	160
31	---	---	199	180	---	200	---	177	---	159	---	---
MONTH	257	124	135	193	173	214	189	164	166	165	---	---

WATER TEMPERATURE (DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	25.0	22.0	16.0	15.0	18.0	16.0	18.0	25.0	26.0	29.0	---
2	25.0	25.0	22.0	10.0	14.0	18.0	16.0	18.0	25.0	26.0	29.0	---
3	25.0	25.0	21.0	---	14.0	18.0	17.0	19.0	25.0	26.0	29.0	---
4	26.0	25.0	21.0	17.0	---	16.0	16.0	19.0	25.0	26.0	28.0	27.0
5	26.0	25.0	21.0	17.0	15.0	16.0	16.0	19.0	25.0	25.0	28.0	---
6	---	25.0	21.0	16.0	16.0	16.0	16.0	19.0	24.0	---	28.0	---
7	26.0	25.0	22.0	15.0	16.0	16.0	16.0	20.0	25.0	26.0	28.0	---
8	25.0	25.0	24.0	14.0	16.0	16.0	16.0	19.0	24.0	26.0	28.0	---
9	25.0	24.0	23.0	12.0	16.0	16.0	16.0	19.0	26.0	26.0	28.0	29.0
10	25.0	25.0	24.0	8.0	11.0	16.0	16.0	---	26.0	26.0	28.0	29.0
11	25.0	25.0	24.0	6.0	---	16.0	16.0	22.0	---	27.0	27.0	27.5
12	25.0	24.0	22.0	6.0	16.0	17.0	17.0	22.0	---	27.0	29.0	26.5
13	25.0	24.0	21.0	6.0	16.0	17.0	17.0	22.0	24.0	27.0	28.0	26.5
14	25.0	24.0	21.0	10.0	16.0	17.0	17.0	21.0	24.0	27.0	28.0	30.0
15	26.0	24.0	20.0	11.0	16.0	17.0	17.0	22.0	24.0	28.0	28.0	27.5
16	26.0	24.0	20.0	12.0	16.0	17.0	17.0	23.0	24.0	28.0	28.0	27.5
17	26.0	24.0	16.0	12.0	16.0	17.0	17.0	24.0	25.0	28.0	28.0	27.0
18	26.0	24.0	18.0	12.0	16.0	18.0	17.0	24.0	25.0	29.0	28.0	27.0
19	26.0	24.0	17.0	12.0	---	18.0	17.0	25.0	25.0	29.0	28.0	28.0
20	26.0	24.0	17.0	12.0	17.0	18.0	17.0	24.0	25.0	29.0	28.0	27.5
21	22.0	---	17.0	15.0	17.0	18.0	---	---	25.0	29.0	28.0	27.0
22	26.0	18.0	14.0	15.0	17.0	18.0	17.0	24.0	25.0	29.0	28.0	26.5
23	25.0	20.0	15.0	16.0	17.0	18.0	18.0	24.0	24.0	30.0	28.0	27.0
24	25.0	20.0	15.0	16.0	---	18.0	17.0	24.0	26.0	29.0	28.0	26.0
25	---	21.0	15.0	16.0	18.0	18.0	17.0	24.0	26.0	---	---	26.0
26	22.0	22.0	---	15.0	18.0	16.0	17.0	24.0	26.0	27.0	---	26.0
27	23.0	21.0	18.0	14.0	18.0	16.0	17.0	25.0	27.5	27.0	---	25.0
28	24.0	21.0	15.0	10.0	18.0	16.0	17.0	24.0	27.0	27.0	---	25.0
29	25.0	22.0	---	11.0	---	16.0	17.0	25.0	---	28.0	---	28.0
30	25.0	22.0	20.0	13.0	---	16.0	17.0	---	28.0	28.0	---	26.0
31	25.0	---	16.0	15.0	---	16.0	---	24.0	---	28.0	---	---
MONTH	25.0	23.5	19.5	12.5	16.0	17.0	16.5	22.0	25.0	27.5	---	---

SABINE RIVER BASIN

08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

COLOR (PLATINUM-COBALT UNITS) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	120	70	35	70	60	40	80	40	50	50	---
2	60	130	70	40	70	70	40	40	40	40	70	---
3	50	130	110	45	70	70	50	70	50	50	60	---
4	60	100	120	40	70	60	40	60	65	40	70	60
5	50	70	140	50	70	60	40	60	60	70	60	---
6	---	70	130	45	70	60	50	50	60	60	70	---
7	50	70	120	45	70	60	40	50	60	60	70	---
8	100	70	120	40	70	60	40	70	50	50	40	---
9	100	70	110	35	70	60	40	90	50	40	60	70
10	120	70	140	45	70	60	40	70	120	50	50	70
11	100	70	140	35	---	60	40	60	70	50	60	60
12	120	100	140	45	70	60	40	70	70	50	60	50
13	120	120	140	35	55	60	40	50	120	40	60	60
14	120	100	140	60	70	60	40	50	60	40	70	60
15	70	80	140	40	70	60	50	40	140	40	40	70
16	70	90	120	50	70	60	50	40	70	40	50	60
17	65	100	70	50	60	60	50	50	50	50	50	60
18	60	120	65	50	70	80	50	50	60	50	50	40
19	70	100	70	50	70	80	40	40	70	50	50	40
20	60	100	60	40	70	80	50	40	60	50	60	40
21	70	120	50	50	60	80	50	40	60	50	50	40
22	140	100	60	40	70	80	50	40	70	40	50	40
23	140	110	70	50	70	120	40	40	50	50	70	50
24	---	90	40	60	65	70	40	40	40	70	40	60
25	140	90	40	50	60	40	40	40	40	40	---	50
26	120	70	35	60	70	40	50	40	40	60	---	40
27	130	70	50	60	70	40	50	40	40	80	---	40
28	140	70	50	70	60	50	40	40	40	70	---	50
29	120	70	40	70	---	40	50	40	40	70	---	40
30	100	70	40	70	---	50	60	40	40	50	---	50
31	---	---	40	70	---	40	---	40	---	40	---	---
MONTH	95	90	90	49	65	60	44	50	60	50	---	---

SABINE RIVER BASIN

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LOCATION.--Lat 30°18'13", long 93°44'37", Newton County, at gaging station at bridge on State Highway 12, 2.4 miles (3.9 km) north of Ruliff, and 4.5 miles (7.2 km) downstream from Cypress Creek.

DRAINAGE AREA.--9,329 mi² (24,162 km²).

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, October 1947 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1947 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 270 micromhos Oct. 10; minimum daily, 52 micromhos Dec. 18.

Water temperatures: Maximum, 29.0°C on several days during October and July, minimum, 5.0°C Jan. 8, 12, 13.

EXTREMES, October 1945 to September 1973.--Specific conductance (1945-46, 1947-70, 1971-73): Maximum daily, 779 micromhos Aug. 31, 1966; minimum daily, 28 micromhos Sept. 19, 1963.

Water temperatures (1947-70, 1971-73): Maximum, 36.0°C Aug. 14, 1962; minimum, 1.0°C Jan. 28, 1948.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Radiochemical analyses available from U.S. Geological Survey, Denver, Colo.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
02...	0645	5150	2.6	11	3.3	24	42	0	11	32	.0	--
10...	0540	1460	--	--	--	--	--	--	24	28	--	--
17...	0634	1680	--	--	--	--	--	--	28	28	--	--
18...	1345	1460	11	12	5.1	22	54	0	12	30	.0	.15
31...	0617	2360	--	--	--	--	--	--	16	13	--	--
NOV.												
07...	0615	1780	13	6.0	.7	16	24	0	14	13	.0	--
17...	0630	3100	--	--	--	--	--	--	6.4	10	--	--
22...	0628	5150	--	--	--	--	--	--	6.0	8.5	--	--
30...	0627	2180	--	--	--	--	--	--	8.8	14	--	--
DEC.												
07...	0621	3200	--	--	--	--	--	--	12	20	--	--
13...	1215	6000	11	5.0	2.3	7.2	17	0	9.2	10	.0	.17
18...	0707	9600	--	--	--	--	--	--	4.0	5.5	--	--
22...	0545	9170	--	--	--	--	--	--	12	25	--	--
31...	0615	11400	2.8	10	3.4	25	43	0	14	30	.1	--
JAN.												
08...	0615	17100	--	--	--	--	--	--	9.2	23	--	--
10...	0718	18000	--	--	--	--	--	--	8.4	19	--	--
18...	0620	19500	3.7	9.5	3.0	21	38	0	9.4	28	.0	--
25...	0606	16300	--	--	--	--	--	--	8.4	20	--	--
FEB.												
01...	0600	20700	--	--	--	--	--	--	9.2	26	--	--
08...	1245	20700	4.9	8.5	3.4	16	35	0	7.4	24	.1	.16
12...	0630	17600	5.6	7.0	1.8	13	20	0	10	18	.0	--
22...	0636	15200	--	--	--	--	--	--	10	20	--	--
28...	0628	11000	--	--	--	--	--	--	11	25	--	--
MAR.												
04...	0630	10300	--	--	--	--	--	--	10	24	--	--
09...	0620	8520	7.0	7.0	1.3	15	27	0	8.4	17	.0	--
25...	0610	31200	--	--	--	--	--	--	6.4	16	--	--
31...	0645	27000	--	--	--	--	--	--	8.4	19	--	--
APR.												
02...	0630	27000	--	--	--	--	--	--	8.8	24	--	--
04...	0830	26300	3.6	10	2.7	21	35	0	13	27	.0	.25
10...	0630	20100	--	--	--	--	--	--	11	24	--	--
21...	0610	46800	3.7	4.5	1.4	10	18	0	7.2	12	.0	--
25...	0618	365	--	--	--	--	--	--	11	21	--	--
MAY												
01...	0620	19000	4.9	9.0	2.8	17	26	0	13	25	.0	--
06...	0636	30500	--	--	--	--	--	--	11	20	--	--
16...	0615	29000	--	--	--	--	--	--	13	20	--	--
29...	0600	9950	--	--	--	--	--	--	16	25	--	--
JUNE												
05...	0643	7480	--	--	--	--	--	--	14	22	--	--
16...	0610	15200	5.9	5.0	1.1	10	11	0	11	12	.0	--
24...	0605	21400	--	--	--	--	--	--	13	19	--	--
27...	0920	20200	4.5	8.5	2.1	16	20	0	17	22	.0	.32
30...	0600	17200	--	--	--	--	--	--	16	22	--	--
JULY												
08...	0615	17600	--	--	--	--	--	--	11	20	--	--
09...	0541	16700	--	--	--	--	--	--	12	16	--	--
19...	0535	13000	5.7	8.0	3.7	14	21	0	16	22	.0	--
26...	0542	9300	--	--	--	--	--	--	14	20	--	--
AUG.												
06...	0550	9950	5.8	5.0	2.1	8.4	16	0	8.6	12	.0	--
12...	0640	6240	--	--	--	--	--	--	14	17	--	--
22...	1815	4030	8.4	9.2	3.2	15	33	0	16	18	.0	.12
23...	0606	5100	--	--	--	--	--	--	14	21	--	--
31...	0542	7980	--	--	--	--	--	--	15	20	--	--
SEP.												
06...	0540	9570	8.3	4.2	1.3	7.5	14	0	6.8	9.5	.0	--
14...	0540	14800	--	--	--	--	--	--	10	14	--	--
21...	0545	8190	--	--	--	--	--	--	--	20	--	--
30...	0625	10600	--	--	--	--	--	--	11	18	--	--

SABINE RIVER BASIN

08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILTRABLE RESIDUE (MG/L)	VOL. NON- FILTRABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.										
02...	--	--	.5	--	107	--	--	41	7	1.6
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
18...	.00	.14	.02	.05	119	16	4	51	7	1.5
31...	--	--	--	--	--	--	--	--	--	--
NOV.										
07...	--	--	.2	--	76	--	--	18	0	1.6
17...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
DEC.										
07...	--	--	--	--	--	--	--	--	--	--
13...	.01	.05	.06	.06	53	120	25	22	8	.7
18...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
31...	--	--	.1	--	107	--	--	39	4	1.7
JAN.										
02...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
18...	--	--	.4	--	95	--	--	36	5	1.5
25...	--	--	--	--	--	--	--	--	--	--
FEB.										
01...	--	--	--	--	--	--	--	--	--	--
08...	.00	.05	.2	.01	82	32	10	35	6	1.2
12...	--	--	.2	--	66	--	--	25	9	1.1
22...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
MAR.										
04...	--	--	--	--	--	--	--	--	--	--
09...	--	--	.05	--	69	--	--	23	0	1.4
25...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
APR.										
02...	--	--	--	--	--	--	--	--	--	--
04...	.00	.08	.4	.03	96	32	0	36	8	1.5
10...	--	--	--	--	--	--	--	--	--	--
21...	--	--	.09	--	48	--	--	17	2	1.1
25...	--	--	--	--	--	--	--	--	--	--
MAY										
01...	--	--	.2	--	86	--	--	34	13	1.3
06...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUNE										
06...	--	--	--	--	--	--	--	--	--	--
16...	--	--	.4	--	--	--	--	17	8	--
24...	--	--	--	--	--	--	--	--	--	--
27...	.00	.08	.07	.01	81	48	30	30	14	1.3
30...	--	--	--	--	--	--	--	--	--	--
JULY										
08...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
19...	--	--	.00	--	79	--	--	35	18	1.0
26...	--	--	--	--	--	--	--	--	--	--
AUG.										
06...	--	--	.1	--	50	--	--	21	8	.8
12...	--	--	--	--	--	--	--	--	--	--
22...	.00	.00	.02	.02	86	50	20	36	9	1.1
23...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
SEP.										
06...	--	--	.06	--	--	--	--	16	5	.8
14...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--

SABINE RIVER BASIN

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WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPECIFIC CONDUCTANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- IDY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT.											
02...	217	6.7	24.0	40	--	--	--	--	--	--	--
10...	270	--	24.0	120	--	--	--	--	--	--	--
17...	262	--	26.0	60	--	--	--	--	--	--	--
18...	223	6.2	26.0	--	--	8.4	102	2.0	10	40	0
31...	134	--	21.0	70	--	--	--	--	--	--	--
NOV.											
07...	120	6.7	20.0	110	--	--	--	--	--	--	--
17...	71	--	14.0	140	--	--	--	--	--	--	--
22...	70	--	11.0	140	--	--	--	--	--	--	--
30...	108	--	12.0	100	--	--	--	--	--	--	--
DEC.											
07...	153	--	14.0	100	--	--	--	--	--	--	--
13...	86	7.7	12.0	140	55	10.6	98	3.6	22	--	--
18...	52	--	8.0	140	--	--	--	--	--	--	--
22...	163	--	11.0	140	--	--	--	--	--	--	--
31...	202	7.0	12.0	50	--	--	--	--	--	--	--
JAN.											
08...	159	--	5.0	90	--	--	--	--	--	--	--
10...	132	--	6.0	100	--	--	--	--	--	--	--
18...	187	6.8	11.0	60	--	--	--	--	--	--	--
25...	137	--	11.0	90	--	--	--	--	--	--	--
FEB.											
01...	176	--	11.0	70	--	--	--	--	--	--	--
08...	163	6.9	12.0	70	25	9.6	89	.9	12	60	0
12...	129	5.7	8.0	120	--	--	--	--	--	--	--
22...	147	--	11.0	70	--	--	--	--	--	--	--
28...	179	--	12.0	70	--	--	--	--	--	--	--
MAR.											
04...	172	--	15.0	40	--	--	--	--	--	--	--
09...	128	6.9	17.0	70	--	--	--	--	--	--	--
25...	110	--	16.0	70	--	--	--	--	--	--	--
31...	137	--	16.0	80	--	--	--	--	--	--	--
APR.											
02...	168	--	16.0	50	--	--	--	--	--	--	--
04...	180	6.8	15.0	45	20	10.0	98	.9	12	40	0
10...	167	--	13.0	60	--	--	--	--	--	--	--
21...	84	6.7	19.0	80	--	--	--	--	--	--	--
25...	145	--	19.0	70	--	--	--	--	--	--	--
MAY											
01...	171	6.8	19.0	60	--	--	--	--	--	--	--
06...	139	--	19.0	70	--	--	--	--	--	--	--
16...	147	--	19.0	70	--	--	--	--	--	--	--
28...	173	--	23.0	50	--	--	--	--	--	--	--
JUNE											
06...	165	--	24.0	70	--	--	--	--	--	--	--
16...	94	6.2	25.0	140	--	--	--	--	--	--	--
24...	140	--	24.0	60	--	--	--	--	--	--	--
27...	159	6.6	25.5	50	20	7.0	84	1.7	8.5	--	--
30...	169	--	27.0	50	--	--	--	--	--	--	--
JULY											
08...	143	--	26.0	50	--	--	--	--	--	--	--
09...	128	--	26.0	70	--	--	--	--	--	--	--
19...	166	6.5	28.0	60	--	--	--	--	--	--	--
26...	155	--	28.0	60	--	--	--	--	--	--	--
AUG.											
06...	97	6.5	26.0	120	--	--	--	--	--	--	--
12...	139	--	28.0	70	--	--	--	--	--	--	--
22...	159	6.4	29.5	40	20	9.0	117	1.0	12	20	0
23...	165	--	28.0	60	--	--	--	--	--	--	--
31...	155	--	27.0	60	--	--	--	--	--	--	--
SEP.											
06...	85	5.7	--	140	--	--	--	--	--	--	--
14...	109	--	26.0	100	--	--	--	--	--	--	--
21...	150	--	27.0	50	--	--	--	--	--	--	--
30...	146	--	25.0	70	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	DIS- SOLVED CADMIUM (CD) (UG/L)	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRONTIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
02...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
18...	1	0	2	3	500	0	10	10	8	180	20
31...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
07...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
08...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
01...	--	--	--	--	--	--	--	--	--	--	--
08...	1	0	0	2	180	0	0	0	12	140	30
12...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
04...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
APR.											
02...	--	--	--	--	--	--	--	--	--	--	--
04...	0	0	0	2	180	0	0	0	0	210	20
10...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JULY											
08...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
06...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	0	2	410	0	0	0	0	150	0
23...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
06...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

SABINE RIVER BASIN

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08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
OCT. 18...	1345	1500	26.0	.00	4.8	.00	.0	.00	.0	.00	.0
FEB. 08...	1245	20700	12.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 04...	0830	26500	15.0	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 22...	1815	4600	29.5	.00	.0	.00	.0	.00	.0	.00	.0

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDPIN (UG/L)	ENDPIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
OCT. 18...	.00	20	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 08...	.00	1.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 04...	.00	14	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 18...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 08...	0	.0	0	.00	.00	.00	.00	.03	.00	.00
APR. 04...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
AUG. 22...	0	.0	0	.00	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	60211	202	107	17400	29	4710	16	2600	40
NOV.	74040	101	53	10600	14	2800	8.5	1700	20
DEC.	236080	132	70	44600	18	11500	11	7010	26
JAN. 1973....	540200	167	81	118000	24	35000	13	19000	33
FEB.	503200	146	76	103000	20	27200	12	16300	29
MAR.	566090	132	70	107000	18	27500	11	16800	26
APR.	809800	146	76	166000	20	43700	12	26200	29
MAY	720000	142	71	138000	20	38900	11	21400	28
JUNE	457640	144	74	91400	20	24700	11	13600	29
JULY	392790	159	78	82700	22	23300	13	13800	32
AUG.	194160	137	72	37700	19	9960	11	5770	27
SEP.	315790	120	63	53700	16	13600	9.8	8360	24
TOTAL	4870001	--	--	970000	--	263000	--	153000	--
WTD. AVG. ...	13340	144	74	--	20	--	12	--	29

SABINE RIVER BASIN

08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	172	112	210	176	181	159	171	170	168	119	142
2	213	123	121	200	177	183	168	171	170	171	156	150
3	191	100	121	188	168	183	176	168	175	174	130	153
4	191	111	126	176	155	172	180	156	175	174	103	148
5	199	120	139	167	154	151	180	145	171	171	100	128
6	207	134	143	173	158	142	174	139	165	172	97	85
7	207	120	120	168	164	98	176	137	177	179	106	104
8	208	116	98	159	166	86	179	138	171	143	106	87
9	221	127	83	144	158	128	174	140	170	128	123	72
10	270	134	93	132	157	110	167	113	167	129	127	85
11	199	143	99	145	137	121	164	96	163	137	119	86
12	220	155	106	159	129	76	167	108	180	146	139	88
13	218	152	86	169	131	151	175	119	142	151	149	119
14	226	109	70	171	135	151	180	135	119	161	135	109
15	228	76	93	176	130	157	185	145	100	166	149	109
16	230	74	93	180	111	180	187	147	94	166	151	111
17	262	71	79	183	101	181	179	152	94	164	143	119
18	222	81	52	187	98	162	127	153	100	166	149	114
19	228	89	53	187	102	160	99	169	108	166	149	111
20	245	94	58	186	115	161	87	150	120	164	155	154
21	226	78	69	179	130	155	84	154	135	164	139	150
22	232	70	163	171	147	153	93	158	146	166	147	152
23	205	76	155	158	159	151	108	164	144	168	165	155
24	184	76	156	140	168	154	127	166	140	167	156	156
25	187	87	161	137	169	110	145	166	152	164	159	140
26	195	97	170	139	173	99	152	169	158	155	158	126
27	170	123	167	147	175	93	157	174	163	153	161	151
28	150	123	173	159	179	88	164	173	163	155	158	148
29	159	111	182	161	---	95	167	173	168	150	154	141
30	140	108	194	167	---	111	169	175	169	143	163	146
31	134	---	202	171	---	137	---	177	---	130	155	---
MONTH	206	108	121	167	147	138	155	152	149	158	139	125

WATER TEMPERATURE (DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	25.0	11.0	12.0	11.0	12.0	16.0	19.0	23.0	26.0	28.0	27.0
2	24.0	22.0	11.0	10.0	12.0	13.0	16.0	20.0	23.0	27.0	28.0	27.0
3	24.0	22.0	15.0	11.0	11.0	13.0	17.0	19.0	24.0	27.0	28.0	27.0
4	23.0	21.0	14.0	10.0	11.0	15.0	15.0	18.0	24.0	28.0	27.0	26.0
5	24.0	19.0	15.0	11.0	11.0	16.0	14.0	21.0	24.0	28.0	26.0	26.0
6	29.0	19.0	15.0	11.0	12.0	17.0	14.0	19.0	24.0	27.0	26.0	---
7	23.0	20.0	14.0	10.0	13.0	17.0	14.0	19.0	24.0	26.0	26.0	26.0
8	24.0	25.0	14.0	5.0	13.0	18.0	14.0	19.0	23.0	26.0	27.0	26.0
9	24.0	19.0	14.0	8.0	9.0	17.0	13.0	19.0	---	26.0	27.0	26.0
10	24.0	19.0	16.0	6.0	8.0	18.0	13.0	19.0	26.0	26.0	27.0	27.0
11	24.0	18.0	15.0	6.0	7.0	17.0	13.0	19.0	26.0	27.0	27.0	27.0
12	25.0	17.0	14.0	5.0	8.0	18.0	14.0	20.0	24.0	27.0	28.0	27.0
13	25.0	18.0	12.0	5.0	8.0	16.0	15.0	19.0	24.0	27.0	28.0	26.0
14	24.0	17.0	11.0	6.0	9.0	18.0	16.0	19.0	25.0	28.0	27.0	26.0
15	26.0	17.0	11.0	8.0	9.0	18.0	17.0	20.0	24.0	28.0	27.0	26.0
16	26.0	---	8.0	8.0	9.0	16.0	18.0	19.0	25.0	28.0	27.0	26.0
17	26.0	14.0	7.0	9.0	9.0	14.0	17.0	20.0	26.0	28.0	26.0	27.0
18	26.0	14.0	8.0	11.0	8.0	14.0	17.0	20.0	26.0	28.0	26.0	26.0
19	26.0	13.0	7.0	11.0	9.0	16.0	19.0	21.0	25.0	28.0	27.0	26.0
20	26.0	13.0	9.0	---	10.0	16.0	18.0	21.0	26.0	28.0	28.0	26.0
21	22.0	12.0	10.0	12.0	11.0	15.0	19.0	22.0	26.0	28.0	28.0	27.0
22	22.0	11.0	11.0	12.0	11.0	15.0	13.0	23.0	23.0	29.0	28.0	26.0
23	22.0	11.0	12.0	12.0	10.0	16.0	---	23.0	25.0	29.0	28.0	27.0
24	21.0	11.0	11.0	11.0	10.0	16.0	19.0	23.0	24.0	29.0	28.0	26.0
25	20.0	10.0	10.0	11.0	11.0	16.0	19.0	23.0	24.0	28.0	27.0	26.0
26	21.0	9.0	11.0	11.0	11.0	16.0	19.0	23.0	24.0	28.0	28.0	26.0
27	---	10.0	9.0	10.0	12.0	15.0	18.0	24.0	26.0	28.0	28.0	26.0
28	21.0	12.0	9.0	9.0	12.0	15.0	18.0	23.0	26.0	29.0	27.0	26.0
29	17.0	12.0	11.0	8.0	---	15.0	18.0	25.0	26.0	29.0	26.0	26.0
30	19.0	12.0	13.0	8.0	---	16.0	18.0	22.0	27.0	29.0	27.0	25.0
31	21.0	---	12.0	---	---	16.0	---	24.0	---	29.0	27.0	---
MONTH	23.5	16.0	11.5	9.0	10.0	16.0	16.0	21.0	24.5	27.5	27.0	26.5

SABINE RIVER BASIN

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08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

COLOR (PLATINUM-COBALT UNITS) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	120	80	55	70	60	50	60	50	40	80	60
2	40	140	80	65	70	70	50	60	50	50	70	60
3	40	140	70	60	70	60	60	60	50	40	70	60
4	60	140	70	80	70	40	60	70	50	40	120	60
5	50	100	70	80	70	50	50	70	60	40	120	100
6	50	100	70	60	80	70	50	70	70	40	120	140
7	50	110	100	90	80	120	50	70	60	40	100	120
8	60	130	120	90	70	100	40	70	60	50	100	120
9	50	90	140	80	70	70	50	70	---	70	80	140
10	120	90	130	100	80	100	60	80	70	70	60	120
11	50	80	140	90	120	80	60	80	80	70	70	110
12	50	100	140	70	120	120	60	80	80	70	70	120
13	40	80	140	130	120	60	60	70	120	70	70	100
14	50	100	140	70	120	70	60	70	120	60	70	100
15	50	140	140	60	120	60	40	70	140	60	70	100
16	50	---	110	60	120	40	40	70	140	60	140	70
17	60	140	140	60	120	40	40	70	120	50	60	70
18	50	120	140	60	140	70	70	60	110	60	60	70
19	30	140	140	40	120	---	80	70	110	60	60	100
20	30	140	140	60	140	70	80	50	120	60	50	60
21	30	140	120	60	70	70	80	60	80	60	60	50
22	40	140	140	70	70	70	80	50	70	50	60	60
23	40	140	140	80	70	70	80	60	70	50	60	40
24	60	130	70	80	70	60	70	50	60	50	50	60
25	70	130	70	90	70	70	70	50	60	50	50	70
26	70	100	70	70	60	70	70	50	60	60	40	80
27	---	80	70	80	60	70	60	50	50	70	40	60
28	70	70	70	80	70	80	90	50	60	70	40	60
29	80	100	60	100	---	80	70	50	50	60	60	70
30	---	100	50	80	---	80	60	50	50	60	60	70
31	70	---	50	70	---	80	---	50	---	70	60	---
MONTH	55	110	100	75	90	70	60	60	80	55	70	85

SABINE RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE SABINE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08017400 LAKE TAWAKONI NEAR WILLS POINT, TEX. (Lat 32°48'40", long 95°54'56")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 11...	1420	989800	1.5	230	10	24	2.4	10	86	0	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 11...	3.3	.2	.60	99	70	0	.5	190	6.3	22.5

08021500 LAKE CHEROKEE NEAR LONGVIEW, TEX. (Lat 32°22'36", long 94°38'30")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 11...	1700	47480	6.8	620	80	7.0	2.5	9.8	16	0	12

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 11...	16	.1	.20	64	28	15	.8	121	5.4	29.0

08022200 MURVAUL LAKE NEAR GARY, TEX. (Lat 32°02'04", long 94°25'15")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 11...	1750	47200	1.1	130	60	9.8	5.1	18	32	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 11...	22	.1	.40	98	45	19	1.2	197	5.7	27.0

SABINE RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE SABINE RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08022400 SOCAGEE CREEK NEAR CARTHAGE, TEX. (Lat 32°13'54", long 94°05'31")

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
02...	1445	.44	8.0	7.5	3.7	23	17	0	13	40
31...	1100	105	4.9	3.5	1.3	10	9	0	6.0	16
DEC.										
05...	1135	4.8	13	12	4.6	34	23	0	16	62
JAN.										
03...	1125	96	10	7.0	3.1	21	17	0	12	35
FEB.										
06...	1810	38	11	8.2	3.8	22	20	0	13	38
MAR.										
13...	1050	83	9.5	9.8	3.5	21	30	0	11	35
MAY										
23...	1545	2.8	14	14	4.9	34	40	0	10	60
JULY										
05...	1640	1.1	13	16	7.3	35	43	0	7.0	71
31...	--	235	4.0	4.0	1.2	8.6	11	0	7.2	12

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
02...	.0	.2	104	34	20	1.7	203	6.0	15.5
31...	.0	.08	46	14	7	1.2	94	5.9	16.5
DEC.									
05...	.0	.01	153	49	30	2.1	287	6.1	10.0
JAN.									
03...	.0	.08	96	30	16	1.7	174	6.2	7.5
FEB.									
06...	.0	.03	106	36	20	1.6	200	6.2	13.5
MAR.									
13...	.0	.06	105	39	14	1.5	199	6.3	18.0
MAY									
23...	.0	.6	160	55	22	2.0	305	6.5	24.0
JULY									
05...	.1	.6	173	70	35	1.8	342	6.4	25.0
31...	.0	.07	42	15	6	1.0	84	5.9	--

NECHES RIVER BASIN

08032000 NECHES RIVER NEAR NECHES, TEX.

LOCATION.--Lat 31°53'32", long 95°25'50", Anderson County, at gaging station on U.S. Highway 79, 1.0 mile (1.6 km) downstream from Missouri Pacific Railroad Co. bridge, and 4.4 miles (7.1 km) northeast of Neches.

DRAINAGE AREA.--1,145 mi² (2,966 km²).

PERIOD OF RECORD.--Chemical analyses: December 1969 to September 1973.

REMARKS.--See Part 1 of this report for remarks and diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.						APR.					
04...	1320	43	19	218	20.0	17...	1050	3580	30	212	16.0
NOV.						17...	1140	3580	33	224	16.0
07...	1400	--	120	485	16.5	MAY					
16...	1035	231	28	173	10.0	03...	1045	3580	26	200	21.0
DEC.						03...	1430	3580	24	201	21.0
06...	1130	--	59	282	9.5	21...	1330	--	30	220	25.0
06...	1230	--	60	286	9.5	30...	--	--	26	204	--
19...	1505	--	53	245	9.0	JUNE					
19...	1620	--	52	244	9.0	07...	1600	--	20	163	25.0
JAN.						JULY					
04...	1540	--	45	229	7.5	03...	1335	--	20	166	28.0
17...	1445	--	52	253	9.5	03...	1500	--	20	168	28.0
17...	1535	--	51	254	9.5	23...	1445	--	28	188	29.5
FEB.						23...	1540	--	28	188	29.5
07...	1315	--	45	224	15.0	AUG.					
07...	1455	--	65	297	15.0	02...	1000	--	18	154	28.0
22...	1310	592	35	230	9.5	16...	0930	--	29	194	--
MAR.						16...	1330	194	35	214	29.0
14...	1240	--	31	219	--	SEP.					
14...	1340	--	32	223	--	07...	1440	--	8.5	92	24.5
28...	1545	4060	28	203	17.0	20	1420	1070	18	155	26.0
28...	1815	4060	28	207	17.0						

NECHES RIVER BASIN

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08032500 NECHES RIVER NEAR ALTO, TEX.

LOCATION.--Lat 31°34'45", long 95°09'55", Cherokee County, at gaging station at bridge on State Highway 21, 600 ft (183 m) downstream from Bowles Creek, and 7.5 miles (12.1 km) southwest of Alto.

DRAINAGE AREA.--1,945 mi² (5,038 km²).

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1969.

Chemical and biochemical analyses: October 1967 to September 1973.

Water temperatures: October 1959 to September 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 16...	1430	40	14	10	3.9	24	34	0	14	36
NOV. 21...	1300	445	17	10	3.9	27	25	0	19	42
DEC. 11...	1415	300	17	11	5.5	32	33	0	18	52
JAN. 06...	1015	600	15	10	5.1	24	26	0	21	38
FEB. 06...	1445	1090	13	8.0	3.9	20	20	0	18	30
MAR. 15...	1300	1910	10	9.5	4.0	21	30	0	20	28
APR. 02...	1230	4500	7.4	13	4.3	18	40	0	19	26
MAY 22...	1550	1660	7.1	12	5.4	16	38	0	18	26
JUNE 25...	1220	2700	10	12	4.4	12	40	0	13	20
JULY 05...	1140	750	11	12	4.9	14	42	0	14	22
AUG. 21...	1155	220	10	10	5.1	18	38	0	14	28
SEP. 12...	1715	1930	8.1	6.2	4.8	7.0	15	0	15	16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)
OCT. 16...	.0	.16	.00	.12	.2	.15	120	178	148
NOV. 21...	.0	--	--	--	.3	--	132	--	--
DEC. 11...	.0	.11	.00	.00	.4	.05	153	--	--
JAN. 06...	.2	--	--	--	.09	--	127	--	--
FEB. 06...	.1	.14	.00	.03	.3	.05	104	--	--
MAR. 15...	.0	--	--	--	.05	--	108	--	--
APR. 02...	.0	.26	.00	.11	.1	.04	108	--	--
MAY 22...	.0	--	--	--	.4	--	105	--	--
JUNE 25...	.1	.33	.00	.10	.2	.03	93	--	--
JULY 05...	.0	--	--	--	.4	--	101	--	--
AUG. 21...	.0	.10	.00	.09	.2	.02	105	--	--
SEP. 12...	.0	--	--	--	.00	--	64	--	--

NECHES RIVER BASIN

08032500 NECHES RIVER NEAR ALTO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 16...	41	13	1.6	220	6.2	26.0	7.0	85	1.8
NOV. 21...	41	20	1.8	227	6.3	9.0	--	--	--
DEC. 11...	50	23	2.0	274	7.1	7.0	11.2	92	2.4
JAN. 06...	46	25	1.5	236	6.8	9.0	--	--	--
FEB. 06...	36	20	1.4	181	7.0	14.0	11.4	110	.9
MAR. 15...	40	15	1.4	200	6.4	18.0	--	--	--
APR. 02...	50	17	1.1	206	6.8	16.5	9.2	94	1.0
MAY 22...	52	21	1.0	205	6.5	24.0	--	--	--
JUNE 25...	48	15	.8	167	6.8	26.0	7.0	85	1.2
JULY 05...	50	16	.9	192	6.4	28.0	--	--	--
AUG. 21...	46	15	1.2	196	6.5	--	--	--	1.4
SEP. 12...	35	23	.5	124	6.1	26.5	--	--	--

08033000 NECHES RIVER NEAR DIBOLL, TEX.

LOCATION.--Lat 31°07'59", long 94°48'35", Angelina County, at gaging station at bridge on U.S. Highway 59, 700 ft (213 m) downstream from Texas and New Orleans Railroad Co. bridge, 2.9 miles (4.7 km) downstream from Alabama Creek, and 3.8 miles (6.1 km) south of Diboll.

DRAINAGE AREA.--2,724 mi² (7,055 km²).

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973.

Chemical and biochemical analyses: October 1969 to September 1973.

Water temperatures: October 1969 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 340 micromhos Oct. 1; minimum daily, 90 micromhos Mar. 27.

Water temperatures: Maximum, 31.0°C July 28, 29, 31; minimum, 6.0°C on several days during January.

EXTREMES, October 1969 to September 1973.--Specific conductance: Maximum daily, 614 micromhos May 2, 1971; minimum daily, 90 micromhos Mar. 27, 1973.

Water temperatures: Maximum, 38.0°C Aug. 31, Sept. 6, 1970; minimum, 3.0°C Jan. 21, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
03...	1510	179	9.9	11	4.3	43	80	0	14
17...	0730	46	12	13	4.5	36	66	0	16
NOV.									
15...	1415	880	12	10	4.9	25	41	0	18
DEC.									
11...	1600	511	15	12	5.4	33	39	0	26
17...	1645	2630	8.9	7.8	3.8	15	20	0	24
JAN.									
21...	1620	1600	.5	--	--	8.8	22	0	6.0
FEB.									
07...	0800	1800	12	10	4.9	18	23	0	17
27...	1715	1230	7.8	12	4.4	31	44	0	31
MAR.									
27...	1605	9660	4.5	4.0	2.4	7.4	16	0	9.0
APR.									
02...	1810	5200	7.9	9.5	3.0	16	26	0	19
25...	1715	4300	10	9.5	4.0	13	31	0	16
MAY									
27...	1710	2030	10	12	6.3	17	41	0	18
JUNE									
06...	1700	860	11	13	5.2	24	43	0	25
25...	1740	5000	9.9	12	3.4	15	38	0	16
JULY									
29...	1745	420	13	13	3.8	18	44	0	16
AUG.									
08...	1735	790	9.0	8.0	4.1	12	29	0	14
21...	1715	224	9.8	12	6.3	19	48	0	17
SEPT.									
02...	1810	108	12	11	6.7	30	68	0	18

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.									
03...	38	.2	--	--	--	1.2	--	165	45
17...	42	.0	.19	.00	.17	.06	.21	156	51
NOV.									
15...	33	.0	--	--	--	.4	--	125	45
DEC.									
11...	46	.0	.14	.00	.04	.2	.11	157	52
17...	19	.0	--	--	--	.1	--	89	35
JAN.									
21...	3.0	.1	--	--	--	.09	--	--	10
FEB.									
07...	33	.1	.17	.00	.05	.2	.06	107	45
27...	33	.0	--	--	--	.08	--	142	48
MAR.									
27...	9.0	.0	--	--	--	.2	--	45	20
APR.									
02...	21	.0	.34	.00	.17	.2	.07	91	36
25...	18	.0	--	--	--	.4	--	87	40
MAY									
27...	27	.1	--	--	--	.3	--	112	56
JUNE									
06...	30	.1	--	--	--	.4	--	131	54
25...	20	.1	.32	.00	.10	.2	.03	96	44
JULY									
29...	24	.0	--	--	--	.04	--	110	48
AUG.									
08...	17	.1	--	--	--	.00	--	78	37
21...	28	.1	.16	.00	.16	.08	.06	117	56
SEPT.									
02...	30	.1	--	--	--	.6	--	144	55

NECHES RIVER BASIN

08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT.								
03...	0	2.8	309	7.4	25.0	--	--	--
17...	0	2.2	296	6.2	22.0	.6	7	5.4
NOV.								
15...	11	1.6	228	7.3	16.0	--	--	--
DEC.								
11...	20	2.0	282	7.3	9.0	9.6	83	5.0
17...	19	1.1	153	6.5	9.0	--	--	--
JAN.								
21...	0	1.2	59	6.4	8.0	--	--	--
FEB.								
07...	26	1.2	213	7.2	14.0	10.4	100	1.0
27...	12	1.9	262	7.6	13.0	--	--	--
MAR.								
27...	7	.7	90	6.7	15.5	--	--	--
APR.								
02...	15	1.2	167	6.5	18.0	8.5	89	1.0
25...	15	.9	161	6.9	22.0	--	--	--
MAY								
27...	22	1.0	215	6.9	26.0	--	--	--
JUNE								
06...	19	1.4	246	6.9	25.0	--	--	--
25...	13	1.0	174	6.8	26.0	7.2	88	1.3
JULY								
29...	12	1.1	200	6.6	31.0	--	--	--
AUG.								
08...	13	.9	159	6.3	28.0	--	--	--
21...	17	1.1	214	6.0	29.5	5.0	65	2.1
SEP.								
02...	0	1.8	266	7.0	29.0	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	7008	202	110	2080	24	454	17	322	48
NOV.	26794	204	110	7960	25	1810	17	1230	48
DEC.	34413	220	120	11100	27	2510	18	1670	49
JAN. 1973....	72600	191	100	19600	23	4510	16	3140	45
FEB.	46800	230	120	15200	28	3540	19	2400	49
MAR.	108230	169	91	26600	20	5840	15	4380	39
APR.	154800	177	95	39700	21	8780	15	6270	42
MAY	142610	184	99	38100	22	8470	16	6160	43
JUNE	169334	145	78	35700	16	7320	13	5940	33
JULY	41454	180	97	10900	21	2350	15	1680	42
AUG.	12273	196	110	3650	23	762	17	563	47
SEP.	47304	155	84	10700	18	2300	14	1790	36
TOTAL	863620	--	--	221000	--	48600	--	35500	--
WTD. AVG. ...	2366	177	95	--	21	--	15	--	41

NECHES RIVER BASIN

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08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	110	267	250	207	258	177	167	217	179	193	280
2	311	127	266	224	225	259	175	162	222	178	199	266
3	308	128	281	224	225	259	171	169	226	175	202	263
4	267	143	280	235	210	257	181	169	225	179	206	300
5	247	168	283	180	205	265	173	172	224	182	214	240
6	240	203	286	180	221	267	184	172	230	154	180	135
7	239	204	287	161	205	267	188	173	234	180	170	138
8	284	220	286	161	237	235	191	178	237	182	159	146
9	298	219	300	161	213	229	210	187	223	172	169	151
10	306	225	299	160	225	216	226	189	169	177	187	156
11	286	222	296	160	225	216	207	191	168	180	185	159
12	288	221	266	160	218	207	223	194	159	192	183	152
13	328	233	254	161	210	197	214	197	151	198	185	148
14	327	236	206	180	237	195	207	201	100	199	189	155
15	315	228	204	208	240	193	210	199	120	217	197	149
16	314	203	156	212	236	210	195	199	117	200	202	142
17	293	208	153	216	234	208	183	195	120	177	216	141
18	303	213	153	221	232	211	145	189	122	182	217	142
19	304	214	171	239	234	221	155	184	157	165	219	143
20	302	226	222	248	236	215	140	186	159	179	215	142
21	328	227	219	235	238	215	153	190	159	180	217	148
22	330	235	220	229	246	213	162	197	162	180	217	153
23	300	231	222	222	246	219	158	199	169	183	218	150
24	219	241	220	220	259	220	169	202	174	196	215	153
25	152	242	224	213	259	146	161	204	173	198	221	154
26	155	240	250	211	261	104	161	205	176	183	225	153
27	166	256	249	208	262	90	164	215	175	188	226	178
28	190	260	250	186	269	122	170	213	187	192	221	180
29	149	270	280	180	---	158	166	212	177	196	253	182
30	140	263	278	179	---	128	165	209	175	200	270	155
31	130	---	290	190	---	171	---	210	---	201	275	---
MONTH	263	214	246	200	233	206	179	191	177	185	208	172

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	18.0	9.0	8.0	10.0	14.0	18.0	20.0	26.0	27.0	29.0	29.0
2	28.0	---	9.0	8.0	10.0	14.0	18.0	20.0	26.0	27.0	29.0	29.0
3	25.0	---	9.0	8.0	11.0	15.0	18.0	20.0	21.0	27.0	---	29.0
4	25.0	18.0	9.0	8.0	11.0	15.0	18.0	20.0	26.0	27.0	29.0	28.0
5	23.0	18.0	9.0	8.0	---	15.0	17.0	20.0	25.0	27.0	29.0	28.0
6	23.0	18.0	9.0	8.0	12.0	16.0	17.0	20.0	25.0	26.0	29.0	25.0
7	23.0	18.0	9.0	7.0	13.0	17.0	17.0	21.0	26.0	26.0	28.0	26.0
8	23.0	18.0	8.0	7.0	13.0	17.0	15.0	21.0	26.0	27.0	28.0	26.0
9	23.0	17.0	9.0	7.0	13.0	17.0	15.0	22.0	26.0	27.0	28.0	27.0
10	23.0	16.0	9.0	7.0	13.0	18.0	15.0	23.0	26.0	28.0	29.0	22.0
11	24.0	16.0	9.0	6.0	13.0	19.0	15.0	24.0	24.0	28.0	29.0	28.0
12	24.0	16.0	9.0	6.0	13.0	19.0	15.0	24.0	23.0	28.0	28.0	27.0
13	24.0	16.0	9.0	6.0	13.0	19.0	15.0	24.0	23.0	28.0	28.0	26.0
14	24.0	16.0	9.0	6.0	13.0	20.0	15.0	23.0	23.0	28.0	28.0	26.0
15	24.0	16.0	9.0	6.0	13.0	20.0	15.0	20.0	23.0	29.0	28.0	---
16	24.0	13.0	9.0	6.0	13.0	20.0	15.0	20.0	23.0	28.0	28.0	26.0
17	25.0	13.0	9.0	7.0	13.0	20.0	17.0	21.0	26.0	28.0	28.0	26.0
18	25.0	13.0	9.0	7.0	14.0	17.0	17.0	23.0	26.0	28.0	28.0	26.0
19	25.0	12.0	8.0	7.0	14.0	17.0	17.0	23.0	26.0	28.0	28.0	26.0
20	25.0	12.0	8.0	7.0	14.0	17.0	20.0	24.0	25.0	29.0	29.0	25.0
21	24.0	11.0	8.0	8.0	12.0	17.0	19.0	24.0	25.0	29.0	29.0	25.0
22	23.0	11.0	8.0	8.0	12.0	18.0	19.0	25.0	26.0	29.0	29.0	25.0
23	22.0	11.0	7.0	8.0	12.0	18.0	22.0	25.0	26.0	30.0	29.0	25.0
24	20.0	11.0	7.0	8.0	12.0	19.0	22.0	25.0	26.0	29.0	29.0	25.0
25	18.0	10.0	7.0	9.0	13.0	19.0	22.0	25.0	26.0	29.0	29.0	---
26	17.0	10.0	7.0	---	13.0	19.0	22.0	25.0	26.0	30.0	30.0	---
27	16.0	10.0	7.0	9.0	13.0	15.5	22.0	26.0	26.0	30.0	30.0	26.0
28	16.0	10.0	7.0	9.0	13.0	17.0	22.0	25.0	27.0	31.0	29.0	26.0
29	16.0	9.0	7.0	9.0	---	17.0	22.0	25.0	27.0	31.0	28.0	21.0
30	17.0	9.0	8.0	9.0	---	17.0	22.0	25.0	27.0	30.0	28.0	25.0
31	18.0	---	---	9.0	---	17.0	---	25.0	---	31.0	29.0	---
MONTH	22.5	14.0	8.5	7.5	12.5	17.5	18.0	23.0	25.0	28.5	28.5	26.0

NECHES RIVER BASIN

08033500 NECHES RIVER NEAR ROCKLAND, TEX.

LOCATION.--Lat 31°01'29", long 94°23'55", Tyler County, at gaging station at bridge on U.S. Highway 69, 0.8 mile (1.3 km) upstream from Texas and New Orleans Railroad Co. bridge, 1.2 miles (1.9 km) north of Rockland, and 3.2 miles (5.1 km) downstream from Billams Creek.

DRAINAGE AREA.--3,636 mi² (9,417 km²).

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1947, December 1967 to September 1970.
Chemical and biochemical analyses: October 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 17...	1400	65	11	12	4.1	32	58	0	12	40	.0	.13
NOV. 11...	1355	636	9.4	7.5	2.0	18	29	0	16	18	.0	--
DEC. 12...	1530	1120	13	10	2.7	16	27	0	16	22	.2	.18
JAN. 08...	1150	5000	11	7.5	2.7	12	16	0	19	16	.3	--
FEB. 07...	1550	2120	13	10	5.1	20	22	0	29	28	.1	.17
MAR. 14...	1225	2840	10	12	3.4	21	29	0	30	24	.0	--
APR. 03...	1130	8160	8.4	8.5	2.6	11	21	0	17	14	.0	.36
MAY 23...	1540	3200	9.1	12	4.4	16	40	0	15	23	.1	--
JUNE 26...	1045	10200	8.0	11	2.8	11	31	0	15	15	.0	.41
JULY 09...	1220	3920	8.9	10	2.9	12	34	0	14	14	.0	--
31...	1350	864	10	9.2	3.2	14	30	0	15	18	.0	--
AUG. 22...	1120	321	12	14	3.9	23	51	0	17	30	.1	.14
SEP. 07...	1150	2980	9.2	6.8	2.7	7.1	18	0	14	9.5	.0	--

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT. 17...	.01	.14	.2	.13	141	63	58	47	0	2.0	266
NOV. 11...	--	--	.3	--	86	--	--	27	3	1.5	164
DEC. 12...	.01	.07	.06	.10	93	106	16	36	14	1.2	155
JAN. 08...	--	--	.2	--	77	--	--	30	17	1.0	124
FEB. 07...	.00	.08	.2	.07	117	60	18	46	28	1.3	205
MAR. 14...	--	--	.05	--	115	--	--	44	20	1.4	201
APR. 03...	.00	.14	.2	.07	73	42	0	32	15	.8	132
MAY 23...	--	--	.4	--	101	--	--	48	15	1.0	192
JUNE 26...	.01	.10	.2	.30	79	35	19	39	14	.8	147
JULY 09...	--	--	.4	--	81	--	--	37	9	.9	147
31...	--	--	.3	--	86	--	--	36	11	1.0	153
AUG. 22...	.00	.16	.1	.04	126	37	20	51	9	1.4	229
SEP. 07...	--	--	.2	--	59	--	--	28	13	.6	106

08033500 NECHES RIVER NEAR ROCKLAND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

NECHES RIVER BASIN

08033600 BOWLES CREEK NEAR SELMAN CITY, TEX.

LOCATION.--Lat 32°11'41", long 94°58'36", Rusk County, at State Highway 64, and 1.5 miles (2.4 km) west of Selman City.

DRAINAGE AREA.--14.5 mi² (37.6 km²).

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	1030	.14	18	16	6.8	190	4	0	68	290
NOV. 14...	1420	9.2	15	22	7.5	250	6	0	19	430
DEC. 06...	1000	6.0	28	61	16	780	0	0	22	1400
JAN. 04...	0900	8.5	21	20	8.5	210	0	0	19	360
FEB. 07...	1140	6.5	24	33	10	390	0	0	22	680
MAR. 14...	0920	13	20	22	8.3	180	0	0	30	320
APR. 20...	1655	21	19	20	8.8	160	4	0	24	300
MAY 24...	0825	2.8	24	26	9.5	270	0	0	15	480
JULY 13...	0930	4.3	26	21	9.8	180	0	0	20	330
AUG. 01...	0855	4.3	20	18	8.3	180	7	0	15	320
SEP. 05...	1115	1.7	5.2	4.0	2.7	30	2	0	8.0	54

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	ACIDITY (H ⁺) (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.0	.09	589	68	64	--	10	971	5.5	17.5
NOV. 14...	.0	.07	748	86	81	--	12	1410	5.6	11.0
DEC. 06...	.0	.04	2280	220	220	.8	23	4000	4.2	6.5
JAN. 04...	.1	.01	641	85	85	--	9.8	1140	4.5	7.0
FEB. 07...	.0	.00	1160	120	120	.1	15	2260	4.0	16.0
MAR. 14...	.1	.04	589	89	89	--	8.5	1120	4.6	17.0
APR. 20...	.1	.1	534	86	82	--	7.7	1020	5.9	21.5
MAY 24...	.1	.08	818	100	100	.0	11	1620	4.3	23.5
JULY 13...	.1	.1	588	93	93	--	8.2	1170	4.6	26.0
AUG. 01...	.1	.07	558	79	74	--	8.7	1130	5.8	25.0
SEP. 05...	.1	.06	105	21	19	--	2.8	224	6.0	23.0

NECHES RIVER BASIN

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08037000 ANGELINA RIVER NEAR LUFKIN, TEX.

LOCATION.--Lat 31°27'26", long 94°43'34", Angelina County, at gaging station at bridge on U.S. Highway 59, 200 feet (61.0 m) upstream from Procella Creek, 1.5 miles (2.4 km) downstream from Bayou Loco, 1.5 miles (2.4 km) upstream from Southern Pacific Lines bridge, and 8 miles (12.9 km) north of Lufkin.

DRAINAGE AREA.--1,600 mi² (4,144 km²).

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Water temperatures: October 1954 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 616 micromhos Oct. 16; minimum daily, 93 micromhos Oct. 31.

Water temperatures: Maximum, 27.0°C July 31; minimum, 1.0°C Jan. 11, 12, 13.

EXTREMES, October 1954 to September 1973.--Specific conductance: Maximum daily, 1,090 micromhos Nov. 10, 11, 1963; minimum daily, 38 micromhos Sept. 21, 1958, May 2, 1962.

Water temperatures: Maximum, 32.0°C on several days during July 1966; minimum, freezing point Jan. 11, 12, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
16...	1600	27	13	14	9.2	81	9	0	30	150
23...	0730	110	7.4	10	6.1	67	12	0	19	120
NOV.										
14...	0800	840	13	8.0	4.4	26	18	0	18	42
29...	1430	1270	12	14	3.2	30	18	0	41	39
DEC.										
11...	1700	800	15	9.0	5.7	21	25	0	28	30
16...	0900	2300	13	7.5	3.7	14	16	0	25	18
JAN.										
09...	0900	4800	8.4	4.0	3.2	4.0	10	0	18	3.0
24...	1400	1800	12	14	6.3	24	25	0	50	28
FEB.										
06...	1615	2100	11	10	6.3	21	20	0	41	26
28...	0800	960	11	8.4	4.9	23	26	0	31	27
MAR.										
01...	1300	960	9.9	10	5.1	23	22	0	37	28
14...	0730	2150	9.3	8.8	6.3	32	19	0	30	50
APR.										
02...	1345	3500	10	11	5.5	28	22	0	34	40
26...	0830	8000	9.2	7.3	2.9	15	18	0	18	20
MAY										
14...	0800	1430	15	9.1	3.7	16	34	0	16	19
21...	1230	832	14	11	5.0	21	37	0	20	30
JUNE										
03...	0730	234	16	8.7	4.9	17	37	0	16	22
25...	1430	3050	12	9.8	4.5	13	30	0	18	20
JULY										
10...	0800	620	14	9.0	3.3	15	32	0	16	18
26...	1230	450	16	10	4.1	17	34	0	18	22
AUG.										
21...	1315	420	12	7.2	4.1	13	22	0	21	16
30...	0800	170	16	7.2	5.4	24	37	0	18	30
SEP.										
26...	1200	375	18	10	5.1	20	36	0	24	24

NECHES RIVER BASIN

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.									
16...	.0	.09	.00	.14	.04	.12	302	73	66
23...	.0	--	--	--	.06	--	234	50	40
NOV.									
14...	.3	--	--	--	.03	--	121	38	23
29...	.2	.16	.00	.04	.02	.08	145	48	33
DEC.									
11...	.0	.12	.00	.02	.1	.04	121	46	26
16...	.0	--	--	--	.1	--	90	34	21
JAN.									
09...	.1	--	--	--	.08	--	46	23	15
24...	.1	.19	.00	.01	.1	.06	147	61	40
FEB.									
06...	.1	.19	.00	.05	.06	.04	126	51	35
28...	.0	--	--	--	.04	--	118	41	20
MAR.									
01...	.0	.19	.00	.07	.05	.01	124	46	28
14...	.0	--	--	--	.03	--	146	48	32
APR.									
02...	.0	.25	.01	.15	.2	.09	141	50	32
26...	.0	--	--	--	.03	--	82	30	15
MAY									
14...	.1	--	--	--	.3	--	97	38	10
21...	.1	.28	.00	.20	.2	.12	120	48	18
JUNE									
03...	.1	--	--	--	.2	--	104	42	12
25...	.0	.34	.00	.13	.2	.06	93	43	18
JULY									
10...	.0	--	--	--	.03	--	91	36	10
26...	.1	.14	.01	.01	.3	.47	106	42	14
AUG.									
21...	.1	.31	.00	.10	.2	.06	85	35	17
30...	.1	--	--	--	.00	--	119	40	10
SEP.									
26...	.1	.24	.00	.05	.3	.16	121	46	16

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT.									
16...	4.1	581	6.2	27.0	6.4	79	--	380	--
23...	4.1	473	6.8	20.0	--	--	--	--	--
NOV.									
14...	1.8	221	6.7	11.5	--	--	--	--	--
29...	1.9	251	6.7	11.5	8.2	75	4.4	320	0
DEC.									
11...	1.3	216	6.9	7.0	9.8	80	--	200	0
16...	1.0	154	6.4	3.0	--	--	--	--	--
JAN.									
09...	.4	96	6.3	4.0	--	--	--	--	--
24...	1.3	265	6.4	13.5	9.6	91	1.4	330	5
FEB.									
06...	1.3	228	6.9	16.0	9.8	98	--	300	--
28...	1.6	206	7.4	10.0	--	--	--	--	--
MAR.									
01...	1.5	223	6.9	14.5	10.4	101	1.2	600	10
14...	2.0	274	6.4	20.0	--	--	--	--	--
APR.									
02...	1.7	254	6.6	17.0	9.6	99	--	700	--
26...	1.2	152	6.4	20.0	--	--	--	--	--
MAY									
14...	1.1	174	6.8	18.0	--	--	--	--	--
21...	1.3	198	6.7	24.0	8.4	99	1.1	1800	5
JUNE									
03...	1.1	187	6.7	24.5	--	--	--	--	--
25...	.9	169	6.6	27.5	8.4	105	--	1500	--
JULY									
10...	1.1	153	6.4	25.5	--	--	--	--	--
26...	1.1	189	6.6	30.5	7.2	95	1.0	1500	5
AUG.									
21...	1.0	145	5.8	27.5	6.8	85	--	900	--
30...	1.6	209	7.4	24.0	--	--	--	--	--
SEP.									
26...	1.3	201	6.7	25.0	8.0	95	1.8	4000	10

NECHES RIVER BASIN

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08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	5646	226	120	1830	38	579	25	381	42
NOV.	38759	228	120	12600	39	4080	25	2620	43
DEC.	42626	212	120	13800	34	3910	24	2760	40
JAN. 1973....	75090	189	100	20300	25	5070	21	4260	37
FEB.	54345	213	120	17600	34	4990	24	3520	40
MAR.	72390	199	110	21500	27	5280	22	4300	38
APR.	103680	168	92	25800	21	5880	19	5320	34
MAY	64238	167	92	16000	21	3640	19	3300	34
JUNE	70998	135	74	14200	15	2880	16	3070	29
JULY	27935	183	100	7540	24	1810	21	1580	36
AUG.	14136	185	100	3820	24	916	21	802	36
SEP.	30949	151	83	6940	18	1500	18	1500	31
TOTAL	600792	--	--	162000	--	40500	--	33400	--
WTD. AVG. ...	1646	182	100	--	25	--	21	--	36

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	132	229	191	195	205	215	168	183	160	197	145
2	205	160	222	170	218	216	211	173	186	165	202	215
3	194	208	245	185	196	246	203	173	187	165	222	220
4	170	198	262	226	190	259	192	167	185	168	187	216
5	203	246	275	248	189	259	186	159	178	173	186	202
6	170	310	279	228	183	259	184	154	165	181	189	146
7	200	342	247	185	176	246	176	145	152	184	177	120
8	244	321	230	159	168	236	178	159	146	155	159	105
9	438	178	220	96	196	219	176	163	152	165	156	123
10	532	220	212	109	247	125	163	168	174	153	159	142
11	575	219	216	139	248	218	179	179	121	155	151	144
12	587	227	173	163	247	220	179	158	117	150	171	140
13	602	231	171	168	245	248	193	180	135	146	183	135
14	607	221	190	178	204	274	226	174	105	229	192	132
15	612	177	162	194	220	274	234	176	96	249	193	137
16	616	150	154	209	214	259	219	168	108	207	203	149
17	615	160	147	228	227	239	237	150	116	207	195	157
18	613	170	177	242	214	218	202	166	125	190	192	159
19	613	165	207	242	203	204	160	179	139	172	186	156
20	614	148	222	225	197	215	121	194	142	168	175	161
21	613	139	221	198	218	230	122	198	139	174	139	172
22	502	265	212	190	236	239	132	184	148	190	178	178
23	350	281	224	190	244	235	147	170	163	185	231	183
24	277	345	175	178	244	218	165	168	168	194	239	185
25	313	331	218	239	224	138	161	177	154	189	211	192
26	207	304	223	194	211	107	152	192	173	187	201	195
27	307	265	247	200	207	131	143	180	177	188	205	195
28	179	231	272	200	206	141	118	174	159	192	166	181
29	171	209	281	220	---	192	148	179	139	187	181	178
30	128	204	262	243	---	137	158	182	145	189	209	153
31	93	---	236	249	---	229	---	185	---	200	206	---
MONTH	380	225	220	196	213	214	176	172	149	181	188	164

NECHES RIVER BASIN

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	19.0	6.0	9.0	10.5	12.0	15.0	20.0	24.5	25.0	24.5	24.0
2	19.0	15.0	7.5	7.0	7.0	13.0	15.0	20.0	25.0	25.0	26.0	25.0
3	19.0	17.0	9.0	8.0	7.0	13.0	16.0	17.5	24.5	25.0	25.5	25.5
4	18.0	14.0	10.0	7.0	7.0	15.0	13.0	18.0	24.0	25.0	23.5	25.5
5	20.0	14.0	10.0	9.0	10.0	13.0	12.0	18.0	24.0	25.0	24.5	24.5
6	20.5	15.5	7.0	8.0	13.0	16.0	14.0	19.0	22.0	25.0	24.0	24.0
7	19.0	16.0	7.0	6.0	13.0	14.0	12.0	19.5	22.0	25.5	24.0	24.0
8	19.0	13.0	8.0	5.0	10.0	15.0	14.0	20.0	22.0	24.5	24.0	24.0
9	19.0	15.0	13.0	4.0	7.0	11.0	10.5	19.5	22.0	25.0	23.5	25.0
10	20.0	14.0	9.0	2.0	6.0	21.0	10.0	20.0	22.0	25.5	24.0	25.0
11	19.0	13.0	6.0	1.0	7.0	11.0	12.0	22.0	22.0	25.0	24.0	26.0
12	20.0	13.0	7.0	1.0	9.0	15.5	13.0	21.0	22.0	25.0	26.0	26.0
13	20.5	15.0	5.0	1.0	11.5	20.0	15.0	18.0	22.0	24.5	26.0	25.0
14	21.0	11.5	6.0	4.0	10.0	20.0	15.0	18.0	22.0	25.0	26.0	24.5
15	21.5	11.0	5.5	4.0	7.0	19.5	17.0	17.0	24.0	25.5	24.0	23.0
16	20.5	10.0	3.0	5.0	7.0	15.0	17.0	17.0	24.5	25.0	25.0	24.0
17	21.0	10.0	3.0	8.0	7.0	13.0	17.0	17.0	25.0	25.5	26.0	23.0
18	21.0	10.0	4.0	11.0	6.0	15.0	17.0	18.0	25.0	25.5	26.0	22.0
19	21.0	9.0	8.0	9.0	8.0	16.0	20.0	20.0	25.0	25.5	25.0	22.0
20	18.0	9.0	10.0	13.5	8.0	13.0	20.0	22.0	24.5	25.5	25.0	22.0
21	18.0	8.0	9.0	12.0	10.0	13.0	20.0	21.5	24.5	25.5	25.0	21.5
22	20.0	8.0	5.5	10.0	9.0	15.0	20.0	22.0	23.0	26.0	24.0	22.0
23	20.0	7.0	10.0	9.0	9.0	15.0	21.0	22.0	23.0	25.5	23.0	22.0
24	17.0	7.0	8.0	7.0	9.0	16.0	21.0	24.0	24.0	26.0	25.0	24.0
25	15.0	8.0	10.0	9.0	9.0	15.0	19.5	23.0	24.0	26.5	24.0	24.0
26	14.0	6.5	10.0	10.0	10.0	13.0	20.0	24.5	24.5	25.0	24.0	24.0
27	14.0	7.0	5.5	7.0	10.5	13.0	16.0	24.0	24.5	26.0	25.0	24.0
28	15.0	8.0	6.0	6.5	10.0	15.0	17.0	21.0	24.5	26.0	23.0	24.0
29	15.0	7.0	10.0	4.0	---	16.0	19.0	21.0	25.0	26.5	24.0	21.5
30	17.0	6.0	11.0	5.0	---	16.0	19.0	20.0	25.0	26.5	24.0	21.0
31	20.0	---	8.0	10.0	---	16.0	---	22.0	---	27.0	23.5	---
MONTH	18.5	11.0	7.5	7.0	9.0	15.0	16.0	20.0	23.5	25.5	24.5	23.5

NECHES RIVER BASIN

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08037080 BAYOU LaNANA NEAR NACOGDOCHES, TEX.

LOCATION.--Lat 31°31'10", long 94°39'21", Nacogdoches County, at bridge on county road, 6 miles (10 km) south of Nacogdoches, 5 miles (8 km) upstream from Black Bayou, and 2.6 miles (4.2 km) upstream from Southern Pacific Lines bridge.

PERIOD OF RECORD.--Chemical analyses: June 1964 to September 1967.

Chemical and biochemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
16...	1645	10	10	3.9	86	168	0	45	26
NOV.									
29...	1515	14	12	6.1	25	48	0	41	18
DEC.									
11...	1745	13	9.8	6.2	12	27	0	21	22
JAN.									
24...	1500	14	9.0	6.7	11	31	0	31	12
FEB.									
06...	1700	14	10	6.3	18	40	0	31	15
MAR.									
01...	1345	8.8	12	5.4	19	44	0	36	16
APR.									
02...	1430	14	11	5.5	14	34	0	30	12
MAY									
21...	1320	13	14	5.4	25	56	0	33	17
JUNE									
25...	1500	15	12	5.6	19	47	0	29	12
JULY									
26...	1310	15	12	4.4	51	94	0	41	20
AUG.									
21...	1400	12	12	3.9	34	71	0	34	14
SEP.									
26...	1310	14	12	5.6	29	86	0	35	18

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.									
16...	.2	.25	.01	.18	2.2	3.7	274	41	0
NOV.									
29...	.1	.11	.04	.53	.8	.53	145	55	16
DEC.									
11...	.0	.16	.01	.22	.7	.34	100	50	28
JAN.									
24...	.1	.40	.01	.48	.1	.37	100	50	25
FEB.									
06...	.2	.17	.03	.50	1.2	.37	121	51	18
MAR.									
01...	.1	.21	.04	1.2	.3	.60	122	52	16
APR.									
02...	.1	.16	.06	.65	1.8	.39	113	50	22
MAY									
21...	.2	.28	.10	.19	1.8	.46	144	57	11
JUNE									
25...	.2	.25	.06	.06	2.0	.44	125	53	14
JULY									
26...	.3	.30	.50	.95	3.2	2.1	206	48	0
AUG.									
21...	.2	.28	.30	.72	1.9	.88	155	46	0
SEP.									
26...	.3	.70	.38	5.5	.6	2.2	167	53	0

NECHES RIVER BASIN

08037080 BAYOU LaNANA NEAR NACOGDOCHES, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 16...	5.8	506	6.7	25.0	6.2	74	--	270	--
NOV. 29...	1.5	241	6.7	13.0	10.2	96	3.9	0	0
DEC. 11...	.7	181	7.0	7.0	10.6	87	--	90	0
JAN. 24...	.7	185	6.3	14.0	9.6	92	1.8	80	5
FEB. 06...	1.1	202	6.9	15.5	10.2	101	--	0	--
MAR. 01...	1.1	238	7.1	14.5	9.4	91	3.4	200	0
APR. 02...	.9	189	6.8	16.5	10.0	102	--	300	--
MAY 21...	1.4	229	6.7	25.0	8.0	95	2.1	350	5
JUNE 25...	1.1	206	7.1	26.5	8.0	98	--	200	--
JULY 26...	3.2	363	6.7	28.0	4.0	51	6.1	250	5
AUG. 21...	2.2	278	6.5	27.0	4.6	57	--	750	--
SEP. 26...	1.7	324	7.0	25.0	7.2	86	7.6	260	10

NECHES RIVER BASIN

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08037200 PAPER MILL CREEK NEAR HERTY, TEX.

LOCATION.--Lat 31°23'32", long 94°39'46", Angelina County, at bridge on county road, 2.3 miles (3.7 km) northeast of Herty, and 2.0 miles (3.2 km) upstream from Mill Creek.

PERIOD OF RECORD.--Chemical analyses: June 1964 to September 1967.
Chemical and biochemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 16...	1830	12	44	4.4	370	290	0	240	320
NOV. 30...	0830	14	100	8.9	330	343	0	200	370
DEC. 12...	0915	14	66	8.6	330	310	0	190	340
JAN. 24...	1600	14	40	12	410	250	0	220	420
FEB. 07...	0930	14	50	6.1	340	168	0	200	390
MAR. 01...	1545	15	66	5.2	340	306	0	200	330
APR. 02...	1700	14	42	4.6	320	236	0	190	310
MAY 21...	1445	14	85	7.8	400	382	0	240	400
JUNE 25...	1645	14	80	6.2	320	280	0	190	350
JULY 26...	1415	13	43	.9	330	208	0	220	300
AUG. 21...	1450	13	64	1.6	360	258	0	220	350
SEP. 26...	1410	14	43	7.9	321	144	0	230	340

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 16...	.2	.52	.00	.75	.00	.60	1130	130	0
NOV. 30...	.1	.44	.00	.55	.1	.38	1200	300	15
DEC. 12...	.0	.37	.01	.57	.05	.28	1100	200	0
JAN. 24...	.2	.47	.00	.18	.5	.44	1240	150	0
FEB. 07...	.2	.42	.01	.19	.00	.15	1090	150	12
MAR. 01...	.2	.27	.00	.41	.00	1.1	1100	190	0
APR. 02...	.2	.62	.00	.79	.08	.78	1000	120	0
MAY 21...	.2	.80	.00	.85	.01	.88	1340	240	0
JUNE 25...	.2	.63	.00	1.3	.04	.26	1100	220	0
JULY 26...	.2	.66	.01	.74	.05	.14	1010	110	0
AUG. 21...	.2	.40	.00	.48	.1	.22	1130	170	0
SEP. 26...	.2	.93	.00	.48	.00	.20	1030	140	22

NECHES RIVER BASIN

08037200 PAPER MILL CREEK NEAR HERTY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 16...	14	1870	7.4	37.0	4.8	70	--	800	--
NOV. 30...	8.3	2010	7.6	26.5	4.8	59	40	700	0
DEC. 12...	10	1870	8.2	27.0	5.2	64	--	300	0
JAN. 24...	14	2100	7.1	29.5	3.8	49	30	300	0
FEB. 07...	12	1840	7.5	30.0	5.2	68	--	350	--
MAR. 01...	11	1820	7.3	29.5	4.0	52	38	300	0
APR. 02...	13	1740	7.4	32.5	5.0	68	--	400	--
MAY 21...	11	2100	7.6	37.5	4.6	68	37	830	0
JUNE 25...	9.3	1860	7.5	37.0	5.8	84	--	940	--
JULY 26...	13	1790	7.0	41.0	5.2	80	18	200	0
AUG. 21...	12	1970	7.0	38.5	5.2	76	--	400	--
SEP. 26...	12	1880	7.2	36.0	6.2	89	23	700	0

08037250 ANGELINA RIVER BELOW PAPER MILL CREEK, NEAR HERTY, TEX.

LOCATION.--Lat 31°26'22", long 94°37'11", Angelina County, at end of county road, 7 miles (11 km) northeast of Herty, and 1.5 miles (2.4 km) downstream from Paper Mill Creek.

PERIOD OF RECORD.--Chemical analyses: June 1954 to September 1967.

Chemical and biochemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
16...	1800	13	40	6.8	200	108	0	94	260
NOV.									
29...	1630	14	12	5.4	44	30	0	42	56
JAN.									
25...	0900	13	10	6.3	33	30	0	41	40
FEB.									
06...	1800	10	14	5.1	48	40	0	43	58
MAR.									
01...	1445	9.8	15	5.0	48	43	0	51	52
APR.									
02...	1600	12	30	6.6	130	112	0	88	150
MAY									
21...	1555	14	20	6.6	60	76	0	41	72
JUNE									
25...	1600	12	27	6.2	81	84	0	57	100
JULY									
26...	1520	15	18	4.2	54	59	0	42	62
AUG.									
21...	1525	14	14	5.6	77	87	0	60	66
SEP.									
26...	1515	17	14	6.6	64	62	0	54	66

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.									
16...	.1	.40	.01	.38	.05	.35	663	130	40
NOV.									
29...	.0	.20	.00	.08	.07	.15	189	52	27
JAN.									
25...	.0	.18	.00	.27	.2	.09	160	51	26
FEB.									
06...	.1	.22	.00	.06	.06	.07	199	56	23
MAR.									
01...	.0	.23	.00	.09	.04	.12	202	59	23
APR.									
02...	.1	.32	.01	.63	.06	.37	477	100	10
MAY									
21...	.1	.30	.01	.27	.2	.19	252	77	15
JUNE									
25...	.1	.33	.01	.23	.1	.12	325	93	24
JULY									
26...	.1	.37	.02	.11	.2	.16	225	62	14
AUG.									
21...	.2	.25	.00	.35	.1	.14	281	58	0
SEP.									
26...	.1	.28	.01	.14	.2	.19	253	62	11

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	HTO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MANG- ANESE (MN) (UG/L)
OCT.									
16...	7.5	1220	6.7	26.0	3.2	39	--	800	--
NOV.									
29...	2.7	348	6.3	--	--	--	4.0	540	0
JAN.									
25...	2.0	288	6.6	10.0	8.9	79	1.9	580	0
FEB.									
06...	2.8	388	6.7	16.0	8.2	82	--	450	--
MAR.									
01...	2.7	376	6.9	15.0	8.6	84	2.4	600	0
APR.									
02...	5.8	862	6.9	22.0	9.6	109	--	1500	--
MAY									
21...	3.0	442	6.7	27.0	7.0	86	1.8	2500	5
JUNE									
25...	3.7	601	6.9	26.0	6.2	76	--	880	--
JULY									
26...	3.0	424	6.8	31.5	6.8	92	2.6	1100	5
AUG.									
21...	4.4	507	6.3	28.5	4.4	56	--	1100	--
SEP.									
26...	3.5	472	6.9	26.5	8.4	102	3.5	1100	5

NECHES RIVER BASIN

08037330 ANGELINA RIVER NEAR ETOILE, TEX.

LOCATION.--Lat 31°22'24", long 94°28'27", Nacogdoches County, at bridge on State Highway 103, 2.3 miles (3.7 km) west of Etoile.

PERIOD OF RECORD.--Chemical analyses: June 1964 to September 1967.
Chemical and biochemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 17...	0900	7.2	22	11	110	109	0	63	130
NOV. 30...	0930	12	10	5.1	31	15	0	34	47
DEC. 12...	1130	14	10	5.6	41	20	0	38	58
JAN. 25...	1030	12	8.5	4.3	26	14	0	32	35
FEB. 07...	1015	11	9.0	4.3	26	21	0	33	32
MAR. 01...	1630	6.9	9.5	4.4	26	19	0	34	33
APR. 03...	0730	7.9	7.0	2.6	13	22	0	18	14
MAY 21...	1730	12	9.0	5.0	20	43	0	18	23
JUNE 25...	1830	11	7.8	2.6	10	24	0	16	12
JULY 26...	1725	13	12	4.1	19	46	0	14	25
AUG. 21...	1830	13	11	5.2	28	46	0	20	36
SEP. 26...	1625	13	9.2	3.2	20	22	0	24	26

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 17...	.1	.16	.00	.22	.05	.29	394	100	12
NOV. 30...	.0	.21	.00	.10	.08	.19	147	46	34
DEC. 12...	.0	.11	.00	.07	.08	.04	177	48	32
JAN. 25...	.1	.14	.00	.03	.2	.05	126	39	28
FEB. 07...	.1	.21	.00	.10	.2	.16	126	40	23
MAR. 01...	.0	.84	.00	.09	.06	.02	123	42	26
APR. 03...	.0	.30	.01	.16	.2	.09	75	28	10
MAY 21...	.1	.38	.00	.20	.1	.25	109	43	8
JUNE 25...	.0	.99	.01	.17	.06	.53	72	30	10
JULY 26...	.1	.23	.01	.37	.2	.16	112	47	9
AUG. 21...	.1	.15	.00	.29	.06	.08	137	49	11
SEP. 26...	.1	.18	.00	.06	.07	.10	107	36	18

NECHES RIVER BASIN

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08037330 ANGELINA RIVER NEAR ETOILE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT.									
17...	4.6	691	6.5	23.0	1.4	16	--	2700	--
NOV.									
30...	2.0	267	6.7	9.0	9.7	84	5.1	1300	0
DEC.									
12...	2.6	285	7.4	8.0	9.9	83	--	400	0
JAN.									
25...	1.8	226	6.3	12.0	8.1	75	1.2	370	0
FEB.									
07...	1.8	221	6.7	12.0	8.6	80	--	450	--
MAR.									
01...	1.7	236	6.7	12.0	8.0	74	1.4	600	0
APR.									
03...	1.1	130	6.9	17.0	7.0	92	--	900	--
MAY									
21...	1.3	172	6.2	24.5	8.0	95	3.3	1800	10
JUNE									
25...	.8	129	6.6	26.5	6.7	82	--	1300	--
JULY									
26...	1.2	206	6.5	31.0	7.0	93	1.5	3200	20
AUG.									
21...	1.7	253	6.0	29.0	5.4	69	--	3500	--
SEP.									
26...	1.4	199	7.0	24.5	7.2	86	2.0	2400	5

NECHES RIVER BASIN

08038100 ATTOYAC BAYOU NEAR ETOILE, TEX.

LOCATION.--Lat 31°23'02", long 94°19'20", Nacogdoches County, at State Highway 103 bridge, 6.5 miles (10.5 km) east of Etoile, and 8 miles (13 km) south of Chireno.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1967.

Chemical and biochemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 17...	1045	--	--	--	--	22	0	10
NOV. 30...	1030	--	9.0	5.5	--	22	0	--
DEC. 12...	1315	--	--	--	--	26	0	--
JAN. 25...	1130	13	8.5	4.1	13	23	0	28
FEB. 07...	1145	12	--	--	--	24	0	--
MAR. 02...	0730	--	--	--	--	29	0	--
APR. 03...	0845	--	--	--	--	24	0	19
MAY 22...	0745	--	--	--	--	38	0	--
JUNE 26...	0715	--	--	--	--	29	0	16
JULY 26...	1830	--	--	--	--	34	0	--
AUG. 22...	0800	--	--	--	--	32	0	--
SEP. 26...	1745	--	--	--	--	35	0	--

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 17...	7.0	--	.00	.19	.1	.14	--	36	18
NOV. 30...	18	--	.00	.05	.2	.13	--	45	27
DEC. 12...	15	--	.00	.02	.1	.06	--	52	31
JAN. 25...	12	.1	.00	.00	.2	.07	91	38	19
FEB. 07...	14	--	.00	.07	.1	.09	--	40	20
MAR. 02...	16	--	.00	.04	.04	.04	--	50	26
APR. 03...	8.0	--	.00	.10	.1	.09	--	32	12
MAY 22...	10	--	.00	.13	.06	.18	--	40	9
JUNE 26...	8.0	--	.01	.06	.05	.28	--	33	9
JULY 26...	10	--	.01	.05	.2	.10	--	38	10
AUG. 22...	10	--	.00	.10	.06	.18	--	35	9
SEP. 26...	12	--	.00	.07	.1	.22	--	40	11

NECHES RIVER BASIN

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08038100 ATTOYAC BAYOU NEAR ETOILE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 17...	--	109	5.7	23.5	6.0	70	750	--
NOV. 30...	--	192	6.6	8.5	10.5	89	320	0
DEC. 12...	--	184	7.3	8.5	11.4	97	170	0
JAN. 25...	.9	150	6.3	11.5	11.0	67	280	0
FEB. 07...	--	156	6.6	13.0	9.0	85	400	--
MAR. 02...	--	189	7.3	13.0	8.7	82	500	5
APR. 03...	--	114	6.7	17.0	5.5	57	600	--
MAY 22...	--	135	6.4	24.5	4.8	57	1600	400
JUNE 26...	--	115	6.5	24.5	4.0	48	1400	--
JULY 26...	--	134	6.6	28.0	4.8	61	1400	40
AUG. 22...	--	138	6.8	27.0	6.8	84	950	--
SEP. 26...	--	148	6.7	23.5	7.2	84	2200	20

NECHES RIVER BASIN

08038490 SAM RAYBURN RESERVOIR NEAR ZAVALLA, TEX.

LOCATION.--Lat 31°13'26", long 94°19'29", Angelina County, at bridge on State Highway 147, approximately 8 miles (13 km) northeast of Zavalla.

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT. 17...	1200	--	--	--	--	41	0	17	29	--	.00	.23
NOV. 30...	1115	--	9.0	5.0	--	35	0	--	32	--	.00	.08
DEC. 12...	1430	--	--	--	--	38	0	--	32	--	.00	.07
JAN. 25...	1250	4.8	8.0	4.6	28	31	0	28	32	.1	.00	.00
FEB. 07...	1315	2.9	--	--	--	24	0	--	37	--	.00	.09
MAR. 02...	0845	--	--	--	--	20	0	--	30	--	.00	.08
APR. 03...	1010	--	--	--	--	19	0	30	24	--	.00	.05
MAY 22...	0930	--	--	--	--	30	0	--	24	--	.00	.14
JUNE 26...	0900	--	--	--	--	34	0	18	18	--	.00	.12
JULY 27...	0800	--	--	--	--	30	0	--	18	--	.00	.04
AUG. 22...	0950	--	--	--	--	46	0	--	18	--	.00	.58
SEP. 27...	0815	--	--	--	--	32	0	--	18	--	.00	.03

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FF) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 17...	--	.07	57	23	--	225	6.0	24.0	6.8	80	240	--
NOV. 30...	.03	.34	43	14	--	222	6.9	11.0	10.5	95	40	0
DEC. 12...	.07	.00	43	12	--	219	7.5	10.0	10.8	96	40	0
JAN. 25...	.2	.01	39	14	1.9	232	6.4	10.5	9.9	88	80	0
FEB. 07...	.3	.07	38	18	--	244	7.0	9.0	10.2	88	350	--
MAR. 02...	.1	.03	34	18	--	214	7.4	11.0	9.5	86	400	5
APR. 03...	.1	.07	35	19	--	194	6.8	15.0	8.2	80	400	--
MAY 22...	.1	.01	40	15	--	178	6.7	24.5	8.2	98	1200	10
JUNE 26...	.06	.00	40	12	--	168	6.5	24.0	6.0	71	950	--
JULY 27...	.04	.02	37	12	--	160	6.7	23.0	3.2	37	1500	10
AUG. 22...	.1	.11	45	7	--	176	6.5	26.0	4.6	56	3200	--
SEP. 27...	.00	.04	37	11	--	161	6.3	24.5	6.0	71	120	0

NECHES RIVER BASIN

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08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TEX.

LOCATION.--Lat 31°03'38", long 94°06'21", Jasper County, at Sam Rayburn Dam on the Angelina River, 10 miles (16 km) northwest of Jasper.

DRAINAGE AREA.--3,449 mi² (8,933 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1967.

Chemical and biochemical analyses: November 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA* WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)
OCT. 17...	1530	--	--	--	--	38	0	16	26	--	.00	.11
NOV. 30...	1230	--	10	3.9	--	39	0	--	26	--	.00	.09
DEC. 12...	1700	--	--	--	--	38	0	--	27	--	.00	.04
JAN. 25...	1500	3.2	9.0	3.5	22	36	0	19	25	.1	.00	.00
FEB. 07...	1700	2.9	--	--	--	35	0	--	26	--	.00	.02
MAR. 02...	1015	--	--	--	--	32	0	--	27	--	.00	.04
APR. 03...	1345	--	--	--	--	30	0	21	26	--	.00	.02
MAY 22...	1120	--	--	--	--	29	0	--	24	--	.00	.22
JUNE 26...	1300	--	--	--	--	32	0	24	26	--	.00	.05
JULY 27...	1030	--	--	--	--	25	0	--	18	--	.00	.02
AUG. 22...	1345	--	--	--	--	25	0	--	18	--	.00	.18
SEP. 27...	1100	--	--	--	--	30	0	--	20	--	.00	.03

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT. 17...	.00	.04	45	14	--	203	6.2	25.0	6.4	76	50	--
NOV. 30...	.00	.02	41	9	--	200	7.1	12.5	10.4	97	0	0
DEC. 12...	.1	.00	42	11	--	201	7.6	11.5	11.1	101	0	0
JAN. 25...	.2	.01	37	8	1.6	196	6.6	11.0	10.6	95	10	0
FEB. 07...	.2	.01	37	8	--	197	7.5	10.5	11.6	104	0	--
MAR. 02...	.2	.01	36	10	--	200	7.5	11.0	10.0	90	100	0
APR. 03...	.05	.01	40	15	--	194	6.8	15.0	9.8	96	150	--
MAY 22...	.2	.00	35	11	--	180	6.8	22.0	8.2	93	200	0
JUNE 26...	.1	.00	38	12	--	204	7.0	26.0	6.8	83	140	--
JULY 27...	.02	.01	34	14	--	160	6.5	30.0	7.2	95	80	0
AUG. 22...	.00	.00	32	12	--	159	6.3	29.5	8.8	114	20	--
SEP. 27...	.00	.03	36	11	--	164	6.5	24.5	7.4	88	80	20

NECHES RIVER BASIN

08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.

LOCATION.--Lat 31°03'30", long 94°06'20", Jasper County, immediately below Sam Rayburn Dam, 7.6 miles (12.2 km) upstream from gaging station at Horger, and 10 miles (16 km) northwest of Jasper.

DRAINAGE AREA.--3,449 mi² (8,933 km²).

PERIOD OF RECORD.--Chemical analyses: October 1963 to January 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Water temperatures: October 1963 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 252 micromhos Nov. 17; minimum daily, 60 micromhos June 21.

Water temperatures: Maximum, 26.5°C Sept. 30; minimum, 8.0°C Jan. 12, 13, 29.

EXTREMES, October 1966 to September 1973.--Specific conductance: Maximum daily, 350 micromhos Sept. 21, 1969; minimum daily, 60 micromhos June 21, 1973.

Water temperatures: Maximum, 30.0°C Sept. 28, 1972; minimum, 7.0°C Feb. 11, 22, 1968.

REMARKS.--Discharge records are not available for most of year because of backwater from Dam B. Reservoir.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 17...	1600	2.2	10	5.4	17	38	0	18	25	.1	.08
NOV. 30...	1245	3.4	10	3.7	22	38	0	18	27	.0	.09
DEC. 12...	1645	3.2	10	3.9	20	38	0	16	26	.0	.07
JAN. 25...	1430	3.2	9.5	4.0	21	36	0	19	26	.1	.13
FEB. 07...	1645	2.9	9.0	4.3	21	35	0	18	27	.2	.14
MAR. 02...	1045	2.6	8.5	4.1	22	32	0	21	27	.1	.09
APR. 03...	1330	3.8	9.0	3.3	23	30	0	22	26	.1	.18
MAY 22...	1100	4.4	7.5	4.9	24	35	0	22	27	.1	.18
JUNE 26...	1230	4.5	10	3.7	21	30	0	23	26	.1	.22
JULY 27...	1010	5.8	10	3.4	23	35	0	22	26	.1	.09
AUG. 22...	1330	3.3	8.5	3.6	15	26	0	20	19	.1	.11
SEP. 27...	1020	5.3	9.0	4.0	13	27	0	18	19	.1	.15

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 17...	.00	.08	.00	.02	--	97	14	3	47	16	1.1
NOV. 30...	.00	.09	.00	.02	--	103	10	7	40	9	1.5
DEC. 12...	.00	.01	.09	.00	--	99	--	--	41	10	1.4
JAN. 25...	.00	.00	.2	.01	--	102	8	8	40	10	1.4
FEB. 07...	.00	.05	.2	.03	--	100	--	--	40	12	1.4
MAR. 02...	.01	.07	.00	.01	--	101	10	4	38	12	1.6
APR. 03...	.00	.06	.3	.01	--	104	--	--	36	12	1.7
MAY 22...	.00	.08	.2	.00	91	108	87	--	39	10	1.7
JUNE 26...	.00	.06	.2	.21	--	104	--	--	40	16	1.4
JULY 27...	.00	.10	.02	.02	--	108	73	0	39	10	1.6
AUG. 22...	.00	.09	.00	.00	--	83	--	--	36	15	1.1
SEP. 27...	.00	.04	.00	.02	--	81	--	--	39	17	.9

NECHES RIVER BASIN

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08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)
OCT. 17...	202	6.4	25.5	--	--	6.4	77	--	--	30	0
NOV. 30...	202	7.1	13.0	5	5	10.4	98	1.6	--	--	--
DEC. 12...	201	7.2	12.0	--	--	12.3	114	--	--	--	--
JAN. 25...	198	6.7	11.0	30	6	10.6	95	1.0	7.5	--	--
FEB. 07...	195	7.5	12.0	--	--	12.0	111	--	--	30	0
MAR. 02...	200	7.8	13.0	30	5	10.4	98	1.0	9.5	--	--
APR. 03...	194	6.8	15.0	--	--	10.0	98	--	--	60	0
MAY 22...	182	6.7	22.0	30	8	8.2	93	1.0	8.0	--	--
JUNE 26...	206	7.0	22.0	--	--	6.8	77	--	--	70	0
JULY 27...	206	6.5	21.0	20	50	6.8	76	.7	10	--	--
AUG. 22...	165	6.2	27.5	--	--	6.8	85	--	--	10	0
SEP. 27...	170	6.5	23.5	--	--	7.0	81	1.3	20	--	--

DATE	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 17...	0	0	0	1	0	0	10	130	7	150	10
NOV. 30...	--	--	--	--	0	--	--	0	--	--	--
DEC. 12...	--	--	--	--	--	--	--	--	--	--	--
JAN. 25...	--	--	--	--	20	--	--	0	--	--	--
FEB. 07...	1	0	0	2	30	0	0	0	12	140	10
MAR. 02...	--	--	--	--	100	--	--	0	--	--	--
APR. 03...	0	0	0	2	160	0	0	0	0	190	10
MAY 22...	--	--	--	--	200	--	--	5	--	--	--
JUNE 26...	0	0	0	4	200	0	0	80	0	180	0
JULY 27...	--	--	--	--	100	--	--	0	--	--	--
AUG. 22...	0	0	0	2	210	0	0	480	0	160	10
SEP. 27...	--	--	--	--	120	--	--	200	--	--	--

NECHES RIVER BASIN

08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	209	204	210	192	200	191	188	200	158	195	194
2	---	213	207	206	194	197	205	184	197	161	199	216
3	204	209	219	197	190	208	205	179	234	164	195	214
4	205	223	207	197	189	208	188	201	197	---	209	221
5	205	213	209	204	---	211	189	206	193	165	78	192
6	208	221	205	206	190	200	189	208	200	165	209	196
7	210	213	205	---	190	200	188	201	200	162	211	197
8	225	223	205	199	190	197	189	184	200	165	211	192
9	226	215	206	193	188	197	188	184	202	165	218	192
10	209	211	---	198	187	209	184	183	---	160	215	---
11	209	211	205	208	194	---	189	181	198	161	215	197
12	209	211	211	204	193	210	189	180	190	162	---	192
13	208	211	216	203	196	200	189	184	204	162	213	197
14	212	215	210	---	191	200	188	172	181	162	196	168
15	221	227	212	203	195	200	188	172	158	---	192	197
16	221	248	216	204	193	192	188	176	71	161	---	208
17	210	252	---	218	200	202	212	176	63	161	191	204
18	209	223	211	220	202	217	201	179	152	206	194	192
19	211	---	240	216	203	205	---	176	143	---	---	190
20	231	215	232	222	203	205	201	176	131	195	163	190
21	208	219	210	---	194	188	203	170	60	195	196	192
22	210	---	207	208	192	191	132	176	153	222	195	197
23	210	217	208	204	196	193	188	172	64	222	195	209
24	218	212	208	193	203	192	206	170	---	193	195	160
25	216	228	---	238	199	193	212	173	205	191	195	161
26	216	217	220	193	199	205	184	---	192	196	216	161
27	218	211	203	204	197	204	184	---	197	195	---	166
28	218	207	211	204	194	188	183	---	209	200	169	193
29	---	---	221	192	---	189	189	176	165	196	193	188
30	225	198	---	192	---	192	184	176	158	162	195	161
31	207	---	209	193	---	191	---	191	---	201	192	---
MONTH	214	217	212	205	195	199	191	182	168	179	194	191

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	20.0	12.0	11.0	9.0	10.0	14.0	17.0	20.5	21.5	16.5	18.5
2	---	19.5	14.5	10.0	9.0	12.0	14.5	17.0	20.0	22.0	16.5	18.0
3	19.0	19.5	17.0	10.0	9.5	10.0	14.0	18.0	20.0	22.0	16.5	16.5
4	18.5	19.0	13.0	10.0	10.0	10.0	14.0	16.5	19.0	---	16.5	16.5
5	21.5	19.5	13.5	10.5	---	13.5	14.0	15.5	20.0	23.0	23.0	20.0
6	21.0	19.0	12.0	10.5	9.5	12.0	14.0	16.5	19.0	22.0	16.5	19.0
7	19.0	19.5	12.0	---	10.0	11.0	14.5	16.5	20.0	22.0	16.5	16.5
8	18.5	19.0	13.0	9.5	9.5	12.0	14.5	18.0	19.5	22.0	16.5	17.0
9	18.0	19.0	13.5	9.0	9.0	11.0	13.5	18.0	20.0	21.5	16.5	17.0
10	19.5	18.5	---	8.5	9.0	12.0	13.5	19.0	---	22.0	16.5	---
11	20.5	16.5	11.5	8.5	10.0	---	14.0	19.0	19.0	23.5	17.0	18.0
12	19.5	16.0	12.0	8.0	9.0	12.0	14.0	19.5	19.0	23.5	---	21.0
13	19.5	18.5	11.5	8.0	9.0	12.0	14.0	19.5	19.0	23.5	16.5	22.0
14	19.0	18.0	11.5	---	9.0	11.0	14.5	18.5	19.0	23.5	18.5	24.5
15	19.0	18.0	10.5	9.0	8.5	11.0	15.0	19.5	19.0	---	18.5	21.0
16	20.0	18.0	11.0	9.0	8.5	11.0	14.5	20.0	22.0	23.5	---	21.0
17	19.5	16.5	---	9.0	9.0	15.5	14.5	20.0	23.5	23.5	19.5	21.0
18	20.5	13.5	10.0	9.0	10.0	13.5	14.5	21.0	21.0	19.0	19.5	22.0
19	20.5	---	11.0	9.0	9.0	13.5	---	21.0	21.0	---	---	23.0
20	19.0	13.5	11.0	9.5	9.5	11.0	15.0	21.5	21.5	20.5	23.0	22.0
21	21.0	13.5	10.5	---	10.0	13.5	---	21.0	22.0	21.0	18.0	22.0
22	20.5	---	10.0	9.0	10.0	13.5	15.5	19.5	20.0	18.5	18.0	21.5
23	20.5	14.5	10.0	9.0	10.0	13.5	16.0	20.0	22.0	17.0	17.0	20.5
24	20.5	14.5	10.5	9.5	10.0	13.5	16.0	20.5	---	19.5	18.0	25.5
25	20.5	12.0	---	9.5	11.0	13.5	16.5	20.5	18.5	20.0	18.5	26.0
26	20.0	14.0	11.0	9.5	10.0	13.5	18.5	---	19.0	19.0	16.0	26.0
27	19.5	14.0	10.5	10.0	10.5	13.5	18.0	---	18.5	19.0	---	25.0
28	16.0	13.5	10.0	10.0	10.5	13.5	18.5	---	18.5	20.0	20.5	21.0
29	---	---	10.5	8.0	---	14.5	18.5	21.0	23.5	16.5	18.5	22.0
30	20.5	13.0	---	9.0	---	14.5	17.0	21.5	21.5	23.0	18.5	26.5
31	20.0	---	11.0	9.0	---	14.5	---	21.0	---	16.5	18.5	---
MONTH	19.5	16.5	11.5	9.5	9.5	12.5	15.0	19.0	20.0	21.0	18.0	21.0

08041000 NECHES RIVER AT EVADALE, TEX.

LOCATION.--Lat 30°21'22", long 94°05'36", Jasper County, at gaging station at bridge on U.S. Highway 96 at Evadale, 0.8 mile (1.3 km) upstream from Mill Creek, and 16 miles (25.7 km) upstream from Village Creek.

DRAINAGE AREA.--7,951 mi² (20,593 km²).

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1947 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 201 micromhos Oct. 11, 14; minimum daily, 67 micromhos June 23.

Water temperatures: Maximum, 30.0°C July 25; minimum, 5.0°C Jan. 13.

EXTREMES, October 1947 to September 1973.--Specific conductance: Maximum daily, 422 micromhos Jan. 25, 1957; minimum daily, 23 micromhos Sept. 19, 1963.

Water temperatures: Maximum, 34.0°C June 29, 1953; minimum, 3.0°C Jan. 30, 31, 1948, Jan. 31, 1949, Jan. 24, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
15...	0800	1400	4.8	7.0	4.3	22	38	0	12	28	.2
18...	1545	1400	7.3	9.5	4.2	20	36	0	15	28	.0
NOV.											
27...	0800	1940	11	9.5	2.3	17	30	0	11	24	.0
DEC.											
13...	1330	2460	12	7.5	3.7	14	26	0	12	22	.0
24...	0800	6800	10	7.5	1.3	19	22	0	21	18	.0
JAN.											
12...	1230	11200	9.3	7.3	2.9	15	21	0	19	18	.1
FEB.											
08...	1500	4420	6.6	9.0	2.8	18	26	0	19	22	.1
26...	0800	8140	6.9	8.2	2.6	21	29	0	20	23	.0
MAR.											
25...	0800	15000	6.4	3.0	4.3	13	22	0	14	14	.0
APR.											
04...	1045	18000	5.9	7.0	2.1	11	20	0	14	14	.0
24...	0800	22900	5.6	5.5	1.0	7.7	16	0	9.0	8.0	.0
MAY											
30...	0800	13000	4.2	8.3	3.2	17	29	0	15	22	.1
JUNE											
23...	0800	30100	5.6	4.7	1.3	4.5	15	0	5.6	6.0	.0
27...	1140	20800	6.5	7.5	3.2	8.6	30	0	12	9.5	.0
JULY											
10...	1015	19800	5.3	8.5	3.8	13	28	0	16	18	.0
AUG.											
22...	1945	4510	6.7	9.8	4.3	13	32	0	16	19	.1
28...	0800	3510	12	11	5.2	21	49	0	10	31	.2
SEP.											
13...	0900	7900	7.8	7.5	2.5	12	25	0	12	16	.1

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.											
15...	--	--	--	.1	--	98	--	--	35	4	1.6
18...	.03	.00	.10	.03	.06	102	50	31	41	11	1.4
NOV.											
27...	--	--	--	.04	--	90	--	--	33	8	1.3
DEC.											
13...	.11	.00	.05	.07	.05	85	65	22	34	13	1.0
24...	--	--	--	.1	--	88	--	--	24	6	1.7
JAN.											
12...	--	--	--	.1	--	82	--	--	30	13	1.2
FEB.											
08...	.21	.00	.07	.1	.03	91	48	24	34	13	1.3
26...	--	--	--	.08	--	96	--	--	31	7	1.6
MAR.											
25...	--	--	--	.1	--	66	--	--	25	7	1.1
APR.											
04...	.26	.00	.13	.1	.05	65	61	4	26	10	.9
24...	--	--	--	.2	--	46	--	--	18	5	.8
MAY											
30...	--	--	--	.2	--	85	--	--	34	10	1.3
JUNE											
23...	--	--	--	.07	--	35	--	--	17	5	.5
27...	.33	.00	.06	.1	.03	63	48	23	32	7	.7
JULY											
10...	--	--	--	.04	--	79	--	--	37	14	.9
AUG.											
22...	.13	.00	.00	.01	.02	85	37	23	42	16	.9
28...	--	--	--	.00	--	114	--	--	49	9	1.3
SEP.											
13...	--	--	--	.00	--	70	--	--	29	8	1.0

NECHES RIVER BASIN

08041000 NECHES RIVER AT EVADALE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
		(UNITS)									
OCT.											
15...	199	7.5	24.0	--	--	--	--	--	--	--	--
18...	195	6.2	26.0	--	--	8.5	104	1.9	41	80	0
NOV.											
27...	160	7.0	10.0	--	--	--	--	--	--	--	--
DEC.											
13...	149	7.8	11.0	120	40	11.2	101	2.8	15	--	--
24...	140	7.0	12.0	--	--	--	--	--	--	--	--
JAN.											
12...	141	6.4	7.0	--	--	--	--	--	--	--	--
FEB.											
08...	169	6.8	10.0	160	30	10.2	90	1.0	12	70	0
26...	172	7.5	12.0	--	--	--	--	--	--	--	--
MAR.											
25...	119	6.3	18.0	--	--	--	--	--	--	--	--
APR.											
04...	123	6.7	15.5	120	35	9.2	91	1.5	20	120	0
24...	80	6.8	22.0	--	--	--	--	--	--	--	--
MAY											
30...	178	7.0	24.0	--	--	--	--	--	--	--	--
JUNE											
23...	67	6.1	24.0	--	--	--	--	--	--	--	--
27...	101	6.0	27.0	120	25	7.3	90	1.2	18	--	--
JULY											
10...	147	7.1	25.5	--	--	--	--	--	--	--	--
AUG.											
22...	164	6.6	28.5	30	15	8.8	111	1.8	12	50	0
28...	220	6.5	27.0	--	--	--	--	--	--	--	--
SEP.											
13...	133	6.1	27.0	--	--	--	--	--	--	--	--

[illegible]

NECHES RIVER BASIN

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08041000 NECHES RIVER AT EVADALE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 18...	1545	1450	26.0	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 08...	1500	4420	10.0	.00	.0	.00	.0	.00	.0	.00	1.4
APR. 04...	1045	19000	15.5	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 22...	1945	3800	28.5	.00	.0	.00	.0	.00	.0	.00	.0

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 18...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 08...	.00	.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 04...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 18...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 08...	2	.0	0	.00	.00	.00	.00	.00	.21	.01
APR. 04...	0	.0	0	.00	.00	.00	.00	.03	.04	.00
AUG. 22...	0	.0	0	.01	.00	.00	.00	.00	.02	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	43960	189	110	13100	26	3090	18	2140	36
NOV.	65770	163	91	16200	21	3730	16	2840	32
DEC.	119880	153	85	27500	20	6470	16	5180	30
JAN. 1973....	234220	139	77	48700	17	10800	15	9490	28
FEB.	312250	152	85	71700	19	16000	16	13500	30
MAR.	369580	155	86	85800	20	20000	16	16000	31
APR.	621500	122	68	114000	14	23500	14	23500	26
MAY	567600	144	80	123000	18	27600	15	23000	29
JUNE	464520	110	61	76500	12	15100	13	16300	24
JULY	391820	149	83	87800	19	20100	15	15900	30
AUG.	122000	155	86	28300	20	6590	16	5270	31
SEP.	203160	147	82	45000	19	10400	15	8230	30
TOTAL	3516260	--	--	738000	--	163000	--	141000	--
WTD. AVG. ...	9634	139	78	--	17	--	15	--	28

NECHES RIVER BASIN

08041000 NECHES RIVER AT EVADALE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	174	170	153	144	182	138	131	177	121	156	163
2	193	165	175	149	143	186	137	141	181	133	150	165
3	184	171	171	136	145	189	131	142	182	141	140	168
4	189	177	171	150	149	174	124	138	184	149	132	165
5	190	177	180	154	155	166	124	139	186	150	128	138
6	192	173	165	154	158	164	125	140	180	145	138	143
7	195	166	164	159	163	169	130	134	185	148	142	144
8	194	187	166	152	163	182	136	126	188	150	148	141
9	194	189	162	148	161	173	142	114	188	150	148	142
10	197	191	162	142	167	166	150	99	184	147	147	138
11	201	191	156	138	161	168	158	97	182	144	143	135
12	197	186	153	134	162	164	161	102	166	143	146	133
13	200	179	139	132	164	169	168	113	165	146	150	134
14	201	173	144	135	154	170	166	128	152	149	146	135
15	199	164	164	134	149	176	168	136	112	154	143	138
16	194	143	160	138	133	178	163	145	126	156	147	140
17	197	155	134	139	133	182	152	152	131	160	155	141
18	190	155	145	135	137	179	136	156	115	160	157	145
19	179	142	157	130	137	171	114	162	96	159	160	146
20	195	128	161	127	137	166	107	162	82	157	162	145
21	197	115	155	128	151	152	94	166	71	159	162	150
22	194	119	148	126	149	141	88	171	68	161	163	151
23	185	141	139	124	155	132	80	175	67	165	165	152
24	183	163	140	127	160	122	80	176	70	164	171	154
25	182	157	141	134	166	119	80	176	72	169	169	152
26	172	161	144	138	172	124	80	177	79	164	167	155
27	179	160	144	130	173	128	86	177	85	159	169	154
28	181	152	147	131	178	138	91	178	95	156	169	153
29	176	159	152	142	---	140	100	178	102	144	166	154
30	169	162	152	147	---	137	120	178	112	148	165	154
31	174	---	155	147	---	138	---	178	---	152	166	---
MONTH	189	163	155	139	154	160	124	148	133	152	154	148

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	22.0	9.0	12.0	12.0	14.0	17.0	20.0	25.0	26.0	29.0	---
2	26.0	21.0	10.0	12.0	12.0	15.0	18.0	21.0	25.0	27.0	28.0	28.0
3	23.0	21.0	13.0	11.0	10.0	19.0	18.0	20.0	25.0	27.0	28.0	---
4	23.0	19.0	14.0	12.0	---	16.0	18.0	19.0	26.0	27.0	27.0	---
5	24.0	18.0	14.0	12.0	11.0	17.0	16.0	19.0	26.0	27.0	28.0	26.0
6	25.0	19.0	13.0	12.0	14.0	15.0	16.0	19.0	---	26.0	---	26.0
7	25.0	20.0	12.0	12.0	14.0	17.0	---	20.0	25.0	26.0	28.0	26.0
8	25.0	20.0	12.0	10.0	14.0	18.0	15.0	21.0	25.0	24.0	28.0	---
9	25.0	---	13.0	9.0	10.0	18.0	15.0	21.0	25.0	25.0	27.0	27.0
10	24.0	20.0	---	8.0	10.0	18.0	14.0	21.0	---	26.0	27.0	27.0
11	24.0	20.0	10.0	8.0	---	19.0	14.0	22.0	25.0	27.0	28.0	27.0
12	23.0	20.0	13.0	7.0	10.0	19.0	14.0	22.0	24.0	27.0	28.0	27.0
13	24.0	19.0	12.0	5.0	10.0	19.0	15.0	22.0	24.0	27.0	28.0	27.0
14	24.0	17.0	13.0	6.0	11.0	26.0	15.0	21.0	24.0	26.0	28.0	27.0
15	24.0	16.0	11.0	8.0	11.0	20.0	15.0	21.0	24.0	26.0	27.0	27.0
16	24.0	15.0	---	9.0	11.0	20.0	18.0	20.0	25.0	26.0	28.0	---
17	25.0	14.0	9.0	10.0	---	17.0	19.0	20.0	24.0	26.0	28.0	27.0
18	25.0	14.0	8.0	10.0	11.0	17.0	17.0	21.0	25.0	27.0	27.0	27.0
19	24.0	---	10.0	10.0	11.0	17.0	19.0	21.0	26.0	---	28.0	26.0
20	22.0	14.0	10.0	10.0	11.0	17.0	20.0	21.0	26.0	28.0	28.0	26.0
21	21.0	12.0	12.0	---	11.0	18.0	21.0	23.0	25.0	28.0	28.0	26.0
22	21.0	11.0	11.0	12.0	12.0	18.0	---	24.0	24.0	28.0	28.0	26.0
23	21.0	11.0	12.0	12.0	12.0	18.0	22.0	24.0	24.0	29.0	28.0	26.0
24	21.0	10.0	12.0	12.0	11.0	17.0	22.0	24.0	24.0	29.0	28.0	26.0
25	20.0	10.0	12.0	12.0	12.0	18.0	20.0	25.0	24.0	30.0	28.0	26.0
26	19.0	10.0	10.0	12.0	12.0	17.0	22.0	25.0	24.0	29.0	28.0	27.0
27	17.0	10.0	10.0	12.0	13.0	17.0	22.0	25.0	---	29.0	28.0	27.0
28	17.0	11.0	10.0	10.0	13.0	16.0	21.0	26.0	26.0	29.0	27.0	27.0
29	17.0	11.0	11.0	9.0	---	16.0	---	25.0	---	29.0	27.0	27.0
30	20.0	10.0	14.0	9.0	---	17.0	20.0	24.0	27.0	29.0	27.0	27.0
31	22.0	---	12.0	10.0	---	16.0	---	24.0	---	29.0	28.0	---
MONTH	22.5	15.5	11.5	10.0	11.5	17.5	18.0	22.0	25.0	27.5	28.0	26.5

NECHES RIVER BASIN

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08041500 VILLAGE CREEK NEAR KOUNTZE, TEX.

LOCATION.--Lat 30°23'52", long 94°15'48", Hardin County, at gaging station at bridge on Farm Road 418, 1.6 miles (2.6 km) upstream from Gulf, Colorado and Santa Fe Railway Co. bridge, and 3.4 miles (5.5 km) northeast of Kountze.

DRAINAGE AREA.--860 mi² (2,227 km²).

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

Water temperatures: November 1967 to September 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
NOV. 06...	1300	369	11	4.5	1.6	11	5	0	3.2	24
DEC. 06...	1430	713	11	4.0	2.4	11	5	0	3.2	26
22...	1430	713	11	8.0	1.0	10	5	0	4.0	27
JAN. 12...	1425	2590	4.6	2.5	1.6	12	3	0	5.2	22
FEB. 15...	0800	9720	2.0	3.0	.1	7.1	0	0	3.2	14
MAR. 22...	0800	3400	7.4	3.2	1.2	6.0	5	0	4.6	12
APR. 25...	1745	2700	8.1	6.0	.0	7.2	8	0	3.8	14
MAY 31...	1730	332	13	5.5	.6	11	10	0	2.0	20
JULY 11...	1515	3290	6.2	3.5	1.3	2.0	4	0	1.0	10
AUG. 01...	1530	1110	3.3	2.2	1.8	3.6	2	0	2.0	12
SEP. 13...	1635	2150	2.1	2.0	1.7	1.1	1	0	0.6	9.0

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV. 06...	.0	.08	58	18	14	1.1	107	5.5	18.0
DEC. 06...	.0	.05	60	20	16	1.1	119	5.5	16.0
22...	.0	.05	63	24	20	.9	116	5.6	16.0
JAN. 12...	.1	.2	50	13	11	1.4	95	5.4	4.0
FEB. 15...	.0	.06	30	8	8	1.1	72	4.8	9.5
MAR. 22...	.0	.04	37	13	9	.7	69	5.3	15.5
APR. 25...	.0	.1	44	15	8	.8	78	5.8	22.0
MAY 31...	.0	.3	58	16	8	1.2	102	6.0	23.5
JULY 11...	.0	.01	26	14	11	.2	54	5.3	26.0
AUG. 01...	.0	.03	26	13	11	.4	61	5.8	25.0
SEP. 13...	.0	.07	17	12	11	.1	53	5.1	26.5

NECHES RIVER BASIN

08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.

LOCATION.--Lat 30°06'21", long 94°20'04", Hardin County, at gaging station at bridge on county road and 5.1 miles (8.2 km) southeast of Sour Lake.

DRAINAGE AREA.--336 mi² (870 km²).

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1972.

Water temperatures: February 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum, 1,960 micromhos Oct. 26; minimum daily, 40 micromhos Apr. 19.

Water temperatures: Maximum, 32.0°C July 20, 23, 24, 26, 27; minimum, 2.0°C Jan. 11.

EXTREMES.--February 1968 to September 1973.--Specific conductance: Maximum daily, 11,600 micromhos Mar. 23, 1968; minimum daily, 40 micromhos Apr. 19, 1973.

Water temperatures: Maximum, 37.0°C Sept. 15, 1972; minimum, 2.0°C Jan. 11, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 15...	1800	1.9	5.7	18	4.4	34	70	0	10	47
NOV. 22...	1700	867	4.0	7.5	1.0	13	18	0	7.0	20
DEC. 26...	1545	330	7.1	9.0	1.8	16	25	0	9.6	24
JAN. 12...	1520	1260	5.7	11	.4	5.9	20	0	8.8	11
FEB. 27...	1800	556	3.3	10	2.2	14	30	0	5.4	24
MAR. 02...	1600	1000	2.6	5.7	.9	9.6	14	0	5.8	13
APR. 21...	1230	7540	2.3	4.3	.5	3.2	14	0	.8	5.0
MAY 29...	1200	58	5.5	21	6.2	29	40	0	17	59
JUNE 27...	1830	300	6.1	12	2.7	17	38	0	8.4	26
JULY 04...	1800	56	7.4	18	2.5	30	51	0	8.8	48
AUG. 07...	1830	1000	3.6	6.0	2.2	2.5	19	0	2.0	8.0
SEP. 25...	1700	100	8.6	13	5.7	24	46	0	16	37

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 15...	.2	.4	155	63	6	1.9	311	7.4	26.0
NOV. 22...	.0	.09	62	23	8	1.2	121	6.8	10.0
DEC. 26...	.1	.3	81	30	10	1.3	143	6.5	12.0
JAN. 12...	.1	.2	54	29	13	.5	107	6.7	3.0
FEB. 27...	.0	.2	75	34	9	1.0	138	7.0	15.0
MAR. 02...	.0	.8	48	18	7	1.0	89	7.0	18.0
APR. 21...	.0	.1	24	13	2	.4	45	6.4	--
MAY 29...	.2	2.0	167	78	45	1.4	342	6.9	25.0
JUNE 27...	.1	.5	94	41	10	1.2	174	6.9	28.0
JULY 04...	.2	.2	141	55	13	1.8	231	6.8	29.0
AUG. 07...	.1	.04	34	24	8	.2	78	6.5	25.0
SEP. 25...	.1	.2	128	56	18	1.4	210	6.4	26.0

NECHES RIVER BASIN

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08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	635.5	325	180	309	55	94	12	21	71
NOV.	18452	133	72	3590	21	1050	8.2	409	31
DEC.	17989	123	66	3210	19	923	7.6	369	28
JAN. 1973....	25966	116	63	4420	18	1260	7.2	505	27
FEB.	26297	108	58	4120	16	1140	6.7	476	25
MAR.	32220	113	61	5310	17	1480	7.0	609	26
APR.	64000	67	36	6220	9.0	1560	4.1	708	17
MAY	22511	102	55	3340	15	912	6.3	383	24
JUNE	60946	73	39	6420	10	1650	4.5	740	18
JULY	13523	106	57	2080	16	584	6.5	237	25
AUG.	14307	123	66	2550	19	734	7.6	294	28
SEP.	34755	94	51	4790	14	1310	5.8	544	22
TOTAL	331601.5	--	--	46400	--	12700	--	5300	--
WTD. AVG. ...	908	96	52	--	14	--	5.9	--	23

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	382	157	110	116	150	108	168	331	153	141	130
2	216	346	160	194	118	89	124	166	284	228	220	134
3	240	437	171	135	108	86	131	115	311	230	170	138
4	265	384	180	125	118	78	148	104	319	231	142	150
5	255	408	147	132	128	89	168	103	304	259	98	115
6	260	360	165	149	138	105	196	112	334	220	73	83
7	264	98	110	160	140	116	165	74	397	197	78	78
8	270	146	101	121	149	100	150	70	319	216	87	94
9	278	133	119	106	150	84	144	89	201	160	77	78
10	317	122	137	106	125	96	186	69	235	107	107	68
11	308	143	143	121	102	106	170	72	274	68	149	67
12	307	124	112	108	105	111	147	65	55	59	141	76
13	308	161	104	100	114	119	133	60	73	57	160	81
14	309	119	114	95	104	132	140	93	52	63	110	91
15	311	155	121	98	98	149	136	96	49	75	121	102
16	311	126	122	100	88	164	108	109	46	95	127	104
17	316	121	110	100	98	170	80	140	65	114	136	106
18	318	134	111	108	92	177	50	183	78	145	168	112
19	314	147	117	120	71	180	40	223	64	160	160	124
20	311	121	104	128	75	170	42	341	69	168	140	140
21	314	107	108	120	79	143	45	341	79	163	136	155
22	315	121	113	135	88	133	57	329	168	168	156	168
23	719	103	108	127	112	135	56	324	117	178	124	171
24	723	96	118	142	147	145	66	274	142	190	144	202
25	800	101	129	125	116	100	74	315	164	195	164	210
26	1960	115	143	132	164	83	87	262	180	196	187	232
27	529	121	142	103	138	107	100	330	174	211	182	103
28	385	131	146	99	144	112	114	298	187	371	198	137
29	383	150	161	112	---	104	132	342	196	170	174	125
30	598	160	176	108	---	115	163	332	210	168	131	128
31	426	---	211	108	---	126	---	297	---	181	113	---
MONTH	414	179	134	120	115	122	115	190	183	168	139	123

NECHES RIVER BASIN

08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	25.0	10.5	9.0	13.0	15.5	20.0	23.0	29.0	30.0	26.0	27.0
2	23.0	21.0	12.0	10.0	13.0	18.0	19.0	23.0	30.0	30.0	27.0	26.5
3	23.0	19.5	13.0	12.0	14.0	18.0	19.0	21.5	30.0	---	---	25.5
4	25.0	19.0	---	---	21.0	19.0	18.0	21.0	30.0	29.0	28.0	25.0
5	26.0	15.5	18.0	12.0	15.0	18.0	18.0	20.0	30.0	29.0	26.0	25.0
6	---	22.0	16.0	11.0	17.0	18.5	17.0	20.0	28.0	---	---	25.5
7	26.0	21.0	14.0	---	16.0	20.0	17.0	21.5	28.0	24.0	25.0	25.5
8	---	19.0	15.0	6.0	14.0	---	---	22.0	26.0	28.0	25.0	27.0
9	27.0	18.5	15.0	8.0	8.0	19.0	17.0	23.5	27.0	---	26.0	---
10	26.0	18.0	15.0	5.0	---	20.0	14.5	21.0	26.0	27.0	28.0	26.0
11	26.0	17.0	13.0	2.0	8.0	19.5	---	23.5	26.0	25.5	26.0	27.0
12	26.0	16.5	12.0	3.0	12.0	20.0	17.0	23.0	25.0	26.0	26.0	27.0
13	25.0	17.0	15.0	---	14.0	20.0	17.0	---	25.0	27.0	25.0	26.0
14	25.0	16.0	12.0	---	11.0	21.0	---	---	25.0	27.0	---	---
15	26.0	15.0	10.0	8.0	15.0	21.0	19.0	21.0	---	27.0	25.0	28.0
16	26.0	15.0	9.5	12.0	10.5	20.0	19.0	21.0	---	---	25.0	---
17	26.0	15.0	8.0	11.0	10.0	---	---	22.0	---	29.0	25.0	25.5
18	23.0	15.0	9.0	12.0	---	19.0	25.0	26.0	25.0	29.0	25.0	25.0
19	21.0	11.0	10.0	13.0	11.0	---	---	24.0	25.0	31.0	---	25.0
20	21.0	12.0	---	14.0	12.0	19.0	---	26.0	26.0	32.0	28.0	25.0
21	22.0	10.5	---	15.0	12.0	18.0	---	26.0	26.0	30.0	27.0	---
22	22.0	10.0	12.0	14.5	12.0	19.0	23.0	28.0	30.0	---	28.0	26.0
23	24.0	10.0	12.0	14.0	11.0	16.5	23.0	30.0	26.0	32.0	27.0	24.0
24	24.0	9.0	---	13.0	13.0	19.0	---	29.5	27.0	32.0	---	25.0
25	---	10.0	12.0	12.0	14.0	18.0	23.5	30.0	27.0	---	27.0	26.0
26	18.0	9.5	12.0	12.5	15.0	18.0	22.0	30.0	28.0	32.0	27.0	26.0
27	15.5	13.0	12.0	13.0	15.0	16.5	22.0	27.0	28.0	32.0	27.0	25.0
28	17.0	13.0	11.0	9.0	15.0	17.0	21.0	29.0	29.0	29.0	26.0	26.0
29	20.0	11.0	12.0	10.5	---	18.0	22.0	25.0	29.0	31.0	27.0	26.0
30	22.0	10.5	14.0	9.0	---	---	21.0	30.0	---	31.0	27.0	26.0
31	25.0	---	14.0	11.0	---	18.0	---	29.0	---	30.0	26.5	---
MONTH	23.5	15.0	12.5	10.5	13.0	18.5	---	24.5	27.5	29.0	26.5	26.0

TRINITY RIVER BASIN

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08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.

LOCATION.--Lat 33°13'54", long 97°41'40", Wise County, at gaging station at bridge on U.S. Highway 380, 1.9 miles (3.1 km) upstream from Greathouse Branch, 4.0 miles (6.4 km) east of Bridgeport, and 4.4 miles (7.1 km) upstream from mouth.

DRAINAGE AREA.--333 mi² (862 km²).

PERIOD OF RECORD.--Specific conductance: May 1968 to September 1973.

Water temperatures: May 1968 to September 1973.

Sediment records: May 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Water temperatures: Maximum, 28.0°C on several days during July and August; minimum, freezing point Jan. 9, 10, 11.

Sediment concentrations: Maximum daily, 1,660 mg/l Apr. 16; minimum daily, no flow on many days during October.

Sediment loads: Maximum daily 5,760 tons July 30; minimum daily, 0 tons on many days during October.

EXTREMES, May 1968 to September 1973.--Water temperatures: Maximum, 31.0°C June 13, 1968; minimum, freezing point Jan. 9, 10, 11, 1973.

Sediment concentrations: Maximum daily, 3,480 mg/l July 29, 1971; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 14,000 tons May 7, 1969; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
OCT.								
30...	0930	319	16.5	2570	2210	88	94	98
31...	1730	885	14.0	632	1510	97	98	99
NOV.								
02...	0830	57	12.0	385	59	98	99	100
JUNE								
05...	1830	280	23.0	1450	1100	97	98	100
07...	1730	118	24.0	415	132	98	99	100
DATE		SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT.								
30...		99	100	63	69	74	79	83
31...		100	--	89	96	96	97	97
NOV.								
02...		--	--	88	92	93	94	96
JUNE								
05...		--	--	90	92	92	92	95
07...		--	--	80	92	93	94	96

TRINITY RIVER BASIN

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	156	650	620	738	906	819	770	612	788	153	745
2	---	181	605	634	759	986	780	686	617	835	230	802
3	---	201	624	605	781	779	699	824	651	822	278	848
4	---	231	668	346	834	791	694	901	411	739	310	885
5	---	267	648	438	865	806	702	764	285	848	333	798
6	---	299	689	424	902	812	679	773	260	799	348	788
7	---	324	611	553	887	367	871	644	291	894	388	646
8	---	400	639	560	409	416	733	465	385	853	451	600
9	---	461	665	623	325	507	733	607	428	949	512	609
10	---	493	631	603	416	582	708	692	504	---	564	544
11	---	464	690	658	535	360	758	743	569	---	557	582
12	---	501	743	802	622	471	757	330	618	---	514	616
13	---	290	733	811	710	611	721	258	624	---	542	656
14	---	341	696	789	744	709	723	323	504	---	588	605
15	---	455	690	799	775	729	695	392	325	1030	657	667
16	---	517	657	808	769	718	310	494	479	434	604	629
17	---	718	605	784	720	819	279	565	617	465	608	741
18	---	679	672	803	832	812	375	646	675	501	606	716
19	---	542	624	776	724	722	506	663	720	521	615	657
20	---	640	644	788	774	744	707	625	246	537	669	687
21	---	532	624	793	779	829	694	615	459	---	666	698
22	---	523	679	779	809	690	343	647	619	---	672	688
23	---	555	603	818	757	751	410	632	723	---	679	791
24	---	534	690	805	838	681	356	453	738	---	721	813
25	---	578	624	798	835	592	363	596	783	---	735	790
26	---	578	599	337	845	670	420	540	834	---	870	710
27	---	583	658	327	884	733	548	487	739	---	870	757
28	628	605	619	403	884	746	658	542	775	---	878	491
29	539	590	617	463	---	729	718	609	787	---	851	489
30	170	633	640	540	---	706	750	667	797	148	952	620
31	150	---	603	690	---	741	---	619	---	126	704	---
MONTH	---	462	650	644	741	694	617	599	569	---	585	689

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.5	6.5	6.0	7.0	12.0	13.0	20.0	23.0	26.0	25.0	26.0
2	---	12.0	8.0	6.0	6.5	12.0	14.0	20.0	23.0	27.0	24.0	26.0
3	---	13.0	10.5	6.0	5.5	12.0	20.0	20.0	22.0	27.0	24.0	26.0
4	---	12.0	5.5	4.5	8.0	11.0	11.0	18.0	24.0	28.0	25.0	26.0
5	---	13.5	6.0	4.5	9.5	13.0	12.0	19.0	22.0	26.0	24.0	24.0
6	---	15.0	4.0	3.0	8.0	14.0	13.0	20.0	21.0	26.0	24.0	23.0
7	---	14.5	1.5	1.0	11.5	13.0	13.0	19.0	22.0	26.0	25.0	23.0
8	---	13.0	3.0	0.5	6.0	14.0	13.0	22.0	23.0	26.0	26.0	23.0
9	---	14.0	4.0	0.0	3.0	16.0	7.0	21.0	24.0	24.0	27.0	25.0
10	---	13.0	1.5	0.0	3.5	16.0	8.0	24.0	23.0	---	27.0	26.0
11	---	11.0	0.5	0.0	5.0	14.0	10.0	24.0	24.0	---	27.0	25.0
12	---	12.0	2.0	1.0	7.0	15.0	14.0	20.0	24.0	---	27.0	25.0
13	---	11.5	1.5	0.5	8.5	18.0	17.0	19.0	23.0	---	28.0	25.0
14	---	9.5	2.0	1.5	8.0	15.0	18.0	19.0	23.0	---	27.0	24.0
15	---	8.0	2.0	2.0	6.0	13.0	18.0	17.0	25.0	24.0	28.0	22.0
16	---	6.5	1.5	5.0	5.5	12.0	14.0	20.0	26.0	25.0	27.0	22.0
17	---	7.0	1.0	9.5	6.0	10.0	15.0	19.0	25.0	26.0	27.0	21.0
18	---	8.5	3.0	12.0	6.0	12.0	14.0	19.0	27.0	27.0	27.0	19.0
19	---	7.0	5.5	10.5	5.0	16.0	18.0	21.0	27.0	27.0	27.0	19.0
20	---	6.5	6.5	12.0	6.0	12.0	20.0	24.0	23.0	27.0	28.0	21.0
21	---	5.5	7.0	11.0	9.0	12.0	22.0	24.0	23.0	---	28.0	23.0
22	---	5.0	5.0	8.0	8.0	13.0	23.0	24.0	24.0	---	27.0	24.0
23	---	5.0	6.0	6.0	7.0	15.0	22.0	21.0	25.0	---	28.0	24.0
24	---	6.0	8.5	5.5	7.0	15.0	18.0	22.0	26.0	---	28.0	24.0
25	---	6.5	6.0	6.5	8.0	13.0	19.0	22.0	26.0	---	28.0	25.0
26	---	7.0	6.5	5.5	11.0	11.0	18.0	22.0	25.0	---	27.0	25.0
27	---	8.0	5.5	5.5	10.0	12.0	15.0	23.0	25.0	---	26.0	25.0
28	13.0	7.0	6.5	4.5	10.0	13.0	17.0	19.0	26.0	---	25.0	20.0
29	14.0	6.0	10.5	3.5	---	14.0	18.0	20.0	25.0	---	25.0	19.0
30	16.5	5.5	11.5	3.5	---	16.0	19.0	22.0	26.0	26.0	25.0	20.0
31	14.0	---	8.5	6.5	---	13.0	---	23.0	---	24.0	25.0	---
MONTH	---	9.5	5.0	5.0	7.0	13.5	15.5	21.0	24.0	---	26.5	23.5

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	329	570	506	4.0	119	1.3
2	0	0	0	45	400	49	4.2	120	1.4
3	0	0	0	27	300	22	4.0	142	1.5
4	0	0	0	13	250	8.8	4.0	120	1.3
5	0	0	0	8.5	220	5.0	4.0	139	1.5
6	0	0	0	13	384	18	3.6	110	1.1
7	0	0	0	8.0	250	5.4	3.4	170	1.6
8	0	0	0	6.0	90	1.5	3.4	120	1.1
9	0	0	0	4.2	65	.74	3.4	108	.99
10	0	0	0	3.1	72	.60	3.4	77	.71
11	0	0	0	2.4	65	.42	3.3	72	.64
12	0	0	0	2.1	48	.27	3.6	59	.57
13	0	0	0	62	600	100	3.6	83	.81
14	0	0	0	37	300	30	3.6	95	.92
15	0	0	0	16	94	4.1	4.2	81	.92
16	0	0	0	10	100	2.7	4.0	100	1.1
17	0	0	0	6.7	118	2.1	3.6	113	1.1
18	0	0	0	7.2	106	2.1	3.4	100	.92
19	0	0	0	9.7	138	3.6	3.6	99	.96
20	0	0	0	8.5	90	2.1	4.2	124	1.4
21	0	0	0	7.0	80	1.5	4.4	80	.95
22	0	0	0	6.2	63	1.1	4.2	75	.85
23	0	0	0	5.7	68	1.0	4.2	102	1.2
24	0	0	0	5.3	81	1.2	4.0	99	1.1
25	0	0	0	5.1	101	1.4	3.6	95	.92
26	0	0	0	4.9	95	1.3	3.6	113	1.1
27	0	0	0	5.1	106	1.5	3.4	99	.91
28	3.6	241	4.2	4.7	155	2.0	3.6	136	1.3
29	6.6	248	4.9	4.2	123	1.4	3.8	144	1.5
30	297	1490	1550	4.0	102	1.1	4.4	168	2.0
31	875	850	2010	--	--	--	5.3	208	3.0
TOTAL	1182.2	--	3569.1	670.6	--	777.93	119.0	--	36.67

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5.5	138	2.0	23	46	2.9	14	48	1.8
2	5.3	101	1.4	19	38	1.9	14	48	1.8
3	42	436	64	15	28	1.1	13	69	2.4
4	83	400	90	13	26	.91	15	66	2.7
5	54	150	22	13	26	.91	15	85	3.4
6	20	125	6.8	13	44	1.5	29	213	39
7	16	66	2.9	13	25	.88	141	1090	411
8	15	62	2.5	147	1100	470	68	300	55
9	15	62	2.5	106	450	129	39	154	16
10	16	56	2.4	48	100	13	61	397	104
11	16	68	2.9	31	105	8.8	132	737	288
12	16	24	1.0	23	58	3.6	49	200	26
13	16	23	.99	18	42	2.0	32	131	11
14	15	72	2.9	16	58	2.5	23	115	7.1
15	13	20	.70	14	67	2.5	18	117	5.7
16	11	20	.59	13	47	1.6	16	120	5.2
17	10	15	.41	12	34	1.1	15	122	4.9
18	9.7	17	.45	14	22	.83	14	111	4.2
19	8.7	46	1.1	14	80	3.0	14	126	4.8
20	8.0	63	1.4	13	51	1.8	13	128	4.5
21	8.0	43	.93	12	71	2.3	12	116	3.8
22	7.7	20	.42	13	79	2.8	12	136	4.4
23	6.7	10	.18	16	74	3.2	13	143	5.0
24	6.5	8	.14	16	35	1.5	53	450	64
25	12	281	16	15	39	1.6	54	260	38
26	190	1510	742	15	58	2.3	37	137	14
27	128	440	152	14	53	2.0	23	91	5.7
28	50	160	22	14	42	1.6	19	86	4.4
29	29	117	9.2	--	--	--	16	112	4.8
30	20	64	3.5	--	--	--	16	107	4.6
31	18	81	3.9	--	--	--	23	142	8.8
TOTAL	871.1	--	1159.21	693	--	667.13	1013	--	1156.0

TRINITY RIVER BASIN

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	91	4.7	23	160	9.9	7.2	102	2.0
2	16	98	4.2	20	150	8.1	7.0	94	1.8
3	16	88	3.8	16	170	7.3	67	1090	185
4	15	148	6.0	15	140	5.7	261	1130	796
5	15	61	2.5	14	150	5.7	216	882	564
6	14	118	4.5	18	200	9.7	319	770	663
7	14	80	3.0	120	1400	515	120	400	130
8	15	94	3.8	44	300	36	46	110	14
9	16	67	2.9	24	200	13	29	230	18
10	14	70	2.6	15	180	7.3	20	220	12
11	14	71	2.7	11	260	7.7	15	110	4.5
12	14	99	3.7	112	1470	535	14	100	3.8
13	16	81	3.5	357	730	704	13	110	3.9
14	20	180	9.7	238	370	238	141	1140	552
15	46	624	142	66	300	53	72	420	82
16	401	1660	1620	40	250	27	26	200	14
17	504	500	680	29	200	16	16	90	3.9
18	269	530	385	20	170	9.2	13	59	2.1
19	138	340	127	16	110	4.8	18	160	7.8
20	62	260	44	13	100	3.5	103	690	212
21	46	220	27	12	110	3.6	29	210	16
22	63	314	109	11	110	3.3	14	100	3.8
23	101	550	171	100	778	252	9.0	38	.92
24	312	1050	956	41	350	39	6.5	26	.46
25	269	600	436	46	412	53	5.3	28	.40
26	83	260	58	80	1120	273	4.4	44	.52
27	45	220	27	39	270	28	3.8	79	.81
28	33	170	15	20	240	13	3.4	89	.82
29	27	150	11	11	180	5.3	3.3	94	.84
30	25	200	14	8.7	210	4.9	3.1	50	.42
31	--	--	--	7.7	92	1.9	--	--	--
TOTAL	2642	--	4879.6	1587.4	--	2892.9	1605.0	--	3296.79
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.8	29	.22	2640	160	1140	4.2	37	.42
2	2.2	42	.25	1950	100	527	3.8	30	.31
3	1.6	50	.22	1080	50	146	3.4	36	.33
4	1.3	30	.11	497	120	161	3.4	28	.26
5	.93	42	.11	290	140	110	4.0	33	.36
6	.84	44	.10	185	120	60	9.5	100	2.6
7	.68	45	.08	112	110	33	29	150	12
8	.50	41	.06	65	100	18	24	115	7.5
9	.58	52	.08	48	89	12	13	109	3.8
10	.50	50	.07	39	41	4.3	8.0	63	1.4
11	.50	50	.07	31	87	7.3	6.2	47	.79
12	.58	60	.09	25	88	5.9	5.5	42	.62
13	.76	70	.14	20	72	3.9	4.9	29	.38
14	1.0	80	.22	18	63	3.1	4.4	54	.64
15	14	80	3.0	16	52	2.2	3.8	33	.34

08048000 WEST FORK TRINITY RIVER AT FORT WORTH, TEX.

LOCATION.--Lat 32°45'39", long 97°19'56", Tarrant County, at gaging station, 125 ft (38 m) upstream from Texas Electric Service Co.'s concrete dam, 980 ft (299 m) downstream from centerline of Paddock Viaduct at Fort Worth.

DRAINAGE AREA.--2,615 mi² (6,773 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1970.

Chemical and biochemical analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.									
01...	1555	12	5.3	42	4.7	25	148	0	24
DEC.									
04...	1710	20	6.0	73	8.3	31	232	0	47
FEB.									
01...	1540	65	5.9	70	6.7	26	206	0	48
APR.									
17...	0915	264	4.2	48	4.0	11	134	0	28
MAY									
17...	1630	466	2.0	54	6.1	17	172	0	27
JUNE									
14...	1630	264	7.2	52	4.4	10	148	0	23
28...	1030	56	5.5	52	7.4	19	166	0	30
JULY									
12...	0850	60	5.5	46	4.0	14	132	0	28
26...	1035	31	3.5	26	4.8	17	79	0	26
AUG.									
06...	0945	1670	6.2	47	7.6	24	160	0	21
22...	0925	22	7.2	55	7.4	28	178	0	35
SEP.									
12...	1615	27	.9	46	4.9	25	158	0	28

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.									
01...	23	.2	.31	.02	.13	.06	.10	198	120
DEC.									
04...	30	.2	.23	.06	.09	.60	.34	313	220
FEB.									
01...	26	.3	.17	.05	.14	1.1	.39	289	200
APR.									
17...	13	.2	.29	.03	.28	.60	.45	178	140
MAY									
17...	19	.3	.25	.05	.02	.30	.24	212	160
JUNE									
14...	16	.2	.15	.02	.11	.40	.04	188	150
28...	24	.3	.22	.00	.01	.10	.17	221	160
JULY									
12...	17	.3	.10	.01	.02	.04	.18	180	130
26...	20	.3	.18	.00	.06	.02	.20	137	85
AUG.									
06...	33	.3	.29	.00	.02	.10	.10	219	150
22...	32	.4	.07	.00	.00	.04	.16	253	170
SEP.									
12...	21	.3	.20	.00	.21	.07	.18	205	140

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.								
01...	3	1.0	340	7.5	24.0	9.0	106	12
DEC.								
04...	26	.9	527	8.2	9.0	10.0	86	4.3
FEB.								
01...	33	.8	482	6.5	9.5	10.5	92	4.7
APR.								
17...	26	.4	321	6.9	16.5	7.9	81	6.0
MAY								
17...	19	.6	385	7.2	21.5	8.6	97	5.7
JUNE								
14...	29	.4	323	7.1	26.0	5.7	70	3.7
28...	24	.7	388	6.4	29.5	9.4	122	5.0
JULY								
12...	23	.5	327	7.3	27.0	9.0	111	5.2
26...	20	.8	255	7.3	31.0	8.2	109	5.2
AUG.								
06...	17	.9	403	7.5	27.0	6.7	83	1.3
22...	22	.9	458	6.6	30.0	8.0	105	4.1
SEP.								
12...	5	.9	365	6.8	29.0	8.6	110	3.9

TRINITY RIVER BASIN

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.

LOCATION.--Lat 32°45'46", long 96°59'42", Dallas County, at gaging station at bridge on Belt Line Road, 1.3 miles (2.1 km) northeast of Grand Prairie, 3.7 miles (6.0 km) upstream from Bear Creek, and 6.5 miles (10.5 km) upstream from Mountain Creek.

DRAINAGE AREA.--3,065 mi² (7,938 km²).

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,150 micromhos Oct. 16; minimum daily 311 micromhos July 29.

Water temperatures: Maximum, 33.0°C Oct. 2; minimum, 3.0°C Jan. 9.

EXTREMES, October 1966 to September 1968, October 1969 to September 1973.--Specific conductance: Maximum daily, 1,540 micromhos Dec. 26, 1970; minimum daily, 248 micromhos Mar. 20, 1968.

Water temperatures: Maximum, 34.0°C Aug. 9, 1970; minimum, 3.0°C Jan. 9, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
01...	1435	161	12	44	9.2	--	100	--	204	0
02...	0940	128	12	47	6.7	100	--	9.9	180	0
11...	0900	128	4.6	19	5.8	120	--	4.3	46	0
NOV.										
11...	1750	120	12	65	7.8	--	140	--	198	0
DEC.										
03...	1125	132	13	70	11	--	120	--	252	0
16...	1735	161	11	61	8.3	--	120	--	224	0
JAN.										
09...	1610	336	7.5	55	6.2	69	--	11	168	0
31...	0900	200	10	72	9.8	--	83	--	248	0
FEB.										
08...	1115	3700	6.5	43	4.0	--	39	--	130	0
MAR.										
07...	1655	576	7.3	62	6.0	--	40	--	168	0
APR.										
17...	1025	560	6.0	57	5.3	--	42	--	159	0
24...	1820	8700	10	51	3.1	--	19	--	150	0
MAY										
17...	1525	736	4.5	57	7.8	--	42	--	178	0
24...	1140	224	7.3	59	7.3	--	80	--	198	0
JUNE										
14...	1535	1840	8.0	51	6.5	--	32	--	79	0
20...	1100	6030	6.5	48	3.3	--	27	--	152	0
28...	1140	238	9.4	64	8.4	--	67	--	216	0
JULY										
12...	1015	792	10	51	4.5	--	39	--	152	0
26...	1130	135	11	65	7.3	80	--	8.4	224	0
27...	1825	118	12	52	9.9	120	--	10	186	2
AUG.										
06...	1315	1730	6.5	51	6.7	--	30	--	164	0
12...	1415	210	8.8	54	6.9	--	56	--	196	0
22...	1025	167	13	56	8.5	--	120	--	210	0
SEP.										
13...	0820	161	12	59	7.9	98	--	15	206	0
16...	1750	152	10	54	7.4	--	100	--	192	0

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
01...	91	90	.8	.63	.60	7.8	.9	4.1	464
02...	74	90	.7	--	--	--	7.5	--	466
11...	40	180	.3	--	--	--	.2	--	394
NOV.									
11...	130	100	.7	--	--	--	6.2	--	632
DEC.									
03...	110	100	.9	.51	1.2	5.9	3.4	8.1	570
16...	100	90	.6	--	--	--	6.2	--	525
JAN.									
09...	84	55	.4	--	--	--	5.4	--	395
31...	120	68	.7	.41	.60	6.4	6.2	4.6	498
FEB.									
08...	47	29	.4	--	--	--	2.9	--	246
MAR.									
07...	61	40	.4	--	--	--	2.3	--	310
APR.									
17...	77	30	.3	.38	.62	1.6	1.6	1.7	307
24...	32	13	.3	--	--	--	1.5	--	209
MAY									
17...	54	39	.4	.24	.38	.86	2.3	1.4	305
24...	76	63	.6	--	--	--	8.1	--	431
JUNE									
14...	46	30	.4	.23	.23	.64	.9	.72	258
20...	23	14	.3	--	--	--	6.4	--	225
28...	68	60	.6	.23	.64	1.3	2.2	2.7	397
JULY									
12...	52	33	.5	.15	.29	.92	1.5	2.0	274
26...	86	66	.6	.33	.86	2.2	3.4	4.1	455
27...	100	100	.4	--	--	--	9.1	--	542
AUG.									
06...	31	34	.3	.39	.33	.24	1.1	.79	247
12...	52	48	.6	--	--	--	.6	--	325
22...	110	90	.9	.36	.51	.90	3.3	8.1	518
SEP.									
13...	110	80	.8	.40	.92	2.8	4.6	4.5	506
16...	99	70	.6	--	--	--	6.9	--	467

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
01...	150	0	3.6	827	7.3	23.5	2.9	34	15
02...	140	0	3.8	794	8.0	33.0	--	--	--
11...	72	34	6.0	752	7.3	--	--	--	--
NOV.									
11...	190	32	4.5	1000	8.2	17.5	--	--	--
DEC.									
03...	200	0	3.6	973	7.5	15.0	4.1	40	9.3
16...	190	2	3.7	887	7.8	7.5	--	--	--
JAN.									
09...	160	25	2.4	662	7.8	3.0	--	--	--
31...	220	17	2.4	821	7.6	9.5	8.6	75	11
FEB.									
08...	120	17	1.5	432	8.0	10.0	--	--	--
MAR.									
07...	180	42	1.3	535	7.5	17.0	--	--	--
APR.									
17...	160	34	1.4	531	7.1	16.5	7.7	79	23
24...	140	17	.7	363	7.9	20.0	--	--	--
MAY									
17...	170	28	1.4	534	7.3	23.0	6.4	74	16
24...	180	14	2.8	708	7.7	20.5	--	--	--
JUNE									
14...	150	23	1.1	450	7.3	25.0	6.0	71	9.9
20...	130	9	1.0	321	7.5	20.5	--	--	--
28...	190	17	2.1	674	6.9	28.0	4.1	52	5.2
JULY									
12...	150	21	1.4	473	7.8	26.5	3.8	46	11
26...	190	8	2.5	773	7.4	30.5	4.2	55	6.9
27...	170	14	4.0	919	8.6	32.0	--	--	--
AUG.									
06...	160	20	1.0	444	7.1	28.0	6.4	81	4.4
12...	160	2	1.9	576	7.8	30.0	--	--	--
22...	170	2	3.9	916	7.0	29.0	4.8	62	3.2
SEP.									
13...	180	10	3.2	851	7.1	26.5	3.8	46	6.0
16...	160	8	3.4	761	8.3	27.0	--	--	--

TRINITY RIVER BASIN

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	14851	536	310	12400	40	1600	58	2330	150
NOV.	7853	707	420	8910	63	1340	82	1740	160
DEC.	4133	984	590	6580	99	1100	120	1340	180
JAN. 1973....	10148	694	410	11200	61	1670	81	2220	160
FEB.	12558	640	380	12900	54	1830	73	2480	150
MAR.	15866	640	380	16300	54	2310	73	3130	150
APR.	28365	497	290	22200	35	2680	52	3980	140
MAY	27097	530	310	22700	40	2930	57	4170	140
JUNE	54906	436	250	37100	27	4000	44	6520	140
JULY	21561	469	270	15700	32	1860	48	2790	140
AUG.	11969	618	360	11600	51	1650	70	2260	150
SEP.	8428	672	400	9100	58	1320	77	1750	160
TOTAL	217735	--	--	187000	--	24300	--	34700	--
WTD. AVG. ...	597	544	320	--	41	--	59	--	150

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	832	571	958	894	865	1000	766	620	820	879	554	922
2	819	450	987	572	875	1000	802	630	823	967	647	957
3	903	615	996	801	916	966	790	602	510	871	598	948
4	842	659	991	535	902	780	833	592	333	883	581	939
5	978	789	1010	680	920	633	886	594	421	898	477	750
6	957	826	983	684	935	638	879	569	560	940	459	690
7	996	776	1000	727	700	535	917	438	557	860	496	457
8	1010	850	987	842	432	688	800	502	555	598	523	514
9	1070	906	1000	662	567	613	769	515	544	640	560	591
10	1060	983	1030	707	653	550	727	487	478	671	579	688
11	970	1000	1060	864	764	495	705	505	479	510	569	744
12	1090	1000	938	874	772	649	814	488	502	502	576	807
13	1120	650	1020	888	813	784	840	457	615	639	687	791
14	1120	611	954	884	807	651	770	472	469	522	733	750
15	1110	661	931	871	871	633	634	475	522	362	817	728
16	1150	825	887	795	888	662	391	512	462	360	924	761
17	1080	832	942	891	943	649	540	545	601	519	907	834
18	1050	697	938	970	700	637	430	580	475	644	900	893
19	1080	885	919	996	637	669	544	554	412	734	907	939
20	991	615	962	1050	628	687	490	582	333	764	915	962
21	918	663	995	1010	624	794	520	555	402	843	919	967
22	415	826	1040	979	618	867	542	577	459	790	953	967
23	406	847	1040	962	576	958	557	660	446	669	936	976
24	620	866	1050	991	609	800	363	740	420	678	981	944
25	733	862	1050	619	745	648	437	821	431	770	981	944
26	426	847	1030	504	794	704	569	769	472	794	1000	780
27	364	889	1000	627	865	768	685	652	611	900	958	595
28	516	869	983	716	1020	704	751	502	678	911	924	537
29	400	910	983	748	---	630	564	518	777	311	958	626
30	408	939	991	788	---	675	570	571	869	392	928	682
31	593	---	971	776	---	716	---	635	---	365	912	---
MONTH	840	791	988	803	766	716	663	572	535	683	770	789

TRINITY RIVER BASIN

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08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER & WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	16.0	13.0	12.0	11.0	16.0	19.0	22.5	27.0	30.0	27.5	31.0
2	33.0	15.0	14.0	10.0	12.0	16.0	18.0	22.0	28.0	31.0	28.0	31.0
3	24.5	17.0	15.5	10.0	11.5	16.0	16.5	22.0	21.5	31.0	28.0	31.0
4	---	17.0	12.0	8.0	14.0	18.0	17.0	22.0	23.0	32.0	28.0	29.0
5	25.0	18.0	13.0	8.5	14.0	16.5	18.0	21.0	24.5	31.5	28.5	24.5
6	25.0	19.0	9.0	8.0	15.0	17.0	16.0	22.5	28.5	31.5	29.0	26.5
7	24.0	19.0	9.0	7.0	15.0	17.0	17.5	22.0	25.0	31.5	30.0	25.0
8	24.0	18.0	9.0	6.0	10.0	18.5	14.5	24.0	26.5	29.5	29.5	27.0
9	25.0	19.0	9.0	3.0	8.5	17.5	15.0	24.5	27.0	30.0	30.0	28.0
10	26.0	18.0	7.0	4.5	7.0	18.0	15.0	25.0	27.0	30.0	30.0	29.5
11	27.0	17.5	5.0	4.0	10.0	18.5	16.5	26.0	26.0	28.0	31.0	29.0
12	27.0	18.0	7.5	4.0	12.5	19.0	17.5	23.0	26.0	27.5	30.0	29.0
13	27.0	18.0	9.0	6.0	13.0	20.0	21.0	23.0	25.5	29.0	31.0	29.0
14	27.0	14.0	7.0	8.0	12.0	19.5	20.0	22.5	26.5	29.5	31.0	27.0
15	27.0	13.0	8.0	10.0	12.0	17.5	19.5	22.5	28.0	26.0	31.0	27.5
16	27.0	14.0	7.5	11.0	11.0	17.5	18.0	23.0	25.0	28.0	31.0	27.0
17	27.0	13.0	8.0	14.0	11.0	16.0	17.0	24.0	29.0	30.0	29.5	27.0
18	26.0	12.0	8.5	15.0	11.0	18.0	17.0	25.0	28.5	30.0	30.0	23.5
19	20.0	12.0	11.5	14.5	10.0	19.5	20.0	24.0	28.0	31.5	31.0	26.0
20	20.0	11.0	12.5	15.5	11.0	18.0	---	25.0	20.5	31.0	31.5	27.0
21	21.0	10.0	12.0	13.0	12.0	18.0	---	26.5	26.0	30.0	31.5	27.0
22	20.5	12.0	11.5	13.0	11.0	18.0	21.5	27.0	27.0	31.0	31.0	26.5
23	19.0	11.0	12.0	12.0	10.0	17.5	23.0	26.5	28.0	31.5	29.0	27.0
24	19.0	11.0	13.0	11.5	12.0	18.0	20.0	20.5	27.0	32.0	30.0	27.0
25	19.0	12.0	12.0	8.0	13.5	16.5	21.0	27.0	27.5	32.5	29.5	28.0
26	13.5	12.5	12.0	8.0	13.5	17.0	20.5	25.0	28.0	32.0	30.0	27.0
27	14.0	13.0	12.0	10.0	14.0	17.0	21.0	25.0	29.5	32.0	29.5	25.0
28	15.5	12.0	12.0	10.0	15.0	17.5	19.5	24.5	30.0	30.0	30.0	25.0
29	17.0	11.0	15.0	9.0	---	18.0	20.0	25.5	29.0	26.0	30.0	25.0
30	18.5	13.0	13.5	10.0	---	18.0	20.0	26.0	28.5	26.0	29.5	25.0
31	18.0	---	12.0	11.0	---	18.0	---	27.0	---	26.5	30.0	---
MONTH	22.5	14.5	10.5	9.5	12.0	17.5	18.5	24.0	26.5	30.0	30.0	27.0

TRINITY RIVER BASIN

08050300 ELM FORK TRINITY RIVER NEAR MUENSTER, TEX.

LOCATION.--Lat 33°36'36", long 97°22'57", Cooke County, at gaging station at bridge on Farm Road 373, 2.5 miles (4.0 km) south of Muenster, 2.5 miles (4.0 km) downstream from Long Branch, and 6.5 miles (10.5 km) upstream from Brushy Elm Creek.

DRAINAGE AREA.--46 mi² (119 km²).

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973 (Discontinued).

Water temperatures: October 1956 to September 1958. October 1965 to September 1967.

Sediment records: October 1956 to September 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 06...	1425	.61	11	210	26	240	190	0	48	670
JAN. 15...	1350	8.3	7.5	58	8.6	70	152	0	52	110
FEB. 14...	1545	18	7.0	56	2.6	55	152	0	37	74
MAR. 22...	1320	9.6	4.3	110	6.1	43	264	0	38	92
APR. 23...	--	71	9.4	68	3.4	17	188	0	22	30
MAY 29...	1325	5.6	11	110	6.8	62	276	0	30	130
JULY 06...	1400	3.0	13	96	6.9	61	236	0	24	130
AUG. 08...	1220	14	11	60	3.8	27	180	0	20	39
SEP. 11...	1255	2.8	13	100	8.4	66	238	0	25	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 06...	.2	.06	1300	640	480	4.1	2370	7.9	7.5
JAN. 15...	.2	.8	381	180	56	--	687	7.6	4.0
FEB. 14...	.2	.7	310	150	26	2.0	540	6.9	9.0
MAR. 22...	.3	.3	423	290	78	1.1	776	7.9	12.0
APR. 23...	.2	.3	243	180	30	.5	425	7.7	22.0
MAY 29...	.3	.01	488	310	82	1.5	873	7.7	23.0
JULY 06...	.2	.2	447	270	74	1.6	827	7.4	30.0
AUG. 08...	.2	.1	250	160	18	.9	447	7.3	26.0
SEP. 11...	.0	.1	488	290	99	1.7	925	7.5	24.5

TRINITY RIVER BASIN

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08050500 ELM FORK TRINITY RIVER NEAR SANGER, TEX.

LOCATION.--Lat 33°23'11", long 97°05'05", Denton County, at gaging station at bridge on Farm Road 455, 4.1 miles (6.6 km) downstream from Spring Creek, 5.0 miles (8.0 km) upstream from Isle du Bois Creek, and 5.4 miles (8.7 km) northeast of Sanger.

DRAINAGE AREA.--381 mi² (987 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1973.
Sediment records: January 1966 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
01...	1715	1.9	6.2	32	3.0	26	124	0	15
NOV.									
30...	1051	18	11	79	7.5	77	234	12	46
DEC.									
06...	1655	15	12	93	8.0	81	316	0	49
FEB.									
01...	1330	262	7.3	82	16	70	200	0	44
14...	1345	124	9.5	87	6.6	51	240	0	45
MAR.									
28...	1330	75	6.0	98	12	26	200	0	48
APR.									
16...	1355	60	7.0	48	4.0	20	138	0	20
JUNE									
05...	1825	537	9.6	56	3.5	15	152	0	18
13...	1100	60	12	90	5.7	55	284	0	39
AUG.									
06...	1107	84	11	62	4.9	32	200	0	27
16...	1650	28	12	92	6.2	42	300	0	36
SEP.									
11...	1410	28	12	68	5.2	38	220	0	34

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT.									
01...	19	.3	.44	.03	.06	1.0	.38	167	92
NOV.									
30...	85	.2	--	--	--	4.0	--	451	230
DEC.									
06...	88	.2	.30	.28	.43	1.9	.77	496	260
FEB.									
01...	150	.2	.20	.03	.08	1.2	.35	471	270
14...	78	.2	--	--	--	.20	--	396	240
MAR.									
28...	92	.3	--	--	--	1.3	--	386	290
APR.									
16...	29	.2	.28	.04	.10	1.0	1.1	201	140
JUNE									
05...	28	.0	--	--	--	1.4	--	211	150
13...	66	.2	.19	.01	.06	.10	.41	408	250
AUG.									
06...	35	.2	.33	.04	.13	.90	.25	274	180
16...	40	.1	--	--	--	1.5	--	383	260
SEP.									
11...	37	.0	--	--	--	1.7	--	310	190

TRINITY RIVER BASIN

08050500 ELM FORK TRINITY RIVER NEAR SANGER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT.								
01...	0	1.2	282	6.7	19.5	5.5	59	2.3
NOV.								
30...	16	2.2	721	8.5	5.5	--	--	--
DEC.								
06...	6	2.2	822	7.6	5.0	10.5	82	3.3
FEB.								
01...	110	1.9	846	6.8	8.0	11.2	94	3.5
14...	48	1.4	684	8.2	9.0	--	--	--
MAR.								
28...	130	.7	757	7.9	14.5	--	--	--
APR.								
16...	23	.7	361	7.3	16.5	9.6	98	6.2
JUNE								
05...	29	.5	400	7.0	22.5	--	--	--
13...	16	1.5	686	7.3	23.5	7.2	84	1.7
AUG.								
06...	11	1.1	481	7.5	24.0	8.1	95	2.7
16...	9	1.1	664	7.9	27.0	--	--	--
SEP.								
11...	10	1.2	549	7.5	--	--	--	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV.					
30...	1050	18	5.5	9	.44
JAN.					
05...	1350	104	4.0	82	23
FEB.					
14...	1340	107	9.0	34	9.8
MAR.					
28...	1330	75	14.5	22	4.5
APR.					
17...	1400	591	--	289	461
17...	1725	550	--	266	395
MAY					
09...	1700	343	22.5	202	187
JUNE					
05...	1825	537	22.5	656	951
JULY					
19...	1505	22	27.5	38	2.3
AUG.					
16...	1650	28	27.0	39	2.9
SEP.					
19...	1705	15	22.0	28	1.1

TRINITY RIVER BASIN

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08051500 CLEAR CREEK NEAR SANGER, TEX.

LOCATION.--Lat 33°20'09", long 97°10'44", Denton County, at gaging station at bridge on county road (formerly U.S. Highway 77), 1,000 feet (305 m) downstream from Interstate Highway 35 and U.S. Highway 77, 1,350 feet (411 m) downstream from Duck Creek, and 1.8 miles (2.9 km) south of Sanger.

DRAINAGE AREA.--295 mi² (764 km²).

PERIOD OF RECORD.--Specific conductance: May 1968 to September 1973.

Water temperatures: May 1968 to September 1973.

Sediment records: May 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,680 micromhos Sept. 4; minimum daily, 182 micromhos July 29.

Water temperature: Maximum, 35.0°C July 12; minimum, 1.0°C Jan. 5, 6.

Sediment concentrations: Maximum daily, 4,220 mg/l Apr. 24; minimum daily, no flow on many days during October.

Sediment loads: Maximum, 45,500 tons Apr. 24; minimum daily, 0 tons on many days during October.

EXTREMES, May 1968 to September 1973.--Specific conductance (1972-73): Maximum daily, 1,680 micromhos Sept. 4, 1973; minimum daily, 182 micromhos July 29, 1973.

Water temperatures (1968-70, 1972-73): Maximum, 39.0°C June 28, 1969; minimum, freezing point Jan. 9, 1970.

Sediment concentrations: Maximum daily, 7,370 mg/l May 12, 1972 minimum daily, no flow on many days during July, August, September, and October 1972.

Sediment loads: Maximum daily, 79,000 tons May 7, 1969; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE D SIEVE DIS- CHARGE (MG/L)	SUS- PENDE D SIEVE DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
OCT. 30...	1530	1190	21.0	3500	11200	89	93
NOV. 06...	1735	490	17.0	2480	3280	90	92
13...	1800	171	15.0	599	277	94	97
14...	1830	39	10.0	1080	114	99	99
APR. 23...	1800	2900	20.0	5140	40200	82	92
24...	1630	4120	19.0	4130	45900	94	98
		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT. 30...	99	100	59	61	66	71	83
NOV. 06...	98	100	60	64	68	76	84
13...	100	--	63	70	72	80	84
14...	100	--	86	91	94	95	96
APR. 23...	99	100	43	46	47	58	67
24...	99	100	58	63	63	72	84

TRINITY RIVER BASIN

08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	218	754	828	377	439	580	440	832	828	254	1340
2	---	226	755	754	377	455	583	435	853	860	278	1440
3	---	---	---	460	452	---	590	506	365	966	---	1110
4	---	345	764	393	432	381	598	524	358	1050	414	1680
5	---	464	721	396	513	404	607	548	323	1050	342	1200
6	---	244	---	414	437	476	---	551	352	1160	560	1510
7	---	267	733	438	439	345	598	303	412	1160	472	402
8	---	286	866	456	---	376	683	311	---	1230	505	321
9	---	---	793	494	397	377	623	332	---	1170	659	441
10	---	408	767	520	---	---	621	434	---	1370	684	495
11	---	359	772	502	---	382	408	431	---	1230	672	657
12	---	465	699	---	444	362	397	423	224	526	761	672
13	---	476	784	526	510	391	423	429	548	640	773	838
14	---	316	---	597	518	417	423	475	337	749	458	832
15	---	332	764	499	514	417	294	539	---	970	971	829
16	---	381	770	507	574	655	233	589	346	495	1100	793
17	---	455	856	---	---	---	---	634	378	---	1100	832
18	---	481	853	564	---	585	398	721	406	---	1130	904
19	---	522	915	542	489	424	409	740	474	908	1020	---
20	---	472	843	634	452	442	395	707	289	921	1030	958
21	---	490	708	529	476	611	410	704	355	---	1060	1020
22	---	523	748	513	499	480	381	748	406	1160	1070	1050
23	---	---	711	462	502	578	296	608	494	1500	1260	1060
24	---	---	702	---	550	480	277	475	552	1510	1330	1210
25	---	---	709	464	498	443	373	512	608	1500	1380	1200
26	---	585	782	375	534	606	393	471	724	1430	1480	1080
27	---	606	786	377	420	605	398	524	727	1400	1490	---
28	---	610	---	406	455	577	375	552	788	---	1540	528
29	---	690	822	383	---	582	487	615	825	182	1520	523
30	250	709	910	---	---	612	535	757	860	211	1490	854
31	251	---	842	483	---	582	---	796	---	241	1540	---
MONTH	---	437	783	501	472	482	457	543	513	978	945	921

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	15.0	10.0	7.0	6.0	8.0	---	25.0	28.0	30.0	27.0	27.0
2	---	14.0	9.0	8.0	7.0	6.0	---	22.0	28.0	33.0	28.0	26.0
3	---	---	---	4.0	5.0	---	---	24.0	33.0	32.0	---	29.0
4	---	11.0	9.0	4.0	---	10.0	---	24.0	22.0	34.0	27.0	28.0
5	---	16.0	8.0	1.0	5.0	10.0	---	22.0	24.0	33.0	29.0	24.0
6	---	17.0	---	1.0	7.0	---	---	24.0	26.0	30.0	28.0	24.0
7	---	17.0	7.0	2.0	7.0	9.0	---	23.0	28.0	31.0	30.0	25.0
8	---	15.0	8.0	3.0	---	10.0	---	26.0	---	30.0	31.0	28.0
9	---	---	5.0	2.0	8.0	11.0	---	22.0	30.0	32.0	30.0	29.0
10	---	19.0	5.0	2.0	---	---	---	27.0	28.0	31.0	29.0	26.0
11	---	16.0	6.0	2.0	---	17.0	---	28.0	26.0	30.0	30.0	28.0
12	---	16.0	5.0	---	5.0	---	---	23.0	26.0	35.0	33.0	29.0
13	---	15.0	6.0	3.0	6.0	14.0	---	25.0	26.0	31.0	32.0	30.0
14	---	10.0	---	5.0	6.0	10.0	---	22.0	28.0	27.0	30.0	31.0
15	---	10.0	6.0	6.0	8.0	13.0	---	24.0	---	28.0	31.0	28.0
16	---	13.0	8.0	4.0	7.0	15.0	---	27.0	29.0	28.0	31.0	27.0
17	---	10.0	9.0	---	---	---	---	24.0	31.0	---	33.0	29.0
18	---	10.0	9.0	4.0	---	10.0	---	27.0	28.0	---	30.0	26.0
19	---	9.0	8.0	6.0	7.0	12.0	---	26.0	26.0	30.0	31.0	---
20	---	8.0	9.0	8.0	7.0	10.0	---	28.0	25.0	32.0	33.0	27.0
21	---	9.0	9.0	8.0	8.0	12.0	---	26.0	25.0	---	30.0	28.0
22	---	10.0	8.0	8.0	6.0	11.0	21.0	27.0	29.0	28.0	30.0	29.0
23	---	---	9.0	9.0	6.0	10.0	20.0	28.0	29.0	32.0	31.0	26.0
24	---	---	9.0	---	7.0	10.0	19.0	29.0	28.0	30.0	33.0	27.0
25	---	---	8.0	9.0	7.0	---	---	25.0	30.0	31.0	31.0	28.0
26	---	11.0	8.0	9.0	6.0	---	---	28.0	29.0	29.0	29.0	24.0
27	---	9.0	9.0	3.0	6.0	---	---	23.0	31.0	30.0	29.0	---
28	---	11.0	---	5.0	8.0	---	---	25.0	30.0	---	27.0	26.0
29	---	10.0	8.0	5.0	---	---	---	28.0	31.0	28.0	29.0	24.0
30	21.0	9.0	8.0	---	---	---	---	28.0	31.0	23.0	28.0	26.0
31	17.0	---	8.0	5.0	---	---	---	26.0	---	27.0	30.0	---
MONTH	---	12.5	8.0	5.0	6.5	---	---	25.5	28.0	30.0	30.0	27.0

08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	74	1000	200	9.3	60	1.5
2	0	0	0	34	420	39	9.1	9	.22
3	0	0	0	14	200	7.6	8.7	25	.59
4	0	0	0	8.8	68	1.6	8.3	37	.83
5	0	0	0	7.0	68	1.3	7.9	44	.94
6	0	0	0	325	1620	1860	7.1	40	.77
7	0	0	0	214	620	358	6.7	40	.72
8	0	0	0	72	90	17	6.8	37	.68
9	0	0	0	32	50	4.3	7.6	48	.98
10	0	0	0	19	25	1.3	7.3	83	1.6
11	0	0	0	12	79	2.6	7.7	61	1.3
12	0	0	0	10	110	3.0	8.0	19	.41
13	0	0	0	99	370	99	9.1	22	.54
14	0	0	0	58	510	80	9.8	20	.53
15	0	0	0	23	160	9.9	9.1	15	.37
16	0	0	0	15	60	2.4	9.1	8	.20
17	0	0	0	12	72	2.3	9.1	4	.10
18	0	0	0	16	125	5.4	9.1	25	.61
19	0	0	0	27	113	8.2	8.3	39	.87
20	0	0	0	20	103	5.6	8.6	7	.16
21	10	150	4.1	16	50	2.2	8.2	33	.73
22	36	410	40	16	192	8.3	8.0	5	.11
23	.06	50	.01	15	100	4.1	7.6	61	1.3
24	0	0	0	14	80	3.0	7.0	28	.53
25	0	0	0	14	70	2.6	6.8	31	.57
26	6.7	138	2.5	14	58	2.2	6.5	23	.40
27	.90	75	.18	12	77	2.5	6.5	8	.14
28	.04	50	.01	9.8	63	1.7	6.5	15	.26
29	1.0	100	.27	8.8	50	1.2	6.9	22	.41
30	397	1750	3380	9.0	22	.53	8.3	30	.67
31	299	2790	2260	--	--	--	9.0	32	.78
TOTAL	750.70	--	5687.07	1220.4	--	2736.83	248.0	--	19.82

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.0	35	.76	91	1120	279	44	66	7.8
2	7.5	30	.61	74	640	128	50	78	11
3	90	1000	243	55	370	55	53	90	13
4	109	240	71	48	250	32	73	121	24
5	64	100	17	43	110	13	63	126	21
6	48	23	3.0	40	83	9.0	163	1480	651
7	47	20	2.5	72	1030	200	297	1060	850
8	48	8	1.0	602	1230	2000	139	530	199
9	41	28	3.1	293	250	198	91	150	37
10	34	45	4.1	147	180	71	352	2000	1900
11	31	104	8.7	99	140	37	322	1000	869
12	29	115	9.0	81	127	28	146	530	209
13	28	117	8.8	70	136	26	102	500	138
14	31	68	5.7	57	120	18	87	130	31
15	44	64	7.6	48	95	12	69	130	24
16	45	105	13	43	64	7.4	58	110	17
17	41	100	11	41	60	6.6	50	100	14
18	39	86	9.1	42	75	8.5	46	116	14
19	34	91	8.4	44	91	11	44	60	7.1
20	30	118	9.6	42	86	9.8	39	100	11
21	29	70	5.5	39	100	11	35	116	11
22	28	80	6.0	38	79	8.1	34	110	10
23	25	96	6.5	55	129	19	35	100	9.5
24	22	90	5.3	62	101	17	56	370	56
25	35	740	125	53	83	12	73	150	30
26	339	1590	1490	50	71	9.6	50	100	14
27	197	570	303	51	70	9.6	40	90	9.7
28	111	160	48	47	63	8.0	38	67	6.9
29	72	100	19	--	--	--	36	42	4.1
30	61	91	15	--	--	--	41	44	4.9
31	58	120	19	--	--	--	60	123	20
TOTAL	1825.5	--	2479.27	2427	--	3243.6	2786	--	5224.0

APRIL

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	52	205	29	106	145	41	25	20	1.4
2	41	100	11	93	137	34	34	100	9.2
3	40	50	5.4	74	97	19	395	2890	6390
4	39	100	11	66	80	14	422	4030	4850
5	33	60	5.3	65	83	15	271	1580	1200
6	29	50	3.9	64	83	14	190	350	180
7	28	54	4.1	262	855	984	88	100	24
8	29	54	4.2	510	800	1100	63	90	15
9	31	50	4.2	216	400	233	48	73	9.5
10	29	55	4.3	117	178	56	38	70	7.2
11	26	50	3.5	86	200	46	33	70	6.2
12	25	60	4.1	99	150	40	35	60	5.7
13	28	55	4.2	79	300	64	34	60	5.5
14	35	55	5.2	58	182	29	1710	3880	17900
15	1270	1920	10000	47	112	14	313	1200	1010
16	2880	2330	19800	42	110	12	164	1000	443
17	358	1950	1880	40	59	6.4	99	300	80
18	471	950	1010	38	50	5.1	77	200	42
19	394	510	543	36	54	5.2	78	522	110
20	200	400	216	34	51	4.7	426	2220	2620
21	138	350	130	33	52	4.6	202	1850	1010
22	994	1240	4030	33	52	4.6	104	500	140
23	2210	2850	19300	54	438	122	61	150	25
24	3990	4220	45500	129	645	293	43	100	12
25	1570	2150	9110	61	400	66	35	70	6.6
26	324	530	464	98	550	146	27	59	4.3
27	278	350	263	61	200	33	23	60	3.7
28	171	300	139	36	69	6.7	22	46	2.7
29	118	160	51	28	60	4.5	21	25	1.4
30	113	122	37	26	32	2.2	19	24	1.2
31	--	--	--	26	36	2.5	--	--	--
TOTAL	15944	--	112572.4	2717	--	3421.5	5100	--	36115.6

JULY

AUGUST

SEPTEMBER

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	27	1.4	865	930	2170	6.0	17	.28
2	17	27	1.2	446	450	542	5.6	5	.08
3	14	12	.45	237	200	128	5.4	38	.55
4	13	11	.39	136	100	37	5.3	18	.26
5	12	29	.94	88	83	20	6.6	38	.68
6	10	32	.86	72	19	3.7	30	175	14
7	11	23	.68	52	30	4.2	116	1500	613
8	9.8	26	.69	37	29	2.9	61	1100	181
9	10	16	.43	26	54	3.8	31	200	17
10	10	22	.59	21	43	2.4	20	107	5.8
11	18	60	2.9	21	36	2.0	14	63	2.4
12	20	150	8.1	19	43	2.2	11	50	1.5
13	16	75	3.2	18	40	1.9	11	27	.80
14	14	80	3.0	16	37	1.6	9.2	27	.67
15	26	250	18	15	56	2.3	8.1	37	.81
16	48	100	13	10	28	.76	7.7	23	.48
17	29	75	5.9	11	22	.65	8.7	32	.75
18	17	60	2.8	9.6	28	.73	7.4	22	.44
19	10	52	1.4	9.0	19	.46	7.6	25	.51
20	7.9	35	.75	8.7	16	.38	8.2	25	.55
21	6.8	30	.55	8.3	27	.61	7.6	23	.47
22	6.2	22	.37	7.9	30	.64	6.8	17	.31
23	6.2	15	.25	6.9	36	.67	6.5	15	.26
24	5.4	12	.17	6.7	22	.40	6.9	21	.39
25	4.7	5	.06	6.3	28	.48	7.4	17	.34
26	4.2	30	.34	5.8	35	.55	7.7	21	.44
27	3.4	4	.04	5.5	16	.24	25	35	2.4
28	4.9	100	1.3	5.8	12	.19	34	16	1.5
29	216	1130	1190	9.1	9	.22	22	18	1.1
30	3800	2450	32000	8.0	16	.35	15	22	.89
31	1450	1250	4890	6.8	39	.72	--	--	--
TOTAL	5839.5	--	38149.76	2194.4	--	2932.05	518.7	--	849.66

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

41571.20

213431.56

TRINITY RIVER BASIN

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08052650 LITTLE ELM CREEK NEAR CELINA, TEX.

LOCATION.--Lat 33°21'55", long 96°49'25", Collin County, at gaging station at bridge on Farm Road 455, 3.6 miles (5.8 km) northwest of Celina, and 10 miles (16 km) upstream from Mustang Creek.

DRAINAGE AREA.--46.7 mi² (121 km²).

PERIOD OF RECORD.--Specific conductance: October 1966 to September 1973.

Water temperatures: February 1966 to September 1973.

Sediment records: February 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Water temperatures: Minimum, 3.0°C Feb. 8, 9, 10, 11.

Sediment concentrations: Maximum daily, 2,450 mg/l Feb. 8; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 4,140 tons, Mar. 10; minimum daily, 0 tons on many days.

EXTREMES, February 1966 to September 1973.--Water temperatures (February 1966 to September 1969): Maximum, 31.0°C June 20, 1969; minimum, freezing point Jan. 1, 1969.

Sediment concentrations: Maximum daily, 2,450 mg/l Feb. 8, 1973; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 15,200 tons Apr. 28, 1966; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	279	422	581	379	603	342	324	549	---	273	---
2	---	268	423	628	390	565	364	327	559	---	271	---
3	---	255	---	376	383	531	366	319	262	---	261	---
4	---	247	430	364	389	348	367	316	271	---	278	---
5	---	323	437	355	405	385	379	336	273	---	269	---
6	---	350	427	436	410	321	373	336	232	---	---	354
7	---	321	424	462	474	309	373	233	235	---	---	281
8	---	304	418	425	416	342	388	229	242	---	---	249
9	---	290	453	397	335	301	409	227	247	---	---	249
10	---	304	502	385	350	260	413	251	239	---	---	253
11	---	303	628	---	368	247	433	248	240	---	---	378
12	---	310	721	---	377	251	436	282	262	---	---	280
13	---	296	790	---	400	262	436	295	264	---	---	278
14	---	283	785	---	400	274	---	267	277	---	---	277
15	---	282	768	495	396	276	436	261	296	---	---	281
16	---	282	562	520	399	276	371	262	313	309	---	---
17	---	281	649	493	416	283	355	265	297	305	---	282
18	---	347	641	478	425	294	378	294	300	350	---	---
19	---	358	442	458	436	306	378	295	305	---	---	---
20	---	363	635	459	444	307	382	---	330	---	---	---
21	---	369	584	469	443	318	385	305	347	---	---	---
22	234	397	587	468	458	353	475	303	314	---	---	---
23	288	402	573	482	489	363	403	305	309	---	---	---
24	249	405	561	456	521	383	301	305	324	---	---	---
25	244	401	557	571	575	383	295	---	323	---	---	---
26	245	402	558	593	606	301	288	385	334	---	---	---
27	276	405	555	370	628	298	289	356	334	---	---	273
28	258	405	554	376	601	308	287	361	343	---	---	244
29	335	417	552	378	---	333	310	378	346	---	---	217
30	409	432	629	385	---	324	312	358	392	449	---	223
31	315	---	629	387	---	334	---	366	---	341	---	---
MONTH	---	336	563	454	440	337	370	303	312	---	---	---

TRINITY RIVER BASIN

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (T/DAY)	SUS- PENDE SEDIM- ENT % FINER THAN .062 MM	SUS- PENDE SEDIM- ENT % FINER THAN .125 MM	SUS- PENDE SEDIM- ENT % FINER THAN .250 MM
OCT.								
22...	0600	1695	18.0	936	4280	98	99	100
26...	1730	542	11.0	538	787	96	97	97
28...	1700	61	12.0	252	42	98	98	99
30...	0900	117	12.0	1910	603	96	99	100
NOV.								
09...	1400	13	15.0	113	4.0	97	98	99
JAN.								
03...	0930	392	6.5	1300	1380	98	99	100
MAR.								
10...	1200	1640	7.0	1540	6820	98	99	100
APR.								
22...	1600	226	18.0	3130	1910	99	100	--

DATE	SUS- PENDE SEDIM- ENT % FINER THAN .500 MM	SUS- PENDE SEDIM- ENT % FINER THAN 1.00 MM	SUS- PENDE SEDIM- ENT % FINER THAN .002 MM	SUS- PENDE SEDIM- ENT % FINER THAN .004 MM	SUS- PENDE SEDIM- ENT % FINER THAN .008 MM	SUS- PENDE SEDIM- ENT % FINER THAN .016 MM	SUS- PENDE SEDIM- ENT % FINER THAN .031 MM
OCT.							
22...	--	--	87	94	95	97	98
26...	98	100	21	56	63	88	93
28...	100	--	94	95	95	96	97
30...	--	--	61	73	74	82	91
NOV.							
09...	100	--	88	92	94	96	97
JAN.							
03...	--	--	81	83	88	93	96
MAR.							
10...	--	--	88	90	92	94	96
APR.							
22...	--	--	63	78	80	88	92

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.0	9.0	9.0	8.0	8.0	16.0	22.0	24.0	---	25.0	---
2	---	11.0	9.0	9.5	8.0	8.0	16.0	22.0	23.0	---	25.0	---
3	---	11.0	---	6.5	8.5	8.0	15.0	24.0	20.0	---	26.0	---
4	---	---	8.0	7.0	8.5	8.0	15.0	24.0	21.0	---	27.0	---
5	---	14.0	8.0	7.0	9.0	8.0	14.0	25.0	20.0	---	26.0	---
6	---	14.0	8.0	6.0	---	9.0	14.0	22.0	22.0	---	---	25.0
7	---	15.0	8.0	5.0	5.0	8.0	14.0	19.0	22.0	---	---	25.0
8	---	15.0	5.0	5.0	3.0	8.0	12.0	20.0	---	---	---	27.0
9	---	15.0	4.0	4.5	3.0	---	12.0	21.0	23.0	---	---	26.0
10	---	15.0	4.0	4.5	3.0	7.0	10.0	21.0	24.0	---	---	26.0
11	---	15.0	4.0	---	3.0	8.0	12.0	26.0	25.0	---	---	26.0
12	---	15.0	4.0	---	5.0	8.0	13.0	22.0	23.0	---	---	26.0
13	---	14.0	4.0	---	5.0	8.0	14.0	24.0	24.0	---	---	26.0
14	---	11.0	4.0	---	6.0	9.0	---	20.0	23.0	---	---	24.0
15	---	10.0	4.0	5.0	7.0	8.0	13.0	22.0	21.0	---	---	23.0
16	---	10.0	---	5.0	---	8.0	13.0	22.0	28.0	26.0	---	---
17	---	---	4.0	6.0	6.0	8.0	14.0	23.0	28.0	28.0	---	22.0
18	---	---	4.0	7.0	6.0	9.0	18.0	23.0	---	27.0	---	---
19	---	10.0	5.0	7.0	6.0	10.0	18.0	22.0	27.0	---	---	---
20	---	10.0	6.0	7.0	6.0	10.0	21.0	---	26.0	---	---	---
21	---	10.0	7.0	7.5	6.0	10.0	22.0	24.0	26.0	---	---	---
22	18.0	11.0	10.0	6.5	6.0	10.0	18.0	22.0	27.0	---	---	---
23	16.0	10.0	10.0	7.0	7.0	14.0	18.0	23.0	27.0	---	---	---
24	15.0	11.0	9.5	7.0	---	17.0	20.0	22.0	28.0	---	---	---
25	13.0	11.0	8.5	6.5	7.0	18.0	19.0	---	27.0	---	---	---
26	12.0	10.0	8.5	6.0	7.0	12.0	18.0	24.0	28.0	---	---	---
27	12.0	10.0	9.5	6.5	7.0	13.0	19.0	23.0	28.0	---	---	22.0
28	12.0	10.0	9.5	7.0	8.0	15.0	20.0	23.0	28.0	---	---	22.0
29	12.0	9.0	10.0	7.5	---	16.0	21.0	24.0	28.0	---	---	22.0
30	12.0	9.0	8.0	8.0	---	16.0	21.0	23.0	25.5	24.5	---	23.0
31	12.0	---	---	8.0	---	17.0	---	23.0	---	24.0	---	---
MONTH	---	11.5	7.0	6.5	6.0	10.5	16.0	22.5	25.0	---	---	---

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	517	1740	3050	1.6	41	.18
2	0	0	0	234	1500	948	1.3	20	.07
3	0	0	0	133	400	144	1.2	30	.10
4	0	0	0	66	250	45	1.1	43	.13
5	0	0	0	38	310	32	.74	21	.04
6	0	0	0	44	400	48	.38	16	.02
7	0	0	0	34	212	19	.14	14	.01
8	0	0	0	18	192	9.3	.14	8	0
9	0	0	0	13	113	4.0	.20	20	.01
10	0	0	0	10	132	3.6	.38	62	.06
11	0	0	0	6.9	135	2.5	.38	29	.03
12	0	0	0	6.0	117	1.9	.96	55	.14
13	0	0	0	119	933	300	4.0	67	.72
14	0	0	0	57	510	78	3.0	56	.45
15	0	0	0	33	400	36	6.7	66	1.2
16	0	0	0	19	250	13	2.4	30	.19
17	0	0	0	11	230	6.8	1.5	31	.13
18	0	0	0	58	1080	169	2.1	32	.18
19	0	0	0	21	400	23	1.6	27	.12
20	0	0	0	11	280	8.3	1.4	40	.15
21	17	436	20	9.4	137	3.5	1.4	38	.14
22	870	1060	2760	9.6	75	1.9	1.4	50	.19
23	132	720	257	6.5	54	.95	.62	31	.05
24	61	480	79	5.3	38	.54	.28	31	.02
25	35	350	33	6.0	56	.91	.14	36	.01
26	225	782	884	5.0	47	.63	.07	12	0
27	176	950	451	4.6	27	.34	.03	7	0
28	69	420	78	2.7	62	.45	.02	16	0
29	273	1470	1260	1.8	30	.15	.02	10	0
30	171	1330	690	2.0	63	.34	.74	42	.08
31	126	1220	439	--	--	--	1.3	16	.06
TOTAL	2155	--	6951	1501.8	--	4951.11	37.24	--	4.48

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.20	56	.03	88	350	83	8.6	83	1.9
2	.14	30	.01	39	290	31	9.6	61	1.6
3	238	1030	765	23	200	12	117	564	556
4	94	460	117	16	162	7.0	294	480	381
5	52	250	35	12	98	3.2	138	350	130
6	30	150	12	9.4	117	3.0	422	1760	2010
7	33	172	15	154	1670	1480	228	450	277
8	26	81	5.7	328	2450	2350	140	350	132
9	19	80	4.1	121	350	114	100	390	121
10	7.9	44	.94	65	144	25	1040	1470	4140
11	7.0	45	.85	38	152	16	342	900	831
12	5.5	45	.67	22	94	5.6	270	530	386
13	5.0	40	.54	17	182	8.4	241	450	293
14	6.0	40	.65	12	231	7.5	181	330	161
15	6.8	41	.75	9.0	214	5.2	86	400	93
16	7.8	44	.93	6.7	131	2.4	46	410	51
17	7.5	42	.85	5.3	92	1.3	26	380	27
18	6.9	49	.91	4.3	25	.29	16	360	16
19	5.2	40	.56	3.5	70	.66	11	350	10
20	4.1	79	.87	3.1	67	.56	7.8	350	7.4
21	4.9	42	.56	2.6	67	.47	5.2	340	4.8
22	5.2	32	.45	2.5	58	.39	3.8	320	3.3
23	3.5	44	.42	3.8	69	.71	3.4	115	1.1
24	2.5	48	.32	3.3	41	.37	5.4	180	2.6
25	85	1310	301	3.0	53	.43	95	1170	300
26	241	830	540	8.2	57	1.3	56	400	60
27	101	250	68	4.7	55	.70	30	400	32
28	59	230	37	3.4	87	.80	18	350	17
29	32	200	17	--	--	--	12	300	9.7
30	20	130	7.0	--	--	--	8.8	160	3.8
31	48	1160	150	--	--	--	6.2	170	2.8
TOTAL	1164.14	--	2084.11	1007.8	--	4161.28	3967.8	--	10063.0

TRINITY RIVER BASIN

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.4	250	3.0	14	245	9.3	5.0	124	1.7
2	3.3	220	2.0	10	240	6.5	9.7	120	3.1
3	3.1	200	1.7	7.7	155	3.2	913	1410	3850
4	2.4	190	1.2	6.9	150	2.8	299	400	323
5	1.8	180	.87	6.6	119	2.1	971	1120	3270
6	1.4	170	.64	33	1350	120	331	500	447
7	1.3	140	.49	430	950	1100	243	225	148
8	1.3	120	.42	213	430	247	180	200	97
9	1.3	120	.42	165	300	134	97	181	47
10	1.2	70	.23	94	250	63	57	200	31
11	1.2	65	.21	46	200	25	39	150	16
12	1.1	110	.33	30	133	11	25	225	15
13	2.6	91	.64	16	200	8.6	59	1260	201
14	2.4	100	.65	11	150	4.5	292	1650	1300
15	113	1470	448	8.9	128	3.1	124	450	151
16	146	510	201	6.2	155	2.6	63	170	29
17	50	400	54	4.5	135	1.6	31	121	10
18	28	270	20	3.5	64	.60	18	134	6.5
19	20	260	14	2.5	50	.34	16	102	4.4
20	14	244	9.2	1.8	76	.37	18	143	6.9
21	11	246	7.3	1.3	91	.32	18	132	6.4
22	81	783	373	.90	53	.13	10	120	3.2
23	89	710	268	.80	46	.10	5.0	105	1.4
24	780	1110	2610	5.0	50	.68	3.0	45	.36
25	268	340	246	305	1820	1500	1.2	54	.17
26	189	250	128	74	550	110	.70	33	.06
27	97	210	55	11	150	4.5	.20	31	.02
28	53	245	35	8.0	162	3.5	.15	46	.02
29	29	224	18	6.0	178	2.9	.08	35	.01
30	19	229	12	4.2	106	1.2	.04	43	0
31	--	--	--	3.3	82	.73	--	--	--
TOTAL	2015.8	--	4511.30	1530.10	--	3369.67	3829.07	--	9969.24

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.02	40	0	40	187	20	0	0	0
2	0	0	0	20	150	8.1	0	0	0
3	0	0	0	11	75	2.2	0	0	0
4	0	0	0	6.0	70	1.1	0	0	0
5	0	0	0	3.2	60	.52	0	0	0
6	0	0	0	1.8	50	.24	117	901	365
7	0	0	0	1.3	50	.18	173	500	234
8	0	0	0	.96	50	.13	127	240	82
9	0	0	0	.85	50	.11	65	174	31
10	0	0	0	.74	50	.10	34	188	17
11	0	0	0	1.7	70	.32	19	150	7.7
12	0	0	0	1.8	80	.39	11	125	3.7
13	0	0	0	1.3	70	.25	7.3	100	2.0
14	0	0	0	.96	60	.16	4.5	90	1.1
15	0	0	0	.85	50	.11	2.9	80	.63
16	12	1230	40	.50	50	.07	2.0	70	.38
17	8.2	350	7.7	.28	40	.03	1.4	60	.23
18	3.1	175	1.5	.20	40	.02	1.1	50	.15
19	1.4	150	.57	.10	30	.01	.85	40	.09
20	1.2	100	.32	.05	20	0	.50	30	.04
21	1.0	90	.24	0	0	0	.28	20	.02
22	.62	80	.13	0	0	0	.14	20	.01
23	.38	70	.07	0	0	0	.07	20	0
24	.20	60	.03	0	0	0	.05	20	0
25	.14	50	.02	0	0	0	.02	20	0
26	.07	40	.01	0	0	0	282	1970	1500
27	.02	30	0	0	0	0	1410	1050	4000
28	.01	20	0	0	0	0	430	400	464
29	.02	20	0	0	0	0	344	178	165
30	107	760	349	0	0	0	296	127	101
31	88	460	109	0	0	0	--	--	--
TOTAL	223.38	--	508.59	93.59	--	34.04	3329.11	--	6975.05

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

20854.83

53582.87

TRINITY RIVER BASIN

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08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.

LOCATION.--Lat 33°17'00", long 96°53'33", Denton County, at gaging station at bridge on Farm Road 1385, 1.5 miles (2.4 km) upstream from Mustang Creek, 5.5 miles (8.8 km) east of Aubrey, and 18 miles (29 km) upstream from Lewisville Dam.

DRAINAGE AREA.--75.5 mi² (196 km²).

PERIOD OF RECORD.--Chemical analyses: January 1968.

Specific conductance: December 1968 to September 1973.

Water temperatures: February 1966 to September 1973.

Sediment records: February 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Sediment concentrations: Maximum daily, 2,020 mg/l Oct. 22, minimum daily, no flow on many days.

Sediment loads: Maximum daily, 8,550 tons Oct. 22; minimum daily, 0 tons on many days.

EXTREMES, February 1966 to September 1973.--Water temperatures (February 1966 to September 1970): Maximum, 33.0°C on several days during June and July of 1968 and 1969; minimum, freezing point Feb. 22, 1968.

Sediment concentrations: Maximum daily, 4,750 mg/l Aug. 13, 1966; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 17,900 tons May 31, 1967; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	324	473	641	442	591	---	332	395	---	326	---
2	528	250	472	712	388	686	374	348	407	---	238	---
3	536	253	---	482	393	526	390	352	340	---	238	---
4	---	262	486	369	---	366	406	---	272	---	245	---
5	559	---	495	---	419	344	---	356	258	---	261	378
6	---	265	507	---	434	366	423	---	263	---	---	369
7	---	324	---	---	368	313	423	426	251	---	276	334
8	---	303	568	---	333	313	---	259	245	---	282	251
9	---	306	487	---	350	395	454	232	211	---	302	254
10	---	310	---	---	360	344	473	240	235	---	325	261
11	---	315	---	401	---	271	493	251	253	---	324	257
12	---	---	601	421	386	274	521	346	252	---	322	272
13	---	367	582	434	---	263	501	---	252	---	325	272
14	---	283	---	472	416	297	482	---	305	---	315	274
15	---	288	799	480	407	275	427	290	295	---	---	289
16	---	285	671	530	405	285	368	292	294	---	338	298
17	---	288	---	---	423	285	376	293	303	242	347	307
18	---	336	639	544	---	---	---	287	310	246	---	306
19	---	339	643	526	---	310	380	279	335	256	---	315
20	---	345	618	517	456	333	387	---	338	253	---	---
21	---	354	---	---	455	350	496	289	363	263	---	---
22	291	---	---	507	453	359	---	316	---	274	---	---
23	289	---	572	530	472	---	591	335	338	---	---	---
24	273	400	---	---	586	393	575	326	347	---	---	---
25	276	448	628	459	---	---	298	361	462	---	---	---
26	293	---	597	390	613	292	296	299	367	---	---	---
27	257	451	663	376	595	297	300	---	387	---	341	305
28	265	452	614	---	694	310	---	---	---	---	353	251
29	306	437	614	372	---	327	---	398	---	292	---	226
30	280	450	623	382	---	338	308	403	---	387	---	228
31	295	---	---	394	---	364	---	408	---	292	---	---
MONTH	---	337	---	---	448	352	---	---	311	---	---	---

TRINITY RIVER BASIN

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	12.0	8.0	---	13.0	---	24.0	---	---	24.0	---
2	20.0	---	6.0	6.0	---	15.0	16.0	23.0	---	---	26.0	---
3	20.0	---	---	4.0	---	16.0	14.0	23.0	---	---	27.0	---
4	---	---	6.0	5.0	---	15.0	16.0	---	---	---	24.0	---
5	22.0	---	9.0	4.0	---	12.0	---	21.0	---	---	29.0	23.0
6	---	14.0	3.0	---	---	15.0	12.5	---	23.5	---	---	22.0
7	---	13.5	---	---	---	14.0	16.0	18.0	25.5	---	31.5	23.0
8	---	14.0	4.5	---	---	19.0	---	19.0	26.0	---	30.5	24.5
9	---	14.5	5.0	---	---	14.0	15.0	24.0	25.5	---	30.0	27.0
10	---	15.0	---	---	---	17.0	17.0	25.0	27.0	---	31.5	28.5
11	---	11.0	---	4.0	---	14.0	19.0	27.0	24.5	---	26.0	27.5
12	---	---	4.0	3.5	---	19.0	21.0	21.0	25.0	---	34.0	27.5
13	---	12.0	6.0	3.5	---	18.0	25.0	---	24.0	---	31.0	25.0
14	---	10.0	---	4.5	9.0	15.0	20.0	---	23.0	---	33.0	24.5
15	---	10.0	4.0	5.0	9.5	15.0	17.0	18.0	27.0	---	---	---
16	---	11.0	3.0	9.0	7.0	14.0	14.5	23.0	27.5	---	33.0	---
17	---	10.0	---	---	7.0	12.0	15.0	28.0	31.0	29.0	31.5	21.0
18	---	7.0	4.0	15.0	---	---	---	29.0	29.5	31.5	---	---
19	---	6.0	10.0	13.0	---	17.0	21.0	31.0	27.0	31.5	---	---
20	---	5.0	15.0	14.0	13.0	14.0	24.0	---	25.0	33.0	---	---
21	---	5.0	---	---	12.0	15.0	23.0	29.0	28.5	28.0	---	---
22	18.0	---	---	11.0	8.0	16.0	---	27.0	---	30.5	---	---
23	17.0	---	12.0	8.0	7.0	---	21.0	28.0	29.0	---	---	---
24	15.0	6.0	---	---	13.0	18.0	16.0	28.0	30.5	---	---	---
25	17.0	9.0	11.0	6.0	---	---	19.0	26.0	30.0	---	---	---
26	---	---	12.0	5.0	14.0	11.0	18.0	20.0	27.5	---	---	---
27	---	8.0	11.0	---	12.0	---	20.0	---	30.0	---	27.0	23.5
28	---	9.0	11.0	---	14.0	---	---	---	---	---	27.0	22.0
29	---	---	18.0	---	---	---	---	---	---	24.0	---	22.0
30	---	10.0	12.0	---	---	---	18.0	---	---	24.0	---	25.0
31	---	---	---	---	---	---	---	---	---	27.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
OCT.								
02...	1500	.14	20.0	126	.05	--	--	--
22...	0720	1820	18.0	3360	16500	99	100	--
22...	1205	1970	20.0	2310	12300	76	77	77
26...	0955	92	--	462	115	98	99	100
NOV.								
01...	1700	1010	--	1420	3870	99	10	--
MAR.								
06...	1045	310	15.0	3800	3180	98	99	100

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT.							
02...	--	--	88	89	89	95	99
22...	--	--	82	88	93	95	98
22...	79	100	65	72	73	74	75
26...	--	--	83	88	88	93	94
NOV.							
01...	--	--	82	85	91	93	98
MAR.							
06...	--	--	77	82	90	94	98

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.45	60	.07	621	1080	2110	3.0	42	.34
2	.14	66	.02	509	500	687	2.7	37	.27
3	.06	56	.01	242	310	203	2.3	40	.25
4	.02	40	0	119	320	103	2.0	30	.16
5	.01	30	0	61	270	44	1.7	51	.23
6	0	0	0	63	450	77	1.4	39	.15
7	0	0	0	105	670	190	.95	30	.08
8	0	0	0	35	350	33	1.2	28	.09
9	0	0	0	21	260	15	.70	30	.06
10	0	0	0	15	202	8.2	.63	40	.07
11	0	0	0	11	178	5.3	.86	40	.09
12	0	0	0	9.2	200	5.0	1.0	39	.11
13	0	0	0	160	962	473	3.6	33	.32
14	0	0	0	99	450	120	4.4	30	.36
15	0	0	0	53	350	50	7.1	23	.44
16	0	0	0	32	250	22	6.0	39	.63
17	0	0	0	20	200	11	3.3	40	.36
18	0	0	0	125	781	330	2.6	36	.25
19	0	0	0	72	370	72	2.8	56	.42
20	0	0	0	23	120	7.5	2.4	36	.23
21	1.1	100	.30	15	100	4.1	2.4	40	.26
22	1480	2020	8550	14	80	3.0	2.1	40	.23
23	312	950	800	10	70	1.9	1.7	39	.18
24	166	630	282	8.4	63	1.4	.95	40	.10
25	114	320	98	8.3	50	1.1	.63	47	.08
26	285	784	851	7.6	50	1.0	.45	30	.04
27	531	520	746	6.5	55	.97	.30	40	.03
28	176	350	166	5.3	36	.52	.20	56	.03
29	381	1130	1250	4.0	28	.30	.30	91	.07
30	269	670	487	3.1	26	.22	.95	41	.11
31	236	400	255	--	--	--	.70	50	.09
TOTAL	3951.78	--	13485.40	2477.4	--	4580.51	61.32	--	6.13

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.0	100	.27	145	1040	418	5.7	60	.92
2	.63	87	.15	58	440	69	15	80	3.2
3	333	870	926	32	160	14	39	662	233
4	186	560	281	20	140	7.6	435	1250	1530
5	79	250	53	14	100	3.8	210	670	380
6	45	200	24	11	173	5.1	398	1980	2450
7	43	150	17	106	786	644	370	780	779
8	46	100	12	540	1040	1590	193	600	313
9	22	80	4.8	199	380	204	162	942	436
10	15	70	2.8	91	350	86	1170	1720	5690
11	11	60	1.8	53	300	43	493	820	1090
12	8.2	50	1.1	33	250	22	340	650	597
13	8.0	50	1.1	23	200	12	303	550	450
14	8.5	50	1.1	16	150	6.5	257	570	396
15	10	60	1.6	12	100	3.2	138	550	205
16	11	57	1.7	8.9	80	1.9	70	570	108
17	11	60	1.8	7.2	100	1.9	40	580	63
18	11	60	1.8	6.3	90	1.5	23	550	34
19	9.1	44	1.1	5.5	80	1.2	15	420	17
20	7.7	45	.94	4.9	70	.93	11	400	12
21	7.5	40	.81	4.3	100	1.2	8.7	350	8.2
22	8.2	39	.86	4.2	85	.96	7.1	300	5.8
23	7.3	43	.85	5.2	110	1.5	6.0	250	4.1
24	5.5	40	.59	6.0	120	1.9	6.4	200	3.5
25	57	552	290	5.2	100	1.4	68	1090	200
26	411	1110	1300	6.5	120	2.1	68	600	110
27	164	450	199	9.7	50	1.3	40	600	65
28	85	350	80	6.1	90	1.5	23	450	28
29	46	300	37	--	--	--	15	400	16
30	27	200	15	--	--	--	12	400	13
31	24	214	21	--	--	--	9.7	350	9.2
TOTAL	1708.63	--	3280.17	1433.0	--	3147.49	4951.6	--	15249.92

TRINITY RIVER BASIN

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.9	350	7.5	19	290	15	3.7	180	1.8
2	6.6	347	6.2	14	250	9.5	3.9	160	1.7
3	5.7	270	4.2	9.8	220	5.8	548	1320	1950
4	5.2	280	3.9	7.3	220	4.3	677	540	987
5	4.3	250	2.9	5.6	230	3.5	1110	1100	3530
6	3.6	200	1.9	9.1	315	21	726	500	980
7	3.2	210	1.8	413	1550	1550	332	320	287
8	3.0	200	1.6	263	700	497	261	340	240
9	2.9	190	1.5	194	480	251	158	300	128
10	2.8	120	.91	125	430	145	94	350	89
11	2.6	100	.70	79	575	173	64	440	76
12	2.1	120	.68	141	710	364	40	360	39
13	3.9	190	2.0	32	350	30	33	371	37
14	4.5	130	1.6	17	300	14	457	1030	926
15	49	905	340	12	250	8.1	270	320	233
16	313	1100	1070	9.1	220	5.4	101	200	55
17	83	430	96	7.0	190	3.6	52	200	28
18	46	350	43	5.2	100	1.4	24	160	10
19	30	300	24	4.0	60	.65	14	180	6.8
20	21	160	9.1	3.2	80	.69	22	160	9.5
21	15	250	10	2.6	80	.56	14	150	5.7
22	51	1010	253	2.0	30	.16	8.1	120	2.6
23	164	802	414	3.6	110	1.1	5.1	130	1.8
24	1010	1440	3460	2.5	50	.34	3.0	130	1.1
25	422	520	592	116	588	756	1.9	80	.41
26	277	340	254	541	1320	2330	.70	50	.09
27	163	310	136	82	500	111	.14	40	.02
28	80	290	63	46	400	50	.05	40	.01
29	46	280	35	19	230	12	.02	30	0
30	27	270	20	8.8	170	4.0	.01	30	0
31	--	--	--	5.3	160	2.3	--	--	--
TOTAL	2855.3	--	6856.49	2198.1	--	6370.40	5023.62	--	9626.53

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	90	450	109	0	0	0
2	0	0	0	51	270	37	0	0	0
3	0	0	0	23	200	12	0	0	0
4	0	0	0	10	170	4.6	0	0	0
5	0	0	0	6.4	150	2.6	.04	200	.02
6	0	0	0	4.0	100	1.1	74	785	249
7	0	0	0	2.3	89	.55	204	896	499
8	0	0	0	.95	140	.36	169	450	205
9	0	0	0	.23	90	.06	98	300	79
10	0	0	0	.06	39	.01	51	250	34
11	0	0	0	.04	83	.01	28	150	11
12	0	0	0	1.2	68	.22	14	250	9.5
13	0	0	0	2.3	25	.16	9.3	230	5.8
14	0	0	0	1.3	100	.35	6.9	110	2.0
15	0	0	0	.45	70	.09	4.8	110	1.4
16	3.8	580	6.0	.14	46	.02	3.0	140	1.1
17	15	300	12	.04	30	0	1.9	90	.46
18	7.3	200	3.9	0	0	0	.63	90	.15
19	4.0	190	2.1	0	0	0	.23	55	.03
20	1.7	100	.46	0	0	0	.06	40	.01
21	.35	130	.12	0	0	0	.01	40	0
22	.07	80	.02	0	0	0	0	0	0
23	.01	60	0	.01	20	0	0	0	0
24	.01	50	0	.01	20	0	0	0	0
25	0	0	0	.01	20	0	0	0	0
26	0	0	0	.01	20	0	17	235	100
27	0	0	0	.01	20	0	2150	927	3960
28	0	0	0	.01	20	0	771	400	833
29	.03	200	.02	.01	20	0	445	350	421
30	146	1050	658	0	0	0	393	260	276
31	242	808	598	0	0	0	--	--	--
TOTAL	420.27	--	1280.62	193.48	--	168.13	4440.87	--	6687.47

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

29715.37

70739.26

08057410 TRINITY RIVER BELOW DALLAS, TEX.

LOCATION.--Lat 32°42'27", long 96°44'08", Dallas County, at gaging station at bridge on South Loop Highway 12, 1 mile (1.6 km) downstream from White Rock Creek, 1.5 miles (2.4 km) upstream from Fivemile Creek, and 6.4 miles (10.3 km) southeast of Dallas County Courthouse in Dallas.

DRAINAGE AREA.--6,278 mi² (16,260 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: October 1971 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 980 micromhos Dec. 30; minimum daily 335 micromhos June 5.

EXTREMES, October 1967 to September 1968, October 1969 to September 1973.--Specific conductance (1967-68, 1972-73):

Maximum daily, 1,070 micromhos Dec. 13, 1967, minimum daily, 335 micromhos June 5, 1973.

Water temperatures (1967-68): Minimum, 4.0°C Jan. 10, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
02...	1000	380	12	38	6.6	--	100	--	206	0
DEC.										
03...	1240	440	13	57	9.2	--	88	--	184	0
20...	1320	413	12	56	7.9	--	140	--	168	0
JAN.										
31...	0955	636	11	72	8.4	--	91	--	260	0
FEB.										
26...	1300	710	12	66	8.6	--	67	--	198	0
APR.										
17...	1115	2760	5.2	71	4.1	--	36	--	196	0
22...	0940	3490	5.4	54	4.2	--	31	--	150	0
25...	1615	21200	7.3	51	3.8	--	24	--	127	0
MAY										
17...	1415	3020	4.4	60	6.4	--	34	--	180	0
28...	0700	1480	8.8	57	5.1	--	61	--	172	0
JUNE										
05...	1430	24400	6.2	48	2.6	--	21	--	126	0
14...	1400	3860	8.5	66	5.7	--	42	--	188	0
17...	1130	2290	8.3	60	5.3	--	40	--	172	0
28...	1245	4480	4.8	50	3.7	--	27	--	144	0
JULY										
12...	1200	3950	8.3	54	3.6	--	32	--	144	0
16...	1400	6530	8.3	48	3.0	17	--	5.6	150	0
26...	1305	475	9.2	59	6.4	90	--	8.9	226	0
AUG.										
06...	1400	5300	2.3	51	4.7	--	24	--	154	0
22...	1155	501	12	50	6.0	71	--	7.8	185	0
29...	0700	543	16	43	6.5	--	140	--	200	0
SEP.										
13...	0920	962	11	50	5.8	89	--	11	193	0
27...	1000	7130	4.7	60	3.6	--	28	--	160	0

TRINITY RIVER BASIN

08057410 TRINITY RIVER BASIN BELOW DALLAS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.										
02...	87	76	.9	.78	.38	9.6	1.7	7.1	443	33
DEC.										
03...	120	82	1.3	.66	.56	9.0	2.4	7.6	483	47
20...	170	85	1.2	--	--	--	12	--	610	--
JAN.										
31...	120	64	1.2	.54	.38	6.8	1.4	4.5	510	83
FEB.										
26...	89	53	.7	--	--	--	3.9	--	410	--
APR.										
17...	71	26	.5	.35	.22	.96	.80	2.2	315	384
22...	47	28	.4	--	--	--	1.8	--	252	--
25...	66	11	.4	--	--	--	1.5	--	232	--
MAY										
17...	53	32	.5	.39	.15	1.2	1.1	1.1	286	586
28...	78	40	.5	--	--	--	4.6	--	355	--
JUNE										
05...	47	9.4	.4	--	--	--	2.7	--	209	--
14...	74	33	.5	.30	.32	1.3	1.2	2.2	330	560
17...	57	31	.4	--	--	--	3.7	--	303	--
28...	40	26	.4	.30	.05	.53	.60	.73	226	192
JULY										
12...	59	26	.5	.31	.32	.86	1.0	2.2	261	770
16...	29	13	.4	--	--	--	.50	--	200	--
26...	110	66	.9	.71	.68	6.1	2.4	5.4	482	29
AUG.										
06...	34	26	.3	.33	.09	.43	.50	.64	221	228
22...	82	56	.8	.38	.23	3.0	1.5	4.6	388	42
29...	120	90	1.8	--	--	--	3.8	--	534	--
SEP.										
13...	120	63	1.1	.55	.32	6.2	2.2	6.2	460	196
27...	63	16	.3	--	--	--	1.2	--	260	--

DATE	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT.										
02...	20	120	0	4.0	749	6.9	22.5	35	6	3.2
DEC.										
03...	21	180	29	2.9	851	7.2	17.0	30	25	4.7
20...	--	170	34	4.7	876	8.0	5.0	--	--	--
JAN.										
31...	19	210	1	2.7	814	7.5	11.5	30	45	8.0
FEB.										
26...	--	200	38	2.1	716	7.9	8.5	--	--	--
APR.										
17...	76	190	34	1.1	532	6.7	16.5	30	60	5.6
22...	--	150	29	1.1	436	8.2	18.0	--	--	--
25...	--	140	39	.9	376	8.1	21.0	--	--	--
MAY										
17...	92	180	28	1.1	489	7.1	21.0	20	180	6.5
28...	--	160	22	2.1	583	7.6	22.5	--	--	--
JUNE										
05...	--	130	27	.8	335	7.6	22.0	--	--	--
14...	92	190	34	1.3	535	7.3	25.5	30	180	3.7
17...	--	170	30	1.3	499	7.9	24.0	--	--	--
28...	24	140	22	1.0	397	6.5	25.0	10	60	6.4
JULY										
12...	114	150	32	1.1	449	8.0	27.0	20	220	2.3
16...	--	130	9	.6	336	7.6	25.5	--	--	--
26...	17	170	0	3.0	795	7.2	31.0	40	15	2.8
AUG.										
06...	30	150	20	.9	406	6.8	27.0	5	80	6.8
22...	16	150	0	2.5	651	6.8	29.5	30	6	3.9
29...	--	130	0	5.2	940	7.7	28.0	--	--	--
SEP.										
13...	42	150	0	3.2	746	6.7	26.5	50	65	3.3
27...	--	160	33	1.0	405	7.6	24.0	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

TRINITY RIVER BASIN

08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 02...	1000	22.5	.00	.0	.01	17	.00	16	.00	9.7	.07
JAN. 31...	0955	11.5	.00	.0	.00	.0	.00	.0	.02	.0	.03
APR. 17...	1115	16.5	--	.0	--	15	--	.0	--	18	--
JUNE 15...	1620	26.0	.00	--	.04	--	.00	--	.07	--	.04
AUG. 06...	1400	27.0	--	.0	--	8.0	--	.0	--	33	--

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 02...	33	.00	.0	.00	.0	.00	.0	.02	.0	.2
JAN. 31...	33	.00	.0	.00	.0	.00	.0	.00	.0	.1
APR. 17...	43	--	.0	--	.0	--	.0	--	.0	--
JUNE 15...	--	.00	--	.00	--	.00	--	.00	--	.1
AUG. 06...	22	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 02...	270	.0	120	.23	.00	.00	.00	.09	.00	.02
JAN. 31...	330	.0	0	.32	.11	.00	.00	.16	.00	.03
APR. 17...	320	--	0	.15	.00	.00	.00	.40	.07	.10
JUNE 15...	--	.0	--	.13	.00	.00	.00	.12	.00	.07
AUG. 06...	150	--	130	--	--	--	--	--	--	--

TRINITY RIVER BASIN

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08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	TOTAL SEDI- MENT DIS- CHARGE (T/DAY)	STREAM WIDTH (FT)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAM- PLING POINTS
FEB. 10...	1015	3000	7.5	304	2460	2510	125	2.1	11	5
MAR. 12...	1210	4650	15.5	133	1670	1932	235	2.1	9.3	5
APR. 16...	1250	4870	18.0	772	10200	10600	135	3.0	11	5
24...	1200	7550	15.0	595	12100	12800	267	3.1	8.9	4
JULY 31...	1515	4490	26.5	977	11800	12100	124	2.9	12	5
SEP. 27...	1602	7630	24.5	413	8510	8970	280	3.0	9.0	7

DATE	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
FEB. 10...	58	62	64	68	69	70	71	0	80	100
MAR. 12...	85	89	90	92	93	93	94	96	100	--
APR. 16...	62	71	77	90	93	98	99	100	--	--
24...	57	65	68	78	83	90	96	99	100	--
JULY 31...	57	62	64	65	66	92	93	95	99	100
SEP. 27...	66	67	73	78	85	89	96	99	100	--

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
FEB. 10...	6	10	25	32	100	--	--	--	--
MAR. 12...	31	35	44	65	92	94	98	100	--
APR. 16...	25	35	54	76	93	97	99	100	--
24...	20	30	40	68	79	85	94	99	100
JULY 31...	25	44	69	74	80	90	98	100	--
SEP. 27...	--	6	22	41	71	88	96	98	100

TRINITY RIVER BASIN

08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	25368	648	390	26700	52	3560	82	5620	160
NOV.	24401	674	410	27000	55	3620	86	5670	160
DEC.	14616	877	530	20900	82	3240	110	4340	170
JAN. 1973....	30642	564	340	28100	41	3390	70	5790	160
FEB.	36954	520	320	31900	35	3490	63	6290	160
MAR.	66899	532	330	59600	37	6680	65	11700	160
APR.	100225	492	300	81200	32	8660	59	16000	160
MAY	138180	441	270	101000	25	9330	52	19400	160
JUNE	189190	408	250	128000	21	10700	47	24000	160
JULY	74250	491	300	60100	31	6210	59	11800	160
AUG.	56127	496	300	45500	32	4850	60	9090	160
SEP.	47438	520	320	41000	35	4480	63	8070	160
TOTAL	804290	--	--	651000	--	68200	--	128000	--
WTD. AVG. ...	2204	490	300	--	31	--	59	--	160

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	890	490	880	900	490	760	800	454	454	417	463	953
2	910	498	870	950	520	750	820	449	455	419	559	831
3	920	560	860	550	600	800	780	452	420	404	465	814
4	940	630	870	510	640	720	770	468	348	410	412	882
5	910	670	900	480	655	710	790	429	335	476	415	764
6	880	700	890	555	680	500	825	423	360	515	380	498
7	860	710	880	500	610	430	830	448	417	708	421	498
8	890	740	880	480	420	440	880	437	499	525	390	445
9	910	770	890	490	410	450	780	430	564	622	391	556
10	930	800	910	620	400	460	800	432	494	576	476	572
11	950	630	895	580	490	420	824	438	454	657	612	685
12	940	780	910	680	550	480	848	351	458	528	625	748
13	930	590	820	690	540	540	775	397	500	590	645	635
14	920	600	830	670	480	545	760	472	538	638	661	525
15	910	680	790	675	450	550	689	536	483	491	724	526
16	910	740	800	690	440	530	527	575	522	347	730	605
17	890	790	840	700	500	520	566	470	499	402	765	556
18	895	700	850	720	550	530	461	441	467	542	712	543
19	950	690	860	740	530	510	568	411	450	601	740	650
20	890	750	876	800	570	520	500	419	401	676	762	839
21	870	730	888	700	620	540	472	428	388	714	850	898
22	520	750	880	720	650	550	436	415	426	721	647	944
23	500	800	900	750	600	580	483	431	440	704	895	901
24	610	820	910	780	680	600	537	427	408	787	936	659
25	600	800	940	500	700	610	376	437	394	787	911	499
26	640	820	945	430	716	650	384	437	403	842	858	680
27	470	840	950	440	730	620	464	542	403	845	854	416
28	490	850	930	480	770	590	548	583	398	856	855	438
29	530	860	934	540	---	600	663	552	395	417	940	429
30	500	870	980	580	---	700	493	496	398	434	840	381
31	550	---	895	550	---	770	---	448	---	473	928	---
MONTH	790	722	886	627	571	580	648	456	439	585	673	646

TRINITY RIVER BASIN

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08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.

LOCATION.--Lat 32°38'18", long 96°29'05", Kaufman County, at gaging station at bridge on U.S. Highway 175, 0.7 mile (1.1 km) downstream from Mustang Creek, 1.8 miles (2.9 km) northwest of Crandall, and 4.0 miles (6.4 km) upstream from Buffalo Creek.

DRAINAGE AREA.--1,256 mi² (3,253 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 857 micromhos Dec. 31; minimum daily, 252 micromhos June 4.

Water temperatures: Maximum, 31.0°C July 24, 26, 27, Aug. 31; minimum, 1.5°C Jan. 11.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 1,010 micromhos Nov. 23, 1968; minimum daily, 201 micromhos Oct. 20, 1971.

Water temperatures: Maximum, 33.0°C on several days during July and August, 1969; minimum, 1.5 °C Jan. 11, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
02...	1140	24	15	27	7.9	--	110	--	296	0	35	74
05...	1500	26	18	34	3.9	110	--	14	132	0	59	81
NOV.												
20...	1520	93	7.7	44	2.3	--	30	--	116	0	42	20
DEC.												
03...	1325	44	13	41	8.1	--	39	--	132	0	68	56
20...	1445	49	12	52	5.7	--	72	--	115	0	73	54
JAN.												
04...	1405	424	5.8	50	2.5	19	--	4.9	128	0	34	12
30...	1600	73	9.2	62	4.3	--	42	--	210	0	61	27
FEB.												
09...	1305	1390	9.6	47	3.0	--	14	--	138	0	28	8.0
MAR.												
11...	1525	4680	6.5	46	2.9	--	13	--	144	0	22	6.0
APR.												
02...	0820	155	4.5	56	3.5	--	29	--	163	0	42	18
17...	1315	1490	4.9	50	3.2	--	12	--	152	0	27	7.4
MAY												
17...	1325	2680	1.6	52	4.4	--	12	--	160	0	27	8.0
JUNE												
04...	0900	5800	9.1	41	2.2	--	10	--	128	0	15	4.3
14...	1300	2660	5.6	51	4.1	--	11	--	156	0	25	7.6
28...	1330	1190	2.9	50	4.7	--	10	--	152	0	27	8.2
JULY												
12...	1350	962	3.5	47	2.9	--	14	--	144	0	26	8.8
26...	1400	53	8.6	39	3.4	39	--	6.2	160	0	46	26
AUG.												
06...	1500	54	11	47	3.1	48	--	7.3	203	0	42	36
15...	2000	45	12	--	3.5	--	72	--	--	0	41	50
22...	1250	46	15	30	3.6	76	--	9.3	235	0	42	50
SEP.												
13...	1045	62	11	42	3.5	45	--	8.1	196	0	48	31
23...	1405	40	7.8	46	3.9	--	43	--	140	0	41	31

TRINITY RIVER BASIN

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
02...	2.1	.47	.00	12	.07	14	435	30	18	100	0	4.9
05...	1.5	--	--	--	20	--	475	--	--	100	0	4.8
NOV.												
20...	.5	--	--	--	4.4	--	222	--	--	120	24	1.2
DEC.												
03...	2.3	.95	.00	12	.04	7.2	308	--	--	140	28	1.5
20...	1.3	--	--	--	17	--	402	--	--	150	59	2.5
JAN.												
04...	.4	--	--	--	2.9	--	205	--	--	140	30	.7
30...	.6	.28	.11	4.5	.9	2.7	319	51	12	170	0	1.4
FEB.												
09...	.4	--	--	--	1.5	--	185	--	--	130	16	.5
MAR.												
11...	.4	--	--	--	1.2	--	173	--	--	130	9	.5
APR.												
02...	.5	--	--	--	3.5	--	248	--	--	150	20	1.0
17...	.4	.23	.09	.35	.5	2.2	183	89	14	140	13	4.0
MAY												
17...	.4	.33	.03	.06	.4	.14	186	58	16	150	17	.4
JUNE												
04...	.3	--	--	--	1.8	--	153	--	--	110	6	.4
14...	.4	.15	.03	.10	.5	.29	184	128	42	140	16	.4
28...	.4	.22	.04	.11	.5	.34	181	129	23	140	19	.4
JULY												
12...	.4	.11	.04	.16	.2	.44	175	150	44	130	11	.5
26...	.7	.47	.02	4.4	.06	5.5	254	22	6	110	0	1.6
AUG.												
06...	1.6	.78	.01	5.9	.2	5.8	305	22	8	130	0	1.8
15...	1.4	--	--	--	10	--	--	--	--	--	--	--
22...	1.6	.71	.01	12	.04	12	343	32	22	90	0	3.5
SEP.												
13...	.8	.42	.02	8.0	.1	8.0	296	42	30	120	0	1.8
23...	.8	--	--	--	5.8	--	268	--	--	130	16	1.6

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.											
02...	784	7.1	20.5	70	3	.7	8	32	17	1.9	61
05...	736	7.8	23.0	--	--	--	--	--	--	--	--
NOV.											
20...	385	7.6	9.0	--	--	--	--	--	--	--	--
DEC.											
03...	656	7.2	14.5	--	--	.4	4	51	115	2.1	--
20...	692	7.5	5.5	--	--	--	--	--	--	--	--
JAN.											
04...	346	7.8	7.0	--	--	--	--	--	--	--	--
30...	532	7.5	7.0	35	35	8.0	66	11	1	4.5	10
FEB.											
09...	317	7.9	4.0	--	--	--	--	--	--	--	--
MAR.											
11...	303	7.9	16.0	--	--	--	--	--	--	--	--
APR.											
02...	435	8.2	15.0	--	--	--	--	--	--	--	--
17...	330	7.2	16.0	20	50	8.4	84	15	0	.02	10
MAY											
17...	334	7.4	21.0	10	40	7.9	88	5.9	0	.00	14
JUNE											
04...	252	7.8	20.0	--	--	--	--	--	--	--	--
14...	320	7.3	24.5	20	70	6.8	81	2.5	5	.18	18
28...	320	6.4	26.5	10	70	6.0	73	3.1	2	.00	8.0
JULY											
12...	313	7.9	28.0	5	65	5.3	67	28	0	.08	13
26...	454	7.1	31.0	90	15	5.5	73	21	3	.72	28
AUG.											
06...	504	7.0	28.5	40	7	8.2	105	17	1	.27	22
15...	606	7.7	27.0	--	--	--	--	--	--	--	--
22...	586	7.0	30.0	100	15	2.2	29	25	18	1.2	52
SEP.											
13...	492	7.3	26.5	300	12	1.3	16	42	5	.28	--
23...	470	7.7	25.0	--	--	--	--	--	--	--	--

TRINITY RIVER BASIN

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08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1987	513	300	1610	37	199	50	268	120
NOV.	2550	483	280	1930	32	220	47	324	130
DEC.	1732	612	360	1680	51	238	59	276	120
JAN. 1973....	4357	453	260	3060	28	329	44	518	130
FEB.	10698	368	210	6070	16	462	35	1010	140
MAR.	62260	324	190	31900	9.2	1550	31	5210	140
APR.	44009	328	190	22600	9.8	1160	31	3680	140
MAY	64990	322	190	33300	9.0	1580	31	5440	140
JUNE	71074	316	180	34500	8.1	1550	30	5760	140
JULY	20194	344	200	10900	12	654	33	1800	140
AUG.	1566	557	330	1400	43	182	54	228	120
SEP.	21634	313	180	10500	7.6	444	30	1750	130
TOTAL	307051	--	--	159000	--	8570	--	26300	--
WTD. AVG. ...	841	332	190	--	10	--	32	--	140

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	744	348	701	648	440	363	454	330	380	351	356	640
2	701	350	825	733	402	385	435	325	372	316	412	536
3	670	370	747	467	466	383	496	321	390	318	519	591
4	649	463	656	346	545	386	353	319	252	388	494	580
5	737	516	725	423	550	363	400	320	287	427	484	575
6	627	570	690	478	559	327	433	317	337	404	501	405
7	718	627	639	462	549	336	477	316	316	420	544	362
8	732	576	645	407	343	321	554	317	306	371	604	331
9	723	552	676	399	317	329	542	318	306	318	577	408
10	734	670	791	452	378	315	539	320	344	332	567	505
11	733	793	663	517	444	303	510	318	348	356	668	520
12	689	742	689	537	490	324	503	313	348	320	644	505
13	621	698	490	646	524	319	489	310	338	310	575	577
14	655	572	511	718	323	362	573	325	330	323	642	343
15	796	436	407	663	318	416	355	333	331	343	606	315
16	753	521	438	663	338	318	328	321	348	330	567	334
17	850	610	463	612	342	319	345	319	363	343	619	312
18	822	675	536	629	416	317	343	318	370	370	561	302
19	672	538	578	656	476	323	331	319	360	402	564	319
20	659	385	654	754	596	316	318	328	356	444	556	326
21	586	446	616	745	460	315	339	335	310	471	634	363
22	711	505	704	672	410	313	337	345	363	457	661	424
23	516	534	722	601	410	312	342	410	443	459	538	470
24	379	615	786	549	384	318	288	480	438	437	599	592
25	436	637	778	480	368	343	299	390	410	469	601	657
26	461	559	806	368	352	339	325	373	331	463	552	718
27	368	564	829	399	395	401	329	341	331	495	601	254
28	346	571	809	452	361	353	361	333	327	480	615	289
29	419	677	576	511	---	319	370	390	333	443	606	300
30	477	552	731	497	---	326	382	404	330	348	575	302
31	378	---	857	511	---	373	---	360	---	378	700	---
MONTH	625	556	669	548	427	340	405	341	347	390	572	439

TRINITY RIVER BASIN

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	15.0	9.0	9.0	9.0	11.0	16.0	20.0	23.0	26.0	28.0	30.0
2	21.0	13.0	11.0	8.0	8.0	11.0	15.0	20.0	23.0	26.5	28.0	28.0
3	21.0	14.0	14.0	8.0	10.0	8.0	14.0	19.0	22.0	27.0	27.0	30.0
4	20.0	16.0	11.0	7.0	11.0	13.0	13.5	19.0	20.0	28.0	27.0	30.0
5	22.0	16.0	10.0	7.0	12.0	12.0	15.0	19.0	22.0	27.0	26.0	29.0
6	23.0	17.0	8.0	5.5	13.0	12.0	14.0	20.0	23.0	27.0	27.0	24.0
7	22.0	17.0	6.0	5.0	14.0	11.0	14.0	20.0	25.0	28.0	29.0	25.0
8	21.0	15.5	6.0	3.0	7.0	13.0	13.0	21.0	25.0	26.0	29.0	27.0
9	22.0	17.0	6.0	2.0	4.0	16.0	12.0	20.0	25.0	26.0	30.0	27.0
10	22.0	15.0	4.0	2.0	4.5	17.0	13.0	22.0	24.0	27.0	---	28.0
11	23.0	15.0	4.0	1.5	6.0	16.0	14.0	23.0	24.0	28.0	30.0	27.0
12	24.0	15.0	5.0	2.0	8.0	17.0	15.0	22.0	23.0	27.0	27.0	27.0
13	24.0	15.0	3.0	2.5	11.0	17.0	18.0	20.0	23.0	27.0	28.0	27.0
14	24.0	12.0	5.0	4.0	7.0	16.0	18.0	21.0	24.0	27.0	30.0	26.0
15	23.0	11.5	4.0	6.0	6.0	17.0	15.0	20.0	26.0	27.0	27.0	25.0
16	24.0	11.0	5.0	8.0	6.0	12.0	16.0	---	27.0	---	29.0	26.0
17	23.0	11.0	4.0	11.0	6.0	13.0	15.0	21.0	27.0	29.0	29.0	25.0
18	23.0	11.0	5.0	13.0	8.0	15.0	15.0	22.0	27.0	28.0	28.0	24.0
19	19.0	10.0	8.0	12.5	8.0	17.0	20.0	22.0	26.0	30.0	30.0	24.0
20	18.0	9.0	5.5	14.0	9.0	14.0	20.0	22.0	23.0	30.0	30.0	25.0
21	18.0	8.0	10.0	11.0	10.0	13.0	19.0	23.0	24.0	30.0	30.0	26.0
22	19.0	8.0	8.0	10.0	9.0	14.0	19.0	23.0	20.0	30.0	29.0	26.0
23	19.0	7.5	9.0	9.0	8.0	15.0	18.0	23.0	27.0	30.0	29.0	25.0
24	17.0	9.0	10.0	8.5	9.0	16.0	20.0	22.0	27.0	31.0	29.0	26.0
25	16.0	8.0	9.0	9.0	9.0	14.0	19.0	23.0	25.5	30.0	29.0	26.0
26	14.0	9.0	9.0	6.0	9.0	13.0	18.0	22.0	25.0	31.0	29.0	27.0
27	12.0	11.0	9.0	8.0	10.0	13.0	17.0	22.0	25.0	31.0	29.0	22.0
28	12.0	10.0	9.0	7.0	10.0	15.0	19.0	23.0	25.0	30.5	28.0	23.0
29	15.0	9.0	12.0	5.0	---	15.0	19.0	22.0	27.0	28.0	28.0	23.0
30	13.0	9.0	12.0	5.0	---	15.0	19.0	23.0	25.0	27.0	29.0	23.0
31	17.0	---	11.0	9.0	---	14.0	---	25.0	---	28.0	31.0	---
MONTH	19.5	12.0	8.0	7.0	8.5	14.0	16.5	21.5	24.5	28.5	28.5	26.0

TRINITY RIVER BASIN

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08062500 TRINITY RIVER NEAR ROSSER, TEX.

LOCATION.--Lat 32°25'36", long 96°27'44", Kaufman County, at gaging station at bridge on State Highway 34, 2.5 miles (4.0 km) south of Rosser, and 8.5 miles (13.7 km) downstream from East Fork Trinity River.

DRAINAGE AREA.--8,146 mi² (21,098 km²).

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1954 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 966 micromhos Oct. 16; minimum daily, 232 micromhos June 5.

Water temperatures: Maximum, 31.0°C July 25, 27; minimum, 4.0°C Jan. 10, 12, 13.

EXTREMES, October 1954 to September 1973.--Specific conductance: Maximum daily, 2,990 micromhos Oct. 13, 1956; minimum daily, 200 micromhos July 30, 1962.

Water temperatures: Maximum, 36.0°C July 1, 1955; minimum, 1.0°C on several days during December and January of most years.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
02...	1300	392	14	42	7.5	--	110	--	218	0
10...	1510	368	17	38	5.5	130	--	15	142	0
NOV.										
02...	0735	4280	7.3	56	3.2	--	32	--	136	0
DEC.										
03...	1500	500	16	58	7.2	--	86	--	200	0
20...	1245	590	11	62	5.5	--	84	--	160	0
JAN.										
29...	1800	1430	7.9	74	4.5	41	--	8.1	180	0
31...	1150	1080	9.8	77	5.3	--	65	--	232	0
FEB.										
09...	0945	7530	8.4	60	4.0	--	26	--	144	0
MAR.										
11...	0715	13000	9.0	46	2.1	--	12	--	131	0
APR.										
17...	1445	7500	5.8	55	5.5	--	24	--	152	0
24...	2320	26000	7.5	50	1.3	--	13	--	134	0
MAY										
13...	0745	10000	4.6	45	3.2	--	23	--	134	0
17...	1210	4080	4.2	56	5.9	--	24	--	176	0
JUNE										
05...	0730	24500	9.9	35	1.6	--	8.7	--	99	0
14...	1100	7400	7.3	57	6.3	--	19	--	170	0
28...	1445	5660	4.9	50	6.1	--	25	--	154	0
JULY										
12...	1455	4150	9.8	64	4.4	--	47	--	176	0
26...	1510	707	11	60	5.5	72	--	8.6	208	0
28...	0700	577	13	62	5.6	88	--	9.7	194	0
AUG.										
06...	1600	5320	6.8	54	4.5	--	25	--	156	0
22...	1430	824	13	52	6.2	90	--	11	232	0
31...	1100	454	16	45	5.9	--	140	--	176	0
SEP.										
13...	1145	681	14	50	4.8	80	--	9.5	209	0
24...	0755	406	13	55	5.9	--	110	--	186	0

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.										
02...	93	87	1.5	.57	.14	10	.2	6.6	472	18
10...	120	97	1.6	--	--	--	9.4	--	531	--
NOV.										
02...	63	21	.4	--	--	--	4.0	--	268	--
DEC.										
03...	110	80	1.7	.67	.03	10	.06	6.8	470	20
20...	100	62	.8	--	--	--	9.4	--	448	--
JAN.										
29...	88	31	.5	--	--	--	6.1	--	371	--
31...	100	47	.8	.36	.32	4.6	1.7	3.4	435	136
FEB.										
09...	64	20	.4	--	--	--	2.7	--	266	--
MAR.										
11...	24	7.6	.4	--	--	--	1.7	--	173	--
APR.										
17...	51	20	.4	.25	.70	.72	1.4	2.3	246	756
24...	26	9.8	.3	--	--	--	1.7	--	181	--
MAY										
13...	32	17	.4	--	--	--	1.7	--	199	--
17...	38	20	.4	.27	.12	.48	1.2	1.1	242	390
JUNE										
05...	19	5.4	.3	--	--	--	1.0	--	133	--
14...	42	16	.4	.26	.14	.33	.8	.83	236	288
28...	40	24	.4	.22	.18	.37	.9	.94	231	218
JULY										
12...	79	39	.7	.18	.68	2.3	.9	3.0	340	306
26...	90	59	.8	.43	.30	4.4	.3	4.2	417	31
28...	93	67	1.0	--	--	--	9.7	--	477	--
AUG.										
06...	38	26	.4	.39	.27	.58	.8	.70	237	256
22...	90	69	1.0	.51	.32	6.1	.7	8.0	458	26
31...	110	90	2.2	--	--	--	14	--	558	--
SEP.										
13...	89	58	1.3	.47	.09	5.6	.2	6.0	418	134
24...	110	74	1.0	--	--	--	7.8	--	491	--

DATE	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT.										
02...	6	140	0	4.0	834	7.1	23.5	50	3	2.5
10...	--	120	1	5.2	882	7.6	--	--	--	--
NOV.										
02...	--	150	41	1.1	446	7.6	14.0	--	--	--
DEC.										
03...	12	170	10	2.8	851	7.3	9.5	40	10	1.2
20...	--	180	46	2.7	745	7.7	--	--	--	--
JAN.										
29...	--	200	56	1.3	587	7.9	7.0	--	--	--
31...	20	210	24	1.9	700	7.4	11.0	30	75	5.6
FEB.										
09...	--	170	48	.9	468	7.9	8.0	--	--	--
MAR.										
11...	--	120	16	.5	289	7.7	16.5	--	--	--
APR.										
17...	136	160	35	.8	431	7.1	17.0	20	210	3.9
24...	--	130	20	.5	319	8.2	20.0	--	--	--
MAY										
13...	--	120	15	.9	336	8.1	20.0	--	--	--
17...	70	160	20	.8	425	7.0	21.5	10	150	5.4
JUNE										
05...	--	94	13	.4	232	7.3	22.0	--	--	--
14...	84	170	29	.6	400	7.6	24.0	20	120	4.2
28...	30	150	24	.9	402	6.4	27.0	10	80	4.4
JULY										
12...	48	180	34	1.5	586	8.0	28.5	20	180	.5
26...	16	170	2	2.4	707	7.2	31.5	50	15	2.9
28...	--	180	18	2.9	769	8.3	30.0	--	--	--
AUG.										
06...	26	150	25	.9	423	7.1	27.5	10	95	5.5
22...	10	160	0	3.1	761	6.9	30.5	50	3	2.5
31...	--	140	0	5.2	907	7.4	29.0	--	--	--
SEP.										
13...	30	140	0	2.9	680	7.5	28.0	60	60	.9
24...	--	160	9	3.7	804	8.2	26.5	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSIT (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSIT (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSIT (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSIT (UG/KG)	DI- ELDRIN (UG/L)
OCT. 02...	1300	23.5	.00	.0	.00	13	.00	23	.00	4.5	.03
JAN. 31...	1150	11.0	.00	.0	.00	.0	.00	.0	.01	.0	.02
APR. 17...	1445	17.0	.00	.0	.00	4.1	.00	25	.01	6.7	.04
JUNE 14...	1100	24.0	.00	--	.00	--	.00	--	.04	--	.02
AUG. 06...	1600	27.5	--	.0	--	8.6	--	.0	--	17	--

DATE	DI- ELDRIN IN BOTTOM DE- POSIT (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSIT (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSIT (UG/KG)	CHLOR- DANE (UG/L)
OCT. 02...	30	.00	.0	.00	.0	.00	.0	.00	.0	.1
JAN. 31...	23	.00	.0	.00	.0	.00	.0	.03	.0	.1
APR. 17...	22	.00	.0	.00	.0	.00	.0	.00	.0	.2
JUNE 14...	--	.00	--	.00	--	.00	--	.00	--	.0
AUG. 06...	36	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSIT (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSIT (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 02...	200	.0	60	.37	.00	.00	.00	.09	.00	.05
JAN. 31...	160	.0	0	.30	.06	.00	.00	.06	.00	.02
APR. 17...	160	.0	0	.17	.00	.00	.00	1.1	.00	.09
JUNE 14...	--	.0	--	.06	.00	.00	.00	.08	.02	.03
AUG. 06...	160	--	50	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /s)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	31640	589	350	29900	46	3930	73	6240	160
NOV.	33234	607	360	32300	48	4310	76	6820	160
DEC.	17202	808	490	22800	74	3440	100	4640	160
JAN. 1973....	49910	638	380	51200	52	7010	80	10800	160
FEB.	63714	540	320	55000	39	6710	66	11400	160
MAR.	156072	422	250	105000	24	10100	50	21100	150
APR.	181336	407	240	118000	22	10800	47	23000	140
MAY	203360	402	240	132000	21	11500	47	25800	140
JUNE	285270	349	200	154000	15	11600	39	30000	130
JULY	105239	442	260	73900	27	7670	52	14800	150
AUG.	61550	480	280	46500	32	5320	58	9640	150
SEP.	68986	454	270	50300	28	5220	54	10100	150
TOTAL	1257513	--	--	871000	--	87600	--	174000	--
WTD. AVG. ...	3445	435	260	--	26	--	51	--	140

TRINITY RIVER BASIN

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08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

				SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	TOTAL SEDI- MENT DIS- CHARGE (T/DAY)			STREAM VELOC- ITY (FPS)			NUMBER OF SAM- PLING POINTS
DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	STREAM WIDTH (FT)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)		
OCT. 27...	1540	4300	14.0	1430	16600	16750	153	2.2	12	5	
FEB. 10...	1600	8180	9.0	503	11100	11420	175	2.8	16	5	
MAR. 12...	1400	12900	15.5	643	22400	23900	202	3.1	20	5	
APR. 16...	1310	7860	16.5	189	4010	--	--	2.9	16	5	
16...	1330	7860	16.5	1890	40100	40300	160	2.9	16	5	
24...	2320	27300	20.0	732	53900	54100	--	24	6.6	5	
SEP. 28...	1430	12500	23.5	484	16300	--	207	3.1	19	5	
	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	
OCT. 27...	46	73	79	86	88	94	95	96	98	100	
FEB. 10...	71	74	77	84	89	96	98	99	100	--	
MAR. 12...	65	61	54	51	48	68	73	85	97	100	
APR. 16...	66	78	82	91	94	98	99	100	--	--	
16...	66	78	82	91	94	98	99	100	--	--	
24...	79	89	94	95	96	97	98	99	100	--	
SEP. 28...	72	75	79	81	86	93	96	99	100	--	
	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM		
OCT. 27...	31	41	51	60	64	73	83	95	100		
FEB. 10...	7	12	23	43	72	10	90	95	100		
MAR. 12...	33	35	41	53	67	81	91	96	100		
APR. 16...	23	29	35	40	43	47	61	82	100		
16...	23	29	35	40	43	47	61	82	100		
24...	2	2	3	10	23	41	67	90	100		
SEP. 28...	--	1	9	18	26	39	59	82	100		

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	468	821	942	554	629	490	562	428	385	460	750
2	806	446	830	881	528	656	608	400	419	375	418	806
3	727	463	851	776	556	702	655	406	418	370	539	833
4	746	511	864	611	625	657	661	401	283	371	412	854
5	736	539	884	654	672	691	641	406	232	400	387	813
6	793	566	851	561	712	740	569	391	298	452	381	787
7	893	560	830	587	714	680	602	375	295	470	382	451
8	904	644	881	543	522	525	718	389	342	363	369	552
9	821	754	891	563	468	496	786	377	362	450	516	420
10	879	782	864	616	495	418	801	389	430	498	430	512
11	911	820	880	680	483	289	739	387	415	430	466	560
12	874	685	891	735	559	360	760	377	342	536	599	577
13	894	750	795	706	612	387	749	336	365	444	617	675
14	938	804	780	752	656	459	766	359	365	411	622	573
15	962	782	680	772	565	454	637	404	442	462	625	600
16	966	710	666	749	455	457	421	450	400	404	662	554
17	942	717	680	774	425	443	475	426	427	349	687	469
18	919	719	722	785	499	407	397	432	484	362	710	506
19	838	756	748	801	632	386	476	402	459	458	738	483
20	954	557	745	788	731	378	416	402	418	559	769	453
21	950	616	776	793	681	387	439	401	380	605	704	474
22	777	680	806	813	631	374	421	393	343	636	741	526
23	510	664	877	804	627	374	417	410	363	670	844	703
24	442	660	861	774	562	388	290	406	398	691	648	804
25	500	733	854	807	590	404	341	400	387	668	654	760
26	525	752	895	596	601	437	387	421	385	701	811	530
27	500	721	867	567	608	451	360	429	393	722	869	443
28	460	766	854	540	605	378	378	456	390	769	841	337
29	387	756	861	578	---	556	411	447	387	778	868	388
30	485	806	920	615	---	489	482	519	379	590	858	363
31	549	---	943	673	---	447	---	505	---	422	907	---
MONTH	756	673	828	704	585	487	543	415	381	510	630	585

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	17.0	11.0	12.0	8.0	14.0	16.0	20.0	24.0	26.0	27.0	28.5
2	22.0	14.0	12.0	---	10.0	14.0	17.0	20.0	24.0	27.0	26.0	29.0
3	22.5	14.5	13.0	10.0	10.0	14.0	17.0	19.0	23.0	27.0	27.0	28.0
4	25.0	14.0	12.0	11.0	11.0	14.0	17.0	19.0	20.5	27.0	26.5	28.0
5	23.0	15.0	12.0	9.0	12.0	15.0	15.0	19.0	22.0	27.0	26.0	28.0
6	24.0	17.0	11.0	9.0	13.0	17.0	16.0	20.0	22.0	27.0	26.0	26.0
7	23.0	17.0	9.0	7.0	15.0	15.0	15.0	20.0	23.0	28.0	27.0	25.0
8	22.0	16.0	10.0	5.0	9.0	17.0	16.0	21.0	24.0	27.0	27.0	25.5
9	23.0	16.5	9.0	5.0	8.0	17.0	13.0	20.0	25.0	26.0	27.0	26.0
10	23.0	17.0	8.0	4.0	7.0	16.0	14.0	22.0	25.0	27.0	30.0	26.5
11	23.0	16.0	---	---	7.0	16.5	13.0	23.0	26.0	27.5	28.0	27.5
12	24.0	16.0	7.0	4.0	9.0	16.0	16.0	22.0	24.0	27.0	29.0	27.5
13	24.0	16.0	8.0	4.0	11.0	18.0	17.0	20.0	23.5	27.0	29.5	28.0
14	24.5	15.0	13.0	6.0	12.0	18.0	19.0	21.0	24.0	27.0	29.0	26.5
15	25.0	14.0	7.0	7.0	10.0	17.0	18.0	20.0	25.0	27.5	29.0	26.0
16	25.0	12.0	8.0	9.0	8.0	15.0	17.0	---	27.0	27.0	29.0	26.0
17	25.0	12.0	6.0	10.0	8.0	14.0	17.0	21.0	27.0	26.0	29.0	25.0
18	25.0	13.0	6.0	13.0	8.5	14.0	17.0	22.0	28.0	28.0	29.0	25.0
19	22.0	13.0	9.0	12.0	9.0	16.0	16.0	22.0	26.0	29.0	29.5	23.0
20	21.0	11.0	9.5	14.0	9.5	15.0	21.0	22.0	25.0	29.5	29.0	24.0
21	20.5	10.0	11.0	13.0	11.0	15.0	21.0	23.0	25.0	29.0	29.5	25.0
22	20.0	10.0	10.5	13.0	11.0	14.0	21.0	23.0	25.0	30.0	30.0	25.5
23	20.0	9.5	11.0	11.5	11.0	15.0	20.0	23.0	25.0	30.0	29.0	27.0
24	19.0	10.0	11.0	10.0	10.0	15.0	20.0	22.0	26.0	30.0	29.0	26.5
25	18.0	10.0	11.0	11.0	11.0	16.0	20.0	23.0	25.0	31.0	29.0	27.0
26	17.0	11.0	10.0	8.0	12.0	15.0	20.0	22.0	25.0	30.5	29.0	26.0
27	16.0	11.0	10.0	9.0	14.0	14.0	18.0	22.0	26.0	31.0	29.5	24.0
28	14.0	11.0	11.0	10.0	12.5	15.0	19.0	23.0	26.0	30.0	29.0	23.0
29	15.0	11.0	13.0	7.0	---	16.0	19.0	22.0	26.0	30.0	28.5	22.0
30	17.0	11.0	14.0	7.0	---	17.0	19.0	23.0	26.0	28.0	28.5	23.5
31	17.0	---	12.0	9.0	---	15.0	---	25.0	---	28.0	29.0	---
MONTH	21.5	13.5	10.0	9.0	10.5	15.5	17.5	21.5	25.0	28.0	28.5	26.0

08062700 TRINITY RIVER AT TRINIDAD, TEX.

LOCATION.--Lat 32°08'05", long 96°06'20", Henderson County, at pumping station of Texas Power and Light Co., near southwest boundary of Trinidad, 0.5 mile (0.8 km) downstream from St. Louis Southwestern Railway Lines bridge, 0.9 (1.4 km) downstream from bridge on State Highway 31.

DRAINAGE AREA.--8,538 mi² (22,113 km²).

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1970.
Chemical and biochemical analyses: January 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
02...	1500	460	13	38	9.0	--	69	--	132	0
DEC.										
03...	1635	506	12	58	8.1	--	74	--	186	0
JAN.										
31...	1430	1380	7.8	68	5.0	--	47	--	178	0
APR.										
17...	1715	15300	4.2	30	4.4	--	14	--	94	0
MAY										
17...	1025	9460	5.2	59	3.1	--	26	--	172	0
JUNE										
14...	0905	15400	6.6	48	3.0	--	18	--	140	0
28...	1620	6200	5.4	53	4.3	--	28	--	156	0
JULY										
12...	1615	2580	7.6	56	3.5	--	30	--	160	0
26...	1625	738	10	60	5.2	70	--	7.7	124	39
AUG.										
07...	0800	4540	4.7	54	4.4	--	26	--	156	0
22...	1625	520	13	57	6.2	89	--	8.9	208	0
SEP.										
13...	1345	680	5.2	52	4.7	37	--	7.8	142	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
OCT.									
02...	88	83	1.5	.54	.26	12	.8	7.5	386
DEC.									
03...	99	67	1.0	.62	.78	6.6	1.8	5.8	429
JAN.									
31...	96	29	.5	.31	.30	1.4	1.9	1.8	352
APR.									
17...	24	14	.3	.19	.04	.42	.6	.55	140
MAY									
17...	42	19	.4	.36	.19	.20	1.2	.14	246
JUNE									
14...	32	14	.3	.18	.14	.21	.9	.33	196
28...	42	23	.4	.14	.39	.03	1.1	.98	239
JULY									
12...	47	22	.5	.33	.54	.00	1.6	1.4	254
26...	81	57	.9	.33	.43	2.3	1.9	2.8	405
AUG.									
07...	37	26	.4	.42	.08	.04	1.3	.86	236
22...	94	70	1.2	.40	.44	3.4	1.8	5.2	455
SEP.									
13...	76	29	.8	.41	.76	4.4	3.9	4.2	308

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
02...	130	24	2.6	744	7.2	23.0	3.5	40	6.4
DEC.									
03...	180	26	2.4	751	7.3	13.5	5.8	55	19
JAN.									
31...	190	44	1.5	558	7.3	9.0	8.1	70	14
APR.									
17...	93	16	.6	263	7.3	16.0	10.0	100	12
MAY									
17...	160	19	.9	419	7.1	21.0	5.1	57	13
JUNE									
14...	130	17	.7	333	7.5	23.5	5.0	58	1.2
28...	150	22	1.0	400	6.4	27.5	4.0	50	14
JULY									
12...	150	23	1.0	432	8.1	28.5	2.8	36	49
26...	170	4	2.3	646	7.3	33.0	4.7	64	7.5
AUG.									
07...	150	25	.9	418	6.9	26.5	5.0	61	9.9
22...	170	0	3.0	768	7.0	31.0	4.8	64	7.8
SEP.									
13...	150	32	1.3	508	7.3	27.0	4.0	49	19

TRINITY RIVER BASIN

08063500 RICHLAND CREEK NEAR RICHLAND, TEX.

LOCATION.--Lat 31°57'00", long 96°25'17", Navarro County, at gaging station at bridge on U.S. Highway 75, 1 mile (1.6 km) north of Richland, and 3.5 miles (5.6 km) downstream from Pin Oak Creek.

DRAINAGE AREA.--734 mi² (1,901 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.
Water temperatures: October 1967 to September 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
28...	1120	420	7.6	26	2.7	8.4	80	0	18	4.6
28...	1605	280	7.2	27	2.1	10	84	0	19	5.0
NOV.										
14...	1430	130	9.8	49	5.3	20	152	0	36	14
DEC.										
19...	1140	4.2	7.6	33	2.8	16	106	0	25	9.0
JAN.										
30...	1045	1260	3.6	46	5.2	21	136	0	43	16
MAR.										
06...	1400	187	7.0	52	6.4	25	168	0	44	16
APR.										
17...	2030	1810	11	37	5.5	2.7	112	0	17	4.0
MAY										
21...	2100	1330	10	44	3.5	16	136	0	28	12
JUNE										
18...	1945	1490	4.8	46	6.6	3.7	131	0	28	6.0
JULY										
18...	1800	532	5.5	42	3.7	10	127	0	24	7.5
AUG.										
29...	1620	.75	6.5	70	5.2	31	206	0	50	29

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
28...	.2	.8	110	76	10	.4	183	7.4	11.5
28...	.2	.7	115	76	7	.5	193	7.4	12.0
NOV.									
14...	.4	4.9	214	140	19	.7	349	7.7	15.0
DEC.									
19...	.2	.7	149	94	7	.7	247	7.9	4.5
JAN.									
30...	.4	.4	204	140	25	.8	344	7.8	--
MAR.									
06...	.5	.7	237	160	18	.9	407	7.8	17.0
APR.									
17...	.0	1.6	139	120	23	.1	252	7.1	16.0
MAY									
21...	.3	.2	182	120	13	.6	334	7.8	25.0
JUNE									
18...	.1	1.3	165	140	34	.1	317	7.4	26.0
JULY									
18...	.1	.8	158	120	16	.4	298	6.5	28.5
AUG.									
29...	.1	.2	294	200	27	1.0	543	7.3	30.0

TRINITY RIVER BASIN

257

08064500 CHAMBERS CREEK NEAR CORSICANA, TEX.

LOCATION.--Lat 32°06'29", long 96°22'14", Navarro County, at gaging station at bridge on State Highway 31, 6,000 feet (1,800 m) upstream from city of Corsicana diversion dam, 5.3 miles (8.5 km) east of Corsicana, and 17 miles (27 km) upstream from Richland Creek.

DRAINAGE AREA.--963 mi² (2,494 km²).

PERIOD OF RECORD.--Chemical analyses: September 1961 to September 1973.

Water temperatures: September 1961 to September 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
11...	1030	.01	7.4	62	6.2	41	180	0	86	22
29...	1115	997	7.1	44	3.5	14	100	0	56	7.8
NOV.										
15...	1100	211	8.4	63	4.1	25	126	0	97	15
DEC.										
18...	1800	48	7.5	87	6.1	43	168	0	148	26
JAN.										
31...	1100	917	4.4	51	4.1	22	73	0	43	15
MAR.										
07...	1545	126	2.0	73	3.4	31	184	0	76	20
APR.										
18...	1730	4430	9.2	56	2.7	16	148	0	43	8.9
25...	1315	33300	10	40	3.7	9.6	102	0	28	14
MAY										
22...	1000	1250	3.8	53	3.8	9.1	146	0	28	9.9
JUNE										
19...	0915	1260	5.5	57	2.8	12	158	0	31	10
JULY										
18...	0850	407	6.6	62	3.0	17	152	0	57	12
AUG.										
29...	0935	21	7.5	76	5.0	45	194	0	86	41

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
11...	.6	.1	315	180	32	1.3	509	7.9	22.0
29...	.4	.9	186	120	42	.5	302	7.7	12.0
NOV.									
15...	.3	.9	279	170	71	.8	445	8.0	--
DEC.									
18...	.3	1.6	408	240	100	1.2	634	8.1	5.5
JAN.									
31...	.3	5.8	219	140	23	.8	368	7.8	9.0
MAR.									
07...	.4	1.5	302	200	45	1.0	498	8.0	18.5
APR.									
18...	.3	1.6	216	150	30	.6	378	7.3	19.0
25...	.3	.7	159	120	31	.4	267	7.8	21.0
MAY									
22...	.2	1.2	185	150	28	.3	318	7.8	20.0
JUNE									
19...	.3	.9	201	150	24	.4	360	7.2	22.5
JULY									
18...	.1	.9	237	170	42	.6	428	7.3	26.0
AUG.									
29...	.1	.2	356	210	51	1.4	624	7.5	27.0

TRINITY RIVER BASIN

08064600 RICHLAND CREEK NEAR FAIRFIELD, TEX.

LOCATION.--Lat 31°57'05", long 96°05'52", Freestone County, at gaging station at bridge on Farm Road 488, 5.8 miles (9.3 km) upstream from mouth, 9.0 miles (14.5 km) downstream from Chambers Creek, and 16 miles (26 km) north of Fairfield.

DRAINAGE AREA.--1,957 mi² (5,069 km²).

PERIOD OF RECORD.--Chemical analyses: April 1956 to September 1966, March 1972 to September 1973.

Water temperatures: April 1956 to September 1966, March 1972 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,150 micromhos Oct. 17; minimum daily, 166 micromhos Oct. 27.

Water temperatures: Maximum, 32.0°C Aug. 21; minimum, 2.0°C Jan. 12.

EXTREMES, April 1956 to September 1966, March 1972 to September 1973.--Specific conductance: Maximum daily, 22,000 micromhos Aug. 22, 1956; minimum daily, 157 micromhos Apr. 25, 1957.

Water temperatures: Maximum, 37.0°C Aug. 14, 1961; minimum, freezing point Jan. 3, 4, 1959.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 27...	1615	3900	5.0	23	1.4	--	11	--	76	0	10
NOV. 09...	1205	41	8.9	53	4.3	--	29	--	132	0	66
DEC. 17...	1900	442	8.2	38	4.2	--	25	--	121	0	34
JAN. 28...	1300	4460	8.5	28	9.3	--	12	--	110	0	29
FEB. 20...	1700	226	6.3	74	5.7	--	29	--	190	0	75
MAR. 03...	2000	166	5.4	86	6.2	--	49	--	178	6	110
APR. 26...	1735	29300	9.2	48	4.0	--	4.5	--	136	0	22
MAY 05...	2200	4230	9.1	52	4.0	--	18	--	153	0	36
JULY 23...	0800	286	6.4	52	3.0	18	--	3.8	160	0	31
AUG. 28...	1530	7.6	6.0	70	5.1	--	67	--	208	0	59
SEP. 14...	1830	156	8.8	78	6.6	--	190	--	220	0	70

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	6.8	.2	1.1	99	63	1	.6	151	7.4	11.5
NOV. 09...	22	.4	.9	253	150	42	1.0	420	8.2	13.0
DEC. 17...	18	.3	1.3	194	110	13	1.0	321	8.2	4.0
JAN. 28...	5.6	.2	1.3	152	110	18	.5	269	8.3	8.0
FEB. 20...	21	.4	2.1	314	210	52	.9	535	8.3	11.0
MAR. 03...	48	.4	2.2	409	240	84	--	624	8.4	15.5
APR. 26...	4.2	.3	1.4	165	140	25	.2	257	7.9	18.0
MAY 05...	7.8	.3	2.9	215	150	21	.6	355	8.2	24.5
JULY 23...	17	.3	.6	213	180	11	.7	373	7.4	29.0
AUG. 28...	76	.5	.4	387	200	25	2.1	721	7.5	29.5
SEP. 14...	260	.6	2.8	741	220	41	5.6	1300	7.8	28.0

TRINITY RIVER BASIN

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08064600 RICHLAND CREEK NEAR FAIRFIELD, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	11352.7	262	160	4900	11	337	24	736	100
NOV.	6363	388	230	3950	16	275	40	687	150
DEC.	4082	366	220	2420	15	165	37	408	140
JAN. 1973....	31059.8	341	200	16800	14	1170	34	2850	130
FEB.	34063	381	230	21200	16	1470	39	3590	150
MAR.	84519	327	190	43400	14	3190	32	7300	130
APR.	132657	291	170	60900	12	4300	28	10000	110
MAY	95266	338	200	51400	14	3600	33	8490	130
JUNE	138095	307	180	67100	13	4850	30	11200	120
JULY	26825	332	200	14500	14	1010	33	2390	130
AUG.	5312.4	372	220	3160	16	229	38	545	150
SEP.	11879.9	357	210	6740	15	481	36	1150	140
TOTAL	581474.80	--	--	296000	--	21100	--	49300	--
WTD. AVG. ...	1593	321	190	--	13	--	31	--	120

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	443	415	654	950	379	434	377	315	372	312	432	651
2	473	450	640	1020	358	501	386	313	352	308	410	649
3	529	329	668	967	371	624	489	312	375	307	378	722
4	577	361	705	632	391	673	520	317	317	316	358	778
5	627	332	700	463	401	742	441	355	259	318	322	772
6	661	383	717	441	396	726	472	341	267	340	316	587
7	695	385	736	464	400	455	511	330	277	308	346	658
8	720	415	744	339	322	574	548	344	277	333	348	685
9	722	420	744	363	287	527	531	349	323	312	355	830
10	757	445	717	377	394	285	500	343	323	312	341	844
11	791	456	578	402	382	320	579	351	310	350	344	837
12	879	484	670	372	389	307	608	334	351	356	345	844
13	960	460	754	369	420	359	621	338	298	423	340	1000
14	1040	374	857	365	389	369	612	396	272	345	350	900
15	1050	412	281	388	382	367	297	406	321	364	336	424
16	1140	458	268	491	379	326	292	327	348	337	335	421
17	1150	423	321	528	389	313	260	329	360	355	344	557
18	1120	426	374	562	442	304	243	325	392	350	487	651
19	1060	423	388	515	526	359	309	325	340	363	489	615
20	1050	541	427	520	535	366	329	332	331	361	459	889
21	1030	520	497	533	555	362	366	335	254	355	470	717
22	700	434	536	625	579	361	354	343	281	356	449	660
23	405	382	586	665	609	368	355	330	295	373	456	658
24	496	427	611	644	640	268	314	328	320	356	498	643
25	380	457	657	441	654	237	256	330	338	368	591	649
26	373	492	680	240	630	259	254	390	331	402	589	452
27	166	537	736	251	650	281	251	343	321	427	627	243
28	220	559	782	269	413	326	268	342	324	427	685	324
29	290	533	824	315	---	365	297	355	323	440	676	345
30	322	656	888	345	---	363	312	350	324	457	687	358
31	357	---	896	353	---	372	---	350	---	273	894	---
MONTH	683	446	633	491	452	403	398	341	319	355	453	645

TRINITY RIVER BASIN

08064600 RICHLAND CREEK NEAR RICHLAND, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	15.0	8.0	11.0	10.0	13.0	19.0	21.0	26.5	20.5	29.0	28.0
2	23.0	16.0	9.0	9.0	10.5	14.5	16.5	21.0	24.0	29.0	29.0	26.5
3	24.0	14.0	15.0	10.0	10.0	15.5	15.0	19.5	26.0	29.5	28.0	28.0
4	24.5	14.0	10.0	9.5	13.5	14.0	16.0	21.0	23.5	29.0	27.0	28.0
5	25.0	13.0	12.0	8.0	12.5	17.0	15.0	24.5	23.0	28.5	29.0	25.0
6	25.5	17.0	8.0	8.0	13.5	18.5	14.0	21.5	28.5	29.0	28.5	27.0
7	22.5	16.5	7.0	6.5	13.0	16.5	14.0	20.0	25.0	20.5	27.0	28.0
8	22.0	16.0	8.0	5.0	9.0	18.5	15.0	20.5	25.0	27.0	29.0	26.0
9	24.5	13.0	7.5	3.5	7.0	18.5	10.5	20.5	25.0	28.5	29.5	28.0
10	25.5	15.5	5.0	3.5	6.0	19.5	10.5	24.5	25.5	28.0	27.5	30.0
11	26.0	14.5	4.5	2.5	5.0	20.0	15.0	23.5	25.0	29.5	28.5	28.5
12	26.0	19.0	6.0	2.0	6.0	19.0	16.0	23.0	25.0	28.0	28.0	30.0
13	---	16.5	6.5	3.0	10.5	19.5	19.5	23.5	24.0	27.5	30.5	30.0
14	25.0	12.0	6.0	2.5	10.5	18.0	18.0	22.5	25.0	29.0	30.0	28.0
15	23.0	12.0	5.5	6.0	10.5	19.0	18.0	21.0	27.0	28.0	27.0	25.5
16	25.5	11.5	5.0	8.0	10.0	17.0	17.0	20.5	25.5	27.0	27.5	25.0
17	26.5	12.0	4.0	10.0	9.5	16.0	17.0	21.5	---	27.0	27.5	28.0
18	26.0	10.5	5.5	12.0	9.5	15.0	17.0	23.5	28.5	26.5	29.0	25.0
19	18.0	10.0	8.5	10.5	10.5	18.0	21.0	23.0	29.0	29.0	28.0	26.5
20	17.5	9.0	10.0	10.5	11.0	18.0	21.5	24.5	26.5	30.0	30.5	28.0
21	18.0	8.0	9.5	12.5	11.5	17.0	22.0	25.0	24.5	29.5	32.0	28.0
22	21.5	9.0	10.0	11.0	9.5	16.5	22.5	25.0	26.0	30.0	28.0	27.0
23	20.0	8.5	10.0	10.5	10.5	17.0	20.5	24.5	25.5	29.0	30.5	26.0
24	18.0	8.5	8.0	8.5	12.5	17.0	21.0	25.0	25.0	29.0	31.0	26.0
25	17.0	8.5	10.0	9.0	11.0	17.5	21.5	24.0	26.5	29.0	28.5	26.0
26	15.5	7.5	10.0	8.0	13.0	16.5	18.0	23.5	27.5	31.5	27.5	25.0
27	11.5	12.0	9.5	8.5	13.5	16.0	20.0	24.0	28.0	31.0	28.0	24.0
28	12.5	6.0	10.0	8.0	13.0	17.0	20.0	25.0	29.0	30.0	29.5	24.0
29	12.5	9.5	14.0	7.5	---	18.0	20.0	25.0	28.5	30.0	26.5	23.0
30	17.0	9.0	12.0	7.5	---	18.0	19.5	25.0	21.0	29.5	26.5	23.5
31	17.5	---	11.5	10.0	---	17.0	---	26.0	---	28.0	29.5	---
MONTH	21.0	12.0	8.5	8.0	10.5	17.0	17.5	23.0	26.0	28.5	28.5	26.5

TRINITY RIVER BASIN

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08064700 TEHUACANA CREEK NEAR STREETMAN, TEX.

LOCATION.--Lat 31°50'54", long 96°17'23", Freestone County, at gaging station at U.S. Highway 75, 2.8 miles (4.5 km) southeast of Streetman, and 3.8 miles (6.1 km) upstream from Caney Creek.

DRAINAGE AREA.--142 mi² (368 km²).

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 28...	1300	21	6.6	10	4.1	22	39	0	23	21
NOV. 14...	1640	18	6.3	18	6.6	43	62	0	46	45
DEC. 19...	1300	5.3	6.2	20	7.8	36	72	0	36	43
JAN. 30...	1400	9.7	7.6	22	8.0	39	86	0	36	44
MAR. 06...	1200	1.9	7.2	48	17	100	156	0	85	140
APR. 17...	1630	272	6.7	12	4.4	9.4	45	0	10	13
18...	1055	940	6.5	12	2.7	3.7	38	0	8.0	5.6
JUNE 19...	1600	5.2	13	45	16	69	158	0	58	97
JULY 18...	1640	.29	7.2	34	14	70	104	0	58	100

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	.2	.9	110	42	10	1.5	183	6.8	13.0
NOV. 14...	.2	.5	197	72	21	2.2	348	7.6	--
DEC. 19...	.1	.6	187	82	23	1.7	328	7.5	6.5
JAN. 30...	.1	.4	200	88	18	1.8	355	7.3	6.5
MAR. 06...	.3	.00	474	190	60	3.2	833	7.7	16.0
APR. 17...	.0	.8	81	48	11	.6	163	6.4	16.0
18...	.0	.5	60	41	10	.3	113	6.4	16.5
JUNE 19...	.0	.3	377	180	50	2.2	701	7.8	27.0
JULY 18...	.0	.3	340	140	59	2.5	662	7.2	--

TRINITY RIVER BASIN

08065200 UPPER KEECHI CREEK NEAR OAKWOOD, TEX.

LOCATION.--Lat 31°34'11", long 96°53'17", Leon County, at gaging station at bridge on U.S. Highway 79, 1.9 miles (3.1 km) upstream from Missouri Pacific Railroad Co. bridge, 2 miles (3.2 km) southwest of Oakwood, 11 miles (18 km) upstream from Buffalo Creek, and 21 miles (34 km) upstream from mouth.

DRAINAGE AREA.--150 mi² (388 km²).

PERIOD OF RECORD.--Chemical analyses: June 1962 to April 1964, November 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 02...	1205	.02	16	8.0	3.9	18	15	0	29	22
NOV. 13...	1230	153	14	15	6.5	16	6	0	56	25
DEC. 18...	1445	60	14	16	8.5	24	16	0	63	34
JAN. 15...	1345	38	17	26	12	31	16	0	97	48
FEB. 20...	1220	22	18	28	13	38	18	0	100	58
MAR. 27...	1700	342	9.5	14	3.7	18	28	0	34	21
APR. 30...	1310	49	15	20	8.3	26	31	0	57	38
JULY 23...	1630	2.0	14	20	9.3	29	56	0	41	44
AUG. 13...	1645	3.1	14	20	7.6	30	56	0	38	42

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 02...	.0	.5	106	36	24	1.3	190	6.5	19.5
NOV. 13...	.0	.3	137	64	59	.9	242	5.4	16.0
DEC. 18...	.1	.2	168	75	62	1.2	304	6.2	4.5
JAN. 15...	.1	.03	239	120	100	1.3	422	6.4	6.5
FEB. 20...	.1	.00	269	120	110	1.5	471	6.5	11.5
MAR. 27...	.1	.2	115	50	27	1.1	199	6.9	16.0
APR. 30...	.1	.4	181	84	59	1.2	323	6.5	20.0
JULY 23...	.2	.06	186	88	42	1.3	347	6.6	30.0
AUG. 13...	.2	.2	181	81	35	1.4	332	6.7	30.0

TRINITY RIVER BASIN

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08065350 TRINITY RIVER NEAR CROCKETT, TEX.

LOCATION.--Lat 31°20'08", long 95°39'27", Houston County, at gaging station at bridge on State Highway 7, 7.1 miles (11.4 km) downstream from Upper Keechi Creek, and 11.9 miles (19.1 km) west of Crockett.

DRAINAGE AREA.--13,911 mi² (36,029 km²).

PERIOD OF RECORD.--Chemical analyses: February 1964 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Pesticide analyses: October 1971 to September 1973.

Water temperatures: February 1964 to September 1973.

Sediment records: October 1967 to September 1968.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 873 micromhos Oct. 20; minimum daily, 211 micromhos June 8.

EXTREMES, February 1964 to September 1973.--Specific conductance: Maximum daily, 2,370 micromhos Sept. 22, 1964; minimum daily, 148 micromhos Apr. 27, 1966.

Water temperatures (1964-71): Maximum, 37.0°C July 4, 1970; minimum, 4.0°C Jan. 30, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
06...	1300	502	8.6	40	7.8	110	144	0	91	94	1.1	--
16...	1130	401	13	44	11	99	158	0	85	88	.4	.26
NOV.												
14...	0700	2100	10	46	4.7	37	113	0	44	51	.4	--
29...	1145	1380	11	41	4.8	50	98	0	71	50	.2	.24
DEC.												
11...	1245	911	13	47	9.8	71	142	0	82	76	.0	.21
28...	0700	1120	12	49	8.1	62	130	0	80	62	.5	--
JAN.												
04...	0700	1720	14	47	7.9	70	110	0	69	88	.6	--
24...	1100	1700	12	50	9.5	56	126	0	82	60	.6	.29
FEB.												
06...	1245	5850	7.8	38	6.1	25	110	0	43	26	.3	.27
14...	0700	13200	5.5	47	7.0	27	122	0	61	23	.3	--
MAR.												
01...	1030	2300	9.1	60	5.7	51	155	0	76	54	.5	.24
26...	0700	23300	5.5	31	3.6	19	95	0	27	18	.2	--
APR.												
02...	0945	10200	7.4	48	4.4	28	131	0	43	28	.2	.30
30...	0700	32000	7.4	36	2.5	13	113	0	21	8.0	.2	--
MAY												
16...	0700	14500	3.4	48	5.4	15	140	0	27	19	.3	--
21...	1000	11300	4.9	50	4.2	26	148	0	38	24	.3	.39
JUNE												
09...	0700	22000	2.9	22	3.4	10	72	0	17	10	.2	--
25...	1100	13300	6.1	44	4.9	19	123	0	41	16	.3	.35
JULY												
09...	0700	6800	6.0	58	4.2	26	166	0	38	28	.3	--
26...	1015	1670	8.4	54	3.5	31	158	0	43	26	.4	.22
AUG.												
21...	1015	1060	5.8	58	6.0	40	170	0	52	42	.4	.16
28...	0700	700	9.0	60	7.7	73	199	0	72	66	.9	--
SEP.												
14...	0700	2270	10	40	4.2	61	130	0	57	50	.5	--
26...	0945	1050	9.9	46	6.6	58	144	0	64	50	.5	.46

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
06...	--	--	5.8	--	448	--	--	130	14	4.1	772	7.7
16...	.06	.19	7.7	5.1	453	42	12	160	30	3.5	796	6.9
NOV.												
14...	--	--	.7	--	252	--	--	130	41	1.4	467	7.7
29...	.16	.85	2.0	1.4	287	79	27	120	42	2.0	492	7.0
DEC.												
11...	.12	1.9	2.6	2.8	384	41	16	160	42	2.5	663	7.4
28...	--	--	3.7	--	353	--	--	160	51	2.2	596	7.7
JAN.												
04...	--	--	4.1	--	368	--	--	150	60	2.5	688	7.4
24...	.88	1.9	4.0	2.2	355	79	20	160	60	1.9	608	6.6
FEB.												
06...	.04	.35	1.1	.78	206	364	60	120	30	1.0	363	7.3
14...	--	--	2.2	--	240	--	--	150	46	1.0	420	7.5
MAR.												
01...	.12	1.8	1.6	1.9	342	77	9	170	46	1.7	614	7.5
26...	--	--	.3	--	153	--	--	92	14	.9	283	6.9
APR.												
02...	.09	.27	1.8	.65	232	288	32	140	31	1.0	412	7.2
30...	--	--	.8	--	148	--	--	100	7	.6	270	7.8
MAY												
16...	--	--	.9	--	191	--	--	140	27	.5	373	7.4
21...	.00	.09	1.0	.61	225	288	58	140	21	.9	409	7.3
JUNE												
09...	--	--	.01	--	100	--	--	69	10	.5	219	8.2
25...	.00	.08	1.6	.65	199	548	112	130	29	.7	351	7.2
JULY												
09...	--	--	.5	--	245	--	--	160	26	.9	458	7.5
26...	.01	.00	1.2	.39	250	21	8	150	20	1.1	464	7.4
AUG.												
21...	.00	.02	.8	.23	292	23	18	170	31	1.3	522	7.0
28...	--	--	2.0	--	396	--	--	180	18	2.4	702	7.7
SEP.												
14...	--	--	3.2	--	301	--	--	120	10	2.5	514	7.5
26...	.00	.05	3.2	1.9	320	--	--	140	24	2.1	549	7.6

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT.											
06...	25.0	--	--	--	--	--	--	--	--	--	--
16...	27.0	--	--	7.6	94	3.8	0	.18	19	10	10
NOV.											
14...	22.0	--	--	--	--	--	--	--	--	--	--
29...	12.0	30	45	8.7	81	14	1	.15	16	--	--
DEC.											
11...	7.0	40	25	8.1	66	7.6	0	.15	13	--	--
28...	20.0	--	--	--	--	--	--	--	--	--	--
JAN.											
04...	18.0	--	--	--	--	--	--	--	--	--	--
24...	14.0	50	50	7.6	73	12	2	--	16	--	--
FEB.											
06...	14.0	110	170	10.0	96	2.7	2	--	20	50	0
14...	18.0	--	--	--	--	--	--	--	--	--	--
MAR.											
01...	12.5	30	40	7.4	69	6.6	1	.10	12	--	--
26...	18.0	--	--	--	--	--	--	--	--	--	--
APR.											
02...	17.0	55	120	8.4	87	2.6	1	--	40	20	0
30...	18.0	--	--	--	--	--	--	--	--	--	--
MAY											
16...	22.0	--	--	--	--	--	--	--	--	--	--
21...	23.5	20	110	7.2	84	4.8	0	.00	12	--	--
JUNE											
09...	23.0	--	--	--	--	--	--	--	--	--	--
25...	28.0	30	240	7.4	94	1.5	0	--	18	--	--
JULY											
09...	28.0	--	--	--	--	--	--	--	--	--	--
26...	31.0	10	35	7.0	93	1.1	0	.00	11	--	--
AUG.											
21...	29.0	20	10	8.2	105	.6	0	--	15	10	0
28...	28.0	--	--	--	--	--	--	--	--	--	--
SEP.											
14...	28.0	--	--	--	--	--	--	--	--	--	--
26...	25.0	--	--	8.5	101	2.2	0	.12	18	--	--

TRINITY RIVER BASIN

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08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
06...	--	--	--	--	--	--	--	--	--	--	--
16...	0	0	0	4	0	0	10	10	16	440	20
NOV.											
14...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
11...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
04...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
06...	0	0	0	8	80	0	0	0	14	320	40
14...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
01...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
APR.											
02...	0	0	1	4	100	0	0	0	0	480	40
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
16...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
09...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JULY											
09...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
21...	0	0	0	3	0	2	0	0	0	500	20
28...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
14...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV.										
20...	1130	.00	.0	.00	.0	.00	.0	.01	.0	.01
JAN.										
31...	1115	.00	--	.00	--	.01	--	.02	--	.02
JULY										
31...	1135	.00	.0	.00	.0	.01	.0	.00	.0	.06
SEP.										
25...	1245	.00	--	.00	--	.00	--	.00	--	.02

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV.										
20...	.6	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN.										
31...	--	.00	--	.00	--	.00	--	.00	--	.1
JULY										
31...	.7	.00	.0	.00	.0	.00	.0	.02	.0	.0
SEP.										
25...	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV.										
20...	1	.0	0	.07	.00	.00	.00	.00	.00	.00
JAN.										
31...	--	.0	--	.08	.02	.00	.00	.04	.00	.02
JULY										
31...	0	.0	0	.13	.00	.00	.00	.05	.00	.03
SEP.										
25...	--	.0	--	.09	.00	.00	.00	.03	.00	.28

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS-CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	TOTAL SEDI- MENT DIS- CHARGE (T/DAY)	STREAM WIDTH (FT)	STREAM VELOCI- TY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAM- PLING POINTS
NOV.										
08...	1140	3000	16.5	374	3030	3133	182	2.1	7.6	7
20...	1130	--	--	339	--	--	--	--	--	--
JAN.										
16...	1405	2130	7.0	175	1010	1070	170	2.0	6.2	3
31...	1115	--	--	742	--	--	--	--	--	--
MAR.										
27...	1500	22100	18.0	300	17900	18800	395	2.9	18	7
APR.										
19...	1510	16900	17.5	399	18200	18900	290	2.8	20	8
MAY										
15...	1340	13900	22.0	263	9870	10800	270	3.2	16	7
JUNE										
25...	1415	12900	27.5	520	18100	18800	265	2.9	16	7
JULY										
26...	1305	1460	32.0	124	489	497	162	1.5	5.9	6
31...	1135	--	--	946	--	--	--	--	--	--
SEP.										
25...	1245	--	--	23	--	--	--	--	--	--

[illegible][illegible]

TRINITY RIVER BASIN

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08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	52929	464	260	37200	40	5720	46	6570	140
NOV.	90110	448	250	60800	37	9000	45	10900	140
DEC.	59915	493	280	45300	45	7280	50	8090	140
JAN. 1973....	144000	457	250	97200	39	15200	46	17900	140
FEB.	186690	432	240	121000	34	17100	43	21700	140
MAR.	417040	329	180	203000	15	16900	30	33800	120
APR.	382540	322	170	176000	14	14500	30	31000	120
MAY	623810	359	190	320000	21	35400	34	57300	140
JUNE	680790	309	160	294000	12	22100	28	51500	110
JULY	176100	443	250	119000	36	17100	44	20900	140
AUG.	93929	495	280	71000	45	11400	50	12700	140
SEP.	64045	523	290	50100	51	8820	54	9340	150
TOTAL	2971898	--	--	1590000	--	181000	--	282000	--
WTD. AVG. ...	8142	368	200	--	22	--	35	--	130

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	829	388	595	646	377	647	315	267	422	394	633	759
2	854	389	616	645	393	609	417	279	445	416	620	732
3	811	369	595	647	429	583	463	296	443	425	544	729
4	757	391	599	688	430	600	466	320	438	422	452	729
5	813	361	603	695	480	534	449	343	339	424	466	593
6	808	351	636	611	393	460	445	353	298	415	498	588
7	704	413	629	550	442	335	466	359	243	416	440	650
8	796	466	661	456	483	286	541	367	211	417	470	628
9	792	462	666	467	482	294	521	375	219	458	450	624
10	766	455	677	426	442	395	580	382	223	450	433	675
11	821	477	683	426	353	500	557	406	238	465	445	745
12	845	506	686	438	355	400	538	403	252	453	439	747
13	838	472	690	468	403	342	576	403	262	458	444	486
14	767	467	675	497	420	314	512	393	281	457	437	514
15	809	484	566	512	419	298	574	403	290	488	465	454
16	810	479	420	544	402	323	576	373	306	448	467	458
17	839	469	410	520	423	345	516	373	310	521	482	423
18	835	486	314	521	430	345	314	380	312	492	501	432
19	870	601	400	533	500	340	281	392	320	458	516	507
20	873	620	404	575	524	332	260	408	338	500	520	547
21	810	598	443	592	478	356	265	420	352	412	523	580
22	754	585	468	590	471	375	293	435	368	421	562	556
23	693	513	485	592	473	376	316	404	415	428	613	514
24	750	537	512	614	533	320	334	394	405	438	629	527
25	641	599	515	582	537	277	303	405	395	418	649	496
26	472	610	518	418	596	283	286	379	361	462	676	543
27	470	607	539	421	670	265	266	382	383	495	690	544
28	480	503	596	400	623	254	246	408	398	524	702	493
29	490	501	595	307	---	267	271	410	386	567	715	420
30	221	562	624	427	---	287	270	409	348	596	728	360
31	281	---	636	349	---	307	---	409	---	629	760	---
MONTH	719	491	563	521	463	376	407	378	333	463	547	568

TRINITY RIVER BASIN

08065500 TRINITY RIVER NEAR MIDWAY, TEX.

LOCATION.--Lat 31°04'38", long 95°41'57", Madison County, at bridge on State Highway 21, 5.0 miles (8.0 km) northeast of Midway, and 8.0 miles (12.9 km) downstream from Boggy Creek.

DRAINAGE AREA.--14,450 mi² (37,430 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 25...	1000	13	40	7.3	79	140	0	58	74	.3
DEC. 19...	0945	8.5	26	4.4	37	76	0	35	46	.0
FEB. 13...	0945	14	46	4.0	23	129	0	40	22	.3
APR. 18...	1005	5.0	32	4.7	19	95	0	26	22	.2
JUNE 06...	0910	5.2	32	2.7	13	87	0	22	16	.2
AUG. 28...	0930	9.1	62	6.4	49	192	0	41	59	.6

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT. 25...	.20	.16	.15	5.7	3.5	366	130	16	3.0	668
DEC. 19...	.09	.05	.75	.8	.80	199	83	21	1.8	317
FEB. 13...	.29	.05	.70	1.0	1.0	218	130	25	.9	380
APR. 18...	.28	.09	.15	1.1	1.4	161	99	21	.8	311
JUNE 06...	.35	.00	.05	.8	.66	138	91	20	.6	264
AUG. 28...	.32	.04	.21	1.2	.36	327	180	24	1.6	633

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARRON (C) (MG/L)
OCT. 25...	7.0	18.5	6.4	68	2.3	2700	350	600	32
DEC. 19...	5.6	6.5	11.0	89	5.2	12000	1400	2500	--
FEB. 13...	6.6	11.5	9.0	82	4.4	26000	2600	1600	--
APR. 18...	7.2	17.5	4.7	49	3.7	9300	5000	3000	28
JUNE 06...	7.3	23.0	5.8	67	1.0	16000	2400	2300	--
AUG. 28...	8.1	28.0	12.4	157	5.2	42	42	34	--

08065800 BEDIAS CREEK NEAR MADISONVILLE, TEX.

LOCATION.--Lat 30°53'03", long 95°46'39", Madison County, at gaging station on U.S. Highways 75 and 190, 0.5 mile (0.8 km) upstream from Interstate 45, 1.5 miles (2.4 km) downstream from Caney Creek, and 9.5 miles (15 km) southeast of Madisonville.

DRAINAGE AREA.--321 mi² (831 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1962 to April 1964, January 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT.										
10...	1300	.30	8.4	8.5	2.6	6.8	24	0	13	8.5
25...	0910	180	5.6	7.2	1.7	8.0	24	0	11	8.0
NOV.										
13...	1430	120	6.8	7.0	1.8	10	19	0	10	12
DEC.										
19...	0830	58	10	10	4.4	14	29	0	23	18
21...	1550	23	11	12	2.4	20	31	0	29	19
JAN.										
19...	1215	56	12	18	4.6	24	30	0	51	27
FEB.										
13...	0830	125	13	12	4.9	15	25	0	32	20
APR.										
18...	0830	3500	8.2	7.0	2.1	5.5	26	0	9.6	5.0
JUNE										
06...	0755	30	15	21	5.5	28	42	0	46	37
JULY										
23...	0950	1.5	20	49	12	71	90	0	94	110
AUG.										
28...	0830	.32	14	26	8.5	34	64	0	46	52
SEP.										
17...	1325	192	11	--	--	8.8	24	0	4.6	12

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT.										
10...	.0	--	--	--	.4	--	62	32	12	.5
25...	.0	.33	.01	.21	.2	.35	55	25	5	.7
NOV.										
13...	.3	--	--	--	.8	--	60	25	9	.9
DEC.										
19...	.0	.07	.01	.02	.2	.13	94	43	19	.9
21...	.1	--	--	--	.2	--	109	40	15	1.4
JAN.										
19...	.1	--	--	--	.2	--	153	64	39	1.3
FEB.										
13...	.0	.12	.00	.02	.2	.13	110	50	30	.9
APR.										
18...	.0	.35	.00	.10	.03	.13	51	26	5	.5
JUNE										
06...	.1	.34	.02	.09	.3	.21	175	75	41	1.4
JULY										
23...	.2	--	--	--	.03	--	400	170	96	2.4
AUG.										
28...	.1	.22	.01	.08	.2	.25	213	100	48	1.5
SEP.										
17...	.0	--	--	--	.2	--	--	23	3	.8

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.										
10...	123	6.5	22.0	--	--	--	--	--	--	--
25...	115	6.1	16.0	7.4	74	3.9	8000	1400	1100	4.0
NOV.										
13...	115	5.6	18.0	--	--	--	--	--	--	--
DEC.										
19...	156	5.6	9.5	11.6	102	3.1	5200	2000	4100	--
21...	192	6.4	10.0	--	--	--	--	--	--	--
JAN.										
19...	255	6.5	11.5	--	--	--	--	--	--	--
FEB.										
13...	190	6.6	13.0	10.2	96	2.3	3200	2300	2900	--
APR.										
18...	85	6.3	17.0	7.0	72	3.0	3000	650	750	22
JUNE										
06...	320	6.6	22.0	5.8	66	.9	14000	2100	5000	--
JULY										
23...	746	7.2	27.5	--	--	--	--	--	--	--
AUG.										
28...	416	6.2	23.5	2.6	30	1.8	430	110	1300	--
SEP.										
17...	104	5.5	25.5	--	--	--	--	--	--	--

TRINITY RIVER BASIN

08065950 NELSON CREEK NEAR RIVERSIDE, TEX.

LOCATION.--Lat 30°53'40", long 95°30'51", Walker County, at low-water crossing on County Road, 3.1 miles (5.0 km) north of Farm Road 980, 6.0 miles (9.7 km) upstream from mouth at Lake Livingston and 7.4 miles (11.9 km) northwest of Riverside.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 25...	1200	2.2	34	16	2.5	28	28	0	31	39
DEC. 19...	1200	--	15	14	3.7	17	22	0	30	26
APR. 18...	1215	--	9.1	6.2	1.6	2.3	16	0	6.8	5.0
JUNE 06...	1130	28	18	16	4.2	21	22	0	43	28
AUG. 28...	1145	--	35	29	5.5	38	35	0	69	55

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 25...	.0	.10	.00	.02	.00	.04	165	50	27	1.7
DEC. 19...	.0	.06	.01	.06	.2	.10	118	50	32	1.0
APR. 18...	.0	.36	.00	.14	.06	.14	39	22	9	.2
JUNE 06...	.0	.33	.01	.09	.05	.03	142	57	39	1.2
AUG. 28...	.0	.23	.00	.05	.02	.07	249	95	66	1.7

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 25...	275	6.7	16.5	9.0	86	.7	500	60	230	8.5
DEC. 19...	189	5.4	10.0	12.0	106	2.3	23000	1500	2400	--
APR. 18...	68	8.3	--	9.5	--	2.9	14000	6000	8200	24
JUNE 06...	236	6.8	24.5	7.4	88	1.0	8000	1000	2300	--
AUG. 28...	420	6.7	27.0	6.9	85	2.1	380	10	120	--

08065975 HARMON CREEK NEAR HUNTSVILLE, TEX.

LOCATION.--Lat 30°49'12", long 95°29'09", Walker County, at end of county road, 2.2 miles (3.5 km) east of Farm Road 980, 7.6 miles (12.2 km) northeast of Huntsville, and 9 miles (16.3 km) southwest of Riverside.

DRAINAGE AREA.--89.2 mi² (241 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 24...	1110	6.3	26	44	3.0	53	138	0	31	64
DEC. 19...	1115	13	30	51	5.8	66	190	0	34	77
FEB. 13...	1045	16	26	48	3.4	53	160	0	29	60
APR. 18...	1300	183	13	22	1.0	5.4	63	0	7.2	8.2
JUNE 06...	--	17	21	40	4.9	57	130	0	46	62
AUG. 28...	1100	6.2	40	44	7.3	130	245	0	45	120

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 24...	.2	.21	.28	1.4	1.5	1.4	298	120	9	2.1
DEC. 19...	.3	.13	.14	3.5	1.9	1.8	370	150	0	2.3
FEB. 13...	.3	.18	.13	.31	.8	1.4	303	130	3	2.0
APR. 18...	.0	.29	.05	.13	.1	.19	89	59	7	.3
JUNE 06...	.4	.47	.28	1.3	1.0	1.7	302	120	13	2.3
AUG. 28...	1.1	.40	.42	.12	1.3	4.5	508	140	0	4.7

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 24...	547	6.9	14.0	9.4	90	8.5	19000	1400	660	22
DEC. 19...	649	5.3	12.0	10.4	96	8.4	17000	1600	1800	--
FEB. 13...	535	6.9	15.0	8.8	86	4.6	7300	1200	1700	--
APR. 18...	155	7.1	20.0	8.9	97	3.1	42000	2400	4000	16
JUNE 06...	504	7.3	24.0	6.7	79	6.9	26000	6700	2000	--
AUG. 28...	885	8.0	27.0	7.9	98	6.4	160	120	170	--

TRINITY RIVER BASIN

08066000 TRINITY RIVER AT RIVERSIDE, TEX.

LOCATION.--Lat 30°51'35", long 95°23'54", Walker County, at gaging station at bridge on State Highway 19, 0.5 mile (0.8 km) north of Riverside.

DRAINAGE AREA.--15,589 mi² (40,376 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.										
25...	1145	15	50	7.3	100	198	0	72	90	.4
DEC.										
19...	1130	10	38	6.6	54	100	0	66	61	.4
FEB.										
13...	1130	8.4	46	3.7	33	117	0	51	34	.3
APR.										
18...	1130	8.7	24	3.4	17	62	0	28	20	.1
JUNE										
06...	1130	6.0	53	5.5	24	146	0	44	26	.3
AUG.										
28...	1030	5.5	48	4.0	27	140	0	39	27	.4

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.										
25...	.19	.50	.33	2.1	3.6	444	160	0	3.5	818
DEC.										
19...	.10	.05	1.2	1.8	1.0	295	120	40	2.1	522
FEB.										
13...	.15	.04	.13	1.5	.60	241	130	34	1.3	429
APR.										
18...	.40	.00	.08	.5	.39	134	74	23	.9	251
JUNE										
06...	.28	.01	.03	1.3	.29	237	160	35	.8	437
AUG.										
28...	.17	.01	.09	.3	.26	221	140	21	1.0	416

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.									
25...	6.8	19.5	5.0	54	2.5	400	380	250	11
DEC.									
19...	6.1	7.5	9.0	75	5.6	2400	520	1400	--
FEB.									
13...	7.3	11.5	9.0	82	1.3	2000	880	420	--
APR.									
18...	8.4	--	7.6	--	3.3	2300	1400	2400	27
JUNE									
06...	7.1	25.5	8.0	96	.8	820	120	120	--
AUG.									
28...	6.4	28.5	6.0	77	2.5	100	14	20	--

TRINITY RIVER BASIN

273

08066050 WEST CAROLINA CREEK NEAR OAKHURST, TEX.

LOCATION.--Lat 30°49'32", long 95°20'10", Walker County, on county road, 6.2 miles (10.0 km) north of Oakhurst and 4.2 miles (6.8 km) southeast of Riverside.

DRAINAGE AREA.--15.2 mi² (39.4 km²).

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1973. (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 13...	1445	2.2	13	28	1.7	8.6	72	0	8.4	19
DEC. 11...	1130	.30	16	36	2.5	15	107	0	10	24
JAN. 15...	1020	6.4	13	22	1.7	8.4	64	0	9.8	12
FEB. 22...	1145	2.0	15	44	3.2	22	138	0	13	31
MAR. 26...	1205	16	15	33	1.6	7.1	95	0	8.4	12
MAY 07...	1215	138	9.8	18	1.2	1.6	50	0	4.6	4.0
JUNE 04...	1055	2.5	28	56	3.5	23	158	0	13	43
JULY 09...	1155	5.6	14	34	1.3	3.6	102	0	.8	9.0
AUG. 20...	1220	.64	26	46	3.2	17	141	0	8.2	29

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 13...	.0	.3	115	77	18	.4	207	6.5	15.0
DEC. 11...	.1	.05	157	100	12	.7	270	7.0	7.5
JAN. 15...	.1	.1	98	62	10	.5	174	7.0	5.0
FEB. 22...	.0	.01	196	120	10	.9	334	7.5	--
MAR. 26...	.1	.2	125	89	11	.3	219	7.1	16.0
MAY 07...	.0	.5	66	50	9	.1	120	6.5	20.0
JUNE 04...	.1	.02	245	150	24	.8	433	7.7	27.0
JULY 09...	.1	.2	114	90	6	.2	214	6.9	29.0
AUG. 20...	.1	.04	199	130	12	.7	349	7.1	31.0

TRINITY RIVER BASIN

08066140 TANTABOGUE CREEK NEAR TRINITY, TEX.

LOCATION.--Lat 31°03'51", long 95°25'26", Trinity County, on State Highway 19, and 9.4 miles (15.1 km) north of Trinity.

DRAINAGE AREA.--61.3 mi² (164 km²).

PERIOD OF RECORD.--Chemical analyses/ March 1966 to September 1973 (Discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 13...	1635	329	5.5	5.5	2.0	5.5	14	0	9.4	8.0
DEC. 11...	1255	190	10	8.5	2.9	15	23	0	19	18
JAN. 15...	1215	40	11	15	4.5	27	24	0	43	35
FEB. 22...	1000	5.0	17	27	7.2	54	40	0	82	68
MAR. 26...	1405	61	12	11	3.1	17	24	0	28	20
MAY 07...	1625	280	8.4	12	2.4	20	21	0	26	25
JUNE 04...	1440	1.2	16	24	5.4	45	45	0	59	55
JULY 09...	1625	4.0	14	17	5.3	31	32	0	44	42
AUG. 20...	1835	.61	23	34	10	83	68	0	70	130

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 13...	.0	.4	45	22	11	.5	84	5.8	17.0
DEC. 11...	.2	.4	86	33	14	1.1	143	6.6	--
JAN. 15...	.1	.1	148	56	36	1.6	264	6.5	5.5
FEB. 22...	.0	.1	276	97	64	2.4	476	6.8	--
MAR. 26...	.0	.3	104	40	20	1.2	176	7.0	16.0
MAY 07...	.0	.9	108	40	23	1.4	197	6.1	20.0
JUNE 04...	.1	.8	230	82	45	2.2	407	6.5	24.0
JULY 09...	.0	.3	171	64	38	1.7	310	6.4	22.5
AUG. 20...	.0	.1	379	130	72	3.2	701	6.5	25.0

TRINITY RIVER BASIN

275

08066145 CANEY CREEK NEAR GROVETON, TEX.

LOCATION.--Lat 30°59'14", long 95°12'52", Trinity County, at county road crossing, 7.3 miles (11.7 km) southwest of Groveton.

DRAINAGE AREA.--41.4 mi² (107 km²).

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 11...	1015	.18	40	16	5.3	290	294	0	30	300
JUNE 04...	1810	8.5	40	58	15	100	21	0	250	100
JULY 09...	1830	3.7	19	26	6.4	48	15	0	110	48
AUG. 21...	1120	.54	32	50	12	140	66	0	240	130

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 11...	.2	.01	828	62	0	15	1530	7.8	20.0
JUNE 04...	.1	.04	585	210	190	3.1	929	6.4	28.5
JULY 09...	.1	.4	265	91	79	2.2	450	6.3	32.0
AUG. 21...	.2	.03	631	180	120	4.6	1080	7.0	29.5

TRINITY RIVER BASIN

08066147 WHITE ROCK CREEK AT FARM ROAD 356, NEAR TRINITY, TEX.

LOCATION.--Lat 30°54'48", long 95°16'14", Trinity County, at bridge on Farm Road 356, 0.8 mile (1.3 km) upstream from mouth at old Trinity River Channel, 1.0 mile (1.6 km) downstream from Caney Creek, and 6.6 miles (10.6 km) southeast of Trinity.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 25...	1045	4.1	48	8.3	44	172	0	36	50	.2
DEC. 19...	1030	8.7	36	5.4	46	105	0	52	46	.3
FEB. 13...	1030	9.5	18	3.4	22	40	0	36	24	.1
APR. 18...	1050	8.0	14	2.9	14	25	0	31	17	.0
JUNE 06...	1015	4.2	39	4.8	19	109	0	35	22	.2
AUG. 28...	0930	4.6	42	3.7	27	125	0	41	24	.3

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCTANCE (MICRO- MHOS)
OCT. 25...	.19	.00	.07	.00	.27	276	150	13	1.5	528
DEC. 19...	.01	.00	.06	1.6	.52	254	110	26	1.9	435
FEB. 13...	.11	.01	.05	.5	.14	135	59	26	1.2	236
APR. 18...	.30	.03	.10	.2	.12	100	47	26	.9	182
JUNE 06...	.25	.02	.11	.6	.14	181	120	28	.8	343
AUG. 28...	.15	.00	.04	.00	.15	204	120	18	1.1	379

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 25...	6.8	18.0	8.3	87	3.4	620	120	98	24
DEC. 19...	6.7	8.0	9.6	81	2.8	440	43	58	--
FEB. 13...	7.0	11.0	10.0	90	1.2	210	120	68	--
APR. 18...	8.0	--	8.8	--	2.3	720	170	220	18
JUNE 06...	6.9	25.0	8.0	95	.8	110	46	56	--
AUG. 28...	7.5	23.0	4.0	46	2.5	12	4	18	--

TRINITY RIVER BASIN

277

08066170 KICKAPOO CREEK NEAR ONALASKA, TEX.

LOCATION.--Lat 30°54'25", long 95°05'18", Polk County, at gaging station 114 ft (35 m) downstream from old bridge site, 1.2 miles (1.9 km) downstream from Magnolia Creek, 6.2 miles (10.0 km) upstream from Rocky Creek, and 7.3 miles (11.7 km) northeast of Onalaska.

DRAINAGE AREA.--57.0 mi² (147.6 km²).

PERIOD OF RECORD.--Chemical analyses: December 1963 to September 1969.
Chemical and biochemical analyses: October 1969 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 25...	0930	.87	20	14	4.4	40	44	0	42	43
DEC. 19...	0845	19	12	9.0	2.8	18	14	0	34	18
FEB. 13...	0915	28	17	12	4.1	24	19	0	46	24
APR. 18...	1000	1500	8.8	5.0	2.1	3.1	12	0	11	5.0
JUNE 06...	0900	90	7.2	5.5	2.7	5.6	7	0	17	9.5
AUG. 28...	0800	15	24	14	4.4	22	14	0	55	23

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 25...	.0	.15	.01	.07	.08	.22	186	53	17	2.4
DEC. 19...	.0	.04	.01	.01	.1	.09	101	34	23	1.3
FEB. 13...	.0	.18	.00	.00	.2	.08	137	47	31	1.5
APR. 18...	.0	.35	.00	.15	.04	.10	41	21	11	.3
JUNE 06...	.0	.31	.01	.04	.07	.30	51	25	19	.5
AUG. 28...	.0	.17	.01	.04	.03	.08	150	53	42	1.3

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 25...	357	6.5	15.0	8.6	84	2.0	1800	200	270	10
DEC. 19...	170	6.0	10.0	11.2	99	3.1	9700	1400	2400	--
FEB. 13...	227	7.7	11.0	11.2	101	2.0	720	520	440	--
APR. 18...	71	7.5	--	9.8	--	3.2	5300	350	3500	34
JUNE 06...	96	6.5	20.5	9.0	99	1.0	6700	5400	9400	--
AUG. 28...	250	6.3	23.5	7.2	84	2.2	6100	1500	4500	--

TRINITY RIVER BASIN

08066180 ROCKY CREEK NEAR ONALASKA, TEX.

LOCATION.--Lat 30°52'02", long 95°03'42", Polk County, at county road crossing, 5.4 miles (8.7 km) northeast of Onalaska.

DRAINAGE AREA.--40.6 mi² (105 km²).

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 14...	1330	2.3	18	38	3.2	24	112	0	10	41
JAN. 16...	1235	8.3	16	22	2.0	9.9	61	0	14	14
FEB. 21...	1550	.12	22	37	2.4	17	110	0	15	24
MAR. 28...	1250	14	23	32	2.0	11	94	0	13	15
JUNE 06...	1155	55	5.0	9.5	.1	1.4	22	0	1.6	5.0
AUG. 21...	1725	.93	38	62	5.4	17	190	0	12	32

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 14...	.0	.04	189	110	16	1.0	339	7.0	15.0
JAN. 16...	.0	.08	108	63	13	.5	182	7.2	9.0
FEB. 21...	.0	.05	172	100	12	.7	289	7.3	13.0
MAR. 28...	.0	.09	142	88	11	.5	229	7.3	16.0
JUNE 06...	.0	.1	34	24	6	.1	71	6.1	22.5
AUG. 21...	.1	.05	260	180	21	.6	437	7.5	34.0

TRINITY RIVER BASIN

279

08066192 TRINITY RIVER BELOW LIVINGSTON DAM, NEAR GOODRICH, TEX.

LOCATION.--Lat 30°37'55", long 95°01'11", Polk County, 100 ft (30 m) below outlet structure and 4.8 miles (7.7 km) northwest of Goodrich.

DRAINAGE AREA.--16,583 mi² (42,950 km²).

PERIOD OF RECROD.--Chemical and biochemical analyses: October 1969 to September 1973.

REMARKS.--Formerly published as Livingston Reservoir Outflow Weir, near Goodrich.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 26...	1030	2.5	46	5.2	24	149	0	24	28	.1
DEC. 20...	0945	3.4	47	4.6	33	154	0	34	32	.2
FEB. 14...	0900	5.7	42	3.9	37	129	0	40	36	.3
APR. 18...	0800	7.3	38	3.7	25	103	0	40	25	.2
JUNE 07...	1005	8.5	39	3.6	14	112	0	28	14	.2
AUG. 29...	0900	4.1	40	2.7	16	120	0	25	14	.2

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 26...	.09	.00	.03	.2	.15	204	140	14	.9
DEC. 20...	.00	.01	.00	.4	.09	232	140	10	1.2
FEB. 14...	.07	.00	.04	.8	.19	231	120	15	1.5
APR. 18...	.20	.00	.04	.8	.19	194	110	26	1.0
JUNE 07...	.18	.00	.04	.5	.10	165	110	20	.6
AUG. 29...	.15	.01	.03	.02	.12	161	110	13	.7

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 26...	398	7.4	20.5	8.3	91	3.0	23	2	3
DEC. 20...	424	8.2	13.0	12.1	114	1.7	580	170	210
FEB. 14...	418	6.8	11.0	12.3	111	1.0	26	25	33
APR. 18...	362	6.7	--	10.8	--	3.0	190	40	48
JUNE 07...	308	7.4	24.5	8.8	105	.5	2200	4	25
AUG. 29...	301	6.7	26.5	7.9	96	1.1	3300	1	650

TRINITY RIVER BASIN

08066200 LONG KING CREEK AT LIVINGSTON, TEX.

LOCATION.--Lat 30°42'58", long 94°57'31", Polk County, at gaging station at bridge on U.S. Highway 190, 2 miles (3 km) west of Livingston, 2 miles (3 km) upstream from Choates Creek, and 14.8 miles (23.8 km) from mouth.

DRAINAGE AREA.--141 mi² (365 km²).

PERIOD OF RECORD.--Chemical analyses: January 1963 to September 1973.
Water temperatures: January 1963 to September 1972.

EXTREMES, January 1963 to September 1972.--Specific conductance: Maximum daily, 669 micromhos May 23, 1965; minimum daily, 71 micromhos May 7, 1969.
Water temperatures: Maximum, 34.0°C Aug. 9, 1964, July 14, 15, 29, 1969; minimum, 2.0°C Dec. 23, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT.										
26...	0935	6.7	17	55	4.8	24	151	0	7.2	56
DEC.										
20...	0830	31	14	42	3.2	18	116	0	15	32
FEB.										
14...	0745	2100	8.4	16	1.0	3.7	42	0	4.0	9.5
APR.										
18...	0900	6200	6.3	11	.4	.3	32	0	.8	2.0
JUNE										
07...	0830	39	17	37	2.4	16	100	0	10	32
AUG.										
29...	0815	12	21	76	2.6	24	202	0	16	50

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT.										
26...	.0	.10	.00	.07	.00	.05	238	160	33	.8
DEC.										
20...	.0	.00	.01	.00	.05	.02	181	120	23	.7
FEB.										
14...	.0	.25	.00	.07	.1	.18	64	44	10	.2
APR.										
18...	.0	.30	.00	.09	.04	.08	37	29	3	.0
JUNE										
07...	.1	.25	.01	.11	.06	.02	164	100	20	.7
AUG.										
29...	.1	.07	.00	.02	.00	.02	289	200	34	.7

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.										
26...	445	7.1	16.0	8.2	82	1.4	--	--	--	21
DEC.										
20...	317	5.0	14.5	10.5	102	1.3	2500	520	650	--
FEB.										
14...	113	6.3	10.5	9.6	86	3.0	16000	6000	8900	--
APR.										
18...	68	6.9	--	9.2	--	1.2	4800	2800	2600	32
JUNE										
07...	302	7.3	23.0	7.6	87	1.7	2900	1100	1900	--
AUG.										
29...	526	6.9	25.0	7.0	83	.9	480	1	550	--

TRINITY RIVER BASIN

281

08066210 LONG KING CREEK NEAR GOODRICH, TEX.

LOCATION.--Lat 30°36'16", long 94°57'26", Polk County, at bridge on Farm Road 1988, 0.7 mile (1.12 km) west of Goodrich, and 4.5 miles (7.2 km) upstream from mouth.

DRAINAGE AREA.--220 mi² (569.8 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1130	6.6	17	36	3.0	21	125	0	4.8	28
DEC. 20...	1015	1550	12	34	4.2	16	104	0	12	27
FEB. 14...	0930	1670	7.4	14	.7	4.8	40	0	4.4	7.5
APR. 18...	0715	22	6.0	10	.3	.2	28	0	.8	2.0
JUNE 07...	1210	73	16	41	3.1	17	114	0	12	32
AUG. 29...	0945	27	16	46	4.2	21	148	0	12	31

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 26...	.0	.20	.05	.23	.03	.39	172	100	0	.9
DEC. 20...	.0	.09	.02	.05	.00	.12	157	100	17	.7
FEB. 14...	.0	.10	.00	.00	.24	.19	59	38	5	.3
APR. 18...	.0	.07	.00	.08	.40	.37	34	26	3	.0
JUNE 07...	.1	.10	.04	.20	.30	.11	178	120	22	.7
AUG. 29...	.1	.20	.08	.04	.13	.18	205	130	11	.8

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COLI- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 26...	320	7.2	14.0	10.2	98	3.2	1500	110	330	19
DEC. 20...	283	6.3	13.0	10.4	98	2.2	7500	520	580	--
FEB. 14...	102	6.3	12.5	9.5	89	3.1	5700	5400	8100	--
APR. 18...	63	7.3	--	9.0	--	2.5	7700	2400	4600	21
JUNE 07...	325	7.5	26.0	8.1	99	1.1	7700	1000	920	--
AUG. 29...	377	6.6	24.5	6.9	82	1.7	520	1	230	--

TRINITY RIVER BASIN

08066250 TRINITY RIVER NEAR GOODRICH, TEX.

LOCATION.--Lat 30°34'19", long 94°56'55", Polk County, at gaging station on U.S. Highway 59, 0.2 mile (0.3 km) downstream from Long King Creek, and 3.0 miles (4.8 km) southeast of Goodrich.

DRAINAGE AREA.--16,844 mi² (43,626 km²).

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1973 (discontinued).

Specific conductance: October 1969 to September 1973 (discontinued).

Water temperatures: October 1969 to September 1973 (discontinued).

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 473 micromhos Oct. 18; minimum daily, 100 micromhos June 14.

Water temperatures: Maximum, 30.0°C on several days during August; minimum, 7.0°C Jan. 12.

EXTREMES, October 1969 to September 1973.--Specific conductance: Maximum daily, 712 micromhos Dec. 3, 1970; minimum daily, 100 micromhos June 14, 1973.

Water temperatures: Maximum, 32.0°C July 3, 1970; minimum, 7.0°C Jan. 8, 9, 1970, Jan. 12, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 03...	1040	299	2.8	46	6.1	23	150	0	23	28
NOV. 30...	1500	1550	3.9	46	5.7	23	150	0	17	32
DEC. 13...	1510	2170	8.1	28	3.4	16	96	0	12	18
JAN. 28...	1400	15800	5.7	41	5.0	35	133	0	39	34
FEB. 13...	1600	13800	7.2	18	1.7	13	54	0	14	15
MAR. 26...	1745	44800	6.5	38	4.9	30	114	0	39	30
APR. 17...	1630	35000	5.0	14	1.5	4.8	42	0	8.2	6.0
MAY 08...	1600	48300	7.2	32	4.2	13	89	0	23	18
JULY 13...	1930	13000	5.2	31	3.8	11	94	0	21	12
AUG. 23...	0940	1020	4.8	37	6.2	17	125	0	28	16
SEP. 06...	1330	10000	10	14	2.0	1.6	42	0	2.8	6.5
29...	1700	8800	10	36	5.9	9.8	109	0	22	16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 03...	.3	.7	206	140	17	.8	426	7.4	25.0
NOV. 30...	.3	.3	203	140	15	.8	408	8.1	11.0
DEC. 13...	.2	.3	134	84	5	.8	250	7.1	11.0
JAN. 28...	.3	.2	226	120	14	1.4	417	8.2	9.0
FEB. 13...	.0	.1	96	52	8	.8	178	6.8	12.0
MAR. 26...	.3	.6	207	120	22	1.2	387	7.6	17.0
APR. 17...	.0	.06	61	41	7	.3	108	7.4	18.0
MAY 08...	.2	.4	143	97	24	.6	289	7.6	22.0
JULY 13...	.2	.00	130	93	16	.5	244	7.5	27.0
AUG. 23...	.3	.07	171	120	16	.7	313	7.7	28.0
SEP. 06...	.1	.00	58	43	9	.1	117	6.5	29.0
29...	.2	.00	154	110	25	.4	297	7.0	28.0

TRINITY RIVER BASIN

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08066250 TRINITY RIVER NEAR GOODRICH, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	8774	439	230	5450	33	782	35	829	150
NOV.	96199	379	200	51900	28	7270	30	7790	130
DEC.	91603	361	190	47000	26	6430	28	6930	130
JAN. 1973....	263508	369	200	142000	27	19200	29	20600	130
FEB.	251160	356	190	129000	26	17600	28	19000	120
MAR.	606030	366	190	311000	27	44200	29	47500	130
APR.	600280	285	150	243000	20	32400	21	34000	100
MAY	720300	290	150	292000	20	38900	22	42800	100
JUNE	963740	165	88	229000	9.8	25500	11	28600	59
JULY	213640	273	140	80800	19	11000	20	11500	96
AUG.	96924	265	140	36600	18	4710	20	5230	93
SEP.	102045	259	140	38600	18	4960	19	5230	91
TOTAL	4014203	--	--	1610000	--	213000	--	230000	--
WTD. AVG. ...	11000	282	150	--	20	--	21	--	99

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	424	425	415	414	426	386	373	304	310	288	121	306
2	421	390	424	404	418	328	375	298	312	286	123	310
3	430	389	423	391	420	313	377	302	315	286	121	309
4	439	395	421	262	422	214	374	295	310	282	124	309
5	448	399	419	215	421	266	365	300	200	284	200	180
6	452	404	420	240	410	262	300	301	140	278	280	117
7	445	410	416	198	416	219	298	266	130	274	284	105
8	444	414	412	376	363	340	285	289	135	270	282	219
9	431	422	419	340	381	361	312	284	150	273	282	208
10	444	416	227	318	387	376	325	286	180	278	278	291
11	435	421	197	390	389	351	325	285	170	245	282	300
12	432	418	204	421	404	379	335	285	140	213	292	262
13	455	264	240	426	278	375	346	281	110	230	292	309
14	449	346	205	412	168	400	354	278	100	244	295	309
15	440	416	212	367	300	400	139	286	110	279	302	314
16	453	410	205	378	340	358	135	288	130	306	302	314
17	467	416	300	392	346	215	108	288	140	300	298	319
18	473	251	340	400	361	382	119	289	150	286	304	311
19	439	266	348	410	364	384	294	291	160	280	332	322
20	449	279	404	408	386	387	300	291	170	278	332	318
21	447	350	400	284	410	389	312	261	180	284	260	325
22	436	402	394	328	336	390	325	281	200	290	324	324
23	422	415	415	378	322	390	328	297	220	292	313	331
24	437	279	417	408	312	392	325	298	240	303	339	331
25	438	353	416	286	283	385	294	298	248	310	335	330
26	438	316	438	198	343	387	303	299	255	258	331	329
27	427	379	437	394	359	383	294	300	260	269	327	329
28	420	388	435	417	374	384	306	301	270	260	323	296
29	432	400	440	413	---	383	307	302	275	259	319	297
30	432	408	426	425	---	385	309	300	285	200	315	280
31	413	---	401	420	---	381	---	306	---	126	311	---
MONTH	439	375	364	358	362	353	298	291	200	268	278	287

TRINITY RIVER BASIN

08066250 TRINITY RIVER NEAR GOODRICH, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	---	12.0	11.0	11.0	13.0	19.0	21.0	---	27.0	28.0	29.0
2	28.0	---	13.0	11.0	11.0	14.0	19.0	21.0	---	28.0	28.0	29.0
3	27.0	---	13.0	11.0	11.0	15.0	18.0	21.0	---	28.0	28.0	29.0
4	27.0	---	---	11.0	12.0	15.0	18.0	21.0	---	28.0	28.0	29.0
5	27.0	---	15.0	12.0	13.0	15.0	18.0	21.0	---	28.0	---	---
6	27.0	---	12.0	11.0	13.0	17.0	18.0	21.0	---	28.0	29.0	29.0
7	26.0	---	---	9.0	13.0	17.0	15.0	21.0	---	---	29.0	29.0
8	27.0	20.0	14.0	11.0	12.0	15.0	15.0	22.0	---	28.0	28.0	29.0
9	26.0	20.0	13.0	9.0	12.0	15.0	15.0	22.0	---	27.0	30.0	29.0
10	24.0	21.0	11.0	10.0	11.0	15.0	16.0	22.0	---	27.0	30.0	29.0
11	27.0	19.0	10.0	---	11.0	17.0	16.0	22.0	---	---	30.0	29.0
12	26.0	19.0	10.0	7.0	11.0	16.0	---	22.0	---	27.0	30.0	29.0
13	27.0	19.0	---	8.0	12.0	16.0	17.0	22.0	---	27.0	30.0	29.0
14	27.0	17.0	11.0	9.0	11.0	15.0	18.0	22.0	---	27.0	30.0	29.0
15	27.0	19.0	11.0	10.0	11.0	16.0	17.0	22.0	---	27.0	30.0	29.0
16	27.0	18.0	10.0	10.0	10.0	15.0	17.0	22.0	---	27.0	29.0	29.0
17	27.0	16.0	9.0	12.0	10.0	16.0	18.0	23.0	---	27.0	29.0	28.0
18	27.0	14.0	8.0	13.0	11.0	16.0	18.0	23.0	---	27.0	29.0	28.0
19	27.0	---	16.0	13.0	12.0	16.0	18.0	23.0	---	28.0	29.0	28.0
20	27.0	13.0	12.0	13.0	13.0	16.0	---	24.0	---	28.0	29.0	28.0
21	27.0	13.0	11.0	13.0	12.0	16.0	---	24.0	---	---	28.0	28.0
22	25.0	12.0	10.0	12.0	13.0	16.0	19.0	24.0	---	28.0	29.0	28.0
23	26.0	12.0	10.0	---	11.0	16.0	---	24.0	---	28.0	28.0	28.0
24	23.0	12.0	11.0	---	13.0	16.0	21.0	24.0	---	28.0	30.0	28.0
25	25.0	11.0	11.0	13.0	14.0	16.0	21.0	24.0	---	28.0	---	---
26	26.0	13.0	12.0	12.0	13.0	17.0	20.0	24.0	---	28.0	---	28.0
27	22.0	12.0	12.0	10.0	13.0	17.0	20.0	24.0	---	29.0	---	28.0
28	20.0	13.0	12.0	9.0	14.0	17.0	20.0	24.0	---	28.0	---	28.0
29	23.0	13.0	13.0	9.0	---	17.0	21.0	24.0	---	29.0	---	28.0
30	24.0	11.0	14.0	10.0	---	---	21.0	25.0	---	---	---	28.0
31	22.0	---	13.0	11.0	---	---	---	25.0	---	28.0	---	---
MONTH	25.5	---	12.0	10.5	12.0	16.0	18.0	22.5	---	27.5	---	28.5

TRINITY RIVER BASIN

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08066300 MENARD CREEK NEAR RYE, TEX.

LOCATION.--Lat 30°28'52", long 94°46'46", Liberty County, at gaging station at bridge on State Highway 146, 2.3 miles (3.7 km) northwest of Rye, and about 6 miles (10 km) upstream from mouth.

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--Chemical analyses: April 1966 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	1200	12	12	11	3.5	30	15	0	2.0	65
NOV. 16...	1430	44	9.6	4.5	1.4	5.0	7	0	2.0	14
DEC. 15...	0820	260	7.7	10	1.5	34	10	0	5.2	64
JAN. 18...	1345	80	10	9.5	1.8	20	12	0	4.8	42
FEB. 23...	1100	207	9.2	6.2	1.1	15	9	0	6.2	28
MAR. 29...	1510	166	9.0	8.8	1.0	15	12	0	4.8	31
MAY 04...	0930	325	7.6	6.5	1.4	12	8	0	1.2	28
JUNE 07...	0920	53	12	5.8	.6	9.1	14	0	3.2	15
AUG. 23...	1420	52	12	5.8	2.3	7.5	12	0	1.4	20
SEP. 19...	1225	54	13	6.5	1.9	16	12	0	3.2	32

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.0	.02	131	42	30	2.0	259	6.3	21.0
NOV. 16...	.0	.07	40	17	11	.5	71	5.9	13.0
DEC. 15...	.1	.05	128	31	23	2.7	243	6.1	--
JAN. 18...	.0	.05	94	31	21	1.6	185	6.2	11.0
FEB. 23...	.0	.06	70	20	13	1.5	132	5.8	8.5
MAR. 29...	.0	.2	76	26	16	1.3	144	6.4	17.0
MAY 04...	.0	.3	62	22	15	1.1	125	6.1	18.5
JUNE 07...	.0	.2	54	17	6	1.0	72	6.5	22.0
AUG. 23...	.0	.2	56	24	14	.7	107	6.0	25.0
SEP. 19...	.0	.07	79	24	14	1.4	147	5.8	23.5

TRINITY RIVER BASIN

08066400 BIG CREEK NEAR SHEPHERD, TEX.

LOCATION.--Lat 30°30'59", long 94°59'06", San Jacinto County, at gaging station at bridge on U.S. Highway 59, 1.5 miles (2.4 km) northeast of Shepherd.

DRAINAGE AREA.--38.8 mi² (100 km²).

PERIOD OF RECORD.--Chemical analyses: December 1963 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	0845	5.0	16	4.5	2.4	5.1	12	0	3.2	13
NOV. 16...	1245	9.4	14	4.0	2.7	7.7	14	0	5.6	14
JAN. 18...	1215	26	14	5.8	1.3	8.7	14	0	6.6	14
APR. 02...	0955	22	15	5.8	1.1	9.1	16	0	6.4	13
MAY 04...	0820	45	10	5.8	1.1	5.0	11	0	6.8	9.0
JUNE 06...	1725	37	14	6.8	.7	4.6	10	0	4.8	11
JULY 11...	1345	22	16	5.8	1.3	6.6	15	0	3.8	12
AUG. 22...	1420	13	15	5.2	1.2	7.1	14	0	3.4	12
SEP. 19...	1050	17	15	4.8	2.9	2.6	12	0	2.4	12

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.0	.2	51	21	11	.5	82	6.1	17.0
NOV. 16...	.0	.2	56	21	10	.7	89	5.7	12.0
JAN. 18...	.0	.2	58	20	9	.8	95	6.1	14.5
APR. 02...	.0	.2	59	19	6	.9	90	6.1	15.5
MAY 04...	.0	.3	44	19	10	.5	71	5.8	17.0
JUNE 06...	.0	.3	48	20	12	.4	71	6.0	22.0
JULY 11...	.0	.3	54	20	8	.6	81	6.0	24.5
AUG. 22...	.0	.4	53	18	7	.7	86	6.1	24.5
SEP. 19...	.0	.06	46	24	14	.2	82	5.9	22.0

08066500 TRINITY RIVER AT ROMAYOR, TEX.

LOCATION.--Lat 30°25'30", long 94°51'02", Liberty County, at gaging station at bridge on State Highway 105, 1.9 miles (3.1 km) south of Romayor, and 3.7 miles (6.0 km) downstream from Big Creek.

DRAINAGE AREA.--17,186 mi² (44,512 km²).

PERIOD OF RECORD.--Chemical analyses: October 1945 to November 1949, February 1950 to September 1951, April 1953 to September 1973.

Chemical and biochemical analyses: February 1968 to September 1973.

Pesticide analyses: February 1968 to September 1973.

Water temperatures: February 1950 to September 1951, April 1953 to January 1959, March 1961 to September 1973.

Sediment records: April 1968 to September 1971.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 435 micromhos Oct. 11; minimum daily, 201 micromhos Aug. 3.

EXTREMES, October 1945 to September 1950, October 1953 to September 1973.--Specific conductance: Maximum daily, 3,800 micromhos Oct. 30, 1956; minimum daily, 103 micromhos Nov. 9, 1946.

Water temperatures(1953-58, 1961-73): Maximum, 37.0°C July 18, 27, 1953; minimum, 3.0°C Jan. 18, 1956, Jan. 15, 16, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
04...	1020	337	3.0	46	6.9	22	135	6	19	35	.2
24...	1545	361	4.7	44	3.7	34	130	0	18	52	.2
NOV.											
09...	1045	7400	3.4	46	5.4	25	146	0	23	32	.2
DEC.											
15...	0900	3170	5.9	36	4.2	29	120	0	25	32	.2
18...	1700	5350	3.1	44	4.2	31	142	0	30	32	.2
JAN.											
09...	0920	18700	5.3	42	5.6	32	142	0	32	33	.3
FEB.											
12...	1630	14000	4.8	40	3.9	38	124	0	41	36	.2
14...	0825	21500	5.0	26	4.9	29	97	0	26	28	.2
MAR.											
28...	1530	46600	6.7	38	3.9	33	109	0	43	31	.3
APR.											
12...	0830	4000	7.4	32	3.9	21	91	0	25	26	.2
17...	1630	30700	7.2	34	2.7	21	91	0	33	22	.2
MAY											
14...	0830	31700	7.7	32	4.4	14	92	0	26	16	.2
JUNE											
05...	1645	8350	8.2	38	4.4	15	113	0	29	14	.2
15...	0830	97000	7.0	33	2.8	15	98	0	22	14	.2
JULY											
18...	0845	4870	5.3	38	2.7	14	110	0	24	14	.2
AUG.											
03...	0915	3530	5.6	23	3.5	11	69	0	11	19	.2
27...	1645	790	8.4	44	3.7	16	132	0	21	20	.2
DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.											
04...	--	--	--	.00	--	204	--	--	140	22	.8
24...	.08	.00	.02	.00	.15	221	17	10	130	23	1.3
NOV.											
09...	--	--	--	.4	--	209	--	--	140	17	.9
DEC.											
15...	--	--	--	.00	--	191	--	--	110	9	1.2
18...	.00	.00	.00	.2	.06	215	18	2	130	11	1.2
JAN.											
09...	--	--	--	.3	--	222	--	--	130	12	1.2
FEB.											
12...	.11	.00	.00	.8	.20	228	31	11	120	15	1.5
14...	--	--	--	.3	--	168	--	--	85	6	1.4
MAR.											
28...	--	--	--	.9	--	214	--	--	110	22	1.4
APR.											
12...	--	--	--	.8	--	164	--	--	96	21	.9
17...	.22	.01	.06	.5	.24	167	196	20	96	22	.9
MAY											
14...	--	--	--	.6	--	148	--	--	98	23	.6
JUNE											
05...	.27	.00	.03	.7	.10	168	85	41	110	20	.6
15...	--	--	--	.7	--	145	--	--	94	14	.7
JULY											
18...	--	--	--	.00	--	152	--	--	110	16	.6
AUG.											
03...	--	--	--	.00	--	107	--	--	72	15	.6
27...	.11	.00	.01	.01	.08	178	10	5	130	17	.6

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT.											
04...	405	8.5	25.0	--	--	--	--	--	--	--	--
24...	423	6.7	28.0	--	--	8.7	110	3.7	9.0	0	0
NOV.											
09...	416	7.8	16.0	--	--	--	--	--	--	--	--
DEC.											
15...	352	7.3	--	--	--	--	--	--	--	--	--
18...	401	6.6	9.0	30	15	12.0	103	2.0	10	--	--
JAN.											
09...	408	7.8	7.0	--	--	--	--	--	--	--	--
FEB.											
12...	406	7.4	10.0	45	15	12.2	108	.8	4.0	20	0
14...	309	7.9	10.0	--	--	--	--	--	--	--	--
MAR.											
28...	384	7.0	17.0	--	--	--	--	--	--	--	--
APR.											
12...	335	7.3	16.0	--	--	--	--	--	--	--	--
17...	314	6.7	17.0	70	75	10.0	--	2.7	14	50	0
MAY											
14...	282	7.3	20.0	--	--	--	--	--	--	--	--
JUNE											
05...	312	6.9	25.0	30	15	8.4	100	.7	9.0	--	--
15...	262	7.5	24.0	--	--	--	--	--	--	--	--
JULY											
18...	287	7.5	27.0	--	--	--	--	--	--	--	--
AUG.											
03...	201	6.8	25.0	--	--	--	--	--	--	--	--
27...	336	6.7	28.5	10	5	7.2	92	1.9	16	0	0

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
04...	--	--	--	--	--	--	--	--	--	--	--
24...	0	0	0	3	0	0	0	20	4	380	20
NOV.											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
15...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
12...	0	0	0	3	30	0	0	0	8	300	30
14...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
28...	--	--	--	--	--	--	--	--	--	--	--
APR.											
12...	--	--	--	--	--	--	--	--	--	--	--
17...	0	0	0	12	100	0	0	0	0	350	50
MAY											
14...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
JULY											
18...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
03...	--	--	--	--	--	--	--	--	--	--	--
27...	0	0	0	2	10	0	0	0	0	350	10

TRINITY RIVER BASIN

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08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
FEB. 12...	1630	14000	10.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 20...	1320	37500	23.5	--	.0	--	.0	--	.0	--	.0
JUNE 05...	1645	8350	25.0	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 27...	1645	790	28.5	.00	.0	.00	.0	.00	.0	.00	.0

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
FEB. 12...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 20...	--	.0	--	.0	--	.0	--	.0	--	.0	--
JUNE 05...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 27...	.00	.0	.00	.0	.00	.0	.00	--	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
FEB. 12...	0	.0	0	.02	.00	.00	.00	.04	.00	.01
APR. 20...	0	--	0	--	--	--	--	--	--	--
JUNE 05...	0	.0	0	.02	.00	.00	.00	.04	.00	.01
AUG. 27...	0	.0	0	.01	.00	.00	.00	.06	.00	.02

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	10093	417	230	6270	34	927	30	818	130
NOV.	95953	406	220	57000	33	8550	29	7510	130
DEC.	98805	399	220	58700	32	8540	28	7470	130
JAN. 1973....	262950	412	220	156000	34	24100	29	20600	130
FEB.	276210	390	210	157000	31	23100	28	20900	120
MAR.	649710	386	210	368000	30	52600	28	49100	120
APR.	622660	319	170	286000	21	35300	23	38700	100
MAY	715300	290	150	290000	17	32800	21	40600	94
JUNE	961960	286	150	390000	16	41600	20	51900	93
JULY	224080	278	150	90800	15	9080	20	12100	90
AUG.	103115	279	150	41800	15	4180	20	5570	90
SEP.	101720	292	150	41200	17	4670	21	5770	94
TOTAL	4122556	--	--	1940000	--	245000	--	261000	--
WTD. AVG. ...	11290	328	170	--	22	--	23	--	100

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	TOTAL SEDI- MENT DIS- CHARGE (T/DAY)	STREAM WIDTH (FT)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAM- PLING POINTS
NOV. 09...	1200	7660	16.0	118	2440	2660	256	1.6	18	7
JAN. 17...	1235	4990	11.5	34	458	482	140	1.6	21	5
MAR. 28...	1530	49100	17.0	399	52900	60600	374	5.2	24	7
APR. 20...	1145	37700	23.5	291	29600	35800	335	4.1	26	7
MAY 16...	1155	16300	22.0	156	6870	6950	286	2.3	24	7
JUNE 15...	1540	97600	26.0	740	195000	248100	425	7.2	31	7
JULY 25...	1315	4610	30.0	50	622	--	234	.9	20	7

DATE	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 09...	31	35	36	42	45	80	96	100	--	--
JAN. 17...	--	--	--	--	--	79	90	97	100	--
MAR. 28...	21	23	24	27	31	37	54	90	10	100
APR. 20...	21	22	22	25	28	34	48	93	100	100
MAY 16...	54	56	57	59	67	78	85	98	99	100
JUNE 15...	--	--	--	--	--	50	68	95	99	100
JULY 25...	57	70	75	83	86	90	99	100	--	--

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
NOV. 09...	18	27	71	92	97	97	98	100	--
JAN. 17...	0	2	47	93	100	--	--	--	--
MAR. 28...	9	19	49	84	96	98	99	100	--
APR. 20...	19	26	53	87	100	--	--	--	--
MAY 16...	1	2	25	96	100	--	--	--	--
JUNE 15...	9	15	28	60	76	80	89	95	100
JULY 25...	5	16	57	90	99	100	--	--	--

TRINITY RIVER BASIN

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08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	430	418	413	421	398	375	305	296	292	277	324
2	401	390	419	379	428	400	372	313	302	294	233	323
3	402	385	418	350	422	386	379	302	309	281	201	321
4	403	395	405	327	422	358	377	299	308	283	226	320
5	410	404	411	376	421	330	375	295	307	284	245	299
6	414	414	416	393	424	395	368	291	303	281	274	249
7	418	410	416	391	422	378	337	286	304	258	282	235
8	421	405	417	390	418	392	322	276	304	260	280	268
9	424	416	416	408	400	402	309	286	308	267	286	275
10	417	412	400	419	376	402	314	284	307	274	283	282
11	435	416	366	421	378	401	323	284	303	278	283	294
12	430	400	303	424	409	400	335	284	298	283	284	296
13	429	381	319	424	413	404	344	283	276	251	284	290
14	422	363	326	423	309	405	355	282	253	264	287	297
15	423	410	352	422	345	406	322	281	262	267	290	303
16	421	415	319	419	363	407	292	283	274	270	290	308
17	421	413	350	420	380	329	282	285	284	286	295	312
18	420	410	399	418	377	351	274	284	294	287	299	314
19	418	393	413	420	379	375	303	286	299	287	300	316
20	418	388	419	414	391	382	314	287	308	288	301	318
21	419	405	420	408	403	392	319	288	305	288	308	318
22	385	413	421	365	404	394	322	290	305	288	312	319
23	378	421	422	381	395	396	326	292	285	289	315	319
24	434	425	422	402	391	390	323	293	283	290	316	320
25	430	415	423	414	390	389	317	294	281	288	320	320
26	425	406	424	397	388	391	312	293	281	291	325	321
27	426	398	419	398	392	391	308	295	281	300	331	322
28	427	411	416	399	398	384	300	297	283	279	342	322
29	428	416	414	422	---	387	302	298	285	278	341	309
30	425	422	413	423	---	385	306	303	290	276	339	303
31	428	---	410	425	---	377	---	302	---	280	322	---
MONTH	418	406	397	403	395	386	327	291	293	280	293	304

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	10.0	11.0	10.0	12.0	---	20.0	25.0	---	28.0	28.0
2	20.0	---	10.0	9.0	9.0	22.0	16.0	20.0	25.0	27.0	25.0	---
3	---	---	---	---	10.0	13.0	16.0	18.0	---	27.0	25.0	28.0
4	25.0	---	12.0	9.0	---	---	15.0	19.0	25.0	---	26.0	26.0
5	24.0	---	13.0	10.0	10.0	14.0	15.0	19.0	25.0	27.0	---	25.0
6	25.0	20.0	10.0	10.0	11.0	15.0	15.0	---	23.0	26.0	29.0	25.0
7	22.0	---	9.0	---	12.0	13.0	14.0	20.0	---	27.0	27.0	26.0
8	---	18.0	12.0	7.0	9.0	14.0	---	20.0	25.0	---	---	26.0
9	22.0	18.0	12.0	7.0	---	14.0	12.0	21.0	24.0	---	28.0	---
10	22.0	18.0	---	6.0	7.0	17.0	12.0	21.0	---	27.0	27.0	27.0
11	23.0	16.0	10.0	---	---	---	13.0	21.0	25.0	27.0	27.0	27.0
12	23.0	---	9.0	6.0	9.0	15.0	16.0	21.0	24.0	27.0	---	26.0
13	24.0	18.0	8.0	6.0	10.0	16.0	16.0	---	---	27.0	28.0	26.0
14	24.0	14.0	9.0	---	10.0	14.0	17.0	20.0	25.0	27.0	29.0	26.0
15	---	15.0	8.0	7.0	8.0	16.0	---	20.0	24.0	---	27.0	25.0
16	24.0	14.0	6.0	8.0	---	15.0	17.0	20.0	25.0	28.0	29.0	---
17	---	14.0	---	10.0	8.0	14.0	16.0	20.0	28.0	27.0	---	25.0
18	24.0	14.0	8.0	13.0	---	---	16.0	---	27.0	27.0	26.0	25.0
19	23.0	---	10.0	10.0	9.0	15.0	18.0	23.0	26.0	28.0	---	25.0
20	18.0	14.0	11.0	12.0	---	14.0	19.0	---	25.0	27.0	27.0	25.0
21	20.0	12.0	10.0	---	10.0	14.0	19.0	22.0	25.0	28.0	27.0	25.0
22	---	---	8.0	10.0	10.0	15.0	---	20.0	22.0	---	27.0	---
23	20.0	12.0	9.0	9.0	10.0	15.0	18.0	22.0	25.0	28.0	27.0	---
24	18.0	12.0	---	9.0	10.0	16.0	20.0	---	---	27.0	27.0	---
25	---	12.0	---	9.0	---	---	---	23.0	25.0	28.0	27.0	26.0
26	---	---	9.0	8.0	11.0	14.0	19.0	23.0	25.0	27.0	---	26.0
27	---	12.0	10.0	9.0	10.0	14.0	18.0	---	26.0	28.0	27.0	26.0
28	---	12.0	9.0	---	11.0	17.0	19.0	22.0	---	28.0	27.0	26.0
29	---	---	14.0	6.0	---	16.0	---	24.0	27.0	---	---	25.0
30	---	12.0	14.0	8.0	---	16.0	20.0	23.0	27.0	28.0	27.0	---
31	---	---	---	10.0	---	16.0	---	---	---	---	27.0	---
MONTH	---	---	10.0	9.0	---	15.0	16.5	---	25.0	---	---	---

TRINITY RIVER BASIN

08066800 GAYLOR CREEK NEAR MOSS HILL, TEX.

LOCATION.--Lat 30°16'55", long 94°51'36", Liberty County, at timber bridge on county road, 7.5 miles (12.1 km) northwest of Moss Hill.

DRAINAGE AREA.--32.3 mi² (83.7 km²).

PERIOD OF RECORD.--Chemical analyses: February 1966 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 16...	1610	1.8	6.8	7.0	.1	.3	10	0	2.0	5.0
APR. 02...	1245	7.8	4.5	10	2.7	4.9	31	0	7.6	8.0
JUNE 07...	1215	.38	12	18	3.9	6.2	65	0	4.0	11
JULY 13...	1100	8.0	5.3	8.5	1.7	1.7	25	0	4.6	4.0
AUG. 23...	1630	1.2	9.1	18	5.1	4.3	55	0	8.0	14

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 16...	.0	.3	28	18	10	.0	49	6.3	13.0
APR. 02...	.0	.6	55	36	11	.4	103	6.2	17.0
JUNE 07...	.0	.4	89	61	8	.3	161	7.1	24.0
JULY 13...	.0	.3	39	28	8	.1	75	6.1	26.5
AUG. 23...	.1	.5	88	66	21	.2	168	6.4	29.0

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08043000 BRIDGEPORT RESERVOIR ABOVE BRIDGEPORT, TEX. (Lat 33°13'22", long 97°49'54")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JUNE 11...	1315	168600	5.4	370	20	39	5.6	18	128	0	16

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 11...	26		.2	.20	174	120	15	.7	336	7.1	28.0

08043700 LAKE AMON G. CARTER NEAR BOWIE, TEX. (Lat 33°28'08", long 97°51'56")

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JUNE 19...	1200	1.9	150	20	26	7.0	18	96	0	12

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 19...	29		.2	.10	142	94	15	.8	285	6.6	26.0

08045400 LAKE WORTH ABOVE FORT WORTH, TEX. (Lat 32°47'29", long 97°24'54")

DATE	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JUNE 19...	5.1	210	5	44	7.5	24	152	0	22	32

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 19...		.2	.20	211	140	16	.9	399	7.4	27.5

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08046500 BENBROOK LAKE NEAR BENBROOK, TEX. (Lat 32°39'02", long 97°26'54")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
JUNE 15...	0900	99640	2.5	70	10	41	5.2	15	134	0

DATE	TIME	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH
JUNE 15...	23	16	.2	.10	169	120	14	.6	328	7.1	

08049200 LAKE ARLINGTON AT ARLINGTON, TEX. (Lat 32°43'04", long 97°11'36")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 18...	0900	46180	2.5	240	30	37	4.7	30	130	0	35

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)
JUNE 18...	22	.3	.30	197	110	5	1.2	362	6.9	27.0	

08050050 MOUNTAIN CREEK LAKE NEAR GRAND PRAIRIE, TEX. (Lat 32°43'55", long 96°56'35")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
JUNE 15...	1710	23440	7.8	600	10	46	2.6	15	102	0

DATE	TIME	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
JUNE 15...	59	6.1	.3	.80	190	120	42	.6	329	28.5	

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08051000 ISLE DU BOIS CREEK NEAR PILOT POINT, TEX. (Lat 33°24'23", long 97°00'45")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
OCT. 25...	1830	4.5	14.5	362	4.4	--	--	--
FEB. 13...	1715	33	9.5	645	57	--	--	--
MAR. 27...	1815	20	13.0	98	5.3	--	--	--
APR. 17...	1420	1180	--	645	2060	94	96	97
MAY 08...	1740	1720	21.5	426	1980	--	--	--
JUNE 07...	1550	155	22.5	399	167	--	--	--
AUG. 15...	1855	1.4	28.0	36	.14	--	--	--
SEP. 19...	1355	3.2	21.0	47	.41	--	--	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM	SUS. SED. SIEVE DIAM. % FINER THAN .031 MM
OCT. 25...	--	--	--	--	--	--	--
FEB. 13...	--	--	82	88	91	94	95
MAR. 27...	--	--	--	--	--	--	--
APR. 17...	98	100	60	61	62	64	64
MAY 08...	--	--	--	--	--	--	--
JUNE 07...	--	--	--	--	--	--	--
AUG. 15...	--	--	--	--	--	--	--
SEP. 19...	--	--	--	--	--	--	--

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TEX. (Lat 33°04'09", long 96°57'51")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
JUNE 18...	1050	320200	2.7	160	0	43	3.5	21	124	0	32

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 18...	20	.2	.80	187	120	20	.8	341	7.5	24.5

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08053500 DENTON CREEK NEAR JUSTIN, TEX. (Lat 33°07'08", long 97°17'25")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE- SEDIMENT (MG/L)	SUS- PENDE- SEDIMENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT.												
26...	1550	114	13.0	959	295	--	--	--	--	--	--	--
26...	1605	143	13.0	1090	421	--	--	--	--	--	--	--
26...	1625	180	13.0	1250	607	99	100	77	82	86	91	95
26...	1645	223	12.0	1430	861	--	--	--	--	--	--	--
26...	1655	244	12.0	978	644	--	--	--	--	--	--	--
26...	1715	276	12.5	882	657	100	--	78	84	88	91	97
26...	1745	320	12.5	776	670	--	--	--	--	--	--	--
FEB.												
14...	1615	32	8.5	129	11	--	--	--	--	--	--	--
MAR.												
28...	1610	32	15.0	90	7.8	--	--	--	--	--	--	--
APR.												
17...	1140	391	--	1580	1670	--	--	--	--	--	--	--
17...	1820	338	--	112	102	--	--	--	--	--	--	--
MAY												
10...	1030	81	21.5	278	61	--	--	--	--	--	--	--
JUNE												
08...	1000	44	23.5	220	26	--	--	--	--	--	--	--
JULY												
20...	1053	5.6	27.0	53	.80	--	--	--	--	--	--	--
AUG.												
17...	1105	22	26.5	10	.59	--	--	--	--	--	--	--
SEP.												
20...	1325	4.1	22.5	22	.24	--	--	--	--	--	--	--

08054500 GRAPEVINE LAKE NEAR GRAPEVINE, TEX. (Lat 32°58'21", long 97°03'22")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
JUNE											
18...	1015	203200	3.5	0	0	46	5.0	17	140	0	29

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE										
18...	18	.3	.30	189	140	21	.6	354	7.3	24.5

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08060500 LAVON LAKE NEAR LAVON, TEX. (Lat 33°01'54", long 96°28'56")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 18...	1330	195500	7.0	200	20	53	2.4	7.6	150	0	27

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 18...	3.6	.3	.50	177	140	19	.3	319	7.3	27.0

08061550 LAKE RAY HUBBARD NEAR FORNEY, TEX. (Lat 32°48'00", long 96°29'45")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 18...	1615	480000	3.0	110	10	48	2.6	13	146	0	25

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 18...	6.3	.3	.90	174	130	11	.5	315	7.1	24.5

08063010 CEDAR CREEK RESERVOIR NEAR TRINIDAD, TEX. (Lat 32°14'34", long 96°08'28")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 14...	1015	678200	4.4	570	10	16	2.8	9.1	45	0	16

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 14...	9.8	.2	.30	79	51	14	.5	158	6.9	24.0

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08063050 NAVARRO MILLS LAKE NEAR DAWSON, TEX. (Lat 31°57'27", long 96°41'21")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 15...	1400	118800	6.4	270	20	39	2.5	13	112	0	29

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 15...	6.2	.3	1.0	156	110	16	.5	279	6.9	24.5

08063700 BARDWELL LAKE NEAR ENNIS, TEX. (Lat 32°15'00", long 96°38'49")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 15...	1515	66300	2.0	40	5	46	2.2	14	142	0	21

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 15...	7.8	.3	1.0	168	120	7	.5	308	7.3	24.5

CEDAR BAYOU BASIN

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08067500 CEDAR BAYOU NEAR CROSBY, TEX.

LOCATION.--Lat 29°58'21", long 94°59'08", Harris County, at gaging station at bridge on U.S. Highway 90, and about 6.6 miles (10.6 km) northeast of Crosby.

DRAINAGE AREA.--64.9 mi² (168 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973.
Pesticide analyses: May 1971 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
→ NOV. 08...	1030	610	8.4	13	2.8	15	42	0	14	20	.0	.26
JAN. 22...	1215	35	8.2	41	4.5	48	144	0	12	66	.3	.28
FEB. 06...	1240	5.6	--	--	--	--	--	--	--	--	--	.20
→ MAR. 14...	0930	15	10	58	5.7	58	174	0	12	98	.3	.44
APR. 17...	1010	1700	4.7	14	.3	8.4	42	0	5.6	10	.1	.35
MAY 17...	0845	22	--	--	--	--	--	--	--	--	--	.85
AUG. 01...	0645	12	--	--	--	--	--	--	--	--	--	.25
14...	1140	35	--	--	--	--	--	--	--	--	--	.21

DATE	↓ TOTAL NITRITE (N) (MG/L)	↓ AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	↓ PH (UNITS)
NOV. 08...	.02	.13	.2	.16	95	148	94	44	10	1.0	183	6.4
JAN. 22...	.01	.10	.1	.18	252	182	34	120	3	1.9	458	7.1
FEB. 06...	.01	.09	.3	.17	--	106	14	--	--	--	670	7.1
MAR. 14...	.04	.22	.5	.19	331	141	22	170	26	1.9	624	7.2
APR. 17...	.00	.14	.08	.17	65	334	50	36	2	.6	118	6.4
MAY 17...	.05	.32	.2	.35	--	1020	184	--	--	--	490	7.3
AUG. 01...	.01	.02	.2	.10	--	63	35	--	--	--	556	6.8
14...	.03	.23	.1	.11	--	35	12	--	--	--	563	7.0

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	↓ FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	↓ PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 08...	19.5	130	85	7.0	75	2.8	8300	2200	8100	1	.00	14
JAN. 22...	16.0	110	110	9.7	97	2.3	25000	6000	620	1	.01	10
FEB. 06...	18.0	70	65	8.7	92	1.7	1700	430	150	--	.02	--
MAR. 14...	21.0	80	100	6.8	76	2.6	100000	260	140	--	.00	--
APR. 17...	19.5	280	180	6.1	66	3.6	9700	2700	5300	--	.00	--
MAY 17...	21.0	200	350	7.2	82	5.4	12000	1100	620	--	.00	--
AUG. 01...	28.0	30	30	5.9	75	1.7	150000	370	850	0	.04	0
14...	28.5	30	30	7.9	101	2.0	2900	210	1200	--	.01	10

CEDAR BAYOU BASIN

08067500 CEDAR BAYOU NEAR CROSBY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 08...	1.0	0	1	0	0	7	150	0	0	0	20
JAN. 22...	22	--	--	--	--	--	--	--	--	--	--
FEB. 06...	9.0	--	--	--	--	--	--	--	--	--	--
MAR. 14...	29	0	0	0	0	3	300	0	0	0	40
APR. 17...	22	--	--	--	--	--	--	--	--	--	--
MAY 17...	40	0	0	0	0	4	100	0	0	0	20
AUG. 01...	27	--	--	--	--	--	--	--	--	--	--
14...	18	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 08...	1030	610	19.5	.00	.00	.00	.00	.01	.00	.00	.00
JAN. 22...	1215	35	16.0	.00	.00	.00	.00	.01	.00	.00	.00
MAR. 14...	0930	15	21.0	.00	.00	.00	.00	.01	.00	.00	.00
MAY 17...	0845	22	21.0	.00	.00	.00	.00	.04	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JAN. 22...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAR. 14...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAY 17...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00

08067650 WEST FORK SAN JACINTO RIVER BELOW LAKE CONROE, NEAR CONROE, TEX.

LOCATION.--Lat 30°20'31", long 95°32'34", Montgomery County, on downstream side of bridge on State Highway 105, 5.9 miles (9.4 km) west of Conroe, and 2.4 miles (3.9 km) downstream from dam at Lake Conroe.

DRAINAGE AREA.--451 mi² (968 km²).PERIOD OF RECORD.--Chemical and biochemical analyses: October 1972 to September 1973.
Pesticide analyses: October 1972 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 24...	1940	--	21	64	5.9	27	176	0	4.4	67	.0
DEC. 18...	1745	170	10	36	3.9	18	109	0	8.8	32	.1
FEB. 12...	1700	7.0	9.5	33	2.8	18	98	0	10	30	.0
APR. 17...	1710	375	6.3	14	1.2	3.2	40	0	4.0	7.0	.1
JUNE 05...	1655	1.4	18	64	7.6	22	184	0	8.0	56	.2
AUG. 27...	1645	3.3	15	57	4.8	22	164	0	6.4	49	.2

DATE	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 24...	.01	.00	.04	.00	.04	276	23	6	180	40	.9
DEC. 18...	.00	.00	.00	.07	.04	163	31	5	110	17	.8
FEB. 12...	.08	.00	.02	.06	.03	152	42	15	94	14	.8
APR. 17...	.36	.00	.10	.05	.09	56	206	35	40	7	.2
JUNE 05...	.20	.00	.08	.03	.00	266	22	9	190	40	.7
AUG. 27...	.12	.00	.02	.00	.03	235	43	22	160	28	.8

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)
OCT. 24...	507	7.1	19.0	--	--	9.0	96	2.4	15	10	0
DEC. 18...	299	7.1	9.0	45	25	12.9	111	2.3	15	--	--
FEB. 12...	288	6.5	13.5	90	30	10.5	100	.8	8.5	20	0
APR. 17...	108	6.7	18.0	140	100	8.6	91	2.5	24	350	0
JUNE 05...	513	7.3	26.0	5	15	6.2	76	.9	8.5	--	--
AUG. 27...	448	7.0	28.5	10	25	6.9	88	1.7	14	20	0

DATE	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 24...	1	0	0	4	0	0	0	0	4	280	30
DEC. 18...	--	--	--	--	--	--	--	--	--	--	--
FEB. 12...	0	0	0	3	150	0	0	120	9	120	20
APR. 17...	0	0	0	21	340	13	0	0	0	160	560
JUNE 05...	--	--	--	--	--	--	--	--	--	--	--
AUG. 27...	0	0	0	2	10	0	0	0	0	270	20

SAN JACINTO RIVER BASIN

08067650 WEST FORK SAN JACINTO RIVER BELOW LAKE CONROE, NEAR CONROE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 24...	1940	--	19.0	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 12...	1700	7.0	13.5	.00	.00	.00	.00	.00	.00	.00	.00
APR. 17...	1710	375	18.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 27...	1645	3.3	28.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 24...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 12...	.00	.0	.0	.00	.00	.00	.00	.00	.02	.00
APR. 17...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.01
AUG. 27...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.06

SAN JACINTO RIVER BASIN

303

08067900 LAKE CREEK NEAR CONROE, TEX.

LOCATION.--Lat 30°15'12", long 95°34'43", Montgomery County, at bridge on county road, 8.3 miles (13.4 km) southwest of Conroe.

DRAINAGE AREA.--291 mi² (754 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
06...	1245	14	15	30	5.1	18	79	0	5.6	45
NOV.										
20...	1105	986	9.6	19	2.3	5.9	59	0	3.6	12
DEC.										
20...	1630	101	12	23	2.1	16	58	0	9.2	30
JAN.										
24...	0840	105	13	41	4.1	26	92	0	15	60
FEB.										
28...	1745	130	13	36	3.2	22	93	0	11	45
APR.										
04...	1615	50	17	48	3.5	35	107	0	14	76
MAY										
11...	1130	766	10	24	1.5	9.7	66	0	5.6	18
JUNE										
12...	--	--	6.7	26	2.2	8.4	76	0	6.4	16
15...	0915	--	6.2	13	.9	1.2	37	0	1.0	5.0
JULY										
19...	1240	25	3.5	24	1.5	7.9	72	0	5.2	13
19...	1835	25	17	29	3.1	18	74	0	6.4	40
AUG.										
24...	1410	8.4	16	34	3.2	20	82	0	6.8	48
SEP.										
25...	1440	19	18	34	2.7	32	78	0	6.2	68

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
06...	.0	.3	159	96	31	.8	298	6.5	23.0
NOV.									
20...	.0	.2	82	57	9	.3	153	6.4	10.0
DEC.									
20...	.1	.1	122	66	18	.9	218	6.9	--
JAN.									
24...	.1	.06	204	120	44	1.0	381	7.3	10.5
FEB.									
28...	.1	.04	176	100	27	.9	323	7.1	15.0
APR.									
04...	.1	.07	247	130	46	1.3	453	7.2	18.0
MAY									
11...	.1	.4	103	66	12	.5	191	7.4	25.0
JUNE									
12...	.0	.2	104	74	12	.4	199	7.2	24.5
15...	.0	.1	46	36	6	.1	93	6.4	24.0
JULY									
19...	.1	.05	90	66	7	.4	183	7.2	28.5
19...	.0	.03	150	85	24	.8	281	7.3	29.0
AUG.									
24...	.1	.03	168	98	31	.9	322	7.0	26.5
SEP.									
25...	.0	.01	199	96	32	1.4	370	6.5	25.5

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.

LOCATION.--Lat 30°14'41", long 95°27'26", Montgomery County, at gaging station at bridge on Interstate Highway 45 and U.S. Highway 75, 281 feet (86 m) upstream from Missouri Pacific Railroad Co. bridge, 3.5 miles (5.6 km) downstream from Lake Creek, and 4.2 miles (6.8 km) south of Conroe.

DRAINAGE AREA.--809 mi² (2,095 km²).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: October 1961 to September 1973.

Sediment records: October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 427 micromhos Apr. 30; minimum daily, 85 micromhos Sept. 6.

EXTREMES, October 1961 to September 1973.--Specific conductance: Maximum daily, 763 micromhos Apr. 20, 1971, minimum daily, 52 micromhos May 12, 1972.

Water temperatures (1961-72): Maximum, 36.0°C Aug. 6, 1964, July 9, 1967; minimum, freezing point Dec. 22, 1963, Jan. 31, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.									
05...	1325	39	10	28	5.9	11	78	0	5.6
24...	1900	22	20	22	3.2	31	50	0	6.0
NOV.									
16...	1825	190	14	33	3.1	18	90	0	14
DEC.									
18...	1600	800	11	25	2.6	17	74	0	8.4
18...	1645	820	11	27	2.3	17	71	0	9.6
JAN.									
07...	1700	835	12	28	3.4	18	88	0	10
FEB.									
12...	1615	800	12	30	2.5	19	73	0	10
23...	1730	365	12	39	5.5	24	118	0	12
MAR.									
26...	1630	8660	5.6	12	2.0	3.1	41	0	4.8
APR.									
17...	1610	5390	8.6	17	1.6	6.4	50	0	5.0
29...	1805	204	18	39	8.0	24	97	0	11
MAY									
07...	1812	1330	7.3	18	1.5	9.0	53	0	6.2
25...	1805	42	18	28	3.4	27	76	0	12
JUNE									
05...	--	24	18	28	3.7	25	71	0	10
JULY									
19...	1600	40	12	25	3.1	20	70	0	9.2
AUG.									
16...	1520	105	13	22	3.2	9.9	67	0	5.6
27...	1545	42	16	25	2.8	22	75	0	8.8
SEP.									
06...	0700	1660	6.1	7.6	.3	10	19	0	3.8

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT.									
05...	34	.2	--	--	--	.1	--	133	94
24...	62	.0	.13	.00	.04	.00	.07	169	68
NOV.									
16...	32	.1	--	--	--	.4	--	160	95
DEC.									
18...	28	.0	--	--	--	.09	--	128	73
18...	32	.1	.07	.02	.00	.07	.25	134	77
JAN.									
07...	29	.1	--	--	--	.05	--	144	84
FEB.									
12...	40	.0	.19	.00	.04	.2	.15	150	85
23...	44	.1	--	--	--	.3	--	196	120
MAR.									
26...	4.2	.0	--	--	--	.1	--	52	38
APR.									
17...	12	.0	.38	.00	.13	.08	.00	76	49
29...	63	.1	--	--	--	.7	--	214	130
MAY									
07...	14	.1	--	--	--	.2	--	83	51
25...	48	.1	--	--	--	.00	--	174	84
JUNE									
05...	50	.0	.20	.01	.08	.1	.21	170	85
JULY									
19...	36	.0	--	--	--	.01	--	139	75
AUG.									
16...	20	.2	--	--	--	.00	--	107	68
27...	37	.1	.08	.02	.28	.1	.37	150	74
SEP.									
06...	16	.1	--	--	--	.00	--	53	20

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT.								
05...	30	.5	260	7.5	25.0	--	--	--
24...	27	1.6	309	6.7	20.0	9.7	105	2.5
NOV.								
16...	21	.8	299	7.2	13.5	--	--	--
DEC.								
18...	12	.9	229	7.1	--	--	--	--
18...	19	.8	242	6.9	10.0	12.4	110	3.4
JAN.								
07...	12	.9	269	8.2	10.0	--	--	--
FEB.								
12...	25	.9	277	6.2	11.0	11.2	101	2.1
23...	23	1.0	370	8.1	6.0	--	--	--
MAR.								
26...	4	.2	111	6.4	7.0	--	--	--
APR.								
17...	8	.4	140	6.6	19.0	7.3	78	2.8
29...	50	.9	412	7.6	22.0	--	--	--
MAY								
07...	8	.5	159	7.1	29.5	--	--	--
25...	22	1.3	315	7.0	--	--	--	--
JUNE								
05...	27	1.2	328	7.6	27.0	8.8	109	1.7
JULY								
19...	18	1.0	268	8.2	32.5	--	--	--
AUG.								
16...	13	.5	201	6.5	28.0	--	--	--
27...	13	1.1	288	6.7	30.5	10.4	137	1.9
SEP.								
06...	4	1.0	85	7.1	23.0	--	--	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV.					
07...	1700	370	20.0	189	189
DEC.					
19...	1630	450	11.0	78	95
JAN.					
24...	1235	259	11.0	168	117
APR.					
04...	1200	115	19.0	48	15
18...	1415	9380	--	200	5070
MAY					
10...	1235	1190	25.0	117	376
JULY					
19...	1600	40	32.5	24	2.6

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA, MG/L)
OCT. 1972....	764	279	150	309	35	72	8.4	17	82
NOV.	7309	228	120	2370	28	553	7.1	140	68
DEC.	7689	296	160	3320	38	789	8.9	185	86
JAN. 1973....	16268	287	150	6590	36	1580	8.6	378	84
FEB.	13113	266	140	4960	33	1170	8.1	287	78
MAR.	30867	184	98	8170	21	1750	6.0	500	57
APR.	34940	160	85	8020	17	1600	5.4	509	51
MAY	9865	202	110	2930	24	639	6.5	173	62
JUNE	49320	136	72	9590	13	1730	4.8	639	44
JULY	3130	223	120	1010	27	228	7.0	59	67
AUG.	2714	211	110	806	25	183	6.7	49	64
SEP.	13220	154	82	2930	16	571	5.2	186	49
TOTAL	189199	--	--	51000	--	10900	--	3120	--
WTD. AVG. ...	518	188	100	--	21	--	6.1	--	58

SAN JACINTO RIVER BASIN

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	223	316	333	318	366	252	360	313	303	273	240
2	266	211	315	336	320	355	283	309	307	298	242	243
3	211	222	319	388	333	350	303	354	313	279	170	244
4	280	266	316	390	355	360	323	211	320	286	226	248
5	262	292	328	350	381	340	340	152	313	301	235	147
6	255	266	328	300	356	350	350	148	305	270	263	85
7	266	163	335	269	406	340	200	159	246	222	263	124
8	275	151	342	266	408	350	220	165	233	171	268	125
9	279	222	349	281	349	330	245	170	255	199	250	158
10	287	293	355	260	318	281	273	207	260	184	152	189
11	283	300	362	240	279	294	273	212	270	216	209	240
12	272	298	366	244	278	303	277	222	279	237	230	226
13	269	193	370	252	189	323	282	231	166	245	194	217
14	277	206	374	306	187	333	299	222	94	270	166	200
15	278	255	375	343	182	340	253	211	100	266	176	242
16	286	299	290	337	199	202	131	208	168	263	201	271
17	298	255	231	340	233	122	125	234	194	262	213	311
18	305	175	229	301	253	180	120	273	209	263	230	367
19	326	126	230	301	261	255	133	303	235	268	241	348
20	324	173	255	319	293	327	144	310	245	294	254	334
21	309	187	271	333	327	339	155	313	250	274	275	320
22	311	194	280	311	370	332	179	315	259	276	282	308
23	262	233	297	328	362	344	215	316	268	281	300	306
24	313	266	302	354	358	288	249	318	272	290	298	293
25	319	298	316	356	356	190	273	315	279	298	299	255
26	325	301	318	213	341	111	293	320	288	303	301	200
27	328	292	320	256	360	163	310	325	301	199	288	198
28	330	350	321	274	358	158	331	327	305	240	284	98
29	272	335	319	290	---	188	412	325	308	259	238	165
30	266	322	322	290	---	208	427	322	306	266	230	190
31	249	---	327	303	---	228	---	318	---	272	224	---
MONTH	287	246	315	305	312	279	256	264	255	260	241	230

TEMPERATURE (DEG. C) OF WATER + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	18.5	5.0	---	---	8.0	---	---	25.0	31.0	28.0	26.0
2	---	---	---	---	---	---	---	21.0	25.0	30.0	28.0	26.0
3	---	---	---	---	---	---	---	23.0	25.0	31.0	26.0	26.0
4	26.0	---	---	---	---	---	---	21.5	25.0	32.0	28.0	25.5
5	25.0	19.5	---	---	---	---	---	22.0	25.0	32.0	25.5	23.5
6	23.0	---	---	---	---	---	---	26.0	25.0	27.0	26.0	23.0
7	25.5	19.5	---	---	---	---	---	29.5	25.0	---	29.0	24.5
8	24.0	17.0	---	---	---	---	---	29.5	25.0	26.0	29.5	25.0
9	27.0	18.5	---	---	---	---	---	30.0	25.0	28.0	27.0	26.0
10	27.0	---	---	---	---	---	---	30.0	26.0	28.5	24.0	26.0
11	21.5	16.5	---	---	---	---	---	30.0	26.0	29.5	25.0	27.0
12	26.5	18.0	---	---	---	---	---	30.0	26.0	30.0	28.5	25.0
13	27.0	17.5	---	---	---	---	---	30.0	26.0	29.5	29.0	28.0
14	27.5	15.0	---	---	---	---	---	---	26.0	31.0	25.5	25.0
15	26.5	---	---	---	---	---	---	---	---	---	27.0	24.0
16	26.5	13.5	---	---	---	---	---	---	---	29.0	28.0	28.0
17	27.0	13.0	---	---	---	---	---	---	---	---	27.5	28.5
18	26.5	12.0	---	---	---	---	---	---	---	32.0	27.0	26.5
19	22.0	12.0	---	---	---	---	---	---	---	32.5	30.0	24.0
20	20.0	10.0	---	---	---	---	---	---	---	32.0	31.0	28.0
21	23.5	9.0	---	---	---	---	---	27.5	---	33.0	29.0	27.5
22	18.0	---	---	---	---	---	---	29.0	---	32.0	26.5	27.5
23	23.0	---	---	---	---	---	22.0	23.0	---	27.0	30.5	25.0
24	20.0	---	---	---	---	---	23.0	---	---	27.5	30.5	26.0
25	---	12.0	---	---	---	---	25.0	---	---	28.0	31.0	27.0
26	15.0	13.0	---	---	---	---	23.0	28.0	---	26.5	25.0	28.0
27	---	14.0	---	---	---	---	23.0	---	---	29.0	24.5	26.0
28	19.5	20.0	---	---	---	---	22.0	---	---	27.5	25.0	24.5
29	21.5	16.0	---	---	---	---	22.0	---	---	27.0	25.0	23.0
30	22.5	10.0	---	---	---	---	20.5	---	---	27.0	24.0	22.5
31	25.0	---	---	---	---	---	---	---	---	28.5	25.0	---
MONTH	23.5	---	---	---	---	---	---	---	---	29.5	27.5	26.0

SAN JACINTO RIVER BASIN

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08068450 PANTHER BRANCH NEAR SPRING, TEX.

LOCATION.--Lat 30°08'04", long 95°28'38", Montgomery County, 300 ft (91 m) upstream from Sawdust Road, 3.0 miles (4.8 km) upstream from mouth, and 5.1 miles (8.2 km) northwest of Spring.

DRAINAGE AREA.--34.5 mi² (89.3 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1972 to September 1973.
Pesticide analyses: May 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
NOV.											
07...	1035	32	3.5	2.5	1.2	.2	4	0	.8	5.5	.0
28...	0900	1.1	8.9	5.5	2.5	2.5	8	0	7.2	11	.0
DEC.											
12...	1255	1.9	12	7.5	2.0	11	20	0	6.4	19	.2
26...	1040	1.0	8.4	5.0	3.5	4.2	12	0	4.8	15	.0
JAN.											
08...	1235	25	3.1	2.2	2.1	1.5	5	0	4.0	6.5	.0
30...	1040	6.0	7.5	4.0	2.4	8.6	20	0	7.8	10	.0
MAR.											
12...	1025	10	8.4	7.0	2.8	1.5	14	0	1.6	14	.0
APR.											
10...	1005	26	6.3	5.8	.6	.1	10	0	.4	6.5	.0
MAY											
14...	1350	3.5	12	6.0	2.2	8.9	10	0	12	17	.0
JULY											
31...	0450	1.4	3.7	3.0	2.3	3.5	7	0	3.6	11	.0
AUG.											
12...	1100	4.0	4.8	5.0	1.3	3.7	10	0	5.6	7.7	.1
SEP.											
19...	0950	.40	11	9.5	4.7	14	26	0	12	28	.0

DATE	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
NOV.										
07...	.32	.03	.16	.06	.05	16	136	88	11	8
28...	.27	.00	.08	.05	.04	42	38	12	24	17
DEC.										
12...	.11	.00	.08	.05	.02	68	49	37	27	11
26...	.13	.00	.03	.03	.01	47	31	22	27	17
JAN.										
08...	.15	.00	.08	.01	.00	22	22	18	14	10
30...	.25	.00	.04	.03	.03	50	36	15	20	4
MAR.										
12...	.44	.00	.25	.08	.05	43	45	30	29	18
APR.										
10...	.49	.00	.18	.03	.05	25	16	0	17	9
MAY										
14...	.37	.01	.43	.05	.08	64	32	10	24	16
JULY										
31...	.31	.00	.15	.04	.06	31	86	27	17	11
AUG.										
12...	.25	.00	.15	.2	.10	34	260	38	18	10
SEP.										
19...	.25	.06	.20	.1	.11	93	142	26	43	22

SAN JACINTO RIVER BASIN

08068450 PANTHER BRANCH NEAR SPRING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)
NOV.										
07...	.0	59	6.5	19.0	280	80	--	--	4.0	22000
28...	.2	77	5.6	11.0	140	25	--	--	2.1	420
DEC.										
12...	.9	127	5.6	10.0	160	35	3.9	35	4.2	15000
26...	.4	89	5.2	11.0	200	30	5.2	47	5.1	--
JAN.										
08...	.2	53	5.0	1.0	160	70	13.2	93	1.3	800
30...	.8	74	5.0	7.5	260	20	9.4	78	1.8	380
MAR.										
12...	.1	90	5.8	17.0	200	30	5.8	60	2.1	7000
APR.										
10...	.0	54	5.4	11.0	160	25	9.3	84	2.1	17000
MAY										
14...	.8	104	5.7	20.0	120	15	3.2	35	1.3	920
JULY										
31...	.4	83	5.1	25.0	120	35	3.7	44	1.7	48000
AUG.										
12...	.4	69	5.0	25.5	280	140	4.8	58	1.2	17000
SEP.										
19...	.9	166	5.6	24.0	280	70	1.2	14	2.5	7500

DATE	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
NOV.										
07...	122	17000	--	.05	--	41	260	0	0	0
28...	34	140	13	.07	--	30	240	0	0	0
DEC.										
12...	4000	320	1	.03	--	18	140	0	0	0
26...	--	--	2	.04	20	--	160	0	0	0
JAN.										
08...	120	340	0	.02	--	31	280	0	0	0
30...	46	60	3	.07	--	27	320	0	1	0
MAR.										
12...	140	170	0	.11	--	47	290	0	0	0
APR.										
10...	550	180	0	.06	--	--	210	0	0	0
MAY										
14...	130	140	0	.06	--	34	120	0	0	0
JULY										
31...	10	7000	0	.05	--	24	--	--	--	--
AUG.										
12...	4700	9900	0	.00	--	56	--	--	--	--
SEP.										
19...	110	120	0	.02	--	36	--	--	--	--

[illegible]

SAN JACINTO RIVER BASIN

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08068450 PANTHER BRANCH NEAR SPRING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV.											
07...	1035	32	19.0	.00	.00	.00	.00	.00	.00	.00	.00
28...	0930	1.1	11.0	.00	.00	.00	.00	.00	.00	.00	.00
DEC.											
12...	1255	1.9	10.0	.00	.00	.00	.00	.00	.00	.00	.00
26...	1040	1.0	11.0	.00	.00	.00	.00	.00	.00	.00	.00
JAN.											
08...	1235	25	1.0	.00	.00	.00	.00	.00	.00	.00	.00
MAR.											
12...	1025	10	17.0	.00	.00	.00	.00	.00	.00	.00	.00
APR.											
10...	1005	26	11.0	.00	.00	.00	.00	.00	.00	.00	.00
MAY											
14...	1350	3.5	20.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV.										
07...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
28...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
DEC.										
12...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
26...	.00	.0	.0	.00	.00	.00	.00	.17	.00	.00
JAN.										
08...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAR.										
12...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
APR.										
10...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAY										
14...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

08068750 CYPRESS CREEK NEAR CYPRESS, TEX.

LOCATION.--Lat 29°57'23", long 95°40'41", Harris County, at bridge on U.S. Highway 290, 1.5 miles (2.4 km) southeast of Cypress.

DRAINAGE AREA.--138 mi² (357 km²).PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1000	26	14	14	3.7	--	39	--	71	0	12	46
FEB. 05...	1000	12	6.1	19	3.3	--	39	--	60	0	21	52
APR. 26...	1225	95	5.9	11	1.1	9.2	--	3.1	38	0	7.4	14
AUG. 30...	0915	40	9.2	18	5.9	--	16	--	72	0	9.2	24

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 27...	.0	.35	.01	.05	.1	.30	93	164	75	--	50	0
FEB. 05...	.2	.38	.02	.11	.4	.18	--	173	178	42	61	12
APR. 26...	.2	.63	.03	.41	.4	.37	--	73	293	50	32	1
AUG. 30...	.1	.19	.01	.05	.1	.50	--	118	160	28	69	10

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT. 27...	2.4	307	6.4	14.5	--	--	9.8	95	3.0	20	100	0
FEB. 05...	2.2	321	6.2	17.5	280	110	10.2	106	4.1	20	260	0
APR. 26...	.7	129	6.6	25.5	160	120	7.2	87	4.5	--	--	--
AUG. 30...	.8	236	6.5	24.5	50	60	7.2	86	4.5	21	40	0

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 27...	0	0	0	3	380	0	0	0	4	120	30
FEB. 05...	0	0	0	6.	500	0	0	0	0	100	20
APR. 26...	--	--	--	--	--	--	--	--	--	--	--
AUG. 30...	0	0	0	4	130	0	0	0	0	170	140

SAN JACINTO RIVER BASIN

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08068750 CYPRESS CREEK NEAR CYPRESS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 27...	1000	26	14.5	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 05...	1000	12	17.5	.00	.00	.00	.00	.00	.00	.00	.00
APR. 26...	1225	95	25.5	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 30...	0915	40	24.5	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 27...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 05...	.00	.0	.0	.00	.00	.00	.00	.02	.00	.00
APR. 26...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00
AUG. 30...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

08069200 CYPRESS CREEK NEAR HUMBLE, TEX.

LOCATION.--Lat 30°01'49", long 95°19'47", Harris County, 500 feet (152.4m) north of end of dirt extension of Tettar Road, about 2 miles (3 km) upstream from mouth, and 4.7 miles (7.6 km) northwest of Humble.

DRAINAGE AREA.--319 mi² (826 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1300	85	9.6	14	3.2	--	21	--	57	0	12	24
FEB. 05...	1300	30	8.3	18	3.2	--	26	--	60	0	16	33
APR. 27...	1015	340	7.3	13	2.8	12	--	3.6	45	0	8.8	18
AUG. 30...	1145	72	8.3	17	2.3	--	17	--	54	0	13	18

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 27...	.1	.31	.04	.19	.5	.62	114	400	380	48	1	1.3
FEB. 05...	.2	.34	.07	.37	.9	.90	139	148	54	58	9	1.5
APR. 27...	.1	.77	.04	.34	.6	.48	91	380	68	44	7	.8
AUG. 30...	.2	.38	.05	.23	1.3	.75	109	561	85	52	8	1.0

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARRON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT. 27...	227	6.5	17.5	--	--	9.4	98	3.2	20	240	0
FEB. 05...	255	6.5	17.0	240	90	9.1	94	3.0	20	220	0
APR. 27...	162	6.3	21.0	240	170	6.9	77	5.2	--	--	--
AUG. 30...	203	6.7	21.5	240	340	6.4	78	5.3	25	210	2

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 27...	1	0	0	6	300	0	0	30	8	100	50
FEB. 05...	1	0	8	8	480	0	0	60	17	90	20
APR. 27...	--	--	--	--	--	--	--	--	--	--	--
AUG. 30...	0	0	0	--	210	0	0	0	5	200	--

SAN JACINTO RIVER BASIN

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08069200 CYPRESS CREEK NEAR HUMBLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 27...	1300	85	17.5	.00	.00	.00	.02	.01	.00	.00	.00
FEB. 05...	1300	30	17.0	.00	.00	.00	.00	.01	.00	.00	.00
APR. 27...	1015	340	21.0	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 30...	1145	72	26.5	.00	.00	.00	.00	.05	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 27...	.09	.1	.0	.07	.00	.00	.00	.00	.00	.01
FEB. 05...	.00	.0	.0	.02	.00	.00	.00	.15	.00	.06
APR. 27...	.19	.0	.0	.12	.00	.00	.00	.03	.00	.03
AUG. 30...	4.6	.4	.0	.15	.02	.00	.00	.08	.02	.13

SAN JACINTO RIVER BASIN

08070000 EAST FORK SAN JACINTO RIVER NEAR CLEVELAND, TEX.

LOCATION.--Lat 30°20'11", long 95°06'14", Liberty County, at gaging station at bridge on State Highway 105, 1.2 miles (1.9 km) west of Cleveland, and 4.3 miles (6.9 km) downstream from Winter Creek.

DRAINAGE AREA.--325 mi² (842 km²).

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	1630	14	12	12	4.6	23	22	0	4.0	54
NOV. 17...	0915	59	12	22	2.2	18	54	0	7.8	36
DEC. 19...	1000	114	12	20	2.5	21	50	0	9.6	38
JAN. 23...	1020	197	11	25	3.1	19	60	0	9.8	40
APR. 03...	1245	108	14	28	2.7	23	67	0	11	45
MAY 08...	1600	1840	4.8	10	1.0	3.9	26	0	4.0	7.0
JUNE 12...	--	500	4.6	8.2	1.3	11	17	0	3.8	22
AUG. 23...	1100	42	12	17	3.3	28	37	0	5.2	57
SEP. 27...	1625	56	13	20	3.4	25	44	0	4.0	55

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.0	.2	122	49	31	1.4	244	6.0	23.0
NOV. 17...	.0	.1	125	64	20	1.0	226	6.6	14.0
DEC. 19...	.1	.08	129	60	19	1.2	225	6.9	7.5
JAN. 23...	.1	.09	138	75	26	1.0	266	7.0	11.5
APR. 03...	.0	.1	157	81	26	1.1	286	6.7	18.0
MAY 08...	.0	.6	46	29	8	.3	88	6.2	22.0
JUNE 12...	.0	.1	59	26	12	.9	121	6.9	--
AUG. 23...	.0	.09	141	56	26	1.6	272	6.7	26.5
SEP. 27...	.0	.00	142	28	28	1.4	279	6.3	26.0

08072020 LAKE HOUSTON PLANT INTAKE AT GALENA PARK, TEX.

LOCATION.--Lat 29°44'01", long 95°12'58", Harris County, at City of Houston municipal water plant intake from Lake Houston West Canal, 1 mile (1.6 km) east of Galena Park.

DRAINAGE AREA.--2,828 mi² (7,325 km²).

PERIOD OF RECORD.--Chemical analyses: May 1972 to September 1973.
Pesticide analyses: May 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
JAN. 18...	1340	7.7	15	2.1	14	40	0	8.0	24	.1	.2
MAR. 12...	1140	--	--	--	--	--	--	--	--	--	--
APR. 13...	0950	--	--	--	--	--	--	--	--	--	--
JUNE 05...	0845	--	--	--	--	--	--	--	--	--	--
SEP. 25...	1305	3.1	8.0	1.2	8.0	22	0	5.0	13	.0	.20

DATE	TIME	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)
JAN. 18...	92	46	13	.9	178	6.8	8.0	--	--	--	--	--
MAR. 12...	--	--	--	--	--	--	18.0	220	0	2	0	0
APR. 13...	--	--	--	--	--	--	18.5	600	0	0	0	0
JUNE 05...	--	--	--	--	--	--	26.5	--	0	0	0	0
SEP. 25...	50	25	7	.7	102	5.9	28.0	70	0	0	0	0

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JAN. 18...	--	--	--	--	--	--	--	--	--	--
MAR. 12...	0	12	530	11	0	0	--	0	180	40
APR. 13...	0	51	1000	5	0	60	--	0	110	20
JUNE 05...	0	80	400	0	--	0	--	0	--	40
SEP. 25...	0	130	520	0	0	40	.2	0	140	0

DATE	TIME	TEMPERATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
JAN. 18...	1340	8.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 05...	0845	26.5	.00	.00	.00	.00	.00	.00	.00	.00
SEP. 25...	1305	28.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLORDANE (UG/L)	PCB (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
JAN. 18...	.00	.0	.0	.00	.00	.00	.00	.02	.00	.01
JUNE 05...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.03
SEP. 25...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

08073500 BUFFALO BAYOU NEAR ADDICKS, TEX.

LOCATION.--Lat 29°45'42", long 95°36'20", Harris County, at gaging station at bridge on Dairy-Ashford Road over rectified channel, 1.8 miles (2.9 km) downstream from South Mayde Creek, and 2.6 miles (4.2 km) southeast of Addicks.

DRAINAGE AREA.--293 mi² (759 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: August 1970 to September 1973.
Pesticide analyses: August 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 10...	1040	135	--	--	--	--	--	--	--	--	--	.31
NOV. 15...	0945	420	9.1	13	3.3	10	46	0	6.8	16	.1	.25
JAN. 02...	1100	127	6.8	28	5.6	54	93	0	16	82	.3	.19
FEB. 20...	1210	860	--	--	--	--	--	--	--	--	--	.27
MAR. 12...	1100	31	12	44	7.1	70	168	0	17	98	.3	.59
APR. 17...	1125	900	--	--	--	--	--	--	--	--	--	.36
MAY 14...	1000	100	--	--	--	--	--	--	--	--	--	.59
JUNE 14...	1330	1130	4.3	8.8	1.7	6.5	37	0	2.6	7.2	.0	.25
JULY 24...	1110	105	--	--	--	--	--	--	--	--	--	.32
SEP. 10...	035	680	11	16	2.2	12	54	0	9.0	15	.1	.30

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 10...	.01	.10	.06	.31	--	73	16	--	--	--	426	6.7
NOV. 15...	.00	.12	.3	.26	83	206	108	46	8	.6	157	6.6
JAN. 02...	.00	.09	.3	.36	240	268	104	93	17	2.4	482	6.9
FEB. 20...	.01	.11	.2	.22	--	234	32	--	--	--	133	6.2
MAR. 12...	.00	.75	.00	.60	332	212	32	140	2	2.6	619	7.6
APR. 17...	.00	.20	.08	.40	--	422	68	--	--	--	128	6.6
MAY 14...	.10	.63	1.0	.60	--	387	16	--	--	--	478	6.8
JUNE 14...	.00	.07	.03	.13	49	130	9	29	0	.5	98	6.8
JULY 24...	.03	.18	.3	.20	--	189	0	--	--	--	442	6.6
SEP. 10...	.00	.10	.09	.20	93	80	9	49	5	.7	166	6.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

SAN JACINTO RIVER BASIN

08073500 BUFFALO BAYOU NEAR ADDICKS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 15...	0945	420	15.0	.00	--	.00	--	.00	--	.00	--
JAN. 02...	1100	127	10.0	.00	--	.00	--	.00	--	.00	--
MAR. 12...	1100	31	20.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 14...	1000	100	20.0	.00	.0	.00	.0	.00	.0	.00	.0
JUNE 14...	1330	1130	25.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 15...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JAN. 02...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
MAR. 12...	.01	1.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 14...	.01	.3	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 14...	.01	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 15...	--	.0	--	.00	.00	.00	.00	.00	.00	.00
JAN. 02...	--	.0	--	.00	.00	.00	.00	.00	.00	.00
MAR. 12...	7	.0	0	.02	.00	.00	.00	.00	.00	.00
MAY 14...	3	.0	0	.01	.00	.00	.00	.02	.00	.01
JUNE 14...	--	.0	--	.01	.00	.00	.00	.00	.00	.01

08073700 BUFFALO BAYOU AT PINEY POINT, TEX.

LOCATION.--Lat 29°44'48", long 95°31'24", Harris County, at gaging station at bridge on Piney Point Road, village of Piney Point, 3.7 miles (6.0 km) downstream from Rummel Creek, 7.2 miles (17.4) downstream from gage, Buffalo Bayou near Addicks, and 12.5 miles (20.1 km) downstream from gage, Buffalo Bayou at Houston.

DRAINAGE AREA.--317 mi² (821 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA* WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
OCT. 10...	1145	135	--	--	--	--	--	--	--	--	--	.30
NOV. 15...	1025	400	9.4	14	5.6	9.5	55	0	8.0	18	.1	.24
JAN. 02...	1155	155	9.6	26	6.6	46	100	0	19	64	.3	.17
FEB. 20...	1015	840	--	--	--	--	--	--	--	--	--	.30
MAR. 12...	1200	59	15	44	9.2	66	200	0	23	86	.3	.55
APR. 17...	1045	900	--	--	--	--	--	--	--	--	--	.35
MAY 14...	1130	155	--	--	--	--	--	--	--	--	--	.71
JUNE 14...	1425	2380	3.8	11	1.3	6.3	43	0	4.0	5.2	.0	.26
JULY 24...	1200	142	--	--	--	--	--	--	--	--	--	.32
SEP. 18...	0910	960	14	18	2.5	15	70	0	7.6	16	.1	.26

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT. 10...	.02	.49	.2	.52	--	86	28	--	--	--	456	6.6
NOV. 15...	.00	.29	.2	.40	93	270	114	58	13	.5	176	7.1
JAN. 02...	.05	.60	.3	.70	223	216	59	92	10	2.1	432	6.9
FEB. 20...	.02	.19	.2	.37	--	278	64	--	--	--	155	6.7
MAR. 12...	.18	5.5	.02	2.3	349	80	4	150	0	2.4	662	7.5
APR. 17...	.01	.18	.2	.47	--	376	84	--	--	--	176	6.8
MAY 14...	.20	1.9	.5	2.2	--	261	17	--	--	--	471	7.1
JUNE 14...	.01	.19	.1	.19	53	90	20	33	0	.5	100	7.1
JULY 24...	.20	.60	.4	.44	--	115	40	--	--	--	483	6.4
SEP. 18...	.02	.17	.09	.50	108	66	8	55	0	.9	200	6.9

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 10...	24.0	70	10	13.6	160	4.2	40000	1200	110	--	.05	--
NOV. 15...	16.0	180	140	9.2	92	4.3	11000	110	170	0	.00	11
JAN. 02...	11.0	180	110	9.5	86	3.5	5500	76	350	2	.02	20
FEB. 20...	11.0	320	140	10.2	92	4.9	17000	780	270	--	.03	--
MAR. 12...	21.0	30	85	3.1	34	12	1600000	50000	470	--	.56	--
APR. 17...	20.0	120	150	7.2	78	5.3	88000	5800	2600	--	.02	--
MAY 14...	21.0	50	120	6.7	74	11	5800	2000	190	--	.00	--
JUNE 14...	24.5	70	20	6.8	81	1.7	100000	2000	1300	0	.00	10
JULY 24...	29.5	30	55	5.2	68	4.2	26000	550	290	0	.02	20
SEP. 18...	26.0	120	35	8.6	105	2.6	54000	400	450	0	.04	--

SAN JACINTO RIVER BASIN

08073700 BUFFALO BAYOU AT PINEY POINT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 10...	48	--	--	--	--	--	--	--	--	--	--
NOV. 15...	24	0	1	0	1	6	280	0	0	3	30
JAN. 02...	20	--	--	--	--	--	--	--	--	--	--
FEB. 20...	31	--	--	--	--	--	--	--	--	--	--
MAR. 12...	--	10	1	0	0	4	120	0	240	0	40
12...	--	10	1	0	0	4	120	0	240	0	40
APR. 17...	25	--	--	--	--	--	--	--	--	--	--
MAY 14...	29	30	2	0	0	11	120	4	100	11	820
JUNE 14...	14	--	--	--	--	--	--	--	--	--	--
JULY 24...	18	--	--	--	--	--	--	--	--	--	--
SEP. 18...	22	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 15...	1025	400	16.0	.00	--	.00	--	.00	--	.00	--
JAN. 02...	1155	155	11.0	.00	--	.00	--	.00	--	.00	--
MAR. 12...	1200	59	21.0	.00	.0	.00	3.0	.00	.0	.00	1.8
MAY 14...	1130	155	21.0	.00	.0	.00	2.5	.00	4.6	.00	12
JUNE 14...	1425	2380	24.5	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 15...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JAN. 02...	.02	--	.00	--	.00	--	.00	--	.00	--	.0
MAR. 12...	.02	11	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 14...	.03	8.8	.00	.0	.00	.0	.00	.0	.00	.0	.1
JUNE 14...	.02	--	.00	--	.00	--	.00	--	.02	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 15...	--	.0	--	.01	.00	.00	.00	.00	.00	.00
JAN. 02...	--	.0	--	.04	.00	.00	.00	.00	.00	.01
MAR. 12...	86	.0	0	.11	.00	.00	.00	.09	.00	.02
MAY 14...	56	.0	0	.12	.00	.00	.00	.04	.00	.06
JUNE 14...	--	.0	--	.03	.00	.00	.00	.00	.00	.06

SAN JACINTO RIVER BASIN

321

08074000 BUFFALO BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°45'36", long 95°24'30", Harris County, at gaging station at bridge on Shepherd Drive in Houston and 0.8 mile (1.3 km) upstream from Waugh Drive.

DRAINAGE AREA.--358 mi² (927 km²), unadjusted for basin boundary changes.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 10...	1225	180	--	44	4.1	71	199	0	--	78
NOV. 15...	1145	430	11	18	4.6	12	68	0	9.6	21
DEC. 11...	1245	64	--	--	--	--	--	--	--	--
JAN. 02...	1300	300	8.3	26	4.9	28	101	0	14	36
FEB. 20...	0920	900	--	--	--	--	--	--	--	--
MAR. 12...	1330	98	15	46	8.3	71	217	0	28	76
APR. 17...	0905	1800	7.5	19	2.6	9.6	65	0	11	10
MAY 14...	1300	170	--	--	--	--	--	--	--	--
JUNE 12...	1255	6500	--	--	--	--	--	--	--	--
JULY 24...	1250	130	--	--	--	--	--	--	--	--
SEP. 18...	1010	990	15	20	2.9	16	77	0	8.2	18

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)
OCT. 10...	--	.32	.15	1.2	.8	.80	82	--	24	--
NOV. 15...	.0	.29	.05	1.7	.4	.60	--	113	404	278
DEC. 11...	--	.14	.21	3.0	.8	2.6	--	--	39	32
JAN. 02...	.3	.42	.06	1.7	.6	2.0	--	173	216	66
FEB. 20...	--	.33	.02	.38	.3	.80	--	--	300	22
MAR. 12...	.4	.49	.18	3.8	.4	2.5	--	359	48	6
APR. 17...	.2	.35	.02	.23	.08	.63	--	93	328	54
MAY 14...	--	.53	.30	.96	1.1	.80	--	--	380	24
JUNE 12...	--	.25	.01	.24	.3	.47	--	--	318	24
JULY 24...	--	.29	.19	.40	.6	.65	--	--	145	53
SEP. 18...	.1	.25	.08	.17	.2	.56	--	120	100	8

SAN JACINTO RIVER BASIN

08074000 BUFFALO BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT. 10...	130	0	2.7	514	6.5	25.0	60	55	5.7	68
NOV. 15...	64	8	.7	223	6.8	16.0	220	200	8.4	84
DEC. 11...	--	--	--	700	7.1	13.5	30	30	4.9	47
JAN. 02...	85	2	1.3	340	6.8	12.0	140	100	6.2	57
FEB. 20...	--	--	--	186	6.6	10.0	480	140	7.3	65
MAR. 12...	150	0	2.5	660	7.2	21.0	30	65	3.5	39
APR. 17...	58	5	.5	176	7.0	20.0	120	140	6.6	72
MAY 14...	--	--	--	423	7.1	22.0	60	110	5.9	67
JUNE 12...	--	--	--	230	7.0	21.0	80	260	8.4	93
JULY 24...	--	--	--	442	6.5	29.0	30	70	4.1	53
SEP. 18...	62	0	.9	219	6.8	26.5	110	45	5.5	67

DATE	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)
OCT. 10...	24	4.6	38000	6800	820	--	.06	0	21	--
NOV. 15...	--	5.3	260000	26000	2000	0	.02	12	21	0
DEC. 11...	--	7.5	170000	140000	1600	--	.07	--	14	--
JAN. 02...	--	17	200000	140000	32000	0	.01	20	34	--
FEB. 20...	--	6.8	190000	21000	2100	--	.04	--	35	--
MAR. 12...	--	12	1500000	69000	17000	--	.80	--	24	0
APR. 17...	--	3.9	200000	12000	6200	--	.02	--	26	--
MAY 14...	--	7.9	200000	52000	3700	--	.00	--	26	50
JUNE 12...	--	2.9	140000	40000	41000	0	.00	20	18	--
JULY 24...	--	5.3	39000	2700	1400	0	.00	20	15	--
SEP. 18...	--	3.4	95000	3800	1300	0	.05	--	21	--

[illegible]

SAN JACINTO RIVER BASIN

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08074000 BUFFALO BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 15...	1145	430	16.0	.00	--	.00	--	.00	--	.00	--
JAN. 02...	1300	300	12.0	.00	--	.00	--	.00	--	.00	--
MAR. 12...	1330	98	21.0	.00	.0	.00	3.4	.00	.0	.00	5.2
APR. 17...	0905	1800	20.0	.00	--	.00	--	.00	--	.01	--
MAY 14...	1300	170	22.0	.00	.0	.00	1.2	.00	.0	.00	4.5
JUNE 12...	1255	6500	21.0	.00	--	.00	--	.00	--	.21	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 15...	.02	--	.00	--	.00	--	.00	--	.00	--	.0
JAN. 02...	.06	--	.00	--	.00	--	.00	--	.06	--	.1
MAR. 12...	.01	2.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 17...	.03	--	.00	--	.00	--	.00	--	.04	--	.1
MAY 14...	.04	1.6	.00	.0	.00	.0	.00	.0	.02	.0	.1
JUNE 12...	.06	--	.00	--	.00	--	.00	--	.09	--	.4

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 15...	--	.0	--	.02	.00	.00	.00	.00	.00	.01
JAN. 02...	--	.0	--	.18	.00	.00	.00	.00	.00	.03
MAR. 12...	16	.0	0	.04	.00	.00	.00	.19	.02	.03
APR. 17...	--	.0	--	.07	.00	.00	.00	.04	.00	.12
MAY 14...	10	.0	0	.09	.00	.00	.00	.06	.00	.13
JUNE 12...	--	.0	--	.33	.00	.00	.00	.02	.02	.26

SAN JACINTO RIVER BASIN

08074250 BRICKHOUSE GULLY AT COSTA RICA STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°49'40", long 95°28'09", Harris County, at gaging station at bridge at Costa Rica Street in northwest Houston and 1.0 mile (1.6 km) upstream from Whiteoak Bayou.

DRAINAGE AREA.--11.3 mi² (29.3 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)
OCT. 10...	0945	.80	--	--	--	--	--	--	--	--	--	.06
NOV. 03...	1035	37	6.3	28	4.4	19	102	0	18	19	.0	.19
JAN. 03...	1045	46	10	30	6.1	24	122	0	19	22	.3	.13
MAR. 13...	0615	6.7	15	78	13	87	355	0	33	78	.5	.18
APR. 17...	0955	530	5.2	23	1.6	5.9	74	0	9.0	5.0	.1	.45
MAY 15...	0545	3.2	--	--	--	--	--	--	--	--	--	.20
JUNE 14...	1145	105	--	--	--	--	--	--	--	--	--	.21
JULY 25...	0450	10	--	--	--	--	--	--	--	--	--	.47
AUG. 02...	0640	2.8	--	--	--	--	--	--	--	--	--	.47

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 10...	.00	.00	.00	.12	--	5	3	--	--	--	896	7.8
NOV. 03...	.02	.00	.2	.30	146	260	68	88	4	.9	274	7.2
JAN. 03...	.01	.03	.3	.31	173	230	52	100	0	1.0	315	7.5
MAR. 13...	.04	.28	.4	.17	482	58	16	250	0	2.4	845	7.7
APR. 17...	.00	.27	.1	.38	87	556	78	64	3	.3	178	6.9
MAY 15...	.00	.08	.00	.06	--	21	9	--	--	--	1000	8.0
JUNE 14...	.00	.09	.05	.12	--	75	11	--	--	--	125	7.2
JULY 25...	.07	.20	1.2	.18	--	411	160	--	--	--	385	6.4
AUG. 02...	.12	.05	.2	.07	--	24	14	--	--	--	689	7.0

DATE	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 10...	22.5	30	5	13.2	150	2.5	56000	780	1000	--	.07	--
NOV. 03...	11.0	50	120	10.4	94	10	66000	16000	29000	--	.00	--
JAN. 03...	6.0	160	110	12.2	98	6.4	49000	15000	25000	--	.00	20
MAR. 13...	20.0	10	60	6.0	65	3.7	680000	8000	2500	--	.28	--
APR. 17...	19.0	80	140	9.0	96	5.5	260000	19000	32000	--	.01	--
MAY 15...	16.0	5	15	7.6	76	.7	5900	2200	1500	--	.70	--
JUNE 14...	27.0	90	40	7.4	91	2.8	300000	1200	2800	0	.00	10
JULY 25...	27.0	50	250	3.8	47	7.8	140000	100000	250000	0	.00	20
AUG. 02...	25.0	20	15	6.6	79	3.8	250000	1300	2000	3	.22	10

08074250 BRICKHOUSE GULLY AT COSTA RICA STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 10...	15	--	--	--	--	--	--	--	--	--	--	--
NOV. 03...	20	10	1	0	--	2	5	20	0	0	0	20
JAN. 03...	22	--	--	--	--	--	--	--	--	--	--	--
MAR. 13...	11	0	1	60	0	0	8	40	0	30	0	50
APR. 17...	28	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	8.0	0	1	0	--	4	2	20	7	40	5	30
JUNE 14...	18	--	--	--	--	--	--	--	--	--	--	--
JULY 25...	44	--	--	--	--	--	--	--	--	--	--	--
AUG. 02...	7.5	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	1035	37	11.0	.00	--	.00	--	.00	--	.02	--
JAN. 03...	1045	46	6.0	.00	--	.00	--	.00	--	.00	--
MAR. 13...	0615	6.7	20.0	.00	.0	.00	33	.00	.0	.00	27
APR. 17...	0955	530	19.0	.00	--	.00	--	.01	--	.07	--
MAY 15...	0545	3.2	16.0	.00	.0	.00	8.0	.00	22	.00	51
JULY 25...	0450	10	27.0	--	.0	--	2.8	--	7.4	--	20
AUG. 02...	0640	2.8	25.0	--	.0	--	5.3	--	.0	--	13

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 03...	.02	--	.00	--	.00	--	.00	--	.00	--	.1
JAN. 03...	.01	--	.00	--	.00	--	.00	--	.01	--	.0
MAR. 13...	.02	29	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 17...	.11	--	.00	--	.00	--	.00	--	.01	--	.7
MAY 15...	.01	13	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 25...	--	19	--	.0	--	.0	--	.0	--	.0	--
AUG. 02...	--	13	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVFX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	--	.0	--	.11	.00	.00	.00	.27	.00	.03
JAN. 03...	--	.0	--	.04	.00	.00	.00	.00	.00	.02
MAR. 13...	220	.0	0	.06	.00	.00	.00	.06	.00	.03
APR. 17...	--	.0	--	.08	.00	.00	.00	.06	.00	.07
MAY 15...	100	.0	0	.04	.00	.00	.00	.00	.00	.23
JULY 25...	100	--	0	--	--	--	--	--	--	--
AUG. 02...	83	--	0	--	--	--	--	--	--	--

08074500 WHITEOAK BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°46'30", long 95°23'49", Harris County, at gaging station on Heights Boulevard in Houston, and 2.4 miles (3.9 km) upstream from Little Whiteoak Bayou.

DRAINAGE AREA.--84.7 mi² (219.3 km²), unadjusted for basin boundary changes. During extreme floods when capacity of drainage ditches is exceeded, the drainage area is defined by natural ridges and is 92.0 mi² (238.3 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
OCT.												
10...	1255	13	--	--	--	--	--	--	--	--	--	.22
NOV.												
03...	0915	500	5.4	35	1.6	21	104	0	14	28	.0	.25
DEC.												
27...	0900	25	--	--	--	--	--	--	--	--	--	.09
JAN.												
31...	1130	65	17	74	18	93	330	0	29	110	.5	.20
MAR.												
13...	0730	32	18	81	16	100	341	0	36	120	.4	.26
APR.												
11...	0910	40	--	--	--	--	--	--	--	--	--	.54
16...	0900	4200	6.5	24	2.9	1.8	66	0	14	10	.1	.63
MAY												
15...	0630	20	--	--	--	--	--	--	--	--	--	.37
JUNE												
12...	1345	7000	--	--	--	--	--	--	--	--	--	.27
JULY												
23...	0925	41	--	--	--	--	--	--	--	--	--	.34
SEP.												
10...	0930	80	14	40	8.3	40	163	0	16	48	.2	.32

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
10...	.31	2.0	.8	2.5	--	31	7	--	--	--	953	7.7
NOV.												
03...	.05	.24	.3	.85	158	504	52	94	9	.9	305	7.2
DEC.												
27...	.26	2.5	.7	3.6	--	15	10	--	--	--	1080	7.2
JAN.												
31...	.16	1.8	.9	1.8	514	55	20	260	0	2.5	923	7.1
MAR.												
13...	.70	2.6	.9	1.9	551	39	5	270	0	2.6	995	7.4
APR.												
11...	1.0	1.3	1.0	2.8	--	107	27	--	--	--	923	7.3
16...	.00	2.1	.1	.85	94	779	80	72	18	.1	197	7.3
MAY												
15...	.84	7.0	.6	3.4	--	23	20	--	--	--	995	7.3
JUNE												
12...	.01	.62	.2	.60	--	726	50	--	--	--	160	7.5
JULY												
23...	.35	3.6	.8	.75	--	241	23	--	--	--	504	--
SEP.												
10...	.40	.48	.5	1.4	251	136	20	130	0	1.5	474	7.2

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
10...	27.5	30	20	15.8	198	9.6	140	1	9	--	.25	--
NOV.												
03...	12.0	70	240	11.2	104	12	92000	27000	38000	--	.00	--
DEC.												
27...	12.0	35	20	10.0	93	11	8000	550	150	--	.34	--
JAN.												
31...	17.0	50	30	9.3	96	5.4	140	50	2200	--	.43	--
MAR.												
13...	21.0	25	50	6.4	71	13	72000	3200	1500	--	.60	--
APR.												
11...	17.0	40	50	9.0	93	23	1500000	32000	5200	--	.04	--
16...	18.5	240	260	8.3	88	5.6	1000000	50000	110000	--	.00	--
MAY												
15...	18.0	10	10	7.5	79	9.6	2900	130	280	--	.72	--
JUNE												
12...	22.0	120	230	9.2	105	3.2	240000	55000	44000	0	.00	10
JULY												
23...	23.0	30	110	8.0	101	9.9	130000	7300	3900	0	.01	20
SEP.												
10...	27.0	110	60	7.0	86	5.5	440000	7000	6700	0	.01	--

SAN JACINTO RIVER BASIN

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08074500 WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 10...	22	--	--	--	--	--	--	--	--	--	--
NOV. 03...	42	0	0	0	1	5	40	0	0	0	20
DEC. 27...	22	--	--	--	--	--	--	--	--	--	--
JAN. 31...	14	--	--	--	--	--	--	--	--	--	--
MAR. 13...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	30	0	0	0	0	8	300	17	0	0	360
JUNE 15...	17	30	0	0	0	3	40	3	140	0	30
JULY 12...	16	--	--	--	--	--	--	--	--	--	--
SEP. 23...	19	--	--	--	--	--	--	--	--	--	--
SEP. 10...	35	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 03...	0915	500	12.0	.00	.00	.00	.05	.03	.00	.00	.00
JAN. 31...	1130	65	17.0	.00	.00	.00	.00	.01	.00	.00	.00
MAR. 13...	0730	32	21.0	.00	.00	.00	.00	.01	.00	.00	.00
MAY 15...	0630	20	18.0	.00	.00	.00	.00	.02	.00	.00	.00
JUNE 12...	1345	7000	22.0	.00	.00	.00	.01	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	.00	.2	.0	.16	.00	.00	.00	.03	.00	.15
JAN. 31...	.01	.1	.0	.14	.00	.00	.00	.00	.00	.00
MAR. 13...	.00	.0	.0	.17	.04	.00	.00	.09	.00	.00
MAY 15...	.00	.1	.0	.43	.00	.00	.00	.04	.00	.04
JUNE 12...	.01	.0	.0	.04	.00	.00	.00	.04	.00	.11

08074550 LITTLE WHITEOAK BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°47'05", long 95°21'56", Harris County, at bridge on north Main Street, 0.8 mile (1.3 km) upstream from mouth, and 1.7 miles (2.7 km) north of Harris County courthouse.

DRAINAGE AREA.--20.9 mi² (54.1 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973.
Pesticide analyses: May 1971 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)
OCT. 11...	0910	6.5	--	--	--	--	--	--	--	--	--	1.2
NOV. 03...	1300	270	5.1	30	3.2	12	106	0	9.6	12	.0	.22
DEC. 27...	1210	3.8	--	--	--	--	--	--	--	--	--	.12
JAN. 31...	1300	6.5	19	82	22	110	424	0	47	100	.7	.17
APR. 11...	1105	7.8	--	--	--	--	--	--	--	--	--	.50
16...	1000	1350	--	--	--	--	--	--	--	--	--	.40
MAY 17...	1245	4.5	--	--	--	--	--	--	--	--	--	.45
JUNE 12...	1425	2000	3.3	26	1.7	5.3	62	11	9.2	3.0	.1	.28
JULY 23...	1055	72	7.0	34	5.6	44	146	0	25	42	.3	.30
SEP. 17...	1150	8.4	20	65	17	100	391	0	34	79	.5	.40

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT. 11...	.00	18	.03	3.5	--	42	40	--	--	--	1090	6.8
NOV. 03...	.03	.40	.2	.60	125	230	48	88	1	.6	237	7.2
DEC. 27...	.05	2.0	.02	1.3	--	11	10	--	--	--	1070	7.3
JAN. 31...	.12	.92	.6	.75	595	13	6	300	0	2.8	1010	7.2
APR. 11...	.00	6.0	.00	3.2	--	19	9	--	--	--	975	7.0
16...	.01	.35	.7	.68	--	489	66	--	--	--	227	7.1
MAY 17...	.01	4.5	.00	3.1	--	10	2	--	--	--	990	7.4
JUNE 12...	.01	.19	.2	.48	91	374	156	72	21	.3	169	7.4
JULY 23...	.12	.70	.2	.65	232	47	21	110	0	1.8	439	8.1
SEP. 17...	.00	5.5	.02	4.1	515	30	4	230	0	2.9	934	7.3

DATE	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 11...	24.5	70	30	.2	2	80	9400000	1200000	120000	--	2.0	--
NOV. 03...	12.0	30	110	10.2	94	29	860000	220000	40000	--	.04	--
DEC. 27...	15.0	35	10	1.8	18	23	3400000	74000	2100	--	.58	--
JAN. 31...	17.0	30	8	6.0	62	4.7	81000	21000	2200	--	.30	--
APR. 11...	18.0	80	8	.4	4	38	2600000	1100000	33000	--	2.2	--
16...	18.0	80	130	7.4	78	6.6	2200000	480000	160000	--	.00	--
MAY 17...	25.0	20	4	.7	8	22	3800000	1200000	75000	--	.23	--
JUNE 12...	22.0	65	140	8.3	94	3.5	360000	120000	80000	0	.00	20
JULY 23...	31.0	30	10	3.4	45	13	9900000	2000000	96000	0	.36	30
SEP. 17...	28.0	80	10	.2	3	35	3300000	240000	44000	9	1.5	10

SAN JACINTO RIVER BASIN

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08074550 LITTLE WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	102	--	--	--	--	--	--	--	--	--	--
NOV. 03...	29	0	2	0	2	6	20	0	0	5	20
DEC. 27...	42	--	--	--	--	--	--	--	--	--	--
JAN. 31...	6.0	--	--	--	--	--	--	--	--	--	--
APR. 11...	--	--	--	--	--	--	--	--	--	--	--
16...	22	--	--	--	--	--	--	--	--	--	--
MAY 17...	36	10	2	0	0	5	100	0	340	0	60
JUNE 12...	16	--	--	--	--	--	--	--	--	--	--
JULY 23...	33	--	--	--	--	--	--	--	--	--	--
SEP. 17...	32	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDO IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	1300	270	12.0	.00	--	.00	--	.00	--	.13	--
MAY 17...	1245	4.5	25.0	.00	.0	.00	3.1	.00	.0	.05	16
JUNE 12...	1425	2000	22.0	.00	--	.00	--	.00	--	.01	--
JULY 23...	1055	72	31.0	--	.0	--	6.5	--	.0	--	28

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 03...	.03	--	.00	--	.00	--	.00	--	.00	--	.2
MAY 17...	.05	6.6	.00	.0	.00	.0	.00	.0	.02	.0	.1
JUNE 12...	.02	--	.00	--	.00	--	.00	--	.01	--	.1
JULY 23...	--	20	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	--	.0	--	.09	.00	.00	.00	.18	.00	.03
MAY 17...	70	.0	0	.30	.06	.00	.00	.00	.00	.05
JUNE 12...	--	.0	--	.05	.00	.00	.00	.10	.00	.12
JULY 23...	120	--	0	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

08074800 KEEGANS BAYOU AT ROARK ROAD, NEAR HOUSTON, TEX.

LOCATION.--Lat 29°39'23", long 95°33'43", Harris County, at gaging station at bridge on Roark Road and about 2 miles (3 km) southwest of city limits of Houston.

DRAINAGE AREA.--9.64 mi² (25.0 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Sediment analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
OCT. 11...	0930	1.0	--	--	--	--	--	--	--	--	--	.28
NOV. 13...	0840	90	5.8	16	5.9	7.1	64	0	13	10	.1	.31
JAN. 03...	1140	94	12	26	7.6	31	114	0	26	28	.6	.19
FEB. 20...	1320	11	--	--	--	--	--	--	--	--	--	.23
MAR. 12...	0945	2.2	20	64	16	59	275	0	40	58	.3	.54
APR. 17...	1205	410	--	--	--	--	--	--	--	--	--	.42
MAY 16...	0600	3.0	--	--	--	--	--	--	--	--	--	.40
AUG. 02...	0750	3.1	17	47	13	35	198	0	23	48	.3	.38
SEP. 10...	1150	13	15	31	6.2	20	123	0	15	20	.2	.36

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA, MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT. 11...	.85	5.0	.9	3.8	--	61	24	--	--	--	764	7.1
NOV. 13...	.03	.46	.2	.60	91	1160	128	64	12	.4	184	7.3
JAN. 03...	.19	.50	.6	2.0	191	270	34	96	3	1.4	358	7.9
FEB. 20...	.06	.27	.3	.68	--	232	40	--	--	--	328	6.8
MAR. 12...	.88	3.3	3.6	3.6	415	103	21	220	0	1.7	721	7.6
APR. 17...	.00	.16	.2	.33	--	668	92	--	--	--	152	6.3
MAY 16...	1.0	2.8	.7	2.4	--	66	17	--	--	--	711	7.3
AUG. 02...	.20	3.0	.7	1.8	288	116	30	170	8	1.2	569	7.9
SEP. 10...	.08	.38	.5	1.2	170	262	40	100	2	.9	315	7.2

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 11...	24.0	30	45	4.6	54	7.9	5000	420	210	--	.12	--
NOV. 13...	18.0	80	360	8.7	92	5.2	760000	75000	33000	2	.00	18
JAN. 03...	5.5	110	140	10.8	86	6.0	14000	9000	15000	--	.00	10
FEB. 20...	15.0	220	120	8.0	78	3.6	2400	550	110	--	.03	--
MAR. 12...	19.0	30	80	4.6	49	15	10000	150	64	--	.10	--
APR. 17...	19.0	200	250	7.4	79	4.5	120000	17000	18000	--	.00	--
MAY 16...	18.0	20	35	6.3	66	9.0	2300	10	20	--	.06	--
AUG. 02...	25.0	30	55	6.9	82	8.1	23000	200	580	2	.06	10
SEP. 10...	26.0	120	110	7.4	90	4.9	160000	400	7100	0	.00	--

SAN JACINTO RIVER BASIN

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08074800 KEEGANS BAYOU AT ROARK ROAD, NEAR HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	14	--	--	--	--	--	--	--	--	--	--
NOV. 13...	15	0	0	0	1	4	120	0	0	0	20
JAN. 03...	24	--	--	--	--	--	--	--	--	--	--
FEB. 20...	20	--	--	--	--	--	--	--	--	--	--
MAR. 12...	20	--	--	--	--	--	--	--	--	--	--
APR. 17...	32	--	--	--	--	--	--	--	--	--	--
MAY 16...	41	0	1	0	0	5	40	0	200	0	40
AUG. 02...	21	--	--	--	--	--	--	--	--	--	--
SEP. 10...	28	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 13...	0840	90	18.0	.00	--	.00	--	.00	--	.00	--
JAN. 03...	1140	94	5.5	.00	.0	.00	.0	.00	.0	.00	.0
MAR. 12...	0945	2.2	19.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 16...	0600	3.0	18.0	.00	--	.00	--	.00	--	.00	--
AUG. 02...	0750	3.1	25.0	--	.0	--	1.5	--	1.8	--	1.5

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 13...	.02	--	.00	--	.00	--	.00	--	.00	--	.5
JAN. 03...	.01	31	.00	.0	.00	.0	.00	.0	.01	.0	.1
MAR. 12...	.01	1.5	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 16...	.01	--	.00	--	.00	--	.00	--	.03	--	.0
AUG. 02...	--	5.7	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 13...	--	.0	--	.09	.00	.00	.00	.00	.00	.06
JAN. 03...	380	.0	0	.07	.00	.00	.00	.00	.00	.05
MAR. 12...	9	.0	0	.13	.00	.00	.00	.02	.00	.03
MAY 16...	--	.0	--	.24	.00	.00	.00	.00	.00	.02
AUG. 02...	38	--	0	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

08075000 BRAYS BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°41'49", long 95°24'43", Harris County, at gaging station at Main Street bridge in southwest section of Houston, 1.6 miles (2.6 km) upstream from Harris Gully, and 11.6 miles (18.7 km) upstream from Buffalo Bayou.

DRAINAGE AREA.--88.4 mi² (229.0 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 11...	1100	52	--	--	--	--	--	--	--	--	--	.27
NOV. 13...	1005	1250	7.3	20	4.4	13	80	0	12	12	.2	.34
DEC. 11...	1105	56	--	--	--	--	--	--	--	--	--	.18
JAN. 10...	0930	268	--	--	--	--	--	--	--	--	--	.13
31...	0845	54	21	38	18	97	316	0	39	73	.6	.25
MAR. 14...	0740	60	20	44	16	91	285	0	44	78	.6	.38
APR. 17...	1400	9000	6.1	18	2.5	5.4	65	0	7.6	3.5	.1	.27
24...	0950	60	--	--	--	--	--	--	--	--	--	.40
MAY 16...	1115	53	--	--	--	--	--	--	--	--	--	.37
JUNE 12...	1035	11000	--	--	--	--	--	--	--	--	--	.31
JULY 25...	0950	46	--	--	--	--	--	--	--	--	--	.47
SEP. 05...	1040	1850	8.4	26	3.7	17	91	0	23	12	.2	.26
19...	1335	62	20	48	11	100	296	0	40	70	.5	.33

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 11...	.28	3.2	2.0	3.0	--	3	0	--	--	--	794	7.5
NOV. 13...	.02	.55	.6	.65	111	780	244	68	2	.7	210	7.6
DEC. 11...	.50	2.8	1.5	2.6	--	23	14	--	--	--	723	7.2
JAN. 10...	.05	2.2	.4	1.2	--	61	53	--	--	--	503	7.2
31...	.30	7.5	.7	5.7	455	47	21	170	0	3.2	796	6.9
MAR. 14...	.27	6.0	.7	4.4	445	28	0	180	0	3.0	798	7.5
APR. 17...	.03	.10	.2	.49	76	300	100	55	2	.3	143	6.9
24...	.89	4.6	.5	3.8	--	70	2	--	--	--	727	7.2
MAY 16...	.78	7.0	.6	2.8	--	20	7	--	--	--	783	7.6
JUNE 12...	.01	.19	.4	.45	--	562	40	--	--	--	153	6.9
JULY 25...	.62	5.2	.8	2.7	--	22	12	--	--	--	820	7.4
SEP. 05...	.03	.23	.5	.65	138	326	2	80	5	.8	248	6.5
19...	.42	1.5	4.6	2.4	457	14	9	160	0	3.5	792	7.9

SAN JACINTO RIVER BASIN
08075000 BRAYS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 13...	1005	1250	19.0	.00	--	.00	--	.00	--	.04	--
JAN. 31...	0845	54	17.0	.00	.0	.00	22	.00	.0	.00	71
MAR. 14...	0740	60	22.0	.02	--	.00	--	.00	--	.01	--
APR. 24...	0950	65	25.0	--	.0	--	24	--	.0	--	67
MAY 16...	1115	53	25.0	.08	--	.00	--	.00	--	.00	--
JUNE 12...	1035	11000	21.0	.00	--	.00	--	.00	--	.01	--

DATE	DI- ELDRIN (UG/L)	DI- ELORIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 13...	.08	--	.00	--	.00	--	.00	--	.03	--	.2
JAN. 31...	.03	120	.00	.0	.00	.0	.00	.0	.00	.0	.1
MAR. 14...	.18	--	.00	--	.00	--	.00	--	.00	--	.1
APR. 24...	--	61	--	.0	--	.0	--	.0	--	.0	--
MAY 16...	.04	--	.00	--	.00	--	.00	--	.00	--	1.4
JUNE 12...	.12	--	.00	--	.00	--	.00	--	.06	--	.3

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 13...	--	.0	--	.06	.00	.00	.00	.00	.00	.08
JAN. 31...	1100	.0	0	.44	.00	.00	.00	.00	.00	.00
MAR. 14...	--	.0	--	.22	.00	.00	.00	.26	.00	.06
APR. 24...	360	--	0	--	--	--	--	--	--	--
MAY 16...	--	.0	--	.49	.07	.00	.00	.00	.00	.11
JUNE 12...	--	.0	--	.20	.00	.00	.00	.00	.00	.55

08075100 BRAYS BAYOU AT SCOTT STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°42'35", long 95°21'23", Harris County, at bridge on Scott Street in Houston.

DRAINAGE AREA.--106 mi² (275 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973.

Pesticide analyses: May 1971 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
11...	1130	55	--	--	--	--	--	--	--	--	--	.24
NOV.												
13...	1100	1600	7.8	24	4.9	17	94	0	14	18	.2	.33
DEC.												
11...	0945	54	--	--	--	--	--	--	--	--	--	.19
JAN.												
31...	0945	63	21	41	20	110	297	0	38	100	.6	.24
MAR.												
14...	1030	84	18	50	13	120	265	0	38	140	.6	.41
APR.												
24...	--	118	--	--	--	--	--	--	--	--	--	.63
MAY												
16...	1030	--	--	--	--	--	--	--	--	--	--	.37
JULY												
25...	0910	--	17	42	12	100	266	0	41	87	.6	.41
AUG.												
02...	1115	--	--	--	--	--	--	--	--	--	--	.53

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
11...	.53	3.2	.8	3.2	--	13	6	--	--	--	958	7.2
NOV.												
13...	.04	.71	.7	.65	136	740	212	80	3	.8	256	7.5
DEC.												
11...	.70	2.8	.8	3.8	--	38	35	--	--	--	822	7.2
JAN.												
31...	.48	5.0	.7	4.6	489	42	11	180	0	3.4	903	7.2
MAR.												
14...	.93	4.2	.8	3.3	517	45	12	180	0	3.9	956	7.2
APR.												
24...	.92	5.5	.4	4.4	--	69	7	--	--	--	831	7.2
MAY												
16...	.90	3.3	.7	3.1	--	43	23	--	--	--	821	7.7
JULY												
25...	.59	3.8	.5	3.2	441	13	0	160	0	3.5	844	8.2
AUG.												
02...	.46	2.2	.2	1.5	--	91	25	--	--	--	572	7.0

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
11...	27.0	20	20	10.0	123	4.6	83000	13000	500	--	.36	--
NOV.												
13...	19.0	70	300	8.4	89	6.7	640000	62000	74000	1	.00	20
DEC.												
11...	16.0	35	30	7.3	73	8.4	22000	19000	1900	--	.14	--
JAN.												
31...	18.5	35	25	8.0	85	5.0	8300	580	550	--	.38	--
MAR.												
14...	22.5	20	45	6.7	76	22	110000	1800	1300	--	.37	--
APR.												
24...	28.0	10	40	3.6	46	37	4000000	280000	100000	--	.28	--
MAY												
16...	24.0	20	20	9.2	108	14	5800	1700	270	--	.13	--
JULY												
25...	30.0	20	7	5.6	74	13	200000	32000	580	2	.37	20
AUG.												
02...	29.0	30	45	7.4	95	32	3800000	150000	54000	0	.25	10

SAN JACINTO RIVER BASIN

98075100 BRAYS BAYOU AT SCOTT STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	11	--	--	--	--	--	--	--	--	--	--	--
NOV. 13...	16	10	0	0	--	1	5	80	0	0	0	50
DEC. 11...	15	--	--	--	--	--	--	--	--	--	--	--
JAN. 31...	9.0	--	--	--	--	--	--	--	--	--	--	--
MAR. 14...	20	10	1	20	0	0	8	40	9	70	0	60
APR. 24...	26	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	26	0	0	80	0	0	5	30	0	0	0	50
JULY 25...	32	--	--	--	--	--	--	--	--	--	--	--
AUG. 02...	23	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 13...	1100	1600	19.0	.00	--	.00	--	.00	--	.02	--
MAR. 14...	1030	84	22.5	.00	--	.00	--	.00	--	.00	--
MAY 16...	1030	--	24.0	.06	--	.00	--	.00	--	.00	--
JULY 25...	0910	--	30.0	--	2.9	--	9.5	--	.0	--	14

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 13...	.08	--	.00	--	.00	--	.00	--	.00	--	.2
MAR. 14...	.15	--	.00	--	.00	--	.00	--	.00	--	.1
MAY 16...	.05	--	.00	--	.00	--	.00	--	.00	--	1.1
JULY 25...	--	14	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 13...	--	.0	--	.15	.00	.00	.00	.00	.00	.11
MAR. 14...	--	.0	--	.27	.00	.00	.00	.00	.00	.00
MAY 16...	--	.0	--	.36	.00	.00	.00	.05	.00	.06
JULY 25...	110	--	0	--	--	--	--	--	--	--

08075400 SIMS BAYOU AT HIRAM CLARKE STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°37'07", long 95°26'45", Harris County, at gaging station at bridge on Hiram Clarke Street in southwest section of Houston, 12.7 miles (20.4 km) upstream from gage, Sims Bayou at Houston, and 19.7 miles (31.7 km) upstream from mouth.

DRAINAGE AREA.--20.2 mi² (52.3 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	
DATE	TIME												
OCT. 11...	1030	7.0	--	--	--	--	--	--	--	--	--	.33	
NOV. 13...	0925	440	6.5	18	4.2	22	72	0	10	28	.1	.39	
JAN. 03...	1235	168	10	22	7.1	29	88	0	18	38	.3	.15	
FEB. 20...	1425	24	--	--	--	--	--	--	--	--	--	.21	
MAR. 12...	0720	9.0	17	56	20	120	321	0	50	140	.4	.93	
APR. 17...	1255	1620	6.6	19	5.3	4.1	73	0	6.4	8.5	.1	.30	
24...	0855	10	--	--	--	--	--	--	--	--	--	.47	
MAY 16...	0700	6.4	--	--	--	--	--	--	--	--	--	.47	
JUNE 14...	1545	580	--	--	--	--	--	--	--	--	--	.32	
AUG. 02...	0830	62	--	--	--	--	--	--	--	--	--	.38	
SEP. 10...	1320	38	15	33	12	37	152	0	18	38	.2	.36	
		TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FIL- TABLE RESIDUE (MG/L)	VOL. NON- FIL- TABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
DATE													
OCT. 11...		.04	7.0	.00	4.8	--	37	18	--	--	--	886	7.2
NOV. 13...		.05	.19	.5	.55	126	840	472	62	3	1.2	251	7.2
JAN. 03...		.05	.19	.8	.69	171	216	122	84	12	1.4	327	7.6
FEB. 20...		.15	2.5	.7	1.9	--	134	20	--	--	--	558	6.9
MAR. 12...		.29	6.0	.00	6.0	573	113	39	220	0	3.6	1040	7.6
APR. 17...		.00	.23	.07	.39	87	494	56	69	9	.2	170	6.3
24...		.36	1.5	1.8	6.9	--	130	1	--	--	--	960	7.3
MAY 16...		1.0	2.8	.5	4.2	--	158	29	--	--	--	721	7.4
JUNE 14...		.00	.24	.08	.19	--	68	4	--	--	--	143	7.1
AUG. 02...		.05	.24	.05	.70	--	349	58	--	--	--	290	6.6
SEP. 10...		.07	.38	1.3	1.2	235	89	15	120	0	1.5	425	7.3
		TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
DATE													
OCT. 11...		27.0	30	30	3.1	38	9.3	31000	1200	420	--	.26	--
NOV. 13...		18.0	100	300	8.1	85	5.8	170000	74000	33000	1	.00	17
JAN. 03...		5.5	130	100	10.5	83	9.0	46000	35000	26000	--	.00	20
FEB. 20...		17.0	130	65	7.5	77	11	640000	32000	8500	--	.09	--
MAR. 12...		18.0	20	70	6.2	65	36	1500000	14000	4300	--	.41	--
APR. 17...		19.0	140	160	7.8	83	3.0	400000	54000	36000	--	.00	--
24...		23.0	10	55	6.7	77	12	1100000	61000	4700	--	.07	--
MAY 16...		18.0	30	65	6.6	69	2.8	450	400	120	--	.01	--
JUNE 14...		27.0	70	15	6.4	79	2.6	720000	2200	3500	0	.00	10
AUG. 02...		26.0	100	200	7.4	90	5.7	1200000	15000	44000	2	.00	160
SEP. 10...		26.5	100	50	5.5	67	3.7	440000	1600	3300	0	.04	--

SAN JACINTO RIVER BASIN

08075400 SIMS BAYOU AT HIRAM CLARKE STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PR) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	24	--	--	--	--	--	--	--	--	--	--
NOV. 13...	21	0	1	0	0	6	160	0	0	7	70
JAN. 03...	24	--	--	--	--	--	--	--	--	--	--
FEB. 20...	26	--	--	--	--	--	--	--	--	--	--
MAR. 12...	31	0	1	0	0	51	40	0	200	0	60
APR. 17...	24	--	--	--	--	--	--	--	--	--	--
MAY 24...	18	--	--	--	--	--	--	--	--	--	--
JUNE 16...	29	0	1	0	0	13	80	0	80	0	40
AUG. 14...	44	--	--	--	--	--	--	--	--	--	--
SEP. 02...	16	--	--	--	--	--	--	--	--	--	--
10...	22	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDF (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 13...	0925	440	18.0	.00	--	.00	--	.00	--	.00	--
JAN. 03...	1235	168	5.5	.00	.0	.00	6.2	.00	.0	.00	39
MAR. 12...	0720	9.0	18.0	.00	.0	.00	25	.00	.0	.00	42
MAY 16...	0700	6.4	18.0	.00	.0	.00	20	.00	39	.02	58
AUG. 02...	0830	62	26.0	--	.0	--	2.4	--	.0	--	3.6

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 13...	.02	--	.00	--	.00	--	.00	--	.00	--	.1
JAN. 03...	.01	31	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 12...	.14	67	.00	.0	.00	.0	.00	.0	.00	.0	.3
MAY 16...	.02	88	.00	.0	.00	.0	.00	.0	.02	.0	.0
AUG. 02...	--	3.3	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCR IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 13...	--	.0	--	.05	.00	.00	.00	.00	.00	.02
JAN. 03...	200	.0	0	.06	.00	.00	.00	.00	.00	.00
MAR. 12...	350	.0	0	.41	.00	.00	.00	.32	.00	.00
MAY 16...	270	.0	0	.22	.00	.00	.00	.00	.00	.02
AUG. 02...	33	--	0	--	--	--	--	--	--	--

08075500 SIMS BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°40'27", long 95°17'21", Harris County, at gaging station at bridge on State Highway 35 in southeast section of Houston, and 7.0 miles (11.8 km) upstream from mouth.

DRAINAGE AREA.--64.0 mi² (166 km²)

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 11...	1310	20	--	--	--	--	--	--	--	--	--	.39
NOV. 06...	1345	40	14	48	14	100	154	0	83	140	.2	.24
DEC. 19...	1115	39	--	--	--	--	--	--	--	--	--	.17
JAN. 10...	1010	135	--	--	--	--	--	--	--	--	--	.18
FEB. 21...	0930	130	--	--	--	--	--	--	--	--	--	.23
MAR. 13...	1250	45	16	66	21	180	324	0	68	220	.4	.43
APR. 24...	1320	36	15	67	19	140	292	0	52	190	.4	.39
MAY 16...	0750	26	--	--	--	--	--	--	--	--	--	.40
29...	0915	17	--	--	--	--	--	--	--	--	--	.41
JULY 25...	0820	22	14	40	19	180	258	0	90	200	.4	.36
SEP. 05...	1005	3300	13	20	3.7	17	65	0	17	21	.2	.27

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL- NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 11...	.03	11	.00	5.2	--	18	8	--	--	--	2110	7.6
NOV. 06...	.08	3.5	.5	1.8	491	38	2	180	52	3.4	892	6.8
DEC. 19...	.46	7.5	.5	4.6	--	23	17	--	--	--	1070	7.1
JAN. 10...	.10	2.3	.9	.80	--	88	45	--	--	--	664	7.2
FEB. 21...	.09	2.3	.6	1.4	--	134	36	--	--	--	683	7.2
MAR. 13...	.17	6.5	.2	3.8	739	27	21	250	0	4.8	1330	7.3
APR. 24...	.58	5.0	.01	3.5	636	16	5	250	6	3.9	1190	7.1
MAY 16...	.50	5.5	.09	1.8	--	36	22	--	--	--	990	7.1
29...	.03	7.0	.00	4.2	--	13	4	--	--	--	1320	7.4
JULY 25...	.01	5.2	.2	3.5	677	32	12	180	0	5.9	1280	7.5
SEP. 05...	.03	.16	.3	.48	126	296	34	65	12	.9	228	7.1

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 11...	27.0	30	15	9.6	119	15	1600000	13000	1300	--	.70	--
NOV. 06...	24.0	55	30	3.5	41	2.9	180000	7300	1900	3	.56	14
DEC. 19...	17.5	35	20	5.9	61	23	2300000	300000	2500	--	1.2	--
JAN. 10...	6.0	100	120	12.4	99	8.4	560000	300000	9000	--	.19	--
FEB. 21...	14.0	120	70	7.2	69	8.1	23000	1700	7200	--	.29	--
MAR. 13...	22.0	20	35	1.1	12	10	1600000	240000	1600	--	1.0	--
APR. 24...	27.0	20	15	.6	7	8.7	4000000	640000	14000	--	1.0	--
MAY 16...	21.0	20	15	3.0	33	7.8	120000	41000	500	--	.11	--
29...	24.5	30	15	3.7	44	7.8	86000	9700	100	--	.16	--
JULY 25...	28.5	20	4	.8	10	8.7	160000	11000	1100	0	.27	10
SEP. 05...	24.0	140	130	5.5	65	4.8	2200000	30000	94000	0	.00	10

SAN JACINTO RIVER BASIN

08075500 SIMS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	32	--	--	--	--	--	--	--	--	--	--
NOV. 06...	38	0	0	0	0	3	200	0	190	0	1100
DEC. 19...	20	--	--	--	--	--	--	--	--	--	--
JAN. 10...	27	--	--	--	--	--	--	--	--	--	--
FEB. 21...	37	--	--	--	--	--	--	--	--	--	--
MAR. 13...	20	--	--	--	--	--	--	--	--	--	--
APR. 24...	22	--	--	--	--	--	--	--	--	--	--
MAY 16...	28	0	1	0	0	4	40	0	220	0	220
29...	20	--	--	--	--	--	--	--	--	--	--
JULY 25...	31	--	--	--	--	--	--	--	--	--	--
SEP. 05...	20	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 06...	1345	40	24.0	.00	--	.00	--	.00	--	.00	--
MAR. 13...	1250	45	22.0	.00	.0	.00	6.4	.00	.0	.00	41
MAY 16...	0750	26	21.0	.00	--	.00	--	.00	--	.00	--
JULY 25...	0820	22	28.5	--	.0	--	2.1	--	.0	--	21

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 06...	.03	--	.00	--	.00	--	.00	--	.00	--	.1
MAR. 13...	.03	25	.00	.0	.00	.0	.00	.0	.00	.0	.1
MAY 16...	.02	--	.00	--	.00	--	.00	--	.00	--	.1
JULY 25...	--	9.5	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 06...	--	.0	--	.20	.00	.00	.00	.00	.00	.02
MAR. 13...	150	.0	0	.23	.00	.00	.00	.10	.00	.00
MAY 16...	--	.0	--	.19	.04	.00	.00	.00	.00	.02
JULY 25...	72	--	0	--	--	--	--	--	--	--

LOCATION.--Lat 29°40'35", long 95°14'37", Harris County, at gaging station at Forest Oaks Street bridge in southeast Houston, 0.8 mile (1.3 km) upstream from auxiliary gage at mouth of Berry Creek, and 1.7 miles (2.7 km) upstream from Sims Bayou.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

SAN JACINTO RIVER BASIN

08075650 BERRY BAYOU AT FOREST OAKS STREET, HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)
NOV. 03...	1240	387	17.0	.00	--	.00	--	.00	--	.00	--
JAN. 03...	1145	100	14.0	.00	.0	.00	21	.00	.0	.01	.0
MAR. 14...	1330	12	23.0	.00	--	.00	--	.00	--	.01	--
MAY 17...	1325	8.1	29.0	.00	.0	.00	5.3	.00	.0	.04	10
30...	1135	5.6	28.0	--	.0	--	2.5	--	.0	--	2.6

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 03...	.11	--	.00	--	.00	--	.00	--	.03	--	.3
JAN. 03...	.02	38	.00	.0	.00	.0	.00	.0	.02	.0	.1
MAR. 14...	.04	--	.00	--	.00	--	.00	--	.04	--	.1
MAY 17...	.04	4.5	.00	.0	.00	.0	.00	.0	.02	.0	.1
30...	--	11	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR-DANE IN BOTTOM DEPOSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DEPOSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	--	.0	--	.20	.00	.00	.00	.03	.00	.05
JAN. 03...	390	.0	0	.08	.00	.00	.00	.00	.00	.02
MAR. 14...	--	.0	--	.16	.00	.00	.00	.00	.00	.00
MAY 17...	23	.0	0	.15	.00	.00	.00	.07	.36	.03
30...	68	--	0	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

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08075730 VINCE BAYOU AT PASADENA, TEX.

LOCATION.--Lat 29°41'40", long 95°12'58", Harris County, at concrete-lined channel at end of West Ellaine Avenue, Pasadena.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973 (discontinued).
Pesticide analyses: May 1971 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 11...	1100	.75	--	--	--	--	--	--	--	--	--	.25
NOV. 03...	1000	170	5.3	22	3.2	12	76	0	18	10	.1	.30
DEC. 19...	1010	.20	--	--	--	--	--	--	--	--	--	.16
JAN. 03...	0920	50	10	27	6.5	21	107	0	21	19	.4	.15
10...	1255	20	--	--	--	--	--	--	--	--	--	.15
MAR. 13...	1145	6.0	12	68	19	75	332	0	36	74	.4	.39
APR. 16...	1310	450	7.9	22	3.7	8.5	81	0	13	6.5	.2	.55
MAY 15...	1340	4.0	--	--	--	--	--	--	--	--	--	.40
JULY 25...	0740	3.4	--	--	--	--	--	--	--	--	--	.26
AUG. 01...	0820	.90	--	--	--	--	--	--	--	--	--	.25
15...	1310	2.0	--	--	--	--	--	--	--	--	--	.22
SEP. 05...	0910	105	9.0	24	2.0	17	81	0	15	16	.2	.40
DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 11...	.00	.35	.00	.95	--	6	5	--	--	--	1050	8.8
NOV. 03...	.02	.64	.4	.60	110	398	38	68	6	.6	223	6.7
DEC. 19...	.04	.73	.04	.42	--	25	20	--	--	--	754	7.8
JAN. 03...	.03	.19	.6	.48	161	210	58	94	6	.9	290	6.8
10...	.02	.60	.4	.23	--	88	47	--	--	--	382	7.5
MAR. 13...	.12	1.2	.08	.14	450	17	13	250	0	2.1	810	8.4
APR. 16...	.01	.49	.2	.67	103	254	18	70	4	.4	192	7.3
MAY 15...	.12	.24	.02	.20	--	30	10	--	--	--	685	8.5
JULY 25...	.00	.22	.2	.29	--	8	2	--	--	--	851	7.2
AUG. 01...	.01	.30	.2	.16	--	34	21	--	--	--	454	6.7
15...	.00	.05	.00	.06	--	23	8	--	--	--	602	8.1
SEP. 05...	.03	.35	.2	.40	125	107	23	68	2	.9	232	6.7

SAN JACINTO RIVER BASIN

08075730 VINCE BAYOU AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 11...	27.0	40	10	>20.0	>247	9.3	52000	3000	750	--	.70	--
NOV. 03...	16.0	120	230	5.9	59	12	840000	160000	79000	--	.00	15
DEC. 19...	17.0	20	20	11.1	114	7.5	960000	280000	500	--	.12	--
JAN. 03...	11.5	220	100	9.5	86	4.3	60000	58000	69000	0	.02	10
10...	5.5	110	140	16.5	131	2.9	360000	120000	9900	--	.03	--
MAR. 13...	22.0	10	30	19.1	217	5.1	800000	15000	1600	--	.32	--
APR. 16...	19.5	100	120	8.0	86	8.4	1400000	75000	58000	--	.00	--
MAY 15...	23.0	20	25	19.6	225	7.5	48000	270	170	--	.10	--
JULY 25...	27.0	20	4	2.4	30	4.3	1300000	75000	2800	1	.14	10
AUG. 01...	27.5	40	4	8.8	110	6.6	1400000	72000	13000	0	.26	40
15...	29.5	20	30	>20.0	>260	2.7	880000	2300	4400	--	.07	30
SEP. 05...	25.0	110	45	6.1	73	6.2	1400000	50000	110000	0	.01	10

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	28	--	--	--	--	--	--	--	--	--	--
NOV. 03...	25	0	1	0	0	8	100	0	0	0	30
DEC. 19...	16	--	--	--	--	--	--	--	--	--	--
JAN. 03...	26	--	--	--	--	--	--	--	--	--	--
10...	16	--	--	--	--	--	--	--	--	--	--
MAR. 13...	8.0	0	1	0	0	6	20	23	20	6	120
APR. 16...	25	0	1	0	0	6	280	7	0	0	50
MAY 15...	30	0	1	0	0	3	20	0	0	0	30
JULY 25...	12	--	--	--	--	--	--	--	--	--	--
AUG. 01...	29	--	--	--	--	--	--	--	--	--	--
15...	16	--	--	--	--	--	--	--	--	--	--
SEP. 05...	23	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDO (UG/L)	DOE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 03...	1000	170	16.0	.00	.00	.00	.03	.06	.00	.00	.00
JAN. 03...	0920	50	11.5	.00	.00	.00	.02	.02	.00	.00	.00
MAR. 13...	1145	6.0	22.0	.00	.00	.00	.00	.01	.00	.00	.00
APR. 16...	1310	450	19.5	.00	.00	.00	.02	.06	.00	.00	.03
MAY 15...	1340	4.0	23.0	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	.00	.2	.0	.06	.00	.00	.00	.00	.00	.10
JAN. 03...	.02	.0	.0	.05	.00	.00	.00	.02	.01	.02
MAR. 13...	.00	.0	.0	.06	.00	.00	.00	.08	.00	.02
APR. 16...	.04	.2	.0	.15	.00	.00	.00	.07	.06	.73
MAY 15...	.01	.0	.0	.05	.00	.00	.00	.07	.00	.07

08075760 HUNTING BAYOU AT FALLS STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°48'22", long 95°19'50", Harris County, at bridge on Falls Street in northeast Houston.

DRAINAGE AREA.--3.5 mi² (9.1 km²).PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
NOV. 15...	1250	1.3	17	72	20	110	366	0	39	110	.3	.59
JAN. 09...	1400	1.9	--	--	--	--	--	--	--	--	--	.15
FEB. 12...	0915	2.0	--	--	--	--	--	--	--	--	--	.09
MAR. 12...	1140	18	18	100	25	150	479	0	68	150	.7	.17
APR. 16...	1045	225	6.1	30	3.2	15	91	0	18	20	.2	.29
17...	1250	210	--	--	--	--	--	--	--	--	--	.35
MAY 17...	1130	2.0	--	--	--	--	--	--	--	--	--	.18
JULY 31...	0910	1.0	12	48	10	110	316	0	20	87	.6	.16
AUG. 14...	1335	.92	--	--	--	--	--	--	--	--	--	.24
SEP. 18...	1220	.52	18	83	23	140	463	0	53	120	.7	.13

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
NOV. 15...	.03	.47	.1	.60	543	22	12	260	0	2.9	991	7.5
JAN. 09...	.03	1.2	.2	.50	--	19	18	--	--	--	1150	7.1
FEB. 12...	.05	1.3	.5	1.1	--	13	0	--	--	--	1240	7.0
MAR. 12...	.09	1.0	.4	.90	750	33	10	350	0	3.5	1310	7.4
APR. 16...	.02	.37	.2	.50	139	80	20	88	13	.7	272	7.0
17...	.01	.57	.05	.62	--	192	44	--	--	--	316	6.6
MAY 17...	.04	.17	.2	.77	--	24	14	--	--	--	1120	8.0
JULY 31...	.01	.55	.2	.49	445	34	30	160	0	3.8	829	7.1
AUG. 14...	.07	.26	.1	.36	--	43	17	--	--	--	758	6.9
SEP. 18...	.05	.48	.1	.52	658	23	3	300	0	3.4	1160	7.6

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 15...	17.0	30	10	6.0	62	4.3	390000	44000	8700	2	.54	15
JAN. 09...	9.0	55	75	3.0	26	3.8	200000	50000	2100	--	.41	--
FEB. 12...	15.5	30	9	.4	4	2.5	38000	5100	1100	--	.31	--
MAR. 12...	21.0	10	40	9.0	100	3.0	720000	5800	500	--	.26	--
APR. 16...	18.0	40	55	5.8	61	5.8	1500000	260000	200000	--	.05	--
17...	20.5	30	70	--	--	7.1	1200000	150000	180000	--	.07	--
MAY 17...	24.0	20	10	12.2	144	1.2	32000	420	480	--	.23	--
JULY 31...	27.0	20	6	3.8	47	2.7	310000	2200	26000	0	.21	30
AUG. 14...	29.0	15	15	5.2	67	2.8	38000	5300	2900	--	.14	30
SEP. 18...	26.0	10	7	7.0	85	6.9	3200000	210000	4100	2	.56	--

SAN JACINTO RIVER BASIN

08075760 HUNTING BAYOU AT FALLS STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 15...	14	10	0	0	0	3	50	0	240	6	70
JAN. 09...	20	--	--	--	--	--	--	--	--	--	--
FEB. 12...	12	--	--	--	--	--	--	--	--	--	--
MAR. 12...	18	0	2	0	0	3	60	5	360	5	60
APR. 16...	--	--	--	--	--	--	--	--	--	--	--
MAY 17...	25	--	--	--	--	--	--	--	--	--	--
JULY 17...	22	0	1	0	0	3	40	5	200	0	100
AUG. 31...	26	--	--	--	--	--	--	--	--	--	--
SEP. 14...	44	--	--	--	--	--	--	--	--	--	--
SEP. 18...	16	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDF (UG/L)	DDF IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 15...	1250	1.3	17.0	.00	--	.00	--	.00	--	.00	--
JAN. 09...	1400	1.9	9.0	--	.0	--	.0	--	.0	--	.0
MAR. 12...	1140	18	21.0	.00	.0	.00	16	.00	.0	.00	.0
MAY 17...	1130	2.0	24.0	.00	.0	.00	65	.00	.0	.01	170
JULY 31...	0910	1.0	27.0	--	.0	--	19	--	.0	--	92

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 15...	.01	--	.00	--	.00	--	.00	--	.00	--	.1
JAN. 09...	--	15	--	.0	--	.0	--	.0	--	.0	--
MAR. 12...	.00	16	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 17...	.01	30	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 31...	--	25	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 15...	--	.0	--	.06	.00	.00	.00	.00	.00	.00
JAN. 09...	150	--	0	--	--	--	--	--	--	--
MAR. 12...	130	.0	180	.03	.00	.00	.00	.31	.00	.08
MAY 17...	233	.0	0	.04	.00	.00	.00	.32	.00	.00
JULY 31...	210	--	0	--	--	--	--	--	--	--

08075770 HUNTING BAYOU AT I.H. 610 AT HOUSTON, TEX.
(FORMERLY HUNTING BAYOU AT U.S. HIGHWAY 90-A, HOUSTON, TEX.)

LOCATION.--Lat 29°47'35", long 95°16'04", Harris County, at gaging station near bridge on I.H. 610 in northeast section of Houston, and 8.9 miles (14.3 km) upstream from mouth.

DRAINAGE AREA.--14.6 mi² (37.8 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
NOV. 08...	0915	17	14	60	12	52	216	0	57	68	.2	.23
JAN. 09...	1230	21	--	--	--	--	--	--	--	--	--	.17
FEB. 06...	1355	14	--	--	--	--	--	--	--	--	--	.11
MAR. 13...	1000	15	16	81	22	130	433	0	64	110	.7	.28
APR. 11...	1340	8.0	--	--	--	--	--	--	--	--	--	.29
16...	1125	940	5.6	28	2.5	6.4	75	0	21	10	.2	.45
MAY 15...	0900	10	--	--	--	--	--	--	--	--	--	.31
JUNE 12...	1735	1200	5.0	23	1.6	12	67	0	14	5.0	.2	.30
JULY 25...	0600	3.0	--	--	--	--	--	--	--	--	--	.63
31...	0830	3.2	--	--	--	--	--	--	--	--	--	.40
SEP. 18...	1315	9.0	14	74	18	110	375	0	62	97	.6	.28

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
NOV. 08...	.16	8.0	1.8	1.2	388	34	4	200	23	1.6	719	7.1
JAN. 09...	.12	1.2	.9	.50	--	24	19	--	--	--	829	7.0
FEB. 06...	.36	2.0	.7	1.4	--	10	0	--	--	--	1080	7.3
MAR. 13...	.10	4.3	.2	2.1	641	117	112	290	0	3.2	1150	7.3
APR. 11...	.00	4.5	.7	1.6	--	17	12	--	--	--	1080	7.3
16...	.02	1.4	.3	1.0	114	69	28	80	19	.3	229	6.8
MAY 15...	.32	1.3	.5	1.8	--	43	33	--	--	--	985	7.5
JUNE 12...	.02	.49	.4	.50	96	79	15	64	9	.7	166	7.1
JULY 25...	.98	3.5	3.2	1.1	--	19	9	--	--	--	1070	6.9
31...	.15	1.8	.3	.60	--	24	18	--	--	--	1070	6.9
SEP. 18...	.30	1.4	.2	2.2	567	198	33	260	0	3.1	1030	7.8

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PFR 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUR-STANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 08...	18.0	60	25	3.9	41	4.4	280000	12000	5900	2	.34	9
JAN. 09...	7.5	55	85	7.1	59	3.1	19000	3000	1	--	.13	--
FEB. 06...	19.0	25	8	8.8	94	8.4	92000	20000	440	--	.26	--
MAR. 13...	21.0	10	25	3.1	34	9.9	100000	4000	440	--	.30	--
APR. 11...	19.0	20	25	7.5	80	10	1400000	13000	2800	--	.15	--
16...	18.0	50	70	6.1	64	7.8	4400000	100000	300000	--	.02	--
MAY 15...	20.0	20	110	5.2	57	6.4	7300	460	210	--	.30	--
JUNE 12...	23.0	45	35	6.7	77	3.7	420000	74000	120000	1	.01	20
JULY 25...	28.0	30	10	2.2	28	6.9	7700	3800	2300	2	.22	20
31...	28.0	30	6	2.6	33	11	340000	2600	2000	0	.35	50
SEP. 18...	28.0	20	75	12.9	163	8.4	44000	370	190	3	.22	--

SAN JACINTO RIVER BASIN

08075770 HUNTING BAYOU AT I.H.610 AT HOUSTON, TEX.--Continued
(FORMERLY HUNTING BAYOU AT U.S. HIGHWAY 90-A, HOUSTON, TEX.)

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 08...	59	10	0	0	1	11	50	0	120	15	90
JAN. 09...	29	--	--	--	--	--	--	--	--	--	--
FEB. 06...	6.0	--	--	--	--	--	--	--	--	--	--
MAR. 13...	4.5	--	--	--	--	--	--	--	--	--	--
APR. 11...	--	--	--	--	--	--	--	--	--	--	--
16...	24	--	--	--	--	--	--	--	--	--	--
MAY 15...	16	0	0	0	0	4	40	4	240	14	20
JUNE 12...	20	--	--	--	--	--	--	--	--	--	--
JULY 25...	21	--	--	--	--	--	--	--	--	--	--
31...	36	--	--	--	--	--	--	--	--	--	--
SEP. 18...	26	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 08...	0915	17	18.0	.00	--	.00	--	.00	--	.00	--
FEB. 06...	1355	14	19.0	--	.0	--	66	--	.0	--	.0
MAR. 13...	1000	15	21.0	.00	.0	.01	220	.00	.0	.01	.0
MAY 15...	0900	10	20.0	.00	.0	.01	99	.00	.0	.02	160
JUNE 12...	1735	1200	23.0	.00	--	.00	--	.00	--	.02	--
JULY 25...	0600	3.0	28.0	--	.0	--	29	--	.0	--	41
31...	0830	3.2	28.0	--	.0	--	22	--	6.6	--	13

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 08...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
FEB. 06...	--	20	--	.0	--	.0	--	.0	--	.0	--
MAR. 13...	.01	96	.00	.0	.00	.0	.00	.0	.02	.0	.0
MAY 15...	.02	34	.00	.0	.00	.0	.00	.0	.00	.0	.1
JUNE 12...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 25...	--	16	--	.0	--	.0	--	.0	--	.0	--
31...	--	.0	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	--	.0	--	.05	.00	.00	.00	.00	.00	.04
FEB. 06...	120	--	0	--	--	--	--	--	--	--
MAR. 13...	560	.0	0	.00	.00	.00	.00	.26	.00	.02
MAY 15...	120	.0	0	.12	.00	.00	.00	.70	.00	.02
JUNE 12...	--	.0	--	.04	.00	.00	.00	.11	.00	.09
JULY 25...	61	--	0	--	--	--	--	--	--	--
31...	27	--	0	--	--	--	--	--	--	--

08076000 GREENS BAYOU NEAR HOUSTON, TEX.

LOCATION.--Lat 29°55'05", long 95°18'24", Harris County, at gaging station at bridge on U.S. Highway 59, 10.5 miles (16.9 km) northeast of Houston, 12.0 miles (19.3 km) upstream from Halls Bayou, and 23.4 miles (37.7 km) upstream from mouth.

DRAINAGE AREA.--72.7 mi² (188 km²), unadjusted for basin boundary changes.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS: See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
NOV. 03...	1140	20	20	48	9.7	91	176	0	19	140	.2	.16
JAN. 09...	0950	98	--	--	--	--	--	--	--	--	--	.17
FEB. 12...	1220	66	--	--	--	--	--	--	--	--	--	.22
MAR. 13...	0830	22	18	66	13	82	288	0	20	98	.4	.27
APR. 10...	1305	32	--	--	--	--	--	--	--	--	--	.54
16...	1330	3350	5.2	16	2.0	6.0	54	0	6.0	7.6	.1	.39
MAY 15...	0720	18	--	--	--	--	--	--	--	--	--	.47
JUNE 12...	1845	4200	--	--	--	--	--	--	--	--	--	.29
JULY 31...	0615	17	27	64	14	97	284	0	24	120	.3	.70
AUG. 12...	1300	35	--	--	--	--	--	--	--	--	--	.23
SEP. 19...	1115	13	24	78	13	100	306	0	21	140	.4	.18

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
NOV. 03...	.26	.68	1.0	1.7	416	202	52	160	16	3.1	763	7.2
JAN. 09...	.02	.15	.4	.62	--	97	60	--	--	--	395	7.1
FEB. 12...	.02	.28	.5	.85	--	168	30	--	--	--	439	7.1
MAR. 13...	.20	.86	.9	1.1	445	189	26	220	0	2.4	807	7.3
APR. 10...	.03	.14	.8	1.6	--	242	91	--	--	--	604	7.2
16...	.00	.12	.06	.32	70	295	47	48	4	.4	134	6.8
MAY 15...	.23	.50	.4	1.4	--	252	10	--	--	--	912	7.6
JUNE 12...	.00	.10	.06	.18	--	167	14	--	--	--	96	6.8
JULY 31...	.38	1.0	.8	1.6	491	154	21	220	0	2.9	901	7.2
AUG. 12...	.21	.67	1.5	1.8	--	122	32	--	--	--	607	6.9
SEP. 19...	.28	.35	1.4	1.4	536	56	16	250	0	2.9	975	7.9

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 03...	11.5	60	20	8.7	79	9.9	150000	40000	10000	--	.00	--
JAN. 09...	5.5	200	110	10.7	85	2.0	66000	36000	720	--	.02	--
FEB. 12...	12.5	140	70	4.8	45	4.5	17000	3900	1500	--	.00	--
MAR. 13...	21.0	20	110	4.3	48	8.4	1600000	66000	650	--	.04	--
APR. 10...	16.0	80	120	7.6	76	9.3	320000	1500	420	--	.01	--
16...	19.0	120	120	6.6	70	4.8	440000	12000	61000	--	.00	--
MAY 15...	19.0	30	100	5.8	62	5.0	29000	26000	2200	--	.00	--
JUNE 12...	22.0	50	55	7.2	82	3.0	500000	6800	32000	0	.00	10
JULY 31...	29.0	20	70	5.9	76	5.1	1400000	17000	1700	0	.02	10
AUG. 12...	27.5	40	45	6.5	81	4.8	180000	14000	2200	--	.01	--
SEP. 19...	26.0	30	25	6.7	82	2.4	22000	440	100	0	.08	--

SAN JACINTO RIVER BASIN

08076000 GREENS BAYOU NEAR HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 03...	26	10	0	0	0	5	0	0	40	4	30
JAN. 09...	29	--	--	--	--	--	--	--	--	--	--
FEB. 12...	17	--	--	--	--	--	--	--	--	--	--
MAR. 13...	20	--	--	--	--	--	--	--	--	--	--
APR. 10...	--	--	--	--	--	--	--	--	--	--	--
16...	23	--	--	--	--	--	--	--	--	--	--
MAY 15...	16	0	0	0	0	2	20	0	320	0	20
JUNE 12...	18	--	--	--	--	--	--	--	--	--	--
JULY 31...	18	--	--	--	--	--	--	--	--	--	--
AUG. 12...	31	--	--	--	--	--	--	--	--	--	--
SEP. 19...	17	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	1140	20	11.5	.00	--	.00	--	.00	--	.00	--
JAN. 09...	0950	102	5.5	--	.0	--	.0	--	.0	--	.0
MAR. 13...	0830	22	21.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 16...	1330	3350	19.0	.00	--	.00	--	.00	--	.00	--
MAY 15...	0720	18	19.0	.00	.0	.00	.0	.00	.0	.00	.0
JUNE 12...	1845	4200	22.0	.00	--	.00	--	.00	--	.00	--
JULY 31...	0615	17	29.0	--	.0	--	1.2	--	.0	--	.0

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 03...	.01	--	.00	--	.00	--	.00	--	.02	--	.1
JAN. 09...	--	.5	--	.0	--	.0	--	.0	--	.0	--
MAR. 13...	.02	.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 16...	.01	--	.00	--	.00	--	.00	--	.01	--	.0
MAY 15...	.01	3.5	.00	.0	.00	.0	.00	.0	.03	.0	.0
JUNE 12...	.01	--	.00	--	.00	--	.00	--	.02	--	.0
JULY 31...	--	1.8	--	.0	--	.0	--	.0	--	.4	--

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCR (UG/L)	PCR IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	STLVEX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	--	.0	--	.03	.00	.00	.00	.00	.00	.02
JAN. 09...	6	--	0	--	--	--	--	--	--	--
MAR. 13...	6	.0	0	.04	.00	.00	.00	.00	.00	.00
APR. 16...	--	.0	--	.01	.00	.00	.00	.02	.00	.03
MAY 15...	17	.0	0	.10	.00	.00	.00	.04	.00	.08
JUNE 12...	--	.0	--	.02	.00	.00	.00	.00	.00	.00
JULY 31...	47	--	0	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

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08076500 HALLS BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°51'42", long 95°20'05", Harris County, at gaging station at bridge on Jenson Drive in northeast section of Houston, and 11.0 miles (17.7 km) upstream from mouth.

DRAINAGE AREA.--24.7 mi² (64.0 km²), unadjusted for basin boundary changes.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
NOV. 03...	1220	21	16	42	15	230	206	0	22	340	.1	.25
JAN. 09...	1115	37	--	--	--	--	--	--	--	--	--	.16
FEB. 12...	1115	30	--	--	--	--	--	--	--	--	--	.19
MAR. 13...	0915	14	18	86	17	280	380	0	29	400	.4	.32
APR. 10...	1345	11	17	76	14	110	312	0	31	120	.4	--
16...	1240	1560	--	--	--	--	--	--	--	--	--	.45
MAY 15...	0805	11	--	--	--	--	--	--	--	--	--	.49
JUNE 12...	1925	1700	--	--	--	--	--	--	--	--	--	.24
JULY 31...	0650	6.2	23	42	15	100	241	0	31	120	.3	.42
AUG. 12...	1415	27	--	--	--	--	--	--	--	--	--	.26
SEP. 19...	1150	9.0	21	73	15	120	330	0	32	140	.4	.32
DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FIL- TRABLE RESIDUE (MG/L)	VOL. NON- FIL- TRABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
NOV. 03...	.14	4.5	.2	3.8	769	71	20	170	0	7.6	1520	6.6
JAN. 09...	.06	1.1	.9	1.3	--	72	61	--	--	--	846	7.2
FEB. 12...	.10	1.8	.9	2.6	--	45	11	--	--	--	1070	7.1
MAR. 13...	.03	4.0	.03	3.6	1030	23	5	280	0	7.2	1850	7.5
APR. 10...	--	--	7.5	--	547	27	11	250	0	3.0	951	7.4
16...	.01	.27	.05	.53	--	327	44	--	--	--	193	6.4
MAY 15...	.28	6.0	.2	9.8	--	57	0	--	--	--	985	7.4
JUNE 12...	.00	.18	.09	.38	--	17	7	--	--	--	131	6.9
JULY 31...	.46	5.5	.4	5.0	464	24	14	170	0	3.4	850	6.9
AUG. 12...	.45	1.1	.3	2.2	--	21	1	--	--	--	436	6.5
SEP. 19...	.50	3.0	.6	5.9	570	42	14	240	0	3.3	980	7.5

08076500 HALLS BAYOU AT HOUSTON, TEX.--Continued

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 03...	11.5	40	60	5.7	52	12	280000	35000	8300	--	.82	--
JAN. 09...	6.0	60	100	7.8	62	1.5	270000	190000	6600	--	.20	--
FER. 12...	15.0	80	25	5.4	53	5.5	360000	76000	5700	--	.33	--
MAR. 13...	22.0	30	30	2.1	24	9.3	2800000	60000	5400	--	1.6	--
APR. 10...	18.5	20	15	7.8	83	8.1	400000	3200	150	--	--	--
16...	18.5	100	150	6.0	64	5.9	600000	74000	75000	--	.00	--
MAY 15...	19.0	20	110	4.1	44	6.9	88000	1600	580	--	.90	--
JUNE 12...	23.0	60	5	6.4	74	3.4	110000	20000	17000	0	.00	--
JULY 31...	28.0	20	5	7.8	99	10	6800000	25000	9700	0	.48	20
AUG. 12...	28.0	70	10	5.0	63	6.0	250000	5600	1400	--	.06	--
SEP. 19...	27.0	20	20	4.7	58	8.1	22000	170	880	2	.66	--

[illegible]

SAN JACINTO RIVER BASIN

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08076500 HALLS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
NOV. 03...	1220	21	11.5	.00	--	.00	--	.00	--	.01	--
MAR. 13...	0915	14	22.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 15...	0805	11	19.0	.00	.0	.00	.0	.00	.0	.01	.0
JUNE 12...	1925	1700	23.0	.00	--	.00	--	.00	--	.00	--
JULY 31...	0650	6.2	28.0	--	.0	--	.0	--	.0	--	.0

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 03...	.03	--	.00	--	.00	--	.00	--	.00	--	.1
MAR. 13...	.04	2.5	.00	.0	.00	.0	.00	.0	.00	.0	.1
MAY 15...	.04	2.3	.00	.0	.00	.0	.00	.0	.02	.0	.1
JUNE 12...	.02	--	.00	--	.00	--	.00	--	.01	--	.1
JULY 31...	--	2.2	--	.0	--	.0	--	.0	--	.0	--

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 03...	--	.0	--	.21	.00	.00	.00	.02	.00	.01
MAR. 13...	17	.0	0	.13	.00	.00	.00	.00	.00	.00
MAY 15...	11	.0	0	.26	.00	.00	.00	.12	.00	.19
JUNE 12...	--	.0	--	.04	.00	.00	.00	.00	.00	.17
JULY 31...	20	--	0	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

08076700 GREENS BAYOU AT LEY ROAD, AT HOUSTON, TEX.

LOCATION.--Lat 29°50'13", long 95°13'59", Harris County, at bridge on Ley Road, 300 ft (91 m) downstream from mouth of Halls Bayou, in northeast section of Houston.

DRAINAGE AREA.--213 mi² (552 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
NOV. 08...	1145	200	14	45	9.1	75	144	0	17	120	.1	.24
JAN. 22...	1330	--	15	69	19	160	268	0	28	250	.4	.45
FEB. 07...	0940	44	--	--	--	--	--	--	--	--	--	.19
APR. 17...	1130	4700	5.9	26	2.7	16	81	0	9.6	24	.1	.32
MAY 16...	1050	45	--	--	--	--	--	--	--	--	--	.41
JULY 31...	0745	--	17	57	17	120	258	0	27	180	.4	.45

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
NOV. 08...	.09	.58	1.1	1.1	361	254	182	150	32	2.7	698	7.1
JAN. 22...	.11	2.0	.4	2.0	684	72	13	250	32	4.4	1200	6.8
FEB. 07...	.15	4.0	1.0	4.4	--	15	2	--	--	--	1940	7.4
APR. 17...	.01	.17	.06	.33	125	358	60	76	10	.8	240	6.9
MAY 16...	.32	2.0	.5	2.3	--	61	27	--	--	--	1220	7.5
JULY 31...	.13	3.8	.4	3.0	554	45	9	210	0	3.7	1080	7.0

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 08...	19.0	110	140	7.6	81	6.9	62000	5000	2100	2	.01	110
JAN. 22...	17.0	60	45	7.7	79	7.0	300000	44000	490	3	.12	20
FEB. 07...	19.0	35	15	5.1	54	9.9	36000	1700	420	--	.32	--
APR. 17...	20.0	200	140	5.8	63	5.6	160000	17000	14000	--	.00	--
MAY 16...	23.0	40	30	5.9	68	7.0	34000	1400	520	--	.23	--
JULY 31...	28.0	30	20	4.1	52	13	940000	2600	1300	0	.39	300

[illegible]

SAN JACINTO RIVER BASIN

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08076700 GREENS BAYOU AT LEY ROAD, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 08...	1145	200	19.0	.00	--	.00	--	.00	--	.00	--
JAN. 22...	1330	--	17.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 16...	1050	45	23.0	.00	.0	.00	1.8	.00	.0	.00	7.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 08...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JAN. 22...	.02	2.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 16...	.02	7.9	.00	.0	.00	.0	.00	.0	.04	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	--	.0	--	.00	.00	.00	.00	.00	.00	.04
JAN. 22...	18	.0	0	.16	.16	.00	.00	.00	.00	.00
MAY 16...	71	.0	0	.22	.05	.00	.00	.07	.00	.06

LOCATION.--Lat 29°46'21", long 95°09'21", Harris County, at bridge on East Belt Drive, 0.1 mile (0.2 km) north of Interstate Highway 10, and about 0.5 mile (0.8 km) east of Cloverleaf.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973 (discontinued).
Pesticide analyses: May 1971 to September 1973 (discontinued).

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- ONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
JAN. 23...	0930	13	5.5	26	4.2	33	103	0	20	34	.3	.35
FEB. 06...	1000	7.0	--	--	--	--	--	--	--	--	--	.27
MAY 16...	0915	8.3	--	--	--	--	--	--	--	--	--	.61
30...	1315	9.0	3.6	26	5.9	52	148	0	24	44	.5	.61
AUG. 01...	0730	11	5.9	28	3.9	19	77	0	22	29	.4	.61
14...	1010	6.0	8.7	24	4.2	36	106	0	20	34	.3	.26

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN. 23...	.06	.42	.2	.56	176	190	22	82	0	1.6	330	6.5
FEB. 06...	.24	1.6	.9	2.1	--	334	42	--	--	--	559	6.9
MAY 16...	.22	1.1	.4	1.4	--	430	82	--	--	--	372	7.3
30...	.04	2.5	.5	3.4	235	60	10	89	0	2.4	419	7.7
AUG. 01...	.11	.75	.4	.47	149	328	120	86	23	.9	304	9.0
14...	.21	.87	.6	1.8	184	42	18	77	0	1.8	351	6.6

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
JAN. 23...	15.0	130	95	9.8	96	2.3	1500	980	44	2	.02	10
FEB. 06...	18.5	70	160	8.4	89	3.8	1600	550	130	--	.04	--
MAY 16...	22.0	200	220	7.8	89	3.3	59000	11000	550	--	.00	--
30...	31.0	50	75	11.5	153	15	3400	880	30	--	.01	--
AUG. 01...	27.5	70	150	7.9	99	6.5	10000000	75000	120000	0	.01	10
14...	28.0	70	15	7.1	90	1.3	1700	120	40	--	.23	20

[illegible]

SAN JACINTO RIVER BASIN

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98076900 CARPENTERS BAYOU AT CLOVERLEAF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTERRER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
JAN. 23...	0930	13	15.0	.00	.00	.00	.00	.01	.00	.00	.00
FEB. 06...	1000	7.0	18.5	.00	.00	.00	.00	.01	.00	.00	.00
MAY 16...	0915	8.3	22.0	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
JAN. 23...	.00	.0	.0	.03	.00	.00	.00	.00	.00	.00
FEB. 06...	.01	.1	.0	.10	.00	.00	.00	.00	.00	.00
MAY 16...	.01	.0	.0	.05	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN
MISCELLANEOUS ANALYSES OF STREAMS IN THE SAN JACINTO RIVER BASIN IN TEXAS
WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973
08068500 SPRING CREEK NEAR SPRING, TEX. (Lat 30°06'37", long 95°26'10")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
NOV.					
07...	1630	374	20.0	211	213
JAN.					
02...	1150	43	9.5	34	3.9
29...	1215	344	7.5	129	120
MAR.					
01...	1845	108	14.5	38	11
APR.					
06...	1650	91	15.0	53	13
18...	1640	9150	--	354	8750
JUNE					
14...	1530	9900	24.0	271	7240
JULY					
18...	1635	35	27.5	16	1.5

08070500 CANEY CREEK NEAR SPLENDORA, TEX. (Lat 30°15'34", long 95°18'08")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
NOV.							
08...	1200	145	19.0	215	84	--	--
08...	1230	145	19.0	190	74	--	--
09...	1510	44	19.5	59	7.0	--	--
17...	1100	20	13.0	22	1.2	--	--
DEC.							
18...	1610	37	7.5	26	2.6	--	--
FEB.							
14...	1350	698	12.0	206	388	--	--
MAR.							
29...	1305	182	20.0	113	56	--	--
APR.							
18...	1530	2640	--	286	2040	76	84
MAY							
09...	1915	165	--	109	49	--	--
JUNE							
14...	1745	4640	24.0	105	1320	--	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM	SUS. SED. SIEVE DIAM. % FINER THAN .031 MM
NOV.							
08...	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
DEC.							
18...	--	--	--	--	--	--	--
FEB.							
14...	--	--	--	--	--	--	--
MAR.							
29...	--	--	--	--	--	--	--
APR.							
18...	96	100	46	56	58	65	69
MAY							
09...	--	--	--	--	--	--	--
JUNE							
14...	--	--	--	--	--	--	--

[illegible]

CLEAR CREEK BASIN

08077510 CLEAR CREEK ABOVE TURKEY CREEK, NEAR FRIENDSWOOD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 06...	1130	84	23.0	.00	--	.00	--	.00	--	.00	--
JAN. 23...	0930	24	14.0	.00	--	.00	--	.00	--	.00	--
MAR. 13...	1110	28	21.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 17...	0930	16	22.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 06...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JAN. 23...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
MAR. 13...	.01	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 17...	.01	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 06...	--	.0	--	.02	.00	.00	.00	.00	.00	.01
JAN. 23...	--	.0	--	.08	.00	.00	.00	.00	.00	.00
MAR. 13...	0	.0	0	.04	.00	.00	.00	.04	.00	.01
MAY 17...	--	.0	--	.07	.00	.00	.00	.03	.00	.01

CLEAR CREEK BASIN

361

08077620 ARMAND BAYOU NEAR GENOA, TEX.

LOCATION.--Lat 29°38'02", long 95°06'51", Harris County, at bridge on Genoa-Red Bluff Road, about 4.8 miles (7.7 km) east of Genoa.

DRAINAGE AREA.--18.2 mi² (47.1 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973 (discontinued).

Pesticide analyses: May 1971 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)
OCT. 11...	1010	6.6	--	--	--	--	--	--	--	--	--	.35
NOV. 29...	1215	4.8	13	44	18	88	326	0	26	62	.2	.26
JAN. 23...	1400	3.5	13	52	21	94	351	0	29	77	.7	.26
MAR. 13...	1315	6.8	13	52	16	97	342	0	24	76	.6	.42
MAY 15...	1250	6.2	--	--	--	--	--	--	--	--	--	.42
29...	1325	1.7	16	36	16	140	332	36	26	93	1.0	.59
JULY 23...	1310	2.0	12	38	16	140	416	0	21	89	1.0	.40
AUG. 01...	0930	13	--	--	--	--	--	--	--	--	--	.48
15...	1020	7.4	--	--	--	--	--	--	--	--	--	.32

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT. 11...	.11	9.5	.2	4.8	--	47	11	--	--	--	1020	7.2
NOV. 29...	.03	2.2	.5	2.4	416	50	18	180	0	2.8	745	7.5
JAN. 23...	.16	3.0	.5	2.5	466	52	14	220	0	2.8	853	6.8
MAR. 13...	.08	2.5	.3	2.0	451	71	24	200	0	3.0	930	7.2
MAY 15...	.15	2.6	.5	2.4	--	87	16	--	--	--	738	7.5
29...	.20	8.5	.3	6.5	541	15	10	160	0	4.9	1020	7.4
JULY 23...	.10	7.0	.3	3.5	534	36	0	160	0	4.8	1030	8.0
AUG. 01...	.05	5.5	.3	3.2	--	137	41	--	--	--	829	7.1
15...	.12	2.3	.2	1.8	--	24	11	--	--	--	520	6.9

DATE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 11...	24.0	40	30	2.4	28	13	11000	1600	1000	--	.24	--
NOV. 29...	13.0	50	35	6.4	60	9.3	10000	580	700	5	1.3	10
JAN. 23...	15.0	45	30	6.5	64	8.4	5200	2200	110	1	.18	20
MAR. 13...	22.0	30	60	3.7	42	8.7	860000	18000	420	--	.26	--
MAY 15...	20.0	40	40	4.9	53	7.7	6200	1600	530	--	.08	--
29...	26.0	25	9	8.4	102	14	9700	900	590	--	.16	--
JULY 23...	30.5	20	15	3.2	42	9.3	13000	10000	2500	0	.21	20
AUG. 01...	27.0	20	45	4.3	53	14	1600000	6000	30000	0	.36	20
15...	26.0	55	30	2.6	32	6.9	400000	1500	580	--	.06	20

CLEAR CREEK BASIN

08077620 ARMAND BAYOU NEAR GENOA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PR) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	48	--	--	--	--	--	--	--	--	--	--
NOV. 29...	12	0	1	0	2	10	340	0	110	6	20
JAN. 23...	60	--	--	--	--	--	--	--	--	--	--
MAR. 13...	24	0	0	0	0	4	180	0	240	0	30
MAY 15...	21	0	1	0	0	4	100	0	150	7	40
29...	38	--	--	--	--	--	--	--	--	--	--
JULY 23...	27	--	--	--	--	--	--	--	--	--	--
AUG. 01...	14	--	--	--	--	--	--	--	--	--	--
15...	24	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 29...	1215	4.8	13.0	.00	--	.00	--	.00	--	.00	--
JAN. 23...	1400	3.5	15.0	.00	--	.00	--	.00	--	.00	--
MAR. 13...	1315	6.8	22.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 15...	1250	6.2	20.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 29...	.02	--	.00	--	.00	--	.00	--	.03	--	.1
JAN. 23...	.01	--	.00	--	.00	--	.00	--	.02	--	.1
MAR. 13...	.01	2.6	.00	.0	.00	.0	.00	.0	.00	.0	.1
MAY 15...	.02	--	.00	--	.00	--	.00	--	.02	--	.1

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 29...	--	.0	--	.09	.00	.00	.00	.00	.00	.00
JAN. 23...	--	.0	--	.08	.00	.00	.00	.00	.00	.00
MAR. 13...	18	.0	0	.04	.00	.00	.00	.04	.00	.00
MAY 15...	--	.0	--	.46	.00	.00	.00	.05	.00	.03

CHOCOLATE BAYOU BASIN

363

08078000 CHOCOLATE BAYOU NEAR ALVIN, TEX.

LOCATION.--Lat 29°22'09", long 95°19'14", Brazoria County, at gaging station on Farm Road 1462, 5.9 miles (9.5 km) southwest of Alvin, and 6.9 miles (11.1 km) upstream from State Highway 35.

DRAINAGE AREA.--87.7 mi² (227.1 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1973 (discontinued).
Pesticide analyses: May 1971 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)
NOV. 29...	0920	29	14	44	11	52	152	0	46	68	.0	.18
JAN. 23...	1200	23	9.3	60	16	86	197	0	64	120	.4	.20
FEB. 21...	1140	150	--	--	--	--	--	--	--	--	--	.23
MAR. 14...	1240	19	14	72	18	100	288	0	51	130	.5	.34
APR. 25...	1250	42	--	--	--	--	--	--	--	--	--	.43
MAY 16...	0920	16	--	--	--	--	--	--	--	--	--	.34
29...	1035	23	2.4	54	18	100	70	11	100	170	.4	.54
AUG. 02...	1015	92	--	--	--	--	--	--	--	--	--	.47

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV. 29...	.00	.02	.05	.09	310	108	44	150	30	1.8	558	7.4
JAN. 23...	.01	.10	.06	.10	456	51	13	220	56	2.5	821	6.7
FEB. 21...	.01	.02	.1	.12	--	238	36	--	--	--	404	7.2
MAR. 14...	.01	.16	.4	.15	532	150	19	250	18	2.8	947	7.7
APR. 25...	.01	.12	.1	.18	--	348	2	--	--	--	573	7.0
MAY 16...	.01	.11	.01	.12	--	121	29	--	--	--	908	7.8
29...	.00	.32	.06	.18	496	222	25	210	130	3.0	943	7.5
AUG. 02...	.03	.08	.2	.04	--	68	23	--	--	--	1040	7.1

DATE	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)
NOV. 29...	13.0	65	50	10.2	96	2.3	2200	170	370	3	.02	20
JAN. 23...	13.5	45	35	10.0	95	3.2	44000	41000	180	0	.07	10
FEB. 21...	11.5	180	130	9.8	89	3.3	900	600	920	--	.02	--
MAR. 14...	22.0	60	100	7.0	80	2.0	100000	380	250	--	.01	--
APR. 25...	27.0	100	160	7.2	89	2.5	7000	150	550	--	.01	--
MAY 16...	20.0	30	65	9.1	99	2.0	10000	190	240	--	.00	--
29...	26.0	30	120	8.0	98	4.3	8700	110	170	--	.00	--
AUG. 02...	27.0	30	30	9.7	120	1.2	98000	150	3100	0	.06	10

CHOCOLATE BAYOU BASIN

08078000 CHOCOLATE BAYOU NEAR ALVIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PR) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 29...	33	0	0	10	0	5	390	0	0	0	30
JAN. 23...	28	--	--	--	--	--	--	--	--	--	--
FEB. 21...	24	--	--	--	--	--	--	--	--	--	--
MAR. 14...	20	0	1	0	0	3	80	0	30	0	50
APR. 25...	26	--	--	--	--	--	--	--	--	--	--
MAY 16...	24	0	1	10	0	4	40	0	40	0	50
29...	18	--	--	--	--	--	--	--	--	--	--
AUG. 02...	8.0	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 29...	0920	29	13.0	.00	.00	.00	.00	.01	.00	.00	.00
JAN. 23...	1200	23	13.5	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	1140	150	11.5	.00	.00	.00	.00	.01	.00	.00	.00
MAR. 14...	1240	19	22.0	.00	.00	.00	.00	.00	.00	.00	.00
MAY 16...	0920	16	20.0	.00	.00	.00	.00	.04	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 29...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JAN. 23...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	.00	.0	.0	.00	.00	.00	.00	.07	.00	.00
MAR. 14...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAY 16...	.00	.0	.0	.00	.00	.00	.00	.04	.00	.00

BRAZOS RIVER BASIN

365

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°00'29", long 100°10'49", Stonewall County, at gaging station at bridge on U.S. Highway 83, 0.3 mile (0.5 km) downstream from Hitson Creek, and 10 miles (16 km) south of Aspermont.

DRAINAGE AREA.--7,980 mi², (20,670 km²) of which 6,470 mi² (16,760 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1948 to November 1951, October 1956 to September 1973.

Water temperatures: November 1949 to November 1951, October 1956 to September 1973.

Sediment records: November 1949 to September 1951.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 12,800 micromhos May 30; minimum daily, 1,390 micromhos Mar. 12.

Water temperatures: Maximum, 33.0°C July 8; minimum, freezing point on several days during December and January.

EXTREMES, October 1948 to November 1951, October 1956 to September 1973.--Specific conductance (1948-51, 1956-70, 1971-73): Maximum daily, 12,800 micromhos May 30, 1973; minimum daily, 735 micromhos Oct. 24, 1957. Water temperatures (1949-51, 1956-67, 1969-73): Maximum, 38.0°C July 18, 1966; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- RONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 27...	1115	193	8.3	210	35	360	--	5.6	116	0	620
NOV. 27...	1300	44	13	500	110	--	1200	--	88	0	1400
DEC. 31...	1305	21	10	600	130	--	1400	--	108	0	1700
JAN. 24...	0850	363	9.0	82	18	220	--	4.0	188	0	240
FEB. 05...	1300	58	12	300	86	--	790	--	120	0	1000
MAR. 12...	0900	898	11	94	18	--	180	--	148	0	310
APR. 24...	1610	27	9.9	560	140	1200	--	12	130	0	1700
MAY 28...	1210	6.9	11	790	180	--	1800	--	136	0	2300
JUNE 09...	1000	10	10	520	100	--	930	--	120	0	1500
JULY 14...	0930	2.1	8.1	500	80	480	--	14	106	0	1300
AUG. 09...	0930	4.2	13	480	11	--	1200	--	126	0	1500
SEP. 08...	1615	849	13	360	22	--	110	--	124	0	980

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	520	.7	.2	1820	670	580	6.0	2870	7.7	12.0
NOV. 27...	1800	--	.2	4940	1700	1600	11	7620	7.5	11.0
DEC. 31...	2300	--	--	6270	2000	2000	14	9330	7.8	10.0
JAN. 24...	260	.8	1.9	934	280	120	5.8	1520	7.6	7.0
FEB. 05...	1200	--	.7	3470	1100	1000	10	5390	7.5	14.0
MAR. 12...	180	.6	.9	876	310	190	4.5	1390	7.1	--
APR. 24...	2000	--	--	5710	2000	1800	12	8460	7.7	28.0
MAY 28...	3000	--	--	8070	2700	2600	--	11600	7.8	25.0
JUNE 09...	1400	--	.00	4590	1700	1600	9.8	6690	7.9	23.5
JULY 14...	860	--	.02	3300	1600	1500	5.2	4590	7.4	24.0
AUG. 09...	1500	--	.6	4710	1300	1200	14	7030	7.0	25.0
SEP. 08...	80	.5	1.2	1630	990	890	1.5	2400	7.1	25.0

BRAZOS RIVER BASIN

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	5814	3630	2410	37800	750	11800	810	12700	1000
NOV.	2948	3940	2630	20900	830	6610	870	6920	1100
DEC.	848	8430	5700	13100	2000	4580	1700	3890	1800
JAN. 1973....	3358	3440	2280	20700	700	6350	770	6980	980
FEB.	2866	4420	2950	22800	950	7350	960	7430	1200
MAR.	5954	2710	1780	28600	510	8200	640	10300	770
APR.	1187	6900	4650	14900	1600	5130	1400	4490	1600
MAY	532.2	8810	5960	8560	2100	3020	1800	2590	1900
JUNE	1065.3	4090	2730	7850	860	2470	900	2590	1100
JULY	347.00	4450	2970	2780	960	899	970	909	1200
AUG.	404.00	3680	2450	2670	760	829	820	894	1000
SEP.	4347.2	2270	1480	17400	400	4690	550	6460	640
TOTAL	29670.70	--	--	198000	--	61900	--	66200	--
WTD. AVG. ...	81.3	3720	2470	--	770	--	830	--	1000

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7490	1700	7420	9330	3690	2960	6280	6180	9760	5280	3080	4500
2	7610	2220	7720	9220	4270	3510	5540	6750	3200	7950	2790	3750
3	7910	2600	7840	8560	4370	4060	4370	7220	3870	8920	2850	4000
4	8090	3130	7870	8630	4870	4530	4710	6820	3280	9070	2980	3040
5	8190	3470	7870	8930	5350	4900	5730	7350	3950	9280	3190	2710
6	8490	4000	8300	9120	5550	5400	6010	7670	4760	9320	4040	2270
7	8600	4640	8270	8850	5750	5800	6490	8180	5470	9280	5060	2060
8	8780	5160	8130	9130	5750	6320	6730	8700	5940	9810	6090	2200
9	8740	5620	8360	9200	5780	6580	6950	9040	6690	9500	7010	1790
10	8850	6100	8460	9210	6020	3710	7020	9370	7180	9280	6000	1600
11	9000	6400	8790	9180	5090	1930	7300	9630	7680	9280	7630	1830
12	9040	6770	8970	9040	4820	1390	7410	9900	8200	9580	7000	2200
13	9040	6810	8400	8600	4320	1500	7550	10000	8650	5410	6710	2630
14	9290	7190	8570	8560	3810	1780	7770	9810	8840	4590	6750	3220
15	9410	7430	8820	8320	4170	2150	7740	9630	9230	6820	7380	2200
16	9500	7350	9370	8630	4500	2630	7980	9950	9360	4320	7830	1760
17	9540	7620	9630	8320	5000	3220	8140	10700	9620	7130	7770	1860
18	9670	7650	8640	6890	5500	3700	8080	10900	9760	3140	8140	2640
19	8780	7980	8390	3980	6130	4250	4780	10900	7010	4370	8370	2270
20	7790	7950	8750	4250	6110	4590	7150	10800	5450	6540	8450	3690
21	2720	7880	9090	4800	5610	4890	8540	10700	6330	7410	8800	4460
22	3000	7820	8430	4400	5120	5290	8670	7270	7270	7800	9070	5250
23	2590	7880	7950	2100	4900	5620	8800	9200	8070	8210	9100	5840
24	1790	7370	8160	1520	5230	5780	8500	10200	8690	8730	9180	6320
25	2160	7370	8330	1590	4880	6210	8410	10600	8950	8880	9260	6860
26	2970	7500	8460	2200	3120	5700	8240	10500	9230	8920	9340	7350
27	2890	7600	8460	2710	2330	5810	7830	10800	9450	8880	9410	5000
28	3540	7370	8710	2950	2550	6050	7440	11500	9490	8800	9410	3620
29	3230	7430	8930	2830	---	6460	7800	12100	9580	4670	9320	2740
30	3600	7360	9130	2690	---	5830	7150	12800	4810	3330	9340	3370
31	1490	---	9330	3100	---	5680	---	11400	---	3110	9360	---
MONTH	6570	6250	8500	6350	4810	4460	7170	9570	7330	7340	7120	3430

BRAZOS RIVER BASIN

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08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	5.0	5.0	4.0	5.5	11.0	10.0	19.0	21.0	25.5	24.0	23.5
2	16.0	14.0	15.0	3.0	4.5	10.0	12.0	14.0	20.0	25.0	24.0	23.5
3	16.0	9.5	9.0	2.0	0.5	13.5	10.5	17.0	22.0	26.5	24.5	24.5
4	18.0	18.0	2.0	2.0	7.0	9.5	7.0	15.5	23.0	27.0	21.5	24.5
5	19.0	18.5	8.5	1.0	14.0	---	9.5	16.5	19.5	24.5	23.0	20.5
6	23.0	16.5	---	0.0	9.0	---	14.0	18.0	20.5	25.0	23.5	17.0
7	16.5	12.0	---	0.0	10.0	---	14.5	14.0	21.0	24.5	23.0	21.0
8	28.0	11.0	4.5	0.0	1.5	14.0	6.5	19.5	21.0	33.0	24.5	25.0
9	30.0	12.0	4.0	---	5.5	11.5	5.5	19.0	23.5	24.0	25.0	24.5
10	22.0	9.0	2.0	---	3.5	11.0	9.0	19.0	21.5	24.0	24.0	25.5
11	21.0	---	1.0	---	3.5	10.5	13.0	22.0	21.0	23.5	24.5	24.0
12	19.5	14.5	0.0	1.5	6.5	12.0	13.5	18.0	22.0	24.5	23.5	24.0
13	19.5	9.5	7.0	3.5	5.0	16.0	15.0	16.0	23.0	24.5	24.0	22.0
14	29.5	5.5	0.5	5.5	4.0	10.5	19.0	14.0	21.5	24.0	24.0	21.0
15	19.0	5.5	0.0	2.0	4.0	11.0	20.5	14.0	25.5	23.5	24.0	21.0
16	18.5	5.0	7.0	4.5	4.0	11.0	12.0	16.0	24.5	24.0	23.5	20.5
17	19.5	7.0	0.5	9.5	---	10.5	13.5	16.5	23.5	25.5	26.0	18.5
18	20.0	8.5	5.0	9.0	---	---	15.0	18.5	27.0	24.0	23.5	19.0
19	8.5	8.0	5.5	6.0	13.0	13.0	15.0	20.5	24.5	24.5	22.0	16.0
20	11.0	8.0	5.5	6.5	6.0	10.5	15.5	21.0	19.0	25.5	23.5	21.0
21	13.5	2.0	6.5	---	9.5	11.0	25.5	23.0	20.5	24.0	22.0	23.0
22	18.5	3.5	7.0	5.0	4.0	13.5	---	20.5	21.5	---	21.0	21.5
23	13.5	3.5	11.0	4.5	5.5	15.5	21.0	20.5	21.0	25.5	---	22.0
24	11.5	7.0	10.0	2.0	5.5	13.5	28.0	22.0	21.0	25.0	---	23.0
25	13.5	6.0	5.0	3.5	9.0	9.5	16.5	20.0	23.0	24.0	---	23.5
26	11.0	---	4.5	5.0	10.5	10.5	15.0	23.0	23.0	26.5	---	23.5
27	12.0	11.0	4.0	4.5	9.0	11.0	10.5	19.0	22.0	23.0	24.0	19.0
28	15.5	5.0	8.0	1.0	10.0	10.5	15.5	25.0	25.0	24.0	23.5	15.0
29	15.5	4.5	9.5	0.0	---	13.0	18.5	18.5	23.5	23.5	23.5	15.5
30	---	3.5	7.0	5.0	---	14.5	19.5	20.0	23.0	24.5	23.0	17.0
31	6.5	---	10.0	6.0	---	9.5	---	19.0	---	24.0	23.5	---
MONTH	17.5	8.5	5.5	3.5	6.5	12.0	14.5	18.5	22.5	25.0	23.5	21.5

BRAZOS RIVER BASIN

08080540 MCDONALD CREEK NEAR POST, TEX.

LOCATION.--Lat 33°21'03", long 101°13'36", Garza County, at gaging station at bridge on Farm Road 651, 2.6 miles (4.2 km) downstream from Lake Creek, 4.1 miles (6.6 km) upstream from mouth, and 14.4 miles (23.2 km) northeast of Post.

DRAINAGE AREA.--112 mi² (290 km²), of which 40 mi² (103 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1965 to September 1967, October 1969 to September 1973.-- Specific conductance (1965-66): Maximum daily, 49,900 micromhos Sept. 22, 1966; minimum daily, 975 micromhos Aug. 29, 1966.

Water temperatures (1965-66): Maximum, 29.0°C Sept. 1, 1966; minimum, 10.0°C Apr. 30, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.											
26...	1200	.91	6.9	380	190	8500	--	30	152	0	1400
NOV.											
26...	1300	.29	8.6	550	310	--	14000	--	202	0	2400
DEC.											
13...	1700	.50	7.4	470	270	--	12000	--	140	0	2200
JAN.											
21...	1800	2.2	8.2	86	39	1700	--	4.9	224	0	410
22...	1930	.50	9.1	130	71	2600	--	6.7	254	0	550
FEB.											
19...	1800	.29	11	160	120	--	5000	--	152	0	990
MAR.											
10...	0930	20	13	37	14	--	510	--	178	0	120
APR.											
03...	0630	.50	6.0	300	200	7800	--	14	200	0	1700
JULY											
17...	1430	.95	9.6	270	13	3000	--	15	108	0	910
30...	1845	11	6.8	210	47	1800	--	8.2	172	0	580
SEP.											
06...	1830	.13	6.5	1500	21	--	9900	--	148	0	2200

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
26...	14000	--	--	24100	1700	1600	89	38600	7.7	--
NOV.										
26...	22000	--	--	39900	2700	2500	--	60600	7.6	14.0
DEC.										
13...	18000	--	--	33600	2300	2200	--	50300	8.0	3.0
JAN.										
21...	2500	--	--	4860	380	190	38	8490	8.1	6.0
22...	3900	--	--	7380	610	400	46	12600	8.2	1.0
FEB.										
19...	7600	--	--	14000	880	760	--	22600	8.0	11.0
MAR.										
10...	700	.8	2.4	1500	150	4	18	2690	7.7	8.0
APR.										
03...	12000	--	--	22200	1600	1400	86	36300	7.9	4.0
JULY										
17...	4400	--	--	8690	730	640	48	14400	7.5	32.0
30...	2800	--	--	5480	710	570	29	9270	7.1	30.0
SEP.										
06...	16000	--	--	30000	3900	3800	--	46600	7.4	18.0

BRAZOS RIVER BASIN

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08080540 MCDONALD CREEK NEAR POST, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	19.72	17300	10100	538	5400	288	720	38	850
NOV.	8.23	55100	36300	807	20000	444	2300	51	2700
DEC.	10.25	55200	36400	1010	20000	554	2300	64	2700
JAN. 1973....	18.02	35100	22200	1080	12000	584	1500	73	1700
FEB.	15.42	32500	20400	849	11000	458	1300	54	1600
MAR.	164.36	5700	3210	1420	1700	754	240	107	280
APR.	91.32	11800	6830	1680	3600	888	490	121	580
MAY ....	.33	63700	42400	38	23000	20	2600	2.3	3100
JUNE	0	--	--	0	--	0	--	0	--
JULY	49.91	8320	4770	643	2500	337	340	46	410
AUG.	0	--	--	0	--	0	--	0	--
SEP. ....	.41	47200	30700	34	17000	19	2000	2.2	2300
TOTAL	377.97	--	--	8100	--	4350	--	558	--
WTD. AVG. ...	1.04	13100	7940	--	4300	--	550	--	640

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	50000	54000	51000	63300	41100	36200	---	---	---	---	---
2	---	60000	53200	60000	55400	35500	43800	---	---	---	---	---
3	---	58000	64200	70900	51300	36000	36300	---	---	---	---	---
4	---	54900	75200	43200	50000	35200	54600	---	---	---	---	---
5	---	55500	86100	48000	48200	41500	54500	---	---	---	---	---
6	---	55200	82000	50000	49800	44400	53900	---	---	---	---	46600
7	---	55100	80000	51000	48800	47300	50800	---	---	---	---	51000
8	---	55200	65000	52000	51000	50000	50000	---	---	---	---	---
9	---	55100	59000	54000	50000	8200	51000	---	---	---	---	---
10	---	55200	53000	56000	49000	2690	52000	---	---	10000	---	---
11	---	54800	51000	65000	51000	6530	54000	---	---	9000	---	---
12	---	53300	57100	---	50000	14000	54000	---	---	---	---	---
13	---	56000	50300	39700	48000	21000	12100	---	---	11000	---	---
14	---	---	49000	38300	46000	20600	20000	66000	---	55000	---	---
15	---	---	50000	49000	45400	28700	40000	66800	---	---	---	---
16	---	---	51000	60000	43000	29700	58600	---	---	---	---	---
17	---	---	52000	58000	37200	30700	58000	---	---	14400	---	---
18	---	49300	52500	60100	32000	30600	57700	---	---	55000	---	---
19	55000	56900	52000	57500	22600	30500	50000	---	---	---	---	---
20	20000	56000	51600	54600	33100	35100	54000	---	---	---	---	---
21	6600	55000	51600	8490	30000	38500	53900	62000	---	---	---	---
22	12600	54000	51300	12600	20000	39200	55000	60100	---	---	---	---
23	33300	53000	51000	40100	15000	40000	56000	58000	---	---	---	---
24	43100	53200	50700	46000	14100	32000	45000	---	---	---	---	---
25	30600	64700	50400	50000	36900	35300	13800	---	---	---	---	---
26	42000	60600	50100	42000	40000	38600	4000	---	---	---	---	---
27	55000	57000	49800	34800	45000	41700	9000	---	---	---	---	---
28	56100	55100	51200	44400	50000	47600	25000	---	---	6500	---	---
29	57000	54200	52700	48300	---	44000	55000	---	---	6000	---	---
30	15000	54100	68700	47000	---	41000	---	---	---	9270	---	---
31	40000	---	51000	47700	---	38000	---	---	---	50000	---	---
MONTH	---	55440	56990	47990	42000	33070	43390	---	---	---	---	---

08080540 MCDONALD CREEK NEAR POST, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

[illegible]

BRAZOS RIVER BASIN

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08080916 SALT FORK BRAZOS RIVER AT FARM ROAD 1081, NEAR CLAIREMONT, TEX.

LOCATION.--Lat 33°14'33", long 100°55'40", Kent County, at bridge on Farm Road 1081, and 11.7 miles (18.8 km) northwest of Clairemont.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 01...	1445	27	--	92	41	820	--	--	330
28...	1430	.38	--	250	110	2100	--	--	950
JAN. 02...	1515	2.2	--	270	110	1800	--	--	920
FEB. 06...	1100	4.0	--	230	100	1700	--	--	830
MAR. 14...	0920	57	--	80	32	520	276	0	240
APR. 25...	1730	5.4	8.1	230	86	1400	174	0	830
MAY 29...	1155	.15	14	280	110	1200	236	0	1200

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 01...	1300	--	2580	400	--	18	4530	--	14.0
28...	3200	--	6630	1100	--	--	11300	--	11.0
JAN. 02...	2800	--	5850	1100	--	--	10000	--	6.5
FEB. 06...	2800	--	5640	990	--	24	9680	--	10.0
MAR. 14...	700	--	1720	330	100	12	2970	8.1	13.0
APR. 25...	2100	--	4700	930	790	20	7780	7.8	22.0
MAY 29...	1600	.6	4500	1100	940	15	6960	7.8	29.0

BRAZOS RIVER BASIN

08080959 SALT FORK BRAZOS RIVER AT U. S. HIGHWAY 380, NEAR JAYTON, TEX.

LOCATION.--Lat 33°10'06", long 100°37'50", Kent County, at bridge on U.S. Highway 380, 6.5 miles (10.4 km) southwest of Jayton.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV.									
02...	0800	63	--	210	76	1400	--	--	740
29...	0915	11	--	540	160	3000	--	--	1700
JAN.									
04...	1215	8.6	--	600	200	2500	--	--	1800
FEB.									
06...	1320	19	--	530	190	2800	--	--	1700
MAR.									
13...	1520	142	--	160	55	770	--	--	500
APR.									
25...	0900	21	11	600	200	2800	180	0	1900
MAY									
29...	1605	5.4	13	620	210	3200	160	0	2000
JULY									
13...	0910	.40	--	660	190	4400	184	0	2100
AUG.									
14...	1145	.27	--	780	250	6800	--	--	2600
SFP.									
19...	1230	.72	17	570	180	3000	164	0	1800

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.								
02...	2200	4610	840	--	21	7890	--	7.0
29...	4700	10100	2000	--	--	16000	--	4.0
JAN.								
04...	4200	9390	2300	--	--	14800	--	2.0
FEB.								
06...	4600	9730	2100	--	--	15600	--	12.0
MAR.								
13...	1200	2730	620	--	13	4670	--	14.0
APR.								
25...	4600	10200	2300	2200	--	15600	7.7	17.0
MAY								
29...	5000	11100	2400	2300	--	17000	7.5	33.0
JULY								
13...	6800	14200	2400	2300	--	21000	7.5	24.0
AUG.								
14...	11000	21100	3000	--	--	34000	7.4	30.0
SFP.								
19...	4700	10300	2200	2000	--	15800	7.6	27.0

BRAZOS RIVER BASIN

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08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.

LOCATION.--Lat 33°12'43", long 100°25'53", Stonewall County, at gaging station at bridge on U.S. Highway 380, 2.9 miles (4.7 km) northwest of Peacock, 6.2 miles (10.0 km) upstream from Croton Creek, and 13.0 miles (20.9 km) northwest of Aspermont.

DRAINAGE AREA.--4,275 mi² (11,072 km²), of which 2,770 mi² (7,170 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1949 to September 1951, October 1964 to September 1973.

Water temperatures: December 1949 to September 1951, October 1964 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 49,000 micromhos Dec. 6; minimum daily, 4,000 micromhos Sept. 7, 8.

Water temperatures: Minimum, freezing point on several days during winter months.

EXTREMES, December 1949 to September 1951, October 1964 to September 1973.--Specific conductance: Maximum, 61,100 micromhos July 31, 1966; minimum daily, 900 micromhos Aug. 31, 1966.

Water temperatures (1949-50, 1964-69, 1971-73): Maximum, 39.0°C June 25, 1968; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT.										
25...	1455	71	9.0	280	90	2900	--	25	176	0
NOV.										
01...	0800	234	7.9	320	72	--	2100	--	120	0
DEC.										
21...	1015	15	14	760	250	--	8000	--	202	0
JAN.										
19...	1715	29	8.4	460	160	4700	--	19	134	0
FEB.										
08...	1530	41	8.4	570	200	--	6600	--	180	0
MAR.										
11...	0815	1160	13	140	34	--	1000	--	224	0
APR.										
25...	1100	19	--	700	230	--	6300	--	--	--
MAY										
01...	0745	55	12	390	150	--	3800	--	96	0
JUNE										
12...	1715	1.1	13	880	280	--	8600	--	112	0
JULY										
15...	1610	62	11	610	69	1300	--	9.2	108	0
AUG.										
01...	1645	.43	--	840	240	--	6700	--	--	--

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
25...	870	4500	--	8760	1100	920	39	14600	8.0	14.0
NOV.										
01...	950	3200	--	6690	1100	990	--	11100	7.9	7.0
DEC.										
21...	2300	13000	.30	24000	2900	2800	--	37500	7.5	5.0
JAN.										
19...	1500	7400	--	14300	1800	1700	48	22400	7.8	12.0
FEB.										
08...	1800	10000	--	19700	2200	2100	--	29400	7.8	5.0
MAR.										
11...	450	1500	1.2	3270	480	290	21	5620	7.8	9.0
APR.										
25...	2200	10000	--	19400	2700	--	--	29000	--	19.0
MAY										
01...	1600	5800	--	11800	1600	1500	--	18700	7.1	17.0
JUNE										
12...	2800	14000	--	26100	3400	3300	--	41000	7.2	31.0
JULY										
15...	1600	2000	.40	5710	1800	1700	13	8510	7.4	27.0
AUG.										
01...	2700	10000	--	21000	3100	--	--	32400	--	32.0

BRAZOS RIVER BASIN

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT, 1972....	1691.5	14800	9070	41400	4600	21000	940	4290	--
NOV.	1303	28800	18800	66100	9900	34800	1900	6680	--
DEC.	467	37400	23900	30100	13000	16400	2300	2900	--
JAN, 1973....	1401.0	20600	12600	47700	6600	25000	1300	4920	--
FEB.	1670	23300	14900	67200	7800	35200	1600	7210	--
MAR.	3097	13300	8150	68100	4100	34300	960	8030	--
APR.	1037	23700	15100	42300	7900	22100	1600	4480	--
MAY	512.0	30200	20200	27900	10000	13800	2300	3180	--
JUNE	94.65	35100	22900	5850	12000	3070	2300	588	--
JULY	121.15	16200	9930	3250	5100	1670	1000	327	--
AUG.	1.02	32200	20900	58	10000	28	2700	7	--
SEP.	516.87	8290	5080	7090	2400	3350	750	1050	--
TOTAL	11912.19	--	--	407000	--	211000	--	43700	--
WTD. AVG. ...	32.6	20000	12700	--	6550	--	1360	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35900	11100	38800	35400	25600	19900	22000	18700	38600	39800	32400	---
2	36200	17900	37000	36800	25000	22900	23700	22400	32900	40000	32600	7000
3	36800	22000	36400	25000	27300	24400	23600	25000	38600	---	32100	---
4	37600	27800	36800	35100	27300	26500	23700	27400	25400	---	32100	11000
5	37400	29800	36800	30400	28100	26500	25300	29700	28800	---	27500	4840
6	38100	33600	49000	35000	28500	26600	26300	31800	35200	---	27600	7510
7	38600	36600	37000	35500	29900	29500	27400	31700	30700	---	---	4000
8	39200	37400	37000	36000	29600	28300	27400	32000	39100	---	---	4000
9	39200	39200	37100	37000	25200	23900	28200	33700	39400	---	---	4690
10	39800	40600	37900	37500	25300	10000	26800	34200	37100	---	---	5420
11	40200	40100	37700	38000	27400	5000	27600	34800	39800	---	---	10200
12	40100	40700	37100	38700	27400	10000	27900	36800	41000	---	---	14600
13	40200	41300	38600	38800	23300	7700	21400	34500	40000	---	---	19900
14	39900	39000	36400	20000	23200	9770	21200	34700	39800	25000	---	23600
15	40400	39900	36900	30700	22400	12500	28900	32000	40400	12000	---	25800
16	40200	40000	37000	31500	24400	15100	28900	32400	40200	13700	---	28800
17	41700	40600	32200	30000	29300	17300	27900	32200	39800	19800	---	27600
18	41000	39700	37100	19900	29300	19600	29500	33300	42700	25200	---	29400
19	35200	41400	38100	22400	27000	20400	28500	35100	34200	15000	---	29900
20	34700	37800	37100	23400	25900	21700	33600	36100	39500	19300	---	30000
21	23500	35700	37700	17800	24900	22200	31800	36400	39200	25400	---	34400
22	12000	38700	37100	17800	21800	23100	33800	32900	41900	22200	---	35000
23	9000	36800	37500	15000	21800	23500	33600	34200	39300	26000	---	36000
24	10400	34700	37500	12600	23500	22000	23600	27400	37900	25100	---	35700
25	14800	36500	37500	17900	21700	15200	29000	37700	38000	29300	---	36400
26	20100	35100	37400	17800	14300	20400	27100	33900	37500	27700	---	25000
27	26200	35000	37300	18600	12900	22600	25700	32900	36900	26900	---	19500
28	26100	36100	37700	18700	16900	24400	19300	38300	36300	22800	---	24800
29	24500	36400	37600	17000	---	24500	13900	38700	37000	15000	---	23300
30	11200	36700	37900	20000	---	23300	15800	40600	39400	17000	---	22300
31	6520	---	33300	22400	---	24600	---	40100	---	27000	---	---
MONTH	30860	35270	37440	26860	24610	20110	26110	32790	37550	---	---	20740

BRAZOS RIVER BASIN

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08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	7.0	3.0	3.0	9.0	10.0	21.0	17.0	19.0	32.0	32.0	---
2	14.0	7.0	5.0	3.0	3.0	8.0	12.0	10.0	21.0	22.0	19.0	---
3	14.0	9.0	6.0	10.0	10.0	10.0	7.0	12.0	27.0	---	26.0	---
4	25.0	11.0	2.0	1.0	8.0	20.0	5.0	13.0	20.0	---	22.0	28.0
5	17.0	19.0	7.0	0.0	7.0	10.0	20.0	15.0	17.0	---	28.0	18.0
6	15.0	14.0	0.0	---	5.0	12.0	10.0	14.0	20.0	---	21.0	---
7	13.0	10.0	0.0	---	6.0	8.0	11.0	13.0	15.0	---	---	---
8	20.0	11.0	2.0	---	5.0	13.0	7.0	18.0	17.0	---	---	25.0
9	17.0	11.0	2.0	---	2.0	6.0	2.0	28.0	18.0	---	---	29.0
10	29.0	7.0	0.0	---	5.0	10.0	5.0	17.0	27.0	---	---	23.0
11	18.0	13.0	0.0	---	8.0	9.0	7.0	23.0	24.0	---	---	21.0
12	17.0	15.0	0.0	0.0	4.0	18.0	10.0	15.0	31.0	---	---	21.0
13	29.0	11.0	3.0	0.0	5.0	15.0	18.0	18.0	20.0	---	---	23.0
14	18.0	9.0	1.0	9.0	3.0	8.0	17.0	13.0	23.0	28.0	---	20.0
15	22.0	5.0	0.0	12.0	4.0	9.0	18.0	14.0	22.0	27.0	---	18.0
16	16.0	3.0	6.0	15.0	3.0	9.0	9.0	13.0	23.0	34.0	---	24.0
17	17.0	5.0	6.0	15.0	0.0	19.0	13.0	14.0	29.0	25.0	---	17.0
18	18.0	9.0	7.0	15.0	12.0	16.0	12.0	18.0	23.0	32.0	---	15.0
19	7.0	10.0	14.0	12.0	5.0	10.0	13.0	17.0	23.0	23.0	---	18.0
20	10.0	4.0	5.0	5.0	13.0	18.0	13.0	28.0	24.0	28.0	---	25.0
21	12.0	4.0	5.0	7.0	8.0	14.0	16.0	19.0	18.0	23.0	---	20.0
22	20.0	1.0	5.0	10.0	3.0	10.0	20.0	29.0	19.0	32.0	---	20.0
23	12.0	6.0	9.0	2.0	2.0	15.0	17.0	18.0	23.0	23.0	---	27.0
24	12.0	7.0	13.0	1.0	5.0	12.0	24.0	22.0	30.0	22.0	---	20.0
25	14.0	5.0	4.0	1.0	18.0	13.0	19.0	21.0	20.0	22.0	---	20.0
26	12.0	7.0	5.0	5.0	10.0	7.0	10.0	19.0	24.0	24.0	---	20.0
27	14.0	5.0	2.0	5.0	7.0	11.0	10.0	23.0	20.0	22.0	---	17.0
28	14.0	7.0	7.0	1.0	9.0	8.0	13.0	16.0	23.0	22.0	---	12.0
29	22.0	5.0	9.0	9.0	---	10.0	19.0	15.0	20.0	29.0	---	12.0
30	18.0	1.0	4.0	6.0	---	11.0	18.0	27.0	37.0	32.0	---	13.0
31	6.0	---	5.0	5.0	---	7.0	---	18.0	---	29.0	---	---
MONTH	16.5	8.0	4.5	6.0	6.5	11.5	13.0	18.0	22.5	---	---	20.0

BRAZOS RIVER BASIN

08081200 CROTON CREEK NEAR JAYTON, TEX.

LOCATION.--Lat 33°17'21", long 100°26'00", Stonewall County, at gaging station, 460 feet (140 m) upstream from county road, 1.1 miles (1.8 km) upstream from mouth, and 8.6 miles (13.8 km) northeast of Jayton.

DRAINAGE AREA.--302 mi² (782 km²).

PERIOD OF RECORD.--Chemical analyses: May 1959 to September 1973.

Water temperatures: October 1961 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 49,800 micromhos Jan. 4; minimum daily, 8,000 micromhos Mar. 24.

EXTREMES, October 1961 to September 1968, October 1972 to September 1973.--Specific conductance (1961-64, 1972-73): Maximum daily, 50,900 micromhos Apr. 18, 1964; minimum daily, 3,160 micromhos Sept. 4, 1962.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
09...	1000	.75	11	1400	330	8400	--	30	198	0
24...	1700	9.6	7.1	880	130	2800	--	13	111	0
NOV.										
01...	1000	28	6.8	680	97	--	2100	--	84	0
JAN.										
24...	1030	11	5.8	940	230	5000	--	18	128	0
FEB.										
07...	1240	6.8	4.4	1000	280	--	6300	--	173	0
MAR.										
10...	1015	64	9.5	640	120	--	1200	--	126	0
MAY										
22...	1015	5.8	6.2	930	290	--	5700	--	144	0
23...	0930	5.1	8.6	1200	340	--	1000	--	132	0
JULY										
03...	1000	.75	12	1100	260	6000	--	25	94	0
SEP.										
12...	0950	3.0	12	990	150	--	3400	--	104	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
09...	3600	14000	--	27300	4700	4600	52	40600	7.9	--
24...	2400	4500	--	10800	2700	2600	23	16100	7.9	17.0
NOV.										
01...	1900	3300	--	8080	2100	2000	--	12200	7.6	--
JAN.										
24...	2900	8000	--	17200	3300	3200	38	25100	7.5	--
FEB.										
07...	7100	10000	--	20800	3700	3600	--	31500	7.4	--
MAR.										
10...	2000	1800	.10	5750	2100	2000	11	8000	7.5	--
MAY										
22...	3000	9000	--	19000	3500	3400	--	28000	7.2	--
23...	3700	16000	--	32000	4400	4300	--	48000	7.3	--
JULY										
03...	3400	9500	--	20400	3900	3800	42	30700	7.8	--
SEP.										
12...	2700	5400	--	12600	3100	3000	--	17900	7.6	--

BRAZOS RIVER BASIN

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08081200 CROTON CREEK NEAR JAYTON, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	263.06	17300	11800	8380	5300	3760	2400	1700	--
NOV.	164.8	27300	18300	8140	8900	3960	2800	1250	--
DEC.	71.5	35700	23600	4560	12000	2320	3300	637	--
JAN. 1973....	218.3	31100	20300	12000	10000	5890	3100	1830	--
FEB.	226.9	31500	20600	12600	10000	6130	3100	1900	--
MAR.	477.2	16600	11400	14700	5000	6440	2300	2960	--
APR.	223.6	28600	19200	11600	9400	5670	3000	1810	--
MAY	66.7	41300	27600	4970	14000	2520	3500	630	--
JUNE	18.89	35400	23400	1190	12000	612	3300	168	--
JULY	14.26	33800	22300	859	11000	424	3200	123	--
AUG.	1.08	40800	27200	79	14000	41	3500	10	--
SEP.	486.3	10600	7450	9780	2900	3810	1900	2490	--
TOTAL	2232.59	--	--	88900	--	41600	--	15500	--
WTD. AVG. ...	6.12	21900	14700	--	6900	--	2600	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39000	13400	35800	38000	30600	31900	24200	34800	43600	35000	40000	15000
2	39500	13700	36000	39000	32600	33000	24500	36700	30000	30000	42000	25000
3	39700	17100	36500	30000	32100	37000	24900	37200	35000	30700	43000	35000
4	39800	21000	37000	49800	32100	33600	26400	37500	37200	35000	---	14000
5	39800	24000	34500	34900	32200	33500	26100	38200	41300	---	---	10000
6	40600	26300	35000	36100	32600	33100	26400	40000	42000	---	---	11000
7	40400	28200	37300	37000	31500	37400	27400	43200	43000	---	---	8000
8	40500	29100	33300	38000	42400	35200	28000	41400	44000	---	---	10000
9	40600	29900	34300	40000	33800	35600	29900	41000	---	---	---	11000
10	40500	32900	35000	42500	33700	10000	29600	40600	---	---	---	12000
11	40800	33300	36700	42600	33000	8000	29900	41200	---	---	---	14800
12	40800	33000	35900	42600	32700	10000	32200	41800	---	---	---	17900
13	40600	32700	37400	42400	33800	13300	25900	40000	---	---	---	21200
14	41000	33800	33000	42000	33900	19100	29800	38700	---	---	---	23800
15	41200	34200	37700	41000	33400	20300	29000	44000	---	---	---	24100
16	41300	34700	39800	41000	33500	22600	26000	46900	40000	---	42000	25000
17	41500	34700	37000	37600	36000	24600	28700	44300	41000	---	---	26200
18	41600	33000	35200	37500	36900	26900	29800	43700	42000	40000	---	27100
19	37500	34000	36900	37500	37000	27000	33300	43400	---	43000	---	27900
20	25000	36600	30900	36000	34000	28200	35200	43400	---	---	---	29300
21	20000	34300	35000	25000	32700	28700	36200	43100	---	---	---	33400
22	12000	41500	37000	28000	25000	29400	30000	35000	---	---	---	35000
23	14400	40000	32700	25300	20000	11600	29000	48000	---	---	---	---
24	15000	34400	35000	25100	25000	8000	21000	46000	---	---	---	---
25	19000	37000	35000	27900	27000	12000	29000	45100	---	40000	---	---
26	18900	38000	34400	27900	30500	11600	35800	44900	---	---	---	18400
27	37600	37300	37900	26000	30600	16800	34100	45000	---	---	---	18500
28	37600	36900	36100	27000	31600	19500	32100	45000	---	---	---	25800
29	38000	34800	34300	28100	---	24300	33000	45100	---	30000	---	30000
30	10000	35000	37300	28100	---	24300	34100	45900	---	40000	---	35000
31	12000	---	37000	30900	---	24200	---	44900	---	41000	---	---
MONTH	33100	31490	35710	34990	32150	23460	29380	42130	---	---	---	21640

BRAZOS RIVER BASIN

08081400 SALT CROTON CREEK AT WEIR D, NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'00", long 100°24'39", Stonewall County, upstream from Haystack Creek, 1,000 ft (305 m) upstream from streamflow station Salt Croton Creek near Aspermont, and 20 miles (32 km) northwest of Aspermont.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
NOV.								
15...	1320	.82	--	2100	330	78000	--	--
DEC.								
19...	1320	1.1	--	2300	1000	95000	--	--
JAN.								
18...	1150	1.2	--	2100	1200	76000	--	--
FEB.								
06...	1200	1.3	--	2100	1000	82000	--	--
MAR.								
06...	1115	2.0	--	2100	1200	85000	--	--
28...	1015	1.5	--	1600	700	60000	--	--
APR.								
20...	1030	.70	--	2200	1100	92000	--	--
MAY								
08...	0920	.62	--	2600	1100	96000	--	--
31...	1015	.54	5.1	2000	1500	120000	39	0
JUNE								
19...	1115	.08	5.6	2000	1700	120000	30	0
JULY								
10...	0950	.26	--	2100	1800	120000	38	0
AUG.								
01...	1040	.67	--	2200	530	47000	40	0
22...	1400	.45	--	2000	1600	120000	--	--
SEPT.								
12...	1015	.67	5.2	2300	1000	75000	--	--

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.								
15...	3800	120000	206000	65000	--	220000	--	7.0
DEC.								
19...	3800	150000	253000	10000	--	238000	--	11.0
JAN.								
18...	3600	120000	203000	10000	--	216000	--	13.5
FEB.								
06...	3900	130000	219000	9500	--	223000	--	11.5
MAR.								
06...	3900	140000	227000	10000	--	227000	--	18.0
28...	3600	95000	161000	6900	--	184000	--	14.5
APR.								
20...	4700	140000	245000	9800	--	232000	--	23.0
MAY								
08...	4800	150000	256000	11000	--	233000	--	19.5
31...	3200	190000	317000	11000	11000	248000	6.6	22.5
JUNE								
19...	3100	190000	318000	12000	12000	249000	6.7	22.5
JULY								
10...	3600	190000	--	13000	13000	251000	6.9	24.5
AUG.								
01...	5000	74000	129000	7600	7500	159000	6.9	28.0
22...	3200	190000	315000	12000	--	250000	6.8	34.5
SEPT.								
12...	4200	120000	203000	9800	--	211000	--	27.5

BRAZOS RIVER BASIN

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08081450 HAYSTACK CREEK AT WEIR E, NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'04", long 100°24'41", King County, about 400 ft (120 m) upstream from Salt Croton Creek, and 20 miles (32 km) northwest of Aspermont.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV. 15...	1250	.41	--	1400	1800	17000	--	--
DEC. 19...	1310	.44	--	1400	2200	17000	--	--
JAN. 18...	1130	.56	--	1300	1400	11000	--	--
FEB. 06...	1200	.54	--	1300	1700	9700	--	--
MAR. 06...	1145	.64	--	1300	410	17700	--	--
28...	1040	.63	--	1200	380	16000	--	--
APR. 20...	1010	.33	--	1500	460	23000	--	--
MAY 08...	1025	.27	--	1600	520	29000	--	--
31...	1010	.16	9.0	1800	570	39000	90	0
JUNE 19...	1100	.30	9.1	2000	610	40000	97	0
JULY 10...	0840	.19	--	1800	600	42000	90	0
AUG. 01...	1115	.23	--	1700	490	37000	86	0
22...	1405	.09	--	2100	690	50000	--	--
SEP. 12...	0950	.16	4.3	1800	540	36000	84	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 15...	3600	32000	55500	110000	--	82600	--	6.0
DEC. 19...	3600	32000	56700	12000	--	84600	--	11.0
JAN. 18...	3500	20000	37400	9200	--	71300	--	14.0
FEB. 06...	3600	20000	35700	10000	--	75800	--	15.0
MAR. 06...	3800	28000	50700	4900	--	77400	--	18.5
28...	3600	26000	47700	4600	--	65000	--	17.5
APR. 20...	4100	37000	66400	5600	--	92500	--	22.0
MAY 08...	4500	46000	81700	6200	--	111000	--	23.0
31...	4800	61000	107000	6900	6800	137000	7.3	22.5
JUNE 19...	5100	64000	112000	8300	8200	141000	7.2	22.5
JULY 10...	5000	66000	116000	7100	7000	147000	7.5	24.5
AUG. 01...	4400	58000	101000	6200	6200	132000	7.7	29.0
22...	5500	78000	136000	8000	--	166000	7.6	35.5
SEP. 12...	4500	58000	101000	6800	6700	131000	7.4	25.0

BRAZOS RIVER BASIN

08081500 SALT CROTON CREEK NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'03", long 100°24'29", King County, at gaging station, 1.0 mile (0.2 km) downstream from Haystack Creek, 2.4 miles (3.9 km) downstream from Salt Flat Creek, 9.0 miles (14.5 km) upstream from Salt Fork Brazos River, and 21 miles (33.8 km) northwest of Aspermont.

DRAINAGE AREA.--64.3 mi² (167 km²).

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 246,000 micromhos June 23; minimum daily, 7,570 micromhos Sept. 13.
Water temperatures: Maximum, 39.0°C Sept. 4; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT.								
11...	1000	.60	--	--	--	--	--	--
24...	1200	1.2	--	1700	540	36000	--	--
NOV.								
17...	1500	.79	5.7	1400	390	20000	123	0
29...	0900	.79	--	--	--	--	--	--
DEC.								
01...	0900	1.0	--	--	--	--	--	--
11...	1200	1.2	--	--	--	--	--	--
19...	0800	1.2	--	--	--	--	--	--
JAN.								
02...	1400	1.7	--	--	--	--	--	--
03...	0930	6.6	--	--	--	--	--	--
15...	0900	3.5	--	--	--	--	--	--
28...	1300	1.2	--	1400	520	30000	--	--
FEB.								
01...	1000	1.4	--	--	--	--	--	--
05...	1000	1.2	--	--	--	--	--	--
24...	1200	4.6	--	1500	520	33000	--	--
MAR.								
15...	1015	3.2	--	--	--	--	--	--
18...	0830	2.0	--	--	--	--	--	--
23...	0930	2.0	--	--	--	--	--	--
25...	1030	2.0	--	--	--	--	--	--
27...	0925	2.5	3.1	1600	700	45000	108	0
APR.								
04...	1000	1.2	--	--	--	--	--	--
13...	1100	6.2	--	--	--	--	--	--
19...	0800	4.6	--	--	--	--	--	--
25...	1000	9.0	--	--	--	--	--	--
30...	1700	2.0	--	--	--	--	--	--
MAY								
02...	1100	.60	--	--	--	--	--	--
14...	1200	2.3	--	--	--	--	--	--
JUNE								
01...	1400	13	6.8	660	94	2600	80	0
25...	1300	.60	--	--	--	--	--	--
JULY								
02...	1600	1.7	--	--	--	--	--	--
31...	0930	6.6	--	--	--	--	--	--
AUG.								
11...	1030	1.4	--	1800	480	40000	--	--
12...	1100	1.0	--	--	--	--	--	--
SEP.								
07...	1000	52	7.3	780	100	3700	69	0

BRAZOS RIVER BASIN

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08081500 SALT CROTON CREEK NEAR ASPERMONT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.								
11...	--	140000	--	--	--	230000	--	21.0
24...	3800	58000	101000	6500	--	131000	--	20.0
NOV.								
17...	3700	31000	56600	5000	4900	80600	6.8	16.0
29...	--	92000	--	--	--	182000	--	3.0
DEC.								
01...	--	79000	--	--	--	164000	--	3.0
11...	--	100000	--	--	--	188000	--	.0
19...	--	110000	--	--	--	203000	--	3.0
JAN.								
02...	--	94000	--	--	--	184000	--	4.0
03...	--	68000	--	--	--	146000	--	.0
15...	--	54000	--	--	--	123000	--	4.0
28...	3700	47000	82300	5700	--	111000	--	6.0
FEB.								
01...	--	68000	--	--	--	145000	--	5.0
05...	--	91000	--	--	--	180000	--	10.0
24...	3600	52000	90200	5800	--	119000	--	15.0
MAR.								
15...	--	74000	--	--	--	151000	--	14.0
18...	--	80000	--	--	--	165000	--	9.0
23...	--	74000	--	--	--	156000	--	16.0
25...	--	35000	--	--	--	87600	--	14.0
27...	3800	72000	124000	6900	6800	153000	7.3	11.0
APR.								
04...	--	74000	--	--	--	156000	--	14.0
13...	--	22000	--	--	--	60200	--	24.0
19...	--	110000	--	--	--	204000	--	13.0
25...	--	26000	--	--	--	68800	--	19.0
30...	--	120000	--	--	--	212000	--	28.0
MAY								
02...	--	120000	--	--	--	206000	--	20.0
14...	--	110000	--	--	--	202000	--	17.0
JUNE								
01...	2000	4000	9430	2000	2000	13900	7.5	33.0
25...	--	170000	--	--	--	242000	--	35.0
JULY								
02...	--	180000	--	--	--	245000	--	37.0
31...	--	46000	--	--	--	111000	--	25.0
AUG.								
11...	4300	62000	109000	6500	--	139000	--	29.0
12...	--	94000	--	--	--	184000	--	33.0
SEP.								
07...	1900	6000	12500	2400	2300	18900	7.0	21.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	141.45	76000	53700	20500	31000	11800	2500	955	--
NOV.	45.09	140000	107000	13000	63000	7670	3200	390	--
DEC.	30.62	190000	168000	13900	100000	8270	3800	314	--
JAN. 1973....	106.99	116000	86900	25100	51000	14700	3100	896	--
FEB.	67.79	136000	103000	18900	61000	11200	3200	586	--
MAR.	165.03	116000	86900	38700	51000	22700	3100	1380	--
APR.	83.85	138000	105000	23800	62000	14000	3200	724	--
MAY	34.66	211000	201000	18800	120000	11200	4500	421	--
JUNE	60.23	132000	100000	16300	59000	9590	3200	520	--
JULY	29.89	211000	201000	16200	120000	9680	4500	363	--
AUG.	77.60	108000	80300	16800	47000	9850	3000	629	--
SEP.	368.39	56000	35500	35300	20000	19900	1900	1890	--
TOTAL	1211.59	--	--	257000	--	151000	--	9070	--
WTD. AVG. ...	3.32	104000	78700	--	46000	--	2800	--	--

BRAZOS RIVER BASIN

08081500 SALT CROTON CREEK NEAR ASPERMONT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230000	70000	164000	185000	145000	170000	142000	210000	86100	244000	156000	51600
2	230000	99000	170000	160000	156000	167000	161000	206000	65000	245000	195000	127000
3	233000	66600	182000	146000	176000	180000	159000	208000	133000	240000	204000	170000
4	231000	139000	195000	136000	174000	189000	156000	229000	148000	237000	198000	150000
5	231000	145000	182000	150000	180000	191000	182000	220000	192000	233000	200000	67000
6	222000	174000	225000	167000	173000	193000	194000	214000	211000	238000	243000	40000
7	233000	192000	186000	150000	150000	180000	183000	213000	224000	238000	243000	7820
8	235000	167000	190000	140000	120000	189000	192000	217000	228000	240000	244000	72000
9	231000	185000	186000	128000	90000	198000	156000	235000	237000	237000	241000	122000
10	229000	184000	211000	176000	130000	95200	170000	231000	237000	237000	180000	149000
11	230000	190000	188000	195000	153000	72000	196000	230000	244000	237000	139000	171000
12	232000	186000	190000	163000	171000	84800	193000	229000	238000	238000	184000	40300
13	229000	186000	190000	140000	166000	93000	75000	230000	237000	237000	222000	7570
14	229000	97700	182000	130000	165000	141000	100000	202000	238000	242000	232000	75300
15	239000	161000	211000	123000	176000	151000	156000	190000	235000	237000	242000	100000
16	230000	170000	203000	134000	180000	150000	172000	194000	234000	237000	235000	165000
17	232000	80600	185000	148000	140000	150000	177000	221000	244000	239000	226000	188000
18	232000	100000	185000	184000	129000	165000	188000	226000	239000	241000	239000	206000
19	200000	143000	204000	176000	145000	175000	204000	233000	218000	241000	241000	210000
20	100000	100000	188000	179000	158000	168000	198000	238000	231000	242000	243000	214000
21	50000	120000	199000	50000	154000	150000	200000	234000	231000	232000	241000	220000
22	150000	133000	195000	90000	107000	177000	50000	150000	239000	239000	242000	220000
23	169000	156000	197000	112000	85000	130000	83500	172000	246000	238000	221000	200000
24	131000	162000	197000	129000	120000	60000	86500	204000	244000	242000	220000	220000
25	162000	159000	200000	80000	137000	90000	68800	226000	242000	231000	218000	228000
26	159000	152000	201000	89700	149000	128000	131000	227000	242000	238000	240000	100000
27	171000	180000	202000	119000	155000	130000	100000	240000	242000	239000	243000	94600
28	175000	179000	200000	111000	160000	164000	168000	239000	240000	228000	240000	130000
29	183000	182000	200000	125000	---	151000	175000	238000	241000	200000	240000	181000
30	30000	175000	200000	153000	---	130000	212000	235000	243000	244000	242000	200000
31	35000	---	189000	153000	---	133000	---	234000	---	100000	19400	---
MONTH	189450	147800	193450	139410	148000	146610	154290	218550	217640	232610	215270	137570

TEMPERATURE (DEG. C) OF WATER + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	3.0	---	5.0	11.0	16.0	---	33.0	35.0	30.0	24.0
2	---	7.0	---	4.0	3.0	7.0	12.0	20.0	---	37.0	25.0	27.5
3	23.0	22.0	6.0	0.0	1.0	21.0	11.0	19.0	34.0	31.0	35.0	33.0
4	23.0	9.0	0.0	1.0	9.0	10.0	14.0	27.0	31.0	---	20.0	39.0
5	23.0	11.0	3.0	---	10.0	---	26.0	19.0	28.0	24.0	---	28.0
6	17.0	16.0	0.0	1.0	10.0	11.0	24.0	26.0	32.0	30.0	30.0	---
7	14.0	11.0	0.0	---	9.0	10.0	22.0	30.0	31.0	32.0	37.0	21.0
8	31.0	10.0	10.0	---	1.0	19.0	8.0	34.0	32.0	37.0	35.0	30.0
9	21.0	10.0	4.0	3.0	---	17.0	15.0	35.0	31.0	27.0	28.0	33.0
10	20.0	9.0	4.0	2.0	14.0	14.0	2.0	25.0	28.0	32.0	26.0	33.0
11	21.0	6.0	0.0	2.0	9.0	---	20.0	24.0	37.0	30.0	29.0	28.0
12	19.0	16.0	---	1.0	17.0	19.0	24.0	21.0	23.0	31.0	33.0	24.0
13	18.0	12.0	3.0	3.0	6.0	15.0	24.0	17.0	29.0	27.0	37.0	28.5
14	21.0	2.0	1.0	---	2.0	12.0	20.0	17.0	29.0	35.0	32.0	21.0
15	18.0	4.5	3.0	4.0	2.0	14.0	27.0	21.0	30.0	27.0	29.0	---
16	18.0	---	2.0	11.0	2.0	8.0	28.0	24.0	28.0	28.0	29.0	20.0
17	20.0	16.0	1.0	11.0	1.0	11.0	24.0	22.0	35.0	33.0	30.0	17.5
18	21.0	---	4.0	8.5	8.0	9.0	24.5	20.0	32.0	32.0	37.0	16.5
19	9.0	8.0	3.0	5.0	5.0	16.0	13.0	28.0	23.0	---	34.0	22.0
20	---	4.5	3.0	3.0	7.0	8.0	28.0	28.0	25.0	31.0	33.0	21.5
21	---	---	4.0	---	3.0	18.0	26.0	29.0	24.0	29.0	32.0	26.0
22	---	6.0	13.0	---	0.0	15.0	30.0	23.0	27.0	30.0	29.5	21.0
23	12.0	2.0	16.0	4.0	---	16.0	19.0	23.0	28.0	33.0	27.0	25.5
24	20.0	8.0	10.0	4.0	15.0	17.0	31.0	26.0	---	32.0	---	23.6
25	8.0	9.0	7.0	---	21.0	14.0	19.0	36.0	35.0	30.0	30.0	25.0
26	12.0	14.0	---	5.0	11.0	11.0	19.0	25.0	31.0	29.0	30.0	---
27	11.0	7.0	4.0	8.0	11.0	11.0	19.0	26.0	31.0	38.0	31.0	21.5
28	13.0	10.0	8.0	6.0	9.0	10.0	14.0	18.0	26.0	25.0	---	22.0
29	17.0	3.0	---	---	---	15.0	---	34.0	31.0	34.0	28.0	23.0
30	19.0	5.0	5.0	15.0	---	21.0	28.0	23.0	29.0	34.0	28.0	---
31	---	---	1.0	3.0	---	14.0	---	17.0	---	25.0	26.0	---
MONTH	18.0	9.0	4.5	---	7.5	13.5	20.5	24.5	30.0	31.0	30.5	25.0

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°20'02", long 100°14'24", Stonewall County, at gaging station at bridge on U.S. Highway 83, 5.4 miles (8.7 km) downstream from Salt Croton Creek, 13.2 miles (21.4 km) north of Aspermont, and 27.4 miles (44.1 km) upstream from Double Mountain Fork Brazos River.

DRAINAGE AREA.--4,830 mi² (12,510 km²), of which 2,770 mi² (7,174 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1951, October 1956 to September 1973.
Water temperatures: October 1948 to September 1951, October 1956 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 100,000 micromhos Aug. 12; minimum daily, 8,000 micromhos Mar. 12, Sept. 8.
Water temperatures: Maximum, 38.0°C Aug. 2; minimum, freezing point Dec. 11, Jan. 8, 10.

EXTREMES, October 1948 to September 1951, October 1956 to September 1973.--Specific conductance: Maximum daily, 161,000 micromhos Apr. 28, 1972, minimum daily, 1,690 micromhos July 8, 1960.
Water temperatures: Maximum, 38.0°C Aug. 2, 1973; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
21...	0755	174	7.6	860	260	15000	--	51	123	0	2000
NOV.											
01...	1745	239	10	440	72	--	2200	--	116	0	1200
JAN.											
24...	1720	108	7.8	600	180	4600	--	21	140	0	1800
FEB.											
27...	1720	122	9.4	400	140	--	4000	--	159	0	1400
MAR.											
12...	1640	260	10	220	55	--	1400	--	164	0	700
APR.											
13...	1745	77	6.5	860	300	11000	--	48	136	0	2300
MAY											
03...	1735	27	9.1	700	230	--	6000	--	122	0	1800
JUNE											
25...	1645	.36	11	1400	410	--	17000	--	150	0	3800
JULY											
16...	1900	6.4	--	910	160	5300	--	23	--	--	2500
30...	1645	9.0	--	1000	360	23000	--	75	--	--	2300
AUG.											
02...	1530	1.0	--	1500	430	--	24000	--	--	--	3700
SEP.											
01...	0725	120	--	1500	360	--	31000	--	--	--	3200

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
21...	23000	--	--	41300	3200	3100	115	62900	7.8	11.0
NOV.										
01...	3400	.3	.6	7410	1400	1300	--	11000	7.6	12.0
JAN.										
24...	7400	--	--	14700	2200	2100	42	22500	7.7	7.0
FEB.										
27...	6200	--	--	12200	1600	1400	--	19300	7.7	14.0
MAR.										
12...	2100	--	--	4570	760	630	22	7530	7.8	15.0
APR.										
13...	18000	--	--	33300	3400	3200	82	51600	7.3	20.0
MAY										
03...	9800	--	.2	18500	2700	2600	--	29300	7.1	22.0
JUNE										
25...	27000	--	--	49700	5300	5200	--	71500	7.6	31.0
JULY										
16...	8400	--	--	17300	2900	--	43	25300	--	30.0
30...	36000	--	--	63000	4100	--	159	90900	--	32.0
AUG.										
02...	38000	--	--	67500	5400	--	--	95500	--	38.0
SEP.										
01...	50000	--	--	85900	5100	--	--	116000	--	23.0

BRAZOS RIVER BASIN

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	2615.9	23200	15200	107000	7700	54400	1800	12700	--
NOV.	2054	30900	19100	106000	10000	55500	1900	10500	--
DEC.	716	43900	28500	55100	15000	29000	2200	4250	--
JAN. 1973....	1759.2	31400	19400	92100	10000	47500	1900	9020	--
FEB.	2131	31400	19400	112000	10000	57500	1900	10900	--
MAR.	3925	18800	11900	126000	6000	63600	1300	13800	--
APR.	1579	34900	22000	93800	12000	51200	1900	8100	--
MAY	610.3	41700	26900	44300	15000	24700	2000	3300	--
JUNE	205.52	40200	25800	14300	14000	7770	2000	1110	--
JULY	76.10	57700	38600	7930	21000	4310	2800	575	--
AUG.	63.02	51300	33900	5770	18000	3060	2300	391	--
SEP.	1718.76	16600	10400	48300	5200	24100	1200	5570	--
TOTAL	17453.8	--	--	813000	--	423000	--	80200	--
WTD. AVG. ...	47.8	27300	17200	--	9000	--	1700	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36700	14000	42000	46800	30700	24100	30900	23900	30000	65700	95000	30000
2	37400	16000	42500	45800	30600	25800	26200	27400	46000	72100	95500	44600
3	38200	19400	42600	51900	32500	27800	29500	29300	36800	73600	82900	52400
4	39200	22700	42500	58800	33700	29900	29300	33000	33400	74900	76200	72800
5	40100	26800	40900	48800	33400	32300	29100	32900	34500	74600	81400	25000
6	40700	28800	41300	49000	34800	35000	32300	45500	35700	76800	82300	12000
7	42300	32600	42000	49000	35000	34600	34400	43600	39800	77400	77800	10000
8	40700	34300	42000	49900	46700	35100	36400	41600	41100	77100	81700	8000
9	42800	35900	43100	55000	38700	36000	36100	40400	42100	76300	77300	10000
10	43400	36600	44400	58600	36700	22900	35600	41800	42100	75700	14000	12900
11	43600	37600	43400	51200	33800	8660	36400	41900	42300	45600	60000	12100
12	44000	38100	42800	48300	34300	8000	36600	43300	42900	62200	100000	14200
13	45400	39000	46300	45500	30700	9500	51600	40700	44200	63000	88400	18000
14	46700	41000	44000	48700	31100	12000	40600	45100	46400	70000	83900	20000
15	47200	42300	45300	53800	30100	14700	30500	58800	50500	81000	60000	23500
16	45600	41700	44000	46300	32200	17300	27900	48400	53600	35000	20000	28000
17	46900	41000	42800	44000	31900	19000	32700	45500	54500	20000	50000	29800
18	48000	40300	42400	42700	38600	21200	33900	43700	55900	70000	65000	34200
19	44500	46800	45500	37300	37500	23900	35600	43200	59800	80000	72200	35300
20	50000	43800	45600	30800	37000	24500	38000	43200	64500	65300	78900	37200
21	30000	45500	46000	30000	34000	26200	35700	45500	62900	66700	80700	40400
22	25000	43600	46000	25000	32500	27700	36900	45300	64400	74100	80400	43500
23	22100	42000	43700	25900	30000	22400	61000	60600	67100	75700	81900	44700
24	15000	41000	44000	22900	26600	20000	36900	49600	68400	74100	82600	46400
25	16200	45200	44000	18600	28000	17100	37600	45600	71500	76600	78300	48900
26	21000	40600	45900	21900	25900	16400	41700	45500	71200	74900	81300	45000
27	26000	42200	45200	23300	19300	21700	33700	44900	70500	74900	82200	61000
28	29000	41300	44500	24500	19600	26300	33000	48600	71000	75200	81900	30400
29	33800	38800	46800	25400	---	27100	22500	46300	71000	40000	81600	31600
30	30000	42200	51000	22300	---	32400	20000	43100	74000	70000	81300	35000
31	12000	---	48700	22500	---	28400	---	41500	---	75000	79800	---
MONTH	36240	36700	44230	39500	32350	23480	34750	42890	52940	68180	75310	31900

BRAZOS RIVER BASIN

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08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	12.0	11.0	6.0	7.0	15.0	17.0	20.0	21.0	34.0	31.0	23.0
2	24.0	15.0	14.0	4.0	11.0	14.0	10.0	19.0	18.0	34.0	38.0	31.0
3	26.0	16.0	7.0	6.0	3.0	19.0	10.0	22.0	25.0	36.0	32.0	25.0
4	27.0	16.0	6.0	4.0	15.0	16.0	12.0	18.0	27.0	37.0	33.0	31.0
5	26.0	20.0	5.0	1.0	13.0	17.0	19.0	17.0	26.0	35.0	32.0	25.0
6	23.0	17.0	---	---	14.0	14.0	15.0	23.0	18.0	35.0	29.0	19.0
7	15.0	16.0	4.0	---	---	19.0	17.0	21.0	25.0	33.0	29.0	21.0
8	25.0	15.0	5.0	0.0	2.0	15.0	6.0	23.0	25.0	34.0	32.0	20.0
9	28.0	13.0	3.0	---	4.0	12.0	10.0	25.0	18.0	35.0	25.0	30.0
10	27.0	15.0	1.0	0.0	8.0	11.0	12.0	27.0	26.0	30.0	30.0	28.0
11	27.0	15.0	0.0	3.0	9.0	14.0	16.0	27.0	25.0	33.0	25.0	30.0
12	28.0	17.0	5.0	5.0	12.0	15.0	20.0	20.0	26.0	28.0	33.0	31.0
13	27.0	---	4.0	9.0	7.0	10.0	20.0	16.0	22.0	26.0	34.0	29.0
14	20.0	9.0	2.0	10.0	6.0	14.0	17.0	16.0	28.0	---	35.0	29.0
15	22.0	8.0	4.0	11.0	8.0	12.0	18.0	23.0	31.0	26.0	27.0	19.0
16	26.0	10.0	---	12.0	5.0	12.0	16.0	25.0	29.0	30.0	24.0	25.0
17	27.0	---	5.0	14.0	3.0	16.0	19.0	23.0	33.0	25.0	25.0	19.0
18	19.0	9.0	10.0	15.0	10.0	15.0	22.0	25.0	34.0	31.0	---	24.0
19	10.0	9.0	11.0	13.0	11.0	12.0	20.0	17.0	25.0	33.0	31.0	30.0
20	11.0	5.0	11.0	13.0	9.0	12.0	16.0	29.0	25.0	34.0	32.0	31.0
21	11.0	5.0	---	7.0	7.0	15.0	20.0	25.0	30.0	34.0	33.0	31.0
22	19.0	8.0	6.0	6.0	5.0	16.0	21.0	23.0	33.0	36.0	29.0	28.0
23	20.0	---	5.0	9.0	10.0	15.0	22.0	26.0	31.0	32.0	34.0	29.0
24	16.0	10.0	---	7.0	14.0	---	20.0	27.0	33.0	34.0	30.0	30.0
25	15.0	9.0	---	6.0	16.0	9.0	17.0	28.0	31.0	33.0	22.0	31.0
26	12.0	11.0	10.0	6.0	14.0	17.0	14.0	20.0	32.0	30.0	32.0	26.0
27	15.0	10.0	10.0	7.0	14.0	16.0	20.0	23.0	34.0	35.0	29.0	20.0
28	12.0	9.0	11.0	1.0	12.0	16.0	20.0	15.0	---	30.0	30.0	26.0
29	20.0	5.0	16.0	7.0	---	14.0	20.0	25.0	35.0	32.0	30.0	19.0
30	14.0	7.0	10.0	10.0	---	15.0	23.0	27.0	36.0	32.0	29.0	25.0
31	7.0	---	8.0	9.0	---	9.0	---	19.0	---	---	31.0	---
MONTH	20.0	11.5	7.0	7.0	9.0	14.0	17.0	22.5	27.5	32.5	30.0	26.0

BRAZOS RIVER BASIN

08082100 STINKING CREEK NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°14'00", long 100°12'47", Stonewall County, at gaging station at bridge on Farm Road 1263, 4.9 miles (7.9 km) upstream from Salt Fork Brazos River, and 6.8 miles (10.9 km) north of Aspermont.

DRAINAGE AREA.--92.4 mi² (239 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.

Water temperatures: October 1965 to September 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1010	6.4	6.0	480	200	820	212	0	1400	1600
NOV. 30...	0900	1.8	2.0	740	400	1900	226	0	2500	3400
JAN. 05...	1300	2.6	.8	700	370	1700	142	0	2500	3000
FFB. 08...	1310	5.3	.9	680	380	1900	104	0	2400	3400
MAR. 13...	1110	7.8	3.5	420	140	620	184	0	1000	1300
APR. 26...	1000	2.3	1.4	620	300	1400	186	0	2000	2400
MAY 28...	1755	.38	4.7	760	190	1800	168	0	2600	2700
JULY 10...	1400	.12	11	780	350	1400	96	0	2900	2400
AUG. 15...	0930	.56	4.8	220	77	500	118	0	1600	160
SEP. 20...	1445	.41	.0	460	180	870	114	0	1600	1500

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	--	.4	4530	2000	1800	8.0	6890	7.8	12.5
NOV. 30...	--	--	9150	3500	3300	--	13400	7.7	3.0
JAN. 05...	--	.5	8410	3200	3100	--	12200	7.6	2.0
FFB. 08...	--	.6	8730	3200	3200	--	12800	7.6	3.0
MAR. 13...	--	.2	3540	1600	1500	6.7	5620	7.5	16.0
APR. 26...	--	.4	6880	2800	2600	11	10000	7.5	17.0
MAY 28...	--	--	8230	2700	2500	--	11300	7.5	25.0
JULY 10...	--	--	7810	3400	3300	--	10300	7.2	32.0
AUG. 15...	.3	.4	2570	860	760	--	2760	7.2	33.0
SEP. 20...	--	.2	4590	1900	1800	8.7	6790	7.7	29.5

BRAZOS RIVER BASIN

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08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.

LOCATION.--Lat 33°22'59", long 100°04'51", Stonewall County, at gaging station 600 feet (183 m) downstream from Wedington Creek, 9.5 miles (15.3 km) upstream from Brazos River, and 15 miles (24 km) southwest of Knox City.

DRAINAGE AREA.--251 mi² (650 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.
Water temperatures: October 1965 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 31,000 micromhos July 31; minimum daily, 2,100 micromhos July 14.
Water temperatures: Maximum, 34.0°C Aug. 9; minimum, freezing point on several days during December, January and February.

EXTREMES, October 1965 to September 1973. Specific conductance: Maximum daily, 47,400 micromhos Oct. 23, 1969; minimum daily, 1,060 micromhos Aug. 30, 1966.
Water temperatures: Maximum, 35.0°C June 14, 1972; minimum, freezing point on many days during winter months

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 24...	1510	8.6	6.1	560	100	1200	--	15	126	0	1500
NOV. 29...	1100	6.5	5.4	660	97	--	2000	--	152	0	1900
DEC. 31...	1400	4.4	3.6	760	260	--	2700	--	88	0	2500
JAN. 06...	1030	1.2	4.6	620	230	600	--	12	106	0	1900
FEB. 06...	1735	4.9	2.0	700	220	--	1900	--	152	0	2100
MAR. 22...	1630	13	3.4	620	210	--	1300	--	122	0	2100
APR. 24...	1730	21	3.8	480	150	660	--	12	116	0	1600
MAY 28...	1255	1.5	2.2	910	160	--	4000	--	182	0	2800
JUNE 20...	1930	.59	2.6	920	300	--	3100	--	152	0	2800
JULY 14...	1715	108	16	330	30	85	--	11	126	0	740
AUG. 13...	1645	.18	9.4	620	18	--	1900	--	82	0	1800
SEP. 07...	1020	101	7.8	380	18	--	300	--	104	0	900

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 24...	1900	--	.03	5330	1800	1700	12	7970	7.5	26.0
NOV. 29...	3000	--	--	7670	2000	1900	--	11400	7.5	3.0
DEC. 31...	4400	--	--	10700	3000	2900	--	15500	7.8	7.0
JAN. 06...	1200	--	.00	4640	2500	2400	5.2	6300	7.9	.0
FEB. 06...	3200	--	--	8250	2700	2500	--	12100	7.6	15.0
MAR. 22...	2000	--	--	6290	2400	2300	11	8960	7.8	21.0
APR. 24...	1100	.4	.3	4030	1800	1700	6.7	5740	7.1	23.0
MAY 28...	6000	--	--	14000	2900	2800	--	20200	7.2	26.5
JUNE 20...	5200	--	--	12400	3500	3400	--	17800	7.6	27.0
JULY 14...	180	.4	1.0	1460	950	840	1.2	1970	6.3	24.0
AUG. 13...	2700	--	--	7170	1600	1600	--	10700	6.9	33.0
SEP. 07...	440	1.0	1.0	2100	1000	920	4.1	2960	6.9	20.0

BRAZOS RIVER BASIN

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	567.5	4760	3290	5040	1000	1530	1100	1690	1300
NOV.	408.0	7040	4850	5340	1700	1870	1400	1540	1700
DEC.	128.1	13000	8900	3080	3400	1180	2200	761	2600
JAN. 1973....	210.8	11300	7750	4410	2900	1650	2000	1140	2300
FEB.	255.1	11100	7610	5240	2800	1930	1900	1310	2300
MAR.	890.2	6040	4160	10000	1400	3360	1300	3120	1500
APR.	348.4	9370	6430	6050	2300	2160	1700	1600	2000
MAY	93.6	15200	10400	2630	4300	1090	2500	633	3000
JUNE	184.25	6880	4740	2360	1600	796	1400	696	1600
JULY	76.83	6290	4330	898	1400	290	1300	270	1600
AUG.	12.06	15300	10500	342	4300	140	2500	81	3000
SEP.	508.90	4640	3210	4410	970	1330	1100	1510	1300
TOTAL	3683.74	--	--	49800	--	17300	--	14400	--
WTD. AVG. ...	10.1	7280	5010	--	1700	--	1400	--	1700

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13300	2660	11200	18000	11800	8000	8170	10800	5710	14000	16300	12000
2	14600	4140	11200	17000	12300	7500	8860	12000	5600	14000	12900	11400
3	14500	5300	11400	12400	12200	9000	9950	12700	6000	14300	17200	11300
4	15200	6230	12000	9540	12100	9500	10400	13400	7520	15800	16800	4700
5	15300	7550	11800	8810	12000	10200	10900	13300	8920	15800	16900	8000
6	15500	7800	12000	6500	12100	11200	10800	12900	10500	15600	21100	3160
7	12900	8390	12400	12000	11900	11700	11100	13700	11100	15500	21400	2960
8	14600	9030	12400	14000	10900	11100	11200	14400	12600	15000	21200	3840
9	14600	9060	12800	14500	11100	12200	11300	14900	13000	14800	20800	5860
10	14900	9340	12900	15500	12800	3300	11400	15500	13600	14500	11300	8560
11	15800	9450	13100	16000	10500	3250	11500	15300	14200	13200	8250	9590
12	16500	9640	13400	15000	10700	5230	11400	15800	14800	5000	10800	11300
13	17400	9820	13100	14300	11800	6200	8500	15800	15300	10300	11000	4110
14	17200	10100	13500	15100	11900	8030	8900	15800	15400	2100	11100	5460
15	17500	10000	13100	12200	12000	8390	9720	16300	15800	5800	14000	8930
16	17600	10100	13600	14400	11800	8400	10900	16500	16600	9450	16400	9670
17	18200	10200	13700	15600	11500	8380	12400	16300	16700	10900	16800	11400
18	18000	10100	12900	15600	11700	8450	11900	17200	17200	16200	16900	11800
19	16000	10500	13300	14300	10800	8490	11400	17600	17600	20200	16800	14100
20	8710	10400	13900	15900	11700	8850	11500	17600	17800	20300	16600	14000
21	2700	10400	14100	14300	12700	8880	12500	17000	17000	24000	16400	14600
22	5180	10700	14400	10000	12000	8960	13000	16300	16700	23000	16300	15600
23	6210	10800	14600	9860	9860	9080	7000	16600	16500	23000	16000	16800
24	7900	10600	14900	12000	9600	7500	5740	16900	15700	21000	16200	17000
25	9250	10400	15100	9800	9600	6850	8170	17800	15800	20700	16000	18100
26	9910	10600	15300	9160	9630	6160	7740	18700	15200	20500	16000	12600
27	10400	10600	14500	8460	10100	7450	8820	18700	15200	20300	16200	5000
28	10900	11500	13800	9290	9860	7670	9330	20100	14700	15800	16000	7880
29	11300	11400	11600	10300	---	8250	9860	19900	14300	16300	16300	8600
30	7500	11200	10700	10500	---	7840	10400	19400	13900	25000	16000	10400
31	3500	---	15500	11200	---	8400	---	19800	---	31000	15800	---
MONTH	12680	9270	13170	12630	11320	8210	10160	16100	13700	16240	15860	9960

BRAZOS RIVER BASIN

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08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	8.0	5.0	4.5	7.0	17.0	13.0	19.0	20.0	32.0	25.0	28.0
2	17.0	10.0	11.0	3.5	6.0	---	13.0	24.0	24.0	28.0	32.0	24.0
3	19.0	12.0	5.5	6.0	6.0	11.0	15.0	25.0	---	28.0	30.0	25.0
4	25.0	13.0	6.0	2.0	7.0	11.0	16.0	23.0	30.0	29.0	24.0	26.0
5	25.0	14.0	7.0	1.0	11.0	11.0	18.0	17.0	23.0	28.0	23.0	22.0
6	21.0	15.0	1.0	0.0	15.0	15.0	11.0	24.0	30.0	30.0	26.0	19.0
7	15.5	16.0	2.0	---	---	18.0	20.5	25.0	22.0	28.0	26.0	20.0
8	19.0	15.0	3.0	---	---	13.0	7.5	---	31.0	31.0	27.0	25.0
9	18.5	14.5	2.0	---	0.0	13.0	10.0	---	21.0	25.0	34.0	25.0
10	21.0	10.0	0.0	---	5.0	11.0	10.0	29.0	22.0	32.0	27.0	28.0
11	20.0	10.0	1.0	---	4.0	10.0	20.0	24.0	25.0	26.0	27.0	24.0
12	19.0	14.5	1.0	---	14.0	13.0	15.0	18.0	28.0	25.0	26.0	25.0
13	18.5	11.0	1.0	2.0	8.0	15.0	18.0	18.0	27.0	27.0	33.0	22.0
14	19.0	10.0	0.0	2.0	9.5	12.0	18.0	17.0	26.0	24.0	26.0	26.0
15	19.0	9.0	0.0	7.0	8.5	15.0	20.0	25.0	26.0	22.0	29.0	20.0
16	21.0	8.0	0.0	4.0	4.0	12.0	15.0	20.0	32.0	31.0	33.0	24.0
17	20.0	7.0	0.0	7.0	---	12.0	19.0	19.0	28.0	26.0	28.0	18.0
18	20.0	7.0	4.0	8.0	9.0	12.0	18.0	20.0	28.0	31.0	26.0	22.0
19	---	8.0	9.0	6.5	8.0	14.0	18.0	22.0	24.0	30.0	27.0	25.0
20	11.0	5.0	8.0	4.0	6.0	11.0	17.0	22.0	27.0	26.0	29.0	28.0
21	13.0	---	8.5	9.0	9.0	18.0	22.0	30.0	30.0	32.0	30.0	28.0
22	17.0	5.0	5.0	5.0	---	21.0	19.0	27.0	31.0	26.0	30.0	26.0
23	13.0	---	8.0	4.0	11.0	15.0	19.0	31.0	30.0	27.0	23.0	26.0
24	---	7.0	---	3.0	11.0	11.0	23.0	30.0	31.0	26.0	25.0	29.0
25	14.0	5.0	6.0	---	15.0	11.0	22.0	30.0	32.0	27.0	25.0	28.0
26	12.0	7.0	7.0	5.0	9.0	9.0	16.5	29.0	30.0	30.0	24.0	25.0
27	15.0	6.0	8.0	5.0	16.0	11.0	22.0	22.0	26.5	28.0	24.0	21.0
28	15.0	7.0	6.5	1.0	9.5	18.0	14.0	26.5	30.0	27.0	23.0	24.0
29	17.0	3.0	13.0	1.0	---	18.0	20.0	28.0	31.0	26.0	29.0	16.0
30	---	6.0	6.0	9.0	---	14.0	24.0	28.0	25.0	31.0	26.0	19.0
31	8.5	---	7.0	5.5	---	17.0	---	20.0	---	30.5	24.0	---
MONTH	17.5	9.5	4.5	---	8.5	13.5	17.0	24.0	27.5	28.0	27.0	24.0

BRAZOS RIVER BASIN

08082500 BRAZOS RIVER AT SEYMOUR, TEX.

LOCATION.--Lat 33°34'51", long 99°16'02", Baylor County, at gaging station at bridge on U.S. Highways 277 and 283, 0.8 mile (1.3 km) upstream from Wichita Valley Railway bridge, and 1.0 mile (1.6 km) southwest of courthouse in Seymour.

DRAINAGE AREA.--14,490 mi² (37,530 km²), of which 9,240 mi² (23,932 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1959 to September 1973.

Specific conductance: August 1959 to October 1973.

Water temperatures: August 1959 to October 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 21,500 micromhos May 31; minimum daily, 2,000 micromhos Nov. 1, June 3.

EXTREMES, August 1959 to September 1973.--Specific conductance: Maximum daily, 80,400 micromhos May 24, 1971; minimum daily, 776 micromhos July 20, 1967.

Water temperatures (1959-72): Maximum, 37.0°C Aug. 6, 1959, Sept. 3, 1963; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 31...	0800	2500	7.4	93	19	320	--	5.5	124	0	200
NOV. 03...	1530	1940	8.1	210	33	--	400	--	116	0	520
DEC. 04...	1140	181	12	580	170	--	3200	--	112	0	1800
JAN. 26...	1600	703	9.1	210	55	900	--	6.8	176	0	640
FEB. 01...	1500	330	8.8	340	100	--	1700	--	148	0	1100
MAR. 12...	1500	2870	14	320	72	--	1100	--	140	0	930
APR. 30...	1500	125	9.1	520	160	2800	--	13	182	0	1700
MAY 18...	1515	55	7.8	610	200	--	3400	--	128	0	2000
JUNE 06...	1500	1290	13	250	47	--	720	--	142	0	650
JULY 14...	1730	55	6.2	120	31	380	--	5.9	134	0	390
AUG. 07...	1035	64	12	490	22	--	1400	--	128	0	1400
SEP. 14...	1630	933	12	170	26	--	400	--	140	0	440

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	500	.3	.6	1210	310	210	7.8	2160	7.5	15.5
NOV. 03...	630	--	.4	1860	660	560	6.8	3140	7.4	21.0
DEC. 04...	5000	--	--	10800	2200	2000	--	16600	7.8	18.5
JAN. 26...	1400	--	1.0	3270	750	610	14	5500	8.1	4.5
FEB. 01...	2700	--	--	6020	1200	1100	21	9670	7.4	.0
MAR. 12...	1700	--	1.1	4240	1100	980	15	6790	7.8	.0
APR. 30...	4400	--	--	9680	2000	1800	28	14900	7.9	--
MAY 18...	5400	--	--	11600	2400	2200	--	18100	7.3	--
JUNE 06...	1100	--	.5	2880	810	690	11	4700	7.5	--
JULY 14...	540	.4	1.0	1540	440	330	7.8	2580	7.8	--
AUG. 07...	1900	--	2.1	5350	1300	1200	17	8050	7.1	--
SEP. 14...	580	.7	2.0	1710	540	420	7.5	2810	7.1	--

BRAZOS RIVER BASIN

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08082500 BRAZOS RIVER AT SEYMOUR, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	15417	6070	3820	159000	1500	62400	780	32500	930
NOV.	20317	6110	3840	211000	1500	82500	780	42900	930
DEC.	4356	17100	10800	127000	5300	62300	1700	20000	2300
JAN. 1973....	7292	12000	7600	150000	3400	66900	1300	25600	1700
FEB.	7001	13600	8620	163000	4000	75600	1400	26500	1900
MAR.	19854	7060	4450	239000	1700	91100	860	46100	1100
APR.	7289	10700	6770	133000	2900	57100	1200	23600	1500
MAY	2046	17200	10900	60200	5300	29300	1700	9390	2300
JUNE	16708	3360	2090	94300	740	33400	540	24400	580
JULY	1014.1	7120	4490	12300	1800	4930	870	2380	1100
AUG.	1334.93	6070	3820	13800	1500	5410	780	2810	930
SEP.	8385.69	4350	2720	61600	1000	22600	630	14300	710
TOTAL	111068.72	--	--	1420000	--	594000	--	270000	--
WTD. AVG. ...	304	7530	4750	--	2000	--	900	--	1100

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13800	2000	17000	17200	9670	10000	9910	15900	14000	13200	5500	12400
2	14200	2950	16700	17100	11000	11200	10000	16600	10000	13900	5450	12400
3	14600	3140	16700	14500	11200	9600	12400	16800	2000	13900	6200	7000
4	14700	3810	16600	14500	11600	10000	14100	17800	2080	13600	7760	7210
5	14800	5000	16300	15700	12500	10400	14300	14600	2520	13900	8000	5430
6	15000	6840	17000	16900	13500	10700	13800	13900	2600	14200	8290	4800
7	15300	8100	17100	16900	13300	12400	13400	14700	2700	14600	8050	4400
8	15400	9510	17000	17100	12500	13500	13400	14800	3800	15200	7270	3540
9	15400	10800	16800	18600	13000	14300	14300	15600	4200	15300	7620	3100
10	15600	11600	17200	20600	13700	7500	14400	15800	4620	15500	7380	5560
11	15900	12300	16700	21200	13300	6810	14800	16400	5340	12700	7540	4220
12	15900	13000	16600	20700	14100	6300	15000	17000	5700	10300	5100	4480
13	16000	13100	16700	18800	17700	5350	14000	18400	6330	4000	3740	4290
14	16100	13900	16600	17900	16700	3990	15400	18700	6970	6600	5750	2810
15	16300	14300	16800	17300	16100	3940	12400	17900	8150	6900	4720	2730
16	16400	14500	17700	17400	14700	4430	10500	17900	9040	5300	5800	5930
17	16500	14700	17200	17700	13200	5390	13000	17800	9280	5250	3900	7240
18	16800	14400	17100	16500	12800	7310	16500	18100	9410	4000	3690	6900
19	16800	15100	17400	17900	12700	7590	4810	18200	9760	5390	5500	6800
20	14700	15200	17900	19300	13100	8510	8900	18800	5010	7480	6980	6080
21	10400	15100	18000	17600	13300	9410	8720	19700	2720	7270	9900	6310
22	6300	14900	17700	15400	13800	10200	11500	20100	2400	6000	9800	7190
23	6180	15400	17200	15400	14900	11000	11000	19600	6190	9000	9720	7840
24	9000	15900	17400	16000	14800	8620	5690	18700	8920	10300	10800	8590
25	8210	16200	17500	5600	14100	11200	7030	18900	11300	9950	11000	9240
26	9240	16700	17700	5500	13800	11200	9300	16300	12200	10000	11400	7640
27	8660	17400	17500	7850	16000	11400	10000	14600	13000	10300	11800	5700
28	6970	16400	17700	8300	14100	11600	13400	16900	13000	10800	12900	5900
29	6970	16900	17400	8890	---	11700	14500	18100	12400	8290	12800	4820
30	3390	16900	17300	11700	---	5160	14900	20300	12600	9210	12900	6800
31	2160	---	17400	9800	---	4100	---	21500	---	7430	12900	---
MONTH	12510	12200	17160	15350	13610	8860	12050	17430	7270	9990	8070	6250

BRAZOS RIVER BASIN

08083000 BRAZOS RIVER NEAR GRAHAM, TEX.

LOCATION.--Lat 33°04'55", long 98°43'36", Young County, at bridge on Farm Road 209 and about 8 miles (13 km) southwest of Graham.

DRAINAGE AREA.--15,730 mi² (40,740 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
18...	1025	148	15	500	120	2400	116	0	1600	3700
NOV.										
20...	1220	384	12	420	110	2100	134	0	1400	3200
DEC.										
20...	1230	188	12	490	140	2600	142	0	1600	4000
JAN.										
30...	1820	607	7.8	230	62	1100	186	0	740	1700
FEB.										
27...	1300	439	7.2	380	120	1900	218	0	1100	3100
APR.										
03...	1635	562	9.4	160	60	750	164	0	560	1100
MAY										
08...	1655	198	9.6	500	150	2500	200	0	1500	3900
JUNE										
12...	1215	300	15	190	40	580	156	0	540	870
JULY										
17...	1755	60	12	400	120	1700	164	0	1400	2600
AUG.										
21...	1815	44	9.3	370	97	1200	105	0	1300	1700
SEP.										
25...	1200	96	10	330	58	1000	120	0	950	1600

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
18...	--	--	8350	1800	1700	--	12800	7.5	21.5
NOV.									
20...	--	--	7330	1500	1400	--	11400	7.4	6.5
DEC.									
20...	--	--	8930	1800	1700	--	13700	7.6	8.5
JAN.									
30...	--	.6	3940	830	680	17	6400	7.9	6.5
FEB.									
27...	--	--	6680	1400	1200	--	10900	7.6	10.5
APR.									
03...	--	.5	2730	640	500	13	4670	7.6	15.0
MAY									
08...	--	--	8670	1900	1700	--	13600	7.9	28.0
JUNE									
12...	--	.2	2310	640	520	10	3740	7.7	23.5
JULY									
17...	--	--	6260	1500	1400	19	9760	7.5	32.5
AUG.									
21...	.2	.4	4670	1300	1200	14	7090	7.4	34.0
SEP.									
25...	.2	.4	4000	1100	960	14	6310	7.7	25.0

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.

LOCATION.--Lat 32°35'53", long 99°48'53", Jones County, at gaging station at bridge on U.S. Highways 83 and 277, 0.8 mile (1.3 km) south of Hawley, and 7.4 miles (11.9 km) upstream from Mulberry Creek.

DRAINAGE AREA.--1,390 mi² (3,600 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.
Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 7,840 micromhos June 7; minimum daily, 500 micromhos Nov. 1.
Water temperatures: Maximum, 29.0°C July 6, 20, 23, 24, 25.

EXTREMES, October 1967 to September 1973.--Specific conductance (1967-70, 1972-73): Maximum daily, 11,500 micromhos Octo. 5, 1969; minimum daily, 163 micromhos Sept. 11, 1969.
Water temperatures (1967-69, 1972-73): Maximum, 30.0°C June 14, 1968, June 22, 1969; minimum, freezing point on Dec. 16, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 31...	1645	600	9.0	68	20	72	--	5.6	109	0	170
NOV. 05...	1630	45	7.8	140	34	--	100	--	140	0	370
DEC. 04...	1530	26	13	410	180	--	730	--	152	0	1700
JAN. 16...	1815	34	5.8	420	180	680	--	5.0	236	0	1600
FEB. 21...	0900	37	7.0	460	200	--	750	--	304	0	1800
MAR. 13...	1715	1010	9.5	110	29	--	94	--	106	0	320
APR. 30...	1640	42	11	400	160	620	--	8.7	282	0	1600
MAY 15...	0800	30	11	480	200	--	720	--	262	0	1900
JUNE 22...	1050	14	15	230	81	--	240	--	232	0	710
JULY 10...	1610	7.0	14	440	160	720	--	7.2	234	0	1600
AUG. 16...	1800	14	8.6	82	30	--	89	--	132	0	240
SEP. 08...	0930	940	8.6	80	15	--	59	--	136	0	170

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	110	.3	1.4	509	250	160	2.0	848	7.4	14.0
NOV. 05...	150	.2	2.5	886	490	380	2.0	1290	7.4	18.0
DEC. 04...	1000	--	7.9	4190	1800	1700	7.5	5870	7.9	8.5
JAN. 16...	940	--	12	4040	1800	1600	7.0	5630	7.8	7.0
FEB. 21...	1000	--	9.5	4410	2000	1700	7.3	6010	7.6	9.5
MAR. 13...	120	.2	1.0	744	390	310	2.1	1150	7.2	17.0
APR. 30...	820	.5	5.3	3740	1700	1400	6.6	5180	7.7	20.0
MAY 15...	1000	--	5.0	4440	2000	1800	7.0	6140	7.8	14.5
JUNE 22...	340	.4	5.2	1750	910	720	3.4	2560	8.0	23.0
JULY 10...	960	--	2.5	4080	1800	1600	7.5	5790	7.6	26.0
AUG. 16...	120	.3	.30	631	330	220	2.1	1030	7.2	27.5
SEP. 08...	70	.2	.30	471	260	150	1.6	771	7.5	20.5

BRAZOS RIVER BASIN

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE MENT (MG/L)	SUS- PENDE MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
OCT. 31...	1650	612	14.0	1670	2760	93	98
JUNE 05...	1540	66	--	219	39	--	--
08...	1045	32	24.0	78	6.7	--	--
SEP. 07...	1724	760	20.0	3450	7080	--	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM	SUS. SED. SIEVE DIAM. % FINER THAN .031 MM
OCT. 31...	99	100	68	70	71	79	87
JUNE 05...	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--
SEP. 07...	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1172.0	2550	1730	5470	370	1170	720	2280	810
NOV.	2601	1470	910	6390	190	1330	390	2740	480
DEC.	767	5940	4300	8900	990	2050	1800	3730	1900
JAN. 1973....	1093	5170	3710	10900	850	2510	1500	4430	1600
FEB.	1287	4980	3570	12400	810	2810	1500	5210	1600
MAR.	4320	2500	1690	19700	360	4200	700	8160	800
APR.	2340	3930	2770	17500	620	3920	1100	6950	1200
MAY	811	5850	4230	9260	970	2120	1700	3720	1800
JUNE	1232	2730	1860	6190	400	1330	770	2560	870
JULY	695.5	3550	2480	4660	550	1030	1000	1880	1100
AUG.	571	3050	2110	3250	460	709	870	1340	970
SEP.	2260	1350	830	5060	170	1040	350	2140	450
TOTAL	19149.5	--	--	110000	--	24200	--	45100	--
WTD. AVG. ...	52.5	3070	2120	--	470	--	870	--	970

BRAZOS RIVER BASIN

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08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5250	500	5640	6140	5810	6080	3600	5260	5890	5310	1120	4040
2	5270	650	5720	6100	5710	6060	3900	5360	5860	5670	5200	4100
3	5300	800	5800	5800	5720	6100	4260	5450	5730	5770	5690	4210
4	5350	991	5870	5700	5730	6090	4620	5530	6250	6040	3540	4370
5	5400	1290	5870	5720	5750	6080	4980	5600	5320	5850	3020	3610
6	5450	1820	5880	5750	5760	6100	5340	5680	6850	5240	3260	2910
7	5520	2270	5880	5770	5770	6120	5700	5750	7840	5270	3410	1060
8	5600	2000	5990	5790	5600	6100	5760	5750	4860	5490	3370	771
9	5670	2940	6000	5820	5600	6080	5820	5820	4370	5770	3290	1300
10	5680	2790	6000	5850	5500	3000	5880	5970	5390	5770	3250	1930
11	5630	2660	6010	5880	5400	1400	5940	6020	5420	5670	3260	875
12	5620	3490	5950	5900	5450	1210	5950	6040	5530	5540	3310	1440
13	5610	3410	5900	5800	5550	1150	5980	6060	5620	5420	3420	2000
14	5610	3340	5850	5700	5600	1820	6010	6040	5230	5360	2260	2450
15	5600	3360	5810	5680	5650	2400	6050	6130	5240	3800	1900	2770
16	5600	3460	5820	5630	5700	2900	6100	5660	4860	4000	1030	2550
17	5590	3800	5840	5600	5800	3320	5900	5970	1160	3430	1750	2540
18	5610	4550	5850	5740	5780	3700	5800	5920	1200	3180	2070	2660
19	5700	4880	5890	5880	5980	3950	5700	6010	1430	3190	2370	2790
20	5550	5830	5940	6020	6080	4310	5400	6030	1770	4150	2610	2820
21	4000	5330	5980	5990	6010	4670	5650	5940	2140	5150	2780	3020
22	2500	5100	5990	5940	4000	4900	3900	5800	2560	5600	3250	3040
23	2900	5050	6010	5910	2700	5100	2950	5900	2800	5000	3550	3150
24	3500	5150	6030	5900	2900	4000	2000	6040	4050	5740	3650	3280
25	4180	5220	6050	3800	4500	3600	2800	6090	4380	6240	3690	3400
26	3900	5290	6070	2900	5980	4400	3900	6240	4500	6440	3830	3430
27	2700	5360	6070	3000	6140	5100	4400	6220	4560	6400	3900	3340
28	3500	5430	6080	4000	6110	5370	4660	6130	4620	3960	3980	3400
29	3800	5500	6090	5400	---	5500	4920	6060	4790	4430	4000	3480
30	3600	5570	6090	5670	---	3850	5180	6050	4910	3300	4030	3680
31	848	---	6100	5790	---	2900	---	6090	---	1020	4100	---
MONTH	4710	3590	5940	5500	5440	4300	4970	5890	4500	4940	3220	2810

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	10.0	---	---	---	23.0	26.0	24.0	24.0
2	21.0	---	---	---	10.0	17.0	---	---	24.0	28.0	26.5	24.5
3	---	---	---	---	---	17.0	---	---	22.0	28.0	25.0	25.0
4	---	18.0	8.5	---	---	---	---	---	26.0	27.0	25.5	28.0
5	---	18.0	---	---	---	18.0	---	---	26.0	28.0	25.0	23.5
6	---	17.0	---	---	10.0	---	---	---	24.0	29.0	26.5	19.5
7	---	16.0	---	---	---	---	14.0	24.0	25.0	28.0	27.0	20.5
8	---	16.0	---	---	---	---	---	22.0	25.0	27.0	28.0	20.5
9	24.0	14.0	---	---	---	---	---	23.0	23.0	27.0	28.0	23.5
10	---	---	---	---	---	---	---	25.0	23.0	28.0	27.5	24.0
11	---	---	---	---	---	---	15.0	24.0	23.0	26.5	27.5	24.5
12	---	---	---	---	---	---	---	22.0	24.0	27.0	25.5	23.5
13	---	---	---	---	---	17.0	---	18.0	24.0	26.0	28.0	24.0
14	---	---	---	---	---	17.0	---	17.0	25.0	25.5	28.0	23.0
15	25.0	---	---	---	---	---	---	14.5	25.0	23.0	28.0	23.5
16	---	---	---	7.0	---	---	---	22.0	25.0	25.5	27.5	24.0
17	---	---	---	---	---	16.0	---	21.0	21.0	27.0	28.0	21.5
18	---	---	---	---	---	---	---	23.0	27.0	26.0	27.0	19.0
19	---	---	---	12.0	---	---	---	23.0	26.0	28.0	26.0	24.0
20	---	---	---	12.0	12.0	15.0	---	26.0	25.5	29.0	27.0	22.5
21	---	---	11.0	---	9.5	17.0	---	26.0	27.0	28.0	28.5	22.5
22	17.0	---	---	---	---	---	---	25.0	23.0	26.0	28.0	24.5
23	---	---	---	13.0	---	---	---	25.0	25.0	29.0	27.5	23.5
24	---	---	---	7.0	---	---	---	25.0	23.0	29.0	25.0	25.5
25	15.0	---	---	---	---	---	---	25.0	27.0	29.0	25.0	25.5
26	---	---	13.0	---	13.0	16.0	---	24.0	26.0	28.0	24.5	24.0
27	---	---	---	---	13.0	---	19.0	23.0	27.0	28.0	27.0	24.0
28	---	---	---	---	---	17.0	---	23.0	26.0	26.0	27.0	19.5
29	---	---	---	---	---	---	---	23.0	27.0	25.5	27.0	21.0
30	---	---	---	9.5	---	17.0	20.0	24.0	27.0	24.0	25.5	24.5
31	14.0	---	---	10.0	---	---	---	24.0	---	26.0	26.0	---
MONTH	---	---	---	---	---	---	---	23.0	25.0	27.0	26.5	23.0

BRAZOS RIVER BASIN

08083245 MULBERRY CREEK NEAR HAWLEY, TEX.

LOCATION.--Lat 32°34'04", long 99°47'32", Jones County, at gaging station on U.S. Highways 83 and 277, 3.3 miles (5.3 km) south of Hawley, and 7.0 miles (11.3 km) upstream from Clear Fork Brazos River.

DRAINAGE AREA.--205 mi² (531 km²).

PERIOD OF RECORD.--Chemical analyses: December 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
02...	1330	.05	8.3	66	100	370	314	0	540	410
31...	1400	404	9.1	40	12	29	122	0	41	45
DEC.										
04...	1440	.25	5.8	220	160	500	300	0	950	770
JAN.										
16...	1640	7.6	5.7	210	160	450	230	0	830	800
FEB.										
20...	1500	2.8	.6	320	300	660	266	0	1300	1400
MAR.										
27...	1430	5.1	6.8	120	93	230	194	0	380	430
APR.										
30...	1515	3.7	8.1	190	160	380	284	0	760	640
JUNE										
05...	1445	.12	2.8	150	220	610	410	0	1200	700
JULY										
16...	1500	.01	1.5	82	100	290	240	0	530	350
SEP.										
17...	1520	.14	7.4	82	54	150	187	0	300	210

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
02...	.5	1.4	1660	590	340	6.7	2770	8.2	20.0
31...	.3	1.2	242	150	49	1.0	435	7.6	15.0
DEC.									
04...	--	.2	2770	1200	980	6.3	4000	8.0	12.0
JAN.									
16...	--	1.0	2580	1200	1000	5.6	3900	7.9	8.0
FEB.									
20...	--	2.2	4040	2000	1800	6.4	6310	7.6	10.0
MAR.									
27...	.4	1.4	1360	670	510	3.9	2370	7.1	15.0
APR.									
30...	--	.9	2270	1100	880	4.9	3450	7.7	21.0
JUNE									
05...	--	1.2	3120	1300	940	7.5	4470	7.6	29.0
JULY									
16...	.6	.2	1470	620	420	5.0	2380	7.6	26.0
SEP.									
17...	.0	.2	895	430	280	3.2	1600	7.5	21.0

BRAZOS RIVER BASIN

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08084000 CLEAR FORK BRAZOS RIVER AT NUGENT, TEX.

LOCATION.--Lat 32°41'24", long 99°40'09", Jones County, at gaging station at bridge on Farm Road 600 at Nugent, 2 miles (3.2 km) downstream from Elm Creek, and 4 miles (6.4 km) upstream from Deadman Creek.

DRAINAGE AREA.--2,220 mi² (5750 km²).

PERIOD OF RECORD.--Chemical analyses: August 1948 to September 1953.
Chemical and biochemical analyses: February 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
NOV. 14...	1105	30	15	270	100	340	304	0	880
JAN. 30...	1345	40	8.4	320	150	620	290	0	1400
MAR. 20...	1030	50	9.2	300	120	370	292	0	990
MAY 14...	2040	35	9.0	410	190	680	236	0	1700
AUG. 28...	1125	7.5	11	160	71	210	226	0	500

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)
NOV. 14...	460	.4	.26	.01	.00	2.6	.10	2230	1100
JAN. 30...	740	.5	.52	.03	.06	4.8	.17	3460	1400
MAR. 20...	540	.4	.55	.00	.04	3.1	.19	2480	1200
MAY 14...	900	.4	.00	.03	.00	3.0	.12	4020	1800
AUG. 28...	300	.4	.75	.01	.09	.80	.07	1370	700

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
NOV. 14...	830	4.5	3170	7.5	11.0	8.2	74	1.3
JAN. 30...	1200	7.2	4330	8.0	7.0	10.9	90	2.2
MAR. 20...	990	4.6	3590	7.9	14.5	9.2	89	2.1
MAY 14...	1600	7.0	5500	8.0	17.5	9.7	102	3.5
AUG. 28...	510	3.4	2120	7.6	26.5	6.6	80	2.8

BRAZOS RIVER BASIN

08084100 DEADMAN CREEK NEAR NUGENT, TEX.

LOCATION.--Lat 32°40'36", long 99°37'00", Jones County, at low-water crossing on county road, 3.2 miles (5.1 km) east of Nugent, and 4.4 miles (7.1 km) upstream from Clear Fork Brazos River.

DRAINAGE AREA.--168 mi² (435 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1970.

Chemical and biochemical analyses: October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
03...	1130	13	11	48	29	--	220	--	154	0
NOV.										
03...	1340	26	13	69	27	--	150	--	182	0
14...	1130	17	21	70	34	200	--	14	220	0
DEC.										
05...	1015	16	14	56	38	--	250	--	159	0
JAN.										
17...	1120	.21	10	84	39	--	240	--	190	0
FEB.										
27...	1330	26	7.8	90	39	--	210	--	256	0
MAR.										
20...	0945	24	9.1	92	46	230	--	12	272	0
28...	1215	34	14	80	42	--	240	--	236	0
MAY										
01...	0910	12	15	86	49	--	270	--	268	0
14...	2000	8.5	19	97	54	300	--	16	350	0
JUNE										
06...	1000	6.3	18	85	51	--	300	--	250	0
JULY										
11...	1020	15	18	82	51	--	330	--	298	0
AUG.										
15...	1205	.45	7.4	99	61	--	370	--	348	0
28...	1050	--	11	100	60	--	390	--	320	0
SEP.										
18...	1025	3.1	16	75	45	--	270	--	268	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
03...	220	220	1.0	--	--	--	12	--	886
NOV.									
03...	130	220	.5	--	--	--	4.6	--	716
14...	190	270	.9	.68	.53	11	2.1	8.8	943
DEC.									
05...	250	280	1.0	--	--	--	17	--	1040
JAN.									
17...	200	350	.6	--	--	--	9.0	--	1060
FEB.									
27...	210	280	.6	--	--	--	4.0	--	982
MAR.									
20...	230	330	.6	.97	.28	2.8	3.6	6.8	1110
28...	240	300	.7	--	--	--	5.3	--	1050
MAY									
01...	240	360	.8	--	--	--	6.8	--	1190
14...	300	400	.6	.00	.42	4.4	3.3	17	1390
JUNE									
06...	330	360	.9	--	--	--	6.9	--	1300
JULY									
11...	320	400	.9	--	--	--	1.6	--	1350
AUG.									
15...	350	460	.2	--	--	--	.60	--	1530
28...	330	520	.6	3.0	.02	.42	.10	2.2	1580
SEP.									
18...	250	330	.2	--	--	--	1.1	--	1120

BRAZOS RIVER BASIN

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08084100 DEADMAN CREEK NEAR NUGENT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA.MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
03...	240	110	6.2	1320	7.2	20.0	--	--	--
NOV.									
03...	280	130	3.9	1260	7.5	15.0	--	--	--
14...	310	130	5.0	1620	7.3	11.0	6.2	56	16
DEC.									
05...	300	170	6.4	1750	7.5	10.5	--	--	--
JAN.									
17...	370	210	5.4	1870	7.9	5.0	--	--	--
FEB.									
27...	380	180	4.7	1800	7.6	15.0	--	--	--
MAR.									
20...	420	200	5.0	1890	7.5	14.5	7.2	70	21
28...	370	180	5.3	1760	7.2	15.0	--	--	--
MAY									
01...	420	200	5.8	2020	7.5	19.0	--	--	--
14...	460	180	6.1	2310	7.7	18.0	6.6	69	44
JUNE									
06...	420	220	6.4	2220	7.0	24.0	--	--	--
JULY									
11...	410	170	7.1	2240	7.4	22.0	--	--	--
AUG.									
15...	500	210	7.3	2570	7.8	32.0	--	--	--
28...	500	230	7.6	2670	8.1	24.5	5.4	64	18
SEP.									
18...	370	150	6.0	1960	7.5	21.5	--	--	--

BRAZOS RIVER BASIN

08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.

LOCATION.--Lat 32°55'51", long 99°38'32", Junes County, at gaging station at bridge on Farm Road 142, 9 miles (14 km) east of Stamford, and 17 miles (27 km) upstream from Paint Creek.

DRAINAGE AREA.--465 mi² (1,204 km²).

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1973.
Water temperatures: October 1962 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 8,560 micromhos June 1, 2; minimum daily, 310 micromhos Nov. 1.
Water temperatures: Maximum, 34.0°C July 21; minimum, freezing point Dec. 16, Jan. 10.

EXTREMES, October 1962 to September 1973.--Specific conductance: Maximum daily, 46,400 micromhos Sept. 16, 1970; minimum daily, 227 micromhos Aug. 25, 1971.
Water temperatures: Maximum, 37.0°C July 4, 6, 16, 1965, July 5, 1968; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 31...	1300	2440	9.1	34	7.4	18	--	5.4	102	0	34
NOV. 01...	0830	3260	8.3	34	6.8	--	13	--	88	0	29
DEC. 19...	1250	10	1.3	420	370	--	960	--	238	0	2400
JAN. 26...	1600	262	10	170	94	270	--	9.6	180	0	520
FEB. 11...	0930	47	4.6	300	160	--	470	--	226	0	940
MAR. 26...	1615	258	7.9	110	48	--	120	--	122	0	300
APR. 30...	1500	17	3.5	400	300	730	--	9.4	256	0	1800
MAY 09...	1310	9.5	3.5	490	380	--	970	--	280	0	2400
JUNE 20...	1830	59	12	78	36	--	89	--	166	0	180
JULY 19...	1045	2.5	5.7	160	130	340	--	8.3	192	0	860
AUG. 22...	1910	.58	5.8	260	32	--	1300	--	196	0	2000
SEP. 12...	0940	166	17	50	14	--	32	--	150	0	58

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 31...	26	.2	1.0	188	120	32	.7	325	7.9	8.0
NOV. 01...	24	.2	1.0	163	110	41	.5	294	7.6	7.0
DEC. 19...	1400	--	3.0	5650	2600	2400	8.3	7600	8.0	6.0
JAN. 26...	510	.3	5.8	1710	820	670	4.1	2710	7.9	9.0
FEB. 11...	880	--	4.6	2890	1400	1200	5.4	4320	8.1	4.0
MAR. 26...	230	.3	1.0	885	470	370	2.5	1450	7.1	16.0
APR. 30...	1200	--	.7	4620	2200	2000	6.7	6450	7.8	21.0
MAY 09...	1500	--	1.8	5960	2800	2600	8.0	7990	8.0	22.5
JUNE 20...	150	.3	1.1	630	340	210	2.1	1130	7.1	26.0
JULY 19...	470	--	1.2	2070	940	780	4.9	3080	7.2	27.0
AUG. 22...	980	--	1.9	4630	780	620	20	6150	7.1	28.5
SEP. 12...	48	.2	.4	295	180	60	1.0	529	7.5	25.0

BRAZOS RIVER BASIN

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08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	3554.9	913	420	4030	110	1060	150	1440	300
NOV.	6876	940	440	8170	110	2040	160	2970	310
DEC.	290.3	7130	5030	3940	1400	1100	1800	1410	2400
JAN. 1973....	1013.4	3940	2660	7280	760	2080	950	2600	1300
FEB.	1503	4640	3180	12900	910	3690	1100	4460	1500
MAR.	4082	3530	2360	26000	670	7380	840	9260	1200
APR.	733	5060	3500	6930	1000	1980	1200	2370	1700
MAY	218.5	7530	5330	3140	1500	885	1900	1120	2500
JUNE	859.8	2530	1620	3760	450	1040	580	1350	830
JULY	135.18	4010	2720	993	770	281	970	354	1300
AUG.	48.26	5990	4190	546	1200	156	1500	195	2000
SEP.	872.17	1220	640	1510	170	400	240	565	400
TOTAL	20186.51	--	--	79200	--	22100	--	28100	--
WTD. AVG. ...	55.3	2310	1450	--	410	--	520	--	770

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1620	310	6830	5500	4740	6210	3050	6880	8560	6500	4830	6440
2	1980	500	6920	4640	4850	6300	3230	6180	8560	6820	5180	6650
3	2320	980	7050	3270	5570	6360	3710	6450	4500	7320	6270	6910
4	2740	2800	6770	3370	5370	6520	4160	6310	1450	7540	7060	6930
5	3030	2550	6540	5840	7010	6960	4970	6450	1750	7590	7580	6930
6	3260	2860	6480	7430	7330	6860	5410	6680	2210	7620	7670	7390
7	3510	3230	6460	6700	7130	7400	5900	7370	2520	7620	7390	1700
8	3810	3630	6890	6150	5460	6890	6310	7700	2860	7620	7160	728
9	3970	4000	7890	7000	3950	7200	6540	7980	3200	7540	6570	2130
10	4370	4460	6300	7070	4520	3200	6430	7730	3490	7400	6220	2320
11	4660	4620	6480	6920	4320	2750	6730	7670	4080	7270	5930	483
12	4910	4870	7610	6880	4530	4560	7140	7840	4320	7270	5750	529
13	5200	5470	7590	6620	4680	3570	7230	7900	4830	7590	5670	1470
14	5560	5890	7590	6780	4810	3050	7320	8120	5150	3200	5610	2260
15	5710	5790	7560	6200	5630	3560	7070	8280	5560	3130	5700	2390
16	5900	5750	7620	5680	6690	3870	6840	8090	5830	2280	5770	2260
17	6120	6030	7700	5460	7250	4740	7320	8090	5670	2470	5800	2460
18	6270	6460	7350	5680	7380	5190	6460	8180	5750	2720	5930	2610
19	6230	6820	7580	5990	7380	5710	6090	8180	4700	3130	5810	2750
20	6470	6560	7700	5500	6570	5560	6450	8210	1130	3370	5910	2860
21	6230	6960	7750	5370	6210	5620	5790	8180	1640	3470	6020	3040
22	4490	6860	6120	6080	4300	6150	5630	8180	2240	3470	6150	3350
23	1280	6860	5680	5730	3950	6750	6070	8090	2630	3570	6220	3500
24	2610	6930	5950	6500	3610	6200	6540	8090	3290	3780	6310	3620
25	1730	6730	7340	3400	2950	2040	3550	7780	4250	3890	6350	3730
26	2070	6690	7550	2900	3690	1450	4400	7990	4690	4000	6330	3700
27	1700	6790	7780	2700	5230	3090	5160	7670	5120	4260	6370	3910
28	1320	6010	7660	3160	6100	3620	5930	8020	5530	4460	6430	4400
29	1860	6520	7420	3520	---	4090	6530	8350	5930	4590	6430	4710
30	1330	6730	7680	3800	---	1100	6450	8420	6140	4230	6470	4440
31	335	---	7520	4200	---	2090	---	8490	---	3990	6530	---
MONTH	3630	5020	7140	5360	5400	4800	5820	7730	4250	5150	6240	3550

BRAZOS RIVER BASIN

08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	7.0	---	---	1.0	11.0	14.0	24.0	27.0	---	30.0	28.0
2	21.5	---	6.5	6.0	1.0	13.0	16.0	19.0	27.0	27.0	24.0	25.0
3	22.0	15.5	8.0	8.0	1.0	17.0	18.0	23.0	27.0	32.0	30.0	29.0
4	25.0	14.0	6.0	4.0	8.0	12.0	13.0	24.0	28.0	33.0	29.0	26.0
5	25.0	14.0	9.0	4.5	11.0	13.0	17.0	---	28.0	31.0	29.0	25.0
6	24.0	15.5	---	2.0	12.0	19.0	14.0	19.0	27.0	23.0	30.0	20.0
7	23.0	14.5	2.0	---	11.0	18.0	17.0	23.0	23.0	27.0	29.0	20.0
8	25.5	11.0	3.5	1.5	5.0	19.0	9.0	25.0	25.0	27.0	25.0	23.0
9	21.0	---	5.5	1.0	6.0	16.0	13.0	22.5	25.0	31.0	31.0	26.0
10	25.5	15.0	4.5	0.0	8.0	15.0	11.0	---	23.0	28.0	28.0	27.0
11	25.5	11.5	1.0	3.0	4.0	14.0	11.0	23.0	26.0	30.0	31.0	28.0
12	27.0	13.5	3.0	4.0	11.0	15.0	20.0	22.0	24.0	28.0	31.0	25.0
13	---	14.5	3.0	4.0	9.0	15.0	---	19.0	23.0	27.0	30.0	24.0
14	28.0	11.0	1.5	1.0	8.0	17.0	19.0	18.0	29.0	---	31.0	25.0
15	20.0	8.5	2.0	---	10.0	16.0	18.0	22.0	32.0	24.0	---	22.0
16	---	9.0	0.0	3.0	7.0	16.0	17.0	24.0	28.0	29.0	27.0	24.0
17	23.0	8.0	6.0	10.0	6.0	11.0	16.0	25.0	31.0	27.0	30.0	21.0
18	22.0	8.0	8.5	11.0	10.0	13.0	13.0	27.0	31.0	31.0	29.0	20.0
19	13.0	8.0	6.0	12.0	9.0	19.0	19.0	28.0	28.0	27.0	29.0	26.0
20	8.0	6.5	---	13.0	11.0	17.0	24.0	29.0	26.0	32.0	30.0	25.0
21	13.0	5.5	6.5	11.0	11.0	12.0	26.0	30.0	30.0	34.0	28.0	28.0
22	14.5	7.0	7.0	9.0	8.0	19.0	24.0	26.0	30.0	30.0	28.5	27.0
23	15.5	6.0	8.0	8.0	9.0	17.0	23.0	28.0	29.0	26.0	30.0	24.0
24	17.0	7.0	8.5	6.0	12.0	17.0	20.0	28.0	25.0	32.0	30.0	28.0
25	13.0	8.0	7.0	6.0	10.0	15.0	23.0	28.0	30.0	---	29.0	24.0
26	12.0	5.5	7.0	9.0	12.0	16.0	---	29.0	25.0	27.0	25.0	27.0
27	13.0	8.0	7.5	9.0	10.0	15.0	21.0	26.0	25.0	31.0	27.0	22.0
28	14.5	7.0	8.0	4.0	13.0	13.0	20.0	25.0	28.0	28.0	27.0	23.0
29	15.0	5.5	13.0	9.0	---	17.0	22.0	27.0	25.0	26.0	26.0	25.0
30	15.0	7.0	14.0	6.0	---	13.0	21.0	---	32.0	26.0	27.0	24.0
31	8.0	---	9.5	---	---	14.0	---	27.0	---	24.0	28.0	---
MONTH	19.0	9.5	6.0	6.0	8.5	15.5	18.0	24.5	27.0	28.5	28.5	24.5

08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.

LOCATION.--Lat 32°56'04", long 99°13'27", Shackelford County, at gaging station at bridge on old Fort Griffin-Throckmorton Road, 0.5 mile (0.8 km) northeast of Fort Griffin, 5,100 ft (1,554 m) upstream from bridge on U.S. Highway 283, and 1.3 miles (2.1 km) upstream from Mill Creek.

DRAINAGE AREA.--3,974 mi² (10,293 km²).

PERIOD OF RECORD.--Chemical analyses: November 1949 to September 1951, November 1967 to September 1973.

Water temperatures: November 1949 to September 1951, November 1967 to September 1973.

Sediment records: November 1949 to September 1951.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 5,310 micromhos June 19; minimum daily, 465 micromhos Nov. 2.

Water temperatures: Maximum, 32.0°C Aug. 16.

EXTREMES, November 1949 to September 1951, November 1967 to September 1973.--Specific conductance (1949-51, 1967-70, 1971-73): Maximum daily, 6,680 micromhos May 11, 1972; minimum daily, 204 micromhos July 27, 1950.

Water temperatures (1967-70, 1971-73): Maximum, 34.0°C June 14, 1969, June 28, 1972; minimum, freezing point Jan. 9, 10, 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
31...	1445	1220	9.4	48	12	49	--	4.7	104	0	68
NOV.											
17...	1635	64	8.8	130	46	--	190	--	148	0	320
DEC.											
21...	1535	53	.0	260	130	--	450	--	270	0	940
JAN.											
31...	1215	218	5.7	170	73	260	--	6.0	204	0	440
FEB.											
28...	1720	256	1.4	190	80	--	310	--	236	0	530
MAR.											
14...	1800	1220	7.5	220	77	--	330	--	144	0	630
APR.											
04...	1355	248	6.5	140	56	200	--	6.4	180	0	390
MAY											
09...	1015	68	1.6	240	120	--	430	--	232	0	900
JUNE											
05...	1040	257	11	53	20	--	64	--	140	0	110
JULY											
18...	1930	22	7.7	270	130	530	--	11	212	0	1000
AUG.											
01...	2015	59	7.5	56	19	--	93	--	102	0	77
SEP.											
27...	1315	97	6.7	44	11	--	37	--	116	0	42

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
31...	87	.2	.70	332	170	84	1.6	589	7.4	15.5
NOV.										
17...	340	.2	1.2	1130	520	400	3.7	1890	7.4	9.5
DEC.										
21...	680	--	1.8	2600	1200	960	5.8	3810	8.3	5.5
JAN.										
31...	450	.4	2.2	1520	720	550	4.2	2460	8.2	5.5
FEB.										
28...	520	.3	2.0	1760	800	610	4.8	2760	7.7	10.5
MAR.										
14...	580	.3	1.0	1920	870	750	4.9	3000	7.1	15.5
APR.										
04...	340	.2	1.6	1230	570	420	3.7	2020	8.0	14.0
MAY										
09...	660	--	.40	2480	1100	930	5.6	3680	8.2	22.5
JUNE										
05...	84	.2	.70	418	210	100	1.9	735	7.9	24.5
JULY										
18...	760	--	.30	2860	1200	1000	6.7	4230	7.6	27.5
AUG.										
01...	180	.3	.60	486	220	130	2.7	900	7.3	26.5
SEP.										
27...	67	.2	.40	267	160	60	1.3	499	7.4	21.0

BRAZOS RIVER BASIN

08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	5363	1070	630	9120	170	2460	170	2460	310
NOV.	15093	853	500	20400	130	5300	130	5300	250
DEC.	1365	2880	1870	6890	550	2030	560	2060	840
JAN. 1973....	4741	3350	2230	28500	630	8060	710	9090	970
FEB.	6702	2910	1890	34200	560	10100	570	10300	840
MAR.	12339	2160	1320	44000	400	13300	370	12300	630
APR.	6895	2710	1740	32400	520	9680	500	9310	790
MAY	1898	3610	2430	12500	660	3380	790	4050	1000
JUNE	3921	2950	1920	20300	570	6030	580	6140	860
JULY	727	4000	2720	5340	720	1410	920	1810	1200
AUG.	868.8	1700	1010	2370	300	704	280	657	490
SEP.	3753.71	1120	660	6690	180	1820	180	1820	330
TOTAL	63666.51	--	--	223000	--	44300	--	65300	--
WTD. AVG. ...	174	2050	1300	--	370	--	380	--	590

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	694	961	1980	3610	2380	2820	2200	3490	3410	4300	1000	1930
2	874	465	1830	3610	2300	2790	2250	4020	3500	4300	1280	1940
3	1360	500	2080	4000	2250	2780	1910	4100	1600	4300	1800	1950
4	1450	710	2210	4200	2200	2720	2020	4090	781	4320	2050	1980
5	1430	765	2390	4300	2150	2700	2080	4000	735	4340	2220	1990
6	1170	890	2520	4500	2100	2660	2120	3900	983	4330	1750	3200
7	1050	1000	2570	4300	2000	2760	2180	3800	1820	4350	1710	3100
8	930	1500	2680	4000	1900	2770	2240	3730	4100	4360	1720	2800
9	817	1900	3140	3800	1780	2750	2290	3680	3640	4370	1740	1000
10	794	2000	3120	3600	2380	2740	2300	3620	2640	4380	1750	1100
11	784	2010	3130	3700	2760	2400	2340	3600	2480	4390	1740	1170
12	778	1960	3140	3800	2950	2150	2380	3540	3030	4380	1730	1210
13	787	1830	3200	3900	2860	2040	2400	3500	3010	4370	1730	1350
14	801	1830	3260	4000	3140	1800	2500	3470	3030	4390	1790	1140
15	829	1830	3310	4100	3240	2400	2600	3420	3200	4360	1740	950
16	838	1860	3430	4200	3300	2320	2580	3380	3410	4360	1750	1030
17	854	1890	3520	4620	3280	2280	2500	3370	3490	4340	1750	1040
18	883	1870	3620	4690	3200	2240	2550	3360	3450	4260	1760	1120
19	891	1860	3640	4790	3130	2190	2600	3350	5310	4250	1790	1200
20	901	1840	3720	4730	3050	2120	2680	3340	5280	4250	1800	1220
21	908	1820	3810	4720	3090	2030	2680	3300	5230	4360	1830	1200
22	980	1820	1170	4920	3100	1910	2600	3310	5210	4480	1840	1190
23	642	1830	2170	4920	3400	1830	2550	3220	4600	4540	1860	1010
24	1240	1780	1200	4870	3900	1750	3000	3240	3700	4570	1880	1020
25	1190	1790	1800	4670	3200	1920	3800	3260	3880	4650	1910	887
26	1440	1770	2500	3860	3000	1700	4300	3250	4120	4630	1910	773
27	1740	1930	3200	2590	2900	1710	4100	3280	4320	4660	1920	499
28	2100	1980	3800	2540	2760	1800	3900	3300	4340	4590	1940	550
29	1800	2090	4460	2500	---	1900	3850	3320	4330	4650	1920	609
30	1680	2240	4580	2550	---	1980	3770	3380	4320	2900	1920	609
31	589	---	4000	2460	---	2140	---	3400	---	2520	1940	---
MONTH	1070	1620	2940	3970	2780	2260	2710	3530	3430	4300	1790	1360

BRAZOS RIVER BASIN

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08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	10.5	8.5	6.0	---	13.5	15.5	21.0	---	28.0	26.5	---
2	21.5	10.0	8.0	---	---	14.5	15.0	21.5	---	28.5	25.5	---
3	20.5	9.0	6.0	---	---	14.5	15.0	21.0	24.5	28.0	25.5	---
4	21.0	15.0	---	---	---	14.5	14.0	---	25.0	29.5	25.5	---
5	22.0	10.0	---	---	---	15.0	---	---	24.5	29.5	24.5	---
6	20.5	---	4.0	---	---	15.5	---	---	23.5	30.0	25.5	---
7	20.0	14.0	3.0	---	---	15.5	---	---	24.5	---	26.5	---
8	23.5	14.0	5.0	---	---	15.0	15.5	23.0	25.5	29.0	28.5	---
9	24.5	14.5	5.0	---	5.5	16.0	16.0	22.5	27.0	26.5	27.0	---
10	24.0	14.0	---	---	4.5	---	---	---	25.5	28.5	28.0	---
11	24.0	13.5	---	---	8.0	---	---	---	26.0	31.0	27.0	---
12	24.0	13.5	4.5	---	8.5	---	---	---	25.5	26.5	28.0	---
13	24.5	12.0	---	---	7.0	---	---	---	26.0	28.5	27.0	---
14	25.0	10.5	---	---	7.0	15.5	---	---	25.0	26.5	28.0	22.0
15	23.5	9.5	3.0	---	8.0	15.0	---	---	28.0	26.0	28.5	25.5
16	24.0	---	2.0	---	---	16.5	---	---	28.5	25.0	32.0	22.0
17	25.0	9.5	---	6.5	---	---	---	---	29.5	25.5	26.5	22.0
18	22.0	---	6.0	8.0	---	---	---	---	29.5	27.5	26.5	21.5
19	16.5	---	7.0	9.0	---	---	---	---	28.5	26.5	29.5	24.5
20	16.0	---	---	8.5	10.0	---	---	---	28.5	28.5	27.0	23.0
21	16.0	6.0	5.5	8.5	10.0	15.0	---	---	26.0	31.0	26.5	25.5
22	16.5	6.0	8.0	8.0	8.5	17.0	---	---	26.0	27.0	30.5	24.5
23	17.0	6.0	7.0	7.0	10.0	16.5	---	---	26.5	29.0	25.5	24.0
24	14.0	6.0	3.5	8.5	11.0	15.5	---	---	26.5	28.5	30.0	26.0
25	14.0	6.5	3.0	6.0	12.0	15.5	---	---	26.5	31.5	28.5	25.5
26	13.5	7.0	---	7.0	---	14.0	---	---	26.0	27.0	29.5	25.0
27	13.5	9.0	---	6.5	---	---	---	---	30.0	26.5	29.5	21.0
28	14.0	---	---	5.0	10.5	---	---	---	29.0	28.5	29.5	21.5
29	15.0	---	13.0	6.0	---	---	21.0	---	27.0	26.5	29.5	23.0
30	17.0	6.5	11.0	7.0	---	---	21.5	---	27.0	25.5	29.0	23.5
31	15.5	---	---	5.5	---	16.0	---	---	---	25.0	29.5	---
MONTH	19.5	---	---	---	---	---	---	---	26.5	28.0	28.0	---

BRAZOS RIVER BASIN

08086050 DEEP CREEK AT MORAN, TEX.

LOCATION.--Lat 32°33'33", long 99°10'11", Shackelford County, at gaging station at bridge on U.S. Highway 380, 0.8 mile (1.3 km) north of Moran, 2.3 miles (3.7 km) upstream from Post Oak Creek, and 10.8 miles (17.4 km) upstream from Hubbard Creek.

DRAINAGE AREA.--235 mi² (609 km²).

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1973.

Water temperatures: October 1962 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 6,420 micromhos Jan. 22; minimum daily, 288 micromhos Sept. 8.

EXTREMES, October 1962 to September 1973.--Specific conductance: Maximum daily, 12,900 micromhos Apr. 15, 1971; minimum daily, 219 micromhos July 22, 1967.

Water temperatures (1964-69): Maximum, 30.0°C July 23, 1968; minimum, freezing point Dec. 26, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 28...	1630	58	5.7	43	10	43	--	4.6	111	0
NOV. 22...	1830	.27	5.0	74	20	--	110	--	146	0
DEC. 06...	1105	.08	2.6	130	42	--	240	--	148	0
JAN. 18...	1245	.08	.8	310	120	720	--	5.5	168	0
FEB. 22...	1045	1.4	4.3	140	54	--	320	--	160	0
MAR. 29...	1445	1.0	.0	180	70	--	390	--	172	0
APR. 12...	1800	.54	3.2	88	31	140	--	4.8	164	0
MAY 01...	1430	.16	3.6	84	30	--	140	--	163	0
JUNE 06...	1545	4.6	9.1	200	87	--	360	--	158	0
JULY 12...	2000	85	7.7	230	100	510	--	6.9	156	0
AUG. 12...	2000	1.2	8.6	100	40	--	220	--	142	0
SEP. 12...	2000	.05	7.4	37	7.4	--	28	--	108	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 28...	39	78	.2	1.0	283	150	58	1.5	541	7.6
NOV. 22...	72	220	.2	.2	582	270	150	3.0	1100	7.9
DEC. 06...	120	530	.3	.8	1130	490	370	4.6	2170	7.9
JAN. 18...	610	1400	--	.2	3300	1300	1100	8.7	5610	7.4
FEB. 22...	220	640	.3	.07	1460	580	450	5.7	2590	7.7
MAR. 29...	290	800	--	.2	1800	730	590	6.2	3190	7.5
APR. 12...	120	290	.3	.1	760	350	210	3.4	1400	7.5
MAY 01...	130	270	.4	.2	741	330	200	3.5	1360	7.7
JUNE 06...	480	720	--	.5	1930	860	730	5.3	3220	7.9
JULY 12...	540	1000	--	.9	2490	1000	880	7.0	4150	7.2
AUG. 12...	99	480	.4	.2	1020	420	300	4.6	1900	8.0
SEP. 12...	25	48	.4	.1	207	120	34	1.1	379	7.1

BRAZOS RIVER BASIN

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08086050 DEEP CREEK AT MORAN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	205.66	452	230	130	53	30	37	21	96
NOV.	26.89	754	400	29	130	9.3	57	4.1	170
DEC.	2.96	2840	1600	13	690	5.5	270	2.1	660
JAN. 1973....	83.20	1320	760	170	270	62	130	28	300
FEB.	49.26	2120	1200	159	500	67	190	25	490
MAR.	66.55	2650	1500	269	650	117	230	42	620
APR.	82.79	1550	850	189	330	73	140	31	360
MAY	5.23	2230	1250	18	470	6.6	260	3.6	520
JUNE	27.83	2680	1540	116	580	44	330	25	620
JULY	25.12	1130	610	42	280	19	61	4.2	260
AUG.	1.49	1960	1070	4.3	500	2.0	100	.4	450
SEP.	152.65	382	220	90	47	19	37	15	80
TOTAL	729.63	--	--	1230	--	454	--	201	--
WTD. AVG. ...	2.00	1120	620	--	230	--	100	--	250

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	496	1890	3050	1040	2200	3750	1360	---	---	---	---
2	1250	440	918	2990	788	2370	3870	1400	3000	---	---	---
3	1300	520	517	3640	1000	2500	3850	1410	2510	---	---	---
4	---	542	366	3160	1200	2800	3800	1500	2750	---	---	---
5	---	549	708	3300	1400	3000	3870	1800	3000	---	---	---
6	---	507	2170	3540	1660	3180	3860	1730	3220	---	---	3210
7	---	583	1130	3000	1800	3000	4050	1890	2510	---	---	304
8	---	565	1220	2870	1900	3200	4070	2000	2510	---	---	288
9	---	530	1310	3500	2000	3500	4080	2150	2520	---	---	316
10	---	566	1580	4000	2150	3700	4080	2210	2520	---	---	340
11	---	579	2740	4500	2250	2680	4060	2300	2510	---	2100	359
12	---	595	1750	5200	2300	1620	4100	2160	2520	1100	1900	379
13	---	2980	2670	5880	2400	2000	4000	2150	2520	1200	2190	400
14	---	2400	3530	5420	2450	2500	4100	2200	2500	1230	2470	425
15	---	2330	3530	6080	2500	3000	4200	2150	2520	1240	2490	---
16	---	2620	3540	6160	2580	3500	1400	2300	2520	1240	---	---
17	---	722	3540	5900	2300	3700	1200	2350	2520	1250	---	---
18	---	791	3540	5610	2020	3600	1500	2410	2540	1260	---	---
19	---	755	3650	5910	2150	3720	1200	2500	2560	1270	---	---
20	1200	1030	3900	6030	2300	3730	1300	2540	2600	---	---	---
21	800	616	4280	6200	2450	3730	1500	2580	2590	---	---	---
22	379	1100	4290	6420	2590	3720	1900	2610	---	---	---	---
23	496	1110	4260	6390	3790	3700	1800	2700	---	---	---	---
24	479	1030	4250	6400	1810	3300	1500	2520	---	---	---	---
25	490	1380	4440	4500	1790	3320	2000	2510	---	---	---	650
26	435	1410	4480	1500	1900	3250	2500	2450	---	---	---	600
27	350	1270	5140	1000	2000	3300	2700	2400	---	---	---	568
28	480	1580	5160	750	2100	3200	3000	2530	---	---	---	573
29	545	1430	5190	900	---	3190	3300	2520	---	---	---	590
30	540	1570	5120	1060	---	3200	3500	---	---	---	---	600
31	520	---	5200	1100	---	3300	---	---	---	---	---	---
MONTH	---	1090	3100	4060	2020	3120	3000	2180	---	---	---	---

BRAZOS RIVER BASIN

08086100 HUBBARD CREEK NEAR ALBANY, TEX.

LOCATION.--32°41'21", long 99°09'52", Shackelford County, at gaging station, 348 feet (106 m) upstream from bridge on Farm Road 601, 1.8 miles (2.9 km) downstream from Deep Creek, 5.1 miles (8.2 km) upstream from Salt Prong Hubbard Creek, and 8.1 miles (13.0 km) southeast of Albany.

DRAINAGE AREA.--461 mi² (1,194 km²).

PERIOD OF RECORD.--Chemical analyses: February 1962 to September 1973.

Water temperatures: February 1962 to September 1973.

Sediment records: January 1966 to September 1972.

EXTREMES, February 1962 to September 1970.-- Specific conductance: Maximum daily, 4,410 micromhos Apr. 6, 1962; minimum daily, 204 micromhos Sept. 8-9, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.											
21...	0755	174	7.6	860	260	15000	--	51	123	0	2000
24...	1810	8.0	6.4	74	24	120	--	5.0	83	0	140
NOV.											
01...	1745	239	10	440	72	--	2200	--	116	0	1200
02...	1410	9.3	6.5	59	16	--	74	--	108	0	30
JAN.											
18...	1150	.84	6.4	52	12	44	--	4.4	151	0	32
FEB.											
21...	1605	.71	4.9	170	65	--	300	--	168	0	250
APR.											
23...	1840	6.4	8.1	200	78	440	--	6.4	172	0	320
MAY											
02...	0840	.27	1.4	180	68	--	380	--	184	0	260
JUNE											
07...	1910	.80	3.2	140	55	--	280	--	160	0	190
JULY											
13...	1840	9.1	5.6	51	16	120	--	6.5	80	0	61
SEP.											
09...	1900	6.9	6.8	50	12	--	51	--	112	0	42

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
21...	23000	--	--	41300	3200	3100	115	62900	7.8	11.0
24...	240	.2	.3	647	280	220	3.0	1170	7.9	16.0
NOV.										
01...	3400	.3	.6	7410	1400	1300	--	11000	7.6	--
02...	180	.2	.3	420	210	120	2.2	825	7.8	15.0
JAN.										
18...	88	.2	.2	314	180	56	1.4	589	7.4	7.0
FEB.										
21...	670	.3	.2	1550	690	550	5.0	2770	7.2	10.0
APR.										
23...	950	--	.05	2090	820	680	6.7	3620	7.5	21.5
MAY										
02...	800	--	.1	1780	720	570	6.2	3160	7.8	19.0
JUNE										
07...	600	.3	.2	1350	580	450	5.0	2450	7.7	29.0
JULY										
13...	230	.3	1.6	540	190	130	3.8	1030	6.8	27.0
SEP.										
09...	100	.4	1.0	325	170	82	1.7	603	7.5	25.0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
JUNE					
06...	1400	3.0	28.0	11	.09
SEP.					
07...	1400	192	22.0	259	134

BRAZOS RIVER BASIN

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08086100 HUBBARD CREEK NEAR ALBANY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	944.0	540	280	710	98	250	32	82	160
NOV.	64.17	770	390	68	160	29	29	5.1	210
DEC.	0	--	--	0	--	0	--	0	--
JAN. 1973....	229.02	2590	1460	900	640	398	210	131	610
FEB.	220.20	2680	1490	887	640	379	250	147	630
MAR.	250.9	2790	1560	1060	670	453	260	173	660
APR.	200.10	2950	1660	899	730	392	270	146	690
MAY	3.61	3170	1790	17	810	7.9	260	2.5	740
JUNE	34.42	2860	1610	149	740	68	200	19	670
JULY	91.15	1630	880	217	390	96	110	27	400
AUG.	0	--	--	0	--	0	--	0	--
SEP.	257.19	1340	710	490	300	212	80	55	340
TOTAL	2294.76	--	--	5400	--	2280	--	788	--
WTD. AVG. ...	6.29	1580	870	--	370	--	130	--	390

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	783	---	---	3570	2640	2720	3170	---	---	---	---
2	---	825	---	---	3480	2580	2700	3160	---	---	---	---
3	---	590	---	580	2560	2470	2770	3200	3080	---	---	---
4	---	566	---	570	2540	2520	2750	3190	2820	---	---	---
5	---	537	---	570	2610	2520	2740	3210	2690	---	---	---
6	---	534	---	571	2640	2470	2730	3170	2610	---	---	---
7	---	556	---	569	2820	2480	2680	3150	2450	---	---	1500
8	---	575	---	576	3560	2580	2700	3140	2370	---	---	1080
9	---	600	---	573	3060	2680	2710	3170	2430	---	---	603
10	---	---	---	578	2840	2800	2690	3200	2460	---	---	650
11	---	---	---	615	2810	2790	2700	3220	---	---	---	693
12	---	---	---	583	2780	2950	2660	---	---	2600	---	638
13	---	---	---	589	2800	2930	2690	---	---	1030	---	667
14	---	---	---	582	2860	2730	2680	---	---	1230	---	700
15	---	---	---	574	2850	2770	2680	---	---	791	---	720
16	---	---	---	570	2850	2780	2700	---	---	769	---	---
17	---	---	---	583	2800	2720	2830	---	---	788	---	---
18	---	---	---	589	2800	2800	2620	---	---	800	---	---
19	---	---	---	603	2780	2900	2400	---	---	---	---	---
20	---	---	---	609	2800	2920	2890	---	---	---	---	---
21	800	---	---	615	2770	2950	3300	---	---	---	---	---
22	380	---	---	639	2730	2950	3520	---	---	---	---	---
23	815	---	---	646	2290	2910	3620	---	---	---	---	---
24	1170	---	---	661	2210	2910	3460	---	---	---	---	---
25	1120	---	---	671	2430	2870	3250	---	---	---	---	---
26	1040	---	---	1200	3290	2830	3230	---	---	---	---	---
27	923	---	---	3200	3020	2820	3200	---	---	---	---	---
28	669	---	---	3700	2660	2820	3150	---	---	---	---	---
29	678	---	---	3800	---	2810	3140	---	---	---	---	---
30	723	---	---	3910	---	2720	3150	---	---	---	---	---
31	400	---	---	3440	---	2720	---	---	---	---	---	---
MONTH	---	---	---	1140	2830	2750	2900	---	---	---	---	---

BRAZOS RIVER BASIN

08086100 HUBBARD CREEK NEAR ALBANY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	14.5	---	---	7.0	13.0	16.5	25.0	---	---	---	---
2	---	15.0	---	---	7.0	15.5	16.0	19.0	---	---	---	---
3	---	14.5	---	7.0	8.5	16.0	14.5	---	26.0	---	---	---
4	---	15.5	---	7.0	10.5	14.0	15.0	---	28.0	---	---	---
5	---	17.0	---	5.5	12.0	16.5	17.0	---	25.0	---	---	---
6	---	18.0	---	4.5	10.5	16.0	16.0	---	26.0	---	---	---
7	---	14.5	---	4.0	8.5	17.0	17.0	---	29.0	---	---	23.0
8	---	---	---	3.0	5.5	16.0	12.0	---	28.0	---	---	24.5
9	---	---	---	3.5	6.0	15.5	13.5	---	29.0	---	---	25.0
10	---	---	---	3.5	8.0	15.5	14.5	---	29.5	---	---	---
11	---	---	---	3.5	8.0	16.5	16.5	---	---	---	---	24.0
12	---	---	---	4.0	10.0	16.0	18.5	---	---	26.5	---	27.0
13	---	---	---	4.0	8.5	16.0	20.5	---	---	27.0	---	27.0
14	---	---	---	4.0	9.5	18.5	19.5	---	---	25.0	---	---
15	---	---	---	6.0	9.0	16.0	18.5	---	---	25.0	---	---
16	---	---	---	8.0	8.0	15.0	18.0	---	---	29.0	---	---
17	---	---	---	8.5	6.5	18.0	16.5	---	---	30.5	---	---
18	---	---	---	7.0	11.0	17.0	19.0	---	---	---	---	---
19	---	---	---	8.5	9.0	15.5	20.0	---	---	---	---	---
20	---	---	---	9.0	10.5	16.0	21.5	---	---	---	---	---
21	---	---	---	8.5	10.0	17.0	23.0	---	---	---	---	---
22	17.0	---	---	8.0	8.5	19.0	23.0	---	---	---	---	---
23	16.0	---	---	8.0	10.5	17.0	21.5	---	---	---	---	---
24	16.0	---	---	7.0	10.5	16.0	23.0	---	---	---	---	---
25	15.5	---	---	6.0	13.0	14.5	23.0	---	---	---	---	---
26	15.0	---	---	7.0	11.5	15.5	19.0	---	---	---	---	---
27	14.0	---	---	6.0	14.0	15.5	20.5	---	---	---	---	---
28	14.5	---	---	6.0	12.0	16.0	21.5	---	---	---	---	---
29	16.0	---	---	7.0	---	16.5	24.5	---	---	---	---	---
30	16.0	---	---	6.5	---	17.0	22.0	---	---	---	---	---
31	14.0	---	---	8.0	---	16.5	---	---	---	---	---	---
MONTH	---	---	---	6.0	9.5	16.0	18.5	---	---	---	---	---

BRAZOS RIVER BASIN

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08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.

LOCATION.--32°42'27", long 99°16'29", Shackelford County, at gaging station at bridge on U.S. Highway 380, 1.7 miles (2.7 km) southeast of Albany, and 2.0 miles (3.2 km) upstream from Salt Prong Hubbard Creek.

DRAINAGE AREA.--38.4 mi² (99.5 km²).

PERIOD OF RECORD.--Chemical analyses: November 1962 to September 1973.

Water temperatures: November 1962 to September 1973.

Sediment records: October 1967 to September 1969.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 5,630 micromhos July 8; minimum daily, 759 micromhos Oct. 23.

EXTREMES, November 1962 to September 1973.--Specific conductance: Maximum daily, 9,750 micromhos Sept. 23-30, 1968; minimum daily, 470 micromhos Sept. 22, 1972.

Water temperatures (1962-69): Maximum, 33.0°C July 11, 1964; minimum, freezing point Jan. 12, 1963, Jan. 29, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
04...	0910	.10	9.4	86	25	170	--	3.5	205	0	49
NOV.											
02...	1020	12	12	150	29	--	260	--	170	0	39
DEC.											
06...	0845	.44	5.8	210	66	--	500	--	188	0	120
JAN.											
18...	1045	1.7	8.4	230	61	450	--	4.1	252	0	110
FEB.											
10...	1205	4.4	3.9	290	81	--	650	--	157	0	90
APR.											
11...	1710	3.5	11	270	81	620	--	3.7	132	0	130
MAY											
01...	1320	1.6	4.7	280	86	--	660	--	120	0	120
JUNE											
06...	1145	2.6	7.3	190	51	--	340	--	160	0	71
JULY											
11...	1200	.24	13	310	110	660	--	4.1	180	0	140
SEP.											
10...	1300	.24	12	180	51	--	400	--	142	0	54

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
04...	340	.3	.1	778	320	150	4.1	1490	8.0	19.0
NOV.										
02...	630	.2	.5	1210	500	360	5.1	2340	8.0	13.0
DEC.										
06...	1100	.2	.5	2140	800	640	7.7	4000	7.4	4.5
JAN.										
18...	1100	--	.9	2060	830	620	6.8	3780	7.6	10.0
FEB.										
10...	1600	--	.3	2800	1100	930	8.7	5270	7.4	7.0
APR.										
11...	1500	--	.6	2690	1000	910	8.5	4900	7.4	16.0
MAY										
01...	1600	--	.7	2790	1000	940	8.9	5240	7.7	24.0
JUNE										
06...	860	--	.6	1600	680	550	5.7	3040	7.5	26.0
JULY										
11...	1700	--	.1	3000	1200	1100	8.3	5560	7.4	29.0
SEP.										
10...	970	--	.6	1750	670	550	6.8	3290	7.9	26.5

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
JUNE				
06...	1145	2.6	26.0	18

BRAZOS RIVER BASIN

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (F ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	253.24	1080	570	388	260	181	25	17	250
NOV.	80.74	2640	1390	302	720	158	62	14	580
DEC.	13.01	4040	2150	76	1150	40	120	4.1	870
JAN. 1973....	281.34	3100	1690	1280	840	641	120	89	680
FEB.	252.4	3520	1910	1300	1070	731	75	51	760
MAR.	254.8	4390	2400	1650	1350	928	100	70	950
APR.	124.8	4810	2640	889	1470	497	130	42	1040
MAY	36.36	5330	2840	278	1620	159	120	12	1180
JUNE	34.50	4270	2260	211	1260	118	100	9.3	920
JULY	22.40	4240	2270	137	1270	77	83	5.0	920
AUG.	4.44	4430	2370	28	1340	16	75	.9	960
SEP.	33.36	3280	1740	157	970	88	52	4.7	710
TOTAL	1391.39	--	--	6700	--	3630	--	319	--
WTD. AVG. ...	3.81	3290	1790	--	960	--	86	--	720

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1430	1960	4000	4130	4300	4010	4920	5240	4610	5510	4670	---
2	1540	2340	4010	4100	4290	4200	4880	5340	4180	5550	4480	---
3	1570	2640	3980	4200	4270	4340	4820	5240	2970	5580	4510	---
4	1490	2900	4010	4150	4290	4340	4780	5340	2920	5490	4480	---
5	1590	3100	3860	4090	4490	4380	4750	5100	2570	5540	4480	---
6	1610	3300	4000	4140	4530	4330	4800	5350	3040	5530	4390	4960
7	1660	3430	3430	3920	4700	4650	4840	5370	3810	5550	4300	2800
8	1700	3530	4000	3810	4380	4650	4850	5270	4520	5630	4330	3010
9	1780	3630	3960	3820	5240	4710	4870	5220	4500	5580	4300	3120
10	1850	3740	4080	3790	5270	4290	4880	5180	4700	5580	4200	3290
11	1850	3780	3990	3740	5220	4280	4900	5260	4980	5560	4230	4330
12	1850	3800	3950	3780	5000	4100	4890	5280	5310	5100	4230	3470
13	1920	3910	4110	3760	4870	3930	4890	5280	5370	5160	4310	3550
14	1990	3930	4100	3780	4850	3930	4850	5280	5480	3470	4390	3630
15	2050	3960	4080	3770	4800	4100	4880	5230	5510	3490	4260	3570
16	2110	4000	4080	3500	4820	4200	4170	5300	5540	3800	4280	3640
17	2150	3980	4100	3300	4760	4430	4640	5280	5430	3780	4250	3630
18	2210	3880	4130	3780	4910	4500	4990	5340	5480	3800	4330	3610
19	2190	3900	4110	4300	5000	4590	4770	5410	5540	3770	4360	3590
20	2230	3790	4140	4500	5160	4640	4850	5410	5450	3740	4400	3600
21	2630	3830	4090	4700	5270	4860	5140	5300	5450	3750	4460	3600
22	764	3970	4160	4950	3070	4830	4780	5350	5540	3720	4470	3570
23	759	4000	4170	5310	2000	4000	4550	5500	5410	3690	---	3540
24	1200	4030	3900	5500	3080	4600	4500	5460	5470	3630	---	3600
25	1490	4020	4100	2670	3350	4810	4600	5430	5500	3630	---	3600
26	2130	4050	4140	2500	3630	4740	4790	5380	5550	3620	---	3560
27	2090	4070	4100	3200	3800	4750	4900	5280	5570	3620	---	3640
28	2560	4050	4170	3900	4050	4730	4980	5450	5530	3650	---	3670
29	2600	4010	4140	4100	---	4660	5230	5500	5510	3400	---	3700
30	990	4020	4220	4000	---	4830	5240	5490	5510	3500	---	3740
31	871	---	4250	4130	---	4500	---	5520	---	4000	---	---
MONTH	1770	3650	4050	3980	4410	4450	4830	5330	4900	4430	---	3600

BRAZOS RIVER BASIN

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08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	---	---	7.0	11.0	14.0	18.0	24.0	23.0	30.0	29.0	---
2	21.0	13.0	12.0	5.5	11.0	---	16.0	23.0	25.5	---	28.5	---
3	24.0	---	10.0	5.5	11.0	18.0	17.0	22.0	26.0	29.5	28.0	---
4	19.0	18.0	9.0	---	12.0	17.0	16.0	22.0	28.0	29.5	27.0	---
5	23.0	17.0	9.0	5.5	13.0	16.0	16.0	21.0	26.0	29.0	28.0	---
6	20.0	---	4.5	5.0	14.0	18.0	---	24.0	26.0	---	28.0	---
7	---	17.0	6.0	1.0	---	18.0	18.0	25.0	25.5	30.5	29.5	22.0
8	24.0	16.0	9.0	2.0	7.0	17.0	---	23.0	26.5	26.5	29.0	26.5
9	---	17.0	9.0	0.0	12.0	16.0	13.0	---	27.0	29.5	29.0	28.0
10	25.0	19.0	4.5	0.0	7.0	18.0	---	23.0	---	29.5	29.0	26.5
11	24.0	---	3.0	2.0	8.0	18.0	16.0	24.0	27.0	29.0	29.5	27.0
12	23.0	16.0	5.5	2.0	---	---	---	23.0	26.5	28.0	30.0	28.5
13	---	15.0	4.5	4.5	10.0	17.0	20.0	---	26.0	28.0	---	---
14	---	12.0	---	---	11.0	18.0	20.0	21.0	29.5	27.0	29.0	26.5
15	24.0	11.0	5.0	8.0	10.0	---	19.0	23.0	29.0	26.5	27.0	28.0
16	23.0	12.0	6.0	---	8.0	16.0	19.0	24.0	29.0	28.5	28.0	27.0
17	24.0	11.0	---	9.0	8.0	18.0	16.0	24.0	29.0	29.0	28.5	24.5
18	21.0	11.0	9.5	10.0	8.0	---	16.0	---	29.5	29.0	28.0	26.0
19	15.0	---	11.0	12.0	---	19.0	23.0	27.0	29.5	---	---	26.5
20	14.0	12.0	10.0	---	12.0	17.0	21.5	27.0	29.5	30.5	29.5	26.0
21	16.0	8.0	11.0	---	12.0	17.0	21.0	28.0	28.5	28.5	28.5	26.5
22	16.0	12.0	13.0	11.0	10.0	18.0	21.5	26.0	26.5	---	28.5	---
23	15.0	---	11.0	10.0	8.0	16.0	23.0	27.0	28.0	28.5	---	23.0
24	16.0	11.0	9.0	---	10.0	15.0	25.5	---	26.5	30.5	---	26.5
25	15.0	10.0	10.0	---	---	16.0	---	27.0	---	31.0	---	26.0
26	14.0	---	13.5	---	14.0	16.0	19.0	26.0	---	30.0	---	24.0
27	15.0	10.0	11.5	---	16.0	15.0	---	27.0	29.0	29.5	---	25.5
28	15.0	10.0	10.5	---	13.0	18.0	21.5	25.0	29.0	28.5	---	---
29	16.0	8.0	15.5	---	---	16.0	22.0	26.5	29.0	---	---	23.5
30	18.0	---	10.0	---	---	17.0	---	26.0	29.5	---	---	---
31	---	---	---	9.5	---	---	---	25.0	---	---	---	---
MONTH	19.5	---	9.0	---	10.5	17.0	---	24.5	27.5	---	---	---

BRAZOS RIVER BASIN

08086212 HUBBARD CREEK BELOW ALBANY, TEX.

LOCATION.--Lat 32°43'58", long 99°08'25", Shackelford County, at gaging station 2.8 miles (4.5 km) upstream from Newcomb Creek, 4.5 miles (7.2 km) upstream from U.S. Highway 180, and 9.1 miles (14.6 km) east of Albany.

DRAINAGE AREA.--621 mi² (1,608 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1973.

Water temperatures: October 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 5,120 micromhos May 30; minimum daily, 417 micromhos Oct. 23.

Water temperatures: Minimum, freezing point Dec. 11, Jan. 8, 10.

EXTREMES, October 1966 to September 1970, October 1972 to September 1973.--Specific conductance: Maximum daily, 11,800 micromhos Nov. 27, 1968; minimum daily, 253 micromhos Sept. 8, 1967.

Water temperatures: Maximum, 37.0°C July 11, 1969; minimum, freezing point Dec. 11, 1972, Jan. 8, 10, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 23...	1215	89	6.6	32	5.6	39	--	4.6	78	0	18
NOV. 02...	0815	34	9.4	53	11	--	82	--	116	0	31
DEC. 04...	1300	.43	7.0	160	37	--	290	--	172	0	68
JAN. 18...	0920	4.7	4.5	220	60	370	--	4.8	212	0	140
FEB. 21...	0900	5.1	6.5	240	76	--	490	--	166	0	140
MAR. 26...	1545	16	2.7	170	51	--	360	--	168	0	100
MAY 07...	1520	3.8	3.4	210	66	--	460	--	160	0	150
JUNE 01...	1415	.16	4.2	270	87	--	620	--	128	0	160
JULY 19...	1215	.45	7.7	55	12	92	--	5.7	99	0	31
AUG. 04...	0900	.06	11	110	30	--	310	--	126	0	46
SEP. 07...	1000	179	9.4	110	31	--	260	--	168	0	52

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 23...	74	.2	.6	221	100	39	1.7	423	7.7	16.0
NOV. 02...	160	.2	.4	405	180	82	2.7	764	7.2	11.0
DEC. 04...	680	.3	.05	1330	540	400	5.5	2510	6.5	9.0
JAN. 18...	920	--	.09	1820	790	620	5.7	3350	7.4	8.0
FEB. 21...	1200	--	.00	2240	910	780	7.1	4090	7.9	8.0
MAR. 26...	830	.3	.1	1600	630	500	6.2	2950	7.2	17.5
MAY 07...	1100	--	.1	2040	790	660	7.1	3770	7.7	24.5
JUNE 01...	1500	--	.2	2680	1000	920	8.3	4900	7.7	30.0
JULY 19...	210	.3	.2	464	190	110	2.9	900	7.0	30.0
AUG. 04...	660	.3	.4	1230	400	300	6.7	2320	8.0	26.0
SEP. 07...	560	.4	.4	1110	400	270	5.7	2070	8.0	23.0

BRAZOS RIVER BASIN

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08086212 HUBBARD CREEK BELOW ALBANY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 02...	0815	34	11.0	.00	.00	.00	.00	.00	.00	.00	.00
DATE		LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 02...		.00	.0	.0	.00	.00	.00	.00	.00	.00	.13

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1348.7	780	410	1510	170	610	31	111	190
NOV.	171.77	920	480	225	200	95	38	17	220
DEC.	10.13	2840	1520	41	770	21	86	2.4	610
JAN. 1973....	605.32	2680	1450	2360	720	1180	100	166	570
FEB.	413.5	3660	2000	2230	1060	1180	130	149	770
MAR.	511.9	3290	1790	2470	940	1300	120	164	700
APR.	330.3	3160	1700	1520	890	797	110	100	670
MAY	46.94	3860	2090	265	1120	142	140	17	810
JUNE	48.18	4190	2270	296	1220	159	150	19	880
JULY	330.35	1520	810	724	400	357	50	45	340
AUG.	1.85	2380	1270	6.3	680	3.4	48	.2	510
SEP.	259.97	1460	770	540	380	265	40	28	330
TOTAL	4078.91	--	--	12200	--	6110	--	819	--
WTD. AVG. ...	11.2	2050	1110	--	560	--	74	--	450

BRAZOS RIVER BASIN

08086212 HUBBARD CREEK BELOW ALBANY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	627	2320	3380	2990	3330	2820	3180	4900	---	2390	---
2	---	761	2490	3420	3010	3330	2840	3300	4900	---	2390	---
3	---	820	2500	3340	2970	3340	3040	3310	4520	---	2340	---
4	---	820	2510	3500	2970	3350	3070	3520	4260	---	2320	---
5	---	1010	2520	3650	3100	3360	3470	3530	4010	---	2330	---
6	---	1080	2560	3660	3080	3310	3470	3750	4070	---	2340	2700
7	---	1210	2650	3530	3380	3160	3390	3770	4080	---	---	1190
8	---	1320	2650	3540	3390	3280	3790	3830	3900	---	---	2260
9	---	1400	2670	3570	3440	3500	3790	3900	3900	---	---	1480
10	---	1400	2670	3590	3460	2910	3880	3890	3890	---	---	1360
11	---	1460	2780	2430	3680	3350	3900	4010	3870	3340	---	1640
12	---	1460	2810	2430	3700	3310	3860	4020	3940	4710	---	1650
13	---	1570	2800	2350	3730	3160	3910	4150	3940	2770	---	1790
14	---	1650	2940	2360	3790	3370	3900	4190	3960	1340	---	1830
15	---	1710	2920	2450	3810	3810	4090	4190	3970	546	---	1820
16	---	1820	3030	2460	3900	3550	4100	4320	4170	627	---	1850
17	---	1880	3040	2510	3900	3670	3870	4330	4170	748	---	1920
18	---	1880	3070	3350	3920	3710	3550	4330	4170	856	---	1900
19	---	1900	2830	3290	3950	3830	3550	4510	4210	900	---	1880
20	---	1940	2990	3270	4060	3850	3340	4480	4230	904	---	1900
21	1330	2030	2990	3280	4090	4030	3210	4520	4260	930	---	1920
22	821	2140	3040	3220	4010	4040	3260	4560	4300	970	---	1930
23	417	2150	3060	3220	4230	3700	3300	4550	---	1000	---	---
24	970	2250	3150	3190	3820	3250	2610	4580	---	1020	---	---
25	1130	2250	3190	3280	3810	2680	2240	4660	---	---	---	---
26	1340	2270	3190	3320	3680	2950	2350	4660	---	---	---	1970
27	1040	2280	3250	1910	2900	3070	2700	4930	---	---	---	1950
28	857	2300	3300	1750	3340	3080	2690	4910	---	---	---	1960
29	1170	2300	3300	2580	---	3230	3020	5100	---	1100	---	1980
30	850	2340	3300	2530	---	3050	3020	5120	---	946	---	2010
31	624	---	3320	2530	---	3040	---	5050	---	1280	---	---
MONTH	---	1670	2900	3000	3580	3370	3330	4230	---	---	---	---

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	12.0	9.0	6.0	7.0	12.0	16.0	18.0	30.0	---	28.0	---
2	---	11.0	10.0	5.0	5.0	11.0	14.0	16.0	27.0	30.0	26.0	---
3	---	14.0	10.0	7.0	7.0	12.0	14.0	16.0	27.0	---	30.0	---
4	---	13.0	9.0	4.0	10.0	12.0	12.0	19.0	25.0	---	26.0	---
5	---	15.0	9.0	3.0	9.0	12.0	13.0	17.0	25.0	---	30.0	---
6	---	16.0	4.0	1.0	10.0	19.0	12.0	19.0	26.0	---	30.5	---
7	---	16.0	4.0	1.0	10.0	19.0	14.0	24.5	24.0	---	---	23.0
8	---	14.0	4.0	0.0	9.0	19.0	14.0	22.0	28.0	---	---	24.0
9	---	15.0	4.0	---	4.0	16.0	12.0	24.0	24.0	---	---	26.0
10	---	12.0	4.0	0.0	3.0	16.0	13.0	23.0	29.0	---	---	24.0
11	---	12.0	0.0	---	10.0	15.0	12.0	23.0	29.0	28.0	---	26.0
12	---	13.0	5.0	---	7.0	16.0	17.0	22.0	26.0	28.0	---	27.0
13	---	13.0	4.0	2.0	7.0	17.0	15.0	18.0	25.0	29.0	---	26.0
14	---	9.0	3.0	1.0	8.0	18.0	15.0	19.0	27.0	24.0	---	26.0
15	---	8.0	4.0	6.0	5.0	16.0	16.0	18.0	25.0	24.0	---	25.0
16	---	7.0	2.0	4.0	7.0	15.0	14.0	18.0	28.0	25.0	---	26.0
17	---	8.0	4.0	7.0	5.0	14.0	15.0	21.0	30.0	27.0	---	23.0
18	---	9.0	10.0	8.0	10.0	13.0	16.0	20.0	28.0	33.0	---	22.0
19	---	8.0	8.0	7.0	7.0	15.0	16.0	20.0	31.0	30.0	---	27.0
20	---	6.0	7.0	8.0	11.0	15.0	16.0	31.0	29.0	33.0	---	26.0
21	---	5.0	8.0	5.0	8.0	16.0	18.0	32.0	---	27.0	---	---
22	17.0	5.0	6.0	6.0	8.0	13.0	17.0	29.0	---	34.0	---	---
23	16.0	7.0	6.0	6.0	10.0	16.0	18.0	25.0	---	30.0	---	---
24	15.0	6.0	8.0	9.0	11.0	15.0	18.0	24.0	---	---	---	---
25	15.0	7.0	6.0	8.0	7.0	15.0	16.0	25.0	---	---	---	---
26	14.0	10.0	6.0	5.0	10.0	17.5	15.0	25.0	---	---	---	---
27	12.0	8.0	9.0	5.0	9.0	14.0	14.0	24.0	---	---	---	---
28	15.0	6.0	8.0	4.0	12.0	14.0	15.0	23.0	---	---	---	---
29	15.0	5.0	9.0	3.0	---	18.0	16.0	20.0	---	---	---	---
30	17.0	6.0	11.0	8.0	---	19.0	17.0	24.0	---	27.0	---	---
31	13.0	---	7.0	8.0	---	16.0	---	30.0	---	28.0	---	---
MONTH	---	10.0	6.5	5.0	8.0	15.5	15.0	22.0	---	---	---	---

BRAZOS RIVER BASIN

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08086260 PECAN CREEK NEAR EOLIAN, TEX.

LOCATION.--Lat 32°35'01", long 99°01'57", Stephens County, at gaging station at county road crossing, 1.4 miles (2.3 km) east of Farm Road 1853, 3.3 miles (5.3 km) upstream from Battle Creek, and 5.8 miles (9.3 km) south of Eolian.

DRAINAGE AREA.--25.4 mi² (65.8 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1973.
Water temperatures: October 1966 to September 1973.

EXTREMES, October 1966 to September 1969.--Specific conductance (1966-69): Maximum daily, 34,000 micromhos July 4, 1968; minimum daily, 238 micromhos Sept. 15, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.											
26...	1600	153	6.0	100	19	190	--	3.8	93	0	23
JAN.											
25...	1600	72	8.3	1000	310	--	2600	--	74	0	120
27...	1700	.57	7.0	150	40	350	--	4.1	86	0	41
FEB.											
24...	1700	.47	4.3	450	120	--	1400	--	102	0	280
MAR.											
24...	1700	4.7	1.7	1500	440	--	4000	--	68	0	260
APR.											
18...	1600	5.9	7.3	89	16	150	--	3.4	80	0	35
23...	1600	5.1	7.8	58	6.6	--	68	--	116	0	24
MAY											
01...	1530	.08	6.5	160	33	--	300	--	108	0	52
JUNE											
04...	2000	16	4.7	80	13	--	110	--	78	0	24
JULY											
30...	2000	26	8.1	90	17	240	--	4.1	72	0	21
AUG.											
01...	2000	.25	6.9	64	13	--	170	--	62	0	18
SEP.											
07...	1705	34	5.5	32	4.1	--	36	--	79	0	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
26...	460	.3	.6	857	330	250	4.6	1700	7.8	13.0
JAN.										
25...	6600	--	1.1	10800	3900	3800	--	18800	7.2	8.0
27...	840	.3	1.1	1480	530	460	6.7	2770	7.4	7.0
FEB.										
24...	3000	--	--	5200	1600	1500	15	8970	7.4	14.0
MAR.										
24...	9800	--	--	16000	5500	5500	--	25500	6.9	17.0
APR.										
18...	380	.3	.3	719	290	220	3.9	1410	7.1	20.0
23...	140	.2	.5	364	170	76	2.3	699	7.3	20.0
MAY										
01...	740	.3	.08	1350	540	450	5.6	2610	7.8	26.0
JUNE										
04...	280	.3	.4	558	250	190	3.0	1110	7.1	25.0
JULY										
30...	540	.4	.8	962	290	240	6.2	1870	7.2	24.0
AUG.										
01...	360	.4	.5	666	210	160	5.1	1320	7.1	28.0
SEP.										
07...	66	.4	.6	199	97	32	1.6	387	7.2	23.0

BRAZOS RIVER BASIN

08086260 PECAN CREEK NEAR EOLIAN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG /L)
OCT. 1972....	233.74	697	350	223	160	102	16	10	98
NOV. ....	.04	500	260	.03	100	.01	20	.00	59
DEC.	0	--	--	0	--	0	--	0	--
JAN. 1973....	41.17	11300	6490	722	3940	438	80	8.9	2230
FEB.	2.50	12000	6900	47	4030	27	280	1.9	2380
MAR.	8.32	19500	12100	272	7350	165	260	5.8	3890
APR.	241.84	1180	600	395	300	193	34	22	200
MAY ....	.18	2730	1420	.7	780	.4	50	.02	510
JUNE	53.93	5540	2990	436	1760	256	82	12	1070
JULY	29.6	1790	920	73	510	41	22	1.7	320
AUG. ....	.26	1330	680	.5	360	.3	18	.01	230
SEP.	41.74	570	290	33	120	14	15	1.7	73
TOTAL	653.32	--	--	2200	--	1240	--	64	--
WTD. AVG. ...	1.79	2270	1240	--	700	--	36	--	420

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

[illegible]

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TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

[illegible]

BRAZOS RIVER BASIN

08086300 BIG SANDY CREEK NEAR BRECKENRIDGE, TEX.

LOCATION.--Lat 32°39'52", long 99°00'01", Stephens County, at gaging station at bridge on Farm Road 576, 1.5 miles (2.4 km) downstream from Battle Creek, and 8.2 miles (13.2 km) southwest of Breckenridge.

DRAINAGE AREA.--298 mi² (772 km²).

PERIOD OF RECORD.--Chemical analyses: February 1962 to September 1973.

Water temperatures: February 1962 to September 1973.

Sediment records: October 1967 to September 1973.

EXTREMES, February 1962 to September 1970.-- Specific conductance (1962-66, 1967-70): Maximum daily, 17,200 micromhos Mar. 27, 1964; minimum daily, 59 micromhos Nov. 21, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 23...	1600	19	7.1	24	2.8	13	--	4.9	69	0	12
DEC. 04...	1450	.01	8.8	240	60	--	430	--	168	0	160
JAN. 15...	1645	.06	6.6	89	21	160	--	3.6	76	0	75
FEB. 10...	0815	.32	6.0	160	40	--	280	--	134	0	72
MAR. 01...	1100	1.5	3.0	120	20	--	190	--	120	0	69
APR. 17...	1745	242	7.2	45	5.7	24	--	4.4	119	0	28
MAY 24...	0815	.03	6.0	290	79	--	670	--	148	0	260
JUNE 06...	1145	4.8	7.0	54	8.6	--	81	--	102	0	32
JULY 16...	1130	2.8	6.4	370	78	1000	--	10	92	0	270
AUG. 01...	1100	6.3	6.2	64	10	--	140	--	84	0	46
SEP. 08...	1230	10	9.1	230	53	--	750	--	102	0	180

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 23...	20	.2	.6	121	71	15	.7	217	7.4	16.0
DEC. 04...	1000	.3	.04	2020	850	710	6.4	3720	7.9	8.0
JAN. 15...	360	.3	.8	746	310	250	3.8	1440	7.2	--
FEB. 10...	700	.3	.4	1330	560	450	5.1	2600	6.3	3.0
MAR. 01...	440	.3	.1	893	380	280	4.2	1690	7.5	12.0
APR. 17...	43	.2	1.0	221	140	38	.9	395	7.2	15.0
MAY 24...	1500	--	.3	2890	1000	930	9.0	5220	7.6	24.0
JUNE 06...	160	.2	.2	396	170	86	2.7	770	7.0	25.0
JULY 16...	2300	--	.5	4120	1200	1200	13	7310	7.2	27.0
AUG. 01...	280	.3	.4	593	200	130	4.4	1150	7.3	26.0
SEP. 08...	1500	--	.4	2790	790	710	11	4920	7.5	25.0

BRAZOS RIVER BASIN

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08086300 BIG SANDY CREEK NEAR BRECKENRIDGE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
NOV. 01...	1515	33	14.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLORDANE (UG/L)	PCB (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 01...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.01

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JUNF 06...	1745	4.0	30.0	216	2.3
SEP. 07...	1530	21	23.0	398	23

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1135.4	230	130	400	25	78	11	33	94
NOV.	61.16	239	130	22	26	4.4	13	2.1	96
DEC. ....	.45	4710	2560	3.1	1340	1.6	170	.2	950
JAN. 1973....	274.42	1420	740	549	360	264	73	54	320
FEB.	53.97	2150	1150	167	590	86	79	12	460
MAR.	34.92	4070	2230	210	1200	113	92	8.7	830
APR.	2362.96	696	370	2370	130	825	42	267	180
MAY	15.82	2960	1610	69	810	35	130	5.7	620
JUNE	436.31	1090	570	666	260	302	63	75	260
JULY	108.65	1670	900	264	450	133	74	22	370
AUG.	9.98	653	330	8.8	130	3.4	44	1.2	170
SEP.	46.75	2370	1270	161	660	84	88	11	500
TOTAL	4540.79	--	--	4890	--	1930	--	492	--
WTD. AVG. ...	12.4	747	400	--	160	--	40	--	190

BRAZOS RIVER BASIN

08086300 BIG SANDY CREEK NEAR BRECKENRIDGE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	220	---	4560	1290	1690	3340	1370	1450	---	604	---
2	---	251	---	4830	1390	1760	3340	1600	1440	---	655	---
3	---	303	---	2130	1590	1760	3420	1820	1130	---	669	---
4	---	419	3720	2190	1580	2010	3630	2110	920	---	695	---
5	---	421	3750	2800	1650	2010	3590	2110	725	---	719	---
6	---	459	3700	2890	1630	2650	3750	2560	770	---	725	2350
7	---	507	3900	2800	1710	2890	3730	2600	911	---	731	1850
8	---	569	3920	2760	2100	3040	4040	2730	1100	---	803	3000
9	---	634	3940	2830	2630	3130	4010	2710	1110	---	941	4950
10	---	688	3800	2800	2600	3270	4050	2950	1480	---	974	1740
11	---	742	4140	3080	2930	3350	4080	2960	1480	2160	988	1780
12	---	872	3580	3190	2920	3540	4300	3020	1520	2890	1020	1770
13	---	928	3900	---	2930	3650	4360	3390	1540	3040	1050	---
14	---	---	4230	3190	3110	3840	4360	3420	1720	2490	1090	---
15	---	---	4240	1440	3100	3650	1240	3550	1930	1850	---	---
16	---	---	4150	1660	3310	3680	424	3550	2020	7310	---	---
17	---	---	4530	1820	3290	3630	395	4000	2140	6310	---	---
18	---	---	4830	---	3870	3640	461	4060	---	6460	---	---
19	---	---	4970	---	3870	3350	525	4900	---	6420	---	---
20	---	---	4990	---	3960	3330	647	5140	---	6500	---	---
21	---	---	4980	---	3870	3370	582	4800	---	6520	---	---
22	230	---	5270	---	3930	3340	769	5110	---	6670	---	---
23	217	---	5190	---	3870	3460	740	5060	---	6690	---	---
24	276	---	5510	---	1020	5640	782	5220	---	---	---	---
25	305	---	5510	1400	1310	6140	456	4220	---	---	---	---
26	239	---	5500	1530	1200	1660	575	3170	---	---	---	---
27	194	---	---	1090	1290	1890	766	1230	---	---	---	---
28	218	---	---	1090	1470	2650	861	1220	---	6700	---	---
29	252	---	5620	1020	---	2690	865	1330	---	6500	---	---
30	288	---	5650	1110	---	2920	1240	1420	---	1580	---	---
31	235	---	5660	1110	---	2950	---	1400	---	296	---	---
MONTH	---	---	4580	---	2480	3120	2180	3060	---	---	---	---

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.0	---	7.0	7.0	12.0	17.0	18.0	30.0	---	26.0	---
2	---	13.0	---	6.0	5.0	14.0	14.0	15.0	28.0	---	30.0	---
3	---	15.0	---	6.0	8.0	11.0	15.0	16.0	21.0	---	30.0	---
4	---	13.0	8.0	4.0	12.0	12.0	14.0	20.0	26.0	---	26.0	---
5	---	15.0	15.0	3.0	10.0	12.0	12.0	18.0	23.0	---	33.5	---
6	---	18.0	5.0	1.0	11.0	21.0	15.0	20.0	25.0	---	34.5	---
7	---	15.0	3.0	0.0	10.0	21.0	14.0	22.0	26.0	---	32.0	23.0
8	---	14.0	6.0	0.0	8.0	22.0	13.0	25.0	29.0	---	---	25.0
9	---	16.0	5.0	1.0	4.0	16.0	14.0	23.0	24.0	---	---	24.0
10	---	15.0	4.0	1.0	3.0	18.0	12.0	26.0	30.0	---	---	27.0
11	---	15.0	0.0	2.0	10.0	16.0	12.0	24.0	30.0	30.0	25.0	26.0
12	---	14.0	6.0	3.0	8.0	23.0	18.0	23.0	26.0	27.0	---	28.0
13	---	14.0	4.0	---	7.0	20.0	16.0	18.0	25.0	26.0	---	---
14	---	---	3.0	2.0	11.0	17.0	15.0	18.0	26.0	---	---	---
15	---	---	2.0	---	7.0	16.0	---	16.0	26.0	25.0	---	---
16	---	---	4.0	6.0	7.0	18.0	16.0	17.0	27.0	27.0	---	---
17	---	---	3.0	13.0	5.0	16.0	15.0	18.0	33.0	33.0	---	---
18	---	---	6.0	---	10.0	14.0	18.0	22.0	---	35.0	---	---
19	---	---	13.0	---	8.0	22.0	16.0	21.0	---	34.0	---	---
20	---	---	8.0	---	12.0	16.0	18.0	33.0	---	34.0	---	---
21	---	---	9.0	---	9.0	20.0	19.0	33.0	---	36.0	---	---
22	16.0	---	9.0	---	9.0	16.0	17.0	29.0	---	---	---	---
23	16.0	---	7.0	---	9.0	16.0	17.0	24.0	---	---	---	---
24	14.0	---	10.0	---	10.0	15.0	18.0	24.0	---	---	---	---
25	13.0	---	6.0	8.0	9.0	14.0	17.0	23.0	---	---	---	---
26	13.0	---	6.0	5.0	10.0	15.0	16.0	23.0	---	---	---	---
27	12.0	---	---	6.0	9.0	14.0	16.0	23.0	---	---	---	---
28	15.0	---	---	4.0	12.0	14.0	16.0	22.0	---	---	---	---
29	16.0	---	10.0	2.0	---	18.0	16.0	29.0	---	---	---	---
30	19.0	---	14.0	6.0	---	20.0	17.0	30.0	---	24.0	---	---
31	12.0	---	10.0	8.0	---	16.0	---	25.0	---	24.0	---	---
MONTH	---	---	7.0	---	8.5	16.5	15.5	22.5	---	---	---	---

BRAZOS RIVER BASIN

423

08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.

LOCATION.--Lat 32°50'13", long 98°56'52", Stephens County, at gaging station at bridge on U.S. Highway 183, 1.4 miles (2.3 km) downstream from Hubbard Creek Reservoir, 6.8 miles (10.9 km) northwest of Breckenridge, 8.2 miles (13.2 km) upstream from Gonzales Creek, and 11.2 miles (18.0 km) upstream from Clear Fork Brazos River.

DRAINAGE AREA.--1,111 mi² (2,877 km²), of which 1,107 mi² (2,867 km²) is above Hubbard Creek Dam.

PERIOD OF RECORD.--Chemical analyses: April 1955 to September 1973.

Water temperatures: April 1955 to September 1973.

EXTREMES, April 1955 to September 1966.--Specific conductance: Maximum daily, 9,270 micromhos July 4, 1960; minimum daily, 121 micromhos Apr. 27, 1957.

Water temperatures: Maximum, 33.0°C July 15, 1965; minimum, freezing point Jan. 12, 16, 20, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
NOV. 01...	1345	.67	8.3	44	6.8	--	16	--	48	0	110
JAN. 26...	1330	7.8	7.5	51	9.4	23	--	5.6	68	0	120
FEB. 21...	1245	.06	2.7	140	31	--	140	--	180	0	340
MAR. 29...	0820	.93	3.4	140	31	--	110	--	132	0	330
APR. 15...	0945	.03	12	240	57	230	--	6.1	202	0	520
MAY 01...	1820	.07	4.4	200	45	--	180	--	180	0	470
JUNE 07...	1000	.09	7.0	130	30	--	82	--	97	0	330
JULY 30...	1145	14	5.2	57	10	41	--	6.8	58	0	100

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 01...	15	.2	.3	222	140	98	.6	363	7.4	16.0
JAN. 26...	32	.3	.3	283	170	110	.8	464	7.5	6.0
FEB. 21...	210	.3	.6	963	490	340	2.8	1520	7.4	11.0
MAR. 29...	200	.3	.09	884	490	380	2.2	1380	7.4	14.0
APR. 15...	460	.3	.2	1630	840	680	3.4	2540	7.6	16.0
MAY 01...	300	.2	.4	1300	690	540	2.9	2010	7.7	20.0
JUNE 07...	140	.3	.4	775	450	370	1.7	1220	7.3	23.0
JULY 30...	93	.2	.6	345	180	140	1.3	619	7.1	24.0

BRAZOS RIVER BASIN

08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	13.29	610	370	13	60	2.1	150	5.3	190
NOV. ....	.95	390	240	.6	20	.05	110	.3	130
DEC.	0	--	--	0	--	0	--	0	--
JAN. 1973....	21.00	634	390	22	65	3.7	160	8.9	200
FEB.	6.80	798	500	9.2	91	1.7	200	3.7	240
MAR.	9.44	1060	680	17	140	3.5	260	6.6	310
APR.	4.73	1810	1180	15	290	3.8	410	5.2	510
MAY	4.14	2220	1430	16	340	3.8	510	5.7	620
JUNE	3.59	1370	880	8.5	170	1.7	360	3.5	400
JULY	14.01	619	340	13	93	3.5	100	3.8	190
AUG.	0	--	--	0	--	0	--	0	--
SEP.	0	--	--	0	--	0	--	0	--
TOTAL	77.95	--	--	114	--	24	--	43	--
WTD. AVG. ...	.21	880	550	--	110	--	210	--	260

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	363	---	---	887	1130	---	2010	---	---	---	---
2	---	450	---	---	916	1170	---	2030	---	---	---	---
3	---	502	---	1600	975	1190	---	2030	2120	---	---	---
4	---	507	---	1570	975	1360	---	2290	1000	---	---	---
5	---	574	---	1580	1000	1340	---	2310	1230	---	---	---
6	---	---	---	1600	1070	1680	---	2350	1110	---	---	---
7	---	---	---	1550	1080	1670	---	2390	1220	---	---	---
8	---	---	---	1540	1220	1620	---	2250	1270	---	---	---
9	---	---	---	1570	1330	1650	---	2470	---	---	---	---
10	---	---	---	1590	1340	1680	---	---	---	---	---	---
11	---	---	---	1520	1300	1710	---	---	---	---	---	---
12	---	---	---	1530	1290	1730	---	---	---	---	---	---
13	---	---	---	1550	1380	1760	---	---	---	---	---	---
14	---	---	---	1540	1370	1850	2350	---	---	---	---	---
15	---	---	---	1520	1490	1850	2540	---	---	---	---	---
16	---	---	---	1500	1350	1920	2550	---	---	---	---	---
17	---	---	---	1530	1340	1800	2590	---	---	---	---	---
18	---	---	---	1550	1420	1820	2530	---	---	---	---	---
19	---	---	---	1560	1570	1850	2550	---	---	---	---	---
20	---	---	---	1580	1660	1830	2550	---	---	---	---	---
21	1000	---	---	1570	1520	1860	2550	---	---	---	---	---
22	599	---	---	1590	1610	1890	2450	---	---	---	---	---
23	842	---	---	1590	582	1750	2520	---	---	---	---	---
24	885	---	---	1580	740	1050	1480	---	---	---	---	---
25	---	---	---	800	748	792	2060	2450	---	---	---	---
26	498	---	---	464	899	991	1760	2190	---	---	---	---
27	500	---	---	383	987	1300	1760	2170	---	---	---	---
28	631	---	---	781	1070	1330	1780	2170	---	---	---	---
29	728	---	---	783	---	1380	1910	2090	---	---	---	---
30	746	---	---	828	---	1460	1910	---	---	619	---	---
31	821	---	---	803	---	1480	---	---	---	267	---	---
MONTH	---	---	---	1350	1180	1540	---	---	---	---	---	---

BRAZOS RIVER BASIN

425

08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	16.0	---	---	8.0	14.0	---	20.0	---	---	---	---
2	---	14.0	---	---	9.0	18.0	---	16.0	---	---	---	---
3	---	20.0	---	---	8.0	15.0	---	17.0	26.0	---	---	---
4	---	14.0	---	---	12.0	14.0	---	19.0	31.0	---	---	---
5	---	16.0	---	---	12.0	13.0	---	17.0	24.0	---	---	---
6	---	---	---	---	14.0	14.0	---	20.0	26.0	---	---	---
7	---	---	---	---	9.0	15.0	---	22.0	23.0	---	---	---
8	---	---	---	---	4.0	15.0	---	25.0	30.0	---	---	---
9	---	---	---	---	7.0	16.0	---	25.0	---	---	---	---
10	---	---	---	---	4.0	16.0	---	---	---	---	---	---
11	---	---	---	---	10.0	15.0	---	---	---	---	---	---
12	---	---	---	---	10.0	20.0	---	---	---	---	---	---
13	---	---	---	---	11.0	18.0	---	---	---	---	---	---
14	---	---	---	---	12.0	14.0	16.0	---	---	---	---	---
15	---	---	---	---	12.0	13.0	16.0	---	---	---	---	---
16	---	---	---	---	8.0	13.0	15.0	---	---	---	---	---
17	---	---	---	---	6.0	13.0	15.0	---	---	---	---	---
18	---	---	---	---	9.0	---	17.0	---	---	---	---	---
19	---	---	---	---	9.0	---	18.0	---	---	---	---	---
20	---	---	---	---	12.0	---	19.0	---	---	---	---	---
21	---	---	---	---	11.0	---	19.0	---	---	---	---	---
22	17.0	---	---	---	7.0	---	18.0	---	---	---	---	---
23	19.0	---	---	---	11.0	---	18.0	---	---	---	---	---
24	16.0	---	---	---	8.0	16.0	19.0	---	---	---	---	---
25	---	---	---	---	16.0	14.0	17.0	---	---	---	---	---
26	14.0	---	---	6.0	11.0	17.0	15.0	27.0	---	---	---	---
27	12.0	---	---	7.0	9.0	15.0	15.0	25.0	---	---	---	---
28	14.0	---	---	6.0	11.0	19.0	16.0	24.0	---	---	---	---
29	16.0	---	---	4.0	---	14.0	16.0	29.0	---	---	---	---
30	18.0	---	---	8.0	---	20.0	16.0	---	---	24.0	---	---
31	13.0	---	---	9.0	---	16.0	---	---	---	24.0	---	---
MONTH	---	---	---	---	9.5	15.5	---	---	---	---	---	---

BRAZOS RIVER BASIN

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.

LOCATION.--Lat 32°57'36", long 98°45'59", Young County, at bridge on Farm Road 1974, 180 feet (55 m) downstream from gaging station at Eliasville.

DRAINAGE AREA.--5,721 mi² (14,817 km²).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1961 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 4,820 micromhos June 9; minimum daily, 524 micromhos Nov. 4.

Water temperatures: Maximum, 30.5°C July 18; minimum, freezing point on several days during December and January.

EXTREMES, October 1961 to September 1973.--Specific conductance: Maximum daily, 7,400 micromhos Jan. 9, 1971; minimum daily, 300 micromhos Sept. 10, 1962.

Water temperatures: Maximum, 38.0°C Aug. 6, 1964; minimum, freezing point on several days in January 1963, January 1964, December 1972 and January 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIOP) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 02...	0910	97	9.4	44	13	39	--	6.6	126	0	73
NOV. 21...	1755	82	9.1	96	32	--	120	--	131	0	180
DEC. 20...	1705	53	6.5	150	59	--	230	--	180	0	400
JAN. 30...	1620	377	5.2	270	120	450	--	6.6	246	0	810
FEB. 27...	1740	432	4.2	220	100	--	370	--	250	0	650
MAR. 14...	0645	1990	6.4	270	140	--	510	--	198	0	820
APR. 26...	0645	397	3.4	150	74	290	--	7.8	160	0	440
MAY 08...	1445	86	5.4	240	110	--	440	--	268	0	770
JUNE 15...	0650	53	11	64	25	--	100	--	158	0	130
JULY 18...	1430	4.7	7.7	220	120	460	--	10	160	0	800
AUG. 02...	0705	77	6.5	74	26	--	120	--	88	0	210
SEP. 29...	0803	88	7.5	96	46	--	190	--	132	0	340

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 02...	55	.2	.8	306	160	60	1.3	535	7.9	20.0
NOV. 21...	240	.3	1.0	751	370	260	2.8	1300	7.2	8.5
DEC. 20...	390	.2	.8	1330	620	470	4.0	2170	8.0	5.5
JAN. 30...	770	--	1.4	2560	1200	970	5.7	3890	8.0	6.0
FEB. 27...	620	--	1.6	2100	950	750	5.3	3220	7.6	10.5
MAR. 14...	950	--	2.7	2810	1300	1100	6.2	4330	8.0	14.5
APR. 26...	520	.4	.4	1580	680	550	4.8	2590	7.5	20.0
MAY 08...	690	--	3.6	2400	1100	840	5.9	3660	7.7	24.0
JUNE 15...	150	.2	.7	567	260	130	2.7	1070	7.2	27.0
JULY 18...	740	--	.7	2430	1000	910	6.2	3840	7.2	30.5
AUG. 02...	180	.2	.4	662	290	220	3.0	1140	7.1	24.0
SEP. 29...	260	.3	.1	1000	430	320	3.9	1630	7.6	21.0

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 23...	1405	--	.00	.0	.00	.0	.00	1.5	.00	.0	.00
FEB. 19...	1610	10.5	.00	.0	.00	.0	.00	1.4	.00	.0	.00
APR. 16...	1215	18.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
AUG. 30...	1510	--	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 23...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 19...	1.6	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 16...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 30...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 23...	0	.0	0	.00	.00	.00	.00	.00	.00	.02
FEB. 19...	0	.0	16	.00	.00	.00	.00	.00	.00	.00
APR. 16...	0	.0	0	.00	.00	.00	.00	.08	.00	.00
AUG. 30...	0	.0	0	.00	.00	.00	.00	.00	.00	.04

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	6878.5	877	510	9470	140	2600	110	2040	220
NOV.	20327	750	430	23600	110	6040	93	5100	190
DEC.	1671	2100	1260	5680	410	1850	350	1580	570
JAN. 1973....	5808	3820	2490	39000	790	12400	810	12700	1100
FEB.	7387	2790	1760	35100	560	11200	540	10800	800
MAR.	12530	3220	2060	69700	650	22000	650	22000	950
APR.	9495	2560	1590	40800	510	13100	480	12300	730
MAY	2362	3660	2370	15100	750	4780	760	4850	1100
JUNE	3624	2890	1830	17900	580	5680	560	5480	840
JULY	3856.8	2590	1610	16800	510	5310	480	5000	740
AUG.	778.22	1490	890	1870	270	567	190	399	360
SEP.	3430.65	2710	1700	15700	540	5000	510	4720	780
TOTAL	78148.17	--	--	291000	--	90500	--	87000	--
WTD. AVG. ...	214	2200	1380	--	430	--	410	--	630

BRAZOS RIVER BASIN

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	564	543	1910	2770	3590	3960	2710	3300	3450	3500	741	2280
2	535	1150	1930	2880	3670	4080	2440	3530	3440	3530	1140	2280
3	536	539	1920	2950	3780	4330	2500	3610	3260	3530	1290	2280
4	561	524	1930	3070	2690	3390	2560	3660	3060	3550	1550	2280
5	590	550	1930	3110	2470	3300	2280	3680	2590	3560	2040	2270
6	611	635	1920	3190	2410	3050	2570	3660	2780	3560	1900	2240
7	622	717	1930	3290	2540	2920	2310	3570	3610	3580	2040	2220
8	625	757	1970	3380	2610	2830	2270	3620	4120	3570	2190	2190
9	648	765	1900	3210	2460	2810	2330	3600	4820	3570	2330	2260
10	661	778	1890	3440	2250	2940	2140	3610	3700	3590	2370	2630
11	662	803	1900	3740	2260	2940	2040	3700	2010	3590	2340	1900
12	673	832	1890	3730	2060	2860	2060	3770	1500	3610	2310	4230
13	682	841	1880	3770	2130	2760	2120	3810	1190	3620	2280	3700
14	689	863	1880	3920	2210	4330	2140	3830	1100	3620	2260	3250
15	703	879	1880	4000	1760	3190	2250	3870	1070	3450	2260	3540
16	691	900	1980	4070	1820	3990	2420	3860	1040	3570	2260	2900
17	715	917	2030	4200	2140	3650	2450	3840	1050	3950	2240	2880
18	726	943	2030	4380	2410	3570	2380	3840	1060	3840	2240	2830
19	726	987	2070	4350	2420	3710	2340	3860	1110	3850	2240	2690
20	726	1080	2150	4370	2710	3610	2450	3930	1160	3860	2250	2510
21	736	1250	2250	4430	2780	3100	2410	3960	1260	3860	2260	2410
22	757	1400	2290	4350	2950	3120	2190	4000	3830	3890	2260	2370
23	735	1640	2290	4470	2860	3090	2260	3950	4260	3890	2260	2350
24	1340	1790	2340	4540	3270	2730	2810	3840	3170	3890	2260	2370
25	913	1910	2340	4300	3080	2260	2590	3700	3300	3900	2260	2380
26	881	2010	2380	4180	2780	2190	2590	3550	3200	3830	2260	2400
27	970	2030	2440	4160	3180	2170	3330	3690	3240	3790	2260	2320
28	905	2030	2490	2990	3420	2210	2610	3470	3400	3910	2270	1940
29	830	1980	2540	4290	---	1930	2940	3330	3490	3910	2270	1630
30	935	1930	2600	3830	---	1850	3140	3340	3480	3100	2270	1470
31	920	---	2700	3900	---	2050	---	3440	---	1160	2270	---
MONTH	738	1130	2120	3780	2670	3060	2450	3690	2660	3600	2100	2500

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	14.5	6.0	7.0	6.5	12.0	15.0	21.0	25.0	29.0	24.5	28.0
2	20.0	13.0	8.0	8.0	5.5	12.0	15.5	20.0	24.5	29.0	24.0	28.0
3	19.5	11.5	9.5	6.5	5.5	13.0	---	19.0	25.5	29.0	25.0	28.5
4	21.0	11.5	7.0	6.5	9.5	12.0	13.5	19.0	25.0	29.5	25.5	27.0
5	20.5	13.0	8.5	6.0	8.5	13.0	14.5	20.5	24.5	29.0	25.5	25.0
6	20.5	14.0	6.5	5.0	8.0	13.5	15.0	21.5	25.5	29.0	25.5	25.0
7	20.0	13.0	5.0	4.5	9.0	14.0	14.5	20.5	24.5	29.0	26.5	24.5
8	20.5	12.0	6.0	2.0	6.5	15.5	14.5	24.0	25.5	28.5	28.0	24.0
9	22.0	14.0	6.5	1.5	4.0	14.5	12.0	21.5	25.0	28.5	28.5	25.0
10	23.5	12.0	5.0	0.0	5.5	14.5	12.0	21.5	26.0	28.5	28.5	25.5
11	23.5	12.0	3.5	0.0	5.5	14.5	12.0	21.5	26.0	28.5	29.0	25.0
12	24.0	14.5	4.5	0.0	8.0	15.0	14.5	23.5	26.0	27.0	29.0	25.5
13	26.5	13.0	1.5	0.0	8.0	18.0	15.0	22.0	26.0	27.0	29.0	25.5
14	26.5	11.5	3.5	0.0	7.0	14.5	17.0	22.0	26.0	28.0	28.5	26.0
15	27.0	10.0	3.0	2.0	6.5	14.5	17.0	20.5	27.0	26.5	28.5	24.0
16	21.0	9.0	0.0	3.0	6.0	14.5	16.0	20.5	28.5	26.0	29.0	24.5
17	21.0	10.0	2.0	5.5	6.5	13.0	16.5	21.0	27.0	28.0	29.0	24.5
18	23.5	9.5	4.0	6.5	6.5	15.5	15.5	21.5	28.5	30.5	28.5	25.5
19	18.5	10.0	4.5	7.0	7.0	17.0	18.0	23.0	28.0	28.5	28.5	23.5
20	19.5	10.0	5.5	7.0	7.0	15.0	19.0	24.5	26.5	29.0	28.5	24.0
21	18.5	8.5	5.5	6.5	8.5	14.0	21.0	24.5	25.5	29.0	28.5	25.0
22	18.0	7.0	5.0	6.0	8.5	14.5	21.5	25.5	25.5	29.5	28.5	25.0
23	18.5	6.5	6.5	5.5	8.0	15.5	21.5	24.5	26.5	29.5	28.5	25.0
24	15.5	8.0	7.0	5.0	5.5	16.0	20.5	24.5	28.5	29.5	28.5	25.0
25	17.0	7.0	5.5	6.0	9.0	15.5	20.5	25.0	27.0	29.0	28.5	25.0
26	16.5	8.0	6.0	6.5	10.0	14.0	20.0	25.0	26.5	29.0	28.5	25.0
27	15.0	7.0	6.0	6.0	10.5	14.5	18.5	24.5	26.5	28.5	27.0	24.5
28	14.5	7.0	7.0	5.0	10.0	14.5	19.0	23.5	28.5	29.0	27.0	21.5
29	18.0	6.5	9.0	4.0	---	14.5	20.0	23.0	28.5	28.0	28.0	21.0
30	18.5	6.0	---	6.0	---	16.0	20.5	23.5	28.5	26.5	27.0	21.5
31	14.0	---	7.0	6.5	---	15.5	---	24.0	---	24.0	28.0	---
MONTH	20.0	10.5	5.5	4.5	7.5	14.5	17.0	22.5	26.5	28.5	27.5	25.0

BRAZOS RIVER BASIN

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08088000 BRAZOS RIVER NEAR SOUTH BEND, TEX.

LOCATION.--Lat 33°01'30", Long 98°38'50", Young County, at gaging station on State Highway 67, 1.6 miles (2.6 km) downstream from Clear Fork Brazos River, and 2.0 miles (3.2 km) northeast of South Bend.

DRAINAGE AREA.--21,600 mi² (55,900 km²) approximately of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1942 to March 1948, October 1968 to September 1969.
Pesticide analyses: March 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 23...	1520	975	--	.00	.0	.00	.8	.00	1.7	.00	2.4	.00
FEB. 19...	1720	403	11.5	.00	.0	.00	.0	.00	.0	.00	.0	.00
APR. 16...	1210	393	18.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
AUG. 30...	1430	25	--	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 23...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 19...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 16...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 30...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 23...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 19...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 16...	0	.0	0	.00	.00	.00	.00	.08	.00	.00
AUG. 30...	0	.0	0	.00	.00	.00	.00	.00	.00	.00

BRAZOS RIVER BASIN

08088420 BRAZOS RIVER AT FARM ROAD 1287, NEAR GRAHAM, TEX.

LOCATION.--Lat 33°03'20", long 98°34'54", Young County, at Gooseneck Bridge on Farm Road 1287 about 3.5 miles (5.6 km) south of Graham.

DRAINAGE AREA.--21,955 mi² (56,863 km²), of which 9,240 mi² (23,930 km²) is noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 17...	1330	180	13	480	120	2100	156	0	1500	3200
NOV. 22...	0830	500	10	350	100	1600	108	0	1000	2600
DEC. 21...	0800	280	10	400	120	1900	137	0	1200	3000
JAN. 24...	1345	60	3.9	420	140	1900	222	0	1500	3000
FEB. 26...	1830	790	3.1	240	38	1000	215	0	1000	1200
APR. 03...	1820	980	10	160	56	410	152	0	440	670
MAY 07...	1825	100	7.5	320	110	1500	167	0	1000	2300
JUNE 12...	1530	420	11	200	66	450	152	0	570	730
JULY 17...	1225	30	9.3	260	110	770	164	0	870	1200
AUG. 21...	1050	20	7.8	300	71	1000	89	0	980	1500
SEP. 25...	1255	30	9.1	320	61	1100	118	0	960	1700

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 17...	--	.2	7420	1700	1500	--	11500	7.7	22.5
NOV. 22...	--	.9	5810	1300	1200	20	9370	7.6	5.5
DEC. 21...	--	1.1	6710	1500	1400	--	10700	7.6	6.5
JAN. 24...	--	1.6	7040	1600	1500	--	10700	8.1	7.0
FEB. 26...	--	1.0	3670	740	570	16	5160	7.6	10.5
APR. 03...	--	1.5	1830	640	520	7.1	3030	7.9	14.5
MAY 07...	--	--	5300	1300	1100	18	8520	7.5	23.5
JUNE 12...	--	.7	2100	770	650	7.0	3490	7.3	25.5
JULY 17...	--	1.0	3320	1100	970	10	5310	7.1	30.5
AUG. 21...	.2	5.6	3930	1000	960	14	6160	7.4	30.5
SEP. 25...	.2	1.0	4260	1100	960	15	6800	7.6	26.0

08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.

LOCATION.--Lat 32°52'00", long 98°26'00", Palo Pinto County, immediately below Possum Kingdom Dam, 2.6 miles (4.2 km) upstream from Loving Creek, 11.3 miles (18.2 km) southwest of Grafard, and 20 miles (32 km) upstream from gaging station near Palo Pinto.

DRAINAGE AREA.--22,550 mi² (58,400 km²), of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1942 to September 1973.

Water temperatures: October 1949 to September 1955, October 1965 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 5,950 micromhos Dec. 28; minimum daily, 3,400 micromhos Nov. 26, 27, 28.

Water temperatures: Maximum, 25.5°C on several days during October; minimum, 8.0°C on several days during January.

EXTREMES, January 1942 to September 1973.--Specific conductance: Maximum daily, 6,110 micromhos Feb. 20, 1961; minimum daily, 494 micromhos May 4, 1957.

Water temperatures (1949-55, 1965-73): Maximum, 26.5°C on several days during September 1971; minimum, 7.0°C on several days in February 1951.

REMARKS.--Records of discharge are given for gaging station near Palo Pinto. No appreciable inflow between dam and gaging station except during periods of heavy local rains.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
16...	1415	737	8.9	210	38	600	--	9.0	120	0
NOV.										
16...	1430	1530	7.2	190	38	--	540	--	112	0
DEC.										
31...	1330	27	7.8	240	61	--	920	--	156	0
JAN.										
06...	1330	1260	7.5	210	48	650	--	7.2	132	0
FEB.										
28...	1330	69	6.6	240	62	--	880	--	156	0
MAR.										
31...	1405	936	6.5	200	53	--	700	--	142	0
APR.										
04...	1400	1240	6.6	200	78	--	680	--	148	0
MAY										
28...	1500	26	5.5	200	55	--	660	--	126	0
JUNE										
22...	1600	91	1.4	190	50	--	610	--	136	0
JULY										
28...	1400	63	6.6	190	54	670	--	8.4	146	0
AUG.										
21...	1330	25	5.8	200	57	--	690	--	148	0
SEP.										
26...	1505	29	8.6	200	57	--	690	--	152	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
16...	570	950	.4	2440	690	590	9.9	4030	7.5	23.5
NOV.										
16...	500	840	.08	2160	620	530	9.4	3570	7.6	18.0
DEC.										
31...	570	1500	.2	3410	860	730	14	5880	8.0	14.5
JAN.										
06...	510	1100	.03	2560	720	610	11	4340	7.8	13.5
FEB.										
28...	610	1400	.3	3290	850	730	13	5550	7.2	10.5
MAR.										
31...	560	1100	.04	2680	710	600	11	4440	8.0	11.0
APR.										
04...	580	1100	.00	2750	820	700	10	4430	8.2	11.0
MAY										
28...	550	1000	.2	2580	710	610	11	4160	8.0	18.0
JUNE										
22...	520	950	.2	2390	670	560	10	3900	7.7	18.0
JULY										
28...	550	1000	.4	2600	710	590	11	4230	7.5	18.5
AUG.										
21...	560	1100	.03	2660	730	610	11	4280	8.0	21.0
SEP.										
26...	560	1100	.6	2670	720	600	11	4310	7.9	21.0

BRAZOS RIVER BASIN

08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	11640	4000	2400	75400	970	30500	530	16700	680
NOV.	81796	3800	2270	501000	920	203000	510	113000	660
DEC.	18946	3820	2280	117000	930	47600	510	26100	660
JAN. 1973....	17328	4510	2710	127000	1100	51500	570	26700	740
FEB.	16899	4660	2810	128000	1100	50200	580	26500	760
MAR.	35367	4640	2800	267000	1100	105000	580	55400	760
APR.	33137	4100	2460	220000	1000	89500	540	48300	690
MAY	16482	4090	2450	109000	1000	44500	540	24000	690
JUNE	26086	3920	2350	166000	950	66900	520	36600	670
JULY	28334	4000	2400	184000	970	74200	530	40500	680
AUG.	2834	4250	2550	19500	1000	7650	550	4210	710
SEP.	1091	4270	2560	7540	1000	2950	550	1620	710
TOTAL	289940	--	--	1920000	--	774000	--	420000	--
WTD. AVG. ...	794	4090	2450	--	990	--	540	--	690

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3990	3830	3470	5850	5540	5530	4000	4000	4070	3950	4240	4240
2	4080	3910	3460	5820	4160	5510	4000	4030	4040	3940	4250	4250
3	4140	3860	3460	4430	4500	5500	4410	4060	4060	3940	4270	4250
4	4170	3900	3630	4410	5730	5400	4430	4040	3890	3990	4270	4250
5	4080	3850	3710	4430	4820	5370	4170	4270	4060	3980	4260	4250
6	4090	3840	3640	4340	4700	5260	4160	4270	4150	3980	4260	4240
7	3990	3740	3720	4420	5420	5540	4250	4270	3890	3960	4260	4240
8	3980	3730	3780	4240	4760	4890	3990	4050	3900	3960	4270	4250
9	3840	3680	3840	4220	4640	4860	4000	4050	3920	3960	4260	4280
10	3820	3690	3820	4220	4510	4780	4030	4030	3900	3960	4200	4260
11	3950	3670	3750	5000	4860	4900	4140	4300	3910	3970	4210	4290
12	3910	3900	3910	4330	4660	4720	4090	4300	3900	3970	4210	4290
13	4000	3990	3830	5100	4710	4980	4160	4300	3890	4000	4230	4290
14	4000	3580	3820	4820	4400	4620	4230	4290	3890	4000	4230	4280
15	4010	3630	3750	5200	4400	4650	4610	4290	3920	3980	4230	4290
16	4030	3570	3740	4780	4460	4620	4150	4290	3880	3980	4230	4290
17	3930	3550	3740	5150	4520	4970	4080	4300	3880	4000	4270	4290
18	4050	3830	3980	5750	4880	4580	4080	4310	3880	4040	4270	4290
19	4380	3410	4450	5130	4920	4560	4030	3990	3860	4030	4270	4270
20	4410	3590	4460	5080	5430	4490	4030	4000	3870	4040	4270	4280
21	4390	3570	4710	5680	5640	4560	4070	3970	3930	4000	4280	4270
22	4400	3470	5920	5680	5730	4610	4080	3960	3900	4020	4270	4270
23	4430	3470	5360	5870	5700	4580	4070	4080	3930	4100	4270	4280
24	4430	3420	5400	5080	5740	4560	4070	3970	3930	4100	4260	4290
25	4450	3420	5620	4540	5730	4320	4040	4190	3940	4230	4270	4280
26	4400	3400	5710	5000	5480	4310	3970	4190	3900	4240	4270	4310
27	3910	3400	5820	4830	5420	4450	4020	4170	3900	4240	4260	4310
28	4080	3400	5950	4570	5550	4440	4060	4160	3920	4230	4260	4210
29	4170	3410	5910	4090	---	4400	4050	4190	3920	4230	4260	4290
30	4170	3460	5800	4410	---	4360	4050	3950	3920	4240	4270	4320
31	3790	---	5880	4510	---	4440	---	4010	---	4240	4270	---
MONTH	4110	3640	4450	4870	5040	4800	4120	4140	3930	4050	4250	4270

BRAZOS RIVER BASIN

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08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	18.5	14.5	14.5	10.0	11.0	11.0	14.5	18.0	18.5	20.0	20.0
2	23.5	18.5	14.5	14.5	10.0	11.0	11.0	14.5	18.0	18.5	20.0	20.0
3	23.5	18.5	14.5	13.5	10.0	10.5	11.0	14.5	18.0	18.5	20.0	20.0
4	23.5	18.5	14.5	13.5	10.0	10.5	11.0	15.5	18.0	18.5	20.0	20.0
5	23.5	18.5	14.5	13.5	10.0	10.5	12.0	15.5	18.0	18.5	20.0	20.0
6	23.5	18.5	11.5	13.5	10.0	10.5	12.0	15.5	18.0	18.5	20.0	20.0
7	23.5	18.5	14.5	13.5	10.0	10.5	12.0	15.5	18.0	18.5	20.0	20.0
8	23.5	20.0	11.5	13.5	14.5	10.5	12.0	15.5	18.0	18.5	21.0	20.0
9	23.5	20.0	11.5	13.5	10.0	10.5	12.0	15.5	18.0	18.5	21.0	20.0
10	23.5	20.0	11.5	8.0	10.0	10.5	12.0	15.5	18.0	18.5	21.0	20.0
11	25.5	20.0	11.5	8.0	10.0	---	12.0	15.0	18.0	18.5	21.0	20.0
12	23.5	20.0	11.5	8.0	10.0	---	12.0	15.5	18.0	18.5	21.0	19.5
13	23.5	20.0	12.0	8.0	10.0	---	12.0	15.5	18.0	18.5	21.0	20.0
14	23.5	20.0	---	8.0	10.0	11.0	12.0	15.5	18.0	18.5	21.0	20.0
15	23.5	18.0	12.0	8.0	10.0	11.0	11.0	15.5	18.0	18.5	21.0	20.0
16	23.5	18.0	12.0	8.0	10.0	11.0	12.0	15.5	18.0	13.5	21.0	20.0
17	23.5	18.0	12.0	8.0	10.0	12.0	12.0	15.5	18.0	13.5	21.0	20.0
18	25.5	18.0	12.0	13.5	10.0	11.0	12.0	15.5	18.0	18.0	21.0	20.0
19	25.5	18.0	12.0	8.0	10.0	11.0	12.0	15.5	18.0	18.5	21.0	20.0
20	25.5	20.0	12.0	8.0	10.0	11.0	12.0	15.5	18.0	18.5	21.0	20.0
21	25.5	20.0	12.0	8.0	10.5	11.0	12.0	15.5	18.0	18.0	21.0	20.0
22	25.5	15.5	12.0	10.0	10.5	11.0	12.0	15.5	18.0	18.0	21.0	20.0
23	25.5	15.5	12.0	10.0	10.5	11.0	12.0	15.5	18.0	18.0	21.0	20.0
24	25.5	15.5	12.0	10.0	10.5	11.0	12.0	18.0	18.0	18.0	20.0	20.0
25	21.5	18.0	12.0	---	10.5	11.0	14.5	18.0	18.0	18.5	20.0	20.0
26	21.5	15.5	12.0	10.0	10.5	11.0	14.5	18.0	18.0	18.5	20.0	21.0
27	21.5	15.5	14.5	10.0	11.0	11.0	14.5	18.0	18.0	18.5	20.0	21.0
28	21.5	15.5	14.5	10.0	10.5	11.0	14.5	18.0	18.0	18.5	20.0	21.0
29	21.5	14.5	14.5	10.0	---	---	14.5	18.0	18.5	18.0	20.0	21.0
30	21.5	15.5	14.5	10.0	---	11.0	14.5	18.0	18.5	18.0	20.0	21.0
31	21.5	---	14.5	10.0	---	11.0	---	---	---	18.0	20.0	---
MONTH	23.5	18.0	13.0	10.5	10.5	11.0	12.5	16.0	18.0	18.0	20.5	20.0

BRAZOS RIVER BASIN

08090800 BRAZOS RIVER NEAR DENNIS, TEX.

LOCATION.--Lat 32°36'56", long 97°55'32", Parker County, at gaging station at bridge on Farm Road 1543, 0.2 mile (0.3 km) south of Dennis, and 1.0 mile (1.6 km) upstream from Patrick Creek.

DRAINAGE AREA.--24,160 mi² (62,570 km²), of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1973.

Water temperatures: October 1970 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 4,720 micromhos Mar. 16; minimum daily, 418 micromhos July 30.

Water temperatures: Maximum, 35.5°C July 25; minimum, 2.0°C Jan. 9, 11.

EXTREMES, October 1970 to September 1973.--Specific conductance: Maximum daily, 4,720 micromhos Mar. 16, 1973; minimum daily, 418 micromhos July 30, 1973.

Water temperatures: Maximum, 35.5°C Aug. 23, 1971, July 25, 1973; minimum, 1.0°C Jan. 8, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 14...	1250	263	5.3	210	40	570	--	7.7	125	0	570
NOV. 02...	1205	2490	9.4	99	17	--	230	--	116	0	220
FEB. 16...	1205	1920	1.4	210	50	--	830	--	129	0	840
APR. 16...	1455	1200	4.3	110	24	280	--	6.3	126	0	240
25...	1240	2000	4.6	140	35	--	440	--	132	0	360
MAY 29...	1230	258	5.7	64	12	--	140	--	102	0	120
JUNE 04...	0930	2020	7.0	74	10	--	74	--	138	0	76
JULY 16...	1210	1160	6.2	170	44	560	--	7.4	142	0	470
AUG. 01...	2000	2410	6.9	51	9.6	--	72	--	120	0	61
08...	1930	78	6.6	82	17	--	170	--	152	0	140
SEP. 02...	1205	55	10	170	50	--	630	--	96	0	500

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 14...	890	--	.20	2360	690	590	9.5	3910	7.8	25.0
NOV. 02...	360	.3	.40	992	320	220	5.7	1720	6.9	15.0
FEB. 16...	1100	--	.00	3090	720	610	13	4420	7.8	8.5
APR. 16...	440	.3	.60	1170	370	260	6.3	2040	7.4	18.0
25...	680	.3	.40	1730	500	390	8.5	2930	7.6	22.5
MAY 29...	200	.3	.60	601	210	120	4.1	1080	7.6	24.0
JUNE 04...	140	.2	.80	448	230	110	2.1	821	7.7	23.0
JULY 16...	880	--	.10	2210	610	490	9.9	3690	7.5	28.5
AUG. 01...	110	.3	.60	374	170	68	2.4	702	7.6	28.0
08...	270	.3	.10	767	270	150	4.6	1390	7.6	32.5
SEP. 02...	980	--	1.3	2390	620	550	11	4000	7.3	31.0

BRAZOS RIVER BASIN

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08090800 BRAZOS RIVER NEAR DENNIS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /s)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	12967	3480	2060	72100	820	28700	450	15800	600
NOV.	82772	3500	2070	463000	820	183000	450	101000	600
DEC.	23095	3660	2170	135000	860	53600	470	29300	630
JAN. 1973....	18914	3630	2150	110000	860	43900	470	24000	620
FEB.	20725	4100	2430	136000	980	54800	530	29700	700
MAR.	35675	4400	2620	252000	1050	101000	570	54900	740
APR.	41540	3400	2010	225000	800	89700	440	49300	590
MAY	21565	3730	2210	129000	880	51200	480	27900	640
JUNE	39054	3190	1880	198000	740	78000	410	43200	560
JULY	43564	3040	1790	211000	700	82300	390	45900	530
AUG.	8257	1310	730	16300	260	5800	140	3120	270
SEP.	1822	3240	1910	9400	760	3740	410	2020	560
TOTAL	349950	--	--	1960000	--	776000	--	426000	--
WTD. AVG. ...	959	3500	2070	--	820	--	450	--	600

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3730	3580	3440	3520	2900	3720	4330	3970	1960	4070	702	3950
2	3720	1720	3410	3230	3300	3790	4260	4010	1960	4090	1650	4000
3	3710	3590	3420	924	3650	3810	4250	4100	2310	4100	1530	3910
4	3660	3560	3440	2020	3780	3810	4200	4110	821	4090	1010	3900
5	3630	3530	3410	2210	3780	3810	4170	4110	1130	4100	1010	3700
6	3590	3490	3420	3350	3700	3650	4200	4010	922	4090	1100	2840
7	3610	3530	3400	4180	3490	3700	4260	3640	2420	4120	1230	3350
8	3790	3830	3610	4200	2940	3680	4150	3570	2320	3960	1390	2730
9	3790	3820	3700	1770	2840	3570	4230	3760	2490	4050	1520	2730
10	3770	3770	3690	4200	3430	3240	4230	3810	2800	4080	1640	3010
11	3830	3740	3570	4250	4250	4490	4260	3890	3760	3770	1770	3190
12	3870	3720	3660	4140	4530	4660	4270	3500	3900	3920	1800	3220
13	3910	3650	3730	4100	4390	4650	4130	3560	3770	4010	1890	3290
14	3910	3680	3730	4100	4380	4560	4010	3980	3320	4070	1990	3200
15	3900	3640	3730	4040	4310	4530	3030	3980	3510	3670	2080	2500
16	3870	3640	3760	3970	4420	4720	2040	3950	3810	3690	2040	2230
17	3870	3680	3780	3910	4420	4600	2720	3950	3930	3850	2060	2180
18	3910	3590	3800	3870	4330	4570	1620	3950	3920	3870	2050	2450
19	3240	3600	3730	3850	4350	4600	3300	3910	3340	4100	1890	2750
20	3800	3560	3670	3810	4340	4480	3360	3910	3150	4120	1740	3030
21	3760	3490	3680	3750	4340	4510	3500	3900	3540	4160	1660	3130
22	3580	3480	3680	3830	4170	4570	3770	4180	3640	4190	1690	3270
23	3380	3450	3650	3790	3970	4510	3820	4160	3770	4190	1770	3320
24	3160	3520	3640	3810	3890	4430	2540	3990	3770	4180	1860	3310
25	3470	3490	3630	3510	3770	4410	2930	3970	3910	4180	1930	3320
26	2180	3490	3590	2940	3820	4490	3610	3760	3990	4160	2030	3370
27	2590	3530	3580	3750	3850	4400	3080	3520	3940	4140	2080	3050
28	2120	3500	3560	3860	3850	4390	3650	867	4010	4130	2140	3300
29	2570	3450	3530	3520	---	4250	3850	1080	4060	743	2260	3290
30	3250	3450	3520	3310	---	4170	3890	1530	4070	418	2870	3060
31	3550	---	3510	3220	---	4290	---	1840	---	907	3900	---
MONTH	3510	3530	3600	3510	3900	4230	3660	3560	3140	3720	1820	3150

BRAZOS RIVER BASIN

08090800 BRAZOS RIVER NEAR DENNIS, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	14.0	9.0	8.0	9.0	15.0	16.0	23.0	26.0	33.5	28.0	---
2	20.5	15.0	12.5	6.0	8.0	19.0	17.5	21.5	27.0	31.0	28.5	31.0
3	21.5	14.0	12.5	10.0	8.5	16.0	15.5	21.0	26.0	31.0	28.5	34.0
4	23.0	19.0	8.0	7.0	14.0	19.0	14.5	22.0	23.0	32.0	28.0	27.0
5	24.5	19.0	10.5	6.0	11.0	18.0	18.0	22.0	24.0	31.0	31.0	26.0
6	23.5	20.0	7.0	5.0	12.5	17.5	15.0	22.0	23.0	30.0	28.5	25.0
7	24.0	18.0	4.5	4.5	12.5	19.0	17.5	21.5	30.0	32.0	29.5	24.5
8	26.0	17.5	6.5	3.0	5.0	19.0	12.0	26.0	32.0	28.0	32.5	29.0
9	27.0	17.5	7.0	2.0	4.5	17.0	13.0	25.0	30.5	27.0	33.5	30.0
10	26.5	16.5	6.0	10.0	7.5	19.0	12.0	26.5	29.5	28.5	32.5	29.0
11	25.0	16.0	3.5	2.0	5.0	16.0	16.0	28.5	28.0	29.0	29.0	32.0
12	23.0	15.5	5.5	3.0	11.0	18.0	17.5	---	25.5	29.5	35.0	31.5
13	24.0	15.5	5.0	4.5	13.5	18.5	20.0	21.0	25.5	29.0	31.5	21.0
14	25.0	11.5	5.0	7.0	11.0	19.0	20.5	22.0	27.0	29.0	---	32.0
15	23.5	9.5	6.0	9.0	11.5	16.0	19.5	21.5	29.0	29.0	32.0	---
16	27.0	10.0	6.0	12.0	8.5	14.0	18.0	23.0	30.0	28.5	31.0	30.0
17	28.0	11.0	6.0	13.0	7.0	14.0	17.0	23.5	31.5	30.0	31.0	24.0
18	24.5	11.0	7.0	24.0	8.5	13.0	17.0	24.5	29.5	28.0	29.5	22.0
19	17.0	11.0	---	14.5	10.0	28.5	22.0	30.0	28.0	30.0	32.0	24.0
20	15.5	9.0	12.0	14.5	12.5	17.5	23.5	25.0	27.0	31.0	31.5	30.5
21	18.0	8.5	9.5	10.0	11.0	17.5	23.0	30.0	27.0	31.0	32.0	25.5
22	18.0	8.0	9.0	10.0	10.5	15.0	23.0	28.5	28.0	32.0	31.0	26.5
23	19.5	---	10.0	8.0	---	16.0	24.0	25.0	28.5	32.5	30.0	27.0
24	15.5	9.0	11.5	7.0	13.5	16.5	22.0	27.5	31.5	31.0	29.0	25.5
25	14.5	9.5	---	7.0	11.0	14.5	22.5	---	29.5	35.5	32.5	27.5
26	14.0	13.0	11.0	7.5	14.0	14.0	21.0	28.0	29.0	31.5	31.5	26.0
27	14.0	12.0	12.0	8.0	10.5	---	19.5	26.0	34.0	34.5	28.5	23.5
28	13.0	10.0	10.5	7.0	12.5	16.0	20.5	26.0	31.0	31.5	29.0	22.0
29	17.0	7.5	16.0	---	---	17.0	19.0	24.0	29.5	26.0	31.0	27.5
30	19.5	10.5	14.0	7.0	---	18.0	22.0	25.5	---	23.5	28.0	28.0
31	15.5	---	---	10.0	---	16.5	---	29.5	---	25.0	28.0	---
MONTH	21.0	13.0	8.5	8.0	10.0	17.0	18.5	25.0	28.5	30.0	30.5	27.0

BRAZOS RIVER BASIN

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08092000 NOLAN RIVER AT BLUM, TEX.

LOCATION.--Lat 32°09'02", long 97°24'10", Hill County, at gaging station at bridge on Farm Road 933, 0.6 miles (1.0 km) northwest of Blum, 2.8 miles (4.5 km) downstream from Mustang Creek, 3.0 miles (4.8 km) downstream from Gulf, Colorado and Santa Fe Railway Co. bridge.

DRAINAGE AREA.--276 mi² (715 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 04...	1340	3.7	7.2	40	4.9	60	204	6	36
DEC. 04...	1515	12	7.0	79	7.5	42	268	0	45
FEB. 01...	1045	94	8.4	83	7.1	32	270	0	38
APR. 16...	1000	1090	7.5	44	4.4	15	136	0	21
JUNE 13...	1550	2690	9.6	39	3.6	6.6	124	0	11
AUG. 08...	1700	12	2.9	68	5.6	23	220	0	30

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA.MG) (MG/L)
OCT. 04...	24	.6	.45	.03	.30	.3	3.0	280	120
DEC. 04...	32	.4	.82	.27	.54	1.9	2.4	355	230
FEB. 01...	27	.4	.25	.07	.34	1.8	.52	338	240
APR. 16...	17	.2	.33	.02	.05	.5	.09	178	130
JUNE 13...	8.2	.2	.13	.02	.07	.4	.34	141	110
AUG. 08...	21	.4	.35	.04	.16	.5	.40	261	190

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 04...	0	2.4	465	8.3	26.0	15.4	188	1.0
DEC. 04...	8	1.2	593	8.6	8.5	13.0	110	13
FEB. 01...	14	.9	554	7.8	10.5	11.2	100	5.4
APR. 16...	17	.6	321	7.7	15.5	9.2	91	8.2
JUNE 13...	10	.3	240	7.0	23.0	7.4	85	3.9
AUG. 08...	12	.7	467	8.4	34.0	12.4	172	2.3

BRAZOS RIVER BASIN

08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.

LOCATION.--Lat 31°52'00", long 97°22'00", Hill County, immediately below Whitney Dam, 3.4 miles (5.5 km) upstream from gaging station near Whitney, 4.0 miles (6.4 km) upstream from Iron Creek, and 7.4 miles (11.9 km) southwest of Whitney.

DRAINAGE AREA.--26,190 mi², (67,830 km²) of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1947 to May 1948, October 1948 to September 1973.
Water temperatures: October 1947 to May 1948, October 1948 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,520 micromhos Dec. 31; minimum daily, 1,770 micromhos Oct. 1.
Water temperatures: Maximum, 33.5°C July 3; minimum, 5.0°C Jan. 6, 7.

EXTREMES, October 1947 to May 1948, October 1948 to September 1973.--Specific conductance: Maximum daily, 2,660 micromhos Oct. 1, 1948; minimum daily, 203 micromhos May 23, 1952.
Water temperatures: Maximum, 33.5°C July 3, 1973; minimum, freezing point Jan. 28, 29, 1948.

REMARKS.--Records of discharge are given for gaging station near Whitney. No appreciable inflow between dam and gaging station except during periods of heavy local rains.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 16...	0800	15	6.1	110	24	250	--	6.5	132	0	250
NOV. 29...	0900	2680	4.9	120	27	--	280	--	124	0	270
DEC. 31...	0800	14	4.2	140	31	--	360	--	134	0	360
JAN. 31...	0920	48	4.7	130	29	310	--	6.2	132	0	300
FEB. 28...	0900	1080	4.9	130	28	--	320	--	132	0	310
MAR. 16...	0754	4350	15	130	29	--	320	--	134	0	310
APR. 06...	--	439	5.0	120	29	320	--	--	104	0	310
MAY 05...	0800	4930	4.9	120	27	--	330	--	144	0	300
JUNE 18...	0830	4460	4.2	120	24	--	300	--	148	0	270
JULY 10...	0803	2270	4.3	110	24	270	--	5.7	150	0	250
AUG. 22...	0833	728	11	110	22	--	260	--	152	0	220
SEP. 26...	0930	110	3.8	100	24	--	280	--	144	0	220

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 16...	400	.3	.03	1110	360	260	5.7	1970	7.6	24.0
NOV. 29...	440	.3	1.1	1210	400	300	6.1	2110	7.5	13.0
DEC. 31...	550	.3	.04	1500	480	370	7.1	2520	7.9	9.0
JAN. 31...	500	.4	.00	1360	450	340	6.4	2340	7.8	6.5
FEB. 28...	500	.3	.20	1350	440	330	6.6	2310	7.9	8.5
MAR. 16...	500	.3	.10	1380	450	340	6.5	2340	7.1	9.5
APR. 06...	500	.3	.07	1340	420	340	6.8	2350	8.2	13.5
MAY 05...	500	.3	.80	1350	400	280	7.2	2240	8.2	18.5
JUNE 18...	460	.3	.20	1250	400	280	6.0	2090	7.6	24.0
JULY 10...	430	.3	.02	1180	380	260	6.1	2030	7.4	25.0
AUG. 22...	410	.3	.10	1110	360	230	6.0	1870	7.9	26.0
SEP. 26...	430	.3	.30	1130	360	240	6.3	1930	8.1	26.0

BRAZOS RIVER BASIN

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08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	12912	1960	1150	40100	420	14600	230	8020	360
NOV.	30406	2060	1210	99300	440	36100	260	21300	380
DEC.	28797	2170	1270	98700	470	36500	280	21800	410
JAN. 1973....	18724	2280	1340	67700	490	24800	300	15200	430
FEB.	10114	2330	1370	37400	500	13700	310	8470	440
MAR.	47534	2350	1380	177000	510	65500	320	41100	440
APR.	133625	2300	1350	487000	500	180000	310	112000	430
MAY	50400	2250	1320	180000	490	66700	300	40800	420
JUNE	129560	2060	1210	423000	440	154000	260	91000	380
JULY	56658	1960	1150	176000	420	64300	230	35200	360
AUG.	39293	1870	1100	117000	400	42400	210	22300	350
SEP.	14004	1940	1140	43100	420	15900	230	8700	360
TOTAL	572027	--	--	1950000	--	714000	--	426000	--
WTD. AVG. ...	1567	2150	1260	--	460	--	280	--	400

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1770	1970	2140	2280	2330	2330	2350	2320	2180	1990	1870	2090
2	1940	1990	2250	2330	2330	2330	2350	2270	2110	2010	1870	2090
3	1940	1980	2250	2350	2350	2330	2350	2260	2130	2040	1870	2080
4	1940	1980	2150	2260	2340	2330	2360	2260	2180	1940	1850	1900
5	1940	1980	2170	2240	2330	2350	2320	2240	2140	2020	1850	1900
6	1940	1980	2170	2440	2330	2290	2330	2240	2110	2030	1870	1890
7	1870	1980	2150	2300	2330	2340	2300	2270	2110	1920	1870	1900
8	1900	1980	2160	2260	2330	2330	2310	2240	2100	1930	1870	2000
9	1950	1990	2170	2260	2330	2330	2330	2250	2070	2040	1870	2010
10	1950	2010	2190	2250	2330	2380	2330	2250	2070	2030	1850	1900
11	1960	2070	2180	2260	2340	2380	2340	2250	2120	1950	2110	1900
12	1960	2130	2170	2280	2340	2350	2340	2250	2110	1970	2120	1900
13	1960	2030	2170	2280	2330	2340	2350	2190	2110	1950	1890	1900
14	1910	2050	2170	2280	2330	2340	2360	2230	2110	2080	1890	1900
15	1970	2050	2170	2280	2330	2380	2330	2250	2110	1960	1890	2010
16	1970	2050	2170	2330	2320	2340	2330	2230	2050	1920	1890	2010
17	1980	2050	2170	2330	2330	2340	2330	2220	2030	1930	1890	1910
18	1970	2050	2190	2350	2330	2380	2340	2230	2090	1920	2120	1910
19	1970	2050	2190	2350	2320	2370	2340	2180	2050	1920	2120	1910
20	1990	2040	2230	2450	2330	2350	2340	2180	2010	1920	1870	1910
21	1990	2070	2190	2510	2320	2340	2350	2230	2010	2180	1870	1920
22	1930	2050	2210	2360	2330	2350	2350	2240	2010	2170	1870	1980
23	1970	2070	2280	2330	2330	2360	2350	2220	1930	1960	1870	1980
24	1980	2070	2310	2330	2330	2380	2340	2220	1950	1970	1870	1910
25	1980	2090	2330	2380	2330	2380	2300	2220	2010	1960	2100	1930
26	1980	2090	2210	2300	2330	2340	2280	2140	2010	1940	2090	1930
27	1980	2090	2210	2470	2320	2340	2260	2140	2010	1940	1870	1910
28	1970	2090	2230	2400	2310	2340	2250	2120	1990	2170	1870	1910
29	1970	2110	2380	2340	---	2340	2250	2150	1990	2080	1870	1930
30	1970	2150	2490	2340	---	2350	2250	2190	1970	1940	1870	1950
31	1990	---	2520	2340	---	2350	---	2200	---	1910	1870	---
MONTH	1950	2040	2220	2330	2330	2350	2320	2220	2060	1990	1920	1950

BRAZOS RIVER BASIN

08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.5	22.0	13.0	---	6.5	8.5	14.5	18.5	20.0	24.0	26.0	25.0
2	27.0	22.0	13.0	8.0	6.5	8.5	14.5	19.0	---	25.0	26.0	25.0
3	25.5	22.0	13.0	8.5	6.5	8.5	14.5	19.0	---	33.5	27.0	25.0
4	25.5	22.0	11.0	8.0	6.5	8.5	14.5	19.0	20.0	25.0	24.5	26.0
5	25.5	22.0	11.0	8.0	7.0	9.0	14.0	18.5	20.0	26.0	24.5	24.0
6	25.5	19.5	11.0	5.0	7.0	9.0	13.5	19.5	21.5	25.5	24.5	26.5
7	25.5	19.5	11.5	5.0	8.0	9.0	14.0	19.0	23.5	24.5	26.5	26.0
8	25.5	19.5	---	8.0	8.0	9.0	14.0	19.0	23.5	23.5	26.5	25.0
9	---	19.0	12.0	8.0	8.0	9.0	14.0	19.5	20.0	25.0	26.0	25.0
10	25.5	19.0	12.0	7.0	6.5	9.0	14.0	19.5	20.0	25.0	27.0	26.0
11	24.5	21.5	11.0	8.0	6.5	9.0	14.0	19.5	23.5	25.5	---	26.0
12	24.5	21.5	11.0	7.0	7.0	9.0	14.0	19.5	23.0	25.0	25.0	26.0
13	24.0	18.5	11.0	8.0	7.0	9.5	14.0	19.5	23.5	25.5	26.5	26.0
14	---	16.5	9.0	8.0	7.0	9.5	14.0	19.5	23.5	25.0	26.5	26.0
15	---	16.5	8.5	6.0	7.0	9.5	14.0	19.5	23.5	25.0	26.5	25.0
16	24.0	16.5	8.5	5.5	7.0	9.5	14.0	19.5	23.5	25.5	25.5	25.0
17	24.0	16.0	8.5	6.0	6.5	9.5	14.0	19.5	23.5	25.5	25.5	25.5
18	24.0	16.0	8.0	5.5	6.5	9.0	14.5	19.5	24.0	25.5	25.5	25.5
19	24.0	16.0	8.0	6.0	6.5	10.0	15.0	19.5	24.0	26.0	25.5	26.0
20	24.0	16.0	8.0	8.5	7.0	12.0	15.0	19.5	25.5	26.0	25.5	26.0
21	24.0	15.0	7.0	8.5	7.0	13.5	14.0	15.0	25.5	25.5	25.5	26.0
22	24.0	14.5	7.0	6.0	8.0	14.0	14.0	19.5	24.0	25.5	26.0	25.0
23	---	---	---	6.0	8.5	13.0	15.0	19.5	23.0	26.0	25.5	25.0
24	23.0	19.5	---	6.0	7.0	9.0	16.0	19.5	23.5	26.0	25.5	26.0
25	22.0	14.0	---	6.0	7.0	9.0	16.0	16.0	25.5	26.0	25.0	26.0
26	22.0	14.0	8.0	6.0	8.5	13.0	19.0	19.5	25.0	26.0	25.0	26.0
27	22.0	14.0	8.0	---	8.5	14.0	19.0	19.5	25.0	25.0	26.0	26.0
28	---	13.0	8.0	7.0	8.5	14.0	14.0	19.5	25.0	25.0	26.0	25.5
29	22.0	13.0	7.0	6.5	---	14.0	14.5	19.5	25.0	25.0	25.0	25.0
30	22.0	13.0	8.0	6.5	---	14.0	14.0	20.0	24.0	26.0	26.0	25.0
31	22.0	---	9.0	6.5	---	9.0	---	20.0	---	26.0	26.0	---
MONTH	24.0	17.5	9.5	7.0	7.0	10.5	14.5	19.0	23.5	25.5	25.5	25.5

08093500 AQUILLA CREEK NEAR AQUILLA, TEX.

LOCATION.--Lat 31°50'40", long 97°12'06", Hill County, at gaging station at bridge on Farm Road 1304, 1.0 mile (1.6 km) southeast of Aquilla, and 1.2 miles (1.9 km) downstream from Cobb Creek.

DRAINAGE AREA.--306 mi² (793 km²).

PERIOD OF RECORD.--Chemical analyses: May 1965 to June 1966, October 1967 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: May 1965 to June 1966, October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,670 micromhos Sept. 20, 22; minimum daily, 243 micromhos July 15.

Water temperatures: Maximum, 29.0°C Aug. 14.

EXTREMES, October 1965 to June 1966, October 1967 to September 1973. Specific conductance (1965-66, 1967-71, 1972-73):

Maximum daily, 1,990 micromhos Aug. 30, 1968; minimum daily, 219 micromhos Oct. 9, 1968, May 30, 1971.

Water temperatures: Maximum, 30.0°C Aug. 18, 1968, July 23, 1969, Aug. 9, 12, 1970; minimum, 1.0°C Jan. 30, 1966, Jan. 8, 1968, Jan. 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
04...	1540	1.2	11	92	6.4	--	95	--	270	0
27...	0945	1910	8.1	44	1.3	--	7.0	--	104	0
NOV.										
02...	0915	619	10	47	2.0	--	17	--	108	0
DEC.										
04...	1400	4.0	11	120	6.0	--	140	--	348	0
12...	0840	5.1	12	120	7.8	--	170	--	348	8
JAN.										
26...	0945	2350	9.1	88	2.6	24	--	4.3	157	0
FEB.										
01...	0950	121	8.6	110	5.7	--	50	--	256	0
12...	1800	61	9.6	110	4.9	--	47	--	240	0
MAR.										
31...	0845	36	8.1	130	10	--	79	--	280	0
APR.										
16...	1120	3640	9.5	66	2.8	--	16	--	136	0
30...	1930	144	13	--	--	--	--	--	--	0
MAY										
15...	0910	48	11	82	12	--	130	--	132	0
JUNE										
13...	1700	938	11	120	5.2	--	46	--	224	0
27...	0920	66	15	88	14	--	86	--	135	0
AUG.										
08...	1535	610	12	160	13	--	94	--	376	0
31...	0905	21	1.2	110	16	--	180	--	320	16
SEP.										
22...	0905	1.1	17	94	14	--	280	--	454	30

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLINS (SUM OF CONSTI- TUENTS) (MG/L)
OCT.									
04...	180	30	.8	.24	.02	.03	1.6	1.1	558
27...	36	2.4	.4	--	--	--	.9	--	154
NOV.									
02...	54	7.2	.4	--	--	--	1.8	--	199
DEC.									
04...	260	42	.8	.29	.10	.17	2.6	2.5	760
12...	300	54	.8	--	--	--	3.7	--	866
JAN.									
26...	120	12	.4	--	--	--	4.8	--	356
FEB.									
01...	150	28	.6	.31	.09	.24	4.2	.92	499
12...	140	26	.4	--	--	--	3.0	--	469
MAR.									
31...	230	46	.6	--	--	--	2.3	--	652
APR.									
16...	72	7.2	.4	.21	.20	.09	3.5	3.6	256
30...	180	39	.5	--	--	--	2.8	--	--
MAY									
15...	330	58	.4	--	--	--	3.4	--	705
JUNE									
13...	170	30	.6	.19	.04	.09	2.6	.02	506
27...	240	66	.4	--	--	--	1.3	--	585
AUG.									
08...	250	53	.5	.30	.01	.02	1.0	.58	763
31...	330	78	.6	--	--	--	.3	--	898
SEP.									
22...	340	82	.7	--	--	--	2.2	--	1090

BRAZOS RIVER BASIN

08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
04...	260	34	2.6	844	7.2	23.5	9.1	106	1.4
27...	120	30	.3	266	7.9	12.0	--	--	--
NOV.									
02...	130	37	.7	318	7.0	12.0	--	--	--
DEC.									
04...	320	39	3.3	1120	7.7	8.5	8.7	74	6.5
12...	330	28	4.2	1290	8.4	4.0	--	--	--
JAN.									
26...	230	100	.7	554	7.9	5.0	--	--	--
FEB.									
01...	310	98	1.2	774	8.0	9.0	10.4	90	4.0
12...	290	93	1.2	739	7.9	9.5	--	--	--
MAR.									
31...	370	140	1.8	962	8.0	17.0	--	--	--
APR.									
16...	180	65	.5	410	7.2	15.5	10.2	101	>8.6
30...	--	--	--	942	--	18.0	--	--	--
MAY									
15...	250	150	3.7	1020	8.1	18.0	--	--	--
JUNE									
13...	316	132	1.1	791	7.3	24.0	6.7	79	2.6
27...	280	170	2.2	1080	7.9	24.0	--	--	--
AUG.									
09...	440	130	1.9	1160	7.7	28.0	10.6	134	2.5
31...	350	62	4.2	1490	8.4	27.0	--	--	--
SEP.									
22...	290	0	7.1	1670	8.7	25.0	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	2727.80	337	210	1550	6.8	50	58	427	140
NOV.	1062.5	419	260	746	12	34	77	221	160
DEC.	212.6	1020	670	385	50	29	220	126	320
JAN. 1973....	5612.5	504	320	4850	17	258	98	1490	180
FEB.	2882	617	400	3110	25	195	120	934	210
MAR.	9674	525	330	8620	19	496	100	2610	190
APR.	26486	427	270	19300	13	930	79	5650	160
MAY	4302	618	400	4650	25	290	120	1390	210
JUNE	26540	376	230	16500	9.3	666	67	4800	150
JULY	7650	358	220	4540	8.1	167	63	1300	140
AUG.	199.3	1070	700	377	53	29	230	124	340
SEP.	4914.83	333	200	2650	6.5	86	57	756	140
TOTAL	92263.53	--	--	67300	--	3230	--	19800	--
WTD. AVG. ...	253	431	270	--	13	--	80	--	160

BRAZOS RIVER BASIN

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08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	656	326	1110	745	785	916	947	760	800	1170	656	1460
2	743	318	1150	1010	767	916	980	517	478	990	618	1430
3	804	395	1130	432	838	923	850	799	410	1070	739	1400
4	846	516	1140	480	844	920	917	822	339	1130	880	1530
5	879	570	1130	600	809	918	710	840	338	1120	940	1490
6	908	635	1220	660	848	762	764	815	285	1290	995	1510
7	934	683	1230	450	773	824	815	783	462	1090	1090	1530
8	962	740	1230	440	427	827	900	857	600	1090	1130	1550
9	991	800	1250	520	435	867	990	849	728	1190	1100	1580
10	1050	859	1270	630	545	420	934	857	687	1130	1150	1600
11	1100	920	1290	740	654	523	1050	902	678	1090	1120	1600
12	1150	1000	1290	851	739	634	1050	927	618	1120	1170	1570
13	1210	580	1240	858	806	767	1060	1000	762	1150	1220	1580
14	1250	537	820	854	826	755	680	1110	418	567	1270	1590
15	1280	501	800	895	768	800	558	1020	513	243	1300	1610
16	1320	525	820	895	818	840	510	1040	770	272	1300	1620
17	1360	602	900	905	864	860	495	1060	806	455	1310	1630
18	1400	690	958	923	857	867	663	1080	835	674	1320	1660
19	1400	1080	1100	954	905	848	596	1080	845	805	1310	1640
20	1400	940	1100	962	905	864	552	1100	382	985	1310	1670
21	1390	729	1130	832	904	891	691	1050	281	1000	1350	1660
22	350	720	1150	700	894	916	655	1120	479	1110	1320	1670
23	288	765	1170	520	799	900	642	1110	710	1220	1350	1650
24	386	811	1180	979	875	884	310	1100	880	1240	1340	314
25	414	991	1190	600	885	884	298	627	935	1300	1350	266
26	446	1030	1180	440	894	895	586	354	1020	1360	1400	333
27	266	1060	1220	497	894	891	749	525	1080	1370	1420	294
28	337	1040	1180	666	923	916	820	608	1070	1350	1440	401
29	426	1110	1210	662	---	935	892	780	1140	430	1460	660
30	490	1130	1110	717	---	939	929	824	1220	443	1470	800
31	562	---	1000	763	---	962	---	831	---	558	1480	---
MONTH	871	753	1130	715	796	841	753	876	686	968	1200	1310

TEMPERATURE (DFG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	11.0	9.0	8.0	8.0	---	18.0	20.0	---	26.0	27.0	---
2	20.0	12.0	11.0	7.0	8.0	---	---	20.0	24.0	26.0	27.0	---
3	20.0	13.0	---	7.0	8.0	---	15.0	21.0	24.0	26.0	25.0	27.0
4	20.0	14.0	8.0	---	10.0	---	15.0	20.0	24.0	26.0	---	26.0
5	20.0	---	10.0	---	11.0	---	14.0	---	22.0	27.0	---	24.0
6	22.0	14.0	7.0	---	11.0	---	13.0	22.0	21.0	27.0	26.0	24.0
7	20.0	14.0	7.0	---	12.0	---	14.0	20.0	24.0	26.0	25.0	24.0
8	20.0	12.0	8.0	---	6.0	---	---	21.0	---	26.0	25.0	25.0
9	20.0	---	---	---	5.0	---	12.0	23.0	24.0	26.0	26.0	---
10	20.0	12.0	---	---	---	---	10.0	23.0	24.0	27.0	27.0	26.0
11	---	---	5.0	---	5.0	---	12.0	24.0	24.0	27.0	26.0	27.0
12	22.0	---	4.0	4.0	9.5	---	14.0	23.0	23.0	---	---	28.0
13	22.0	13.0	5.0	0.0	10.0	---	---	---	23.0	27.0	27.0	---
14	---	12.0	5.0	3.0	8.0	---	15.0	20.0	25.0	27.0	29.0	---
15	---	10.0	---	5.0	8.0	---	16.0	18.0	25.0	24.0	27.0	---
16	21.0	10.0	---	6.0	---	---	14.0	19.0	---	26.0	---	---
17	21.0	9.0	---	8.0	7.0	---	12.0	---	27.0	28.0	27.0	26.0
18	22.0	---	5.0	10.0	8.0	---	15.0	19.0	25.0	26.0	---	26.0
19	20.0	9.0	7.0	10.0	8.0	---	17.0	21.0	---	27.0	---	24.0
20	18.0	9.0	7.0	12.0	---	---	21.0	22.0	23.0	27.0	27.0	24.0
21	18.0	9.0	8.0	10.0	9.0	---	23.0	24.0	24.0	28.0	28.0	24.0
22	20.0	8.0	6.0	---	10.0	---	---	24.0	25.0	---	28.0	25.0
23	19.0	8.0	7.0	8.0	10.0	---	21.0	24.0	24.0	28.0	28.0	24.0
24	17.0	8.0	8.0	6.0	9.0	---	22.0	---	---	27.0	---	24.0
25	15.0	8.0	---	8.0	---	---	22.0	20.0	24.0	27.0	---	24.0
26	15.0	---	7.0	5.0	9.0	16.0	21.0	20.0	24.0	28.0	---	24.0
27	12.0	8.0	10.0	7.0	10.0	15.0	19.0	23.0	24.0	27.0	27.0	23.0
28	12.0	7.0	7.0	6.0	---	16.0	---	23.0	25.0	28.0	26.0	23.0
29	14.0	8.0	11.0	---	---	17.0	18.0	---	---	---	27.0	---
30	15.0	8.0	---	6.0	---	17.0	18.0	23.0	25.0	26.0	27.0	---
31	15.0	---	---	8.0	---	17.0	---	24.0	---	27.0	27.0	---
MONTH	18.5	10.5	---	---	8.5	---	16.5	21.5	24.0	26.5	---	---

BRAZOS RIVER BASIN

08096500 BRAZOS RIVER AT WACO, TEX.

LOCATION.--Lat 31°32'06", long 97°04'22" (at gaging station), McLennan County, at Lake Brazos Dam in Waco, 0.5 mile (0.8 km) downstream from bridge on U. S. Highway 77 and 81 (Business Route) and 1.7 miles (2.7 km) upstream from gaging station.

DRAINAGE AREA.--28,530 mi² (73,890 km²) of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1968 to September 1973.
Pesticide analyses: March 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 04...	1640	750	5.3	110	26	250	164	0	220
DEC. 04...	1245	268	5.2	120	26	270	152	0	260
FEB. 01...	0900	1460	6.7	57	8.3	36	180	0	50
APR. 16...	1245	8630	5.3	80	8.9	113	124	0	140
JUNE 13...	1800	9500	4.4	102	20	200	152	0	190
AUG. 08...	1440	3410	4.6	100	21	260	152	0	210

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 04...	390	.4	.23	.00	.11	.1	.01	1080	380
DEC. 04...	420	.4	.32	.00	.07	.1	.14	1170	400
FEB. 01...	35	.3	.65	.03	.02	1.0	.28	287	180
APR. 16...	160	.4	.21	.06	.05	1.2	.21	575	240
JUNE 13...	310	.3	.11	.01	.06	.2	.20	898	340
AUG. 08...	400	.3	.31	.00	.00	.01	.04	1060	350

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 04...	110	5.6	1810	7.8	24.0	8.8	104	1.4
DEC. 04...	280	5.8	1990	8.2	11.0	9.2	83	1.2
FEB. 01...	28	1.2	473	7.9	8.5	11.1	94	1.6
APR. 16...	130	3.2	990	7.4	16.0	9.6	96	.8
JUNE 13...	210	4.6	1570	7.6	24.5	7.4	88	.7
AUG. 08...	220	6.0	1860	7.2	29.0	7.9	101	3.7

BRAZOS RIVER BASIN

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08096500 BRAZOS RIVER AT WACO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DOD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 04...	1640	24.0	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 01...	0900	8.5	.00	.00	.00	.00	.00	.00	.00	.00
APR. 16...	1245	16.0	.00	.00	.00	.02	.01	.00	.00	.00
JUNE 13...	1800	24.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 04...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 01...	.00	.0	.0	.00	.00	.00	.00	.04	.00	.04
APR. 16...	.00	.0	.0	.00	.00	.00	.00	1.7	.00	.02
JUNE 13...	.00	.0	.0	.00	.00	.00	.00	.07	.00	.00

BRAZOS RIVER BASIN

08098290 BRAZOS RIVER NEAR Highbank, TEX.

LOCATION.--Lat 31°08'02", long 96°49'29", Falls County, at gaging station at bridge on Farm Road 413, 1.4 miles (2.3 km) downstream from Highbank Slough and Spring Branch, and 2.6 miles (4.2 km) south of Highbank.

DRAINAGE AREA.--29,421 mi² (76,200 km²), of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: November 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,170 micromhos Dec. 8; minimum daily, 341 micromhos June 5.

Water temperatures: Maximum, 30.0°C July 25, 26; minimum, 2.0°C Jan. 10.

EXTREMES, November 1967 to September 1973.--Specific conductance: Maximum daily, 2,170 micromhos Dec. 8, 1972; minimum daily, 298 micromhos May 11, 1968, July 31, 1971.

Water temperatures: Maximum, 30.0°C on several days during July and August; minimum, 1.0°C Jan. 9, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA: WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
04...	1240	177	7.2	100	22	--	240	--	162	0
16...	1500	440	4.0	110	23	240	--	5.9	148	0
NOV.										
01...	0730	2030	8.8	56	5.0	--	37	--	140	0
DEC.										
06...	1350	2970	8.2	110	23	--	260	--	160	0
15...	0730	3600	.0	84	13	--	140	--	148	0
JAN.										
29...	1715	562	8.6	58	4.6	30	--	4.1	143	0
FEB.										
10...	0730	4570	8.1	82	8.8	--	77	--	163	0
22...	1210	782	5.7	79	8.8	--	56	--	210	0
MAR.										
12...	0730	14000	9.4	57	3.7	--	22	--	152	0
APR.										
24...	1515	376	7.0	100	18	--	200	--	148	0
26...	0730	10000	10	80	12	--	110	--	132	0
MAY										
29...	0730	900	9.5	50	3.8	--	32	--	133	0
JUNE										
05...	0730	26700	7.3	51	3.5	--	22	--	153	0
11...	1200	11200	3.5	88	14	--	160	--	150	0
JULY										
10...	0730	782	7.5	94	18	170	--	4.9	200	0
AUG.										
01...	0730	3420	6.1	94	19	--	200	--	160	0
08...	1400	2180	5.1	100	21	--	260	--	148	0
SEP.										
25...	0730	598	5.7	100	24	--	240	--	170	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
OCT.									
04...	220	360	.3	.21	.00	.03	.00	.18	1040
16...	230	380	.4	--	--	--	.6	--	1060
NOV.									
01...	54	45	.3	--	--	--	1.8	--	283
DEC.									
06...	250	380	.3	.38	.05	.55	.6	.60	1120
15...	150	210	.3	--	--	--	.04	--	674
JAN.									
29...	60	32	.4	--	--	--	2.1	--	277
FEB.									
10...	110	110	.4	--	--	--	1.6	--	483
22...	80	67	.3	.24	.04	.20	1.1	.34	405
MAR.									
12...	46	18	.4	--	--	--	1.8	--	240
APR.									
24...	210	300	.3	.83	.02	.09	.9	.33	918
26...	130	180	.3	--	--	--	.4	--	591
MAY									
29...	51	29	.4	--	--	--	1.5	--	247
JUNE									
05...	30	20	.3	--	--	--	1.0	--	214
11...	150	240	.2	.02	.00	.00	.3	.18	733
JULY									
10...	150	250	.3	--	--	--	.4	--	792
AUG.									
01...	180	300	.3	--	--	--	.3	--	875
08...	220	390	.3	.74	.00	.00	.00	.13	1060
SEP.									
25...	200	380	.4	--	--	--	.3	--	1040

BRAZOS RIVER BASIN

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08098290 BRAZOS RIVER NEAR HIGHBANK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
04...	350	210	5.7	1780	8.3	24.5	10.6	126	3.4
16...	360	240	5.5	1880	7.5	28.0	--	--	--
NOV.									
01...	160	46	1.3	490	7.4	18.0	--	--	--
DEC.									
06...	380	250	5.7	1930	7.8	7.0	10.2	84	3.2
15...	260	140	3.8	1180	7.8	6.0	--	--	--
JAN.									
29...	160	46	1.0	470	7.6	7.0	--	--	--
FEB.									
10...	240	110	2.2	842	7.7	6.0	--	--	--
22...	230	61	1.6	694	7.6	10.0	10.1	89	2.0
MAR.									
12...	160	33	.8	407	7.8	18.0	--	--	--
APR.									
24...	330	210	4.8	1590	7.7	21.5	8.1	91	1.2
26...	250	140	3.1	1010	8.2	21.0	--	--	--
MAY									
29...	140	31	1.2	413	7.7	24.0	--	--	--
JUNE									
05...	140	16	.8	341	7.5	24.0	--	--	--
11...	280	150	4.1	1310	7.2	25.5	7.6	92	.6
JULY									
10...	310	140	4.1	1370	7.9	28.0	--	--	--
AUG.									
01...	310	180	4.8	1500	8.1	29.0	--	--	--
08...	340	220	6.0	1860	8.3	30.5	9.4	124	3.1
SEP.									
25...	350	210	5.6	1770	7.8	26.0	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	22191	1040	600	35900	180	10800	130	7790	250
NOV.	51907	1340	780	109000	260	36400	160	22400	300
DEC.	46376	1770	1020	128000	370	46300	220	27500	370
JAN. 1973....	70089	1010	590	112000	180	34100	120	22700	240
FEB.	41451	795	460	11900	120	13400	97	10900	210
MAR.	161980	1150	670	293000	210	91800	140	61200	270
APR.	293855	1370	790	627000	270	214000	170	135000	310
MAY	146229	1410	820	324000	280	111000	170	67100	310
JUNE	337820	1080	630	575000	190	173000	130	119000	260
JULY	79718	1390	800	172000	270	58100	170	36600	310
AUG.	48828	1740	1000	132000	360	47500	210	27700	370
SEP.	17411	1300	750	35300	250	11800	160	7520	290
TOTAL	1317855	--	--	2590000	--	848000	--	545000	--
WTD. AVG. ...	3611	1260	730	--	240	--	150	--	290

BRAZOS RIVER BASIN

08098290 BRAZOS RIVER NEAR HIGHBANK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1880	490	1910	1630	632	1120	1810	1730	900	1850	1500	1520
2	1850	1180	2070	1600	568	1450	1870	1390	785	1850	1630	1500
3	1840	849	2070	1240	452	1150	1930	1310	726	1840	1820	1500
4	1800	508	2070	1230	470	621	1930	1530	349	1710	1820	1500
5	1840	629	2040	1630	470	678	1850	1820	341	1570	1820	1460
6	1700	702	1970	1490	465	706	1880	1930	534	1300	1820	1390
7	1820	745	2110	1060	490	752	1830	1790	1080	1060	1850	1370
8	1880	642	2170	737	497	781	1690	1870	1130	910	1840	1370
9	1880	583	2130	906	515	738	1750	1500	1470	1090	1820	1320
10	1870	959	2120	1130	842	996	1650	1210	1250	1370	1810	1320
11	1850	800	2070	1370	1060	523	1610	1210	1270	1340	1790	1280
12	1780	738	2050	2080	760	407	1720	1450	1190	1320	1790	1290
13	1890	709	2110	2100	665	406	1680	1800	967	1450	1790	976
14	1890	757	2080	2080	604	417	1720	1610	1160	1850	1740	1300
15	1910	691	1180	1930	612	415	1660	1630	1290	1850	1690	1390
16	1880	902	1190	1650	650	427	1590	1630	1240	1200	1630	1400
17	1850	1920	1320	1210	659	991	1170	1550	1770	722	1580	1390
18	1850	1950	1540	510	677	1770	479	1210	1870	1230	1510	1400
19	1860	1830	1740	595	723	1920	1000	1140	1920	1480	1510	1400
20	1830	1890	1790	686	732	1980	1200	1140	1920	1570	1570	1380
21	1780	1950	1810	786	719	2050	1380	1090	1270	1660	1620	1360
22	1460	1980	1610	892	717	2040	1790	1160	1310	1660	1670	1390
23	1100	2020	1630	844	713	1950	1540	1540	1170	1520	1520	1570
24	683	1990	1600	841	660	1520	1500	1600	1360	1570	1490	1680
25	750	1970	1770	734	1670	891	803	1380	1400	1350	1380	1770
26	663	1920	1770	366	1740	1080	1010	714	1670	1290	1480	1770
27	585	1940	1730	456	1630	1330	1470	580	1850	1040	1500	1680
28	400	1960	1620	444	1440	1680	1630	452	1780	1030	1560	1270
29	490	1900	1580	468	---	1500	1710	413	1800	1030	1560	1050
30	524	1850	1430	516	---	1450	1730	536	1820	1070	1560	687
31	420	---	1250	584	---	1720	---	685	---	1230	1530	---
MONTH	1480	1300	1790	1090	780	1140	1550	1310	1290	1390	1650	1390

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	10.0	12.0	11.0	14.0	17.0	20.0	26.0	28.0	29.0	26.0
2	20.0	15.0	11.0	14.0	11.0	13.0	18.0	21.0	24.0	29.0	28.0	27.0
3	20.0	16.0	14.0	9.0	10.0	14.0	17.0	20.0	25.0	29.0	27.0	27.0
4	21.0	15.0	12.0	9.0	11.0	14.0	15.0	20.0	24.0	29.0	27.0	27.0
5	21.0	16.0	12.0	10.0	13.0	15.0	16.0	20.0	24.0	29.0	27.0	29.0
6	25.0	18.0	8.0	8.0	11.0	17.0	16.0	21.0	23.0	28.0	27.0	27.0
7	22.0	17.0	8.0	8.0	15.0	16.0	16.0	20.0	24.0	27.0	28.0	28.0
8	22.0	16.0	8.0	6.0	10.0	18.0	15.0	21.0	24.0	27.0	27.0	29.0
9	22.0	16.0	10.0	4.0	7.0	19.0	12.0	22.0	24.0	28.0	28.0	27.0
10	23.0	16.0	8.0	2.0	6.0	19.0	13.0	22.0	25.0	28.0	28.0	28.0
11	24.0	16.0	6.0	3.0	6.0	18.0	14.0	24.0	25.0	29.0	28.0	27.0
12	24.0	17.0	6.0	3.0	10.0	18.0	16.0	24.0	24.0	29.0	28.0	27.0
13	24.0	17.0	7.0	3.0	13.0	19.0	18.0	23.0	24.0	28.0	27.0	27.0
14	23.0	14.0	8.0	5.0	11.0	19.0	20.0	22.0	24.0	28.0	28.0	27.0
15	24.0	11.0	6.0	6.0	10.0	19.0	19.0	20.0	26.0	28.0	27.0	24.0
16	28.0	11.0	6.0	9.0	10.0	16.0	18.0	21.0	27.0	28.0	27.0	24.0
17	24.0	13.0	5.0	11.0	10.0	16.0	19.0	22.0	27.0	27.0	27.0	25.0
18	24.0	13.0	6.0	14.0	9.0	15.0	17.0	23.0	27.0	28.0	28.0	23.0
19	19.0	12.0	9.0	12.0	9.0	17.0	19.0	23.0	27.0	28.0	27.0	24.0
20	17.0	12.0	11.0	15.0	10.0	16.0	21.0	25.0	26.0	28.0	27.0	24.0
21	19.0	11.0	10.0	14.0	11.0	16.0	21.0	25.0	25.0	28.0	28.0	25.0
22	25.0	10.0	9.0	11.0	11.0	16.0	20.0	25.0	25.0	29.0	28.0	25.0
23	21.0	11.0	9.0	11.0	11.0	17.0	20.0	25.0	26.0	29.0	27.0	25.0
24	19.0	11.0	9.0	9.0	10.0	17.0	20.0	26.0	26.0	29.0	27.0	26.0
25	17.0	11.0	9.0	9.0	11.0	17.0	21.0	26.0	26.0	30.0	27.0	26.0
26	16.0	10.0	10.0	8.0	13.0	16.0	21.0	22.0	25.0	30.0	27.0	26.0
27	15.0	11.0	9.0	9.0	13.0	16.0	19.0	24.0	26.0	29.0	27.0	26.0
28	14.0	11.0	9.0	8.0	13.0	16.0	19.0	23.0	27.0	29.0	26.0	23.0
29	15.0	11.0	14.0	7.0	---	18.0	19.0	24.0	28.0	29.0	26.0	23.0
30	19.0	10.0	15.0	7.0	---	19.0	19.0	25.0	28.0	29.0	26.0	24.0
31	20.0	---	13.0	9.0	---	17.0	---	25.0	---	28.0	26.0	---
MONTH	21.0	13.5	9.5	8.5	10.5	16.5	18.0	22.5	25.5	28.5	27.5	26.0

BRAZOS RIVER BASIN

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08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TEX.

LOCATION.--Lat 30°54'41", long 98°02'12", Burnet County, at gaging station at bridge on Ranch Road 963, 6 miles (10 km) above confluence with North Fork Rocky Creek and 7 miles (11 km) west of Briggs.

DRAINAGE AREA.--34.2 mi² (88.6 km²).

PERIOD OF RECORD.--Chemical analyses: October 1961 to January 1964.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1972.

Sediment records: February 1968 to September 1973.

REMARKS.--Radiochemical analyses available from U.S. Geological Survey, Denver, Colorado.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV. 01...	1030	4.8	9.1	38	13	3.3	2.2	165	0	13	4.3	.3
DEC. 19...	0940	2.7	7.8	60	23	7.0	1.3	268	0	23	11	.4
JAN. 19...	0925	8.4	6.0	60	24	10	1.3	248	0	26	25	.4
FEB. 23...	0920	56	7.5	66	24	6.9	1.4	288	0	22	11	.4
MAR. 30...	0945	37	6.4	64	24	7.1	1.0	286	0	20	12	.4
APR. 16...	1100	45	10	66	21	6.4	1.3	280	0	17	10	.4
JUNE 07...	0925	6.4	8.2	60	24	7.3	1.7	288	0	18	12	.4
SEP. 27...	0935	1.3	8.6	48	19	6.0	2.0	220	0	15	10	.3

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
NOV. 01...	.11	.00	.00	.05	.10	144	164	79	150	13	.1
DEC. 19...	.04	.00	.06	.01	.01	267	266	--	240	24	.2
JAN. 19...	.08	.00	.02	.00	.03	256	275	--	250	45	.3
FEB. 23...	.15	.00	.00	.3	.02	288	282	--	260	27	.2
MAR. 30...	.09	.00	.01	.3	.01	312	276	--	260	24	.2
APR. 16...	.17	.00	.00	.2	.00	292	271	--	260	26	.2
JUNE 07...	.02	.00	.00	.06	.03	255	274	--	250	12	.2
SEP. 27...	.23	.00	.00	.3	.03	230	218	--	200	18	.2

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
NOV. 01...	301	7.2	14.0	8.6	83	2.0	120000	17	10	0	0
DEC. 19...	479	7.6	9.5	10.0	88	.2	1200	--	10	0	0
JAN. 19...	573	8.0	10.0	10.4	92	.5	2000	--	--	--	--
FEB. 23...	500	7.8	9.0	10.3	89	1.1	5000	--	--	--	--
MAR. 30...	504	8.1	17.0	8.6	89	1.1	4300	--	--	--	--
APR. 16...	478	7.8	17.5	9.6	100	1.0	4300	--	--	--	--
JUNE 07...	497	7.9	22.5	6.8	77	.8	20000	--	--	--	--
SEP. 27...	392	7.8	23.0	6.4	74	.9	22000	--	--	--	--

BRAZOS RIVER BASIN

08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV.											
01...	0	0	2	0	0	0	0	<.2	4	920	10
DEC.											
19...	0	1	2	0	0	10	0	<.2	0	1800	0
JAN.											
19...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
23...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
30...	--	--	--	--	--	--	--	--	--	--	--
APR.											
16...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
27...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
DEC.					
18...	1500	2.6	8.0	20	.14
19...	0940	2.7	9.5	19	.14
FEB.					
23...	0920	56	9.0	25	3.8
MAR.					
29...	0945	39	17.0	15	1.6
APR.					
10...	1100	46	17.5	51	6.4
30...	0945	30	17.0	31	2.6
MAY					
01...	1800	29	25.5	40	3.2
JUNE					
06...	1210	7.5	24.0	16	.33
07...	0925	6.4	22.5	8	.14
JULY					
10...	1700	.77	31.0	1	.00
SEP.					
27...	0935	1.3	23.0	8	.03

BRAZOS RIVER BASIN

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08104500 LITTLE RIVER NEAR LITTLE RIVER, TEX.

LOCATION.--Lat 30°57'59", long 97°20'45", Bell County, at gaging station at bridge on State Highway 95, 2.4 miles (3.9 km) southeast of Little River, and 5 miles (8 km) downstream from confluence of Leon and Lampasas Rivers.

DRAINAGE AREA.--5,274 mi² (13,660 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1973.

Water temperatures: October 1964 to September 1973 (discontinued).

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 604 micromhos Oct. 18; minimum daily, 303 micromhos Sept. 27.

Water temperatures: Maximum, 32.0°C July 5; minimum, 3.0°C Jan. 10.

EXTREMES, October 1964 to September 1973.--Specific conductance: Maximum daily, 1,140 micromhos Oct. 28, 1964; minimum daily, 245 micromhos May 16, 1965.

Water temperatures: Maximum, 38.0°C July 7, 1969, Sept. 15, 1972; minimum, 3.0°C Jan. 10, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	RICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 17...	1600	38	7.3	62	13	46	--	4.9	228	0	39
NOV. 22...	1130	121	8.3	76	13	--	20	--	244	0	32
DEC. 15...	1730	252	17	50	7.0	--	18	--	164	0	24
JAN. 04...	1620	867	8.3	50	16	28	--	3.0	187	0	24
FEB. 14...	1755	597	8.3	72	13	--	23	--	239	0	29
MAR. 24...	1730	1680	12	54	7.2	--	20	--	164	0	26
APR. 14...	1630	464	6.0	59	17	34	--	3.1	232	0	25
MAY 16...	1035	618	5.8	55	14	--	31	--	204	0	27
JUNE 07...	1945	2300	5.7	53	12	--	26	--	188	0	28
JULY 24...	1830	993	7.9	53	15	--	26	--	198	0	22
AUG. 31...	1900	61	11	64	15	--	31	--	234	0	21
SEP. 27...	1900	1140	10	57	4.6	--	4.3	--	174	0	5.0

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 17...	53	.4	1.7	345	210	21	1.4	603	8.0	25.5
NOV. 22...	32	.4	2.2	311	240	43	.6	571	8.1	8.5
DEC. 15...	14	.3	3.8	228	150	19	.6	354	7.7	6.0
JAN. 04...	50	.3	.8	275	190	38	.9	506	8.3	10.0
FEB. 14...	35	.3	1.6	306	230	37	.7	551	7.9	13.0
MAR. 24...	26	.4	2.5	238	160	30	.7	419	8.1	15.0
APR. 14...	56	.3	1.1	319	220	27	1.0	586	7.6	17.0
MAY 16...	44	.2	1.0	281	190	28	.9	520	8.0	18.0
JUNE 07...	37	.2	.6	257	180	28	.8	471	7.8	19.0
JULY 24...	45	.0	.4	268	200	32	.8	516	7.1	22.0
AUG. 31...	44	.1	3.4	316	220	28	.9	592	7.2	29.0
SEP. 27...	9.0	.0	2.8	188	160	18	.1	303	6.9	23.0

BRAZOS RIVER BASIN
08104500 LITTLE RIVER NEAR LITTLE RIVER, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	3628	411	220	2160	27	264	20	196	150
NOV.	8814	478	260	6190	37	881	23	547	180
DEC.	4292	527	290	3360	44	510	26	301	200
JAN. 1973....	16214	534	290	12700	45	1970	26	1140	200
FEB.	17442	554	300	14100	48	2260	27	1270	210
MAR.	26253	548	300	21300	47	3330	27	1910	210
APR.	21814	557	300	17700	48	2830	27	1590	210
MAY	31688	508	280	24000	41	3510	25	2140	190
JUNE	35697	498	270	26000	40	3860	24	2310	190
JULY	14672	494	270	10700	39	1540	24	951	190
AUG.	3134	545	300	2540	47	398	27	228	210
SEP.	4823	406	220	2860	26	339	20	260	150
TOTAL	188471	--	--	144000	--	21700	--	12800	--
WTD. AVG. ...	516	518	280	--	43	--	25	--	200

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	509	309	563	565	561	565	577	561	478	565	494	602
2	532	348	570	558	557	562	570	548	508	555	497	597
3	551	408	578	487	564	565	585	543	552	550	514	585
4	559	461	575	506	569	572	569	562	539	564	519	584
5	552	560	558	491	570	568	573	572	521	566	515	570
6	559	566	567	544	574	561	572	503	473	370	518	552
7	572	560	579	520	573	570	585	327	471	411	535	460
8	553	566	571	512	571	570	576	501	499	471	552	498
9	599	566	567	508	512	565	580	548	486	504	554	450
10	596	579	565	555	564	455	568	569	497	504	555	506
11	599	577	570	553	568	452	579	572	486	521	559	488
12	594	581	575	558	573	543	577	566	481	550	577	543
13	577	481	570	566	573	558	582	568	498	555	563	542
14	586	510	450	575	551	561	586	574	528	562	580	566
15	592	520	354	573	573	561	576	560	533	350	570	585
16	599	523	436	563	575	566	509	520	568	383	592	560
17	602	541	501	568	572	558	518	525	500	402	589	567
18	604	563	527	566	573	568	439	500	497	439	590	589
19	589	564	553	572	551	579	511	484	485	491	590	564
20	584	567	571	571	561	564	568	496	523	497	596	569
21	594	564	575	570	560	566	574	487	508	514	592	576
22	400	569	579	563	500	569	570	507	509	515	577	594
23	336	574	580	559	450	571	569	532	509	514	577	584
24	333	567	588	563	547	419	573	528	504	515	583	569
25	360	570	569	519	586	516	576	536	509	525	592	570
26	399	573	580	412	579	540	498	540	535	532	597	563
27	310	559	564	497	566	565	550	540	534	535	600	303
28	336	543	561	551	567	568	490	505	561	538	598	331
29	352	546	575	561	---	565	572	505	564	521	590	364
30	380	564	564	568	---	569	576	490	554	517	586	429
31	377	---	564	565	---	575	---	475	---	420	592	---
MONTH	506	533	552	543	559	551	558	524	514	499	566	529

BRAZOS RIVER BASIN

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08104500 LITTLE RIVER NEAR LITTLE RIVER, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	13.0	11.0	11.0	13.0	14.0	18.0	20.0	19.0	30.0	26.0	29.0
2	22.0	14.0	---	11.0	14.0	13.0	18.0	20.0	22.0	30.0	26.0	30.0
3	23.0	17.0	15.0	9.0	11.0	14.0	17.0	20.0	23.0	30.0	26.0	30.0
4	23.0	18.0	11.0	10.0	15.0	13.0	18.0	19.0	24.0	30.0	26.0	30.0
5	25.0	16.0	14.0	10.0	16.0	15.0	18.0	18.0	24.0	32.0	26.0	30.0
6	26.0	18.0	9.0	8.0	16.0	17.0	14.0	21.0	19.0	26.0	26.0	30.0
7	23.0	17.0	7.0	---	15.0	20.0	15.0	22.0	19.0	30.0	---	---
8	24.0	16.0	9.0	6.0	10.0	---	14.0	22.0	15.0	30.0	29.0	29.0
9	25.0	17.0	9.0	4.0	7.0	16.0	16.0	23.0	19.0	30.0	---	30.0
10	25.0	17.0	---	3.0	8.0	19.0	17.0	19.0	17.0	30.0	---	30.0
11	25.0	16.0	---	5.0	10.0	18.0	17.0	19.0	18.0	29.0	28.0	---
12	26.0	17.0	---	6.0	16.0	19.0	16.0	19.0	20.0	30.0	28.0	---
13	25.0	17.0	---	6.0	16.0	15.0	18.0	18.0	23.0	30.0	29.0	---
14	25.0	14.0	9.0	8.0	13.0	14.0	17.0	17.0	26.0	30.0	29.0	---
15	---	14.0	6.0	10.0	11.0	13.0	17.0	---	29.0	---	30.0	30.0
16	25.0	12.0	6.0	11.0	10.0	14.0	17.0	18.0	19.0	21.0	30.0	30.0
17	25.5	11.0	6.0	14.0	11.0	17.0	17.0	20.0	20.0	22.0	29.0	30.0
18	26.0	12.0	8.0	15.0	10.0	17.0	18.0	---	20.0	20.0	---	30.0
19	19.0	12.0	11.0	14.0	19.0	17.0	18.0	19.0	20.0	30.0	---	27.0
20	24.0	10.0	6.0	---	13.0	18.0	19.0	20.0	20.0	20.0	30.0	26.0
21	21.0	10.0	6.0	13.0	11.0	18.0	17.0	19.0	21.0	22.0	30.0	27.0
22	21.0	8.5	12.0	12.0	10.0	15.0	---	19.0	22.0	20.0	29.0	27.0
23	21.0	9.0	12.0	12.0	11.0	17.0	17.0	19.0	19.0	20.0	29.0	27.0
24	18.0	9.0	11.0	10.0	13.0	15.0	17.0	21.0	18.0	22.0	29.0	28.0
25	16.0	---	11.0	9.0	15.0	16.0	18.0	19.0	19.0	22.0	29.0	27.0
26	15.0	11.0	14.0	9.0	15.0	---	18.0	---	21.0	22.0	30.0	28.0
27	15.0	12.0	11.0	11.0	12.0	18.0	17.0	---	21.0	---	---	23.0
28	18.0	11.0	11.0	11.0	12.0	18.0	---	22.0	22.0	24.0	29.0	23.0
29	17.0	9.0	15.0	8.0	---	18.0	17.0	22.0	21.0	27.0	29.0	24.0
30	20.0	10.0	11.0	12.0	---	18.0	18.0	21.0	21.0	25.0	29.0	25.0
31	20.0	---	15.0	11.0	---	18.0	---	22.0	---	26.0	29.0	---
MONTH	22.0	13.5	10.0	9.5	12.5	16.5	17.0	20.0	20.5	26.0	28.5	28.0

BRAZOS RIVER BASIN

08105700 SAN GABRIEL RIVER AT LANEPORT, TEX.

LOCATION.--Lat 30°41'40", long 97°15'43", Williamson County, at gaging station on county road bridge, 0.2 mile (0.3 km) north of Laneport, 3.4 miles (5.5 km) downstream from Willis Creek, 7.5 miles (12.1 km) northwest of Thrall.

DRAINAGE AREA.--729 mi² (1,888 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: July 1972 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
04...	1010	11	10	53	13	20	204	0	23	25	.3	.09
NOV.												
13...	0900	277	10	80	9.6	15	244	0	32	22	.3	.37
DEC.												
06...	0940	85	5.6	79	11	10	253	0	31	11	.3	.22
JAN.												
29...	1300	278	8.7	--	8.9	--	--	0	34	19	.3	.25
FEB.												
23...	0745	1170	11	77	7.6	12	223	0	29	18	.3	.62
MAR.												
19...	1330	312	6.8	78	12	10	244	0	30	20	.3	.19
APR.												
24...	1100	328	9.6	86	11	15	264	0	34	22	.3	.35
MAY												
14...	1000	531	9.8	84	12	13	272	0	29	18	.3	.00
JUNE												
11...	1430	190	9.1	72	13	16	246	0	28	21	.2	.57
AUG.												
08...	1820	74	9.1	56	14	17	206	0	24	25	.3	.28
27...	0900	41	11	58	15	18	216	0	25	26	.3	.32

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
04...	.00	.02	.3	.03	246	27	6	190	18	.6	462	7.7
NOV.												
13...	.01	.08	2.0	.14	298	225	28	240	40	.4	522	7.5
DEC.												
06...	.04	.13	2.3	.04	282	1	1	240	34	.3	527	7.8
JAN.												
29...	.02	.00	4.9	.08	--	--	--	--	--	--	523	8.0
FEB.												
23...	.01	.09	2.8	.29	277	464	100	220	41	.3	478	7.7
MAR.												
19...	.00	.03	1.8	.06	285	77	18	240	44	.3	511	7.8
APR.												
24...	.03	.01	2.3	.07	318	85	13	260	43	.4	544	7.8
MAY												
14...	.01	.00	1.9	.08	309	75	21	260	36	.4	523	8.0
JUNE												
11...	.00	.00	2.2	.39	290	82	22	230	32	.5	515	7.7
AUG.												
08...	.00	.00	1.3	.03	252	12	3	200	28	.5	443	7.9
27...	.00	.01	1.6	.01	266	26	6	210	29	.5	471	7.3

BRAZOS RIVER BASIN

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08105700 SAN GABRIEL RIVER AT LANEPORT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- NUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
04...	20.5	5	20	7.5	82	1.2	0	.00	8.0	--	--	--
NOV.												
13...	17.0	5	80	8.0	82	1.8	4	.00	12	20	0	0
DEC.												
06...	9.0	5	4	10.2	88	1.0	0	.01	7.0	--	--	--
JAN.												
29...	9.0	10	60	11.0	95	1.5	0	.00	5.0	10	0	0
FEB.												
23...	10.0	20	170	10.0	88	3.6	2	.00	12	--	--	--
MAR.												
19...	21.0	10	40	9.0	100	.7	0	.02	8.5	--	--	--
APR.												
24...	23.0	5	45	8.2	94	.7	0	.00	11	--	--	--
MAY												
14...	22.0	10	50	8.7	99	.8	0	.00	23	30	0	0
JUNE												
11...	25.0	5	50	7.6	90	1.3	0	.00	7.5	--	--	--
AUG.												
08...	29.0	5	10	8.4	108	1.1	0	.00	9.0	--	--	--
27...	27.0	5	15	7.2	89	.9	0	.00	14	10	10	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PR) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
13...	0	0	6	0	0	10	0	.2	0	380	20
DEC.											
06...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
29...	0	0	4	0	0	10	0	.2	6	530	30
FEB.											
23...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
19...	--	--	--	--	--	--	--	--	--	--	--
APR.											
24...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	0	6	1	40	5	0	0	<.2	0	690	20
JUNE											
11...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
08...	--	--	--	--	--	--	--	--	--	--	--
27...	0	0	11	10	10	0	20	<.2	0	500	20

BRAZOS RIVER BASIN

08106500 LITTLE RIVER AT CAMERON, TEX.

LOCATION.--Lat 30°49'53", long 96°57'01", Milam County, at bridge on U.S. Highway 77, 2,020 feet (616 m) downstream from gaging station, 0.7 mile (1.1 km) upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 2 miles (3.2 km) southeast of Cameron.

DRAINAGE AREA.--7,088 mi² (18,358 km²).

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: October 1959 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 675 micromhos Oct. 21; minimum daily 251 micromhos Oct. 23.

Water temperatures: Maximum, 29.0°C July 5, Aug. 9, 10; minimum, 4.0°C Jan. 12, 13, 14.

EXTREMES, October 1959 to September 1973.--Specific conductance: Maximum daily, 1,280 micromhos Sept. 25, 26, 1963; minimum daily, 191 micromhos June 26, 1960.

Water temperatures: Maximum, 33.0°C Aug. 6, 1964, Aug. 1, 1969; minimum, 4.0°C Jan. 11, 1968, Jan. 12, 13, 14, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA: WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- RONATE (HCO3) (MG/L)	CAR- RONATE (CO3) (MG/L)
OCT.										
04...	1130	46	9.0	63	13	--	42	--	238	0
16...	1030	40	6.9	70	16	47	--	4.4	276	0
NOV.										
20...	1100	314	9.6	77	11	--	22	--	240	0
DEC.										
06...	1225	270	6.5	84	12	--	28	--	268	0
18...	1145	495	14	62	6.6	--	23	--	184	0
JAN.										
29...	1250	1170	10	74	7.6	19	--	2.8	211	0
FEB.										
22...	1315	2630	8.1	74	10	--	29	--	217	0
24...	1215	2910	10	72	8.0	--	20	--	200	0
MAR.										
26...	1145	1900	12	57	6.5	--	20	--	172	0
APR.										
15...	0900	2800	11	54	6.5	21	--	3.0	146	0
24...	1340	1770	8.2	65	16	--	34	--	226	0
MAY										
14...	1200	1870	8.3	66	15	--	32	--	234	0
JUNE										
11...	1330	2580	5.5	56	12	--	29	--	197	0
JULY										
25...	1145	1090	8.2	60	14	28	--	3.4	228	0
AUG.										
08...	1545	264	8.6	64	14	--	34	--	236	0
31...	1145	120	6.2	56	17	--	47	--	240	0
SEPT.										
28...	1145	7740	10	56	3.9	--	8.3	--	176	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
04...	42	44	.4	.25	.02	.19	.4	.82	333
16...	53	49	.3	--	--	--	.9	--	387
NOV.									
20...	38	30	.3	--	--	--	1.4	--	312
DEC.									
06...	43	34	.3	.27	.02	.12	1.8	.30	348
18...	36	24	.3	--	--	--	2.5	--	267
JAN.									
29...	37	26	.3	--	--	--	3.4	--	296
FEB.									
22...	46	42	.3	.43	.00	.04	.8	.55	320
24...	38	31	.3	--	--	--	2.0	--	286
MAR.									
26...	29	23	.4	--	--	--	2.4	--	244
APR.									
15...	39	30	.3	--	--	--	1.5	--	243
24...	33	55	.3	.51	.01	.00	1.0	.27	327
MAY									
14...	31	45	.2	--	--	--	2.1	--	322
JUNE									
11...	30	40	.2	.00	.00	.00	.6	.32	272
JULY									
25...	27	40	.3	--	--	--	.6	--	296
AUG.									
08...	35	41	.3	.42	.00	.11	1.0	.24	317
31...	42	48	.4	--	--	--	1.1	--	340
SEPT.									
28...	13	9.0	.3	--	--	--	.7	--	191

BRAZOS RIVER BASIN

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08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
04...	210	16	1.3	603	8.0	22.5	8.3	94	3.9
16...	240	14	1.3	666	7.7	24.0	--	--	--
NOV.									
20...	240	40	.6	552	8.1	10.0	--	--	--
DEC.									
06...	260	40	.8	622	7.9	8.5	10.8	92	1.4
18...	180	31	.7	455	8.1	6.0	--	--	--
JAN.									
29...	220	43	.6	498	7.7	8.0	--	--	--
FEB.									
22...	230	48	.8	562	7.7	10.0	10.0	88	2.7
24...	210	48	.6	516	7.7	11.0	--	--	--
MAR.									
26...	170	28	.7	426	7.8	16.0	--	--	--
APR.									
15...	160	42	.7	414	7.5	16.0	--	--	--
24...	230	43	1.0	601	7.7	21.0	8.6	96	2.2
MAY									
14...	230	34	.9	576	8.0	20.0	--	--	--
JUNE									
11...	190	28	.9	498	7.6	20.0	9.4	91	.8
JULY									
25...	210	20	.8	514	7.4	26.0	--	--	--
AUG.									
08...	220	24	1.0	556	8.0	30.0	7.9	104	1.3
31...	210	13	1.4	598	7.4	27.0	--	--	--
SEP.									
28...	160	8	.3	321	7.9	27.0	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	24995	303	180	12100	13	877	22	1480	120
NOV.	21407	455	260	15000	27	1560	34	1970	180
DEC.	12754	561	320	11000	37	1270	42	1450	220
JAN. 1973....	46744	479	280	35300	29	3660	36	4540	190
FEB.	39553	579	330	35200	39	4160	44	4700	230
MAR.	54532	521	300	44200	33	4860	39	5740	200
APR.	59922	498	290	46900	31	5020	38	6150	200
MAY	71233	475	270	51900	29	5580	36	6920	190
JUNE	49041	508	290	38400	32	4240	38	5030	200
JULY	24871	496	290	19500	31	2080	37	2480	200
AUG.	7428	564	320	6420	37	742	43	862	220
SEP.	14306	417	240	9270	24	927	31	1200	170
TOTAL	426786	--	--	325000	--	35000	--	42500	--
WTD. AVG. ...	1169	490	280	--	30	--	37	--	190

BRAZOS RIVER BASIN

08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	543	320	580	599	572	564	596	585	499	559	549	614
2	599	324	605	589	593	570	589	601	479	579	527	629
3	586	338	589	467	590	579	603	546	483	585	557	619
4	607	311	594	482	591	578	595	557	506	589	518	631
5	612	370	583	473	597	583	599	564	536	572	530	650
6	638	404	611	493	613	578	599	580	531	573	538	636
7	655	523	619	508	600	553	595	404	475	445	556	631
8	653	545	615	417	600	596	609	345	489	501	556	631
9	665	558	602	543	603	593	614	358	503	512	567	654
10	653	560	613	546	621	583	602	489	504	435	574	634
11	636	566	587	542	612	566	604	522	496	453	576	631
12	629	571	591	540	560	543	601	550	510	487	571	616
13	631	531	613	572	590	459	593	575	501	506	579	651
14	646	554	617	580	596	548	603	576	530	530	580	653
15	646	476	584	598	593	565	414	565	512	509	594	650
16	658	490	472	608	589	464	511	562	531	490	597	655
17	647	505	473	605	585	442	577	568	565	434	597	600
18	657	505	455	608	599	545	359	556	502	360	555	597
19	645	528	447	603	624	563	398	536	509	407	566	606
20	659	553	505	606	605	584	491	521	495	481	585	609
21	675	559	545	596	588	580	562	517	502	493	574	619
22	436	570	578	575	568	580	572	531	538	502	618	624
23	251	579	585	568	555	583	579	536	533	517	620	627
24	280	590	598	566	516	444	588	553	550	515	600	641
25	320	577	605	381	529	436	483	558	545	514	618	643
26	318	484	599	380	552	426	520	561	508	515	632	419
27	340	555	610	389	573	489	429	567	523	529	635	452
28	391	537	602	439	585	549	498	573	542	521	623	321
29	346	580	612	498	---	566	533	561	556	530	564	338
30	271	592	608	537	---	577	572	537	553	523	580	358
31	280	---	599	563	---	584	---	532	---	568	598	---
MONTH	535	505	577	531	586	544	550	535	517	508	579	588

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	18.0	10.0	11.0	11.0	14.0	16.0	19.0	21.0	26.0	27.0	28.0
2	22.0	15.0	8.0	11.0	11.0	14.0	17.0	19.0	21.0	27.0	26.0	27.0
3	22.0	15.0	8.0	11.0	11.0	15.0	17.0	20.0	23.0	28.0	26.0	27.0
4	22.0	15.0	7.0	9.0	10.0	14.0	16.0	20.0	24.0	28.0	26.0	27.0
5	23.0	15.0	7.0	8.0	13.0	16.0	16.0	20.0	25.0	29.0	25.0	23.0
6	24.0	17.0	8.0	7.0	14.0	16.0	16.0	20.0	24.0	28.0	26.0	24.0
7	23.0	17.0	8.0	7.0	15.0	16.0	15.0	20.0	23.0	26.0	28.0	24.0
8	21.0	15.0	7.0	5.0	13.0	17.0	13.0	20.0	21.0	26.0	28.0	25.0
9	23.0	16.0	8.0	5.0	11.0	17.0	14.0	21.0	20.0	28.0	29.0	25.0
10	24.0	16.0	7.0	5.0	7.0	19.0	13.0	22.0	20.0	28.0	29.0	27.0
11	24.0	16.0	7.0	5.0	5.0	18.0	14.0	24.0	20.0	28.0	27.0	27.0
12	24.0	15.0	7.0	4.0	7.0	19.0	16.0	22.0	19.0	28.0	26.0	27.0
13	24.0	17.0	8.0	4.0	10.0	19.0	17.0	21.0	20.0	28.0	28.0	28.0
14	24.0	15.0	7.0	4.0	11.0	19.0	18.0	20.0	22.0	28.0	28.0	27.0
15	23.0	15.0	7.0	6.0	12.0	15.0	16.0	19.0	24.0	28.0	28.0	26.0
16	24.0	13.0	6.0	7.0	11.0	14.0	17.0	19.0	25.0	28.0	28.0	25.0
17	25.0	13.0	6.0	10.0	10.0	14.0	17.0	20.0	25.0	27.0	28.0	25.0
18	25.0	13.0	6.0	12.0	9.0	14.0	17.0	22.0	26.0	28.0	27.0	25.0
19	23.0	13.0	8.0	13.0	9.0	16.0	19.0	22.0	27.0	28.0	26.0	25.0
20	21.0	10.0	8.0	14.0	9.0	16.0	21.0	21.0	25.0	27.0	28.0	25.0
21	20.0	11.0	8.0	13.0	10.0	17.0	22.0	22.0	27.0	26.0	28.0	26.0
22	20.0	10.0	9.0	13.0	10.0	16.0	21.0	22.0	27.0	25.0	28.0	26.0
23	19.0	9.0	9.0	11.0	10.0	16.0	19.0	24.0	28.0	26.0	27.0	25.0
24	19.0	9.0	8.0	10.0	11.0	17.0	19.0	24.0	26.0	26.0	28.0	26.0
25	17.0	9.0	8.0	8.0	10.0	16.0	20.0	24.0	27.0	26.0	28.0	27.0
26	17.0	8.0	9.0	8.0	12.0	16.0	20.0	24.0	27.0	26.0	26.0	26.0
27	15.0	10.0	10.0	9.0	12.0	16.0	19.0	23.0	26.0	27.0	28.0	26.0
28	15.0	11.0	10.0	8.0	14.0	16.0	19.0	24.0	25.0	27.0	28.0	27.0
29	15.0	10.0	10.0	8.0	---	17.0	18.0	24.0	26.0	26.0	27.0	25.0
30	17.0	9.0	10.0	8.0	---	17.0	19.0	24.0	26.0	27.0	27.0	23.0
31	20.0	---	9.0	9.0	---	17.0	---	24.0	---	27.0	27.0	---
MONTH	21.5	13.0	8.0	8.5	10.5	16.0	17.5	21.5	24.0	27.0	27.5	26.0

08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.

LOCATION.--Lat 30°33'32", long 96°25'23", Brazos County, at bridge on Farm Road 60, 6.5 miles (10.5 km) south of College Station, and 9 miles (14.5 km) downstream from gaging station near Bryan.

DRAINAGE AREA.--38,400 mi² (99,460 km²), of which 9,240 mi² (23,930 km²), is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1961 to September 1973.

Water temperatures: August 1961 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,980 micromhos Dec. 10; minimum daily, 349 micromhos Jan. 27.

Water temperatures: Maximum, 32.0°C July 26, 30; minimum, 4.0°C Jan. 9, 13.

EXTREMES, August 1961 to September 1973.--Specific conductance (1961-71, 1972-73): Maximum daily, 2,030 micromhos Oct. 1, 1963; minimum daily, 263 micromhos Jan. 24, 1965.

Water temperatures: Maximum, 34.5°C June 16, 1971; minimum, 2.0°C on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Sampling at this site began in September 1966. From August 1961 to September 1965 samples were collected at State Highway 21 near Bryan, 17 miles upstream, and from October 1965 to September 1966 at the gaging station near Bryan, 9 miles upstream.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 03...	1315	614	6.7	93	20	200	--	5.3	150	0	200
NOV. 15...	1250	2720	10	52	5.5	--	25	--	146	0	44
DEC. 19...	1650	3290	7.3	69	10	--	89	--	140	0	96
JAN. 26...	1515	18900	8.7	44	4.6	18	--	3.4	130	0	30
FEB. 28...	1300	2750	7.8	96	14	--	100	--	200	0	130
MAR. 26...	1330	22200	9.8	56	6.1	--	41	--	136	0	52
APR. 16...	1930	3000	6.9	68	13	63	--	3.6	188	0	73
MAY 09...	1345	21100	10	70	8.4	--	65	--	132	0	77
JUNE 14...	1100	17200	6.6	65	11	--	88	--	152	0	90
JULY 10...	2250	2930	8.3	59	9.2	50	--	4.9	167	0	59
AUG. 08...	2150	4490	4.6	82	22	--	240	--	128	0	200
SEP. 26...	1900	974	7.3	86	19	--	190	--	180	0	160

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 03...	310	.4	.30	914	310	190	4.9	1610	7.8	23.5
NOV. 15...	25	.3	1.2	239	150	33	.9	413	7.8	13.5
DEC. 19...	130	.3	1.1	478	210	98	2.7	850	7.4	10.0
JAN. 26...	20	.3	1.0	197	130	22	.7	352	7.8	8.0
FEB. 28...	160	.3	.80	611	300	130	2.6	1070	8.0	15.5
MAR. 26...	60	.3	1.0	297	160	53	1.4	518	7.4	16.5
APR. 16...	95	.3	1.3	421	220	69	1.8	743	7.7	19.5
MAY 09...	110	.3	2.6	416	210	100	2.0	742	7.5	23.0
JUNE 14...	130	.2	.80	465	210	82	2.7	840	7.4	23.5
JULY 10...	70	.4	.40	345	180	48	1.6	611	7.6	28.5
AUG. 08...	360	.2	.07	982	300	190	6.2	1780	7.5	28.0
SEP. 26...	280	.3	.04	832	290	140	4.9	1450	7.6	28.5

BRAZOS RIVER BASIN

08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	63903	952	530	91400	150	25900	100	17300	240
NOV.	88770	848	480	115000	130	31200	91	21800	220
DEC.	71752	1380	770	149000	250	48400	150	29100	290
JAN. 1973....	168421	676	380	173000	89	40500	71	32300	190
FEB.	97700	662	370	97600	85	22400	69	18200	190
MAR.	251650	779	440	299000	110	74700	83	56400	210
APR.	335650	1120	630	571000	190	172000	120	109000	270
MAY	265310	1110	620	444000	190	136000	120	86000	270
JUNE	388110	1010	570	597000	160	168000	110	115000	250
JULY	115190	1210	680	211000	210	65300	130	40400	290
AUG.	61937	1540	860	144000	280	46800	170	28400	290
SEP.	33729	907	510	46400	140	12700	97	8830	230
TOTAL	1942122	--	--	2940000	--	844000	--	563000	--
WTD. AVG. ...	5321	998	560	--	160	--	110	--	250

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	580	1370	1220	470	950	1200	1660	518	1720	857	1200
2	1580	650	1650	1120	523	1000	1410	1650	550	1760	1240	1240
3	1610	390	1790	899	588	1020	1450	1410	521	1720	1030	1250
4	1620	420	1840	715	575	1110	1580	1250	498	1550	1660	1200
5	1610	410	1750	558	550	800	1630	1390	426	1370	1740	1090
6	1550	400	1650	726	526	528	1600	1470	392	1420	1750	765
7	1600	420	1540	750	519	522	1580	1410	966	800	1740	750
8	1630	430	1790	640	521	495	1400	1000	946	618	1780	872
9	1660	470	1970	516	519	570	1330	750	1070	747	1730	962
10	1620	510	1980	650	534	581	1260	712	1220	611	1740	966
11	1600	550	1920	890	783	638	1050	1140	1090	646	1770	1000
12	1520	590	1870	1400	848	466	1040	1100	1000	766	1660	980
13	1550	620	1800	1590	670	398	1160	1060	934	910	1710	941
14	1590	420	1870	1650	640	403	1160	1290	840	1140	1500	983
15	1520	400	1780	1620	628	442	1200	961	1100	1750	1530	1010
16	1500	494	812	1380	612	456	743	960	1230	1620	1420	996
17	1480	557	859	1250	607	458	650	962	1380	1430	1370	1060
18	1500	1210	800	1340	615	682	439	966	1550	900	1330	1040
19	1440	1620	851	700	621	1200	398	700	1470	1220	1270	896
20	1420	1580	971	680	631	1420	700	500	1500	1300	1270	852
21	1400	1570	1090	638	656	1580	909	491	1670	1320	1260	941
22	1350	1660	1300	658	656	1590	1150	496	1230	1300	1230	1000
23	1050	1700	1290	688	615	1560	1270	492	1240	1340	1200	1090
24	820	1710	1260	755	617	1200	1470	489	1150	1200	1160	1240
25	860	1720	1250	477	601	600	1250	498	1340	1080	1390	1320
26	970	1660	1320	352	1070	518	891	1080	1340	1060	1370	1450
27	1300	1410	1250	349	1040	611	931	600	1640	996	1350	978
28	1200	1510	1260	357	1060	744	1320	562	1550	1000	1310	900
29	990	1420	1270	366	---	1070	1500	525	1500	889	1230	580
30	700	1460	1220	399	---	1110	1540	489	1660	809	1250	941
31	600	---	1340	408	---	912	---	493	---	767	1210	---
MONTH	1370	951	1440	830	653	827	1170	921	1120	1150	1420	1020

BRAZOS RIVER BASIN

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08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	11.5	12.0	11.5	15.0	---	20.5	26.5	---	30.5	27.0
2	---	---	12.5	9.5	11.0	17.0	19.5	20.0	---	---	28.0	27.0
3	23.5	---	14.5	10.0	12.0	16.0	16.0	19.5	---	---	29.0	28.5
4	---	---	11.5	9.5	13.5	16.0	16.5	20.5	---	---	28.0	26.0
5	---	---	12.0	9.5	---	---	17.0	20.5	25.0	---	28.0	24.0
6	---	---	8.0	11.0	15.0	18.5	---	21.0	24.5	---	29.0	24.0
7	---	---	7.0	---	14.0	18.5	16.0	22.0	25.0	27.5	28.0	25.0
8	---	---	8.0	5.5	9.5	18.5	14.0	22.0	25.0	27.5	28.0	23.5
9	---	---	8.0	4.0	7.5	19.5	---	23.0	25.0	28.5	28.0	27.0
10	---	---	6.0	---	13.0	19.0	15.0	23.0	25.0	28.5	27.5	---
11	---	---	6.0	---	8.0	20.0	---	23.5	24.0	30.0	---	---
12	---	---	6.0	---	9.0	19.0	---	---	23.5	30.5	30.0	---
13	---	---	6.0	4.0	10.5	20.0	19.0	21.0	23.5	31.0	31.0	28.5
14	---	---	6.0	6.0	11.0	20.0	19.0	21.5	23.5	30.0	29.0	26.5
15	---	13.5	6.0	8.5	12.0	20.0	18.5	22.5	27.0	27.0	28.5	27.0
16	---	14.0	6.0	10.0	11.0	17.0	19.5	23.0	27.5	28.0	29.0	27.5
17	---	12.5	5.0	13.0	10.0	16.0	18.0	23.5	---	29.5	28.0	29.0
18	---	11.5	6.0	13.0	---	17.0	19.5	24.5	28.0	29.0	28.0	28.0
19	---	11.5	10.0	14.0	11.0	17.0	20.0	25.5	28.0	29.5	27.5	28.0
20	---	11.0	10.5	16.0	11.0	16.0	21.5	26.0	26.5	---	29.0	29.0
21	---	9.0	10.0	13.5	11.0	17.0	22.0	25.0	26.0	29.0	27.0	29.5
22	---	10.0	12.0	13.0	10.0	17.0	21.0	25.5	25.5	29.0	29.0	28.0
23	---	---	10.5	12.0	10.5	17.5	21.0	25.5	25.5	28.5	25.0	28.0
24	---	9.0	12.0	11.0	12.0	---	21.0	25.5	26.5	31.0	29.0	28.0
25	---	10.0	12.0	8.5	12.5	17.5	21.0	25.0	25.0	30.0	27.0	28.5
26	---	10.5	11.5	8.0	13.0	16.5	18.5	25.0	26.0	32.0	28.5	28.5
27	---	12.5	11.5	9.0	13.5	16.5	20.5	24.5	27.0	28.5	24.0	24.5
28	---	12.0	---	6.5	15.5	18.0	18.5	24.0	25.5	29.5	26.5	23.5
29	---	10.0	15.0	7.5	---	18.5	19.5	24.5	25.5	30.0	27.5	24.0
30	---	10.5	15.0	8.5	---	19.0	19.0	25.5	28.0	32.0	27.5	26.5
31	---	---	14.0	12.5	---	18.0	---	26.0	---	31.0	26.5	---
MONTH	---	---	9.5	10.0	11.5	18.0	19.0	23.5	25.5	---	28.0	27.0

BRAZOS RIVER BASIN

08110000 YEGUA CREEK NEAR SOMERVILLE, TEX.

LOCATION.--Lat 30°19'18", long 96°30'26", Burleson County, at gaging station at bridge on State Highway 36, 1.0 mile (1.6 km) downstream from Somerville Reservoir, 2.0 miles (3.2 km) south of Somerville, and 5.0 miles (8.0 km) upstream from Davidson Creek.

DRAINAGE AREA.--1,008 mi² (2,611 km²).

PERIOD OF RECORD.--Chemical analyses: September 1961 to September 1967, October 1968 to September 1973.
Water temperatures: September 1961 to September 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	1350	2.9	12	47	12	36	105	0	70	59
NOV. 13...	1450	13	12	42	8.6	42	78	0	84	56
DEC. 18...	1540	2.9	10	56	11	55	94	0	96	90
JAN. 26...	1535	14	11	30	5.9	34	57	0	70	37
MAR. 02...	1650	6.1	11	45	9.4	48	97	0	83	62
29...	1700	1450	6.4	34	7.4	28	77	0	52	41
APR. 09...	1215	491	4.4	36	7.8	33	78	0	62	46
MAY 07...	1515	16	11	53	10	51	81	0	90	86
JUNE 14...	1425	25	11	19	3.8	18	39	0	38	21
JULY 17...	1600	214	8.0	28	5.9	24	65	0	42	34
AUG. 22...	1420	.15	13	59	13	46	77	0	85	110

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 04...	.3	.4	290	170	80	1.2	521	8.0	25.0
NOV. 13...	.2	.3	284	140	76	1.5	500	7.9	19.0
DEC. 18...	.2	.2	365	190	110	1.8	660	7.5	8.0
JAN. 26...	.2	.1	216	99	52	1.5	342	7.1	12.0
MAR. 02...	.3	.3	308	150	72	1.7	522	7.5	18.0
29...	.4	.3	208	120	52	1.1	383	7.0	21.0
APR. 09...	.3	.08	228	120	58	1.4	407	6.9	18.0
MAY 07...	.3	.7	344	170	110	1.7	626	6.7	24.0
JUNE 14...	.2	.00	130	63	31	1.0	227	6.5	26.5
JULY 17...	.2	.3	175	94	41	1.1	323	6.5	27.0
AUG. 22...	.0	.2	361	200	140	1.4	677	7.0	30.0

BRAZOS RIVER BASIN

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08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.

LOCATION.--Lat 31°30'45", long 96°27'03", Limestone County, at gaging station on State Highway 164, 0.4 mile (0.6 km) downstream from Pin Oak Creek, and 5 miles (8 km) east of Groesbeck.

DRAINAGE AREA.--313 mi² (811 km²).

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

Water temperatures: November 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,490 micromhos Sept. 18; minimum daily, 71 micromhos June 4.

Water temperatures: Maximum, 35.0°C Aug 17, Sept. 8; minimum, 1.5°C Jan 10.

EXTREMES, November 1967 to September 1973.--Specific conductance: Maximum daily, 6,590 micromhos Oct. 8, 9, 1969; minimum daily, 71 micromhos June 4, 1973.

Water temperatures: Maximum, 35.0°C Aug. 6, 1968, Aug. 17, Sept. 8, 1973; minimum, 1.5°C Jan. 10, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
29...	1100	299	6.4	21	2.8	19	--	4.5	74	0	10
NOV.											
21...	1215	10	4.8	37	3.9	--	23	--	116	0	16
DEC.											
06...	1000	1.3	.2	62	8.4	--	75	--	160	0	48
JAN.											
27...	0930	4350	6.5	18	2.9	10	--	3.9	60	0	13
FEB.											
01...	1130	241	7.2	48	5.0	--	30	--	120	0	26
MAR.											
24...	0900	2200	4.6	9.5	2.4	--	9.5	--	30	0	8.8
APR.											
14...	1000	19	8.8	72	10	82	--	4.2	184	0	67
MAY											
26...	0900	228	10	70	9.9	--	98	--	144	0	65
JUNE											
04...	0930	12900	4.6	8.0	1.8	--	3.9	--	30	0	4.0
JULY											
06...	1410	9.6	8.0	78	11	--	78	--	183	0	50
AUG.											
11...	1030	2.5	9.3	110	22	--	170	--	201	0	73
SEP.											
29...	0800	17	5.2	26	4.9	--	64	--	86	0	53

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
29...	24	.3	.90	128	64	3	1.0	236	7.3	15.5
NOV.										
21...	31	.2	.70	176	110	13	1.0	329	7.7	8.0
DEC.										
06...	120	.3	.50	394	190	58	2.4	740	7.9	3.5
JAN.										
27...	12	.2	.40	98	57	19	.6	175	7.4	7.0
FEB.										
01...	55	.2	.60	233	140	42	1.1	437	7.6	9.0
MAR.										
24...	13	.1	.50	65	34	9	.7	123	6.9	21.0
APR.										
14...	130	.2	.80	470	220	70	2.4	832	7.6	18.5
MAY										
26...	170	.2	.80	498	220	97	2.9	922	7.3	24.0
JUNE										
04...	3.8	.1	.40	43	27	3	.3	71	6.4	24.0
JULY										
06...	150	.0	.20	463	240	88	2.2	893	7.4	32.0
AUG.										
11...	350	.1	.00	833	370	200	3.8	1650	7.6	29.5
SEP.										
29...	70	.0	.05	265	85	14	3.0	418	6.9	20.0

BRAZOS RIVER BASIN
08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /s)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1379.71	279	150	559	32	119	15	56	72
NOV.	1027.9	318	170	472	37	103	17	47	82
DEC.	3990.60	260	140	1510	30	323	14	151	67
JAN. 1973....	14400.4	201	110	4280	23	894	11	428	52
FEB.	1972	317	170	905	37	197	17	91	82
MAR.	20577	220	120	6670	25	1390	12	667	57
APR.	21204	231	120	6870	27	1550	12	687	60
MAY	1230.6	619	330	1100	98	326	33	110	160
JUNE	41779	158	85	9590	18	2030	8.4	948	41
JULY	886.0	576	310	742	89	213	31	74	150
AUG.	82.9	1680	900	201	370	83	89	20	350
SEP.	186.2	1100	590	297	200	101	58	29	250
TOTAL	108716.31	--	--	33200	--	7330	--	3310	--
WTD. AVG. ...	298	211	110	--	25	--	11	--	54

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	300	487	483	350	420	432	435	534	980	1470	1750
2	1690	308	529	512	299	329	523	495	76	1060	1470	1740
3	1780	308	581	433	222	274	619	491	200	1200	1350	1720
4	1830	295	633	321	348	286	563	570	71	1270	1760	1710
5	1930	293	658	272	256	298	629	667	172	1300	1780	1690
6	2020	292	740	252	286	275	640	700	169	1000	1790	1590
7	2110	297	736	248	318	378	678	782	171	1160	1810	1550
8	2120	297	614	237	320	330	600	856	177	900	1810	1620
9	2140	310	710	229	322	353	515	816	237	550	1760	1550
10	2100	322	720	229	230	181	687	821	300	510	1690	1450
11	2110	317	730	241	238	299	710	958	320	508	1650	1370
12	2090	328	624	254	247	258	732	887	174	578	1700	1490
13	2110	279	623	278	274	291	782	968	161	604	1750	1480
14	2140	421	400	310	282	327	832	1050	234	346	1750	1660
15	2140	351	259	370	306	364	820	1100	297	335	1790	2260
16	2130	323	235	358	348	203	250	1160	375	360	1800	2310
17	2150	307	236	353	396	209	227	1270	410	412	1790	2360
18	2160	314	240	348	436	230	227	1360	448	445	1720	2490
19	1960	320	255	325	472	295	235	1470	512	495	1600	2440
20	2130	327	264	352	519	336	255	1610	602	543	1510	2290
21	1920	329	276	342	567	372	278	1750	192	619	1450	2150
22	1000	338	282	332	617	425	328	1880	259	709	1650	2040
23	364	341	307	324	741	488	377	2050	399	802	1800	1880
24	650	354	317	310	732	123	372	2170	431	870	1800	1820
25	975	406	327	175	480	202	188	2310	463	958	1810	1750
26	1090	390	368	189	379	187	183	922	542	1060	1820	1730
27	309	431	382	175	349	215	180	340	617	1150	1830	1250
28	365	475	407	178	379	262	233	362	713	1230	1820	655
29	236	485	449	183	---	323	300	444	800	1300	1790	418
30	234	482	496	222	---	381	375	463	886	1360	1780	676
31	274	---	490	251	---	422	---	482	---	1420	1760	---
MONTH	1540	345	464	293	383	301	459	1020	365	840	1710	1700

BRAZOS RIVER BASIN

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08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	10.0	15.5	9.0	---	---	21.0	24.0	---	29.5	---
2	21.0	15.5	10.0	5.5	10.0	15.5	18.5	18.5	26.5	28.0	29.5	---
3	21.0	18.5	---	7.0	13.0	9.0	15.5	21.0	24.0	29.5	29.5	---
4	21.0	18.5	4.5	7.0	13.0	---	13.0	---	24.0	28.0	32.0	---
5	---	---	10.0	10.0	13.0	15.5	15.5	18.5	26.5	---	---	29.5
6	26.5	21.0	3.5	4.5	14.5	21.0	18.5	---	24.0	32.0	---	26.5
7	21.0	15.5	4.5	---	10.0	21.0	14.5	21.0	24.0	29.5	29.5	29.5
8	21.0	18.5	7.0	3.5	---	21.0	---	21.0	24.0	---	29.5	35.0
9	20.0	---	---	3.5	4.5	18.5	10.0	21.0	24.0	29.5	29.5	---
10	24.0	14.5	---	1.5	4.5	20.0	13.0	24.0	---	28.0	32.0	---
11	21.0	14.5	---	---	---	15.5	10.0	21.0	---	26.5	29.5	29.5
12	26.5	---	3.5	3.5	10.0	20.0	10.0	24.0	21.0	28.0	---	29.5
13	24.0	15.5	4.5	4.5	14.5	21.0	15.5	---	24.0	29.5	32.0	26.5
14	22.0	10.0	---	---	13.0	18.5	18.5	24.0	26.5	29.5	29.5	29.5
15	---	10.0	3.5	4.5	13.0	21.0	---	21.0	26.5	---	26.5	26.5
16	24.0	13.0	4.5	10.0	7.0	14.5	15.5	21.0	29.5	29.5	29.5	---
17	26.5	13.0	4.0	10.0	5.5	---	18.5	24.0	---	29.5	35.0	28.5
18	24.0	10.0	4.5	15.5	---	---	18.5	24.0	29.5	31.0	26.5	27.0
19	13.0	---	10.0	10.0	10.0	15.5	21.0	24.0	26.5	26.5	---	26.5
20	13.0	10.0	10.0	13.0	10.0	15.5	---	---	29.5	29.5	29.5	26.5
21	18.5	8.0	10.0	---	10.0	16.5	21.0	26.5	29.5	29.5	29.5	26.5
22	---	10.0	10.0	10.0	10.0	18.5	---	25.5	29.5	---	28.0	26.0
23	18.5	9.0	10.0	14.5	7.0	18.5	21.0	26.5	26.5	32.0	29.5	26.5
24	15.5	7.0	---	13.0	11.0	18.5	21.0	29.5	---	29.5	29.5	26.5
25	15.5	10.0	10.0	10.0	---	18.5	18.5	26.5	26.5	29.5	---	26.5
26	10.0	---	10.0	7.0	13.0	14.5	18.5	24.0	26.5	32.0	---	27.0
27	---	10.0	10.0	7.0	10.0	13.0	21.0	---	26.5	32.0	29.5	26.5
28	13.0	7.0	10.0	---	10.0	15.5	21.0	25.5	26.5	26.5	26.5	24.5
29	15.5	8.0	10.0	1.5	---	21.0	---	26.5	---	---	26.5	20.0
30	21.0	7.0	15.5	7.0	---	20.0	18.5	---	26.5	---	29.5	22.0
31	13.0	---	---	10.0	---	15.5	---	24.0	---	31.0	29.5	---
MONTH	19.5	12.5	---	8.0	10.0	17.5	17.0	23.5	26.0	---	29.5	---

BRAZOS RIVER BASIN

08110500 NAVASOTA RIVER NEAR EASTERLY, TEX.

LOCATION.--Lat 31°10'10", long 96°17'54", Robertson County, at bridge on U.S. Highway 79, 1.0 mile (1.6 km) upstream from Missouri Pacific Railroad Company bridge, and 7 miles (11 km) northeast of Easterly.

DRAINAGE AREA.--940 mi² (2,435 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.
Sediment records: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 03...	0950	.87	11	57	18	--	95	--	98	0	120
NOV. 14...	1245	563	11	12	3.7	--	14	--	35	0	16
DEC. 19...	1420	1530	6.7	20	3.4	--	14	--	66	0	12
JAN. 23...	1330	161	11	39	9.6	--	53	--	92	0	66
FEB. 27...	1300	157	12	44	13	--	58	--	100	0	70
APR. 05...	1800	132	16	46	12	--	59	--	104	0	74
26...	1720	12800	1.6	6.5	2.8	--	5.6	--	29	0	6.0
27...	1235	9030	.6	9.0	2.5	4.8	--	3.4	38	0	6.0
MAY 08...	1040	1280	11	24	6.6	--	27	--	59	0	34
JUNE 13...	1220	1860	11	15	4.2	--	16	--	49	0	18
JULY 12...	1235	65	12	46	10	--	62	--	137	0	53
AUG. 21...	1037	4.7	10	66	15	--	94	--	138	0	97

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 03...	150	.2	.4	503	220	140	2.8	896	7.9	20.0
NOV. 14...	19	.1	.9	97	45	16	.9	172	7.2	15.0
DEC. 19...	18	.1	.8	110	64	10	.8	210	7.0	10.0
JAN. 23...	76	.2	.2	301	140	62	2.0	512	7.0	13.0
FEB. 27...	94	.2	.4	342	160	82	2.0	607	7.4	15.0
APR. 05...	92	.3	.1	351	160	80	2.0	617	7.0	18.5
26...	5.6	.2	.4	44	28	4	.5	83	6.5	22.0
27...	5.8	.2	.2	52	33	0	.4	93	6.6	--
MAY 08...	43	.2	.3	176	87	39	1.3	317	6.8	23.0
JUNE 13...	21	.2	.4	111	55	14	.9	196	6.7	22.0
JULY 12...	87	.2	.2	338	160	44	2.2	611	6.7	29.0
AUG. 21...	150	.0	.1	504	230	110	2.7	917	7.2	28.5

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.

LOCATION.--Lat 30°52'10", long 96°11'32", Brazos County, at gaging station at bridge on U.S. Highway 190, 2.5 miles (4.0 km) upstream from Shepherd Creek, and 17 miles (27 km) northeast of Bryan.

DRAINAGE AREA.--1,429 mi² (3,701 km²).

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1973.

Chemical and biochemical analyses: October 1971 to September 1973.

Water temperatures: October 1958 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 922 micromhos July 15; minimum daily, 59 micromhos Sept. 28.

Water temperatures: Maximum, 30.0°C July 28, 29; minimum, 2.0°C Jan. 13.

EXTREMES, October 1958 to September 1973.--Specific conductance: Maximum daily, 4,190 micromhos Feb. 8, 1964; minimum daily, 55 micromhos Sept. 17, 1964.

Water temperatures: Maximum, 32.0°C Aug. 4, 1959; minimum, 1.0°C Jan. 13, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.									
02...	1730	6.9	6.2	10	3.6	11	--	5.0	0
04...	1520	5.2	6.8	16	4.2	--	21	--	43
NOV.									
15...	1700	471	12	9.2	4.9	--	34	--	54
DEC.									
06...	1715	23	14	26	7.4	--	31	--	56
20...	1400	1.6	1.0	15	4.3	--	16	--	52
JAN.									
23...	1730	1.6	13	34	9.9	37	--	4.6	68
FEB.									
22...	1030	102	14	35	10	--	43	--	74
27...	1630	339	14	44	13	--	51	--	68
MAR.									
28...	0920	8400	6.6	9.5	2.9	--	8.2	--	32
APR.									
24...	1900	2530	11	22	4.9	--	13	--	72
29...	1230	6060	6.6	9.0	2.4	5.8	--	3.9	34
MAY									
31...	0920	2850	7.9	12	3.5	--	15	--	36
JUNE									
07...	1600	14100	7.0	10	2.2	--	11	--	42
11...	1000	5850	6.8	15	3.2	--	8.3	--	54
JULY									
21...	1000	110	10	22	13	--	17	--	86
AUG.									
08...	1015	11	12	39	9.4	--	47	--	106
21...	1410	6.8	11	43	15	--	56	--	113
SEP.									
17...	1330	4.3	12	27	6.7	--	35	--	60
28...	0945	4240	4.6	4.2	.9	--	4.6	--	14

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.										
02...	21	14	.2	--	--	--	.6	--	89	--
04...	26	28	.2	.31	.00	.07	.04	.13	123	86
NOV.										
15...	30	27	.2	--	--	--	.7	--	147	--
DEC.										
06...	48	47	.1	.26	.01	.16	.1	.15	202	86
20...	17	20	.2	--	--	--	.05	--	100	--
JAN.										
23...	66	61	.3	--	--	--	.3	--	260	--
FEB.										
22...	67	64	.2	.52	.00	.09	.2	.13	270	74
27...	87	90	.2	--	--	--	.2	--	333	--
MAR.										
28...	12	10	.1	--	--	--	.1	--	66	--
APR.										
24...	19	17	.1	.61	.01	.05	.1	.12	123	62
29...	8.0	7.6	.1	--	--	--	.6	--	63	--
MAY										
31...	20	18	.1	--	--	--	.2	--	95	--
JUNE										
07...	7.8	9.9	.1	--	--	--	.1	--	69	--
11...	10	9.6	.1	1.0	.00	.01	.08	.57	80	56
JULY										
21...	23	36	.0	--	--	--	.2	--	164	--
AUG.										
08...	44	74	.2	.64	.00	.00	.04	.11	278	83
21...	52	100	.0	--	--	--	.2	--	336	--
SEP.										
17...	40	56	.2	.76	.00	.02	.2	.16	208	151
28...	6.6	4.0	.0	--	--	--	.07	--	32	--

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

BRAZOS RIVER BASIN

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08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.									
02...	--	--	--	--	--	--	--	--	--
04...	9	150	0	10	0	.2	3	220	10
NOV.									
15...	--	--	--	--	--	--	--	--	--
DEC.									
06...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
JAN.									
23...	--	--	--	--	--	--	--	--	--
FFB.									
22...	4	130	0	10	0	.2	8	390	30
27...	--	--	--	--	--	--	--	--	--
MAR.									
28...	--	--	--	--	--	--	--	--	--
APR.									
24...	4	310	9	0	20	<.2	0	240	30
29...	--	--	--	--	--	--	--	--	--
MAY									
31...	--	--	--	--	--	--	--	--	--
JUNE									
07...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
JULY									
21...	--	--	--	--	--	--	--	--	--
AUG.									
08...	8	20	0	10	100	<.2	0	440	20
21...	--	--	--	--	--	--	--	--	--
SEP.									
17...	2	120	0	10	140	<.2	2	240	0
28...	--	--	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	2896.3	199	110	860	23	180	22	172	56
NOV.	14778	182	110	4390	20	798	20	798	51
DEC.	10738	227	130	3770	28	812	26	754	63
JAN. 1973....	45264	189	110	13400	22	2690	21	2570	53
FEB.	28716	252	140	10900	32	2480	29	2250	70
MAR.	97386	175	100	26300	19	5000	19	5000	49
APR.	54704	190	110	16200	22	3250	21	3100	53
MAY	31993	227	130	11200	28	2420	26	2250	63
JUNE	91368	155	90	22200	16	3950	17	4190	44
JULY	3875	440	250	2620	63	659	53	555	120
AUG.	242.6	571	320	210	85	56	69	45	160
SEP.	9973.1	106	63	1700	7.7	207	10	269	31
TOTAL	391934.0	--	--	114000	--	22500	--	22000	--
WTD. AVG.	1074	187	110	--	21	--	21	--	52

BRAZOS RIVER BASIN

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	142	345	361	144	632	205	157	183	423	465	711
2	142	130	356	369	160	133	250	181	210	386	475	717
3	159	134	360	367	187	209	308	204	241	455	485	717
4	215	152	357	207	245	196	352	270	284	482	485	719
5	277	179	348	366	263	179	424	327	286	509	459	649
6	264	196	359	268	259	172	467	372	138	531	462	317
7	243	216	374	232	274	143	464	341	118	550	476	222
8	231	235	385	191	291	162	484	245	102	554	497	404
9	238	257	382	222	273	134	484	288	105	419	510	444
10	256	271	374	206	333	133	488	293	124	275	529	295
11	274	277	379	200	286	165	536	282	144	568	511	361
12	288	281	382	211	271	211	549	254	158	455	542	391
13	288	266	382	221	286	229	565	218	163	489	547	385
14	295	147	376	240	295	217	577	257	163	675	554	333
15	299	245	364	260	320	219	311	244	200	922	569	363
16	302	216	274	294	345	242	166	278	192	412	597	361
17	303	203	362	334	365	272	254	320	182	333	614	375
18	304	203	204	371	385	325	175	366	173	342	617	389
19	309	224	183	391	408	286	229	395	185	347	615	410
20	312	236	187	405	427	236	164	432	232	352	627	432
21	314	233	195	431	445	221	153	461	207	296	643	446
22	291	256	209	446	466	226	179	489	243	296	657	459
23	92	285	225	457	479	245	197	510	320	319	671	474
24	155	299	245	472	409	226	212	536	342	349	675	488
25	207	312	260	477	506	140	236	553	233	349	681	501
26	232	288	277	150	566	178	284	285	205	391	685	522
27	177	280	294	241	581	141	264	252	217	411	693	147
28	167	327	315	158	598	121	113	192	249	430	699	59
29	177	330	330	136	---	125	106	199	284	448	699	110
30	150	343	342	120	---	145	125	178	339	457	702	122
31	322	---	355	125	---	172	---	168	---	464	706	---
MONTH	238	239	315	288	352	208	311	308	207	442	585	411

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	19.0	8.0	11.0	10.0	---	17.0	20.0	25.0	28.0	28.0	27.0
2	22.0	17.0	8.0	9.0	10.0	11.0	---	21.0	25.0	28.0	28.0	28.0
3	20.0	17.0	8.0	8.0	9.0	13.0	18.0	19.0	25.0	29.0	27.0	27.0
4	20.0	16.0	10.0	8.0	11.0	15.0	16.0	19.0	25.0	29.0	27.0	27.0
5	21.0	---	10.0	9.0	12.0	15.0	15.0	20.0	26.0	29.0	27.0	24.0
6	22.0	17.0	9.0	9.0	14.0	17.0	15.0	20.0	25.0	28.0	27.0	24.0
7	21.0	17.0	8.0	7.0	14.0	17.0	14.0	20.0	27.0	28.0	27.0	24.0
8	21.0	15.0	8.0	6.0	12.0	18.0	15.0	21.0	25.0	28.0	27.0	24.0
9	22.0	16.0	8.0	5.0	7.0	18.0	13.0	22.0	25.0	28.0	27.0	25.0
10	21.0	16.0	8.0	4.0	7.0	19.0	12.0	22.0	25.0	27.0	27.0	26.0
11	22.0	15.0	7.0	---	6.0	18.0	13.0	24.0	25.0	28.0	28.0	27.0
12	22.0	15.0	6.0	4.0	7.0	18.0	15.0	23.0	24.0	28.0	28.0	28.0
13	22.0	16.0	6.0	2.0	9.0	20.0	16.0	21.0	24.0	28.0	27.0	28.0
14	22.0	14.0	7.0	5.0	---	20.0	17.0	21.0	24.0	28.0	27.0	26.0
15	25.0	14.0	6.0	5.0	---	20.0	18.0	20.0	25.0	29.0	27.0	25.0
16	22.0	12.0	5.0	5.0	---	18.0	18.0	20.0	26.0	27.0	28.0	26.0
17	23.0	11.0	5.0	5.0	---	18.0	18.0	21.0	27.0	27.0	28.0	26.0
18	23.0	12.0	4.0	10.0	---	17.0	17.0	22.0	27.0	27.0	27.0	25.0
19	21.0	11.0	6.0	10.0	9.0	17.0	20.0	23.0	29.0	---	27.0	25.0
20	18.0	11.0	10.5	12.0	10.0	16.0	21.0	24.0	27.0	28.0	28.0	25.0
21	19.0	10.0	9.0	13.0	10.0	16.0	18.0	24.0	25.0	28.0	29.0	25.0
22	20.0	9.0	8.0	12.0	10.0	16.0	22.0	25.0	25.0	29.0	28.0	25.0
23	19.0	9.0	9.0	13.0	10.0	15.0	22.0	25.0	26.0	28.0	27.0	26.0
24	19.0	9.0	---	10.0	10.0	17.0	22.0	26.0	26.0	29.0	27.0	26.0
25	17.0	9.0	---	10.0	11.0	17.0	22.0	26.0	26.0	29.0	27.0	26.0
26	16.0	9.0	---	7.0	12.0	15.0	22.0	22.0	25.0	29.0	27.0	23.0
27	14.0	9.0	---	7.0	15.0	15.0	19.0	24.0	26.0	29.0	27.0	23.0
28	14.0	10.0	---	7.0	12.0	16.0	19.0	24.0	27.0	30.0	27.0	22.0
29	16.0	9.0	---	5.0	---	17.0	20.0	23.0	27.0	30.0	26.0	22.0
30	18.0	9.0	12.0	6.0	---	19.0	20.0	24.0	27.0	29.0	26.0	23.0
31	19.0	---	11.0	8.0	---	17.0	---	24.0	---	29.0	26.0	---
MONTH	20.0	13.0	8.0	7.5	10.5	17.0	17.5	22.5	25.5	28.5	27.0	25.5

BRAZOS RIVER BASIN

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08111700 MILL CREEK NEAR BELLVILLE, TEX.

LOCATION.--Lat 29°52'51", long 96°12'18", Austin County, at gaging station at bridge on State Highway 36, 5.0 miles (8.0 km) southeast of Bellville, and 6.0 miles (9.7 km) upstream from Brazos River.

DRAINAGE AREA.--377 mi² (976 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

Sediment records: October 1966 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 10...	1600	4.6	21	66	7.1	25	198	0	7.6	55
NOV. 20...	1520	87	18	73	3.9	25	213	0	13	44
DEC. 18...	1740	57	15	71	4.6	27	212	0	14	46
JAN. 22...	1525	87	14	98	6.2	40	285	0	17	74
JAN. 29...	1040	185	14	77	4.4	23	227	0	15	40
FEB. 26...	1515	182	14	92	4.5	29	274	0	17	49
MAR. 26...	1330	2260	14	42	2.0	8.8	133	0	6.4	11
APR. 02...	1515	115	16	100	5.5	33	308	0	17	54
MAY 07...	1500	960	13	55	2.6	16	164	0	9.6	24
JUNE 13...	0100	44000	5.9	22	1.2	2.2	70	0	2.2	3.0
JULY 17...	0900	36	17	76	7.4	26	235	0	10	51
AUG. 20...	1445	16	17	58	4.9	26	182	0	8.4	44
SEP. 24...	1600	17	19	72	11	17	224	0	7.2	49

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 10...	.0	.2	280	190	32	.8	513	7.1	26.0
NOV. 20...	.0	.7	285	200	24	.8	505	7.4	11.0
DEC. 18...	.2	.1	282	200	22	.8	507	7.5	7.0
JAN. 22...	.4	.1	390	270	36	1.1	695	8.0	14.0
JAN. 29...	.3	.2	287	210	24	.7	520	7.8	7.0
FEB. 26...	.2	.2	342	250	24	.8	609	7.8	16.0
MAR. 26...	.1	.2	150	110	4	.4	266	7.2	21.0
APR. 02...	.3	.4	381	280	24	.9	678	7.9	21.5
MAY 07...	.2	.9	205	150	14	.6	380	7.2	22.0
JUNE 13...	.0	.2	71	60	3	.1	137	6.9	22.5
JULY 17...	.3	.00	304	220	28	.8	562	7.5	27.0
AUG. 20...	.2	.01	248	160	16	.9	463	7.7	31.0
SEP. 24...	.3	.00	286	220	40	.5	538	7.3	29.5

BRAZOS RIVER BASIN

08111700 MILL CREEK NEAR BELLVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
JAN. 22...	1525	87	14.0	64	15	--	--	--	--	--	--
29...	1040	185	7.0	96	48	100	84	86	89	90	91
FEB. 26...	1700	199	15.0	121	65	--	--	--	--	--	--
MAR. 26...	1210	2250	21.0	304	1850	--	--	--	--	--	--
APR. 02...	1515	115	21.5	164	51	--	--	--	--	--	--
MAY 07...	1705	940	22.0	654	1660	--	--	--	--	--	--
JUNE 14...	0130	44200	22.5	398	47500	--	--	--	--	--	--
JULY 17...	0900	36	27.0	64	6.2	--	--	--	--	--	--
AUG. 20...	1445	16	31.0	20	.86	--	--	--	--	--	--

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.

LOCATION.--Lat 29°34'56", long 95°45'27", Fort Bend County, at gaging station at bridge on U.S. Highway 59 in Richmond, 925 feet (282 m) downstream from Texas and New Orleans Railroad Co. bridge.

DRAINAGE AREA.--44,020 mi², (114,000 km²), approximately, of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: February 1968 to September 1973.

Water temperatures: November 1950 to September 1973.

Sediment records: January 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,770 micromhos Dec. 15; minimum daily, 277 micromhos Apr. 18.

Water temperatures: Maximum, 31.0°C July 26, 27, 28.

Sediment concentrations: Maximum daily, 4,240 mg/l Jan. 29; minimum daily, 23 mg/l Oct. 13, 17.

Sediment loads: Maximum daily, 622,000 tons June 14; minimum daily, 24 tons Oct. 17.

EXTREMES, October 1945 to September 1973.--Specific conductance: Maximum daily, 2,540 micromhos Sept. 4, 1951; minimum daily, 187 micromhos Aug. 31, 1947.

Water temperatures (1950-73): Maximum, 33.0°C Aug. 5, 1951; minimum, 1.0°C Jan. 8, 1970.

Sediment concentrations (January 1966 to September 1973): Maximum daily, 8,300 mg/l Apr. 27, 1966; minimum daily, 8 mg/l Nov. 29, 1967.

Sediment loads (January 1966 to September 1973): Maximum daily, 1,190,000 tons Apr. 28, 1966; minimum daily, 15 tons Apr. 8, 9, 10, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
05...	1400	970	4.4	90	16	150	185	0	110	240	.6
26...	1300	780	7.3	92	21	130	206	0	120	220	.1
NOV.											
15...	0655	3300	8.7	48	7.8	23	138	0	28	41	.1
DEC.											
15...	0655	2300	6.5	110	23	230	160	0	220	340	.3
20...	1300	6200	5.6	76	14	130	151	0	140	180	.2
JAN.											
30...	0810	19000	7.7	44	5.9	16	135	0	27	18	.3
FEB.											
15...	1345	14000	8.4	48	3.5	35	118	0	42	47	.2
28...	0645	9400	9.0	60	10	34	170	0	54	47	.2
MAR.											
26...	0640	49000	6.6	33	4.0	19	102	0	17	26	.2
APR.											
05...	1200	12500	7.6	49	6.4	60	109	0	63	86	.2
08...	0730	14400	7.2	51	9.0	73	120	0	73	100	.2
JUNE											
11...	1330	23500	7.3	61	11	79	116	0	88	130	.2
15...	0615	77000	7.2	46	4.4	19	137	0	20	28	.2
JULY											
03...	0735	9400	6.9	92	14	140	186	0	130	210	.3
AUG.											
06...	0655	4400	1.2	59	16	76	178	0	78	110	.3
24...	1345	1350	7.0	88	19	140	211	0	130	220	.3
SEP.											
14...	0650	3100	10	38	7.6	22	118	0	28	33	.2
26...	0630	900	11	64	8.6	62	200	0	54	78	.2

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.										
05...	.00	--	--	--	--	705	--	--	290	140
26...	.00	.00	.01	.12	.17	689	90	81	320	150
NOV.										
15...	.40	--	--	--	--	226	--	--	150	39
DEC.										
15...	.60	--	--	--	--	1010	--	--	360	230
20...	.80	.02	.04	.11	.55	622	988	138	250	120
JAN.										
30...	1.0	--	--	--	--	189	--	--	130	23
FEB.										
15...	.60	.00	.02	.32	.64	245	1090	180	140	38
28...	.60	--	--	--	--	301	--	--	190	52
MAR.										
26...	.60	--	--	--	--	158	--	--	99	15
APR.										
05...	.50	.00	.11	.24	.25	329	616	94	150	60
08...	.40	--	--	--	--	378	--	--	160	66
JUNE										
11...	.60	.02	.03	.56	.95	433	1900	372	200	100
15...	.50	--	--	--	--	194	--	--	130	21
JULY										
03...	.20	--	--	--	--	681	--	--	290	140
AUG.										
06...	.00	--	--	--	--	424	--	--	210	68
24...	.00	.00	.00	.21	.04	708	47	24	300	130
SEP.										
14...	.09	--	--	--	--	197	--	--	130	29
26...	.00	--	--	--	--	376	--	--	200	31

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.										
05...	3.8	1330	8.0	27.5	--	--	--	--	--	--
26...	3.2	1330	7.8	14.5	--	--	11.6	113	3.2	10
NOV.										
15...	.8	451	7.5	14.0	--	--	--	--	--	--
DEC.										
15...	5.2	1770	8.0	6.0	--	--	--	--	--	--
20...	3.6	1090	8.4	9.5	20	320	11.6	102	3.6	17
JAN.										
30...	.6	335	7.5	7.0	--	--	--	--	--	--
FEB.										
15...	1.3	433	7.7	12.5	110	300	9.8	92	1.7	4.5
28...	1.1	550	8.3	13.0	--	--	--	--	--	--
MAR.										
26...	.8	300	7.4	17.0	--	--	--	--	--	--
APR.										
05...	2.1	593	7.5	18.5	130	160	9.2	98	1.2	10
08...	2.5	689	7.9	16.0	--	--	--	--	--	--
JUNE										
11...	2.4	818	7.4	25.5	20	300	8.2	99	1.2	44
15...	.7	377	7.8	24.0	--	--	--	--	--	--
JULY										
03...	3.5	1190	8.0	29.0	--	--	--	--	--	--
AUG.										
06...	2.3	830	8.0	28.0	--	--	--	--	--	--
24...	3.7	1270	7.4	30.5	10	20	9.2	121	1.7	16
SEP.										
14...	.9	378	7.4	27.0	--	--	--	--	--	--
26...	1.9	687	7.8	27.0	--	--	--	--	--	--

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
OCT. 26...	1300	10	0	0	0	0	3	0
FEB. 15...	1345	80	0	0	0	0	6	110
APR. 05...	1200	60	0	0	0	0	4	120
AUG. 24...	1345	20	0	0	0	0	2	10

DATE	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 26...	0	20	0	--	3	1100	20
FEB. 15...	3	0	0	--	3	400	70
APR. 05...	4	10	20	--	0	560	40
AUG. 24...	0	20	20	<.2	0	930	20

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)
OCT. 26...	1300	780	14.5	.00	.0	.00	.0	.00	2.1	.00	.0
FEB. 15...	1345	14000	12.5	.00	.0	.00	.0	.01	.7	.00	2.2
APR. 05...	1200	12500	18.5	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 24...	1345	1350	30.5	.00	.0	.00	.6	.00	2.6	.00	.0

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	CHLOR-DANE (UG/L)
OCT. 26...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 15...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 05...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 24...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM DEPOSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DEPOSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 26...	0	.1	0	.00	.00	.00	.00	.00	.00	.00
FEB. 15...	4	.0	14	.00	.00	.00	.00	.04	.00	.02
APR. 05...	0	.0	0	.00	.00	.00	.00	.02	.00	.00
AUG. 24...	0	.0	0	.00	.00	.00	.00	.00	.00	.00

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT	SUS- PENDE SEDI- MENT DIS- CHARGE	SUS. SED. SIEVE DIAM.	SUS. SED. SIEVE DIAM.	
				(MG/L)	(T/DAY)	% FINER THAN .062 MM	% FINER THAN .125 MM	
OCT. 28...	0600	5920	17.0	1560	24900	96	99	
NOV. 02...	0635	9310	20.0	1530	38500	92	98	
12...	0650	4050	17.0	448	4900	98	100	
JAN. 29...	0645	21500	7.0	4740	275000	93	97	
MAR. 26...	0630	46300	17.0	3410	426000	83	92	
28...	0635	34500	18.0	3240	302000	90	96	
APR. 18...	0645	39800	19.0	1510	162000	67	86	
DATE		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT. 28...	100	--	69	71	79	82	89	
NOV. 02...	100	--	62	68	75	79	85	
12...	--	--	66	72	78	85	90	
JAN. 29...	100	--	59	64	77	83	89	
MAR. 26...	99	100	37	46	54	62	72	
28...	99	100	64	67	71	81	88	
APR. 18...	99	100	55	56	57	59	59	

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /s)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	40028	981	540	58400	160	17300	97	10500	240
NOV.	155410	566	310	130000	68	28500	48	20100	180
DEC.	100360	1160	640	173000	200	54200	120	32500	270
JAN. 1973....	233860	592	320	202000	73	46100	51	32200	180
FEB.	258140	413	220	153000	39	27200	31	21600	140
MAR.	451960	474	250	305000	50	61000	38	46400	160
APR.	627320	580	310	525000	71	120000	50	84700	180
MAY	462660	943	520	650000	150	187000	92	115000	240
JUNE	716550	593	320	619000	74	143000	51	98700	180
JULY	190530	1090	600	309000	180	92600	110	56600	260
AUG.	83634	1310	730	165000	240	54200	130	29400	290
SEP.	67721	663	360	65800	87	15900	60	11000	190
TOTAL	3388173	--	--	3360000	--	847000	--	559000	--
WTD. AVG. ...	9283	676	370	--	93	--	61	--	190

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	418	1430	850	335	538	532	1010	658	1040	1040	1080
2	1360	495	1470	838	337	541	642	1180	628	1190	1010	1070
3	1330	390	1320	852	352	589	590	1300	538	1190	976	1060
4	1290	410	1170	975	360	610	532	1240	493	1160	920	1050
5	1320	430	1270	929	367	845	591	1150	481	1170	873	876
6	1310	420	1200	942	348	830	650	1000	544	1170	830	626
7	1220	420	1260	850	363	903	709	888	480	1190	820	650
8	1240	440	1230	765	369	921	689	835	366	980	1250	673
9	1210	490	1500	500	377	811	699	812	343	956	1380	840
10	1130	548	1520	440	344	496	786	1030	636	943	1630	750
11	1280	480	1540	460	361	440	916	985	840	925	1550	651
12	1410	416	1570	470	373	421	867	756	790	1080	1670	515
13	1230	395	1510	429	396	384	856	669	700	903	1620	412
14	1290	432	1700	440	405	392	863	620	514	596	1580	378
15	1360	451	1770	450	490	370	813	798	377	650	1590	385
16	1420	499	1740	614	413	380	594	767	427	700	1550	395
17	1480	461	1730	890	483	362	533	773	473	676	1550	489
18	1460	455	1220	1130	485	326	277	836	493	667	1540	528
19	1430	458	1210	1110	450	341	287	850	580	1040	1430	707
20	1420	424	1000	1030	439	392	339	845	648	1370	1430	754
21	1510	337	688	878	434	398	448	836	606	1580	1430	614
22	1430	407	713	871	428	527	331	790	706	1320	1380	610
23	1350	576	671	844	426	800	424	787	840	900	1330	608
24	1160	645	700	903	450	961	629	838	884	1030	1310	612
25	1170	1100	740	774	467	600	654	888	870	1260	1200	660
26	1320	1250	789	569	490	300	752	835	861	1220	1190	687
27	1000	1330	840	523	531	380	845	822	900	1220	1180	726
28	819	1410	886	438	550	419	840	743	836	1240	1150	748
29	436	1430	886	360	---	390	717	757	939	1200	1110	760
30	553	1420	882	335	---	368	795	783	985	1170	1090	770
31	511	---	860	332	---	417	---	784	---	1080	1060	---
MONTH	1220	628	1190	703	415	531	640	878	648	1060	1280	689

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	23.0	9.0	---	10.0	14.0	---	---	26.0	27.0	30.0	28.0
2	21.0	20.0	10.0	9.0	9.0	15.0	19.0	21.0	---	29.0	30.0	---
3	21.0	---	---	10.0	9.0	16.0	---	19.0	27.0	29.0	28.0	28.0
4	23.0	---	14.0	10.0	---	---	18.0	19.0	27.0	29.0	---	28.0
5	27.5	---	14.0	12.0	11.0	17.0	16.0	19.0	27.0	30.0	28.0	25.0
6	25.0	---	13.0	12.0	13.0	18.0	18.0	---	26.0	30.0	28.0	23.0
7	---	---	10.0	---	14.0	---	17.0	19.0	25.0	30.0	28.0	24.0
8	24.0	---	10.0	8.0	13.0	17.0	16.0	21.0	24.0	27.0	28.0	26.0
9	24.0	---	12.0	---	---	19.0	15.0	22.0	25.0	---	28.0	27.0
10	24.0	16.0	---	---	8.0	19.0	14.0	23.0	25.0	28.0	28.0	---
11	25.0	---	13.0	---	8.0	---	15.0	23.0	25.0	29.0	29.0	27.0
12	25.0	17.0	8.0	6.0	10.0	18.0	15.0	22.0	---	29.0	29.0	26.0
13	25.0	18.0	6.0	5.0	10.0	20.0	16.0	23.0	25.0	29.0	---	27.0
14	26.0	16.0	8.0	---	9.0	21.0	15.0	22.0	24.0	29.0	28.0	27.0
15	---	14.0	6.0	4.0	8.0	22.0	18.0	22.0	24.0	---	28.0	25.0
16	---	14.0	4.0	7.0	8.0	---	19.0	22.0	25.0	30.0	28.0	---
17	25.0	14.0	4.0	8.0	8.0	17.0	20.0	22.0	26.0	29.0	28.0	29.0
18	25.0	---	10.0	10.0	8.0	18.0	19.0	23.0	22.0	29.0	28.0	27.0
19	24.0	12.0	16.0	---	9.0	19.0	20.0	---	27.0	29.0	28.0	27.0
20	21.0	11.0	---	13.0	10.0	18.0	21.0	---	28.0	30.0	29.0	27.0
21	---	11.0	9.0	13.0	---	16.0	21.0	25.0	27.0	29.0	29.0	27.0
22	23.0	9.0	8.0	---	10.0	16.0	21.0	25.0	27.0	30.0	29.0	---
23	22.0	---	---	13.0	10.0	18.0	22.0	23.0	27.0	30.0	28.0	---
24	20.0	9.0	---	11.0	9.0	18.0	23.0	---	24.0	30.0	29.0	27.0
25	18.0	9.0	---	11.0	11.0	18.0	23.0	26.0	27.0	30.0	28.0	---
26	17.0	10.0	11.0	9.0	12.0	17.0	22.0	26.0	27.0	31.0	---	27.0
27	16.0	---	9.0	10.0	13.0	18.0	21.0	27.0	27.0	31.0	26.0	27.0
28	17.0	11.0	---	9.0	13.0	18.0	20.0	---	27.0	31.0	---	25.0
29	18.0	10.0	13.0	7.0	---	---	---	26.0	28.0	---	28.0	---
30	21.0	9.0	15.0	7.0	---	18.0	---	26.0	28.0	30.0	28.0	---
31	23.0	---	---	9.0	---	18.0	---	25.0	---	30.0	28.0	---
MONTH	22.5	---	---	---	10.0	18.0	18.5	23.0	26.0	29.5	28.5	---

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	817	60	132	6080	1530	25100	3230	160	1400
2	845	56	128	10100	2660	73700	2710	170	1240
3	990	50	134	10500	1950	55300	2320	150	940
4	1140	69	212	7390	1100	21900	2030	150	822
5	1010	59	161	6240	590	9940	2280	130	800
6	901	55	134	8160	350	7710	2820	170	1290
7	817	41	90	8410	770	17500	2650	160	1140
8	722	39	74	6480	1550	27100	2290	170	1050
9	620	43	72	5120	1200	16600	1890	150	765
10	549	40	59	4240	800	9160	1710	130	600
11	505	25	34	3990	550	5930	2350	100	635
12	522	24	34	3870	450	4700	3000	130	1050
13	620	23	39	4120	820	9120	3260	170	1500
14	620	24	40	3750	480	4860	2950	200	1590
15	560	24	36	3930	470	4990	2560	190	1310
16	478	24	31	3990	540	5820	2910	350	2750
17	390	23	24	4060	750	8220	4570	300	3700
18	544	24	35	5340	960	13800	5340	700	10100
19	626	30	51	5560	760	11400	6770	720	13200
20	516	36	50	5780	700	10900	6540	1050	18500
21	522	35	49	5500	770	11400	5470	1240	18300
22	602	35	57	4340	750	8790	4480	1000	12100
23	824	83	185	3620	600	5860	3640	700	6880
24	656	174	308	3510	450	4260	3230	490	4270
25	522	78	110	3490	320	3020	3070	320	2650
26	1440	200	778	3520	350	3330	2870	280	2170
27	4770	1490	21500	3670	200	1980	2770	240	1790
28	5760	3100	48200	3620	200	1950	2920	190	1500
29	4050	2300	25200	3520	230	2190	2850	150	1150
30	2910	1480	11600	3510	220	2080	2620	180	1270
31	4180	1470	16600	--	--	--	2260	170	1040
TOTAL	40028	--	126157	155410	--	388610	100360	--	117502
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1980	140	748	11200	1500	45400	7680	430	8920
2	1800	120	583	9550	1150	29700	6350	470	8060
3	1910	150	774	8490	870	19900	5460	350	5160
4	1780	110	529	8290	750	16800	5490	320	4740
5	1900	110	564	9070	650	15900	6050	350	5720
6	3170	280	2670	9820	700	18600	6390	340	5870
7	6040	871	14700	9830	650	17300	7350	380	7540
8	8440	1650	38300	9380	620	15700	8150	540	11900
9	10600	1750	50100	9280	620	15500	9310	780	19600
10	10200	1420	39100	9970	600	16200	10100	850	23200
11	9040	1210	29500	10700	650	18800	9990	730	19700
12	8680	980	23000	10100	500	13600	9350	600	15100
13	8390	310	18300	10200	450	12400	8790	530	12600
14	8140	700	15400	12000	1140	36900	10500	550	15600
15	8480	580	13300	14200	1030	39500	14300	1400	54100
16	8880	600	14400	11500	1000	31100	12900	2200	76600
17	8620	590	13700	8320	550	12400	11600	1150	36000
18	7650	500	10300	8110	230	5040	10800	450	13100
19	6440	400	6960	8330	190	4270	11800	1120	35700
20	5700	350	5390	7960	400	8600	14200	930	35700
21	5720	350	5410	7000	390	7370	13200	950	33900
22	5220	320	4510	6730	300	5450	11100	900	27000
23	4240	360	4120	7380	340	6770	10400	700	19700
24	3500	260	2460	7480	350	7070	12400	928	32800
25	3250	240	2110	7380	320	6380	32900	3890	382000
26	3820	250	2580	7940	350	7500	46400	3150	405000
27	7970	796	19700	9030	550	13400	39100	2800	296000
28	17700	2700	133000	8900	700	16800	33000	3000	267000
29	21300	4240	246000	--	--	--	26000	2000	140000
30	19000	3010	157000	--	--	--	22000	1450	86100
31	14300	1940	74900	--	--	--	18900	1100	56100
TOTAL	233860	--	950108	258140	--	464350	451960	--	2160510

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17000	870	39900	31000	1800	151000	8190	1820	40200
2	16100	700	30400	30100	1650	134000	6820	1220	22500
3	15300	600	24800	30500	1500	124000	5730	1140	17600
4	14400	640	24900	28900	1380	108000	5780	820	12800
5	13300	580	20800	24700	1050	70000	9230	800	19900
6	12500	460	15500	22100	890	53100	15400	1340	57000
7	12700	500	17100	19200	880	45600	24200	2220	147000
8	14400	670	26000	18600	1000	50200	28200	3340	255000
9	12700	530	18200	20700	1150	64300	29900	3140	253000
10	10500	440	12500	24300	1230	80700	30000	2360	191000
11	8860	400	9570	25100	1970	134000	27900	1750	132000
12	7440	380	7630	20900	2800	158000	29200	1360	107000
13	6610	450	8030	17900	1810	87500	34900	1740	174000
14	6390	270	4660	16100	1040	45200	58400	4040	622000
15	7320	1230	25000	14100	1020	38800	71200	1870	359000
16	14800	2460	102000	12200	600	19800	58600	1230	195000
17	29100	2310	177000	10500	560	15900	40800	1350	149000
18	40900	1550	171000	9050	550	13400	29800	1130	90900
19	42300	1740	199000	8280	540	12100	23500	940	59600
20	40000	1640	177000	7700	450	9360	20100	920	49900
21	35500	1900	182000	6880	400	7430	19600	1050	55600
22	30400	1700	140000	6690	350	6320	18600	720	36200
23	25800	1300	90600	6750	340	6200	17900	720	34800
24	22600	1150	70200	5920	320	5110	18100	640	31300
25	20200	900	49100	5510	340	5060	17500	500	23600
26	18300	860	42500	5120	420	5810	16200	880	38500
27	25400	1370	98400	4530	280	3420	14900	750	30200
28	36300	3400	335000	4200	260	2950	13600	850	31200
29	37100	3140	314000	5230	260	3670	11800	850	27100
30	33100	2180	195000	9970	629	17300	10500	500	14200
31	--	--	--	9930	2110	55900	--	--	--
TOTAL	627320	--	2627790	462660	--	1534130	716550	--	3277100
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9390	970	24600	2810	120	910	1460	31	122
2	8870	1130	27100	2650	110	787	1330	49	176
3	8500	680	15600	2720	370	2720	1280	69	238
4	8140	470	10300	2460	130	863	1370	75	277
5	7300	420	8280	2860	150	1160	2110	700	3990
6	6380	430	7410	4340	250	2930	3590	1750	17000
7	6290	470	7980	4810	300	3900	3010	500	4060
8	8240	1030	22900	4830	350	4560	3500	330	3120
9	6290	660	11200	4860	380	4990	4930	550	7320
10	6770	530	9690	4920	450	5980	4330	570	6660
11	7000	440	8320	4680	420	5310	3820	500	5160
12	5970	410	6610	4240	350	4010	3950	600	6400
13	5120	550	7600	4050	370	4050	3440	400	3720
14	4060	590	6470	3650	350	3450	2970	350	2810
15	3530	440	4190	3550	250	2400	2380	290	1860
16	3410	300	2760	3390	240	2200	2290	250	1550
17	4810	350	4550	2830	190	1450	2370	250	1600
18	5630	790	12000	2310	120	748	2410	320	2080
19	5650	1240	18900	2060	100	556	2150	250	1450
20	8940	770	18600	1850	66	330	1910	230	1190
21	9290	1400	35100	1560	57	240	1590	220	944
22	7640	1380	28500	1460	49	193	1270	150	514
23	7200	1030	20000	1370	42	155	1080	140	408
24	7440	680	13700	1340	34	123	991	130	348
25	6290	550	9340	1230	28	93	847	75	172
26	5050	500	6820	1130	25	76	883	64	153
27	4110	470	5220	1030	25	70	1050	67	190
28	3660	470	4660	984	30	80	1410	80	305
29	3490	400	3770	1200	40	130	1470	51	202
30	3150	270	2300	1210	40	131	2530	50	342
31	2920	150	1180	1250	39	132	--	--	--
TOTAL	190530	--	365630	83634	--	54727	67721	--	74361

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

3388173
12140975

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.

LOCATION.--Lat 29°20'58", long 95°34'56", Brazoria County, at gaging station at bridge on Farm Road 1462, 2.0 miles (3.2 km) downstream from Big Creek, and 7.3 miles (11.7 km) west of Rosharon.

DRAINAGE AREA.--44,340 mi² (114,800 km²), approximately of which 9,240 mi² (23,900 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: February 1968 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,290 micromhos Mar. 24; minimum daily, 300 micromhos Apr. 20.

Water temperatures: Maximum, 30.0°C on many days during July and August; minimum, 4.0°C Jan. 12, 13.

EXTREMES, October 1968 to September 1973.--Specific conductance: Maximum daily, 4,430 micromhos Aug. 8, 1971; minimum daily, 203 micromhos Oct. 26, 1970.

Water temperatures: Maximum, 31.0°C on several days during summer months; minimum, 4.0°C Jan. 12, 13, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
24...	1300	1120	5.0	78	22	--	140	--	186	0	110
26...	1530	500	6.7	89	13	--	120	--	195	0	110
NOV.											
21...	1230	5800	10	38	4.7	--	25	--	115	0	25
28...	0945	3650	7.8	79	16	--	140	--	136	0	130
DEC.											
16...	0704	2400	6.4	110	23	--	220	--	164	0	210
20...	1430	6500	5.5	94	20	--	200	--	142	0	180
JAN.											
02...	0707	2800	8.4	55	11	--	68	--	152	0	60
29...	1400	22000	7.2	46	5.9	26	--	3.4	136	0	36
FEB.											
01...	0655	13800	7.1	41	6.2	--	22	--	134	0	31
MAR.											
27...	0615	47000	6.5	37	5.5	--	34	--	107	0	27
30...	1000	25000	11	40	5.4	29	--	3.5	108	0	36
APR.											
30...	1130	36000	10	62	10	78	--	5.2	130	0	94
MAY											
29...	1000	2900	6.3	66	13	65	--	3.6	195	0	74
JUNE											
28...	1050	14200	8.4	57	10	85	--	4.4	122	0	96
JULY											
24...	0900	6000	7.1	58	11	83	--	3.9	136	0	86
SEP.											
12...	1000	5600	12	43	7.9	--	--	4.4	134	0	41

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL KJEL- NITRO- GEN IN BOTTOM DEP. (MG/KG)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- PHORUS IN BOT- TOM DE- POSITS (MG/KG)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.											
24...	220	.3	.30	--	--	--	--	--	--	--	--
26...	180	.0	.04	.01	.00	.11	--	--	.16	--	614
NOV.											
21...	30	.1	1.4	--	--	--	--	--	.29	--	--
28...	230	.0	--	.00	.07	.13	--	--	.29	--	701
DEC.											
16...	340	.3	.40	--	--	--	--	--	--	--	--
20...	310	.2	.50	.01	.00	.06	--	--	.39	--	900
JAN.											
02...	99	.2	.80	--	--	--	--	--	--	--	--
29...	29	.2	.80	.01	.14	.61	.75	--	1.9	--	184
FEB.											
01...	22	.2	.80	--	--	--	--	--	--	--	--
MAR.											
27...	50	.2	.50	--	--	--	--	--	--	--	--
30...	41	.3	1.2	.02	.05	.45	.50	--	.85	--	193
APR.											
30...	120	.3	1.3	.02	.09	1.2	2.1	--	1.3	--	429
MAY											
29...	94	.3	.10	.01	.04	.25	.29	1100	.09	184	405
JUNE											
28...	130	.3	.50	.00	.05	.53	.58	--	.51	--	474
JULY											
24...	120	.3	.80	.00	.00	.44	--	--	.59	--	--
SEP.											
12...	64	.1	.40	.03	.00	.35	.35	--	.59	--	--
DATE	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAK- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)
OCT.											
24...	666	--	--	290	130	3.5	1250	8.1	21.0	--	--
26...	616	70	65	270	110	3.1	1120	7.5	13.5	20	40
NOV.											
21...	196	--	--	110	20	1.0	345	7.7	12.0	--	--
28...	679	284	82	260	150	3.9	1220	7.0	14.0	20	130
DEC.											
16...	988	--	--	360	220	5.0	1730	7.8	7.0	--	--
20...	881	520	72	320	200	4.8	1510	8.5	10.0	25	190
JAN.											
02...	380	--	--	180	58	2.2	691	7.6	10.0	--	--
29...	224	3570	580	140	28	1.0	403	6.9	11.0	70	1600
30...	--	--	--	--	--	--	--	--	9.0	--	--
FEB.											
01...	199	--	--	130	18	.8	336	8.2	10.0	--	--
MAR.											
27...	215	--	--	120	27	1.4	402	7.2	18.0	--	--
30...	225	1810	172	120	34	1.1	396	7.2	18.0	60	330
APR.											
30...	450	1970	76	200	89	2.4	792	7.2	21.5	10	300
MAY											
29...	418	238	56	220	58	1.9	742	7.5	27.5	20	100
JUNE											
28...	457	936	188	180	83	2.7	814	7.4	29.0	30	290
JULY											
24...	436	960	128	190	78	2.6	777	7.4	30.0	30	300
SEP.											
12...	286	744	100	140	30	1.7	505	7.1	25.0	100	250

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	ORGANIC CARBON IN BED MA- TERIAL (C) (G/KG)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.											
24...	--	--	--	--	--	--	--	--	--	--	--
26...	10.4	99	3	2.8	2500	1200	--	--	--	0	--
NOV.											
21...	--	--	--	--	--	--	--	--	--	--	--
28...	10.4	100	7	2.4	700	250	--	--	--	--	--
DEC.											
16...	--	--	--	--	--	--	--	--	--	--	--
20...	12.2	108	22	1.7	580	400	--	--	--	--	--
JAN.											
02...	--	--	--	--	--	--	--	--	--	--	--
29...	9.0	81	95	4.5	14000	5900	7200	--	--	0	.00
FEB.											
01...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
27...	--	--	--	--	--	--	--	--	--	--	--
30...	7.5	79	--	1.7	200000	2	450	--	--	--	--
APR.											
30...	7.9	89	60	1.7	6000	7	490	--	--	0	--
MAY											
29...	9.0	80	18	1.9	2300	76	37	14	700	--	--
JUNE											
28...	7.2	92	36	1.0	24000	14	190	--	--	--	--
JULY											
24...	7.4	97	--	.5	11000	1400	150	20	--	--	.44
SEP.											
12...	7.5	89	--	1.6	1800	18	3700	20	--	--	--

DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
FEB.					
21...	0800	7.6	11.0	11.0	99
21...	1000	7.5	11.0	11.3	102
21...	1200	7.6	11.0	11.1	100
21...	1400	7.6	11.0	11.2	101
21...	1600	7.6	11.5	11.2	102
21...	1800	7.5	11.0	11.0	99
21...	2000	7.4	11.0	11.0	99
21...	2200	7.5	10.5	11.0	98
21...	2400	7.6	11.0	11.0	99
22...	0200	7.6	11.0	11.0	99
22...	0400	7.6	11.0	11.1	100
22...	0800	7.6	11.0	11.1	100
MAY					
29...	1000	7.5	26.5	9.0	110
29...	1200	--	27.5	9.2	115
29...	1400	--	28.5	9.2	116
29...	1600	--	28.5	9.4	119
29...	1800	--	28.5	9.8	124
29...	2000	--	28.0	9.0	114
29...	2200	--	27.5	8.9	111
29...	2400	--	26.5	8.8	107
30...	0200	--	26.5	8.8	107
30...	0400	--	26.0	8.8	107
30...	0600	--	26.0	8.5	104
30...	0800	--	26.0	8.2	100
JULY					
24...	0900	7.4	30.0	7.4	97
24...	1100	--	30.5	7.6	100
24...	1300	--	31.0	7.0	93
24...	1500	--	31.0	7.0	93
24...	1700	--	31.5	7.2	97
24...	1900	--	31.0	7.6	101
24...	2100	--	30.0	7.4	97
24...	2300	--	30.0	7.1	93
25...	0100	--	30.0	6.8	89
25...	0300	--	30.0	6.8	89
25...	0500	--	30.0	6.8	89
25...	0700	--	30.0	6.4	84

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		TOTAL ARSENIC			DIS-SOLVED		TOTAL CADMIUM		DIS-SOLVED		TOTAL CHROMIUM	
DATE	TIME	(AS) (UG/L)	(AS) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL CAD- MIUM (CD) (UG/L)	CAD- MIUM (CD) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL CHRO- MIUM (CR) (UG/L)	CHRO- MIUM (CR) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL CHRO- MIUM IN BOTTOM DE- POSITS (UG/G)	
FEB. 21...	1200	0	0	--	0	0	--	0	0	0	--	
MAY 29...	1000	0	0	2	0	0	0	0	0	0	4	
JULY 24...	0900	0	0	--	0	0	--	0	0	0	--	
		TOTAL COBALT			DIS-SOLVED		TOTAL COPPER		DIS-SOLVED		TOTAL IRON	
DATE		TOTAL COBALT (CO) (UG/L)	SOLVED COBALT (CO) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL COPPER (CU) (UG/L)	SOLVED COPPER (CU) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL IRON (FE) (UG/L)	SOLVED IRON (FE) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL LEAD (PB) (UG/L)	
FEB. 21...	0	0	--	6	6	--	1400	80	--	5		
MAY 29...	0	0	6	6	4	4	1400	10	2900	0		
JULY 24...	6	0	--	14	4	--	3000	60	--	9		
		TOTAL LEAD			DIS-SOLVED		TOTAL MANGA-		DIS-SOLVED		TOTAL MERCURY	
DATE		DIS- SOLVED LEAD (PB) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL LITHIUM (LI) (UG/L)	SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	MAN- GANESE (MN) (UG/L)	NESE IN BOTTOM DE- POSITS (UG/G)	TOTAL MERCURY (HG) (UG/L)	SOLVED MERCURY (HG) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	
FEB. 21...	0	--	--	--	140	0	--	--	--	--	--	
MAY 29...	0	<10	10	10	140	0	200	1.0	1.0	.2		
JULY 24...	0	--	--	--	480	0	--	--	--	--		
		TOTAL SELENIUM			DIS-SOLVED		TOTAL STRONTIUM		DIS-SOLVED		TOTAL ZINC	
DATE		TOTAL NICKEL (NI) (UG/L)	SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SOLVED SELE- NIUM (SE) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	TOTAL STRON- TIUM (SR) (UG/L)	SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SOLVED ZINC (ZN) (UG/L)	IN BOTTOM DE- POSITS (UG/G)	
FEB. 21...	--	--	3	2	--	--	--	20	10	--		
MAY 29...	0	0	--	--	8	3	3	40	40	12		
JULY 24...	--	--	0	0	--	--	--	60	--	--		
		INSTANTANEOUS			TEMPERATURE		ALDRIN		DOD		DDE	
DATE	TIME	DIS- CHARGE (CFS)	ATURE (DEG C)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
OCT. 26...	1530	500	13.5	.00	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	1200	8000	--	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR. 30...	1130	36000	21.5	.00	.00	.01	.01	.00	.00	.00	.00	.00
SEP. 12...	1000	5600	25.0	.00	.00	.00	.00	.01	.00	.00	.00	.00
		LINDANE			CHLOR-DANE		PCB		DI-AZINON		MALA-THION	
DATE		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
OCT. 26...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	.00	.0	.0	.00	.00	.00	.00	.00	.03	.00	.01	.01
APR. 30...	.00	.0	.0	.01	.00	.00	.00	.00	.04	.00	.00	.00
SEP. 12...	.00	.0	.0	.00	.00	.00	.00	.00	.03	.00	.01	.01

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUSPENDED SEDIMENT DIAM. % FINER THAN .062 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .125 MM
JAN. 30...	1400	22000	9.0	3770	224000	87	94
FEB. 21...	1200	8000	--	498	10800	--	--
MAR. 30...	1000	25000	18.0	1780	120000	--	--
APR. 30...	1130	36000	21.5	2180	212000	--	--
JUNE 28...	1050	14200	29.0	1420	54400	--	--
JULY 24...	0900	6000	30.0	1180	19100	--	--

DATE	SUSPENDED SEDIMENT DIAM. % FINER THAN .250 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .500 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .002 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .004 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .008 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .016 MM	SUSPENDED SEDIMENT DIAM. % FINER THAN .031 MM
JAN. 30...	99	100	55	63	71	79	84
FEB. 21...	--	--	--	--	--	--	--
MAR. 30...	--	--	--	--	--	--	--
APR. 30...	--	--	--	--	--	--	--
JUNE 28...	--	--	--	--	--	--	--
JULY 24...	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	38669	1030	590	61600	190	19800	95	9920	240
NOV.	152300	513	280	115000	54	22200	44	18100	160
DEC.	88790	1180	670	161000	230	55100	110	26400	280
JAN. 1973....	240600	585	320	208000	66	42900	51	33100	180
FEB.	272230	395	210	154000	34	25000	32	23500	130
MAR.	479550	641	360	466000	81	105000	57	73800	200
APR.	666350	569	310	558000	63	113000	50	90000	180
MAY	453240	952	540	661000	170	208000	88	108000	220
JUNE	836220	581	320	722000	65	147000	51	115000	180
JULY	199160	1010	570	307000	180	96800	93	50000	230
AUG.	72561	1240	710	139000	250	49000	120	23500	300
SEP.	136480	496	270	99500	51	18800	42	15500	160
TOTAL	3636150	--	--	3650000	--	903000	--	587000	--
WTD. AVG. ...	9962	669	370	--	92	--	60	--	190

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	508	1440	838	336	558	442	825	766	995	1090	1050
2	1060	395	1450	691	331	539	570	1080	607	1010	966	990
3	1200	473	1460	700	330	539	629	1290	575	1170	981	1040
4	1330	404	1370	661	352	615	619	1320	538	1150	914	1050
5	1160	345	1180	778	352	828	546	1210	474	1130	918	692
6	1200	329	1260	744	360	850	615	1110	472	1150	882	393
7	1340	345	1230	721	346	825	668	1020	732	1150	824	377
8	1180	523	1230	838	365	854	712	851	474	735	808	347
9	1170	627	1260	688	366	985	683	789	383	633	1200	456
10	1240	601	1440	507	358	654	738	779	390	691	1340	698
11	1190	531	1470	487	343	477	800	1190	858	1370	1540	572
12	1160	460	1520	474	356	408	907	848	791	1490	1540	580
13	1280	413	1570	452	351	402	862	685	741	1040	1590	430
14	1370	367	1520	399	392	382	840	620	588	849	1400	388
15	1190	413	1700	411	415	381	847	652	385	631	1420	390
16	1300	445	1730	466	433	552	714	739	369	679	1450	414
17	1340	477	1730	620	400	405	626	772	444	724	1410	442
18	1400	443	1400	979	460	339	358	752	454	691	1400	481
19	1430	329	1120	1110	433	329	315	813	485	650	1470	530
20	1430	447	1280	1090	427	355	300	873	594	1000	1430	661
21	1400	345	1220	995	432	428	480	892	550	1470	1360	793
22	1370	346	687	863	422	390	385	833	541	1580	1400	647
23	1410	418	715	863	407	672	328	779	781	1280	1340	660
24	1250	483	677	840	400	2290	494	779	830	818	1340	656
25	1180	617	699	887	445	1650	611	833	905	700	1280	556
26	1120	1050	766	768	464	542	670	884	1100	1270	1280	584
27	1210	1090	791	562	492	402	759	876	870	1210	1190	586
28	800	1210	850	514	537	592	956	827	889	1220	1210	690
29	649	1390	881	413	---	395	786	774	826	1230	1120	705
30	506	1360	873	329	---	395	775	757	913	1220	1120	802
31	587	---	873	328	---	373	---	773	---	1210	1070	---
MONTH	1180	573	1210	678	397	626	635	878	644	1040	1230	622

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	19.0	10.0	13.0	10.0	15.0	18.0	22.0	27.0	28.0	30.0	28.0
2	22.0	20.0	11.0	10.0	10.0	15.0	19.0	22.0	27.0	28.0	29.0	28.0
3	22.0	20.0	13.0	10.0	10.0	17.0	20.0	20.0	27.0	29.0	28.0	28.0
4	23.0	18.0	15.0	11.0	11.0	17.0	18.0	20.0	27.0	30.0	28.0	27.0
5	25.0	19.0	15.0	12.0	12.0	18.0	18.0	20.0	28.0	30.0	28.0	25.0
6	25.0	20.0	15.0	13.0	13.0	18.0	18.0	21.0	26.0	30.0	28.0	23.0
7	25.0	20.0	12.0	11.0	15.0	18.0	17.0	22.0	26.0	30.0	29.0	24.0
8	24.0	18.0	12.0	9.0	14.0	19.0	17.0	22.0	26.0	26.0	29.0	26.0
9	24.0	19.0	13.0	8.0	10.0	19.0	15.0	22.0	25.0	27.0	29.0	27.0
10	24.0	18.0	14.0	7.0	9.0	20.0	15.0	23.0	25.0	29.0	28.0	28.0
11	25.0	18.0	11.0	5.0	9.0	19.0	15.0	24.0	26.0	30.0	28.0	28.0
12	25.0	18.0	10.0	4.0	10.0	20.0	16.0	24.0	25.0	30.0	28.0	27.0
13	25.0	19.0	8.0	4.0	11.0	21.0	17.0	23.0	25.0	30.0	28.0	28.0
14	25.0	17.0	9.0	5.0	11.0	21.0	18.0	22.0	24.0	30.0	28.0	28.0
15	25.0	15.0	8.0	5.0	11.0	22.0	19.0	22.0	24.0	30.0	27.0	27.0
16	25.0	15.0	7.0	6.0	11.0	20.0	19.0	22.0	25.0	30.0	28.0	27.0
17	25.0	15.0	7.0	7.0	11.0	19.0	20.0	23.0	26.0	30.0	28.0	27.0
18	25.0	15.0	7.0	10.0	8.0	19.0	20.0	23.0	27.0	30.0	28.0	27.0
19	25.0	13.0	8.0	10.0	10.0	20.0	20.0	24.0	28.0	30.0	28.0	27.0
20	22.0	12.0	10.0	13.0	11.0	19.0	21.0	25.0	28.0	30.0	28.0	27.0
21	21.0	12.0	10.0	14.0	12.0	18.0	21.0	25.0	27.0	30.0	28.0	27.0
22	23.0	10.0	9.0	13.0	12.0	18.0	22.0	26.0	26.0	30.0	29.0	27.0
23	22.0	10.0	10.0	14.0	11.0	18.0	22.0	26.0	27.0	30.0	29.0	27.0
24	21.0	10.0	11.0	12.0	11.0	18.0	23.0	27.0	28.0	30.0	29.0	26.0
25	19.0	10.0	15.0	12.0	12.0	17.0	23.0	27.0	28.0	30.0	29.0	26.0
26	18.0	10.0	12.0	10.0	13.0	18.0	23.0	27.0	27.0	30.0	28.0	27.0
27	15.0	11.0	10.0	11.0	14.0	18.0	22.0	27.0	27.0	30.0	28.0	28.0
28	17.0	12.0	11.0	10.0	14.0	18.0	21.0	26.0	27.0	30.0	28.0	26.0
29	19.0	12.0	13.0	8.0	---	18.0	21.0	26.0	28.0	30.0	27.0	25.0
30	20.0	11.0	15.0	8.0	---	18.0	22.0	26.0	28.0	30.0	27.0	26.0
31	18.0	---	14.0	9.0	---	18.0	---	26.0	---	30.0	27.0	---
MONTH	22.5	15.0	11.0	9.5	11.5	18.5	19.5	23.5	26.5	29.5	28.0	26.5

BRAZOS RIVER BASIN

08116700 BRAZOS RIVER AT HARRIS RESERVOIR, NEAR ANGELTON, TEX.

LOCATION.--Lat 29°14'35", long 95°33'41", Brazoria County, at Harris Pumping Plant of Dow Chemical Company, 10 miles (16 km) northwest of Angleton.

DRAINAGE AREA.--44,000 mi² (114,000 km²), of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1962 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, January 1962 to September 1973.--Specific conductance: Maximum daily, 7,190 micromhos Mar. 3, 1964; minimum daily, 217 micromhos Oct. 26, 1970.

Water temperatures (1966-73): Maximum, 31.0°C on many days during summer months; minimum, 2.0°C Jan. 8, 9, 1970.

REMARKS.--No discharge records available.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 13...	--	5.9	79	27	120	254	0	71	200
NOV. 15...	1000	5.2	38	7.6	23	120	0	27	34
DEC. 29...	1000	7.6	65	12	88	144	0	92	130
JAN. 30...	1000	7.8	43	8.0	12	119	0	32	22
FEB. 27...	1000	8.7	51	11	31	168	0	42	41
MAR. 23...	1000	8.0	56	9.4	51	133	0	63	78
APR. 19...	1000	8.5	--	--	21	110	0	20	24
MAY 03...	1000	6.4	91	11	130	131	0	130	230
JUNE 03...	1000	8.6	52	4.7	61	136	0	59	74
AUG. 02...	1000	8.5	80	18	110	211	0	92	170
SEP. 15...	1000	11	37	4.3	32	122	0	26	37

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 13...	.2	.2	619	310	100	2.8	1190	7.5	26.0
NOV. 15...	.2	.3	195	130	28	.9	387	7.2	15.0
DEC. 29...	.2	.01	470	210	92	2.6	868	8.0	13.0
JAN. 30...	.3	1.1	189	140	42	.4	343	7.8	8.0
FEB. 27...	.2	.3	269	170	34	1.0	489	8.1	13.0
MAR. 23...	.2	1.0	335	180	69	1.7	604	7.2	18.0
APR. 19...	.1	.6	--	100	12	.9	316	7.5	20.0
MAY 03...	.2	.4	663	270	170	3.5	1240	7.6	20.0
JUNE 03...	.3	.8	330	150	38	2.2	606	7.9	27.0
AUG. 02...	.3	.00	575	270	100	2.8	1050	8.2	29.0
SEP. 15...	.2	.1	208	110	10	1.3	393	7.5	27.0

BRAZOS RIVER BASIN

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08116700 BRAZOS RIVER AT HARRIS RESERVOIR, NEAR ANGLETON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	521	1380	---	324	541	---	823	785	930	1150	1030
2	1000	429	---	732	317	527	581	1060	574	985	1050	1010
3	1250	463	---	655	---	---	635	1240	606	1080	1030	986
4	1270	---	1380	660	---	---	625	1280	571	1200	962	1050
5	1250	---	1190	703	356	563	544	---	487	1150	939	680
6	1200	303	1180	---	354	---	593	---	461	1120	914	---
7	---	342	1220	---	339	838	---	1050	655	1140	804	291
8	---	465	1140	784	357	896	---	881	457	819	801	308
9	1200	615	---	711	357	896	677	829	---	601	1010	---
10	1200	589	---	483	---	---	704	766	---	697	1150	619
11	1260	---	1450	474	---	---	794	1220	810	787	1560	488
12	1200	---	1470	463	352	404	921	---	791	858	1530	511
13	1190	412	1540	---	352	391	864	---	645	962	1570	376
14	---	360	1570	---	381	374	---	630	583	948	1430	363
15	---	387	1660	416	404	374	---	655	442	709	1400	393
16	1250	421	---	449	442	541	346	822	---	678	1450	383
17	1340	463	---	588	---	---	342	765	---	725	1410	432
18	1360	---	1720	881	441	---	357	760	461	725	1410	441
19	1410	---	1370	1100	---	338	316	---	490	635	1470	489
20	1480	383	1210	---	431	361	---	---	---	917	1450	572
21	---	400	1460	---	441	419	---	917	605	1400	1370	752
22	---	324	705	885	417	386	---	866	530	1590	1380	725
23	1420	---	---	852	396	604	320	796	---	1350	1400	650
24	1420	437	707	846	---	---	482	790	801	858	1360	652
25	1250	---	---	892	---	---	605	822	870	1020	1340	571
26	1160	---	752	818	459	538	667	884	---	1230	1310	564
27	1150	1060	780	---	489	389	754	913	1090	1210	1300	546
28	---	1170	834	---	529	574	---	847	885	1220	1260	641
29	---	1320	868	433	---	396	---	806	810	1230	1200	682
30	474	1350	---	343	---	396	773	763	---	1200	1150	735
31	523	---	873	330	---	---	---	889	---	1220	1120	---
MONTH	---	---	---	---	---	---	---	883	---	1010	1250	605

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.5	12.0	---	10.0	15.0	---	21.0	27.0	28.0	30.0	29.5
2	---	---	---	13.0	10.0	16.0	18.5	21.0	27.0	28.0	29.0	29.5
3	23.0	20.0	---	11.0	---	---	20.0	20.0	27.0	29.0	29.0	28.5
4	---	---	14.0	11.0	---	---	18.5	20.0	27.5	30.0	29.0	28.5
5	25.5	---	14.5	12.0	13.0	17.0	18.5	---	27.5	31.0	29.0	28.0
6	26.0	20.0	14.0	---	13.0	---	18.5	---	27.0	30.5	29.0	---
7	---	20.0	12.0	---	14.0	17.0	---	22.0	27.0	30.0	28.0	24.0
8	---	19.0	12.0	11.0	13.0	18.0	---	22.0	27.0	26.5	28.5	26.0
9	25.0	19.0	---	8.0	11.0	18.0	16.0	23.0	---	27.0	29.0	---
10	25.0	18.0	---	7.0	---	---	15.0	24.0	---	29.0	28.5	27.5
11	25.5	---	12.0	---	---	---	16.0	24.0	26.0	30.0	28.5	27.0
12	26.0	---	12.0	4.0	10.0	19.0	17.0	---	25.0	30.0	29.0	27.0
13	26.0	19.0	10.0	---	11.0	21.0	17.0	---	24.0	30.0	28.0	28.0
14	---	17.0	9.0	---	10.5	21.0	---	23.0	24.5	30.0	28.0	27.0
15	---	15.0	8.0	7.0	10.0	21.0	---	23.0	24.5	30.0	27.5	27.0
16	26.0	15.5	---	6.5	10.0	20.0	18.5	22.0	---	30.0	27.0	27.0
17	---	15.0	---	7.0	---	---	---	23.0	---	30.0	27.5	27.0
18	26.0	---	10.0	10.0	10.0	---	20.0	23.0	27.0	29.0	28.0	26.5
19	26.0	---	9.0	10.0	---	19.0	20.0	---	27.0	30.0	28.0	27.5
20	23.0	11.5	10.0	---	11.0	18.5	---	---	---	30.5	29.0	27.0
21	---	11.0	10.0	---	10.5	17.0	---	25.0	26.5	30.5	29.0	27.0
22	---	12.0	10.0	13.0	12.0	17.5	---	26.0	26.5	30.5	30.0	28.0
23	26.0	---	---	13.0	11.0	18.0	21.5	26.5	---	31.0	30.0	28.0
24	22.0	12.0	10.0	13.0	---	---	22.5	27.0	27.5	31.0	30.0	27.0
25	20.0	---	---	13.0	---	---	23.5	27.0	27.5	31.0	30.0	28.0
26	20.0	---	11.0	10.0	13.0	17.0	23.0	27.5	---	31.0	29.0	27.5
27	---	11.0	11.0	---	13.0	17.0	23.0	28.0	27.5	31.0	29.0	28.0
28	---	12.0	11.0	---	13.5	18.0	---	27.0	28.0	30.0	29.0	27.0
29	---	12.0	13.0	8.0	---	18.0	---	26.5	28.0	31.0	29.0	27.0
30	---	11.5	---	8.0	---	18.5	21.0	27.0	---	31.0	28.0	27.0
31	---	---	13.0	---	---	---	---	27.0	---	31.0	28.0	---
MONTH	---	---	---	---	---	---	---	24.0	---	30.0	28.5	27.5

BRAZOS RIVER BASIN

08117200 BRAZOS RIVER AT BRAZORIA RESERVOIR, NEAR BRAZORIA, TEX.

LOCATION.-- Lat 29°30'09", long 95°33'00", Brazoria County, at Brazoria Pumping Plant of Dow Chemical Company, 1.5 miles (2.4 km) east of Brazoria.

DRAINAGE AREA.--44,000 mi² (114,000 km²), of which 9,240 mi² (23,930 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1962 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1962 to September 1973.--Specific conductance: Maximum daily, 37,000 micromhos Aug. 28, 1963; minimum daily, 221 micromhos Oct. 27, 1970.

Water temperatures (1966-73): Maximum, 32.0°C July 28, 1973; minimum, 2.0°C Jan. 14, 15, 1968.

REMARKS.--No discharge records available.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
12...	--	3.4	82	22	200	182	9	160	280
NOV.									
13...	0700	10	38	6.9	47	117	0	34	64
DEC.									
27...	0700	8.6	57	12	74	132	0	81	110
JAN.									
31...	0700	7.6	--	--	21	120	0	30	24
FEB.									
27...	0700	11	53	9.7	29	162	0	42	41
MAR.									
26...	0700	8.4	52	9.8	130	107	0	69	200
APR.									
19...	0700	8.6	--	--	18	117	0	16	18
MAY									
04...	0700	6.7	96	8.9	140	135	0	130	240
JUNE									
04...	0700	8.6	55	7.1	57	141	0	64	72
JULY									
22...	1100	7.8	110	15	180	166	0	180	290
AUG.									
02...	0700	7.8	85	19	130	206	0	120	210
SEP.									
15...	0700	11	35	1.9	31	126	0	18	28

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
12...	.2	.00	843	300	130	5.0	1440	8.5	27.0
NOV.									
13...	.4	.9	262	120	27	1.8	495	8.0	18.0
DEC.									
27...	.2	.7	413	190	82	2.3	737	8.0	10.5
JAN.									
31...	.2	1.2	--	120	24	.8	349	7.3	11.0
FEB.									
27...	.2	.2	267	170	39	1.0	472	8.3	14.0
MAR.									
26...	.2	.5	521	170	82	4.2	995	7.4	17.0
APR.									
19...	.1	.9	--	100	7	.8	271	7.3	18.0
MAY									
04...	.2	.5	693	280	170	3.7	1300	7.7	20.0
JUNE									
04...	.3	1.7	340	170	50	1.9	625	8.0	27.0
JULY									
22...	.3	.03	864	330	200	4.4	1520	7.9	31.0
AUG.									
02...	.4	.00	670	290	120	3.4	1220	8.2	30.0
SEP.									
15...	.2	.1	188	95	0	1.4	352	7.5	27.0

BRAZOS RIVER BASIN

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08117200 BRAZOS RIVER AT BRAZORIA RESERVOIR, NEAR BRAZORIA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	444	1350	---	352	535	---	---	769	914	1200	1300
2	1040	511	---	860	373	551	458	966	764	976	1220	1130
3	1020	403	---	850	---	---	599	1150	576	971	1120	1190
4	870	---	1410	652	---	---	596	1300	625	1160	1060	1160
5	1050	---	1420	689	355	571	584	---	618	1160	1020	1030
6	1010	334	1380	---	367	800	562	817	523	1130	957	372
7	---	300	1170	---	360	833	---	1080	477	1120	944	275
8	---	330	1220	716	344	820	---	902	591	1140	842	360
9	1200	509	---	826	375	820	739	847	635	604	821	303
10	1250	609	---	600	---	---	684	750	---	642	886	379
11	1220	---	1240	523	---	---	730	830	---	679	1200	532
12	1440	---	1180	479	349	463	806	---	833	791	1560	385
13	1700	495	1430	---	360	414	899	---	561	837	1530	457
14	---	409	1510	---	355	389	---	658	683	925	1560	374
15	---	372	1560	419	388	386	---	609	483	966	1450	352
16	1220	385	---	398	415	396	845	716	---	800	1380	362
17	1220	418	---	462	---	---	509	787	---	612	1430	343
18	1460	---	1730	633	421	---	491	796	453	667	1400	396
19	2510	---	1710	1010	---	337	271	---	458	717	1390	391
20	3890	300	1280	---	433	334	---	---	495	653	1400	563
21	---	389	1290	---	424	364	---	857	601	957	1430	---
22	3490	398	1340	1000	445	419	---	910	510	1520	1460	541
23	---	---	---	875	424	398	310	855	578	1570	1460	642
24	1870	375	696	857	---	---	368	788	771	1330	1460	718
25	---	---	---	860	---	---	604	786	799	844	1440	718
26	1430	---	668	906	450	995	625	802	921	990	1550	628
27	1440	850	737	---	472	385	698	874	995	1190	1440	628
28	---	1070	776	---	501	465	---	911	833	1200	1380	487
29	---	1150	809	465	---	485	---	882	851	1200	1370	559
30	865	1270	---	373	---	426	675	841	---	1200	1380	557
31	509	---	901	349	---	---	---	765	---	1220	1360	---
MONTH	---	---	---	---	---	---	---	859	656	990	1290	591

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.0	11.5	---	11.0	15.0	---	---	27.0	29.5	31.0	30.0
2	24.5	22.0	---	14.0	10.0	---	18.5	21.0	27.0	28.5	30.0	30.0
3	24.0	22.0	---	12.0	---	---	20.0	20.0	27.5	29.0	29.5	29.0
4	24.5	---	14.0	12.0	---	---	18.0	20.0	27.0	29.5	29.0	29.0
5	24.5	---	15.5	12.0	13.0	17.0	18.5	---	27.5	30.0	29.0	28.0
6	25.0	---	14.0	---	13.0	17.0	19.0	22.0	27.0	30.0	28.5	24.5
7	---	20.0	14.0	---	15.0	17.0	---	22.0	26.5	30.0	29.0	24.0
8	---	19.0	14.0	10.0	14.0	18.0	---	21.0	26.0	29.0	29.0	26.0
9	25.0	20.0	---	8.0	12.0	18.5	16.0	22.0	26.0	27.0	29.0	27.0
10	26.0	18.0	---	8.0	---	---	15.5	23.0	---	28.0	28.0	27.0
11	26.0	---	12.0	5.5	---	---	16.0	22.5	---	28.5	29.0	27.0
12	27.0	---	12.0	5.0	11.5	19.0	17.0	---	25.5	30.0	---	26.5
13	27.0	18.0	10.5	---	12.0	20.0	17.0	---	24.0	30.0	28.0	25.0
14	---	18.0	10.5	---	12.0	21.0	---	22.5	24.5	30.0	28.0	27.0
15	---	16.0	10.0	6.0	11.0	21.0	---	22.0	24.5	30.0	27.5	27.0
16	26.0	16.0	---	9.5	---	20.0	17.0	22.0	---	30.0	27.0	27.0
17	26.0	16.0	---	9.0	---	---	17.0	22.0	---	30.0	27.5	26.5
18	26.0	---	10.0	10.0	10.0	---	17.0	24.0	27.0	30.0	28.0	26.5
19	26.0	---	10.0	10.0	---	19.0	18.0	---	27.0	30.0	28.0	27.0
20	25.0	12.0	11.0	---	12.0	---	---	---	28.0	30.0	28.0	27.5
21	---	12.0	11.0	---	12.0	17.0	---	25.0	26.5	30.5	29.0	---
22	26.0	11.0	9.5	13.0	12.0	17.0	---	25.5	26.5	31.0	---	28.0
23	---	---	---	14.0	12.0	17.0	19.0	26.5	28.0	30.0	27.0	28.0
24	23.0	11.0	10.0	14.0	---	---	19.0	26.0	28.0	30.0	30.0	27.0
25	---	---	---	13.0	---	---	21.0	27.0	22.5	31.0	29.5	28.0
26	23.0	---	11.0	11.5	13.0	17.0	20.0	27.5	27.0	30.5	29.0	28.0
27	20.5	12.0	10.5	---	14.0	17.5	19.0	28.0	26.5	30.0	29.0	28.0
28	---	12.0	13.5	---	14.0	18.0	---	27.0	27.0	32.0	29.0	27.0
29	---	12.0	14.0	8.0	---	18.0	---	27.0	27.5	31.0	27.0	28.0
30	20.5	12.0	---	8.0	---	18.5	19.0	27.0	---	31.0	29.0	28.5
31	22.0	---	13.5	11.0	---	---	---	27.0	---	31.0	29.0	---
MONTH	---	---	---	---	---	---	---	24.0	26.5	30.0	28.5	27.5

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08080910 WHITE RIVER RESERVOIR NEAR SPUR, TEX. (Lat 33°27'28", long 101°05'22")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV. 28...	1245	38090	2.4	17	11	110	4.8	210	0	37	84	1.6
JULY 11...	1830	35240	.0	14	12	120	5.3	208	4	42	98	1.9

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
NOV. 28...	.09	369	88	0	5.0	668	8.0	10.0	0	290
JULY 11...	.08	403	84	0	5.8	741	8.5	28.0	0	280

08080940 SALT FORK BRAZOS RIVER AT STATE HIGHWAY 208, NEAR CLAIREMONT, TEX. (Lat 33°12'22", long 100°44'50")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 01...	1610	61	--	130	85	770	--	--	470
28...	1540	.55	--	550	270	3500	--	--	1600
JAN. 03...	1030	3.2	--	730	310	4900	--	--	2000
FEB. 06...	0940	8.2	--	440	260	2900	--	--	920
MAR. 13...	1645	90	--	98	82	720	--	--	440
APR. 25...	1030	16	11	580	190	2900	152	0	1800
MAY 29...	1240	.12	17	900	250	4500	212	0	2300

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 01...	1300	--	2780	670	--	13	4810	--	13.5
28...	6000	--	12000	2500	--	--	19500	--	11.0
JAN. 03...	8200	--	16100	3100	--	--	23100	--	4.0
FEB. 06...	5400	--	9930	2200	--	--	17000	--	10.0
MAR. 13...	1200	--	2540	580	--	13	4520	--	14.0
APR. 25...	4700	--	10300	2200	2100	--	15800	7.9	19.0
MAY 29...	7400	.5	15400	3300	3100	--	22700	7.4	30.0

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08081050 SHORT CROTON CREEK AT MOUTH NEAR JAYTON, TEX. (Lat 33°18'27", long 100°31'57")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
NOV. 14...	1805	.06	1200	260	10000	3300	16000	31700	4100	48000	9.5
DEC. 22...	1000	.10	1200	280	10000	3200	16000	30700	4200	46600	30.0
JAN. 16...	1215	.33	1500	610	23000	4400	36000	65400	6200	90200	14.0
FEB. 07...	1000	.12	1200	290	10000	3100	17000	31800	4200	48300	9.0
MAR. 07...	1355	.07	1200	270	9800	3300	16000	30100	4100	45700	24.0

08081100 CROTON CREEK BELOW SHORT CROTON CREEK, NEAR JAYTON, TEX. (Lat 33°18'23", long 100°31'55")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
NOV. 14...	1740	1.8	--	1200	1400	5900	--	--
DEC. 22...	1000	1.6	--	1100	1500	6900	--	--
JAN. 16...	1230	5.2	--	1000	1400	6900	--	--
FEB. 07...	1000	3.3	--	1100	1400	4700	--	--
MAR. 07...	1330	3.2	--	1200	1300	5500	--	--
MAY 29...	1510	.17	9.1	1200	380	8810	175	0
JULY 11...	0830	.04	--	1100	310	6500	150	0
SEP. 19...	1310	3.9	9.4	1100	260	5100	132	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 14...	3000	13000	24400	8500	--	36400	--	10.5
DEC. 22...	4100	14000	27600	8900	--	40400	--	1.5
JAN. 16...	4000	14000	26700	8200	--	41200	--	9.0
FEB. 07...	3300	11000	21300	8400	--	33800	--	9.0
MAR. 07...	3500	12000	23300	8200	--	35200	--	19.0
MAY 29...	4100	14000	28200	4400	4390	41100	7.4	34.0
JULY 11...	4300	9500	21700	3900	3800	29700	7.1	27.0
SEP. 19...	3300	8000	17900	3700	3600	25400	7.6	27.0

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08082950 ELM CREEK NEAR PROFFITT, TEX. (Lat 33°11'00", long 98°53'40")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HCO ₃) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 30...	1125	29	7.3	81	32	110	188	0	100	220
FEB. 27...	1140	34	3.5	100	46	160	244	0	130	330
APR. 04...	1140	13	1.3	90	49	140	210	0	130	300
MAY 08...	1745	4.4	2.9	110	62	220	254	0	120	470
JUNE 12...	1045	.70	3.3	160	100	420	196	0	120	1000

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 30...	.4	.3	652	330	180	2.7	1150	7.9	3.5
FEB. 27...	.4	.02	898	450	250	3.3	1630	7.8	9.5
APR. 04...	.4	.1	820	430	250	3.0	1520	7.6	12.5
MAY 08...	.4	.1	1110	530	330	4.0	2040	7.5	21.0
JUNE 12...	--	.2	1950	840	680	6.3	3670	7.7	23.0

08083200 LAKE SWEETWATER NEAR SWEETWATER, TEX. (Lat 32°26'20", long 100°18'24")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
APR. 24...	1100	9100	6.2	66	27	48	7.8	212	0	87	88

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
APR. 24...	.4	.10	435	280	100	1.3	769	7.9	0	120

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08083500 FORT PHANTOM HILL RESERVOIR NEAR NUGENT, TEX. (Lat 32°36'58", long 99°40'05")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 17...	0940	63150	1.1	53	19	55	7.3	169	0	80	85	.3
JULY 11...	0815	56500	2.7	54	22	64	8.3	180	0	89	96	.3

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 17...		.10	384	210	72	1.6	696	7.3	5.0	0	280
JULY 11...		.10	426	220	78	1.9	768	7.3	27.0	0	140

08084500 LAKE STAMFORD NEAR HASKELL, TEX. (Lat 33°04'44", long 99°34'52")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 17...	1050	49410	1.4	46	24	65	11	190	0	95	82

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
NOV. 17...		.3	.40	420	210	58	1.9	737	8.0	11.5	0	230

08086015 HUBBARD CREEK NEAR SEDWICK, TEX. (Lat 32°36'06", long 99°14'20")

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
DATE	TIME								
MAR. 28...	1500	2.0	120	34	120	230	0	91	
		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)
DATE									
MAR. 28...	300	781	440	250	2.6	1490	7.5	20.0	

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08086020 HUBBARD CREEK AT U.S. HIGHWAY 380, NEAR MORAN, TEX. (Lat 32°37'24", long 99°13'12")

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
MAR. 28...	1415	2.3	4.3	110	66	390	193	0	110	780

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
MAR. 28...	.3	.03	1550	540	380	7.3	2850	7.2	20.0

08086120 SALT PRONG HUBBARD CREEK AT U.S. HIGHWAY 380, NEAR ALBANY, TEX. (Lat 32°41'01", long 99°16'05")

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
NOV. 02...	1125	.38	11	43	10	33	150	0	27	48
MAR. 28...	1545	.91	8.1	65	29	140	228	0	64	240
SEP. 07...	1900	.86	8.0	54	25	120	159	0	62	220

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV. 02...	.3	.3	248	150	26	1.2	435	7.6	16.0
MAR. 28...	.3	.1	662	280	94	3.7	1260	7.6	20.0
SEP. 07...	.0	.4	573	240	110	3.5	1110	7.3	23.0

08086130 COOK CREEK NEAR ALBANY, TEX. (Lat 32°44'53", long 99°20'06")

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
MAR. 29...	1340	.79	2.6	420	100	1200	88	0	130	2600
SEP. 07...	1245	2.1	8.0	120	23	240	93	0	57	560

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
MAR. 29...	--	.2	4330	1500	1400	12	7800	7.0	--
SEP. 07...	.0	.4	1050	410	330	5.1	2070	7.0	22.5

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08086200 SALT PRONG HUBBARD CREEK NEAR ALBANY, TEX. (Lat 32°42'02", long 99°12'42")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 02...	1215	16	11	100	22	280	140	0	56	400
FEB. 21...	1715	3.9	3.7	110	54	640	94	0	120	1200
MAR. 29...	1210	5.9	3.4	180	62	470	108	0	92	1100
SEP. 07...	1340	16	10	230	91	500	118	0	130	1300

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 02...	.4	.4	843	340	230	42	1580	7.9	17.0
FEB. 21...	--	.00	2180	500	420	12	3980	7.6	8.0
MAR. 29...	--	.4	1970	720	630	7.6	3700	7.1	--
SEP. 07...	.0	.5	2300	950	850	7.1	4230	7.0	22.0

08086210 SNAILUM CREEK NEAR ALBANY, TEX. (Lat 32°43'27", long 99°10'55")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
MAR. 29...	1240	.37	1.0	120	40	250	143	0	62

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
MAR. 29...	590	.3	.03	1140	470	350	5.0	2200	7.4

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08086220 BIG SANDY CREEK NEAR EOLIAN, TEX. (Lat 32°35'23", long 98°58'44")

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
NOV. 01...	1655	7.5	7.8	25	2.9	8.5	64	0	15	15
MAR. 29...	1010	.18	5.2	110	23	170	144	0	130	340
SEP. 07...	1730	15	7.5	33	4.8	8.9	102	0	16	13

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV. 01...	.3	.8	109	74	22	.4	205	7.6	14.0
MAR. 29...	.4	.03	846	360	250	3.9	1550	7.9	--
SEP. 07...	.0	.8	137	100	18	.4	261	6.9	23.0

08088400 LAKE GRAHAM NEAR GRAHAM, TEX. (Lat 33°08'04", long 98°36'48")

DATE	TIME	RESERVOIR STORAGE (AC-FT)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
NOV. 20...	1625	51690	5.7	42	6.8	38	6.1	110	0	14	86	.2

DATE	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED BORON (B) (UG/L)
NOV. 20...	.20	254	130	43	1.4	495	7.7	11.5	0	50

08090300 LAKE PALO PINTO NEAR SANTO, TEX. (Lat 32°38'53", long 98°15'56")

DATE	TIME	RESERVOIR STORAGE (AC-FT)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
JUNE 19...	1500	44280	6.2	120	5	51	8.9	37	150	0	43

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
JUNE 19...	53	.3	.50	276	160	41	1.3	515	7.2	31.0

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08091900 LAKE PAT CLEBURNE NEAR CLEBURNE, TEX. (Lat 32°17'20", long 97°24'54")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JUNE 15...	1145	27400	7.2	300	20	39	2.8	9.6	130	0	11

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 15...	6.9	.2	.40	143	110	2	.4	261	7.6	25.0

08095550 WACO LAKE NEAR WACO, TEX. (Lat 31°34'46", long 97°11'51")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 03...	0940	155100	6.4	45	5.0	16	2.9	137	0	31	17

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 03...	.2	.20	192	130	21	.6	339	7.8	8.0	0	160

08098300 LITTLE POND CREEK AT BURLINGTON, TEX. (Lat 31°01'35", long 96°59'17")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE DISE- MENT (MG/L)	SUS- PENDE DISE- MENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT. 31...	1315	23	22.0	550	34	99	100	72	75	80	82	84

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08099000 LEON RESERVOIR NEAR RANGER, TEX. (Lat 32°21'46", long 98°40'32")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 18...	1230	21510	3.0	57	12	60	6.1	132	0	53	120	.2
SEP. 25...	1430	24120	3.5	56	12	58	6.0	132	0	51	120	.3

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 18...	.30	375	190	84	1.9	698	7.5	24.5	0	80
SEP. 25...	.04	368	190	81	1.8	694	7.6	25.0	0	60

08099400 PROCTOR LAKE NEAR PROCTOR, TEX. (Lat 31°58'07", long 98°29'09")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 18...	0945	45150	1.4	48	22	93	7.0	130	0	59	180
SEP. 25...	1215	53060	5.1	46	18	74	6.9	130	0	42	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 18...	.3	.20	478	210	100	2.8	908	7.5	23.0	0	170
SEP. 25...	.3	1.0	409	190	82	23	767	7.3	25.0	0	100

08104050 STILLHOUSE HOLLOW LAKE NEAR BELTON, TEX. (Lat 31°01'20", long 97°31'57")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAR. 08...	1650	236400	6.5	44	20	37	3.5	186	0	24	71
JULY 30...	--	236200	5.8	37	19	32	3.1	167	0	22	62

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
MAR. 08...	.3	.07	298	190	40	1.2	560	7.3	15.0	0	130
JULY 30...	.2	.00	263	170	34	1.1	500	8.0	29.5	0	90

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08109800 EAST YEGUA CREEK NEAR DIME BOX, TEX. (Lat 30°24'26", long 96°49'02")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDIMENT (MG/L)	SUS- PEN- DED SEDIMENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
NOV. 13...	1150	5.7	18.0	30	.47	--	--	--	--	--
APR. 10...	1615	26	17.5	48	3.4	--	--	--	--	--
JUNE 12...	1345	120	23.0	321	104	--	--	--	--	--
AUG. 20...	1130	.18	28.0	91	.04	75	90	93	98	99

08109900 SOMERVILLE LAKE NEAR SOMERVILLE, TEX. (Lat 30°19'06", long 96°31'24")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 24...	1600	236000	7.6	40	8.4	30	6.6	97	0	56	48
APR. 03...	1100	176100	6.2	34	7.1	26	6.4	74	0	57	42

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 24...	.2	.20	246	130	55	1.1	437	7.2	13.0	0	80
APR. 03...	.2	.20	216	110	53	1.1	385	6.9	19.5	30	80

08110100 DAVIDSON CREEK NEAR LYONS, TEX. (Lat 30°25'10", long 96°32'24")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDIMENT (MG/L)	SUS- PEN- DED SEDIMENT DIS- CHARGE (T/DAY)
JAN. 26...	1230	1300	12.0	130	456
MAR. 03...	1300	8.5	9.0	55	1.3
JUNE 12...	1915	1210	24.0	292	954
JULY 18...	1425	3.2	28.5	19	.17

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08110300 LAKE MEXIA NEAR MEXIA, TEX. (Lat 31°38'45", long 96°34'39")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 30...	0845	6900	2.2	18	1.7	4.5	3.6	50	5	9.4	3.9	.2
DATE		TOTAL	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)	
		NITRATE (N) (MG/L)						(UNITS)				
JAN. 30...		.20	75	52	3	.3	129	8.5	5.0	50	260	

SAN BERNARD RIVER BASIN

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08117700 SAN BERNARD RIVER ON FARM ROAD 1301, NEAR WEST COLUMBIA, TEX.

LOCATION.--Lat 29°09'37", long 95°45'56", Brazoria County, at bridge on Farm Road 1301, and 4.4 miles (7.1 km) west of West Columbia.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 11...	1655	--	26	45	17	53	181	0	14	94
DEC. 18...	1545	--	13	87	20	180	211	0	85	300
JAN. 30...	1435	238	8.4	28	6.8	31	92	0	19	49
MAR. 02...	0910	470	8.5	22	4.6	17	74	0	14	25
APR. 04...	1600	--	9.9	25	4.5	16	82	0	11	24
MAY 11...	1130	416	8.9	25	3.3	17	80	0	14	21
JULY 20...	1330	172	15	48	12	32	174	0	17	55
AUG. 23...	1415	385	14	35	9.2	26	126	0	14	44
SEP. 28...	1000	415	15	34	6.6	14	118	0	12	24

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 11...	.2	.4	340	180	34	1.7	612	6.9	21.0
DEC. 18...	.2	.6	797	300	130	4.5	1400	7.4	12.0
JAN. 30...	.2	.4	189	98	23	1.4	361	7.2	9.0
MAR. 02...	.1	.3	128	74	13	.9	242	6.9	15.0
APR. 04...	.1	.6	133	81	14	.8	247	7.4	20.0
MAY 11...	.1	1.1	133	76	10	.8	241	6.9	24.5
JULY 20...	.2	.2	266	170	25	1.1	504	7.0	28.5
AUG. 23...	.2	.2	205	120	22	1.0	392	7.2	27.5
SEP. 28...	.1	.04	164	110	15	.6	307	6.7	26.5

BIG BOGGY CREEK BASIN

08117900 BIG BOGGY CREEK NEAR WADSWORTH, TEX.

LOCATION.--Lat 28°48'46", long 95°57'02", Matagorda County, at bridge on Farm Road 521, 1.3 miles (2.1 km) upstream from State Highway 60, and 2.0 miles (3.2 km) southwest of Wadsworth.

DRAINAGE AREA.--10.3 mi² (26.7 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
03...	1550	13	21	18	5.6	14	4.2	74	0	6.8	20	.1
NOV.												
07...	1310	3.7	18	24	6.9	22	7.3	84	0	24	33	.1
DEC.												
12...	1000	.27	11	32	9.2	27	6.0	124	0	15	45	.2
JAN.												
18...	0955	1.9	11	33	8.7	31	6.6	94	0	24	62	.2
FEB.												
21...	1040	13	11	15	4.4	15	6.0	45	0	14	28	.2
MAR.												
28...	1025	.69	4.9	76	21	80	5.0	202	0	20	180	.3
APR.												
17...	1635	308	7.7	6.4	2.2	5.3	3.4	30	0	5.2	7.4	.2
MAY												
02...	1105	2.3	18	32	10	26	5.2	122	0	20	40	.3
JUNE												
06...	1015	3.2	11	50	17	40	5.5	174	0	41	76	.3
JULY												
12...	1030	3.1	12	52	16	31	2.4	183	0	40	50	.2
AUG.												
15...	0900	59	12	17	4.9	10	3.9	66	0	12	16	.1
SEP.												
06...	1615	413	7.0	5.0	1.6	3.1	2.7	28	0	2.0	3.4	.0
07...	1015	357	8.6	5.5	1.9	4.0	3.0	30	0	2.0	5.6	.0
20...	0928	8.9	20	17	4.7	9.6	5.3	69	0	4.4	19	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
03...	--	--	.31	.00	.08	.02	.11	--	126	--	68	7
NOV.												
07...	.140	.011	.90	.00	.21	.09	.16	140	178	184	88	19
DEC.												
12...	--	--	.39	.00	.22	.08	.13	--	207	--	120	16
JAN.												
18...	--	--	.64	.00	.10	.09	.13	--	223	--	120	41
FEB.												
21...	.170	.004	1.0	.00	.19	.1	.22	90	116	270	56	19
MAR.												
28...	--	--	.51	.00	.05	.02	.06	--	487	--	280	110
APR.												
17...	.055	.001	.93	.00	.11	.1	.14	50	53	128	25	0
MAY												
02...	--	--	1.8	.11	.26	.4	.29	--	214	--	120	21
JUNE												
06...	--	--	.00	.00	.16	.04	.06	--	327	--	200	52
JULY												
12...	.270	.042	.64	.00	.08	.07	.07	90	295	75	200	46
AUG.												
15...	--	--	.84	.00	.08	.07	.15	--	108	--	63	8
SEP.												
06...	--	--	.55	.00	.08	.04	.09	--	39	--	19	0
07...	--	--	.52	.00	.08	.04	.07	--	46	--	22	0
20...	.300	.029	1.0	.00	.12	.05	.14	60	115	15	62	5

BIG BOGGY CREEK BASIN

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08117900 BIG BOGGY CREEK NEAR WADSWORTH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
03...	.7	212	6.9	26.0	20	3.7	45	1.4	--	--	--	--
NOV.												
07...	1.0	298	7.4	21.0	80	7.8	87	3.0	29	220	0	2
DEC.												
12...	1.1	369	7.9	7.0	65	11.8	97	1.4	13	--	--	--
JAN.												
18...	1.2	408	7.3	16.0	85	7.6	76	1.8	21	--	--	--
FEB.												
21...	.9	196	7.0	12.0	120	8.3	77	3.4	34	--	--	--
MAR.												
28...	2.1	959	7.8	18.0	35	8.7	92	2.5	21	0	0	0
APR.												
17...	.5	83	7.6	20.5	70	6.9	76	4.7	20	120	0	0
MAY												
02...	1.0	371	8.4	24.0	180	7.4	87	3.4	32	--	--	--
JUNE												
06...	1.2	594	8.0	25.0	25	8.3	99	2.9	18	--	--	--
JULY												
12...	1.0	517	7.6	28.5	35	7.3	94	1.9	11	10	0	0
AUG.												
15...	.5	179	6.7	24.5	25	3.2	38	2.4	23	--	--	--
SEP.												
06...	.3	56	6.4	25.5	20	6.1	73	1.8	17	--	--	--
07...	.4	70	6.2	24.5	18	3.4	40	1.7	18	--	--	--
20...	.5	178	6.3	26.0	8	2.6	32	1.5	26	20	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
03...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
07...	0	0	5	500	0	0	0	.6	0	110	30
DEC.											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
18...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
21...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
28...	0	0	3	30	0	10	60	.2	0	440	40
APR.											
17...	0	0	5	380	3	0	0	<.2	0	90	20
MAY											
02...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
JULY											
12...	0	0	2	40	0	0	70	<.2	0	350	0
AUG.											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
20...	0	0	0	660	0	0	30	<.2	2	0	0

BIG BOGGY CREEK BASIN

08117900 BIG BOGGY CREEK NEAR WADSWORTH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)
NOV. 07...	1310	--	21.0	.00	.0	.00	.0	.00	.5	.00	.0
FEB. 21...	1040	13	12.0	.00	.0	.00	.0	.00	.0	.00	.0
MAR. 28...	1025	.70	18.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 17...	1635	308	20.5	.00	.0	.00	.0	.00	.0	.00	.0
JULY 12...	1030	3.1	28.5	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 06...	1615	413	25.5	.00	--	.00	--	.00	--	.00	--
07...	1015	357	24.5	.00	--	.00	--	.00	--	.00	--
20...	0928	8.9	26.0	.00	--	.00	--	.00	--	.00	--

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 07...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 21...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 28...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 17...	.00	.9	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 12...	.02	2.3	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 06...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
07...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
20...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR-DANE IN BOTTOM DEPOSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DEPOSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 07...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	0	.0	0	.00	.00	.00	.00	.68	.00	.01
MAR. 28...	0	.0	0	.00	.00	.00	.00	.13	.00	.00
APR. 17...	0	.0	0	.00	.00	.00	.00	.11	.00	.00
JULY 12...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SEP. 06...	--	.0	--	.00	.00	.00	.00	.02	.00	.00
07...	--	.0	--	.01	.00	.00	.00	.00	.00	.00
20...	--	.0	--	.00	.00	.00	.00	.02	.00	.00

08120700 COLORADO RIVER NEAR CUTHBERT, TEX.

LOCATION.--Lat 32°28'41", long 100°56'54", Mitchell County, at gaging station at bridge on Farm Road 1808, 4.8 miles (7.7 km) east of Cuthbert, and 8.0 miles (12.9 km) northwest of Colorado City.

DRAINAGE AREA.--4,028 mi² (10,433 km²), of which 2,600 mi² (6,730 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: March 1965 to September 1973.

Water temperatures: March 1965 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 10,800 micromhos Mar. 31; minimum daily, 720 micromhos June 16.

Water temperatures: Maximum, 33.0°C July 6; minimum, freezing point on several days during December.

EXTREMES, March 1965 to September 1973.--Specific conductance: Maximum daily, 70,000 micromhos Nov. 17, 1968; minimum daily, 290 micromhos Aug. 14, 1972.

Water temperatures: Maximum, 36.0°C Aug. 2, 1966; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 15...	1820	4.5	13	170	76	820	--	10	191	0	680
NOV. 01...	1800	98	11	71	19	--	330	--	122	0	170
DEC. 21...	1300	7.9	2.5	250	110	--	1100	--	368	0	870
FEB. 25...	1600	29	.4	140	52	--	420	--	220	0	220
MAR. 14...	1640	32	7.4	130	42	--	490	--	192	0	330
APR. 25...	1715	11	.5	260	110	1400	--	5.9	252	0	920
MAY 16...	0800	11	1.7	200	90	--	620	--	312	0	780
JUNE 17...	1430	116	11	82	14	--	140	--	134	0	110
JULY 12...	1645	14	11	150	48	320	--	8.6	252	0	410
AUG. 09...	2320	.43	6.6	140	54	--	1000	--	128	0	410
SEP. 02...	2200	9.4	6.5	140	45	--	910	--	112	0	480

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 15...	1200	--	.50	3050	730	580	13	5150	8.1	22.0
NOV. 01...	490	.2	.90	1160	260	160	9.0	2020	6.9	10.0
DEC. 21...	1600	.6	1.2	4090	1100	770	14	6590	8.1	7.0
FEB. 25...	750	--	.30	1700	560	380	7.7	3350	8.0	16.0
MAR. 14...	750	--	.80	1850	510	350	9.4	3190	7.9	17.5
APR. 25...	2100	--	--	4910	1100	910	18	7740	7.7	23.5
MAY 16...	810	--	.20	2650	860	600	9.2	4130	8.3	15.0
JUNE 17...	240	.4	1.0	675	260	150	3.8	1220	7.9	27.0
JULY 12...	450	.6	.60	1540	580	370	5.9	2490	7.2	30.5
AUG. 09...	1600	--	1.3	3370	580	480	19	5860	7.8	25.0
SEP. 02...	1400	--	.50	3000	530	440	17	5100	7.4	26.0

COLORADO RIVER BASIN

08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG/L)
OCT. 1972....	690.5	2650	1530	2850	590	1100	280	522	310
NOV.	528.1	3470	2020	2880	810	1150	350	499	380
DEC.	235.4	6260	3640	2310	1530	972	650	413	600
JAN. 1973....	318.9	7340	4360	3750	1850	1590	800	689	680
FEB.	452.3	5800	3390	4140	1420	1730	640	782	560
MAR.	2044.7	2860	1660	9160	650	3590	320	1770	330
APR.	434	5830	3410	4000	1430	1680	650	762	560
MAY	156.69	4900	2860	1210	1180	499	530	224	490
JUNE	2024.44	1000	570	3120	170	929	130	711	180
JULY	407.0	2850	1660	1820	650	714	320	352	330
AUG.	24.27	5620	3280	215	1370	90	630	41	550
SEP.	302.09	2940	1710	1390	670	546	330	269	330
TOTAL	7618.39	--	--	36800	--	14600	--	7030	--
WTD. AVG. ...	20.9	3080	1790	--	710	--	340	--	350

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5740	2020	5740	6750	6920	4870	9150	4670	4270	3850	5110	5120
2	5420	2060	5720	6900	6910	5290	7340	4660	4210	3770	5240	5100
3	5490	3750	5120	6750	6890	5580	5150	5240	3880	3850	5450	4320
4	5450	3810	5870	6900	6910	5810	4660	5340	5810	3870	5470	4160
5	5300	4330	5990	7360	6890	5820	4540	5450	6550	4010	5640	4450
6	5260	4890	6010	7310	6910	5860	4530	5480	4550	4180	5640	4400
7	5260	4910	5970	7360	7000	6070	4560	5480	3980	4300	5570	3550
8	5570	4560	5890	7300	7100	6090	4680	5510	3800	4330	5670	3790
9	5460	4470	5920	7310	7200	6110	4720	6040	3810	4440	5860	3410
10	5520	4830	5910	7320	7350	2140	4640	5160	3860	4120	5820	2400
11	5490	4820	5940	7340	7380	2320	4860	5160	4280	2640	6050	991
12	5230	4780	5800	7350	6900	2130	4830	5100	3810	2500	6190	1250
13	5240	4820	6420	7200	7070	2390	4860	5230	4650	2970	6420	1060
14	5210	4900	6340	6930	6930	3190	5150	4860	4730	3090	6600	2950
15	5150	4900	6440	6870	6590	3470	5260	5140	4750	1790	7070	3180
16	5440	4900	6440	6820	6630	3730	5230	4130	720	4740	7120	3780
17	5260	4930	6440	7210	6660	4000	5230	4590	1220	6250	7500	4360
18	5390	4910	6420	7430	6600	4400	5070	5230	2260	4980	7590	4480
19	5300	4930	6400	7650	6730	4360	5220	5020	2650	4320	7540	4450
20	2370	4950	6410	7900	6440	6130	5320	4850	2870	2530	7820	4420
21	2230	5160	6590	8250	6450	4460	5600	5200	3020	2550	7840	4480
22	2000	5340	6440	8500	5800	4580	5510	5060	3130	2690	8080	4640
23	2240	5360	6460	8450	4630	4690	5410	4510	3160	2740	---	4500
24	2520	5100	6440	8580	4710	4730	8840	4090	3200	2980	---	3910
25	2830	5020	6470	8510	4350	7380	7740	4210	3350	3440	---	3810
26	3250	5300	6470	6890	4240	4970	8650	3750	3400	3740	---	3820
27	2930	5410	6470	6910	4470	5170	4440	3970	3460	4150	---	3540
28	3220	5560	6660	6930	4710	5450	4470	4130	3550	3960	---	2560
29	3500	5730	6690	6920	---	5680	5680	4320	3680	2120	---	2570
30	3750	5820	6670	6940	---	5560	5070	4670	3620	2700	---	2620
31	1790	---	6680	6950	---	10800	---	4450	---	4580	9000	---
MONTH	4350	4740	6230	7350	6330	4940	5550	4870	3670	3620	---	3600

COLORADO RIVER BASIN

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08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	10.0	4.0	6.0	5.0	11.0	14.0	18.0	20.0	30.0	24.0	28.0
2	24.0	11.0	4.0	5.0	6.0	10.0	14.0	12.0	15.0	30.0	20.0	26.0
3	25.0	12.0	3.0	6.0	6.0	19.0	11.0	24.0	27.0	32.0	28.0	24.0
4	24.0	12.0	1.0	6.0	6.0	14.0	9.0	10.0	23.0	32.0	29.0	27.0
5	23.0	---	1.0	6.0	6.0	12.0	9.0	15.0	22.0	32.0	24.0	24.0
6	22.0	13.0	0.0	5.0	6.0	13.0	11.0	20.0	20.0	33.0	28.0	---
7	20.0	13.0	1.0	3.0	7.0	12.0	15.0	12.0	22.0	28.0	27.0	21.0
8	24.0	12.0	2.0	2.0	8.0	13.0	11.0	12.0	26.0	30.0	27.0	26.0
9	24.0	13.0	2.0	2.0	8.0	15.0	6.0	14.0	22.0	28.0	25.0	23.0
10	23.0	13.0	0.0	2.0	8.0	10.0	---	19.0	24.0	---	29.0	25.0
11	24.0	13.0	0.0	1.0	8.0	22.0	---	21.0	27.0	28.0	32.0	26.0
12	23.0	12.0	0.0	2.0	10.0	16.0	---	18.0	29.0	30.5	31.0	---
13	22.0	13.0	0.0	2.0	13.0	14.0	---	16.0	26.0	27.0	29.0	24.0
14	22.0	13.0	0.0	3.0	13.0	17.5	---	15.0	23.0	27.0	24.0	23.0
15	22.0	13.0	1.0	3.0	10.0	12.0	---	10.0	23.0	23.0	27.0	27.0
16	21.0	12.0	0.0	4.0	7.0	10.0	---	15.0	---	31.0	24.0	25.0
17	---	11.0	1.0	4.0	6.0	---	---	14.0	27.0	26.0	29.0	22.0
18	---	11.0	2.0	4.0	17.0	11.0	---	14.0	28.0	31.0	27.0	26.0
19	---	9.0	3.0	4.0	17.0	12.0	---	17.0	27.0	32.0	25.0	---
20	15.0	---	3.0	5.0	5.0	12.0	---	24.0	27.0	28.0	27.0	22.0
21	15.0	---	4.0	3.0	7.0	11.0	---	23.0	30.0	24.0	25.0	23.0
22	14.0	7.0	4.0	---	4.0	13.0	---	23.0	30.0	---	24.0	22.0
23	14.0	7.0	4.0	---	9.0	19.0	---	21.0	---	32.0	---	21.0
24	13.0	8.0	5.0	4.0	13.0	15.0	16.0	27.0	26.0	25.0	---	26.0
25	---	---	4.0	4.0	16.0	11.0	17.0	19.0	23.0	25.0	---	25.0
26	13.0	7.0	4.0	4.0	15.0	11.0	17.0	21.0	22.0	26.0	---	23.0
27	15.0	---	4.0	3.0	8.0	12.0	23.0	23.0	27.0	25.0	---	20.0
28	13.0	7.0	3.0	3.0	9.0	10.0	16.0	19.0	28.0	23.0	---	15.0
29	11.0	4.0	4.0	3.0	---	10.0	16.0	20.0	25.0	24.0	---	24.0
30	11.0	4.0	5.0	4.0	---	13.0	14.0	19.0	30.0	27.0	---	21.0
31	---	---	5.0	5.0	---	18.0	---	21.0	---	25.0	27.0	---
MONTH	19.5	10.5	2.5	3.5	9.0	13.5	---	18.0	25.0	28.0	---	23.5

COLORADO RIVER BASIN

08121000 COLORADO RIVER AT COLORADO CITY, TEX.

LOCATION.--Lat 32°23'33", long 100°52'42", Mitchell County, at gaging station at Colorado City, 3,517 feet (1,072 m) upstream from bridge on State Highway 377, and 1.6 miles (2.6 km) upstream from Lone Wolf Creek.

DRAINAGE AREA.--4,082 mi² (10,572 km²), of which 2,600 mi² (6,730 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1946 to September 1954, November 1956 to September 1973.
Water temperatures: November 1952 to September 1954, November 1956 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 16,200 micromhos Aug. 30; minimum daily, 1,000 micromhos Nov. 1, Mar. 10, June 17.
Water temperatures: Maximum, 37.0°C July 1; minimum, 0.5°C Jan. 3.

EXTREMES, May 1946 to September 1954, November 1956 to September 1969, October 1971 to September 1973.--Specific conductance: Maximum daily, 67,400 micromhos May 14, 17, 1961; minimum daily, 245 micromhos May 14, 1957.
Water temperatures (1956-69, 1971-73): Maximum, 37.0°C July 29, 1960, July 9, 1965, July 1, 1973; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.											
04...	1405	.72	10	260	95	1600	--	12	256	0	830
NOV.											
02...	1245	89	5.6	57	17	--	240	--	106	0	150
DEC.											
02...	1305	.67	2.9	280	110	--	2400	--	274	0	1100
JAN.											
18...	0800	1.0	1.8	290	120	1900	--	11	150	0	1100
MAR.											
29...	0910	14	2.6	240	100	--	1300	--	232	0	850
APR.											
26...	0805	15	3.5	220	100	980	--	9.4	216	0	800
MAY											
09...	0805	.17	3.6	200	130	--	1500	--	144	0	1100
JUNE											
02...	1305	.17	4.9	170	100	--	1300	--	248	0	770
JULY											
18...	1430	.20	8.6	230	110	1900	--	15	180	0	810
AUG.											
01...	0755	12	7.0	88	27	--	470	--	106	0	220
05...	1308	5.3	7.8	130	38	--	830	--	120	0	350
SEP.											
10...	1235	86	6.2	61	17	--	300	--	106	0	150

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT.										
04...	2400	--	.3	5380	1000	820	22	9040	8.1	26.0
NOV.										
02...	350	.2	.5	879	210	120	7.3	1590	7.9	14.0
DEC.										
02...	3500	--	--	7460	1200	940	--	12100	7.4	12.0
JAN.										
18...	2900	--	--	6410	1200	1100	24	10600	7.5	8.0
MAR.										
29...	2000	--	.08	4550	1000	830	18	7340	7.7	12.5
APR.										
26...	1500	--	.5	3690	950	770	14	6120	7.9	18.0
MAY										
09...	2200	--	--	5180	1100	940	20	8290	7.9	19.0
JUNE										
02...	1800	--	1.0	4310	840	640	7.7	7190	7.4	31.0
JULY										
18...	3000	--	--	6160	1000	860	26	10300	7.3	35.0
AUG.										
01...	740	.3	.3	1610	330	240	11	2890	7.9	25.0
05...	1300	--	.2	2700	480	380	17	4690	7.7	31.0
SEP.										
10...	440	.3	.4	1030	220	140	8.7	1880	7.7	24.0

COLORADO RIVER BASIN

509

08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG)
OCT. 1972....	644.84	5120	3100	5400	1400	2440	530	923	470
NOV.	686.52	2480	1510	2800	630	1170	190	352	280
DEC.	104.98	9620	5680	1610	2700	765	1100	312	800
JAN. 1973....	211.8	9050	5360	3070	2500	1430	1000	572	760
FEB.	380.52	7270	4340	4460	2000	2050	800	822	630
MAR.	2738.7	2220	1370	10100	550	4070	160	1180	260
APR.	406	7940	4730	5190	2200	2410	890	976	680
MAY	42.67	7280	4350	501	2000	230	800	92	630
JUNE	1931.82	1670	950	4960	390	2030	92	480	220
JULY	285.12	2950	1780	1370	770	593	250	192	310
AUG.	58.36	5110	2910	459	1400	221	530	84	470
SEP.	342.54	2580	1470	1360	660	610	210	194	280
TOTAL	7833.87	--	--	41300	--	18000	--	6180	--
WTD. AVG. ...	21.46	3260	1950	--	850	--	290	--	340

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9000	1000	11900	11000	9530	6860	7110	7400	6330	7460	2890	8090
2	9160	1590	12100	11000	9540	5690	7150	7400	7190	7540	3070	12800
3	9080	2690	9000	10700	9580	5890	7120	7220	8000	7760	3480	14500
4	9060	3580	8900	9860	9760	6380	7120	7240	8500	9240	4020	14800
5	9040	4900	8680	10100	10000	6440	7430	7540	8400	9200	4690	15000
6	9040	4910	8680	9000	10200	6840	9630	7790	8200	10200	5440	5000
7	9160	5630	8540	8500	8550	7180	10600	8010	8010	11600	6210	4570
8	9320	5590	8540	8000	8550	7280	10600	8230	8200	12600	6720	8030
9	9320	6650	8680	8500	8000	7660	10300	8290	8400	13600	6900	8350
10	9500	6730	9130	8500	7000	1000	9630	8660	8500	14200	7210	2000
11	9760	6480	10900	8500	8580	1800	9040	8870	8400	10000	7450	3000
12	9860	6710	9130	9000	8020	2000	8560	9110	8500	9810	7470	2360
13	10000	7070	9170	8500	8080	2340	8120	9030	8600	9860	7870	2000
14	10100	7390	9570	8340	7690	3100	7910	7000	8500	10100	7840	1440
15	10400	7550	9590	8840	7600	3750	7480	9900	8500	10400	7840	2270
16	10500	7920	10000	9160	7630	4360	7790	8720	3000	10200	8200	2660
17	10600	8170	9680	9790	7630	4780	7320	8910	1000	10200	8600	2930
18	10700	8400	9680	10600	7570	5450	7320	9450	1500	10200	9000	3350
19	8810	8470	9550	11800	8270	5690	7850	9900	2180	10600	9400	3860
20	7120	8640	9770	12700	8400	6020	7940	10200	2890	10600	9800	4170
21	5200	8940	10700	12300	8690	6290	7940	6000	3400	8000	10000	4510
22	6320	9500	11400	11500	8440	6400	7940	10200	3810	3720	10300	4830
23	5000	10300	11800	10000	8370	6800	7680	9190	4110	3900	10800	5240
24	6500	10700	11900	9500	7050	7000	7510	8800	4460	4430	11200	5500
25	6150	10800	11400	8620	5160	7200	7070	8540	4760	4560	12200	5790
26	5000	11000	11400	8770	5160	7230	6120	8580	5320	2000	11900	6140
27	5670	11200	11700	8960	5360	7150	6420	9150	5690	1190	13800	6480
28	3850	11300	11700	8550	5710	7330	8220	9000	6140	1630	14300	6890
29	4590	11400	11300	8550	---	7320	8740	9000	6570	1160	14900	6670
30	4460	11700	11200	8700	---	7410	8190	9000	7020	1580	16200	7590
31	3840	---	11000	8920	---	7610	---	9000	---	2690	16000	---
MONTH	7940	7560	10220	9570	8000	5750	8060	8560	6140	7750	8890	6030

COLORADO RIVER BASIN

08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	12.0	12.0	---	6.0	13.0	21.0	25.0	28.0	37.0	25.0	24.0
2	21.0	14.0	12.0	---	5.0	12.0	21.0	20.0	31.0	25.0	25.0	34.0
3	25.0	17.0	13.0	0.5	4.0	14.0	17.0	21.0	---	25.0	25.0	35.0
4	26.0	18.0	7.0	4.0	14.0	21.0	15.0	25.0	---	26.0	25.0	33.0
5	23.0	21.0	9.0	4.0	15.0	19.0	17.0	22.0	---	26.0	31.0	28.0
6	18.0	18.0	3.0	---	15.0	21.0	16.0	24.0	---	26.0	33.0	20.0
7	22.0	14.0	4.0	---	11.0	21.0	20.0	15.0	---	25.0	34.0	22.0
8	28.0	14.0	5.0	---	7.0	22.0	15.0	18.0	---	26.0	34.0	28.0
9	20.0	14.0	6.0	---	8.0	15.0	15.0	19.0	---	31.0	35.0	30.0
10	21.0	12.0	4.0	---	9.0	12.0	10.0	20.0	---	35.0	36.0	24.0
11	20.0	12.0	3.0	---	10.0	16.0	12.0	22.0	---	30.0	35.0	23.0
12	20.0	20.0	5.0	---	7.0	17.0	13.0	18.0	---	32.0	35.0	22.0
13	18.0	15.0	7.0	---	9.0	17.0	17.0	19.0	---	30.0	29.0	22.0
14	20.0	15.0	5.0	10.0	7.0	13.0	19.0	18.0	---	30.0	28.0	23.0
15	26.0	10.0	5.0	4.0	12.0	12.0	21.0	26.0	---	30.0	31.0	22.0
16	23.0	15.0	6.0	6.0	11.0	13.0	20.0	26.0	---	25.0	---	27.0
17	28.0	11.0	8.0	9.0	5.0	12.0	20.0	26.0	26.0	25.0	---	21.0
18	23.0	11.0	6.0	8.0	14.0	17.0	19.0	28.0	26.0	35.0	---	26.0
19	9.0	12.0	6.0	9.0	15.0	20.0	21.0	31.0	25.0	25.0	---	30.0
20	10.0	6.0	6.0	8.0	12.0	22.0	22.0	30.0	22.0	25.0	---	28.0
21	10.0	7.0	7.0	12.0	10.0	20.0	25.0	23.0	22.0	25.0	34.0	30.0
22	20.0	4.0	5.0	11.0	8.0	---	25.0	20.0	23.0	34.0	34.0	28.0
23	5.0	9.0	6.0	11.0	12.0	---	21.0	21.0	23.0	33.0	35.0	27.0
24	5.0	11.0	14.0	6.0	14.0	---	20.0	22.0	27.0	35.0	35.0	23.0
25	5.0	6.0	11.0	6.0	13.0	17.0	19.0	21.0	30.0	33.0	35.0	24.0
26	10.0	14.0	12.0	7.0	12.0	11.0	18.0	21.0	33.0	34.0	30.0	24.0
27	5.0	13.0	12.0	8.0	10.0	13.0	15.0	28.0	32.0	36.0	34.0	20.0
28	6.0	13.0	11.0	6.0	13.0	12.0	16.0	---	31.0	34.0	25.0	18.0
29	21.0	8.0	16.0	4.0	---	12.5	26.0	---	32.0	30.0	24.0	18.0
30	21.0	12.0	13.0	6.0	---	15.0	23.0	---	35.0	25.0	25.0	27.0
31	12.0	---	---	8.0	---	11.0	---	---	---	25.0	25.0	---
MONTH	17.5	12.5	8.0	---	10.5	15.5	18.5	22.5	---	29.5	30.5	25.5

COLORADO RIVER BASIN

511

08123650 BEALS CREEK ABOVE BIG SPRING, TEX.

LOCATION.--Lat 32°15'01", long 101°29'26", Howard County, at gaging station at end of Channing Street in Big Spring, just downstream from One Mile Lake, 2.9 miles (4.7 km) upstream from Little Sandy Creek, 7.5 miles (12.1 km) downstream from confluence of Sulphur Springs Creek and Mustang Draw.

DRAINAGE AREA.--9,409 mi² (24,370 km²), of which 8,915 mi² (23,090 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: April to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)
APR. 21...	1700	.16	.1	620	2700	9300	--	300	208	0
MAY 01...	1400	.56	.4	550	2500	--	8700	--	184	0
JUNE 02...	0815	3.6	4.3	160	460	--	1700	--	74	0

DATE	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
APR. 21...	10000	16000	39500	13000	13000	36	51400	7.8	23.0
MAY 01...	9300	15000	35700	12000	11000	--	46700	8.0	23.0
JUNE 02...	1800	3000	7160	2300	2300	--	11000	7.2	22.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	--	--	--	--	--	--	--	--	--
NOV.	--	--	--	--	--	--	--	--	--
DEC.	--	--	--	--	--	--	--	--	--
JAN. 1973....	--	--	--	--	--	--	--	--	--
FEB.	--	--	--	--	--	--	--	--	--
MAR.	--	--	--	--	--	--	--	--	--
APR.	14.15	46100	35200	1340	15000	573	9000	344	--
MAY	11.25	49300	37700	1150	16000	486	9700	295	--
JUNE	21.93	19300	13800	817	5700	338	3500	207	--
JULY	0	--	--	0	--	0	--	0	--
AUG.	0	--	--	0	--	0	--	0	--
SEP.	2.52	51600	39600	269	16000	109	10000	68	--
TOTAL	49.85	--	--	3580	--	1510	--	914	--
WTD. AVG. ...	.27	35300	26600	--	11000	--	6800	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

[illegible]

COLORADO RIVER BASIN

513

08123800 BEALS CREEK NEAR WESTBROOK, TEX.

LOCATION.--Lat 32°11'57", long 101°00'49", Mitchell County, at gaging station at bridge on State Highway 163, 1.5 miles (2.4 km) downstream from Crystal Creek, 11 miles south of Westbrook, and 16 miles (25.7 km) southwest of Colorado City.

DRAINAGE AREA.--9,903 mi² (25,648 km²) of which 8,930 mi² (23,130 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1958 to September 1973.

Water temperatures: November 1958 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 18,200 micromhos Mar. 9; minimum daily, 592 micromhos July 30.

Water temperatures: Maximum, 33.0°C June 18, Aug. 15, Sept. 4; minimum, freezing point Jan. 9.

EXTREMES, November 1958 to September 1973.--Specific conductance: Maximum daily, 22,800 micromhos June 2, 1969, minimum daily, 219 micromhos Sept. 13, 1964.

Water temperatures: Maximum, 37.0°C June 28, 1960; minimum, freezing point Jan. 7, 1971, Jan. 9, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 22...	1700	102	8.6	100	90	400	--	11	144	0	390
NOV. 07...	1100	7.4	7.5	170	210	--	1000	--	220	0	990
DEC. 11...	1045	4.2	1.8	370	540	--	2200	--	330	0	2300
JAN. 21...	1230	7.8	8.1	300	330	1400	--	37	272	0	1500
FEB. 23...	0900	105	13	120	64	--	420	--	158	0	250
MAR. 10...	0940	3230	13	59	13	--	62	--	154	0	62
APR. 23...	1000	8.2	1.4	330	480	2000	--	46	268	0	2000
MAY 01...	1730	6.4	10	140	90	--	440	--	186	0	400
JUNE 23...	1000	.36	6.1	420	690	--	2600	--	308	0	2800
JULY 20...	0830	5.5	4.8	67	27	--	230	--	120	0	190
AUG. 20...	1245	.54	2.5	170	160	--	820	--	199	0	740
SEP. 22...	0845	759	5.3	71	17	--	76	--	195	0	63

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 22...	700	.4	2.6	1790	620	500	7.1	3070	7.8	17.0
NOV. 07...	1600	--	1.6	4120	1300	1100	12	6710	7.2	17.0
DEC. 11...	3700	--	4.8	9350	3200	2900	--	13800	7.8	1.0
JAN. 21...	2400	--	--	6100	2100	1880	13	9300	8.0	8.0
FEB. 23...	750	.4	2.0	1700	560	430	7.7	2980	7.6	4.0
MAR. 10...	96	.2	2.6	393	200	74	1.9	667	6.9	--
APR. 23...	3400	--	--	8400	2800	2600	16	12800	8.0	22.0
MAY 01...	780	--	.6	1950	710	550	7.2	3310	7.9	24.0
JUNE 23...	4600	--	--	11300	3900	3600	--	16300	7.8	24.0
JULY 20...	330	.2	.6	911	280	180	5.9	1650	7.4	25.0
AUG. 20...	1400	.2	.6	3380	1100	940	11	5640	7.5	31.0
SEP. 22...	130	.1	.8	462	250	86	2.1	843	7.3	21.0

COLORADO RIVER BASIN

08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	573.6	4320	2690	4170	1020	1580	660	1020	930
NOV.	292.5	7840	4990	3940	1930	1520	1240	979	1680
DEC.	132.4	13400	8630	3090	3370	1200	2160	772	2850
JAN. 1973....	267.9	10200	6540	4730	2540	1840	1630	1180	2180
FEB.	417.0	8340	5320	5990	2060	2320	1320	1490	1780
MAR.	2343.4	2170	1280	8100	460	2910	300	1900	470
APR.	1101.8	2910	1760	5240	660	1960	430	1280	630
MAY	201.8	7000	4440	2420	1710	932	1100	599	1500
JUNE	418.47	4640	2900	3280	1100	1240	710	802	1000
JULY	631.3	2270	1340	2280	490	835	320	545	500
AUG.	72.51	3310	2020	395	760	149	490	96	720
SEP.	1791.18	1270	710	3430	230	1110	160	774	280
TOTAL	8243.86	--	--	47100	--	17600	--	11400	--
WTD. AVG. ...	22.6	3440	2110	--	790	--	510	--	740

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9910	1300	14500	11600	12700	7100	16800	3310	5000	14900	676	6100
2	10300	2980	14600	11500	13000	8560	16300	3690	3350	2130	791	1770
3	12000	3580	14300	11300	13600	9950	16300	3930	3110	4480	904	1540
4	13500	5210	14300	11200	11600	13500	16300	4890	3880	4720	1340	1760
5	14800	6800	14200	11200	10500	15500	15300	6250	3640	4640	1740	3030
6	15400	7890	14100	11200	10100	16500	15400	7000	4000	4650	1920	915
7	15800	6700	13800	11000	10900	17600	14600	7910	4150	4710	2080	860
8	15800	9050	14700	10900	11300	18000	14200	8870	4350	4730	2770	1500
9	15700	10900	14700	11500	14700	18200	15200	10000	4900	4840	3450	2330
10	16100	13200	13300	11200	14600	850	15800	11000	5670	4880	3260	2530
11	14500	13500	13800	10900	13900	1500	15000	11000	4010	4920	3000	2190
12	13800	14300	14200	10900	15100	2500	14800	11600	7200	4980	4400	2490
13	13200	15800	13800	10500	14000	4190	14700	11900	10000	4520	5580	1030
14	13400	16000	13900	10200	13600	4550	14500	10700	10400	4360	4420	5620
15	14000	16300	14400	12000	10600	5250	14200	12100	10300	4100	7340	4200
16	14500	16300	13500	10400	9450	8120	14700	10000	10900	4700	7140	3490
17	14900	16300	13600	10100	8920	9860	10400	12100	11000	3810	6720	3930
18	15100	16200	13300	11100	10700	12300	12100	11300	12200	3120	6250	4410
19	14700	16600	13000	10900	12500	14300	12300	9710	12700	4730	5910	3620
20	9460	16000	12900	10900	15200	16200	12800	8330	13900	1650	5640	2860
21	5000	15600	12600	9300	15500	17000	12400	8150	15600	1700	5520	1000
22	3070	15400	12100	9510	4000	17500	12500	4000	16000	1900	5340	843
23	3730	15900	12200	10000	3000	17600	1500	2000	16300	2100	5310	1730
24	4080	15600	12200	9590	7000	17500	900	1930	16100	2470	5380	2740
25	3770	15400	12200	11200	9860	17600	4000	2400	15600	2930	5430	3530
26	1000	15300	12200	10500	8000	17500	3360	3080	14700	1400	5550	3640
27	1620	15100	12200	9770	6870	16100	2530	3330	14000	1960	5690	3720
28	5000	14600	12000	7270	6810	16500	3050	3790	14600	3970	5800	3810
29	7000	14600	12000	6510	---	16900	3010	4110	15300	650	5900	3910
30	9860	14500	11600	8620	---	16500	3420	4300	15300	592	6020	3950
31	1000	---	11400	11300	---	16900	---	4660	---	865	6050	---
MONTH	10390	12560	13280	10450	11000	12650	11280	7010	9940	3750	4430	2830

COLORADO RIVER BASIN

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08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	9.0	6.0	5.0	10.0	17.0	18.0	24.0	22.0	28.0	25.0	23.0
2	23.0	11.0	9.0	4.0	7.0	18.0	14.0	22.0	24.0	28.0	24.0	28.0
3	25.0	16.0	12.0	7.0	11.0	14.0	16.0	16.0	29.0	27.0	30.5	24.0
4	22.0	16.0	6.0	6.0	13.0	18.0	12.0	19.0	25.0	28.0	29.5	33.0
5	22.0	17.0	9.0	5.0	11.0	14.0	13.0	19.0	24.0	25.0	29.5	26.0
6	22.0	16.0	4.0	4.0	13.0	18.0	14.0	---	28.0	27.0	31.0	18.0
7	18.0	17.0	4.0	---	12.0	19.0	21.0	17.0	22.0	27.0	24.0	---
8	24.0	17.0	9.0	2.0	4.0	---	15.0	18.0	23.0	30.0	30.0	---
9	28.0	16.0	6.5	0.0	4.0	15.0	10.0	21.0	26.0	30.0	26.0	25.0
10	23.0	12.0	4.0	1.0	3.0	11.0	16.0	30.0	22.0	---	25.0	24.0
11	27.0	12.0	1.0	1.0	7.0	11.0	12.0	24.0	21.0	---	25.0	22.0
12	22.0	15.0	3.0	3.0	8.0	---	15.0	20.0	24.0	25.0	28.0	23.0
13	26.0	15.0	7.0	5.0	14.0	15.0	23.0	18.0	30.0	28.0	25.0	22.0
14	22.0	---	3.0	7.0	7.0	18.0	19.0	15.0	25.0	25.0	25.0	26.0
15	22.0	8.0	2.0	5.0	12.0	13.0	22.0	22.0	32.0	28.0	33.0	22.0
16	---	12.0	1.0	10.0	8.0	17.0	16.0	18.0	26.0	26.0	25.0	27.0
17	26.0	8.0	4.0	10.0	5.0	18.0	16.0	23.0	---	28.0	26.0	22.0
18	24.0	9.0	5.0	13.0	8.0	17.0	15.0	21.0	33.0	25.0	32.0	18.0
19	13.0	9.0	6.0	8.0	8.0	15.0	17.0	24.0	25.0	32.0	30.0	21.0
20	11.0	7.0	7.0	---	8.0	12.0	25.0	28.0	27.0	25.0	31.0	23.0
21	13.0	7.0	8.0	8.0	9.0	15.0	26.0	24.0	29.0	27.0	24.0	---
22	17.0	5.5	5.0	6.0	7.0	18.0	---	23.0	29.0	---	28.0	21.0
23	24.0	5.0	8.0	8.0	4.0	18.0	22.0	---	24.0	31.0	27.0	23.0
24	15.0	7.0	---	4.0	8.0	15.0	18.0	28.0	23.0	32.0	32.0	22.0
25	14.5	---	---	6.0	14.0	16.0	21.0	23.0	23.0	32.0	23.0	28.0
26	12.0	11.0	6.0	4.0	11.0	18.0	16.0	28.0	23.0	24.0	28.0	23.0
27	13.0	12.0	5.0	5.0	8.0	18.0	14.0	21.0	26.0	28.0	30.0	21.0
28	14.0	6.0	---	6.0	12.0	---	15.0	18.0	---	27.0	---	18.0
29	18.0	7.0	11.0	4.0	---	17.0	23.0	20.0	32.0	---	---	18.0
30	20.0	4.0	7.0	6.0	---	19.0	20.0	---	25.0	23.0	23.0	25.0
31	---	---	6.0	7.0	---	14.0	---	24.0	---	24.0	24.0	---
MONTH	20.0	11.0	6.0	5.5	9.0	16.0	17.5	21.5	26.0	27.5	27.5	23.0

COLORADO RIVER BASIN

08123850 COLORADO RIVER ABOVE SILVER, TEX.

LOCATION.--Lat 32°03'37", long 100°45'56", Coke County, at gaging station at a Pan American Oil Co. bridge, 4.7 miles (7.6 km) west of Silver. Prior to October 4 at a site 0.5 mile (0.8 km) downstream.

DRAINAGE AREA.--15,407 mi² (39,904 km²), of which 11,600 mi² (30,000 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1967 to September 1973.

Pesticide analyses: October 1970 to September 1973.

Water temperatures: December 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 12,700 micromhos Feb. 24; minimum daily, 515 micromhos Sept. 23.

Water temperatures: Maximum, 29.0°C June 21, Aug. 3, 23; minimum, freezing point on several days during winter months.

EXTREMES, December 1967 to September 1973.--Specific conductance: Maximum daily, 13,600 micromhos Mar. 18, May 29, 1969; minimum daily, 398 micromhos May 5, 1968.

Water temperatures: Maximum, 29.0°C on several days during summer months of 1968 and 1973; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.											
04...	1410	20	8.3	200	73	750	--	10	214	0	620
09...	0845	15	9.1	250	96	950	--	12	224	0	800
NOV.											
30...	0900	14	2.6	330	280	--	1600	--	208	0	1500
DEC.											
14...	0830	11	3.9	340	220	--	1300	--	264	0	1500
FEB.											
24...	0830	90	6.3	370	490	--	2100	--	300	0	2200
MAR.											
12...	1610	871	6.5	88	25	--	230	--	144	0	190
APR.											
24...	1915	1150	8.3	160	80	410	--	13	184	0	360
MAY											
10...	1250	11	5.2	270	110	--	850	--	220	0	900
JUNE											
21...	1545	37	8.3	120	31	--	340	--	148	0	260
JULY											
30...	0800	644	7.8	61	13	74	--	5.5	138	0	91
AUG.											
03...	1300	42	9.5	78	24	--	220	--	120	0	210
SEP.											
13...	1130	340	9.4	66	17	--	140	--	144	0	120

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT.										
04...	1200	--	.09	2920	790	620	12	4820	8.0	22.0
09...	1500	--	.30	3700	1000	830	13	6100	8.2	21.0
NOV.										
30...	2600	--	--	6380	2000	1800	--	10100	7.1	5.0
DEC.										
14...	2000	.5	.50	5510	1800	1600	13	8520	8.2	.3
FEB.										
24...	3500	--	--	8760	2900	2700	--	12700	7.9	8.0
MAR.										
12...	360	.3	1.1	982	320	200	5.7	1720	7.6	14.0
APR.										
24...	790	--	.90	1920	720	570	6.7	3270	7.4	21.5
MAY										
10...	1300	--	.50	3570	1100	950	11	5790	7.9	28.0
JUNE										
21...	540	.4	.80	1380	420	300	7.2	2380	7.5	29.0
JULY										
30...	110	.3	.40	435	210	92	2.2	794	7.2	23.0
AUG.										
03...	320	.4	.50	912	290	190	5.5	1590	7.5	29.0
SEP.										
13...	200	.4	1.0	621	230	120	3.8	1110	7.7	25.0

COLORADO RIVER BASIN

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08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELORIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
FEB. 12...	1445	11.0	.00	.00	.00	.00	.00	.00	.00	.00
DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
FEB. 12...	.00	.0	.0	.25	.00	.00	.00	.00	.00	.03

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1679.3	4420	2680	12200	1010	4580	620	2810	850
NOV.	2024	2920	1740	9510	640	3500	370	2020	520
DEC.	383.5	10000	6590	6820	2710	2810	1540	1590	2080
JAN. 1973....	672.9	8830	5720	10400	2200	4000	1460	2650	1820
FEB.	971	8800	5700	14900	2190	5740	1460	3830	1810
MAR.	8679	1860	1070	25100	380	8900	230	5390	350
APR.	3234	3780	2280	19900	850	7420	520	4540	710
MAY	386.5	6370	3910	4080	1490	1550	930	971	1280
JUNE	2374.4	1970	1140	7310	410	2630	240	1540	360
JULY	2023.8	1620	920	5030	320	1750	200	1090	310
AUG.	352.34	2330	1370	1300	500	476	300	285	410
SEP.	2500.18	1300	730	4930	240	1620	130	878	270
TOTAL	25280.92	--	--	121000	--	45000	--	27600	--
WTD. AVG. ...	69.3	2950	1780	--	660	--	400	--	570

COLORADO RIVER BASIN

08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4420	1560	10000	7830	9760	7270	7210	3730	2020	3900	1550	5810
2	4560	3160	10000	8550	9540	7680	8400	4010	3070	4010	1450	5880
3	4670	1180	10100	7410	8350	8100	9110	4500	2940	4040	1590	5960
4	4850	1380	10500	9630	8280	8820	9030	4980	2120	4530	1780	5400
5	4870	1900	10500	9240	8250	8740	8510	5140	3440	4840	2060	5500
6	5410	2290	10800	8850	8220	7210	8800	5120	3500	5550	2350	5290
7	5610	2600	10700	8870	8090	6920	8580	5310	3830	6200	2640	2760
8	6130	2930	11000	8890	7950	6630	8830	5350	4270	6630	2900	1030
9	6100	3290	11100	8900	7820	6350	9230	5460	4740	6990	3070	1100
10	6270	3590	10000	8960	7790	1420	9150	5790	5000	7250	3070	1330
11	6340	3760	9200	8900	9720	1090	9280	5890	5220	7460	3100	1750
12	6460	4180	8890	8970	9880	1380	9190	5970	5230	7850	3130	2790
13	6580	4190	8670	9000	10200	2060	9230	6030	4870	8410	3300	1130
14	6800	4640	8520	8880	9770	2500	9150	6090	4780	8560	3540	1360
15	7180	5280	8740	8770	9910	2760	9320	5950	4840	10500	3810	1580
16	7160	5480	8890	8920	10300	2960	9280	6130	5100	11600	3930	1740
17	7290	5840	9290	8960	9370	3290	9230	6300	4270	12500	4100	1890
18	7420	5940	9900	9000	8630	3650	10000	5940	941	12000	4280	1670
19	4810	5940	10300	9200	10400	3900	10000	6170	2670	9720	4370	1850
20	4000	5930	10700	9040	10300	4140	9860	6940	2460	8420	4430	2130
21	4120	6090	10500	8880	9450	4390	10000	7300	2380	7510	4510	2360
22	7310	6420	10200	9040	9330	4780	9750	7630	2460	7280	4600	829
23	3680	6670	10100	9000	9900	5280	2920	7830	2600	7050	4820	515
24	2700	7170	10400	8810	12700	5610	2140	9760	2820	6580	4900	857
25	2930	8110	10400	8880	5430	6630	1120	10500	3010	6120	5120	1290
26	6190	8680	10100	9160	5370	6660	1430	10200	3160	6120	5250	1640
27	5520	9210	10000	8960	7170	7210	3450	11200	3320	2550	5380	1990
28	3980	9590	10000	8850	7000	7600	2570	12100	3490	672	5520	2210
29	4010	9910	10200	8120	---	8100	3220	11400	3640	815	5610	2380
30	3670	10100	10400	8390	---	8050	3830	11100	3760	798	5720	2630
31	2300	---	10400	8880	---	8600	---	10800	---	689	5800	---
MONTH	5270	5230	10020	8830	8890	5480	7390	7120	3530	6360	3800	2490

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	11.0	5.0	5.0	5.0	12.0	11.0	18.0	16.0	24.0	24.0	22.0
2	18.0	10.0	7.0	4.0	4.0	10.0	14.0	15.0	21.0	24.0	23.0	23.0
3	18.0	10.0	8.0	2.0	4.0	12.0	13.0	14.0	24.0	24.0	29.0	23.0
4	22.0	11.0	6.0	4.0	---	12.0	9.0	16.0	22.0	25.0	23.0	24.0
5	19.0	---	8.0	4.0	9.0	11.0	8.0	17.0	21.0	25.0	---	21.0
6	19.0	12.0	2.0	3.0	8.0	14.0	12.0	18.0	20.0	24.0	23.0	20.0
7	17.0	13.0	1.0	---	10.0	10.0	10.0	16.0	21.0	24.0	22.0	19.0
8	18.0	11.0	3.0	---	---	13.0	---	17.0	21.0	25.0	23.0	19.0
9	21.0	12.0	6.0	---	1.0	13.0	6.0	19.0	22.0	24.0	24.0	---
10	22.0	10.0	---	---	0.0	10.0	8.0	28.0	---	24.0	24.0	26.0
11	21.0	10.0	0.0	---	4.0	11.0	10.0	22.0	21.0	24.0	24.0	25.0
12	20.0	11.0	0.0	---	6.0	14.0	12.0	19.0	20.0	24.0	27.0	26.0
13	20.0	10.0	1.0	0.0	8.0	15.0	6.0	---	21.0	23.0	24.0	25.0
14	20.0	8.0	0.0	1.0	6.0	12.0	8.0	15.0	22.0	23.0	24.0	24.0
15	20.0	8.0	0.0	3.0	5.0	13.0	14.0	15.0	23.0	---	26.0	25.0
16	18.0	6.0	0.0	8.0	5.0	12.0	12.0	17.0	24.0	22.0	26.0	---
17	19.0	7.0	1.0	10.0	3.0	11.0	14.0	19.0	---	24.0	---	21.0
18	21.0	8.0	5.0	10.0	4.0	12.0	13.0	20.0	23.0	24.0	26.0	19.0
19	10.0	7.0	5.0	6.0	5.5	13.0	15.0	21.0	24.0	24.0	---	21.0
20	10.0	6.0	6.0	7.0	6.0	12.0	16.0	22.0	21.0	24.0	27.0	22.0
21	13.0	5.0	5.0	5.0	8.0	12.0	18.0	22.0	29.0	24.0	27.0	22.0
22	18.0	7.0	4.0	4.0	6.0	14.0	---	22.0	22.0	---	26.0	21.0
23	16.0	5.0	5.0	3.0	5.0	16.0	20.0	21.0	22.0	23.0	29.0	---
24	12.0	5.0	5.0	3.0	8.0	15.0	21.5	23.0	---	25.0	24.0	22.0
25	14.0	5.0	6.0	2.0	9.0	14.0	18.0	22.0	22.0	24.0	22.0	24.0
26	12.0	4.0	4.0	3.0	11.0	10.0	17.0	21.0	22.0	25.0	---	23.0
27	12.0	8.0	4.0	4.0	9.0	12.0	12.0	---	23.0	23.0	22.0	20.0
28	16.0	6.0	5.0	5.0	11.0	13.0	14.0	16.0	24.0	24.0	22.0	17.0
29	16.0	5.0	10.0	8.0	---	10.0	---	17.0	22.0	---	23.0	18.0
30	18.0	5.0	6.0	5.0	---	13.0	18.0	18.0	23.0	23.0	22.0	20.0
31	22.0	---	4.0	6.0	---	11.0	---	19.0	---	24.0	22.0	---
MONTH	17.5	8.0	4.0	4.5	6.0	12.5	13.0	19.0	22.0	24.0	24.5	22.0

COLORADO RIVER BASIN

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08126500 COLORADO RIVER AT BALLINGER, TEX.

LOCATION.--Lat 31°43'48", long 99°56'30", Runnels County, at gaging station at bridge on U.S. Highway 83 in Ballinger, 2,000 feet (610 m) upstream from Elm Creek.

DRAINAGE AREA.--16,840 mi² (43,620 km²) of which 11,600 mi² (30,040 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Water temperatures: October 1961 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 3,470 micromhos Sept. 1; minimum daily, 485 micromhos June 3.
Water temperatures: Maximum, 34.0°C Aug. 14; minimum, freezing point Jan. 9, 10, 11.

EXTREMES, October 1961 to September 1973.--Specific conductance: Maximum daily, 13,500 micromhos May 3, 1963; minimum daily, 249 micromhos Aug. 14, 1963.
Water temperatures: Maximum, 34.0°C Aug. 14, 1973; minimum, freezing point Jan. 9, 10, 11, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 27...	1345	266	6.5	74	31	97	--	4.4	140	0	170
NOV. 04...	1110	93	12	80	43	--	160	--	204	0	190
DEC. 28...	1830	22	8.3	160	68	--	220	--	194	0	300
JAN. 10...	1430	33	7.3	160	51	150	--	3.8	176	0	400
FEB. 19...	1235	32	8.1	160	78	--	230	--	262	0	430
MAR. 18...	1315	29	5.3	130	69	--	200	--	184	0	380
APR. 25...	1140	387	8.2	68	33	87	--	5.2	182	0	140
MAY 03...	1828	48	9.6	80	43	--	130	--	218	0	190
JUNE 05...	1230	82	6.0	160	77	--	250	--	184	0	480
JULY 17...	1100	27	6.8	70	28	--	34	--	96	0	150
AUG. 19...	1710	4.4	12	330	100	--	240	--	186	0	840
SEP. 14...	1615	228	7.0	57	17	--	51	--	132	0	80

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	160	.3	.7	618	310	200	4.3	1090	7.6	14.5
NOV. 04...	260	.5	1.4	853	380	210	3.7	1490	7.3	14.5
DEC. 28...	480	.4	7.5	1370	690	530	3.7	2410	7.9	8.0
JAN. 10...	250	.4	2.6	1120	600	460	2.6	1770	7.1	.0
FEB. 19...	370	.5	6.9	1440	720	500	3.7	2260	7.0	9.0
MAR. 18...	330	.5	3.3	1220	600	450	3.5	2000	7.3	18.0
APR. 25...	140	.3	2.4	585	300	160	2.2	1000	7.7	21.0
MAY 03...	190	.5	4.8	770	380	200	2.9	1280	8.0	23.0
JUNE 05...	420	.5	.9	1480	710	550	4.1	2390	7.4	27.0
JULY 17...	92	.1	.9	428	290	210	.9	827	7.2	27.0
AUG. 19...	520	.2	2.4	2150	1200	1100	3.0	3440	7.5	32.0
SEP. 14...	92	.0	.6	372	210	100	1.5	672	7.3	25.5

COLORADO RIVER BASIN

08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1236.9	1490	890	2970	240	802	260	868	460
NOV.	1562	1460	870	3670	230	970	260	1100	450
DEC.	747	1890	1160	2340	310	625	360	726	580
JAN. 1973....	999	2200	1370	3700	370	998	430	1160	680
FEB.	922	2270	1410	3510	380	946	440	1100	700
MAR.	1202	2020	1250	4060	330	1070	380	1230	620
APR.	3033	1390	830	6800	220	1800	240	1970	430
MAY	826	1490	890	1980	240	535	260	580	460
JUNE	1828.6	1320	780	3850	200	987	230	1140	410
JULY	1035.2	1460	870	2430	230	643	260	727	450
AUG.	255.6	1850	1130	780	300	207	350	242	570
SEP.	1699.8	873	480	2200	120	551	120	551	270
TOTAL	15347.1	--	--	38300	--	10100	--	11400	--
WTD. AVG. ...	42.0	1540	920	--	240	--	270	--	470

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1200	1650	1590	2320	1990	1850	1430	1780	1560	1180	3470
2	1480	828	1730	2010	2250	1980	1590	1330	1760	1570	1400	3390
3	1540	1370	1680	1990	2280	2040	1550	1280	485	1520	1590	3300
4	1620	1500	1710	2040	2180	1970	1500	1360	2000	1600	1620	3220
5	1700	1560	1720	2120	2230	1970	1550	1410	2350	1650	1570	2770
6	1770	1580	1730	2080	2250	1940	1590	1380	1400	1620	1590	1570
7	1850	1550	1760	2060	2260	1920	1610	1440	1460	1730	1610	1760
8	1920	1530	1800	2120	2190	2020	1740	1500	1530	1760	1660	2100
9	2050	1590	1780	2180	2240	2010	1740	1470	1540	1760	1730	2400
10	2110	1590	1830	1770	2170	1820	1740	1470	1600	1830	1780	2630
11	2290	1620	1820	2130	2290	1810	1760	1500	1580	1840	1860	2770
12	2290	1640	1840	2300	2300	1970	1770	1450	1560	1880	1890	2550
13	2330	1630	1820	2330	2250	2060	1750	1360	1610	1860	1980	688
14	2390	1620	1850	2260	2240	2060	1760	1420	1580	1920	2100	672
15	2540	1600	1840	2260	2300	2040	1620	1550	1450	2290	2120	724
16	2630	1620	1870	2280	2270	1920	1830	1640	1480	1650	2160	791
17	2780	1640	1870	2280	2230	1890	1570	1680	1190	827	2200	910
18	2870	1650	1880	2330	2190	2000	1990	1680	1100	728	2290	1020
19	3040	1650	1920	2340	2260	2020	2180	1700	1110	812	2330	1190
20	2400	1650	1930	2370	2250	2030	1850	1700	1280	915	2350	1230
21	2000	1660	1990	2340	2220	2050	1730	1730	1330	1000	2430	1300
22	1480	1660	1990	2330	2160	2060	1680	1730	1470	1090	2480	1430
23	1930	1660	1940	2330	2280	2020	1580	1670	1460	1180	2510	1540
24	1410	1670	1970	2350	2650	2020	1080	1700	1480	1240	2530	1570
25	1280	1670	2040	2030	2560	2020	1000	1640	1520	1290	2720	1160
26	1070	1690	2010	2200	2220	2610	1270	1400	1430	830	2970	804
27	1090	1690	2090	2240	2160	2040	1100	1430	1510	1090	3210	921
28	1300	1690	2410	2240	2080	1920	1270	1500	1510	2440	3250	1120
29	1480	1700	2040	2430	---	1920	1360	1530	1520	2230	3300	1560
30	1380	1710	2090	2420	---	1950	1430	1600	1510	1230	3430	1680
31	1380	---	2100	2400	---	1920	---	1720	---	1730	2320	---
MONTH	1890	1580	1890	2200	2260	2000	1600	1530	1490	1510	2200	1740

COLORADO RIVER BASIN

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08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	14.5	5.0	7.0	9.5	13.0	19.0	21.5	---	30.5	29.5	27.0
2	22.0	13.5	6.5	6.0	10.5	12.0	18.5	20.5	24.5	30.0	30.5	29.5
3	24.5	15.5	12.0	5.5	10.0	14.5	---	23.0	23.5	30.5	30.0	29.0
4	25.0	14.5	7.0	6.0	11.5	18.5	15.5	19.5	27.0	---	30.0	29.5
5	---	15.5	---	6.0	13.5	---	---	21.0	27.0	33.5	26.5	26.5
6	23.5	18.5	6.5	5.0	11.5	16.0	14.0	23.0	24.5	33.5	30.5	21.0
7	20.0	---	4.5	3.5	11.5	14.5	18.0	---	28.0	30.5	29.0	21.0
8	20.0	13.5	4.5	1.5	6.5	19.0	13.5	24.5	29.0	30.5	30.0	28.0
9	21.0	14.0	6.0	0.0	5.0	16.5	14.5	25.0	26.5	29.0	30.5	---
10	22.0	15.5	4.0	0.0	5.0	16.5	15.5	28.5	27.0	30.0	30.0	25.5
11	22.0	14.0	1.5	0.0	4.5	16.5	14.5	25.0	---	29.5	30.5	26.5
12	21.5	16.5	4.5	1.0	11.0	14.0	16.0	23.5	---	28.5	31.5	25.5
13	---	15.5	4.5	1.0	11.0	18.5	19.5	21.0	27.0	28.5	32.0	25.0
14	24.5	11.5	3.5	5.5	11.0	19.0	19.5	18.0	29.5	27.0	34.0	25.5
15	25.5	10.0	3.5	8.0	7.0	16.0	19.0	21.0	30.5	25.5	30.5	28.0
16	21.0	9.0	3.5	8.5	7.0	16.5	18.5	24.0	26.5	28.0	---	28.5
17	21.0	8.5	---	11.0	---	17.0	16.5	26.0	24.5	27.0	30.5	26.0
18	23.5	---	4.5	12.0	7.0	18.0	19.0	26.0	30.0	27.0	30.0	26.5
19	16.5	11.0	5.5	12.0	9.0	18.5	22.0	28.0	29.5	27.0	31.5	28.0
20	15.5	8.0	6.5	14.0	8.0	18.5	24.5	30.0	24.5	32.0	---	25.5
21	---	---	9.5	9.0	9.0	18.5	24.5	30.0	27.0	---	31.5	---
22	18.0	12.0	6.0	9.5	8.5	17.0	25.0	26.0	28.0	29.5	33.0	26.0
23	16.5	8.0	8.0	8.5	10.0	18.0	23.0	26.0	28.0	29.5	31.5	25.0
24	16.5	9.0	10.5	6.5	11.5	18.0	22.0	---	28.0	29.5	31.5	27.0
25	15.5	8.5	10.0	5.5	13.0	15.5	21.0	25.5	28.0	32.0	29.5	26.5
26	13.0	8.5	7.0	6.0	13.0	13.5	19.0	28.5	29.0	25.0	28.5	24.5
27	14.5	8.0	9.0	7.0	10.5	17.0	19.5	25.0	30.0	25.0	29.5	24.0
28	---	7.0	8.0	6.5	---	18.5	21.0	24.5	---	30.0	---	25.0
29	16.5	7.0	11.0	5.5	---	18.0	21.5	26.5	31.5	31.5	29.5	25.5
30	19.5	6.5	9.5	8.5	---	18.0	21.0	26.0	30.5	26.5	28.5	25.0
31	14.5	---	11.0	---	---	18.0	---	26.0	---	27.0	27.0	---
MONTH	20.0	11.5	6.5	6.0	9.5	17.0	19.0	24.5	27.5	29.0	30.5	26.0

COLORADO RIVER BASIN

08127000 ELM CREEK AT BALLINGER, TEX.

LOCATION.--Lat 31°44'57", long 99°56'51", Runnels County, at gaging station 1,000 feet (305 m) upstream from storage dam at Ballinger, and 1.2 miles (1.9 km) upstream from mouth.

DRAINAGE AREA.--471 mi² (1,220 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 3,520 micromhos Oct. 4; minimum daily, 676 micromhos Oct. 23.

Water temperatures: Maximum, 34.5°C Aug. 14; minimum, freezing point Jan. 10, 13.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 4,220 micromhos Sept. 12, 17, 1970; minimum daily, 359 micromhos May 7, 1969.

Water temperatures: Maximum, 34.5°C Aug. 14, 1973; minimum, freezing point Jan. 8, 1968, Jan. 10, 13, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.											
26...	1640	587	9.1	60	22	82	--	7.8	136	0	95
NOV.											
04...	1230	43	11	83	37	--	150	--	210	0	120
DEC.											
09...	1150	19	5.1	130	100	--	310	--	208	0	340
JAN.											
05...	1500	35	8.9	110	84	210	--	3.0	200	0	280
FEB.											
19...	1415	35	7.8	170	120	--	300	--	320	0	380
MAR.											
04...	1500	28	8.1	120	98	--	280	--	164	0	330
APR.											
24...	1940	529	10	78	21	78	--	6.6	196	0	72
MAY											
02...	1240	17	11	120	62	--	180	--	252	0	210
JUNE											
05...	1400	212	9.1	48	19	--	66	--	130	0	63
JULY											
12...	1930	156	11	84	56	--	160	--	205	0	140
AUG.											
04...	1330	17	10	68	32	--	130	--	170	0	110
SEP.											
27...	1645	200	8.4	57	28	--	97	--	121	0	100

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
26...	150	.3	.3	500	240	240	2.3	841	7.7	14.0
NOV.										
04...	260	.4	5.0	788	360	190	3.4	1420	7.1	14.5
DEC.										
09...	610	.7	8.8	1640	740	570	5.0	2860	7.7	7.0
JAN.										
05...	420	.7	9.6	1260	630	460	3.7	2170	7.7	6.0
FEB.										
19...	630	--	11	1820	920	660	4.4	3090	7.5	10.0
MAR.										
04...	580	.6	9.8	1550	720	580	4.6	2630	7.4	18.5
APR.										
24...	160	.3	1.1	523	280	120	2.0	923	7.2	21.0
MAY										
02...	360	.5	4.5	1090	550	350	3.4	1880	8.1	20.5
JUNE										
05...	110	.2	2.1	393	200	92	2.0	721	7.3	24.0
JULY										
12...	330	.2	4.8	909	440	270	3.4	1650	7.6	27.0
AUG.										
04...	220	.2	.8	659	300	160	3.2	1200	7.0	31.0
SEP.										
27...	180	.1	4.3	548	260	160	2.6	991	7.5	22.0

COLORADO RIVER BASIN

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08127000 ELM CREEK AT BALLINGER, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1768.16	1280	720	3440	240	1150	140	668	360
NOV.	1134	1960	1140	3490	380	1160	220	674	540
DEC.	646	2930	1730	3020	590	1030	340	593	810
JAN. 1973....	1004	2870	1700	4610	580	1570	330	895	790
FEB.	936	3010	1780	4500	610	1540	350	885	830
MAR.	1093	2890	1710	5050	580	1710	340	1000	800
APR.	3068	1590	910	7540	300	2490	170	1410	440
MAY	351.3	2650	1560	1480	530	503	310	294	730
JUNE	4797.1	853	460	5960	150	1940	82	1060	240
JULY	1116.1	1660	960	2890	320	964	180	542	460
AUG.	307.3	1470	840	697	280	232	160	133	410
SEP.	726.3	1750	1010	1980	340	667	190	373	490
TOTAL	16947.26	--	--	44700	--	15000	--	8530	--
WTD. AVG. ...	46.4	1690	980	--	330	--	190	--	470

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3510	1590	2860	2870	3010	2840	2660	1740	2380	2080	1540	2190
2	3510	1570	2890	2500	3020	2860	2680	1880	2230	2170	1240	2310
3	3490	1450	2810	2930	2960	2780	2720	2000	1000	2210	1160	2270
4	3520	1420	2830	2880	2950	2630	2740	2130	748	2290	1200	2300
5	3510	1450	2900	2170	3000	2700	2760	2300	718	2340	1270	2330
6	3500	1510	2970	2610	2960	2770	2770	2350	854	2370	1330	2290
7	3490	1600	2880	2900	3000	2740	2870	2440	991	2400	1340	2290
8	3490	1690	2240	2400	3010	2800	2930	2530	991	2460	1390	2360
9	3480	1770	2860	2900	3050	2780	2950	2640	1060	2600	1420	2400
10	3440	1960	2890	2910	3100	2850	2980	2640	1160	2750	1440	2770
11	3470	1970	2940	2800	3080	2830	3000	2750	1230	2600	1460	2850
12	3470	2080	2970	2940	3030	2900	3000	2770	1260	1650	1500	2900
13	3450	2240	2940	3040	3050	2920	3070	2820	1590	874	1550	2720
14	3440	2280	2940	2750	3080	2940	3100	2850	1760	1050	1680	2740
15	3410	2370	2950	2370	3070	2970	3100	2910	1840	1170	1610	2690
16	3420	2400	2910	3000	3130	2930	3070	2930	1170	1340	1660	2600
17	3420	2480	2880	2980	3150	2980	2940	2970	753	1370	1710	2530
18	3440	2550	3020	2960	3100	2940	3040	3030	768	1350	1710	2560
19	3400	2630	2940	3030	3090	2970	2770	3020	898	1310	2150	2580
20	2840	2680	2910	3030	3110	2920	2740	3020	983	1320	1900	2320
21	2100	2660	3040	2940	3100	2950	3040	3040	1120	1410	1830	2500
22	900	2660	2990	3020	2990	2970	3130	3030	1220	1450	1890	2520
23	676	2750	2960	3020	3010	2980	2410	3020	1290	1460	1920	2490
24	752	2740	2980	2980	2970	3040	923	2900	1390	1530	1920	2460
25	768	2710	2940	2920	2930	3000	1000	3070	1510	1590	1970	2450
26	841	2740	2930	3030	2970	3000	1010	2800	1640	1460	2010	2240
27	738	2780	3040	3040	2960	3000	1110	2680	1730	1270	2080	991
28	1000	2790	3000	2980	2900	2970	1340	2500	1790	1280	2100	1230
29	1150	2820	2990	3020	---	2880	1460	2440	1950	1180	2160	1230
30	1210	2800	2980	3000	---	2780	1620	2350	1980	1050	2000	1250
31	1430	---	2990	3010	---	2710	---	2360	---	2410	2180	---
MONTH	2590	2240	2920	2870	3030	2880	2500	2640	1330	1740	1690	2310

COLORADO RIVER BASIN

08127000 ELM CREEK AT BALLINGER, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	15.5	5.5	8.0	8.5	12.0	20.0	23.5	---	30.0	29.5	28.5
2	23.0	15.5	6.5	7.0	10.0	11.0	19.0	20.5	24.0	30.5	29.5	28.5
3	24.0	16.5	13.0	8.0	10.0	14.0	---	21.0	22.0	30.0	29.0	30.5
4	25.5	14.5	7.0	6.5	11.0	18.5	15.0	21.0	25.5	---	31.0	29.5
5	---	15.5	---	6.0	10.5	---	---	20.5	24.0	32.0	27.0	25.5
6	25.5	18.5	6.5	5.0	10.0	15.5	14.5	24.0	23.5	33.0	28.5	22.0
7	21.0	---	4.5	4.0	11.0	14.0	18.5	---	26.0	32.0	29.0	22.0
8	20.5	13.5	5.0	2.0	6.0	18.5	13.0	24.0	27.0	31.0	28.5	26.0
9	21.5	14.0	7.0	0.5	5.5	16.5	14.0	22.0	26.5	29.5	30.0	---
10	21.5	15.5	5.0	0.0	5.0	17.0	15.5	28.0	26.5	30.5	29.5	25.5
11	21.5	14.0	2.0	1.0	7.0	18.5	14.0	25.5	---	30.0	29.0	28.0
12	21.5	16.0	5.0	0.5	10.5	14.5	16.0	23.5	26.0	26.5	33.0	26.0
13	---	15.0	4.5	0.0	9.5	18.5	18.5	21.5	28.5	28.0	33.5	31.0
14	24.0	12.0	3.5	3.5	9.0	18.5	19.5	18.5	28.0	25.5	34.5	29.0
15	25.0	11.0	3.0	0.5	6.0	15.5	19.0	22.0	29.0	25.5	31.0	29.5
16	22.0	9.5	2.0	4.5	8.0	16.0	18.5	24.5	29.5	29.5	---	28.5
17	21.5	10.0	---	7.0	---	16.0	18.0	25.0	20.5	27.0	31.0	25.5
18	24.0	---	4.5	10.5	6.0	17.0	19.5	25.0	29.5	26.5	30.5	26.5
19	18.0	11.0	5.5	10.0	10.0	18.0	20.5	26.5	29.5	29.0	33.0	26.5
20	16.5	8.5	6.0	13.0	6.5	18.5	23.5	28.0	29.0	30.0	---	26.5
21	16.5	8.0	8.0	9.0	8.0	18.5	23.5	27.0	28.0	---	33.0	---
22	---	6.0	5.5	9.5	9.0	17.0	24.0	26.0	27.0	30.0	33.0	26.0
23	18.0	7.0	7.0	9.0	13.0	17.0	23.0	26.0	28.0	30.5	32.0	25.5
24	17.0	8.5	10.0	8.0	13.0	16.5	21.0	---	27.0	30.0	31.5	27.0
25	15.0	7.0	10.0	6.0	11.0	16.0	21.5	25.0	28.0	33.5	29.0	26.5
26	14.0	8.0	6.5	6.5	12.0	13.5	16.5	28.5	27.0	27.0	29.5	25.0
27	16.0	7.0	9.0	8.0	10.5	16.0	20.5	25.0	30.0	28.0	30.0	22.0
28	---	6.5	8.5	5.0	---	18.0	20.0	23.5	---	29.0	---	25.5
29	15.5	6.5	11.0	4.0	---	17.0	21.0	25.0	30.0	29.5	28.5	25.5
30	18.5	7.0	9.0	7.0	---	18.0	21.0	25.5	31.0	26.5	28.0	25.0
31	14.0	---	11.0	---	---	17.0	---	26.5	---	27.0	28.5	---
MONTH	20.0	11.5	6.5	5.5	9.0	16.5	19.0	24.0	27.0	29.0	30.5	26.5

COLORADO RIVER BASIN

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08136150 CONCHO RIVER NEAR VERIBEST, TEX.

LOCATION.--Lat 31°32'07", long 100°13'05", Tom Green County, at bridge on county road, 2.8 miles (4.5 km) downstream from Crownest Creek, 4.5 miles (7.2 km) northeast of Veribest and 17.3 miles (27.8 km) downstream from gaging station near San Angelo.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV. 13...	1700	25	22	140	71	240	244	0	230
JAN. 30...	0900	15	19	180	94	310	326	0	290
MAR. 19...	2000	14	14	160	88	280	284	0	250
MAY 16...	1700	2.8	21	160	110	340	236	0	340
AUG. 27...	1640	5.0	32	150	110	350	216	0	310

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
NOV. 13...	490	.5	.54	.11	.18	3.8	.07	1320	630
JAN. 30...	640	.6	.39	.06	.13	11	.05	1740	840
MAR. 19...	610	.5	.39	.07	.08	5.4	.07	1570	770
MAY 16...	730	.5	.00	.09	.07	1.7	.06	1820	850
AUG. 27...	760	.5	3.0	.06	.36	.60	.56	1810	810

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 13...	430	4.1	2280	7.2	16.0	10.2	102	11
JAN. 30...	570	4.6	2870	8.0	6.0	12.5	101	3.8
MAR. 19...	530	4.4	2750	8.0	17.0	11.5	120	3.6
MAY 16...	660	5.0	3080	8.1	24.0	13.3	158	4.9
AUG. 27...	630	5.4	3090	7.2	28.5	9.0	117	12

COLORADO RIVER BASIN

08136500 CONCHO RIVER AT PAINT ROCK, TEX.

LOCATION.--Lat 31°30'57", long 99°55'09", Concho County, at gaging station at bridge on U.S. Highway 83, 0.5 mile (0.8 km) north of Concho County Courthouse in Paint Rock, and 2.7 miles (4.3 km) downstream from Kickapoo Creek.

DRAINAGE AREA.--6,415 mi² (16,615 km²), of which 1,283 mi² (3,323 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Chemical and biochemical analyses: October 1967 to September 1973.

Pesticide analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,850 micromhos May 3, 7, 9, 10, 13; minimum daily, 1,810 micromhos July 15.

Water temperatures: Maximum, 32.0°C July 6; minimum, freezing point on several days during January.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 3,010 micromhos June 10, 1972; minimum daily, 375 micromhos June 1, 1971.

Water temperatures: Maximum, 35.0°C Aug. 11, 1969; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
28...	1215	51	21	160	82	210	--	4.7	232	0	260	490
NOV.												
13...	1555	38	21	140	73	--	220	--	204	0	270	460
24...	1450	42	20	160	70	--	220	--	236	0	290	460
JAN.												
13...	1155	40	19	190	89	220	--	4.3	266	0	320	520
30...	1000	38	17	190	94	--	250	--	232	0	370	550
MAR.												
19...	1850	36	14	190	95	--	260	--	250	0	330	610
APR.												
30...	1010	23	17	180	100	240	--	4.9	224	0	340	600
MAY												
16...	1815	15	19	180	100	--	260	--	226	0	380	580
31...	0925	84	23	180	110	--	240	--	204	0	440	560
JUNE												
30...	1400	7.6	22	140	78	--	190	--	128	0	310	460
JULY												
15...	1300	6.8	19	120	62	--	150	--	126	0	260	360
AUG.												
27...	1500	10	28	110	78	--	220	--	124	0	250	520

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
28...	.4	--	--	--	8.6	--	1380	--	--	740	550	3.4
NOV.												
13...	.5	.83	.11	.20	5.6	.12	1320	64	18	650	480	3.6
24...	.5	--	--	--	10	--	1380	--	--	700	500	3.6
JAN.												
13...	.5	--	--	--	14	--	1570	--	--	840	630	3.3
30...	.6	.25	.07	.03	14	.01	1640	27	4	870	680	3.6
MAR.												
19...	.5	.34	.08	.03	8.8	.08	1660	58	14	870	660	3.9
APR.												
30...	.6	--	--	--	5.8	--	1630	--	--	870	690	3.5
MAY												
16...	.5	.00	.14	.00	3.9	.06	1640	49	22	860	670	3.8
31...	.5	--	--	--	3.8	--	1660	--	--	910	740	3.4
JUNE												
30...	.4	--	--	--	.7	--	1270	--	--	670	560	3.2
JULY												
15...	.1	--	--	--	.6	--	1040	--	--	570	460	2.7
AUG.												
27...	.4	1.5	.00	.00	.01	.12	1270	33	11	610	500	4.0

COLORADO RIVER BASIN

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08136500 CONCHO RIVER AT PAINT ROCK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTERRER 1973

DATE	SPE- CTIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 28...	2350	7.7	16.0	--	--	--	--	--	--	--	--	--
NOV. 13...	2230	8.5	16.5	10	30	10.0	102	6.5	19	20	0	0
24...	2320	7.1	8.0	--	--	--	--	--	--	--	--	--
JAN. 13...	2630	7.7	3.5	--	--	--	--	--	--	--	--	--
30...	2690	8.0	7.0	10	20	11.8	98	1.5	7.0	10	0	0
MAR. 19...	2750	7.9	18.0	10	40	9.0	95	2.5	.0	--	--	--
APR. 30...	2740	7.5	25.0	--	--	--	--	--	--	--	--	--
MAY 16...	2660	8.2	24.5	10	40	10.2	121	3.2	15	20	0	0
31...	2740	7.9	25.0	--	--	--	--	--	--	--	--	--
JUNE 30...	2190	7.4	30.0	--	--	--	--	--	--	--	--	--
JULY 15...	1810	7.5	27.0	--	--	--	--	--	--	--	--	--
AUG. 27...	2240	8.0	28.5	20	20	8.3	106	7.0	28	10	10	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CORALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 28...	--	--	--	--	--	--	--	--	--	--	--
NOV. 13...	0	0	2	0	0	50	0	<.2	0	3000	40
24...	--	--	--	--	--	--	--	--	--	--	--
JAN. 13...	--	--	--	--	--	--	--	--	--	--	--
30...	0	0	3	0	0	60	0	.2	0	3700	30
MAR. 19...	--	--	--	--	--	--	--	--	--	--	--
APR. 30...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	0	0	2	40	0	60	0	<.2	0	3600	10
31...	--	--	--	--	--	--	--	--	--	--	--
JUNE 30...	--	--	--	--	--	--	--	--	--	--	--
JULY 15...	--	--	--	--	--	--	--	--	--	--	--
AUG. 27...	0	0	3	10	0	60	30	<.2	0	2700	10

COLORADO RIVER BASIN

08136500 CONCHO RIVER AT PAINT ROCK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 13...	1555	16.5	.00	.0	.00	.4	.00	13	.00	.9	.00
JAN. 30...	1000	7.0	.00	.0	.00	.0	.00	2.2	.00	.0	.00
MAY 16...	1815	24.5	.00	.0	.00	.0	.00	1.7	.00	2.2	.00
AUG. 27...	1500	28.5	.00	.0	.00	.0	.00	11	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 13...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 30...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 16...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 27...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 13...	0	.0	0	.00	.00	.00	.00	.00	.00	.01
JAN. 30...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
MAY 16...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
AUG. 27...	0	.0	0	.00	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1377	2320	1350	5020	480	1780	260	967	700
NOV.	1371	2310	1350	5000	480	1780	250	925	700
DEC.	1114	2430	1430	4300	500	1500	290	872	750
JAN. 1973....	1261	2590	1540	5240	540	1840	340	1160	820
FEB.	1235	2620	1560	5200	550	1830	350	1170	830
MAR.	1224	2710	1630	5390	570	1880	380	1260	870
APR.	836	2650	1580	3570	550	1240	360	813	850
MAY	487.2	2770	1670	2200	580	763	400	526	900
JUNE	500.4	2470	1460	1970	510	689	310	419	770
JULY	175.5	2150	1240	588	440	208	270	128	620
AUG.	626.4	2300	1340	2270	480	812	250	423	690
SEP.	1445	2400	1410	5500	500	1950	280	1090	740
TOTAL	11652.5	--	--	46200	--	16300	--	9750	--
WTD. AVG. ...	31.9	2490	1470	--	520	--	310	--	770

08136500 CONCHO RIVER AT PAINT ROCK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2360	2450	2390	2500	2660	2590	2640	2680	2700	2220	2460	2370
2	2330	2380	2300	2550	2600	2660	2620	2670	2700	2210	2450	2360
3	2310	2280	2320	2530	2660	2730	2620	2850	2690	2250	2200	2370
4	2310	2260	2340	2510	2610	2770	2650	2840	2710	2270	2300	2360
5	2310	2280	2340	2510	2620	2800	2640	2670	2710	2270	2400	2380
6	2290	2360	2380	2560	2620	2800	2680	2670	2710	2280	2450	2400
7	2310	2440	2380	2570	2630	2730	2650	2850	2710	2280	2440	2600
8	2350	2400	2380	2520	2660	2640	2620	2840	2710	2290	2430	2600
9	2340	2400	2490	2580	2670	2690	2700	2850	2690	2310	2420	2550
10	2360	2290	2440	2600	2630	2690	2680	2850	2690	2320	2410	2500
11	2350	2220	2460	2600	2620	2660	2600	2840	2690	2330	2580	2410
12	2360	2240	2390	2590	2680	2690	2600	2840	2150	2340	2200	2370
13	2350	2230	2370	2610	2590	2680	2600	2850	2200	2340	1920	2330
14	2370	2190	2410	2590	2610	2700	2600	2840	2150	2110	1900	2270
15	2350	2230	2420	2560	2670	2670	2600	2740	2150	1810	1950	2250
16	2360	2210	2450	2580	2660	2690	2600	2740	2170	2000	1990	2250
17	2370	2270	2440	2620	2600	2710	2600	2740	2300	2030	2030	2260
18	2380	2250	2490	2600	2640	2710	2600	2730	2270	2050	2040	2250
19	2390	2230	2490	2620	2570	2670	2660	2740	2500	1990	2060	2240
20	2430	2260	2500	2660	2640	2680	2600	2740	2710	1980	2070	2260
21	2370	2240	2510	2650	2650	2750	2610	2740	2720	1970	2110	2150
22	2290	2220	2430	2570	2610	2750	2600	2740	2710	2020	2180	2140
23	2200	2340	2480	2590	2570	2770	2730	2740	2700	2080	2200	2130
24	2150	2270	2480	2590	2600	2730	2730	2740	2680	1990	2210	2140
25	2270	2290	2430	2610	2580	2760	2730	2740	2690	2040	2220	2140
26	2350	2370	2440	2610	2610	2780	2740	2730	2600	2150	2210	2160
27	2290	2360	2460	2690	2590	2750	2740	2710	2400	2140	2200	2150
28	2340	2380	2430	2650	2610	2720	2730	2730	2220	2130	2290	2140
29	2440	2420	2540	2670	---	2700	2730	2750	2200	2130	2290	2150
30	2450	2430	2470	2640	---	2710	2740	2730	2190	2130	2380	2130
31	2370	---	2560	2690	---	2720	---	2740	---	2140	2360	---
MONTH	2340	2310	2430	2590	2620	2710	2650	2760	2510	2150	2240	2290

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	11.0	5.5	7.0	10.0	14.0	17.0	25.0	26.0	31.0	29.0	28.0
2	26.5	10.5	6.0	8.0	10.0	14.0	18.0	23.0	24.0	30.0	29.0	28.0
3	25.5	11.0	6.0	1.5	10.0	14.0	18.0	22.0	24.0	30.0	29.0	28.0
4	26.5	11.5	5.0	0.0	10.0	15.0	18.0	22.0	24.0	30.0	28.0	28.0
5	26.0	10.5	6.0	0.0	10.0	16.0	18.0	23.0	24.0	30.0	29.0	---
6	25.5	11.0	4.0	0.0	11.0	17.0	18.0	23.0	25.0	32.0	29.0	---
7	26.5	10.5	5.5	0.0	13.0	17.0	18.0	24.0	25.0	30.0	29.0	---
8	26.0	11.0	4.0	0.0	14.0	20.0	15.0	24.0	24.0	30.0	29.0	---
9	25.5	11.5	5.0	0.0	13.0	20.0	15.0	25.0	24.0	30.0	29.0	---
10	25.5	11.0	3.0	0.0	11.0	20.0	14.0	25.0	26.0	30.0	28.0	---
11	25.5	11.5	3.5	0.0	9.0	19.0	17.0	26.0	26.0	30.0	27.0	26.0
12	26.5	10.0	1.0	0.0	9.0	19.0	18.0	26.0	26.0	30.0	28.0	27.0
13	26.0	10.5	1.0	0.0	11.0	19.0	18.0	26.0	27.0	29.0	28.0	27.0
14	26.5	10.0	0.5	0.0	12.0	19.0	20.0	26.0	27.0	27.0	29.0	27.0
15	25.5	9.0	---	0.5	12.0	20.0	20.0	27.0	26.0	27.0	29.0	27.0
16	25.5	9.0	0.5	11.0	10.0	20.0	21.0	27.0	27.0	26.0	30.0	28.0
17	26.5	8.5	0.5	10.0	11.0	20.0	21.0	27.0	29.0	27.0	30.0	28.0
18	25.5	8.0	1.0	11.0	8.0	20.0	21.0	28.0	30.0	28.0	30.0	28.0
19	24.5	8.0	---	11.0	9.0	19.0	22.0	29.0	29.0	28.0	30.0	28.0
20	24.5	9.0	---	11.0	9.0	18.0	22.0	29.0	28.0	29.0	30.0	28.0
21	24.5	6.0	8.0	11.0	10.0	18.0	22.0	27.0	28.0	30.0	30.0	28.0
22	24.5	7.0	1.5	11.0	10.0	18.0	23.0	28.0	28.0	30.0	29.0	28.0
23	23.5	4.5	8.5	11.0	11.0	19.0	23.0	28.0	27.0	30.0	29.0	28.0
24	25.0	8.0	8.5	11.0	13.0	17.0	23.0	28.0	27.0	30.0	28.0	27.0
25	20.5	5.0	8.5	10.0	14.0	16.0	23.0	29.0	27.0	30.0	28.0	27.0
26	20.0	5.0	8.5	10.0	15.0	16.0	20.0	29.0	28.0	30.0	28.0	27.0
27	14.0	6.0	8.5	11.0	16.0	16.0	21.0	29.0	29.0	30.0	25.0	27.0
28	16.0	5.0	8.0	11.0	17.0	16.0	22.0	28.0	30.0	30.0	28.0	27.0
29	14.0	4.5	9.5	9.0	---	16.0	23.0	28.0	29.0	28.0	28.0	27.0
30	13.5	5.0	8.5	9.0	---	17.0	25.0	26.0	30.0	29.0	28.0	26.0
31	10.5	---	7.0	9.0	---	17.0	---	25.0	---	28.0	28.0	---
MONTH	23.5	8.5	5.0	6.0	11.5	17.5	20.0	26.0	27.0	29.5	28.5	27.5

COLORADO RIVER BASIN

08136700 COLORADO RIVER NEAR STACY, TEX.

LOCATION.--Lat 31°29'37", long 99°34'25", McCulloch County, at gaging station at bridge on Farm Road 503, 1.2 miles (1.9 km) upstream from Bois d'Arc Creek, and 1.8 miles (2.9 km) northeast of Stacy.

DRAINAGE AREA.--24,040 mi² (62,260 km²), of which 12,880 mi² (33,360 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: April 1968 to September 1973.

Water temperatures: April 1968 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,690 micromhos Apr. 6; minimum daily, 816 micromhos June 18.

Water temperatures: Maximum, 32.0°C Aug. 13; minimum, 2.0°C Dec. 16, Jan. 12.

EXTREMES, April 1968 to September 1973.--Specific conductance: Maximum daily, 3,580 micromhos Sept. 23, 1970; minimum daily, 188 micromhos July 29, 1971.

Water temperatures: Maximum, 33.5°C July 18, 1971; minimum, 2.0°C Jan. 8, 1970, Dec. 16, 1972, Jan. 12, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 30...	0945	238	9.2	92	38	110	--	5.1	144	0	190
NOV. 01...	1130	178	11	88	36	--	130	--	168	0	160
DEC. 02...	--	115	12	140	65	--	200	--	222	0	300
JAN. 12...	1510	114	6.6	170	81	220	--	4.2	248	0	370
FEB. 14...	1200	135	6.5	170	94	--	230	--	204	0	400
APR. 27...	1100	1030	10	66	25	80	--	5.3	148	0	110
MAY 09...	1000	142	11	100	48	--	150	--	208	0	210
JUNE 18...	1100	182	11	60	19	--	75	--	147	0	73
JULY 13...	1000	83	14	90	48	--	88	--	135	0	160
AUG. 11...	1100	11	14	100	52	--	140	--	116	0	220
SEP. 19...	1200	56	12	81	19	--	98	--	129	0	150

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 30...	210	.3	.9	726	390	270	2.4	1240	7.4	15.5
NOV. 01...	230	.3	3.2	751	370	230	2.9	1310	7.1	20.5
DEC. 02...	380	.6	4.2	1230	610	430	3.5	2040	7.1	8.5
JAN. 12...	440	.6	9.4	1450	750	540	3.5	2400	7.4	2.0
FEB. 14...	490	.5	8.4	1520	800	640	3.5	2540	7.9	11.0
APR. 27...	150	.3	1.2	524	270	150	2.1	916	7.6	18.5
MAY 09...	260	.4	1.7	894	450	280	3.0	1510	8.1	22.0
JUNE 18...	130	.3	2.6	452	230	110	2.2	816	7.4	25.5
JULY 13...	240	.1	.7	704	420	310	1.9	1400	7.4	27.0
AUG. 11...	310	.1	.6	888	460	370	2.7	1600	7.2	28.0
SEP. 19...	160	.0	.8	588	280	170	2.5	1050	7.2	24.5

COLORADO RIVER BASIN

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08136700 COLORADO RIVER NEAR STACY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /s)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	3966.4	1640	970	10400	300	3210	240	2570	500
NOV.	4725	1660	980	12500	310	3950	240	3060	510
DEC.	3486	2210	1330	12500	420	3950	340	3200	680
JAN. 1973....	3872	2390	1450	15200	460	4810	370	3870	740
FEB.	4277	2460	1490	17200	470	5430	380	4390	760
MAR.	4324	2500	1520	17700	480	5600	390	4550	780
APR.	9125	1610	950	23400	300	7390	230	5670	490
MAY	4197	1610	950	10800	300	3400	230	2610	490
JUNE	9358	1090	620	15700	190	4800	140	3540	320
JULY	4264	1580	930	10700	290	3340	230	2650	480
AUG.	2345.7	1410	820	5190	250	1580	200	1270	430
SEP.	4361.3	1780	1060	12500	330	3890	260	3060	540
TOTAL	58301.4	--	--	164000	--	51400	--	40400	--
WTD. AVG. ...	160	1750	1040	--	330	--	260	--	530

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	1310	2030	2300	2440	2410	2520	1210	2180	1200	1250	2170
2	1960	1300	2040	2200	2460	2530	2480	1230	2160	1240	1140	2120
3	1940	1250	2060	2220	2470	2440	2590	1200	2090	1300	1170	2190
4	1900	1630	2080	2270	2480	2490	2610	1240	1550	1410	1270	2260
5	1890	1650	2080	2300	2480	2530	2630	1310	900	1400	1380	2290
6	1890	1720	2080	2270	2490	2610	2690	1370	943	1440	1610	2250
7	1890	1730	2080	2300	2450	2630	2600	1430	1170	1440	1800	2090
8	1890	1740	2120	2310	2500	2570	2500	1480	1220	1430	1850	1130
9	1900	1430	2130	2340	2440	2530	2440	1510	1110	1430	1820	1480
10	1900	1580	2290	2350	2470	2600	2420	1560	1100	1430	1780	1870
11	1920	1620	2220	2380	2470	2510	2420	1600	1170	1450	1600	1910
12	1940	1680	2170	2400	2480	2430	2410	1610	1230	1390	1600	2060
13	1960	1730	2150	2420	2490	2450	2350	1630	1270	1400	1520	1870
14	1960	1760	2160	2390	2540	2450	2290	1650	1330	1390	1540	2490
15	1960	1780	2210	2390	2510	2450	2290	1650	1390	1450	1580	2000
16	2020	1800	2210	2370	2460	2450	2110	1690	1350	1460	1610	1500
17	2020	1810	2230	2390	2500	2430	2070	1590	1150	1860	1670	1110
18	2040	1830	2250	2410	2500	2460	2050	1570	816	2180	1720	1070
19	2030	1850	2250	2440	2470	2510	2110	1680	1070	1990	1760	1050
20	2060	1880	2270	2440	2450	2500	2110	1790	1050	1910	1800	1050
21	2030	1900	2250	2440	2440	2480	2210	1860	1120	1910	1850	1090
22	1850	1920	2260	2450	2430	2460	2220	1890	1080	1870	1880	1110
23	1530	1930	2270	2480	2420	2500	2240	1910	1070	1840	1920	1180
24	2510	1930	2300	2470	2410	2510	2200	1910	1120	1830	1960	1210
25	1680	1950	2330	2500	2480	2500	1350	1940	1090	1720	1990	1240
26	1240	1970	2330	2410	2450	2560	1020	1960	1070	1630	2010	1290
27	1390	1930	2300	2460	2430	2530	916	2010	1100	1530	2040	1360
28	1580	1970	2320	2480	2480	2530	1090	2080	1100	1860	2060	1490
29	1400	1920	2300	2420	---	2490	1110	2140	1110	1100	2060	1540
30	1220	2010	2320	2470	---	2440	1130	2210	1130	1260	2100	1300
31	1290	---	2360	2480	---	2500	---	2210	---	1260	2120	---
MONTH	1830	1750	2210	2390	2470	2500	2110	1680	1240	1550	1720	1630

COLORADO RIVER BASIN

08136700 COLORADO RIVER NEAR STACY, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	20.5	10.0	---	7.0	14.5	15.5	23.5	26.5	---	29.0	26.5
2	21.0	15.5	8.5	---	9.0	15.5	18.5	21.0	25.5	29.5	25.5	---
3	21.0	14.5	---	6.0	10.0	18.5	15.5	20.0	25.5	30.0	26.5	---
4	22.0	18.5	5.0	5.5	---	16.5	14.5	21.0	26.5	26.5	28.0	28.0
5	24.0	15.5	11.0	---	13.0	18.5	15.5	21.0	---	29.5	26.5	26.5
6	22.0	18.5	---	---	12.0	15.5	15.5	22.0	25.5	26.5	28.0	---
7	24.0	16.5	6.5	---	13.0	16.5	---	21.0	25.5	30.0	29.0	25.5
8	22.0	15.5	7.0	---	---	16.5	---	21.5	26.0	---	28.0	24.5
9	25.5	16.5	---	---	7.0	15.5	---	22.0	26.5	29.0	28.0	---
10	24.0	14.5	10.5	---	7.0	---	13.0	24.0	28.0	25.5	29.0	26.5
11	25.5	15.0	---	---	---	---	14.5	25.5	25.5	---	28.0	28.0
12	24.5	---	5.5	2.0	10.0	18.5	15.5	25.5	25.5	28.0	---	26.5
13	24.0	15.5	6.0	---	10.0	15.5	20.0	---	---	26.5	32.0	25.5
14	23.5	13.0	---	4.5	11.0	16.5	19.0	21.0	26.5	25.5	29.5	26.5
15	24.0	9.0	4.5	5.5	10.0	15.5	20.0	18.5	26.5	---	29.5	25.5
16	23.5	13.0	2.0	7.0	9.0	14.5	16.5	24.0	29.0	26.5	28.0	---
17	25.5	9.0	---	11.0	---	16.5	16.5	22.0	---	26.5	30.0	25.5
18	25.5	10.0	5.5	10.0	---	16.5	18.5	22.0	25.5	28.0	29.0	22.0
19	20.0	---	8.0	13.0	10.0	16.5	20.0	---	28.0	29.5	---	24.5
20	16.5	7.0	10.0	12.0	9.0	---	20.0	26.5	26.5	29.0	30.0	25.5
21	20.0	7.0	10.0	---	---	15.0	24.0	26.5	25.5	28.0	31.0	---
22	16.5	6.5	---	11.0	---	16.5	---	25.5	25.5	---	30.0	25.5
23	16.5	---	11.0	10.0	10.0	16.5	22.0	25.5	25.5	---	30.0	---
24	15.5	9.0	10.0	7.0	13.0	---	24.0	26.5	26.5	29.5	29.5	25.5
25	14.5	---	10.0	---	14.5	---	21.0	25.5	25.5	31.0	26.5	26.5
26	14.5	---	11.0	7.0	13.0	14.5	19.0	26.5	26.0	29.0	30.0	26.5
27	14.5	11.0	11.0	---	13.5	15.5	18.5	25.5	26.5	31.0	30.0	23.5
28	16.5	5.5	9.5	---	13.0	16.5	18.0	22.0	28.0	29.5	29.0	21.0
29	---	10.0	13.0	8.0	---	18.5	---	24.5	29.0	---	28.0	21.5
30	15.5	9.0	11.0	10.0	---	16.5	21.0	26.5	28.0	29.5	26.5	---
31	---	---	10.0	10.0	---	---	---	26.5	---	26.5	26.5	---
MONTH	21.0	12.5	---	---	---	16.5	18.0	23.5	26.5	---	28.5	---

COLORADO RIVER BASIN

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08138000 COLORADO RIVER AT WINCHELL, TEX.

LOCATION.--Lat 31°28'04", long 99°09'43", Brown County, at gaging station on U.S. Highway 377, 0.3 mile (0.5 km) south of Winchell and 5.9 miles (9.5 km) downstream from Home Creek.

DRAINAGE AREA.--24,580 mi² (63,660 km²), of which 12,880 mi² (33,360²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
NOV. 14...	1330	99	11	110	47	180	184	0	210	320
DEC. 18...	1300	84	9.0	140	63	220	222	0	320	390
JAN. 22...	1715	90	5.1	140	82	240	184	0	400	450
FEB. 26...	1630	137	3.8	150	78	240	190	0	380	470
MAR. 23...	1315	85	3.5	130	85	270	158	0	380	520
APR. 04...	0802	79	5.2	150	86	270	206	0	370	520
MAY 08...	1100	110	8.6	82	34	130	210	0	130	200
JUNE 11...	1120	123	7.7	59	33	100	152	0	99	190
JULY 16...	1245	179	14	68	39	120	140	0	150	220
SEP. 24...	1415	45	10	150	79	290	116	0	520	490

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
NOV. 14...	.4	2.8	981	460	310	3.6	1700	7.2	15.0
DEC. 18...	.5	4.4	1270	610	430	3.8	2120	7.1	6.0
JAN. 22...	.5	3.4	1430	700	550	3.9	2330	7.6	10.0
FEB. 26...	.5	2.2	1430	700	550	3.9	2380	7.7	13.0
MAR. 23...	.5	4.0	1480	680	550	4.5	2440	7.4	16.5
APR. 04...	.6	3.3	1520	720	550	4.4	2530	7.5	15.5
MAY 08...	.4	6.3	724	340	170	3.0	1210	7.9	23.0
JUNE 11...	.4	.8	568	280	160	2.6	1020	7.5	26.0
JULY 16...	.4	1.0	687	330	220	2.8	1220	7.0	26.0
SEP. 24...	.1	.6	1600	700	600	4.7	2490	7.3	29.0

COLORADO RIVER BASIN

08143600 PECAN BAYOU NEAR MULLIN, TEX.

LOCATION.--Lat 31°31'02", long 98°44'25", Mills County, at gaging station on Farm Road 573, 5.5 miles (10 km) southwest of Mullin.

DRAINAGE AREA.--2,034 mi² (5,268 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.
Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,810 micromhos Sept. 11; minimum daily, 300 micromhos July 16.
Water temperatures: Maximum, 32.0°C July 2, 6, 15, 25, 26.

EXTREMES, October 1967 to September 1973.--Specific conductance (1967-70, 1972-73): Maximum daily, 1,950 micromhos Aug. 20, 1970; minimum daily, 300 micromhos July 16, 1973.
Water temperatures (1967-70, 1972-73): Maximum, 32.0°C on several days during summer months of 1968, 1969 and 1973; minimum, 3.0°C Jan. 10, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 19...	0940	10	4.7	86	21	140	--	7.8	238	0	98
NOV. 14...	1540	14	9.3	76	16	--	100	--	196	0	86
DEC. 19...	--	15	1.6	96	23	--	180	--	244	0	120
FEB. 15...	1700	15	7.2	46	7.8	--	35	--	126	0	40
MAR. 18...	1800	8.4	3.0	86	16	--	110	--	220	0	93
APR. 18...	1830	192	7.8	45	7.0	34	--	6.7	128	0	41
MAY 08...	1400	18	10	77	19	--	52	--	224	0	58
JUNE 25...	1640	26	5.0	81	20	--	190	--	232	0	88
JULY 16...	1845	22	7.5	27	5.8	--	11	--	100	0	8.2
AUG. 08...	1640	7.4	10	50	9.5	--	46	--	136	0	37
SEP. 11...	1745	19	6.5	97	23	--	230	--	236	0	89

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 19...	220	.4	.03	704	300	110	3.6	1260	7.7	17.0
NOV. 14...	160	.3	.9	548	260	95	2.8	996	7.1	11.0
DEC. 19...	280	.4	1.5	824	330	130	4.3	1500	7.6	5.0
FEB. 15...	52	.3	.9	254	150	44	1.3	470	7.4	11.0
MAR. 18...	160	.3	.7	581	280	100	2.8	1040	7.5	17.0
APR. 18...	50	.2	1.2	260	140	36	1.2	463	7.2	18.0
MAY 08...	95	.2	1.4	427	270	86	1.4	778	7.5	23.0
JUNE 25...	290	.3	.4	784	280	94	4.8	1400	7.4	25.5
JULY 16...	11	.0	2.7	132	91	9	.5	217	6.8	24.5
AUG. 08...	76	.0	1.7	303	160	52	1.6	606	7.2	29.0
SEP. 11...	380	.1	.2	952	340	140	5.4	1810	7.3	27.5

COLORADO RIVER BASIN

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08143600 PECAN BAYOU NEAR MULLIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	721.5	875	490	955	140	273	67	131	250
NOV.	498	1030	570	766	170	229	80	108	270
DEC.	500	1530	860	1160	280	378	120	162	320
JAN. 1973....	778	955	530	1110	160	336	74	155	260
FEB.	980	673	370	979	93	246	50	132	200
MAR.	543.6	1130	630	925	190	279	89	131	280
APR.	2015	578	320	1740	73	397	41	223	180
MAY	392.0	954	530	561	150	159	74	78	260
JUNE	583.0	1410	790	1240	250	394	110	173	300
JULY	827.2	784	430	960	120	268	59	132	230
AUG.	285.07	817	450	346	120	92	62	48	230
SEP.	496.5	1420	790	1060	260	349	110	147	310
TOTAL	8619.87	--	--	1800	--	3400	--	1620	--
WTD. AVG. ...	23.6	913	510	--	150	--	70	--	240

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	666	1350	1640	780	1050	1450	717	970	1330	714	1030
2	1040	673	1380	1620	800	1030	1500	726	1090	1350	1060	1100
3	1030	681	1340	1200	830	1040	1550	735	1200	1360	931	1150
4	1100	670	1390	850	860	1050	1610	744	1500	1370	743	1190
5	1200	645	1430	890	880	1070	1300	753	1380	1390	666	1230
6	1300	685	1470	900	910	1080	1180	762	1420	1340	598	1220
7	1400	725	1500	925	940	950	1250	770	1580	745	594	1510
8	1660	760	1510	950	330	980	1260	778	1650	1080	606	1580
9	1680	800	1530	975	380	1100	1250	856	1650	1110	641	1630
10	1400	840	1540	1000	424	1250	1260	934	1670	1140	700	1680
11	1300	880	1550	1020	450	1400	1280	1010	1660	1160	752	1810
12	1200	920	1570	1050	471	1380	1290	1090	1530	1120	800	1740
13	1150	950	1530	1080	499	1370	1310	1070	1410	1230	848	1600
14	1160	996	1520	1100	527	1270	1320	1080	1470	1440	864	1580
15	1190	1050	1510	1130	555	1160	1330	1160	1560	600	877	1570
16	1200	1000	1500	1150	583	1050	1300	1230	1600	300	919	1570
17	1180	1100	1520	1170	611	1030	880	1310	1580	672	934	1560
18	1220	1170	1480	1200	622	1040	463	1300	1560	970	938	1560
19	1260	1250	1500	1230	780	1050	550	1260	1420	739	942	1560
20	1280	1300	1510	1250	911	1040	595	1220	1270	684	946	1550
21	1310	1280	1500	1300	1000	1040	619	1190	1180	757	945	1490
22	950	1290	1700	1280	1100	1050	622	1130	1200	887	901	1480
23	780	1270	1650	1330	1320	1060	500	1070	1260	974	891	1490
24	810	1330	1600	1360	1280	1150	360	1020	1370	1060	898	1200
25	867	1310	1570	950	1270	980	400	960	1400	1100	905	1070
26	888	1410	1560	580	1200	1100	500	900	1220	1120	914	1050
27	500	1280	1580	630	1090	1190	630	875	1130	580	923	1130
28	853	1300	1620	700	1080	1240	743	850	1200	600	934	1520
29	913	1320	1610	710	---	1300	712	825	1250	660	946	1490
30	820	1330	1630	720	---	1350	708	800	1290	683	979	1430
31	720	---	1650	750	---	1400	---	880	---	600	1020	---
MONTH	1110	1030	1530	1050	803	1140	991	968	1390	973	849	1430

COLORADO RIVER BASIN

08143600 PECAN BAYOU NEAR MULLIN, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	15.0	12.0	---	---	12.0	---	---	---	30.0	28.0	26.5
2	24.5	---	11.0	---	---	12.0	---	---	---	32.0	28.5	30.0
3	23.0	18.0	---	---	---	---	12.0	---	---	31.5	28.5	31.0
4	---	---	---	---	---	---	15.0	---	28.5	---	27.0	29.5
5	---	16.0	9.0	---	---	---	13.0	---	27.5	---	---	25.0
6	24.5	---	8.0	---	---	---	15.0	---	27.5	32.0	28.0	24.0
7	25.0	---	7.0	---	9.0	---	16.0	---	28.5	28.0	29.5	24.5
8	24.0	---	---	---	---	---	---	23.0	28.0	28.5	29.0	25.0
9	---	---	---	---	---	---	---	---	26.0	29.0	30.0	---
10	---	---	8.0	---	7.0	---	15.0	---	27.5	30.0	30.0	27.0
11	---	---	---	---	---	20.0	---	---	26.5	29.5	30.0	27.5
12	---	---	7.0	---	---	18.0	---	30.0	25.0	29.0	---	28.0
13	---	---	5.0	---	---	17.0	---	25.0	26.0	28.0	30.5	29.0
14	---	11.0	5.0	---	11.0	16.0	---	21.0	28.5	28.0	31.0	28.5
15	---	---	10.0	---	11.0	14.0	17.0	22.0	28.5	32.0	30.0	25.5
16	24.5	---	11.0	---	10.0	15.0	16.0	22.0	29.5	24.5	31.0	---
17	25.0	---	---	---	---	---	---	23.0	---	28.0	30.0	26.5
18	---	---	---	---	9.0	17.0	18.0	---	30.0	30.0	29.0	25.0
19	17.0	---	5.0	---	11.0	---	---	---	30.0	31.0	---	25.5
20	18.0	10.0	---	---	11.0	18.0	---	---	26.5	31.5	31.0	26.5
21	---	9.0	---	---	---	---	23.0	---	29.0	30.0	30.0	27.0
22	---	---	---	---	---	---	23.0	---	27.5	30.0	30.0	26.0
23	16.0	---	11.0	---	11.0	---	---	---	27.0	31.5	30.0	---
24	18.0	---	---	---	12.5	---	---	---	27.0	31.5	29.5	27.0
25	17.0	---	---	---	13.5	15.0	---	---	25.5	32.0	28.0	27.5
26	---	---	---	---	---	---	---	---	26.5	32.0	---	25.0
27	16.0	---	11.0	---	---	16.0	---	---	29.0	30.0	28.5	24.5
28	18.5	---	11.0	---	---	---	20.0	---	29.5	29.0	28.0	24.0
29	20.0	---	12.0	---	---	---	23.0	---	28.5	---	28.0	24.0
30	18.0	---	11.0	---	---	---	21.0	---	29.5	28.0	29.5	---
31	11.0	---	---	---	---	---	---	---	---	28.0	28.0	---
MONTH	---	---	---	---	---	---	---	---	28.0	30.0	29.5	26.5

08147000 COLORADO RIVER NEAR SAN SABA, TEX.

LOCATION.--31°13'04", long 98°33'51", San Saba County, at gaging station at bridge on U.S. Highway 190, 5.2 miles (8.4 km) downstream from San Saba River, and 9.2 miles (14.8 km) east of San Saba.

DRAINAGE AREA.--30,600 mi² (79,250 km²), of which 12,800 mi² (33,360 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: September 1947 to September 1973.

Chemical and biochemical analyses: October 1969 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: September 1947 to September 1973.

Sediment records: December 1950 to September 1962.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,790 micromhos Feb. 9; minimum daily, 425 micromhos Apr. 26.

Water temperatures: Maximum, 35.0°C June 1; minimum, 5.0°C Jan. 9, 10.

EXTREMES, September 1947 to September 1973.--Specific conductance: Maximum daily, 5,660 micromhos June 28, 1962; minimum daily, 161 micromhos Sept. 11, 1952.

Water temperatures: Maximum, 37.0°C Aug. 3, 1956; minimum, freezing point Jan. 29, 1948, Jan. 30, 1951.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
11...	0945	143	14	--	--	46	--	3.3	--	--
NOV.										
13...	1335	259	11	88	38	--	86	--	220	0
15...	1050	227	11	83	36	--	78	--	256	0
JAN.										
23...	1730	226	4.8	100	48	110	--	3.8	272	0
29...	1725	334	3.7	94	44	--	110	--	260	0
FEB.										
27...	1630	486	73	90	43	--	94	--	248	0
MAR.										
19...	1630	289	2.6	87	50	--	110	--	216	0
APR.										
26...	1810	3220	11	51	8.4	21	--	5.0	144	0
MAY										
14...	1500	321	6.1	60	27	--	72	--	186	0
31...	1915	122	9.6	79	34	--	62	--	244	0
JUNE										
13...	1840	277	11	90	54	--	140	--	224	0
JULY										
25...	0720	111	12	49	28	--	32	--	212	0
AUG.										
02...	0730	759	11	51	18	--	30	--	167	0
27...	1200	48	14	44	32	--	42	--	244	0
SEP.										
14...	0800	283	9.1	59	22	--	47	--	174	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)
OCT.									
11...	67	82	.3	--	--	--	.5	--	--
NOV.									
13...	170	140	.3	.44	.01	.10	.8	.07	649
15...	120	130	.3	--	--	--	1.5	--	592
JAN.									
23...	160	220	.4	--	--	--	2.7	--	790
29...	150	200	.3	.26	.02	.05	2.8	.09	734
FEB.									
27...	140	180	.4	--	--	--	2.4	--	684
MAR.									
19...	160	220	.3	.45	.00	.06	1.6	.12	742
APR.									
26...	35	38	.2	--	--	--	.9	--	245
MAY									
14...	83	130	.3	.00	.00	.00	.1	.15	466
31...	77	130	.3	--	--	--	.3	--	517
JUNE									
13...	190	260	.3	--	--	--	1.4	--	858
JULY									
25...	30	72	.0	--	--	--	.4	--	329
AUG.									
02...	42	60	.0	--	--	--	.4	--	296
27...	35	68	.2	.68	.00	.02	.1	.08	356
SEP.									
14...	53	99	.0	--	--	--	.5	--	377

COLORADO RIVER BASIN

08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 11...	--	--	--	773	--	24.0	--	--	--
NOV. 13...	380	200	1.9	1090	8.0	16.5	9.5	97	3.1
15...	360	140	1.8	1020	7.2	12.0	--	--	--
JAN. 23...	450	230	2.3	1390	7.8	9.5	--	--	--
29...	420	200	2.3	1270	8.2	9.0	12.5	108	1.8
FEB. 27...	400	200	2.0	1180	8.1	13.0	--	--	--
MAR. 19...	420	250	2.3	1310	8.1	21.0	12.2	136	3.4
APR. 26...	160	44	.7	425	7.3	20.0	--	--	--
MAY 14...	260	110	1.9	840	8.2	21.0	9.4	104	3.5
31...	340	140	1.5	949	7.8	--	--	--	--
JUNE 13...	450	260	2.9	1470	7.3	28.0	--	--	--
JULY 25...	240	64	.9	633	7.3	28.0	--	--	--
AUG. 02...	200	65	.9	552	6.9	28.0	--	--	--
27...	240	42	1.2	650	8.1	28.5	7.1	91	2.4
SEP. 14...	240	94	1.3	729	6.9	26.0	--	--	--

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 13...	1335	16.5	.00	.00	.00	.00	.00	.00	.00	.00
JAN. 29...	1725	9.0	.00	.00	.00	.00	.00	.00	.00	.00
MAY 14...	1500	21.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 27...	1200	28.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 13...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JAN. 29...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAY 14...	.00	.0	.0	.00	.00	.00	.00	.03	.00	.00
AUG. 27...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

COLORADO RIVER BASIN

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08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	7935	1190	680	14600	170	3640	150	3210	410
NOV.	8732	1180	680	16000	170	4010	140	3300	410
DEC.	6629	1170	670	12000	170	3040	140	2510	400
JAN. 1973....	8666	1240	720	16800	180	4210	160	3740	420
FEB.	9978	1250	720	19400	180	4850	160	4310	430
MAR.	10296	1320	760	21100	200	5560	170	4730	450
APR.	24910	887	500	33600	120	8070	81	5450	310
MAY	8061	835	470	10200	110	2390	70	1520	290
JUNE	16877	931	530	24200	130	5920	91	4150	330
JULY	7154	776	430	8310	100	1930	58	1120	280
AUG.	5282	766	420	5990	100	1430	56	799	270
SEP.	8219	812	450	9990	110	2440	66	1460	290
TOTAL	122739	--	--	192000	--	47500	--	36300	--
WTD. AVG. ...	336	1020	580	--	140	--	110	--	350

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	978	1380	1090	763	1220	1200	1350	770	918	651	979	667
2	848	1350	1120	1090	1190	1310	1350	845	886	664	620	658
3	772	1360	1120	660	1180	1340	1310	858	818	682	803	670
4	762	1250	1130	1150	1200	1370	1300	818	577	666	776	664
5	759	1470	1150	1280	1260	1380	1270	806	581	651	774	664
6	778	1710	1120	1150	1230	1360	1270	824	801	664	779	682
7	818	1360	1120	1260	1290	1330	1290	830	1420	672	624	656
8	809	1150	1150	996	1380	1140	1360	780	1440	664	553	980
9	759	1170	1130	615	1790	1260	1290	778	1370	651	616	575
10	789	1190	1120	1280	1700	1250	1340	800	1330	659	699	610
11	766	1180	1110	1290	1540	1250	1330	794	1400	658	812	738
12	781	1140	1120	1300	1380	1190	1310	795	1430	656	895	771
13	779	1110	1120	1280	950	1260	1320	849	1470	629	905	785
14	753	1070	1130	1330	966	1270	1330	886	1200	634	871	729
15	776	1010	1130	1330	1100	1220	1350	868	1290	626	842	700
16	752	959	1150	1340	1170	1250	1370	865	1240	716	804	679
17	781	971	1170	1360	1160	1330	1280	865	1180	1010	774	746
18	787	991	1180	1340	1160	1350	1670	879	900	804	727	626
19	806	987	1180	1340	1170	1360	1600	879	1050	1000	720	689
20	806	971	1190	1360	1150	1340	1070	875	865	861	669	705
21	810	955	1190	1360	1260	1340	1130	879	792	874	660	962
22	833	951	1200	1370	1230	1340	1250	886	600	842	651	1180
23	907	959	1190	1380	1210	1340	1430	879	632	774	641	1150
24	1090	955	1210	1380	1130	1330	1340	852	690	664	656	1090
25	1590	951	1220	1350	1180	1510	542	856	703	633	674	991
26	1540	955	1220	1340	1140	1410	425	843	689	651	662	926
27	1520	992	1230	1300	1180	1400	767	836	676	606	680	889
28	1680	1030	1220	1320	1220	1320	900	824	690	839	672	1020
29	1500	1050	1250	1280	---	1250	780	821	664	787	678	1290
30	1500	1070	1250	1260	---	1440	805	920	645	833	653	1260
31	1400	---	1270	1220	---	1520	---	949	---	842	651	---
MONTH	975	1120	1170	1230	1240	1320	1200	845	965	728	726	825

COLORADO RIVER BASIN

08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	17.0	11.0	11.0	12.0	17.0	---	25.0	35.0	28.0	29.0	27.0
2	25.0	20.0	15.0	10.0	12.0	18.0	17.0	25.0	28.0	29.0	28.0	29.0
3	25.0	20.0	17.0	12.0	14.0	19.0	18.0	23.0	25.0	29.0	28.0	32.0
4	26.0	20.0	10.0	9.0	15.0	17.0	17.0	25.0	27.0	---	28.0	30.0
5	28.0	18.0	15.0	10.0	15.0	19.0	15.0	23.0	25.0	29.0	29.0	30.0
6	26.0	19.0	8.0	9.0	15.0	20.0	16.0	27.0	26.0	30.0	27.0	29.0
7	25.0	18.0	11.0	8.0	16.0	20.0	---	26.0	28.0	27.0	26.0	28.0
8	28.0	17.0	13.0	7.0	---	20.0	15.0	---	28.0	30.0	28.0	25.0
9	28.0	18.0	12.0	5.0	9.0	18.0	17.0	27.0	28.0	29.0	27.0	28.0
10	26.0	17.0	8.0	5.0	9.0	---	18.0	30.0	27.0	30.0	27.0	28.0
11	24.0	19.0	8.0	---	10.0	20.0	18.0	29.0	28.0	30.0	31.0	25.0
12	26.0	18.0	10.0	8.0	10.0	20.0	19.0	27.0	25.0	30.0	29.0	25.0
13	26.0	17.0	10.0	10.0	14.0	21.0	22.0	25.0	28.0	26.0	30.0	24.0
14	28.0	14.0	8.0	17.0	13.0	21.0	21.0	22.0	28.0	28.0	30.0	26.0
15	25.0	12.0	9.0	15.0	12.0	17.0	20.0	25.0	29.0	27.0	29.0	---
16	25.0	15.0	---	15.0	11.0	18.0	19.0	25.0	28.0	28.0	29.0	29.0
17	25.0	14.0	7.0	15.0	10.0	17.0	18.0	25.0	30.0	28.0	28.0	23.0
18	26.0	13.0	11.0	14.0	10.0	21.0	21.0	28.0	29.0	28.0	30.0	23.0
19	26.0	12.0	12.0	13.0	11.0	22.0	19.0	30.0	30.0	28.0	30.0	24.0
20	23.0	10.0	13.0	16.0	15.0	19.0	25.0	32.0	25.0	30.0	30.0	24.0
21	24.0	10.0	14.0	17.0	15.0	24.0	---	33.0	25.0	31.0	29.0	24.0
22	27.0	10.0	14.0	17.0	---	20.0	24.0	28.0	26.0	30.0	27.0	28.0
23	20.0	10.0	14.0	9.5	15.0	20.0	25.0	30.0	28.0	27.0	25.0	27.0
24	20.0	10.0	13.0	15.0	14.0	22.0	25.0	30.0	30.0	28.0	25.0	24.0
25	17.0	12.0	---	10.0	17.0	23.0	23.0	30.0	26.0	28.0	29.0	25.0
26	18.0	13.0	13.0	12.0	15.0	20.0	20.0	31.0	---	29.0	30.0	24.0
27	18.0	---	14.0	11.0	13.0	20.0	22.0	30.0	28.0	25.0	25.0	24.0
28	20.0	12.0	13.0	10.0	16.0	20.0	21.0	30.0	29.0	31.0	24.0	20.0
29	20.0	11.0	16.0	11.0	---	21.0	21.0	28.0	29.0	30.0	24.0	25.0
30	22.0	10.0	15.0	11.0	---	21.0	21.0	---	29.0	28.0	25.0	23.0
31	18.0	---	13.0	10.0	---	22.0	---	---	---	27.0	26.0	---
MONTH	24.0	14.5	12.0	11.5	13.0	20.0	20.0	27.5	28.0	28.5	28.0	26.0

COLORADO RIVER BASIN

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08153500 PEDERNALES RIVER NEAR JOHNSON CITY, TEX.

LOCATION.--Lat 30°17'27", long 98°24'01", Blanco County, at gaging station on bridge on U.S. Highway 281, 0.2 mile (0.3 km) downstream from Towhead Creek, 1.1 miles (1.8 km) northeast of Johnson City.

DRAINAGE AREA.--947 mi² (2,453 km²).

PERIOD OF RECORD.--Chemical analyses: April 1948 to September 1950.

Chemical and biochemical analyses: October 1971 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 10...	1300	20	12	36	41	64	294	0	40	80
NOV. 09...	1200	34	7.3	41	36	41	252	8	32	60
DEC. 21...	1005	18	8.8	48	41	52	308	0	40	74
JAN. 18...	1610	340	4.6	50	40	46	304	0	41	67
FEB. 26...	1630	170	4.6	54	30	32	292	0	30	39
APR. 02...	1300	117	1.3	18	34	--	--	0	28	48
MAY 02...	1730	116	9.1	47	33	37	280	0	28	50
JUNE 07...	1430	98	2.2	36	18	23	186	0	16	27
JULY 16...	1530	3470	14	51	18	11	228	0	14	15
AUG. 21...	1430	101	13	42	38	27	264	0	31	45
SEP. 19...	1750	62	13	43	37	34	263	0	35	57

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 10...	.4	.2	419	260	18	1.7	724	7.9	--
NOV. 09...	.4	.2	351	250	30	1.1	630	8.5	18.5
DEC. 21...	.4	.9	419	290	36	1.3	746	8.3	11.0
JAN. 18...	.4	.4	400	290	40	1.2	731	7.9	16.0
FEB. 26...	.4	.1	337	260	18	.9	608	7.8	15.5
APR. 02...	.3	.04	274	180	--	1.3	581	8.0	18.0
MAY 02...	.4	1.0	347	250	24	1.0	607	8.0	23.5
JUNE 07...	.3	1.5	220	160	11	.8	410	7.4	30.0
JULY 16...	.2	.7	238	200	14	.3	425	7.4	26.0
AUG. 21...	.3	2.0	335	260	45	.7	596	7.7	30.0
SEP. 19...	.0	.6	351	260	46	.9	660	7.4	27.5

COLORADO RIVER BASIN

08154900 LAKE AUSTIN AT AUSTIN, TEX.

LOCATION.--Lat 30°18'53", long 97°47'10", Travis County, at City of Austin Waterplant No. 2, 1.5 miles (2.4 km) upstream from Tom Miller Dam on the Colorado River at Austin.

DRAINAGE AREA.--38,240 mi² (99,040 km²), of which 11,900 mi² (30,800 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1973.
Water temperatures: October 1964 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 585 micromhos Mar. 5; minimum daily, 481 micromhos Mar. 4.

EXTREMES, October 1964 to September 1973.--Specific conductance (1964-69, 1970-73): Maximum daily, 645 micromhos Oct. 23, 1964; minimum daily, 311 micromhos June 19, 1968.
Water temperatures (1964-69, 1970-72): Maximum, 32.0°C Aug. 24, 1965; minimum, 9.0°C Jan. 30, 1966, Jan. 9, 11, 1968, Jan. 5, 1969.

REMARKS.--No discharge records available.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
15...	0730	9.3	45	19	34	--	3.9	177	0	37	62
NOV.											
16...	0800	9.9	46	18	--	29	--	181	0	32	49
DEC.											
26...	0830	9.1	50	18	--	28	--	194	0	32	47
JAN.											
27...	0730	6.8	49	21	32	--	3.6	188	0	38	60
FEB.											
26...	0800	8.3	53	21	--	27	--	196	0	37	54
MAR.											
31...	0730	8.3	40	20	--	33	--	156	0	39	60
APR.											
30...	--	8.1	48	21	31	--	3.9	202	0	32	60
MAY											
31...	--	6.9	44	20	--	37	--	182	0	35	60
JUNE											
30...	0800	8.0	46	21	--	31	--	196	0	32	53
JULY											
29...	0800	8.7	47	22	--	30	--	191	0	34	58
AUG.											
31...	0715	8.6	46	24	--	27	--	190	0	34	58
SEP.											
30...	0730	9.6	49	20	--	26	--	194	0	31	50

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
15...	.3	.2	--	298	190	46	1.1	547	8.3	24.0
NOV.										
16...	.3	.04	--	273	190	40	.9	495	8.1	16.5
DEC.										
26...	.2	.06	--	280	200	40	.9	509	8.2	10.5
JAN.										
27...	.2	.09	303	303	210	55	1.0	544	8.0	11.5
FEB.										
26...	.2	.6	--	299	220	58	.8	555	7.9	13.0
MAR.										
31...	.3	.07	--	278	180	54	1.1	518	7.4	15.0
APR.										
30...	.2	.2	--	304	210	41	.9	548	7.6	17.0
MAY										
31...	.2	.5	--	294	190	44	1.2	548	7.6	23.0
JUNE										
30...	.1	.2	--	288	200	41	.9	536	7.6	20.0
JULY										
29...	.0	.03	--	294	210	54	.9	559	7.1	20.0
AUG.										
31...	.0	.06	--	291	210	58	.8	553	7.2	20.5
SEP.										
30...	.0	.1	--	281	210	47	.8	534	7.1	22.0

08154900 LAKE AUSTIN AT AUSTIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	488	497	508	544	502	551	507	529	540	---	520
2	524	489	508	515	545	535	538	542	531	---	550	525
3	518	495	504	489	517	518	---	519	544	497	550	511
4	528	496	493	509	550	481	---	530	519	533	---	512
5	534	490	---	509	558	585	544	550	---	552	556	519
6	543	496	---	508	---	483	---	528	551	525	557	525
7	540	492	497	508	---	---	552	538	---	---	---	557
8	546	500	501	502	547	518	551	514	528	---	---	558
9	547	495	500	---	539	498	544	543	539	555	554	561
10	---	---	500	---	543	560	539	527	535	---	554	560
11	---	507	507	---	545	549	542	542	543	536	549	528
12	544	498	494	526	548	535	---	542	---	538	559	553
13	---	492	---	542	546	549	---	548	536	540	553	556
14	---	495	501	540	---	---	548	539	533	545	534	560
15	547	---	505	537	549	531	546	539	531	551	---	552
16	---	495	---	541	554	544	544	538	525	---	550	559
17	---	496	---	---	549	540	543	546	512	552	549	559
18	---	500	---	525	559	---	537	525	517	551	554	---
19	543	498	---	543	559	543	546	542	510	---	---	555
20	---	500	510	545	---	539	551	546	515	552	560	548
21	---	499	508	547	---	544	---	542	499	552	561	549
22	514	498	---	546	543	540	546	---	508	552	554	556
23	514	498	514	522	559	543	547	---	515	552	553	557
24	---	498	511	539	554	539	538	547	533	---	554	558
25	508	503	510	538	---	---	552	548	---	---	532	553
26	502	501	508	544	555	---	540	---	544	552	551	550
27	499	---	508	544	---	---	543	540	---	556	551	535
28	509	503	510	---	---	541	551	---	547	555	547	524
29	497	---	520	---	---	543	548	---	548	559	554	524
30	493	504	510	---	---	540	548	551	536	---	550	534
31	501	---	509	---	---	518	---	548	---	---	553	---
MONTH	---	497	---	---	---	533	545	538	529	---	552	543

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	20.0	11.5	14.0	11.0	14.5	16.5	18.0	18.0	21.0	---	21.5
2	22.0	19.0	11.5	11.0	11.0	14.5	15.5	18.0	18.5	---	20.0	22.0
3	23.5	19.5	11.5	11.0	10.0	15.5	---	16.0	19.0	20.0	20.0	22.0
4	22.0	19.0	11.5	11.0	11.5	15.0	---	16.5	19.5	15.5	---	22.0
5	23.0	20.0	---	11.0	12.0	15.5	15.5	16.5	---	21.0	19.0	22.0
6	23.5	19.0	---	11.5	---	16.5	---	16.5	20.0	20.0	19.5	21.0
7	23.5	19.0	12.0	12.0	---	---	15.5	18.0	---	---	---	21.5
8	23.5	19.0	12.0	12.0	11.5	15.0	15.0	18.0	18.0	---	---	21.5
9	23.5	19.0	11.0	---	9.5	14.5	15.0	18.0	18.0	19.0	21.0	22.0
10	---	---	10.0	---	9.0	15.0	14.0	19.0	17.0	---	21.0	22.0
11	---	18.5	10.0	---	10.0	16.0	13.5	18.5	18.0	16.5	21.0	22.0
12	23.5	18.5	9.5	6.5	10.0	16.0	---	18.5	---	20.5	21.5	23.0
13	---	18.5	---	10.5	12.0	16.5	---	16.5	17.0	20.0	21.0	22.0
14	---	18.0	9.0	10.0	---	---	14.5	16.0	16.5	20.0	21.0	22.0
15	24.0	---	9.5	10.0	11.5	15.5	14.5	15.5	18.0	20.0	---	22.0
16	---	16.5	---	10.0	11.0	14.5	14.0	15.5	18.5	---	21.0	21.0
17	---	16.0	---	---	12.0	14.5	14.0	16.5	20.0	20.0	21.5	21.0
18	---	15.0	---	11.5	11.0	---	15.5	15.0	20.0	20.0	21.5	---
19	22.0	15.0	---	11.5	11.0	10.5	15.5	15.5	21.0	---	---	20.5
20	---	14.5	13.5	12.0	---	14.5	15.5	18.5	24.5	21.0	22.0	22.0
21	---	14.5	9.5	12.0	---	13.5	---	16.5	23.5	21.0	21.0	22.0
22	22.0	14.5	---	11.5	12.0	15.5	19.0	---	21.0	21.0	21.0	23.5
23	21.5	14.5	9.0	12.0	11.0	15.5	19.0	---	19.0	20.5	20.0	23.5
24	---	13.0	9.5	12.0	11.0	15.0	19.0	18.5	18.5	---	21.5	24.0
25	21.0	12.0	9.5	11.0	---	---	20.0	18.5	---	---	20.5	21.5
26	20.5	12.0	10.5	10.5	13.0	---	19.0	---	18.0	21.0	21.5	23.5
27	20.0	---	9.0	11.5	---	---	16.5	18.5	---	20.0	21.0	23.5
28	20.0	13.5	10.0	---	---	16.0	17.0	---	18.0	20.0	21.0	22.0
29	20.0	---	10.5	---	---	15.5	17.0	---	21.0	20.0	21.0	22.0
30	20.5	11.0	10.5	---	---	13.5	17.0	16.5	20.0	---	21.0	22.0
31	20.0	---	12.0	---	---	15.0	---	23.5	---	---	20.5	---
MONTH	---	16.5	---	---	---	15.0	16.0	17.5	19.0	---	21.0	22.0

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TEX.

LOCATION.--Lat 30°14'40", long 97°41'39", Travis County, at raw water intake at Austin City Waterplant, just downstream from Lamar Boulevard bridge in Austin, 0.5 mile (0.8 km) downstream from Barton Creek, and 4.5 miles (7.2 km) upstream from gaging station at Montopolis bridge on U.S. Highway 183.

DRAINAGE AREA.--38,400 mi² (99,500 km²) of which 12,880 mi² (33,360 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1973.

Water temperatures: October 1947 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 583 micromhos Oct. 20; minimum daily, 345 micromhos Oct. 23.

Water temperatures: Maximum, 25.5°C Oct. 16, 17, 18; minimum, 8.0°C Jan. 9.

EXTREMES, October 1947 to September 1973.--Specific conductance: Maximum daily, 737 micromhos Jan. 12, 1964; minimum daily, 243 micromhos Dec. 2, 1953.

Water temperatures: Maximum, 31.0°C on several days during summer months; minimum, 6.0°C Jan. 28, 1948, Feb. 4, 1949.

REMARKS.--No appreciable inflow between sampling point and gaging station except during periods of heavy local rain. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 15...	0800	27	10	--	--	33	--	3.7	--	--	36
NOV. 22...	1200	100	11	30	19	--	20	--	145	0	25
DEC. 04...	0900	920	8.5	--	19	--	--	--	--	--	29
JAN. 04...	0800	34	6.9	48	19	16	--	1.8	194	0	29
FEB. 28...	0800	112	7.8	49	20	--	14	--	192	0	29
MAR. 07...	0800	33	8.3	33	19	--	13	--	158	0	26
APR. 30...	0800	2630	8.2	42	20	28	--	3.3	192	0	24
MAY 31...	1200	1960	7.4	48	21	--	32	--	195	0	32
JUNE 30...	1000	1850	8.1	52	21	--	24	--	220	0	29
JULY 31...	0800	66	8.0	51	25	--	16	--	200	0	25
AUG. 31...	0800	62	7.6	46	23	--	23	--	190	0	28
SEP. 30...	--	169	10	58	20	--	11	--	218	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 15...	61	.2	.3	--	--	--	--	546	--	24.5
NOV. 22...	35	.2	.5	213	150	34	.7	402	8.2	23.0
DEC. 04...	26	.2	.6	--	--	--	--	484	--	--
JAN. 04...	30	.2	.5	248	200	39	.5	505	7.9	14.0
FEB. 28...	32	.2	.4	248	200	47	.4	476	7.9	15.0
MAR. 07...	21	.3	.7	202	160	31	.4	431	8.0	17.0
APR. 30...	50	.2	1.0	274	190	30	.9	500	7.5	18.5
MAY 31...	56	.2	1.1	298	210	46	1.0	552	7.7	19.5
JUNE 30...	40	.2	.06	283	220	36	.7	518	7.8	22.0
JULY 31...	52	.0	.3	276	230	66	.5	553	7.5	21.0
AUG. 31...	54	.0	.07	275	210	52	.7	547	7.2	21.0
SEP. 30...	32	.0	.7	265	230	48	.3	507	7.6	22.0

COLORADO RIVER BASIN

545

08158000 COLORADO RIVER AT AUSTIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	14000	485	250	9450	35	1320	27	1020	190
NOV.	6111	455	230	3790	26	429	26	429	180
DEC.	6165	497	260	4330	39	649	28	466	200
JAN. 1973....	29846	516	270	21800	44	3550	29	2340	210
FEB.	23214	524	280	17500	46	2880	29	1820	210
MAR.	35016	526	280	26500	47	4440	29	2740	210
APR.	45754	524	280	34600	46	5680	29	3580	210
MAY	83037	538	280	62800	51	11400	29	6500	220
JUNE	54410	522	270	39700	46	6760	29	4260	210
JULY	59978	536	280	45300	50	8100	29	4700	220
AUG.	60140	551	290	47100	54	8770	30	4870	220
SEP.	34235	540	290	26800	51	4710	29	2680	220
TOTAL	451906	--	--	340000	--	58700	--	35400	--
WTD. AVG. ...	1238	530	280	--	48	--	29	--	210

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	541	511	454	455	548	424	523	519	547	529	558	548
2	547	478	429	516	540	503	530	483	548	529	551	541
3	547	477	415	517	543	543	422	529	550	534	556	550
4	531	440	484	505	497	512	500	538	551	544	555	538
5	541	429	511	461	505	535	515	527	552	543	555	556
6	545	418	473	445	526	464	548	537	542	523	556	560
7	542	453	452	513	530	431	535	502	544	525	550	524
8	550	418	498	514	474	458	525	530	552	528	546	570
9	541	416	517	505	558	447	543	517	559	493	555	556
10	531	443	513	508	545	497	540	538	551	457	550	554
11	549	440	509	517	524	548	540	534	552	517	554	554
12	550	460	529	529	546	533	542	534	494	515	551	556
13	536	497	507	531	551	525	542	534	384	527	559	547
14	547	516	476	538	543	520	544	542	432	536	554	548
15	546	502	500	539	517	544	518	539	518	539	544	556
16	570	434	495	466	457	540	506	542	522	538	547	546
17	574	447	535	490	498	544	532	539	518	538	549	572
18	561	428	512	507	468	538	515	547	520	538	551	529
19	571	461	534	498	536	515	537	546	521	551	547	534
20	582	436	540	533	529	530	524	546	517	548	540	523
21	527	414	461	511	543	525	540	543	479	547	545	552
22	370	402	517	476	486	538	538	540	482	553	547	541
23	345	434	549	445	468	538	488	543	511	551	546	560
24	442	447	549	443	463	523	534	546	510	549	549	556
25	452	475	477	514	471	519	528	552	524	551	551	557
26	470	452	557	531	475	528	476	546	497	551	550	554
27	460	438	553	526	524	547	528	548	522	548	552	437
28	483	425	527	499	476	539	533	549	474	560	548	460
29	516	402	540	502	---	540	537	554	532	556	550	484
30	504	470	545	537	---	545	500	553	518	557	559	507
31	541	---	551	541	---	540	---	552	---	553	547	---
MONTH	520	449	507	504	512	517	523	537	517	536	551	539

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	21.0	12.0	14.5	12.0	18.0	18.0	18.5	18.5	21.5	21.5	21.0
2	22.0	20.5	14.5	13.5	13.0	14.5	19.0	19.0	19.0	23.5	23.5	21.5
3	22.0	20.5	15.5	12.0	13.0	14.5	19.0	18.5	19.0	22.0	23.5	21.5
4	23.0	19.5	---	14.0	13.5	14.5	18.0	18.5	---	21.5	---	21.5
5	22.0	---	14.5	14.0	---	19.0	17.0	18.5	21.0	21.5	21.0	22.0
6	24.0	20.0	14.0	13.0	14.5	19.5	18.5	18.5	21.0	21.5	21.0	---
7	23.5	20.5	14.0	11.5	---	17.0	18.0	18.5	20.0	23.0	21.5	22.0
8	23.5	20.0	11.5	10.5	14.0	18.0	17.0	18.5	20.0	22.0	20.5	21.5
9	24.0	20.0	13.0	8.0	13.0	19.5	16.0	20.0	20.5	21.5	20.5	21.5
10	24.5	20.0	---	---	---	18.0	15.5	20.0	20.5	22.0	20.5	21.5
11	24.0	20.0	11.0	8.5	12.0	18.0	15.5	19.5	20.5	22.0	20.5	22.0
12	24.5	---	11.0	---	12.0	18.0	15.0	19.0	21.0	---	21.0	23.0
13	24.5	19.0	11.5	8.5	13.0	18.5	17.0	19.5	---	23.5	21.5	23.0
14	24.5	19.0	11.5	8.5	13.0	17.0	15.5	18.5	20.5	21.0	21.5	23.0
15	24.5	18.5	10.5	10.0	12.0	18.0	16.5	17.0	21.0	22.0	22.0	23.0
16	25.5	16.5	10.5	11.0	14.0	18.0	15.5	16.5	24.0	22.0	22.0	23.0
17	25.5	17.0	9.5	---	14.0	16.0	18.5	15.5	24.5	21.5	---	23.0
18	25.5	17.0	10.0	11.5	12.0	15.5	16.5	17.0	---	18.0	21.0	23.0
19	---	16.0	11.0	13.5	---	15.5	18.5	18.0	23.0	21.0	21.5	23.0
20	24.0	16.0	13.0	18.0	13.0	15.5	18.5	17.0	21.5	20.5	20.5	23.0
21	22.0	16.0	12.0	14.5	13.5	16.0	16.5	18.5	23.5	21.0	21.5	23.0
22	23.0	15.0	---	14.0	13.5	16.5	19.5	18.5	23.5	21.5	21.5	23.0
23	21.0	15.0	---	13.0	13.5	16.5	19.5	18.5	23.0	21.5	21.0	22.0
24	21.0	14.5	14.0	14.0	13.5	18.0	20.0	18.5	24.5	21.0	20.5	23.0
25	21.0	14.5	12.0	13.0	13.5	16.5	19.5	19.0	20.5	21.0	20.5	---
26	20.0	14.5	12.0	11.0	14.0	16.5	18.5	19.0	19.0	21.5	20.5	23.0
27	20.0	13.5	12.0	12.0	---	16.5	19.5	18.5	---	23.0	20.5	23.0
28	20.5	14.5	14.0	11.5	15.0	18.0	19.5	19.5	22.0	23.0	21.0	23.5
29	20.5	15.0	13.0	11.0	---	17.0	19.0	20.0	23.0	23.0	20.0	22.0
30	20.5	14.5	---	11.0	---	---	18.5	20.0	22.0	20.0	24.0	22.0
31	23.0	---	15.5	12.0	---	18.0	---	19.5	---	21.0	20.5	---
MONTH	23.0	17.5	12.5	12.0	13.0	17.0	18.0	18.5	21.5	21.5	21.5	22.5

COLORADO RIVER BASIN

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08158650 COLORADO RIVER AT FARM ROAD 973, BELOW AUSTIN, TEX.

LOCATION.--Lat 30°12'28", long 97°38'15", Travis County, at bridge on Farm Road 973, 0.3 mile (0.5 km) northeast of intersection of State Highway 71 and Farm Road 973, and 9.6 miles (15.4 km) downstream from gaging station at Austin.

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 05...	1255	39	9.4	50	18	--	37	--	186	0
DEC. 07...	1530	1800	10	60	17	27	--	3.9	220	0
FEB. 22...	0750	100	8.6	62	16	--	26	--	206	0
APR. 25...	1400	3000	9.1	56	19	--	28	--	209	0
JUNE 13...	1330	500	7.2	49	18	--	30	--	180	0
AUG. 07...	1700	3300	8.2	50	20	--	35	--	200	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 05...	39	62	.2	.10	.12	.50	.2	.43	309
DEC. 07...	36	43	.3	.45	.04	1.3	.8	1.0	311
FEB. 22...	39	45	.3	.38	.08	.34	.9	.40	303
APR. 25...	36	48	.3	.37	.07	.39	.5	.47	302
JUNE 13...	37	54	.2	.57	.03	.53	.3	.59	286
AUG. 07...	35	58	.3	.42	.01	.24	.2	.19	306

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 05...	200	46	1.1	572	7.7	26.0	8.4	102	2.0
DEC. 07...	220	39	.8	561	7.6	10.5	8.6	77	11
FEB. 22...	220	52	.8	543	7.3	11.5	9.1	83	3.9
APR. 25...	220	46	.8	566	7.4	22.5	8.0	91	3.5
JUNE 13...	200	49	.9	538	7.6	23.0	8.4	97	2.1
AUG. 07...	210	44	1.1	559	7.6	27.0	8.3	102	1.2

COLORADO RIVER BASIN

08159200 COLORADO RIVER AT BASTROP, TEX.

LOCATION.--Lat 30°06'20", long 97°19'08", Bastrop County, at gaging station 400 ft (122 m) upstream from bridge on State Highway 71, 0.3 mile (0.5 km) upstream from Gills Creek, and 1.1 miles (1.8 km) downstream from Piney Creek.

DRAINAGE AREA.--39,400 mi² (102,050 km²), of which 12,880 mi² (33,360 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1970.

Chemical and biochemical analyses: February 1968 to September 1973 (Discontinued).

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
05...	1150	722	6.9	51	18	41	194	0	39
27...	1330	330	8.5	52	15	40	200	0	42
NOV.									
30...	1155	314	5.8	62	20	30	216	0	47
DEC.									
07...	1320	230	7.2	63	17	36	225	0	44
JAN.									
17...	1135	729	9.1	52	18	42	204	0	42
FEB.									
22...	0845	1720	9.0	75	15	41	200	0	71
MAR.									
01...	0730	756	8.4	66	16	29	221	3	41
APR.									
04...	0800	654	8.3	57	19	39	220	0	40
25...	1245	3050	9.4	58	19	31	204	0	41
JUNE									
11...	0800	1930	6.5	50	20	31	188	0	38
20...	1245	1320	9.4	50	17	40	196	0	31
JULY									
24...	1440	2460	8.8	51	20	33	202	0	35
AUG.									
06...	1100	1490	8.2	52	20	35	200	0	36
28...	0845	1470	7.3	47	21	43	214	0	37

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT.									
05...	62	.3	.11	.00	.06	.5	.32	315	200
27...	48	.2	--	--	--	.9	--	308	190
NOV.									
30...	47	.3	--	--	--	2.2	--	328	240
DEC.									
07...	52	.3	.42	.05	.16	.4	1.0	333	230
JAN.									
17...	58	.3	--	--	--	.1	--	322	200
FEB.									
22...	67	.4	.45	.01	.12	1.6	.52	384	250
MAR.									
01...	41	.3	--	--	--	2.0	--	323	230
APR.									
04...	56	.3	--	--	--	.6	--	330	220
25...	53	.3	.49	.15	.19	1.4	.73	319	220
JUNE									
11...	57	.2	.44	.00	.00	.4	.17	297	210
20...	44	.3	--	--	--	7.4	--	321	200
JULY									
24...	55	.2	--	--	--	.3	--	303	210
AUG.									
06...	60	.2	.66	.00	.07	.3	.13	311	210
28...	57	.3	--	--	--	.4	--	319	200

COLORADO RIVER BASIN

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08159200 COLORADO RIVER AT BASTROP, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTTEMBER 1973

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.								
05...	42	1.3	578	8.0	25.0	7.6	90	.8
27...	28	1.3	525	8.0	17.0	--	--	--
NOV.								
30...	60	.8	578	7.6	10.0	--	--	--
DEC.								
07...	42	1.0	609	8.0	7.0	11.7	96	1.0
JAN.								
17...	36	1.3	572	8.2	12.0	--	--	--
FEB.								
22...	84	1.1	664	7.4	11.0	9.4	85	2.4
MAR.								
01...	50	.8	562	8.4	17.0	--	--	--
APR.								
04...	40	1.1	582	8.2	18.5	--	--	--
25...	60	.9	580	7.5	24.5	6.4	76	2.0
JUNE								
11...	54	.9	554	7.8	24.5	7.0	83	.4
20...	34	1.2	512	7.7	24.5	--	--	--
JULY								
24...	44	1.0	552	7.3	28.5	--	--	--
AUG.								
06...	48	1.0	555	7.7	27.5	7.2	90	.4
28...	28	1.3	570	7.5	22.0	--	--	--

08161000 COLORADO RIVER AT COLUMBUS, TEX.

LOCATION.--Lat 29°42'22", long 96°32'12", Colorado County, at gaging station at bridge on U.S. Highway 90 at eastern edge of Columbus, and 2.6 miles (4.2 km) downstream from Cummins Creek.

DRAINAGE AREA.--41,070 mi² (106,400 km²), of which 12,880 mi² (33,360 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

Chemical and biochemical analyses: February 1968 to September 1973.

Specific conductance: October 1966 to September 1973.

Water temperatures: March 1957 to June 1959, October 1960 to September 1968.

Sediment records: March 1957 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 678 micromhos July 24; minimum daily, 93 micromhos Apr. 26.

Sediment concentrations: Maximum daily, 2,030 mg/l Feb. 14; minimum daily, 4 mg/l Oct. 8, Nov. 22, 27, Sept. 4.

Sediment loads: Maximum daily, 181,000 tons June 13; minimum daily, 3.40 tons Nov. 22.

EXTREMES, March 1957 to September 1973.--Specific conductance (October 1966 to September 1973): Maximum daily, 706 micromhos Feb. 7, 1969; minimum daily, 93 micromhos Apr. 26, 1973.

Sediment concentrations: Maximum daily, 5,650 mg/l Mar. 25, 1957; minimum daily, 1 mg/l Feb. 17, Mar. 31, 1972.

Sediment loads: Maximum daily, 497,000 tons Feb. 23, 1958; minimum daily, 1.90 tons Mar. 6, 1972.

REMARKS.--Radiochemical analyses available from U.S. Geological Survey, Denver, Colo. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
26...	0845	1400	8.5	48	17	30	171	0	34
NOV.									
22...	1010	342	6.8	65	17	34	230	0	40
DEC.									
20...	0845	600	1.3	67	19	26	244	0	30
JAN.									
23...	1330	537	9.2	60	18	31	207	0	42
FEB.									
15...	1000	6300	7.2	37	5.5	19	106	0	28
APR.									
05...	0845	1100	11	64	15	34	218	0	41
MAY									
08...	1200	1990	3.2	30	16	29	124	0	33
JUNE									
11...	0945	2400	8.0	50	19	33	188	0	38
JULY									
17...	1230	2750	8.5	55	20	22	200	0	36
AUG.									
24...	0945	2200	4.0	54	22	35	208	0	46
SEP.									
26...	1300	2110	3.9	56	18	45	211	0	46

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)
OCT.									
26...	54	.0	.15	.25	.31	1.1	.61	282	190
NOV.									
22...	52	.0	--	--	--	.9	--	332	230
DEC.									
20...	48	.2	.00	.00	.00	.9	.34	316	250
JAN.									
23...	53	.3	--	--	--	.7	--	319	220
FEB.									
15...	26	.2	.35	.00	.01	.6	.39	178	120
APR.									
05...	49	.2	.22	.01	.14	1.1	.23	326	220
MAY									
08...	47	.2	--	--	--	.02	--	220	140
JUNE									
11...	56	.2	.16	.01	.01	.4	.11	298	200
JULY									
17...	45	.2	--	--	--	.4	--	286	220
AUG.									
24...	58	.3	.09	.00	.24	.1	.08	322	220
SEP.									
26...	62	.3	--	--	--	.3	--	336	210

COLORADO RIVER BASIN

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08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 26...	48	1.0	528	7.3	16.0	10.2	102	2.7
NOV. 22...	44	1.0	605	7.5	9.0	--	--	--
DEC. 20...	47	.7	596	7.9	12.0	11.4	106	1.6
JAN. 23...	54	.9	578	7.9	12.0	--	--	--
FEB. 15...	28	.8	327	8.2	11.5	9.2	84	2.5
APR. 05...	44	1.0	581	7.3	16.0	9.6	96	.9
MAY 08...	39	1.1	410	8.2	23.5	--	--	--
JUNE 11...	50	1.0	564	7.3	26.0	9.2	112	1.1
JULY 17...	54	.6	549	7.5	29.5	--	--	--
AUG. 24...	54	1.0	590	6.9	29.0	9.2	118	1.1
SEP. 26...	39	1.3	627	7.1	29.0	--	--	--

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
OCT. 30...	0701	4130	26.0	1090	12200	98	99
NOV. 31...	0709	1650	26.0	742	3310	100	--
NOV. 02...	0723	705	26.0	278	529	100	--
FEB. 14...	0735	10900	19.0	2470	72700	98	99
APR. 16...	1616	23200	20.0	1310	82100	94	96
APR. 17...	0728	14400	20.0	1010	39300	96	98

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT. 30...	100	--	64	79	86	95	96
NOV. 31...	--	--	86	94	96	98	99
NOV. 02...	--	--	79	81	88	88	90
FEB. 14...	100	--	69	72	78	88	98
APR. 16...	99	100	--	73	78	82	92
APR. 17...	99	100	69	81	82	91	94

COLORADO RIVER BASIN

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	559	292	593	584	477	511	519	561	548	535	548	567
2	562	290	600	594	538	530	524	566	555	528	551	569
3	561	362	606	586	533	550	528	363	575	523	557	538
4	565	450	613	591	537	562	552	473	564	528	541	565
5	567	510	641	601	542	568	562	509	557	523	562	572
6	564	535	617	604	548	567	378	524	546	537	570	542
7	580	493	607	606	545	506	449	530	542	519	552	545
8	582	566	603	582	549	559	520	515	556	528	556	539
9	582	587	603	383	547	560	504	524	553	523	513	563
10	585	605	603	348	550	547	531	544	543	534	576	528
11	586	606	593	491	---	565	538	512	553	515	554	569
12	588	609	603	548	559	579	565	506	414	456	559	573
13	588	585	609	529	551	586	560	620	193	417	563	585
14	595	583	611	517	376	596	544	402	173	465	571	561
15	595	572	609	515	356	564	507	511	240	498	570	469
16	596	569	613	515	400	537	260	521	297	527	568	488
17	599	570	602	522	410	560	208	533	350	530	550	522
18	599	557	601	535	441	550	234	540	401	---	526	523
19	603	570	594	546	443	550	265	546	444	528	538	536
20	607	583	578	548	375	500	458	549	460	542	562	537
21	621	584	580	550	444	532	393	546	208	570	578	564
22	595	586	594	565	450	544	427	546	366	550	562	577
23	603	596	606	569	459	549	218	538	434	549	562	575
24	601	578	625	585	410	517	128	537	482	678	666	595
25	556	590	609	584	495	238	127	539	493	554	652	557
26	524	603	610	349	478	356	93	542	493	563	553	573
27	460	580	625	220	468	353	274	542	496	561	558	531
28	446	568	612	414	488	382	545	542	492	551	561	480
29	461	576	614	402	---	389	543	544	502	590	547	511
30	286	582	610	421	---	432	549	542	507	536	556	374
31	257	---	605	441	---	494	---	544	---	552	553	---
MONTH	551	545	606	511	480	511	417	526	451	534	562	541

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1010	18	49	836	300	677	377	10	10
2	913	18	44	628	200	339	341	6	5.5
3	913	9	22	498	80	108	332	8	7.2
4	835	7	16	440	57	68	312	14	12
5	768	11	23	399	49	53	296	16	13
6	731	8	16	465	46	58	293	14	11
7	708	13	25	587	74	117	283	6	4.6
8	681	4	7.4	460	39	48	276	7	5.2
9	683	6	11	383	35	36	276	8	6.0
10	661	6	11	343	33	31	316	9	7.7
11	800	8	17	323	24	21	803	25	54
12	1060	12	34	316	40	34	583	16	25
13	707	12	23	515	24	33	417	20	23
14	524	12	17	574	22	34	342	12	11
15	588	10	16	516	18	25	356	13	12
16	415	8	9.0	445	15	18	417	10	11
17	417	11	12	634	37	63	355	6	5.8
18	395	12	13	677	20	37	442	37	44
19	339	14	13	557	15	23	620	20	33
20	290	10	7.8	423	15	17	642	15	26
21	262	12	8.5	350	10	9.5	501	17	23
22	325	17	15	318	4	3.4	347	8	7.5
23	358	12	12	304	8	6.6	311	9	7.6
24	615	96	342	310	7	5.9	389	12	13
25	2630	309	2240	325	6	5.3	310	7	5.9
26	1320	150	535	357	5	4.8	274	16	12
27	894	100	241	356	4	3.8	261	17	12
28	698	66	124	544	31	46	258	8	5.6
29	1320	416	3430	562	14	21	258	7	4.9
30	3500	1100	10700	442	11	13	256	9	6.2
31	1420	640	2450	--	--	--	244	8	5.3
TOTAL	26780	--	20483.7	13887	--	1959.3	11488	--	430.0

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	247	13	8.7	2010	170	923	1360	89	327
2	246	14	9.3	2280	210	1290	1370	84	311
3	269	19	14	2320	203	1270	1270	73	250
4	356	15	14	2310	183	1140	1150	57	177
5	424	13	15	1910	157	810	1080	59	172
6	1080	51	149	1230	91	302	1080	64	187
7	1190	75	241	953	43	111	1280	150	518
8	2490	200	1340	958	45	116	1130	58	177
9	1890	380	1940	1180	58	185	975	46	121
10	1900	210	1080	1370	61	226	990	50	134
11	1720	110	511	1950	100	527	888	38	91
12	1810	128	626	2730	200	1470	953	22	57
13	2290	170	1050	3240	290	3140	1590	66	283
14	2470	200	1330	9140	2030	50900	1720	86	399
15	2350	210	1330	5980	830	13400	1900	110	564
16	2470	168	1120	3030	350	2860	2330	190	1200
17	2460	144	956	1860	210	1050	2690	260	1890
18	1790	135	652	2390	180	1160	4150	630	7060
19	1100	67	199	2290	156	965	3310	960	8580
20	792	42	90	1900	175	898	2550	470	3240
21	688	34	63	1730	106	495	2070	210	1170
22	604	32	52	2180	104	612	2080	150	842
23	552	30	45	3440	270	2510	1870	130	656
24	560	33	50	3940	320	3400	9410	1240	56000
25	887	100	239	3120	330	2780	20100	1450	82900
26	7210	1030	20100	2100	380	2150	10300	800	22200
27	6270	750	12700	1710	270	1250	4540	960	11800
28	3920	750	7940	1400	280	1060	2760	650	4840
29	1980	760	4060	--	--	--	3390	800	7320
30	1460	350	1380	--	--	--	2380	290	1860
31	1410	208	792	--	--	--	2250	250	1520
TOTAL	54885	--	60096.0	70651	--	97000	94916	--	216846
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2000	160	864	2520	140	953	2560	100	691
2	1850	140	699	3590	769	11600	2130	74	426
3	1700	160	734	5190	960	13500	2260	52	317
4	1320	120	428	3380	300	2740	2450	89	589
5	1090	113	333	2840	170	1300	2370	79	506
6	1440	370	1440	2590	150	1050	2380	76	488
7	3360	400	3630	2660	150	1080	2620	90	637
8	2330	160	1010	2230	160	963	2870	108	837
9	2190	250	1480	2130	320	1840	2620	123	870
10	1590	150	644	3190	260	2240	2420	122	797
11	1810	240	1170	2880	370	2880	2850	350	2690
12	2320	220	1380	2700	230	1680	7930	907	22200
13	2530	190	1300	4780	450	5810	45600	1730	181000
14	2710	300	2200	4570	420	5180	51700	630	87900
15	10900	1420	58300	3160	250	2130	20400	450	24800
16	22700	1820	110000	2960	180	1440	6010	400	6490
17	18700	1010	51100	2720	200	1470	3910	250	2640
18	12900	730	25400	3040	170	1400	3130	150	1270
19	7720	950	19800	3180	160	1370	2770	67	501
20	6220	990	16600	3020	180	1470	2550	100	689
21	3750	680	6890	3100	200	1670	8490	995	24900
22	3540	360	3440	3450	220	2050	4490	470	5700
23	2960	200	1600	3390	150	1370	3990	250	2690
24	2220	140	839	3160	150	1280	3670	170	1680
25	1860	120	603	3050	140	1150	3430	160	1480
26	1910	120	619	3080	140	1160	3220	130	1130
27	3010	260	2110	3150	150	1280	3250	109	956
28	3020	250	2040	3210	150	1300	2930	96	759
29	3090	270	2250	3410	150	1380	2710	65	476
30	2780	190	1430	2880	140	1090	2590	53	371
31	--	--	--	2810	140	1060	--	--	--
TOTAL	135520	--	320333	98020	--	76896	210300	--	376480

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2360	45	287	2110	33	188	1980	69	369
2	2470	64	427	2400	60	389	1360	32	118
3	2820	73	556	1960	53	280	1710	28	129
4	2710	71	520	2200	68	404	2180	51	300
5	2790	103	776	2850	99	762	2170	61	357
6	2840	64	491	2610	71	500	2480	49	328
7	2930	108	854	2620	64	453	2200	50	297
8	3300	104	927	2230	54	325	1430	58	224
9	3240	98	857	2080	46	258	966	23	60
10	2680	90	651	2740	90	666	804	16	35
11	3770	380	3870	2820	66	503	759	16	33
12	3340	460	4150	2740	83	614	1130	45	137
13	2930	140	1110	2670	77	555	1470	20	79
14	2680	100	724	2370	57	365	1680	90	408
15	2500	89	601	2030	39	214	2730	350	2580
16	2440	81	534	2050	45	249	2630	300	2130
17	2870	131	1020	2010	39	212	1470	100	397
18	2640	100	713	1830	37	183	1110	50	150
19	2550	94	647	1740	37	174	795	42	90
20	2420	80	523	1660	54	242	651	27	47
21	2350	75	476	1650	31	138	588	21	33
22	2380	68	437	1650	60	267	597	12	19
23	2440	78	514	2110	27	154	546	8	12
24	2740	62	375	2310	26	162	750	4	8.1
25	2700	58	345	2230	50	301	1740	22	103
26	2030	47	258	2130	31	178	1890	22	112
27	2080	37	208	1900	32	164	1850	40	200
28	2670	72	519	1990	35	188	2420	220	1440
29	2880	74	575	2120	48	275	5340	640	10200
30	2620	68	481	2200	43	255	4310	881	11000
31	2080	50	281	2510	44	298	--	--	--
TOTAL	82250	--	24707	68520	--	9916	51736	--	31395.1
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									918953
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									1236532.1

08162000 COLORADO RIVER AT WHARTON, TEX.

LOCATION.--Lat 29°18'32", long 96°06'13", Wharton County, at gaging station at bridge on U.S. Highway 59 in Wharton, 1,100 feet (335 m) downstream from Texas and New Orleans Railroad Co. bridge, and 12 miles (19.3 km) upstream from Jones Creek.

DRAINAGE AREA.--41,380 mi² (107,200 km²), of which 12,880 mi² (33,360 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: April 1944 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: February 1968 to September 1973.

Water temperatures: October 1945 to September 1948, March 1950 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 644 micromhos Dec. 19; minimum daily, 209 micromhos June 14.

Water temperatures: Maximum, 30.0°C on many days during July, August and September; minimum, 3.0°C Jan. 13.

EXTREMES, April 1944 to September 1973.--Specific conductance: Maximum daily, 904 micromhos Oct. 29, 1963; minimum daily, 146 micromhos Sept. 27, 1957.

Water temperatures (1945-48, 1950-73): Maximum, 35.0°C July 26, 1954; minimum, 2.0°C Dec. 23, 1963, Jan. 14, 1964.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
11...	1610	492	1.4	56	26	24	219	0	32	60	.2
26...	1030	2080	5.5	64	19	27	240	0	23	54	.0
NOV.											
13...	0700	1260	9.1	65	18	23	234	0	26	46	.1
DEC.											
20...	1045	480	2.0	74	17	36	262	0	35	55	.2
29...	1830	360	1.2	74	18	37	272	0	41	52	.2
JAN.											
28...	0800	6400	7.5	37	8.2	11	117	0	21	20	.2
FEB.											
15...	1145	8200	8.2	42	6.9	20	132	0	25	28	.2
25...	0630	4020	11	40	7.8	30	148	0	28	31	.2
MAR.											
26...	0800	20500	7.4	32	4.4	7.6	101	0	14	11	.1
APR.											
05...	1050	1580	10	61	13	29	199	0	41	42	.2
17...	1730	29000	8.3	32	3.2	8.1	104	0	10	9.0	.1
MAY											
28...	0700	2200	7.5	51	21	27	190	0	34	56	.2
JUNE											
11...	1120	2190	8.0	51	20	28	182	0	43	52	.2
15...	0700	57600	5.5	32	2.7	5.0	106	0	6.6	5.5	.1
JULY											
10...	0800	3300	9.8	60	17	26	214	0	33	46	.2
AUG.											
24...	1200	1600	5.4	61	18	36	222	0	42	55	.3
29...	0700	1380	7.0	53	22	33	210	0	39	57	.3
SEP.											
28...	0700	1380	5.6	52	19	33	195	0	37	57	.3

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.											
11...	--	--	--	.00	--	308	--	--	250	66	.7
26...	.15	.00	.02	.05	.47	311	386	372	240	43	.8
NOV.											
13...	--	--	--	.4	--	304	--	--	240	44	.7
DEC.											
20...	.00	.00	.00	1.0	.34	353	15	2	260	42	1.0
29...	--	--	--	.2	--	358	--	--	260	37	1.0
JAN.											
28...	--	--	--	1.0	--	167	--	--	130	30	.4
FEB.											
15...	.42	.01	.07	.7	.68	199	1150	214	130	25	.8
25...	--	--	--	.4	--	223	--	--	130	11	1.1
MAR.											
26...	--	--	--	.4	--	128	--	--	98	15	.3
APR.											
05...	.14	.01	.14	1.4	.26	301	157	6	210	44	.9
17...	--	--	--	.6	--	124	--	--	93	8	.4
MAY											
28...	--	--	--	.5	--	292	--	--	210	56	.8
JUNE											
11...	.26	.00	.04	.4	.13	293	214	96	210	61	.8
15...	--	--	--	.01	--	109	--	--	91	4	.2
JULY											
10...	--	--	--	.05	--	297	--	--	220	42	.8
AUG.											
24...	.15	.00	.00	.00	.08	327	57	26	230	45	1.0
29...	--	--	--	.00	--	314	--	--	220	50	1.0
SEP.											
28...	--	--	--	.00	--	300	--	--	210	49	1.0

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT.											
11...	606	8.2	27.0	--	--	--	--	--	--	--	--
26...	609	7.4	16.5	--	--	10.4	106	2.3	22	0	0
NOV.											
13...	566	8.2	19.0	--	--	--	--	--	--	--	--
DEC.											
20...	638	8.0	14.5	15	15	10.8	105	1.9	8.0	--	--
29...	639	8.0	17.0	--	--	--	--	--	--	--	--
JAN.											
28...	287	7.8	8.0	--	--	--	--	--	--	--	--
FEB.											
15...	355	7.7	12.5	65	330	8.8	82	3.6	19	30	0
25...	379	8.2	13.0	--	--	--	--	--	--	--	--
MAR.											
26...	236	7.2	17.0	--	--	--	--	--	--	--	--
APR.											
05...	533	8.1	17.5	25	75	9.6	100	.9	4.5	20	0
17...	244	7.7	19.0	--	--	--	--	--	--	--	--
MAY											
28...	573	8.2	25.0	--	--	--	--	--	--	--	--
JUNE											
11...	546	7.6	26.0	20	80	9.6	117	1.0	15	--	--
15...	212	7.5	23.0	--	--	--	--	--	--	--	--
JULY											
10...	561	8.2	29.0	--	--	--	--	--	--	--	--
AUG.											
24...	595	7.2	31.0	5	25	9.2	123	1.7	10	0	0
29...	586	8.1	28.0	--	--	--	--	--	--	--	--
SEP.											
28...	545	7.6	26.0	--	--	--	--	--	--	--	--

[illegible]

COLORADO RIVER BASIN

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08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 26...	1030	2080	16.5	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 15...	1145	8200	12.5	.00	.0	.00	2.6	.00	11	.00	14
APR. 05...	1050	1580	17.5	.00	.0	.00	.0	.00	.8	.00	.0
AUG. 24...	1200	1600	31.0	.00	.0	.00	.0	.00	.0	.00	.0

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 26...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 15...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 05...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 24...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 26...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 15...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 05...	0	.0	0	.01	.00	.00	.00	.00	.00	.00
AUG. 24...	0	.0	0	.01	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	23055	558	300	18700	52	3240	33	2050	220
NOV.	17997	506	270	13100	45	2190	30	1460	200
DEC.	15227	621	330	13600	60	2470	37	1520	240
JAN. 1973....	53786	465	250	36300	40	5810	27	3920	180
FEB.	72920	442	240	47300	37	7280	26	5120	180
MAR.	103867	403	220	61700	31	8690	23	6450	160
APR.	171010	358	190	87700	26	12000	20	9230	140
MAY	88310	528	280	66800	48	11400	31	7390	210
JUNE	249470	293	160	108000	17	11500	16	10800	120
JULY	59860	550	290	46900	51	8240	33	5330	220
AUG.	57390	575	310	48000	54	8370	34	5270	220
SEP.	61782	499	270	45000	44	7340	29	4840	200
TOTAL	974674	--	--	593000	--	88500	--	63400	--
WTD, AVG. ...	2670	419	230	--	34	--	24	--	170

COLORADO RIVER BASIN

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	568	410	597	620	408	472	425	545	565	521	560	565
2	573	269	588	629	440	491	476	564	571	542	576	567
3	580	285	601	627	483	516	514	566	577	566	563	577
4	583	330	613	627	556	547	496	408	561	563	527	594
5	590	344	609	612	551	561	532	444	582	557	540	553
6	588	367	611	561	556	578	548	493	570	549	576	468
7	581	419	627	553	559	582	552	500	570	566	586	474
8	598	479	627	593	557	594	429	535	562	494	579	481
9	585	537	634	604	542	592	433	531	536	529	583	513
10	597	556	626	566	528	567	487	526	556	561	577	513
11	601	532	642	428	541	582	508	542	548	560	574	543
12	597	577	640	420	548	579	525	548	312	540	583	369
13	595	566	625	482	541	572	551	529	311	563	563	372
14	603	575	613	544	550	582	576	522	209	543	553	380
15	618	610	621	537	395	604	541	450	212	473	547	478
16	617	598	630	531	362	619	430	478	222	529	590	510
17	610	614	635	531	359	579	244	528	270	558	595	498
18	626	534	634	532	379	571	235	545	304	546	572	494
19	630	551	644	535	382	579	215	554	349	563	559	545
20	632	567	636	552	396	566	290	563	383	569	556	541
21	633	566	624	562	430	556	442	562	417	561	578	563
22	585	583	620	571	380	528	403	568	366	578	589	581
23	586	602	617	569	383	558	391	570	298	561	603	529
24	623	597	589	573	383	321	441	568	377	561	592	561
25	612	606	602	573	379	367	460	566	452	578	595	614
26	610	615	610	570	422	236	480	569	490	578	589	609
27	578	623	618	379	493	239	498	571	506	576	589	604
28	561	620	632	287	476	300	532	573	508	559	588	545
29	529	623	639	310	---	336	551	573	517	556	586	597
30	498	617	639	439	---	367	551	573	526	562	584	515
31	340	---	632	399	---	375	---	570	---	556	582	---
MONTH	585	526	622	526	464	501	459	537	441	552	575	525

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	22.0	8.0	10.0	12.0	15.0	18.0	22.0	26.0	29.0	30.0	30.0
2	23.0	18.0	12.0	9.0	11.0	15.0	20.0	22.0	27.0	28.0	30.0	29.0
3	23.0	19.0	15.0	9.0	12.0	17.0	19.0	20.0	27.0	29.0	29.0	28.0
4	23.0	17.0	13.0	10.0	13.0	20.0	17.0	19.0	27.0	26.0	30.0	28.0
5	23.0	17.0	16.0	13.0	13.0	18.0	17.0	22.0	27.0	30.0	29.0	28.0
6	23.0	20.0	11.0	9.0	15.0	21.0	17.0	22.0	26.0	30.0	29.0	27.0
7	22.0	16.0	9.0	9.0	16.0	20.0	15.0	17.0	28.0	27.0	30.0	---
8	23.0	16.0	12.0	7.0	13.0	19.0	17.0	22.0	27.0	27.0	30.0	28.0
9	23.0	17.0	13.0	6.0	7.0	20.0	13.0	24.0	28.0	29.0	30.0	28.0
10	23.0	---	12.0	4.0	7.0	21.0	14.0	25.0	27.0	29.0	29.0	28.0
11	24.0	18.0	8.0	---	8.0	18.0	15.0	25.0	27.0	29.0	30.0	28.0
12	25.0	19.0	7.0	4.0	10.0	19.0	16.0	25.0	22.0	30.0	29.0	27.0
13	24.0	19.0	7.0	3.0	13.0	21.0	18.0	25.0	26.0	30.0	29.0	---
14	24.0	15.0	8.0	7.0	11.0	21.0	18.0	23.0	23.0	29.0	30.0	27.0
15	24.0	13.0	6.0	7.0	11.0	22.0	18.0	21.0	23.0	30.0	30.0	27.0
16	24.0	13.0	7.0	8.0	11.0	20.0	19.0	22.0	---	30.0	30.0	27.0
17	24.0	14.0	4.0	10.0	8.0	18.0	19.0	22.0	---	30.0	30.0	27.0
18	24.0	14.0	7.0	13.0	8.0	19.0	18.0	23.0	27.0	29.0	29.0	26.0
19	23.0	12.0	10.0	13.0	10.0	19.0	18.0	25.0	28.0	30.0	30.0	26.0
20	23.0	10.0	13.0	16.0	12.0	18.0	21.0	25.0	28.0	30.0	29.0	26.0
21	22.0	10.0	12.0	15.0	13.0	16.0	22.0	25.0	28.0	29.0	29.0	26.0
22	22.0	9.0	9.0	12.0	11.0	17.0	22.0	25.0	27.0	29.0	29.0	27.0
23	22.0	9.0	11.0	13.0	10.0	19.0	23.0	26.0	26.0	29.0	30.0	27.0
24	19.0	9.0	12.0	10.0	10.0	19.0	23.0	26.0	26.0	29.0	29.0	26.0
25	17.0	9.0	11.0	---	13.0	19.0	23.0	27.0	26.0	30.0	30.0	26.0
26	17.0	11.0	12.0	8.0	13.0	17.0	23.0	27.0	25.0	29.0	29.0	27.0
27	16.0	11.0	9.0	9.0	13.0	18.0	21.0	25.0	28.0	29.0	29.0	26.0
28	18.0	13.0	14.0	8.0	13.0	18.0	23.0	25.0	29.0	30.0	29.0	26.0
29	20.0	11.0	17.0	7.0	---	18.0	22.0	26.0	---	30.0	28.0	26.0
30	---	8.0	16.0	8.0	---	19.0	22.0	26.0	29.0	30.0	---	25.0
31	21.0	---	13.0	10.0	---	19.0	---	25.0	---	30.0	---	---
MONTH	22.0	14.0	11.0	9.0	11.5	18.5	19.0	23.5	26.5	29.0	29.5	27.0

COLORADO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08118000 LAKE J. B. THOMAS NEAR VINCENT, TEX. (Lat 32°35'09", long 101°12'18")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
DEC. 12...	1245	84200	8.1	--	--	31	5.4	41	--	5.0	156	0	35
JULY 26...	1530	69060	1.8	0	0	35	6.4	--	55	--	174	0	42

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC. 12...	22	.5	.20	226	100	0	1.8	385	8.0	5.0	0	170
JULY 26...	30	.6	.70	260	114	0	2.2	463	7.3	--	--	--

08120500 DEEP CREEK NEAR DUNN, TEX., (lat 32°34'25", long 100°54'27")

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAY 02...	1245	3.0	19	110	27	160	308	0	220	180

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
MAY 02...	.8	3.4	889	390	140	3.6	1470	7.5

08123000 LAKE COLORADO CITY NEAR COLORADO CITY, TEX. (Lat 32°20'41", long 100°55'10")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC. 14...	0850	19550	3.9	70	32	120	15	144	0	280	130	.6

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC. 14...	.20	733	310	190	3.1	1190	7.4	5.0	0	340

COLORADO RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08123600 CHAMPION CREEK RESERVOIR NEAR COLORADO CITY, TEX. (Lat 32°16'53", long 100°51'30")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC. 14...	1200	7820	1.5	66	23	36	8.8	150	0	160	44	.3
DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)	
DEC. 14...		.08	414	260	140	1.0	690	7.8	5.0	0	200	

08123950 E. V. SPENCE RESERVOIR NEAR ROBERT LEE, TEX. (Lat 31°52'46", long 100°31'01")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
DEC. 14...	1320	125000	4.0	--	--	78	22	180	--	7.2	148	0	160
JUNE 08...	0900	138500	3.1	--	--	92	34	250	--	8.2	152	0	220
JULY 19...	1030	135400	3.1	--	--	90	37	270	--	9.0	144	0	240
JULY 26...	1420	134300	2.3	0	0	94	40	--	277	--	148	0	250
AUG. 23...	1510	134100	3.4	--	--	88	38	280	--	9.5	140	0	240
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)	
DEC. 14...	290	.2	.30	817	280	160	4.6	1460	7.6	5.0	0	120	
JUNE 08...	400	.2	.03	1080	370	240	5.6	1910	7.4	23.0	0	160	
JULY 19...	420	.2	.00	1140	380	260	6.0	2030	7.3	25.5	0	130	
JULY 26...	438	.3	.06	1170	399	278	6.0	2070	7.6	--	--	--	
AUG. 23...	440	.3	.00	1170	380	260	6.2	2060	7.2	32.0	0	120	

COLORADO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08125500 OAK CREEK RESERVOIR NEAR BLACKWELL, TEX. (Lat 32°03'27", long 100°17'42")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
JAN. 05...	1615	23600	1.4	70	28	51	6.4	134	0	180	85	.2
DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)	
JAN. 05...		.20	487	290	180	1.3	822	7.6	5.0	0	280	

08131200 TWIN BUTTES RESERVOIR NEAR SAN ANGELO, TEX. (Lat 31°22'59", long 100°32'11")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC. 23...	0850	82950	6.9	51	15	42	5.6	180	0	38	70	.3
MAR. 05...	0900	88440	7.0	52	17	44	5.4	190	0	40	75	.3
MAY 04...	1420	90150	5.6	52	18	49	5.4	188	0	43	81	.3
JUNE 07...	1230	86140	5.7	47	18	50	5.7	178	0	43	83	.2
DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)	
DEC. 23...		.70	321	190	41	1.3	587	7.3	7.0	0	250	
MAR. 05...		.20	335	200	44	1.4	607	7.8	12.0	0	290	
MAY 04...		.20	347	200	50	1.5	637	7.4	22.5	0	140	
JUNE 07...		.08	341	190	46	1.6	639	7.6	26.0	0	140	

COLORADO RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08132000 LAKE NASWORTHY NEAR SAN ANGELO, TEX. (Lat 31°23'17", long 100°28'39")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC. 18...	0830	10790	14	83	32	170	6.2	212	0	110	310	.3
FEB. 20...	1550	11160	13	95	38	210	6.8	224	0	140	370	.4

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC. 18...	.30	835	340	160	4.0	1530	7.5	4.0	0	370
FEB. 20...	.60	980	390	210	4.5	1750	8.0	12.0	0	380

08134500 SAN ANGELO LAKE AT SAN ANGELO, TEX. (Lat 31°29'04", long 100°28'53")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 30...	0945	8260	6.4	46	11	26	9.5	165	0	26	45

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC. 30...	.2	.40	253	160	25	.9	469	7.4	8.0	0	170

08141000 HORDS CREEK LAKE NEAR VALERA, TEX. (Lat 31°49'58", long 99°33'38")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 19...	1000	6280	6.1	64	23	76	5.6	163	0	43	180

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 19...	.2	.09	474	250	120	2.1	901	7.5	7.0	0	220

COLORADO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS--Continued

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08143000 LAKE BROWNWOOD NEAR BROWNWOOD, TEX. (Lat 31°50'18", long 99°00'10")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 19...	1300	109700	8.3	54	11	47	5.2	140	0	44	92	.3
SEP. 26...	1210	97300	7.7	54	13	53	5.5	136	0	46	110	.3

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 19...	.20	332	180	65	1.5	615	8.1	16.0	0	80
SEP. 26...	1.0	358	190	76	1.7	654	7.5	26.0	0	80

08144900 BRADY CREEK RESERVOIR NEAR BRADY, TEX. (Lat 31°08'17", long 99°23'07")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 14...	0925	26610	8.1	52	12	47	8.3	156	0	40	87

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
NOV. 14...	.2	.20	333	180	51	1.5	614	7.9	14.0	250

08152000 SANDY CREEK NEAR KINGSLAND, TEX. (Lat 30°33'30", long 98°28'19")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE MENT DIS- CHARGE (T/DAY)
DEC. 09...	1100	13	14.5	0	.00
MAR. 28...	1240	38	23.0	16	1.6

TRES PALACIOS CREEK BASIN

08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.

LOCATION.--Lat 28°55'40", long 96°10'15", Matagorda County, at bridge on Farm Road 456, 1.0 mile (1.6 km) downstream from Juanita Creek, and 2.4 miles (3.9 km) southeast of Midfield.

DRAINAGE AREA.--145 mi² (376 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 03...	2010	44	31	40	10	40	6.1	172	0	11	57	.3
NOV. 07...	0950	122	18	28	6.1	21	6.8	110	0	15	26	.2
DEC. 12...	1335	10	15	99	25	160	4.5	360	0	36	260	.5
JAN. 18...	1250	25	13	47	11	54	5.9	171	0	25	82	.2
FEB. 21...	1425	133	12	26	6.0	21	5.5	107	0	15	26	.2
MAR. 28...	1410	39	14	43	10	41	5.2	162	0	18	60	.3
APR. 18...	1050	5730	7.3	7.1	2.4	4.5	3.1	28	0	4.4	3.9	.2
MAY 02...	1550	41	15	69	18	64	4.1	252	0	31	100	.3
JUNE 06...	1440	41	14	72	21	79	5.2	254	0	47	130	.4
JULY 12...	1415	65	20	60	17	57	3.3	248	0	26	84	.3
AUG. 15...	1200	183	20	45	13	33	5.0	180	0	18	54	.2
SEP. 07...	1300	3810	14	12	3.3	7.0	5.3	55	0	4.0	11	.1
20...	1315	113	23	34	8.1	24	5.4	140	0	7.6	35	.2

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 03...	--	--	.45	.01	.13	.3	.37	--	282	--	140	0
NOV. 07...	.080	.008	.49	.00	.19	.3	.43	160	176	240	95	5
DEC. 12...	--	--	.27	.04	.06	1.4	.88	--	777	--	350	55
JAN. 18...	--	--	.46	.03	.10	1.0	.65	--	327	--	160	22
FEB. 21...	.140	.008	.75	.00	.17	.8	.42	80	168	356	90	2
MAR. 28...	--	--	.95	.02	.19	.9	.69	--	272	--	150	16
APR. 18...	.036	.002	.85	.02	.06	1.3	.24	80	53	324	28	5
MAY 02...	--	--	.79	.03	.02	.7	.44	--	429	--	250	40
JUNE 06...	--	--	.00	.09	.05	.2	.18	--	496	--	270	58
JULY 12...	.500	.047	.53	.00	.13	.04	.14	90	391	76	220	17
AUG. 15...	--	--	.67	.04	.03	.4	.25	--	279	--	170	18
SEP. 07...	--	--	.65	.00	.17	.1	.28	--	84	--	44	0
20...	.330	.040	1.1	.01	.08	.4	.30	80	208	156	120	3

TRES PALACIOS CREEK BASIN

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08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
03...	1.5	477	7.5	23.0	80	7.4	85	2.0	21	--	--	--
NOV.												
07...	.9	294	7.2	20.0	100	7.2	78	2.9	25	180	0	1
DEC.												
12...	3.6	1400	7.6	9.0	8	11.5	99	1.2	6.0	--	--	--
JAN.												
18...	1.8	594	7.7	17.0	70	8.5	88	2.4	16	--	--	--
FEB.												
21...	1.0	290	7.7	11.5	150	9.8	89	4.3	30	--	--	--
MAR.												
28...	1.5	504	7.5	18.0	160	8.1	85	4.9	26	160	0	0
APR.												
18...	.4	82	8.0	20.5	130	6.6	73	2.7	11	210	0	1
MAY												
02...	1.8	768	7.9	23.5	100	8.4	98	3.2	16	--	--	--
JUNE												
06...	2.1	899	8.1	27.0	35	9.5	117	4.1	21	--	--	--
JULY												
12...	1.7	697	7.4	28.5	45	7.4	95	1.7	12	20	0	0
AUG.												
15...	1.1	492	7.3	25.5	55	6.4	77	1.7	17	--	--	--
SEP.												
07...	.5	131	6.5	25.0	65	4.7	56	2.0	21	--	--	--
20...	1.0	347	6.9	27.0	60	6.7	83	1.8	23	20	10	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
03...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
07...	0	0	8	250	0	0	50	.7	0	130	40
DEC.											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
18...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
21...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
28...	0	0	4	220	3	10	20	.2	4	270	50
APR.											
18...	0	1	4	230	7	0	0	<.2	5	110	10
MAY											
02...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
JULY											
12...	0	0	1	40	0	0	0	<.2	4	430	20
AUG.											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
07...	--	--	--	--	--	--	--	--	--	--	--
20...	0	0	2	280	0	10	0	<.2	0	130	0

TRES PALACIOS CREEK BASIN

08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
OCT. 13...	1000	13	--	.00	.0	.00	.7	.00	1.7	.00	.0
NOV. 07...	0950	122	20.0	.00	.0	.00	1.1	.00	3.0	.00	.0
FEB. 21...	1425	141	11.5	.00	.0	.00	.7	.00	11	.00	4.6
MAR. 28...	1410	49	18.0	.00	.0	.00	2.1	.00	8.2	.00	3.4
APR. 18...	1050	5730	20.5	.00	--	.00	--	.01	--	.00	--
JULY 12...	1415	65	28.5	.00	.0	.00	.0	.00	5.8	.00	.0
SEP. 07...	1300	3750	25.0	.00	--	.00	--	.00	--	.00	--
20...	1315	117	27.0	.00	--	.00	--	.00	--	.00	--

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
OCT. 13...	.01	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
NOV. 07...	.01	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 21...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 28...	.02	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.02	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 12...	.02	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 07...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
20...	.01	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 13...	0	.0	0	.01	.00	.00	.00	.00	.00	.00
NOV. 07...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	0	.0	0	.00	.00	.00	.00	.04	.00	.00
MAR. 28...	0	.0	0	.02	.00	.00	.00	.35	.00	.23
APR. 18...	--	.0	--	.02	.00	.00	.00	.05	.00	.02
JULY 12...	0	.0	0	.00	.00	.00	.02	.00	.00	.00
SEP. 07...	--	.0	--	.01	.00	.00	.00	.00	.00	.00
20...	--	.0	--	.01	.00	.00	.00	.13	.00	.00

CASHS CREEK BASIN

567

08162650 CASHS CREEK NEAR BLESSING, TEX.

LOCATION.--Lat 28°48'38", long 96°11'51", Matagorda County, at bridge on county road, 2.0 miles (3.2 km) upstream from Farm Road 521, and 4.4 miles (7.1 km) southeast of Blessing.

DRAINAGE AREA.--14.8 mi² (38.3 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 03...	1215	4.7	38	45	16	56	5.7	204	6	6.6	88	.4
NOV. 07...	1445	4.9	17	31	9.2	33	5.5	142	0	14	41	.2
DEC. 12...	1120	.36	20	85	34	150	3.6	404	0	42	220	.6
JAN. 18...	1055	.49	12	76	28	120	5.8	286	0	76	180	.4
FEB. 21...	1225	15	11	24	7.0	26	4.6	104	0	18	30	.2
MAR. 28...	1135	1.2	16	61	24	100	4.0	284	0	32	150	.5
APR. 18...	1240	720	6.6	6.9	2.2	5.1	2.8	34	0	4.2	4.2	.2
MAY 02...	1345	3.1	17	43	16	70	4.3	218	0	20	90	.4
JUNE 06...	1200	1.9	16	74	27	100	4.8	322	0	36	160	.6
JULY 12...	1555	2.2	23	56	19	70	2.9	284	0	16	90	.4
AUG. 13...	1440	5.8	24	46	16	52	3.3	218	0	13	75	.3
SEP. 20...	1600	19	21	25	7.3	19	4.2	121	0	5.2	22	.2

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 03...	--	--	.33	.00	.02	.04	.06	--	362	--	180	2
NOV. 07...	.190	.020	.41	.00	.16	.1	.25	80	222	62	120	4
DEC. 12...	--	--	.20	.00	.10	.02	.08	--	751	--	350	21
JAN. 18...	--	--	.44	.12	3.6	.9	1.4	--	640	--	300	70
FEB. 21...	.160	.008	.40	.00	.17	.3	.26	100	173	182	89	3
MAR. 28...	--	--	.55	.02	.11	.5	.65	--	528	--	250	19
APR. 18...	.028	.002	.62	.00	.07	.2	.11	80	50	116	26	0
MAY 02...	--	--	1.1	.00	.08	.2	.20	--	369	--	170	0
JUNE 06...	--	--	.00	.00	.07	.06	.20	--	575	--	300	32
JULY 12...	.550	.100	.68	.08	.09	.5	.10	130	419	46	220	0
AUG. 13...	--	--	.64	.00	.03	.09	.17	--	337	--	180	2
SEP. 20...	.300	.045	.86	.00	.03	.09	.17	60	164	55	92	0

CASHS CREEK BASIN

08162650 CASHS CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
03...	1.8	622	7.7	21.5	10	6.8	76	1.6	18	--	--	--
NOV.												
07...	1.3	390	7.5	20.0	40	6.8	74	2.6	37	110	0	0
DEC.												
12...	3.4	1340	7.4	9.0	4	8.3	72	1.1	12	--	--	--
JAN.												
18...	2.9	1160	7.5	16.0	15	7.9	79	1.5	16	--	--	--
FEB.												
21...	1.2	308	7.7	12.0	90	9.5	88	3.3	30	--	--	--
MAR.												
28...	2.9	979	7.4	17.5	60	6.4	67	3.1	19	30	0	0
APR.												
18...	.4	82	6.9	21.0	60	6.6	73	2.9	12	120	0	0
MAY												
02...	2.3	680	7.5	24.0	90	7.2	85	3.9	27	--	--	--
JUNE												
06...	2.6	1040	7.8	25.0	40	5.5	65	2.7	24	--	--	--
JULY												
12...	2.1	753	7.5	28.0	25	5.8	73	1.5	13	0	10	0
AUG.												
13...	1.7	598	7.4	26.5	40	6.4	78	1.1	23	--	--	--
SEP.												
20...	.9	274	6.9	28.0	25	5.8	73	1.7	24	20	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
03...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
07...	0	0	2	240	0	0	0	.4	0	180	20
DEC.											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
18...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
21...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
28...	0	0	3	80	0	20	140	.2	0	530	30
APR.											
18...	0	0	6	190	0	10	0	<.2	0	90	20
MAY											
02...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
JULY											
12...	0	0	2	20	0	0	20	<.2	0	450	40
AUG.											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
20...	0	0	0	260	0	10	20	<.2	0	90	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV.											
07...	1445	4.9	20.0	.00	.0	.00	.0	.00	1.1	.00	.0
FEB.											
21...	1225	15	12.0	.00	.0	.00	.0	.00	.0	.00	.0
MAR.											
28...	1135	1.2	17.5	.00	.0	.00	.0	.00	.7	.00	.0
APR.											
18...	1240	720	21.0	.00	--	.00	--	.00	--	.00	--
18...	1300	--	--	--	.0	--	.0	--	.0	--	.0
JULY											
12...	1555	2.2	28.0	.00	.0	.00	.0	.00	1.0	.00	.0
SEP.											
20...	1600	19	28.0	.00	--	.00	--	.00	--	.00	--

CASHS CREEK BASIN

569

08162650 CASHS CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 07...	.01	1.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 21...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 28...	.00	1.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
18...	--	.8	--	.0	--	.0	--	.0	--	.0	--
JULY 12...	.03	1.2	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 20...	.01	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 07...	0	.0	0	.00	.00	.00	.00	.03	.00	.73
FEB. 21...	0	.0	0	.00	.00	.00	.00	.00	.00	.01
MAR. 28...	0	.0	0	.01	.00	.00	.00	.04	.00	.02
APR. 18...	--	.0	--	.00	.00	.00	.00	.02	.00	.01
18...	0	--	0	--	--	--	--	--	--	--
JULY 12...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SEP. 20...	--	.0	--	.00	.00	.00	.00	.00	.00	.00

EAST CARANCAHUA CREEK BASIN

08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.

LOCATION.--Lat 28°51'48", long 96°17'05", Matagorda County, at bridge on Farm Road 616, 100 ft (30 m) downstream from Missouri Pacific Railroad bridge, and 4.2 miles (6.8 km) west of Blessing.

DRAINAGE AREA.--81.2 mi² (210 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
03...	1125	19	33	34	10	57	5.6	164	0	8.4	82	.3
NOV.												
07...	1600	37	19	28	7.4	31	6.8	118	0	12	41	.2
DEC.												
12...	1425	2.2	17	91	36	190	4.7	348	0	48	330	.7
JAN.												
18...	1340	5.6	11	47	16	73	5.5	178	0	38	120	.3
FEB.												
21...	1710	65	11	26	7.2	27	4.8	106	0	19	34	.2
MAR.												
28...	1510	6.8	14	45	15	56	4.4	174	0	30	85	.4
APR.												
18...	1450	3200	7.9	8.6	2.7	5.0	3.1	34	0	4.0	4.8	.2
MAY												
01...	1710	9.2	19	58	23	72	4.3	246	0	31	120	.4
JUNE												
06...	1640	12	17	70	33	100	5.3	296	0	54	170	.7
JULY												
12...	1705	9.0	20	62	26	88	3.3	312	0	29	120	.5
AUG.												
13...	1550	31	22	44	17	55	3.8	197	0	20	86	.3
SEP.												
20...	1700	131	19	24	6.7	18	4.4	100	0	4.4	31	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
03...	--	--	.55	.00	.09	.06	.19	--	312	--	130	0
NOV.												
07...	.130	.017	.49	.00	.21	.2	.18	90	204	188	100	3
DEC.												
12...	--	--	.20	.00	.03	.02	.03	--	889	--	380	90
JAN.												
18...	--	--	.47	.01	.07	.4	.11	--	398	--	180	38
FEB.												
21...	.210	.014	.82	.00	.16	1.3	.25	80	187	376	94	8
MAR.												
28...	--	--	.67	.02	.10	.5	.30	--	336	--	180	32
APR.												
18...	.042	.002	.82	.01	.09	.9	.14	60	58	244	33	5
MAY												
01...	--	--	1.0	.06	.14	.6	.17	--	448	--	240	38
JUNE												
06...	--	--	.00	.00	.07	.02	.11	--	602	--	310	68
JULY												
12...	.720	.110	.45	.00	.02	.04	.05	110	507	24	260	6
AUG.												
13...	--	--	.83	.00	.23	.08	.14	--	346	--	180	18
SEP.												
20...	.250	.047	.74	.00	.02	.04	.15	60	157	103	87	6

EAST CARANCAHUA CREEK BASIN

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08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
03...	2.2	540	7.8	22.5	110	7.7	88	2.8	20	--	--	--
NOV.												
07...	1.3	361	7.8	21.0	90	7.7	86	2.8	33	170	0	1
DEC.												
12...	4.2	1620	7.8	8.5	10	10.8	92	.9	12	--	--	--
JAN.												
18...	2.3	740	7.8	18.5	70	9.2	98	2.1	19	--	--	--
FEB.												
21...	1.2	322	7.8	11.5	140	9.8	89	4.0	32	--	--	--
MAR.												
28...	1.8	615	7.6	19.0	150	7.9	84	5.1	34	90	0	0
APR.												
18...	.4	88	6.7	20.0	100	6.3	68	2.9	12	150	0	3
MAY												
01...	2.0	800	7.9	24.0	65	8.5	100	2.8	22	--	--	--
JUNE												
06...	2.5	1090	8.2	29.0	35	9.3	119	4.4	22	--	--	--
JULY												
12...	2.4	921	8.0	32.5	15	8.6	116	1.5	6.0	20	0	0
AUG.												
13...	1.8	611	7.8	27.5	80	7.2	90	1.9	25	--	--	--
SEP.												
20...	.8	262	7.0	29.5	40	6.5	84	1.9	24	10	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
03...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
07...	0	0	6	280	0	0	0	1.3	0	180	20
DEC.											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
18...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
21...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
28...	10	3	5	180	9	10	20	.6	6	410	50
APR.											
18...	0	0	5	190	0	10	0	<.2	4	100	20
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
JULY											
12...	0	0	3	10	0	20	20	<.2	0	660	30
AUG.											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
20...	0	0	1	180	0	0	0	<.2	0	110	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT.											
13...	1100	3.1	--	.00	.0	.00	4.1	.00	1.3	.00	1.3
NOV.											
07...	1600	37	21.0	.00	.0	.00	1.7	.00	1.0	.00	.0
FEB.											
21...	1710	65	11.5	.00	.0	.00	.0	.00	.0	.04	.0
MAR.											
28...	1510	6.7	19.0	.00	.0	.00	.0	.00	.0	.00	.0
APR.											
18...	1450	3200	20.0	.00	--	.00	--	.01	--	.00	--
JULY											
12...	1705	9.0	32.5	.00	.0	.00	.6	.00	.9	.00	.0
SEP.											
20...	1700	131	29.5	.00	--	.00	--	.00	--	.00	--

EAST CARANCAHUA CREEK BASIN

08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 13...	.01	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
NOV. 07...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 21...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 28...	.00	.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 12...	.01	1.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 20...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 13...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
NOV. 07...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 21...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
MAR. 28...	0	.0	0	.00	.00	.00	.00	.02	.00	.00
APR. 18...	--	.0	--	.04	.00	.00	.00	.00	.00	.00
JULY 12...	0	.0	0	.00	.00	.00	.02	.00	.00	.00
SEP. 20...	--	.0	--	.00	.00	.00	.00	.00	.00	.00

EAST CARANCAHUA CREEK BASIN

573

08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.

LOCATION.--Lat 28°53'19", long 96°27'03", Jackson County, at bridge on county road, 3.2 miles (5.1 km) northeast of Laward, 3.8 miles (6.1 km) upstream from Lunis Creek, and 6.3 miles (10.1 km) upstream from Missouri Pacific Railroad bridge and Farm Road 616.

DRAINAGE AREA.--57.1 mi² (148 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
03...	0930	10	48	50	13	52	7.7	197	5	6.2	88	.3
NOV.												
08...	1300	7.4	30	52	11	130	8.7	164	0	11	240	.2
JAN.												
18...	1440	1.5	8.8	36	6.8	51	8.4	102	0	39	80	.2
FEB.												
22...	1215	40	15	26	5.9	67	7.1	75	0	15	110	.2
MAR.												
28...	1630	.96	11	50	11	83	8.1	164	0	25	140	.4
APR.												
18...	1705	1280	11	9.0	2.7	7.2	4.1	38	0	6.0	8.5	.2
MAY												
02...	1805	.88	16	32	7.2	23	6.5	130	0	18	27	.3
JUNE												
06...	1740	4.0	16	60	21	87	6.7	248	0	34	130	.5
JULY												
12...	1805	6.8	28	60	17	60.	3.3	264	0	16	88	.3
AUG.												
13...	1710	31	25	46	14	50	6.8	194	0	14	82	.2
SEP.												
21...	1135	32	30	32	7.1	19	6.8	134	0	4.4	30	.2

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
03...	--	--	.31	.00	.08	.04	.14	--	368	--	180	8
NOV.												
08...	.720	.053	.53	.00	.08	.07	.14	210	569	112	170	40
JAN.												
18...	--	--	.63	.02	.07	.2	.18	--	281	--	120	34
FEB.												
22...	.340	.020	.99	.06	.21	4.4	.34	140	303	360	89	28
MAR.												
28...	--	--	.81	.05	.05	.8	.12	--	410	--	170	36
APR.												
18...	.052	.004	.92	.01	.13	1.1	.24	60	73	364	34	2
MAY												
02...	--	--	1.6	.02	.24	.6	.28	--	197	--	110	3
JUNE												
06...	--	--	.02	.00	.02	.03	.10	--	481	--	240	33
JULY												
12...	.470	.035	.49	.00	.01	.03	.08	110	403	59	220	3
AUG.												
13...	--	--	.78	.00	.06	.06	.18	--	334	--	170	14
SEP.												
21...	.240	.025	.77	.01	.04	.1	.23	80	196	71	110	0

EAST CARANCAHUA CREEK BASIN

08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 03...	1.7	611	8.0	22.5	40	7.6	86	1.8	21	--	--	--
NOV. 08...	4.4	1050	8.1	19.5	60	8.7	94	2.2	34	30	0	1
JAN. 18...	2.0	512	8.5	20.0	80	10.2	111	3.6	18	--	--	--
FEB. 22...	3.1	547	7.4	9.5	150	11.0	96	5.0	34	--	--	--
MAR. 28...	2.8	767	8.4	20.5	60	9.6	105	4.9	18	20	0	0
APR. 18...	.5	117	6.7	21.0	120	6.3	70	3.3	15	230	0	0
MAY 02...	1.0	329	8.6	24.5	170	8.6	102	4.5	26	--	--	--
JUNE 06...	2.5	864	8.4	29.0	50	9.7	124	4.8	18	--	--	--
JULY 12...	1.8	706	8.2	34.5	35	8.5	118	2.3	8.0	10	0	0
AUG. 13...	1.7	589	7.8	29.0	80	7.4	95	2.3	24	--	--	--
SEP. 21...	.8	316	7.1	28.0	35	7.0	89	1.6	22	20	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 03...	--	--	--	--	--	--	--	--	--	--	--
NOV. 08...	0	0	4	60	0	20	0	.4	0	420	20
JAN. 18...	--	--	--	--	--	--	--	--	--	--	--
FEB. 22...	--	--	--	--	--	--	--	--	--	--	--
MAR. 28...	0	0	4	40	0	20	0	.2	0	540	30
APR. 18...	0	2	5	280	0	0	0	<.2	6	120	30
MAY 02...	--	--	--	--	--	--	--	--	--	--	--
JUNE 06...	--	--	--	--	--	--	--	--	--	--	--
JULY 12...	0	0	2	20	0	10	40	.6	0	450	40
AUG. 13...	--	--	--	--	--	--	--	--	--	--	--
SEP. 21...	0	0	1	200	0	0	10	<.2	0	120	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 11...	1450	3.8	28.0	.00	.0	.00	.0	.00	.6	.00	.0
NOV. 08...	1300	7.4	19.5	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 22...	1215	40	9.5	.00	.0	.00	.0	.00	.0	.00	.0
MAR. 28...	1630	.96	20.5	.00	.0	.00	.0	.00	.0	.00	.0
APR. 18...	1705	1280	21.0	.00	--	.00	--	.00	--	.00	--
JULY 12...	1805	6.8	34.5	.00	.0	.00	.0	.00	.5	.00	.0
SEP. 21...	1135	32	28.0	.00	--	.00	--	.00	--	.00	--

EAST CARANCAHUA CREEK BASIN

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08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 11...	.01	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
NOV. 08...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 28...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 18...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 12...	.01	.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 21...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 11...	0	.0	0	.00	.00	.00	.00	.23	.00	1.0
NOV. 08...	0	.0	0	.00	.00	.00	.00	.02	.00	.02
FEB. 22...	0	.0	0	.00	.00	.00	.00	.14	.00	.01
MAR. 28...	0	.0	0	.00	.00	.00	.00	.16	.00	.00
APR. 18...	--	.0	--	.00	.00	.00	.00	.07	.00	.01
JULY 12...	0	.0	0	.01	.00	.02	.02	.00	.00	.00
SEP. 21...	--	.0	--	.00	.00	.00	.00	1.0	.00	.00

LAVACA RIVER BASIN

08164000 LAVACA RIVER NEAR EDNA, TEX.

LOCATION.--Lat 28°57'35", long 96°41'10", Jackson County, at gaging station on U.S. Highway 59, 660 feet (201 m) upstream from Texas and New Orleans Railroad Co. bridge, and 2.8 miles (4.5 km) southwest of Edna.

DRAINAGE AREA.--817 mi² (2,116 km²), revised.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1973.
Pesticide analyses: January 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
05...	1015	34	24	53	6.3	61	213	0	20
NOV.									
06...	1400	37	22	100	6.0	51	346	0	21
08...	0855	38	20	88	6.9	55	310	0	20
DEC.									
13...	0918	35	15	81	6.3	57	282	0	24
JAN.									
08...	1110	77	15	66	4.8	43	216	0	23
18...	1622	46	8.4	36	6.1	66	132	0	26
FEB.									
22...	1025	166	14	46	3.9	43	143	0	21
MAR.									
12...	1120	60	16	100	6.6	55	300	0	30
29...	1150	357	19	64	4.9	31	209	0	15
APR.									
18...	0740	28600	11	28	1.4	5.4	89	0	2.8
MAY									
01...	1747	334	25	88	6.2	44	292	0	20
31...	1150	117	39	92	7.0	53	308	0	26
JUNE									
05...	1720	10	28	82	6.7	55	286	0	22
JULY									
13...	1220	281	25	100	5.9	37	334	0	18
16...	1515	220	26	97	6.6	47	334	0	21
AUG.									
16...	1110	155	26	100	7.4	57	372	0	21
SEP.									
18...	1045	236	20	47	4.0	40	190	0	12
19...	1355	159	20	67	5.1	29	220	0	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.									
05...	67	.3	--	--	--	.2	--	338	160
NOV.									
06...	61	.4	.37	.00	.01	.03	.10	435	280
08...	65	.3	--	--	--	.04	--	407	250
DEC.									
13...	68	.3	--	--	--	.00	--	391	230
JAN.									
08...	52	.2	.49	.02	.14	.9	.21	314	180
18...	86	.3	--	--	--	.4	--	296	120
FEB.									
22...	56	.2	--	--	--	1.4	--	260	130
MAR.									
12...	87	.4	.31	.00	.03	.4	.21	447	280
29...	42	.2	--	--	--	.2	--	280	180
APR.									
18...	7.8	.1	--	--	--	.1	--	101	76
MAY									
01...	56	.2	--	--	--	.1	--	384	240
31...	66	.3	.01	.01	.07	.3	.16	436	260
JUNE									
05...	66	.3	--	--	--	.3	--	402	230
JULY									
13...	50	.3	--	--	--	.6	--	407	280
16...	53	.3	.68	.00	.06	.02	.15	415	270
AUG.									
16...	62	.3	--	--	--	.6	--	464	290
SEP.									
18...	37	.2	.74	.00	.00	.2	.21	254	130
19...	39	.0	--	--	--	.4	--	284	190

LAVACA RIVER BASIN

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08164000 LAVACA RIVER NEAR EDNA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)
OCT. 05...	0	2.1	574	7.9	23.5	--	--	--
NOV. 06...	0	1.3	744	7.9	25.0	8.5	101	1.2
08...	0	1.5	705	8.0	16.0	--	--	--
DEC. 13...	0	1.6	689	7.8	7.5	--	--	--
JAN. 08...	7	1.4	559	7.3	8.0	10.3	87	2.2
18...	7	2.7	538	7.3	17.5	--	--	--
FEB. 22...	14	1.6	447	7.8	11.5	--	--	--
MAR. 12...	36	1.4	783	7.9	21.5	9.0	101	2.0
29...	9	1.0	483	7.9	18.0	--	--	--
APR. 18...	3	.3	175	7.1	19.0	--	--	--
MAY 01...	6	1.2	647	7.8	21.5	--	--	--
31...	6	1.5	720	7.8	26.5	9.4	115	2.6
JUNE 05...	0	1.6	690	7.9	28.5	--	--	--
JULY 13...	10	1.0	687	7.6	27.0	--	--	--
16...	0	1.2	708	7.8	29.5	9.2	119	3.2
AUG. 16...	0	1.4	762	7.7	26.0	--	--	--
SEP. 18...	0	1.5	410	7.3	24.5	7.2	86	1.4
19...	8	.9	494	8.2	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DI-ELDRIN (UG/L)
NOV. 06...	1400	25.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
JAN. 08...	1110	8.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
MAY 31...	1150	26.5	.00	.0	.00	.0	.00	.0	.00	.0	.00
JULY 16...	1515	29.5	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI-ELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	CHLORDANE (UG/L)
NOV. 06...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 08...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 31...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 16...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLORDANE IN BOTTOM DEPOSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DEPOSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 06...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JAN. 08...	0	.0	0	.00	.00	.00	.00	.02	.00	.06
MAY 31...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JULY 16...	0	.0	0	.01	.00	.00	.00	.00	.00	.00

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.

LOCATION.--Lat 29°01'32", long 96°33'08", Jackson County, at gaging station at bridge on U.S. Highway 59, 170 feet (52 m) upstream from Texas and New Orleans Railroad Co. bridge, 0.2 mile (0.3 km) downstream from Sandy Creek, and 2.5 miles (4.0 km) southwest of Ganado.

DRAINAGE AREA.--1,062 mi² (2,751 km²).

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1959 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 782 micromhos May 31; minimum daily, 44 micromhos Mar. 24, 25.

Water temperatures: Maximum, 28.0°C on several days during June and July.

EXTREMES, October 1959 to September 1973.--Specific conductance: Maximum daily, 1,350 micromhos Oct. 26, 28, 1963; minimum daily, 44 micromhos Mar. 24, 25, 1973.

Water temperatures: Maximum, 37.0°C July 21, 27, 28, 1962, Aug. 19, 1969; minimum, freezing point Jan. 9, 10, 11, 1962, Feb. 22, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
05...	1315	114	14	40	13	50	--	5.7	172	0	14	77
NOV.												
06...	1550	43	31	50	8.7	--	82	--	228	0	13	98
20...	0800	142	18	50	5.4	--	38	--	168	0	13	54
DEC.												
13...	1243	28	19	--	5.6	--	--	--	--	0	16	78
JAN.												
08...	1020	551	10	18	4.2	--	22	--	55	0	20	30
12...	0800	218	12	28	4.0	26	--	5.8	90	0	22	34
FEB.												
22...	1550	643	8.1	12	3.4	--	12	--	42	0	12	13
MAR.												
12...	1040	72	15	72	4.6	--	35	--	222	0	15	53
24...	0800	7250	3.5	3.5	1.2	--	3.5	--	14	0	3.6	3.1
APR.												
19...	1122	30600	4.6	4.2	1.3	2.6	--	2.5	18	0	3.2	2.6
MAY												
23...	0800	112	25	85	5.4	--	42	--	268	0	17	61
31...	1315	86	26	94	6.0	--	56	--	318	0	19	70
JUNE												
16...	1940	36900	4.9	7.0	1.4	--	5.0	--	30	0	1.4	4.3
JULY												
13...	1010	273	19	65	6.0	27	--	2.9	222	0	15	39
16...	1315	178	22	79	6.4	--	45	--	272	0	19	55
AUG.												
19...	0900	263	11	16	3.2	--	18	--	66	0	8.2	20
SEP.												
12...	0800	5080	11	9.0	1.9	--	10	--	46	0	.8	8.0
18...	0930	1320	30	17	3.8	--	14	--	77	0	3.6	15

LAVACA RIVER BASIN

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08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 05...	.3	--	--	--	.2	--	300	--	--	150	12	1.8
NOV. 06...	.3	.29	.00	.03	.00	.04	395	47	11	160	0	2.8
20...	.2	--	--	--	.3	--	263	--	--	150	9	1.4
DEC. 13...	.3	--	--	--	.00	--	--	--	--	--	--	--
JAN. 08...	.1	.59	.00	.29	.6	.50	134	218	25	62	17	1.2
12...	.2	--	--	--	.8	--	180	--	--	86	13	1.2
FEB. 22...	.2	--	--	--	1.0	--	86	--	--	44	10	.8
MAR. 12...	.3	.39	.00	.05	.2	.15	305	68	16	200	16	1.1
24...	.1	--	--	--	.4	--	27	--	--	14	2	.4
APR. 19...	--	--	--	--	.2	--	31	--	--	16	1	.3
MAY 23...	.3	--	--	--	.4	--	370	--	--	230	14	1.2
31...	.3	.04	.00	.10	.1	.11	428	85	21	260	0	1.5
JUNE 16...	.1	--	--	--	.5	--	41	--	--	23	0	.5
JULY 13...	.2	--	--	--	.6	--	286	--	--	190	4	.9
16...	.2	.70	.00	.02	.06	.11	361	91	16	220	0	1.3
AUG. 19...	.2	--	--	--	.3	--	110	--	--	53	0	1.1
SEP. 12...	.1	--	--	--	.5	--	66	--	--	30	0	.8
18...	.2	.99	.00	.04	.1	.25	122	300	26	58	0	.8

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 05...	537	8.2	--	--	--	--	--	--	--	--	--	--
NOV. 06...	690	8.0	25.0	35	20	8.0	95	1.9	29	20	0	1
20...	461	7.7	9.0	--	--	--	--	--	--	--	--	--
DEC. 13...	647	--	--	--	--	--	--	--	--	--	--	--
JAN. 08...	245	6.6	7.5	120	120	10.4	87	4.6	20	150	0	0
12...	313	7.4	1.5	--	--	--	--	--	--	--	--	--
FEB. 22...	143	7.1	11.0	--	--	--	--	--	--	--	--	--
MAR. 12...	543	7.9	19.0	40	30	9.6	102	2.7	22	--	--	--
24...	44	7.0	18.5	--	--	--	--	--	--	--	--	--
APR. 19...	49	6.6	--	--	--	--	--	--	--	--	--	--
MAY 23...	723	7.7	--	--	--	--	--	--	--	--	--	--
31...	729	8.0	25.0	20	40	9.5	113	2.3	17	10	0	0
JUNE 16...	66	6.9	28.0	--	--	--	--	--	--	--	--	--
JULY 13...	494	7.6	27.0	--	--	--	--	--	--	--	--	--
16...	619	7.9	29.5	10	35	8.4	109	2.7	7.0	0	0	0
AUG. 19...	196	7.1	25.0	--	--	--	--	--	--	--	--	--
SEP. 12...	105	6.8	25.0	--	--	--	--	--	--	--	--	--
18...	179	6.8	25.0	120	85	6.0	71	1.8	30	--	--	--

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 05...	--	--	--	--	--	--	--	--	--	--	--
NOV. 06...	0	1	4	100	0	10	0	<.2	4	290	0
20...	--	--	--	--	--	--	--	--	--	--	--
DEC. 13...	--	--	--	--	--	--	--	--	--	--	--
JAN. 08...	0	0	11	230	0	0	0	.4	0	120	20
12...	--	--	--	--	--	--	--	--	--	--	--
FEB. 22...	--	--	--	--	--	--	--	--	--	--	--
MAR. 12...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
APR. 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--	--
31...	0	0	2	20	0	0	30	<.2	2	400	0
JUNE 16...	--	--	--	--	--	--	--	--	--	--	--
JULY 13...	--	--	--	--	--	--	--	--	--	--	--
16...	0	0	3	30	0	0	0	<.2	0	290	30
AUG. 19...	--	--	--	--	--	--	--	--	--	--	--
SEP. 12...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)	DI-ELDRIN (UG/L)
NOV. 06...	1550	25.0	.00	.0	.00	2.8	.00	1.7	.00	.0	.00
JAN. 08...	1020	7.5	.00	.0	.00	1.5	.00	1.6	.00	1.4	.00
MAY 31...	1315	25.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
JULY 16...	1315	29.5	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 06...	1.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 08...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 31...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 16...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 06...	0	.0	0	.00	.00	.00	.00	.13	.00	.08
JAN. 08...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
MAY 31...	0	.0	0	.00	.00	.00	.00	.04	.00	.00
JULY 16...	0	.0	0	.00	.00	.00	.00	.00	.00	.00

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG/L)
OCT. 1972....	2443	612	350	2310	73	482	20	132	200
NOV.	2108	598	340	1940	71	404	20	114	200
DEC.	856	641	370	855	76	176	21	49	210
JAN. 1973....	5261	445	260	3690	51	724	16	227	150
FEB.	10837	233	140	4100	24	702	9.6	281	75
MAR.	53618	88	53	7670	7.5	1090	5.5	796	26
APR.	115199	106	63	19600	9.0	2800	6.0	1870	32
MAY	19713	294	170	9050	32	1700	11	585	96
JUNE	278087	81	49	36800	6.5	4880	5.3	3980	26
JULY	14352	416	240	9300	47	1820	15	581	140
AUG.	14350	357	210	8140	40	1550	13	504	120
SEP.	51430	175	100	13900	16	2220	7.9	1100	56
TOTAL	568254	--	--	117000	--	18500	--	10200	--
WTD. AVG. ...	1557	129	76	--	12	--	6.7	--	41

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	550	640	553	640	534	390	341	622	499	591	517	330
2	550	650	583	617	533	429	364	594	656	618	526	383
3	571	661	650	613	655	255	419	707	684	653	350	350
4	618	688	701	612	500	540	499	367	654	580	400	475
5	537	676	599	380	388	586	601	484	684	523	430	250
6	580	670	644	388	391	646	636	500	656	661	457	186
7	634	741	688	588	682	659	400	484	433	572	499	189
8	646	700	574	548	415	477	264	533	469	300	603	232
9	644	709	760	400	250	420	280	551	500	224	589	250
10	687	702	736	320	300	450	266	556	480	289	593	280
11	651	710	583	400	350	479	297	438	446	350	550	200
12	687	691	600	313	402	583	364	150	150	450	520	105
13	658	666	620	335	131	716	455	107	93	495	501	99
14	695	493	630	334	412	683	480	154	61	566	501	101
15	682	543	600	467	387	716	317	262	46	578	424	130
16	690	521	700	405	134	236	195	296	60	590	410	158
17	670	659	727	470	200	276	74	425	75	527	203	190
18	657	490	639	545	210	501	51	550	102	638	206	357
19	708	550	640	534	228	486	48	668	279	659	196	214
20	717	461	658	550	244	738	62	556	442	640	253	240
21	709	613	629	600	235	735	104	680	150	640	281	287
22	660	534	703	657	184	733	314	672	85	659	319	334
23	607	600	624	660	134	300	275	723	145	659	400	208
24	604	619	640	670	150	44	315	705	165	630	521	357
25	615	636	655	406	255	44	356	739	233	565	450	466
26	631	615	654	395	232	60	380	690	226	564	454	395
27	674	592	592	439	384	82	379	670	300	540	520	432
28	670	597	638	351	389	140	377	690	400	526	540	438
29	624	674	626	355	---	186	430	720	492	510	538	518
30	533	721	586	409	---	200	464	748	510	531	513	520
31	606	---	640	500	---	280	---	782	---	566	386	---
MONTH	638	627	641	481	332	422	327	543	339	545	440	289

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	20.0	6.5	---	13.0	16.0	18.0	20.5	25.0	26.5	27.0	---
2	19.5	16.5	14.5	9.0	15.0	16.5	19.0	21.5	25.0	26.5	27.0	27.0
3	20.0	17.0	---	9.0	15.5	17.0	19.5	19.0	25.5	26.5	26.0	---
4	20.5	17.0	14.5	9.0	---	16.0	16.0	19.0	26.0	---	---	26.5
5	26.0	17.0	11.5	10.0	17.0	18.5	15.0	20.0	26.0	26.5	---	---
6	---	17.0	---	11.0	18.0	18.5	15.5	---	24.5	26.5	26.5	23.0
7	21.5	18.5	7.0	8.5	18.0	18.5	---	21.0	24.0	26.5	26.0	23.5
8	21.5	15.5	9.0	8.5	18.0	18.5	13.0	21.0	24.0	---	26.5	25.0
9	21.5	15.5	11.5	---	---	---	13.0	21.0	---	26.5	26.5	---
10	23.0	15.5	8.0	---	---	---	12.0	20.5	---	26.5	26.5	26.0
11	23.0	---	6.5	---	---	17.0	14.5	21.0	26.0	---	---	26.0
12	23.5	20.5	---	1.5	13.5	18.5	15.5	---	21.5	---	---	25.0
13	23.5	18.5	7.5	1.5	12.0	20.0	15.5	22.0	21.0	27.0	26.5	26.5
14	23.0	14.0	---	5.0	10.0	20.5	---	21.5	23.0	27.0	26.5	26.5
15	22.0	10.5	---	9.0	10.0	21.0	19.0	20.0	25.0	---	26.5	26.0
16	---	11.5	---	10.0	10.0	18.0	19.0	18.5	28.0	26.5	26.5	26.0
17	---	13.0	8.5	13.0	---	15.0	18.5	---	28.0	26.5	26.5	25.5
18	22.0	---	8.5	11.0	---	16.5	19.5	23.0	28.0	26.5	21.5	25.5
19	20.5	---	---	12.0	9.5	19.0	21.0	22.0	27.0	26.5	25.0	25.5
20	20.0	9.0	13.5	---	10.0	18.0	23.5	24.0	25.5	27.0	26.5	25.5
21	20.0	8.0	13.0	---	10.0	14.5	23.0	24.5	24.5	27.0	27.0	26.0
22	---	8.0	13.0	10.0	11.0	17.0	23.0	24.5	24.0	27.0	27.0	25.5
23	19.0	---	13.0	---	10.0	---	23.0	25.0	24.5	27.0	---	25.5
24	18.5	8.0	---	---	---	18.5	23.5	24.5	25.0	27.0	26.5	25.5
25	19.0	9.5	---	8.0	12.0	18.5	23.5	24.5	25.0	27.0	26.5	26.5
26	19.0	---	10.5	6.5	13.0	20.0	23.0	25.5	25.0	28.0	26.0	26.5
27	14.5	10.0	9.0	10.0	13.5	17.0	20.0	---	---	---	26.0	26.5
28	21.0	10.0	9.5	5.0	15.0	---	19.0	---	---	28.0	26.0	24.0
29	21.5	10.0	10.0	5.0	---	18.5	---	---	26.5	---	26.0	24.5
30	23.5	8.0	10.0	10.0	---	---	20.5	23.5	26.5	28.0	26.0	24.5
31	24.0	---	---	13.0	---	---	---	23.5	---	28.0	25.0	---
MONTH	21.0	13.5	---	---	---	18.0	18.5	21.5	25.0	---	26.0	25.5

GARCITAS CREEK BASIN

583

08164600 GARCITAS CREEK NEAR INEZ, TEX.

LOCATION.--Lat 28°53'28", long 96°49'08", Victoria County, at gaging station at bridge on U.S. Highway 59, 0.3 mile (0.5 km) upstream from Southern Pacific Railroad bridge, 2.0 miles (3.2 km) southwest of Inez, and 3.6 miles (5.8 km) upstream from Casa Blanca Creek.

DRAINAGE AREA.--91.7 mi² (238 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1973.
Pesticide analyses: October 1969 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
04...	1750	3.5	28	36	5.6	40	3.8	156	0	11	44	.3
NOV.												
06...	1215	3.1	21	36	4.5	27	3.6	134	0	12	27	.2
DEC.												
11...	1520	1.8	22	60	7.0	32	2.4	208	0	24	38	.3
JAN.												
16...	1200	11	12	20	3.4	20	4.4	75	0	15	23	.1
FEB.												
20...	1745	80	9.5	9.6	2.3	8.5	3.9	35	0	8.4	11	.2
MAR.												
29...	0920	13	15	29	3.5	13	3.0	98	0	12	16	.2
APR.												
17...	1035	3000	5.6	5.1	1.2	2.9	2.4	21	0	1.6	3.6	.2
MAY												
01...	1420	7.8	24	62	7.3	22	2.1	203	0	26	27	.2
JUNE												
05...	1530	2.0	27	76	9.9	40	2.5	254	0	41	52	.3
JULY												
11...	1555	4.8	30	74	8.8	30	1.8	252	0	31	35	.3
SEP.												
19...	1000	61	16	20	3.2	14	3.8	70	0	2.8	18	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
04...	--	--	.00	.00	.08	.04	.05	--	246	--	110	0
NOV.												
06...	.130	.039	.41	.00	.03	.08	.05	160	198	97	110	0
DEC.												
11...	--	--	.18	.00	.08	.03	.03	--	288	--	180	8
JAN.												
16...	--	--	.63	.00	.09	.1	.11	--	135	--	64	2
FEB.												
20...	.090	.000	1.2	.00	.16	.09	.11	80	71	156	33	5
MAR.												
29...	--	--	1.0	.00	.17	.07	.06	--	141	--	87	7
APR.												
17...	.038	.004	.72	.00	.17	.1	.07	60	33	116	18	0
MAY												
01...	--	--	.64	.00	.07	.04	.03	--	271	--	180	18
JUNE												
05...	--	--	.00	.00	.11	.01	.03	--	374	--	230	22
JULY												
11...	.330	.096	.46	.00	.07	.05	.03	90	335	14	220	14
SEP.												
19...	.130	.019	.74	.00	.02	.04	.08	70	112	80	63	6

GARCITAS CREEK BASIN

08164600 GARCITAS CREEK NEAR INEZ, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 04...	1.6	411	8.0	29.0	30	8.6	110	2.5	--	--	--	--
NOV. 06...	1.1	348	7.5	23.0	65	8.6	99	2.0	27	80	0	1
DEC. 11...	1.0	497	8.0	6.5	15	12.2	98	.9	6.0	--	--	--
JAN. 16...	1.1	229	7.7	12.0	90	10.0	93	3.4	26	--	--	--
FEB. 20...	.7	115	7.2	13.0	90	9.7	92	3.9	29	--	--	--
MAR. 29...	.6	239	7.4	18.0	65	7.4	78	2.7	26	140	0	0
APR. 17...	.3	56	7.2	19.0	60	8.0	95	4.4	18	90	0	0
MAY 01...	.7	455	10.2	21.0	25	8.7	97	1.4	17	--	--	--
JUNE 05...	1.1	623	8.0	31.5	10	7.7	104	1.4	27	--	--	--
JULY 11...	.9	544	8.0	35.5	4	7.8	111	1.1	9.0	0	0	0
SEP. 19...	.8	186	6.9	26.0	50	7.0	85	1.5	28	--	--	--

[illegible]

GARCITAS CREEK BASIN

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08164600 GARCITAS CREEK NEAR INEZ, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 06...	1215	3.1	23.0	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 20...	1745	80	13.0	.00	.0	.00	.0	.00	.0	.00	.0
MAR. 29...	0920	13	18.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 17...	1035	3000	19.0	.00	.0	.00	.0	.00	.0	.00	.0
JULY 11...	1555	4.8	35.5	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 19...	1000	61	26.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 06...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 20...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 29...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 17...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 11...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 19...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 06...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
MAR. 29...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 17...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JULY 11...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SEP. 19...	--	.0	--	.00	.00	.00	.00	.00	.00	.00

PLACEDO CREEK BASIN

08164800 PLACEDO CREEK NEAR PLACEDO, TEX.

LOCATION.--Lat 28°43'30", long 96°46'07", Victoria County, at gaging station at bridge on Farm Road 616, 0.1 mile (0.2 km) downstream from confluence of Lone Tree Creek and Arroyo Palo Alto, and 4.4 miles (7.1 km) northeast of Placedo.

DRAINAGE AREA.--68.3 mi² (177 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
04...	1530	3.9	30	66	9.7	110	6.4	174	0	13	200	.3
NOV.												
06...	1505	6.3	24	62	8.9	89	5.5	155	0	15	180	.2
DEC.												
12...	1655	1.1	33	290	44	510	4.2	424	0	58	1100	.6
JAN.												
16...	1415	4.3	16	72	10	170	5.1	123	0	23	340	.2
FEB.												
20...	1435	43	14	21	3.5	21	5.4	62	0	11	36	.2
MAR.												
27...	1115	.97	28	320	52	600	3.8	416	0	64	1400	.6
APR.												
17...	0815	778	14	12	2.4	6.8	4.2	44	0	7.6	7.0	.2
MAY												
01...	1115	1.8	31	270	42	480	4.4	352	0	46	1100	.5
JUNE												
05...	1245	62	23	280	45	570	5.9	370	0	50	1300	.6
JULY												
11...	1250	1.2	32	260	46	540	4.6	296	0	50	1200	.5
AUG.												
15...	1428	1.6	19	130	22	310	3.9	260	0	26	620	.4
SEP.												
18...	1615	134	18	18	3.0	13	5.9	66	0	1.6	24	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
04...	--	--	.35	.00	.09	.06	.41	--	520	--	200	62
NOV.												
06...	.670	.080	.46	.00	.10	.08	.22	280	463	97	190	63
DEC.												
12...	--	--	.10	.00	.04	.04	.07	--	2270	--	900	560
JAN.												
16...	--	--	.55	.02	.22	.9	.21	--	698	--	220	120
FEB.												
20...	.170	.011	.76	.00	.17	1.0	.29	80	147	260	67	16
MAR.												
27...	--	--	.40	.00	.02	.00	.06	--	2680	--	1000	680
APR.												
17...	.057	.004	1.2	.01	.20	1.7	.32	80	84	440	40	4
MAY												
01...	--	--	.34	.00	.10	.1	.10	--	2140	--	850	560
JUNE												
05...	--	--	.00	.00	.14	.04	.09	--	2420	--	880	580
JULY												
11...	5.5	.350	.40	.00	.04	.09	.09	710	2300	19	840	600
AUG.												
15...	--	--	.46	.00	.05	.08	.07	--	1260	--	420	210
SEP.												
18...	.150	.015	.84	.00	.02	.08	.30	90	116	80	57	3

PLACEDO CREEK BASIN

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08164800 PLACEDO CREEK NEAR PLACEDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
04...	3.3	947	7.4	24.0	35	6.4	75	1.9	22	--	--	--
NOV.												
06...	2.8	865	7.3	21.5	55	6.6	74	2.0	37	30	0	1
DEC.												
12...	7.4	4050	7.1	9.0	3	7.5	65	.8	5.0	--	--	--
JAN.												
16...	5.0	1340	7.3	12.0	60	9.0	83	2.3	20	--	--	--
FEB.												
20...	1.1	257	7.5	13.0	120	9.4	89	3.9	30	--	--	--
MAR.												
27...	8.1	4690	7.4	16.5	15	7.1	73	1.7	6.0	0	0	0
APR.												
17...	.5	131	7.2	19.0	30	7.4	79	4.6	20	130	0	0
MAY												
01...	7.1	3900	7.5	21.0	15	7.2	81	1.3	13	--	--	--
JUNE												
05...	8.3	4440	7.5	27.0	10	4.1	51	1.7	24	--	--	--
JULY												
11...	8.1	4140	7.4	27.0	8	4.3	54	.9	.0	10	0	0
AUG.												
15...	6.5	2360	7.0	27.0	15	5.0	62	1.2	12	--	--	--
SEP.												
18...	.7	191	6.3	28.0	70	6.5	82	2.0	24	70	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
06...	0	2	5	130	0	10	0	.9	5	470	50
DEC.											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
16...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
20...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
27...	0	0	2	0	0	50	120	.2	0	3500	30
APR.											
17...	0	0	8	200	0	0	0	<.2	1	120	20
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
05...	--	--	--	--	--	--	--	--	--	--	--
JULY											
11...	0	0	2	0	0	50	120	.2	0	3100	30
AUG.											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
18...	0	0	2	90	0	0	0	<.2	0	40	10

PLACEDO CREEK BASIN

08164800 PLACEDO CREEK NEAR PLACEDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 12...	1110	.54	25.0	.00	.0	.00	.0	.00	1.8	.00	.0
NOV. 06...	1505	6.4	21.5	.00	.0	.00	.7	.00	.8	.00	.0
FEB. 20...	1435	43	13.0	.00	.0	.00	.0	.00	.0	.00	.0
MAR. 27...	1115	.97	16.5	.00	.0	.00	.0	.00	.0	.00	.0
APR. 17...	0815	778	19.0	.00	.0	.00	.0	.01	.0	.00	.0
JULY 11...	1250	1.2	27.0	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 18...	1615	118	28.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 12...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
NOV. 06...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 20...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 27...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 17...	.01	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 11...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 18...	.01	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 12...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
NOV. 06...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	0	.0	0	.00	.00	.00	.00	.19	.00	.20
MAR. 27...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 17...	0	.0	0	.01	.00	.00	.00	.22	.00	.12
JULY 11...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SEP. 18...	--	.0	--	.01	.00	.00	.00	--	--	--

CHOCOLATE BAYOU BASIN

589

08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.

LOCATION.--Lat 28°35'40", long 96°41'48", Calhoun County, at bridge on Sweetwater Road, 2.3 miles (3.7 km) upstream from State Highway 35, and 4.5 miles (7.2 km) southwest of Port Lavaca.

DRAINAGE AREA.--53.7 mi² (139 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
04...	1240	5.1	43	48	8.7	100	7.9	181	0	18	160	.3
NOV.												
06...	1620	31	27	20	3.3	22	5.6	85	0	7.6	26	.1
DEC.												
13...	1435	.36	29	320	63	500	7.3	348	0	240	1100	.4
JAN.												
16...	1520	2.8	16	60	10	81	5.9	97	0	46	170	.2
FEB.												
20...	1050	47	3.6	17	3.3	17	5.7	56	0	13	20	.2
MAR.												
27...	0920	.17	11	420	92	700	7.5	324	0	340	1600	.4
MAY												
01...	0935	.91	25	170	34	250	6.5	220	0	120	570	.3
JUNE												
05...	0930	.25	12	270	68	600	10	252	0	250	1300	.5
13...	1417	2200	9.4	6.2	1.3	3.3	2.3	22	0	2.4	3.2	.2
JULY												
11...	1025	.61	19	140	33	370	5.5	348	0	100	660	.6
AUG.												
14...	1635	4.4	25	120	27	350	3.8	340	0	75	570	.5
SEP.												
18...	1445	156	25	16	2.9	9.0	6.6	66	0	.4	11	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
04...	--	--	.42	.02	.19	.1	.26	--	478	--	160	8
NOV.												
06...	.110	.018	.57	.00	.11	.08	.19	100	154	116	64	0
DEC.												
13...	--	--	.37	.08	1.2	.6	.45	--	2480	--	1000	770
JAN.												
16...	--	--	.67	.05	.33	1.3	.30	--	446	--	190	110
FEB.												
20...	.140	.004	1.1	.05	.20	2.7	.35	70	120	292	56	10
MAR.												
27...	--	--	1.0	.00	.19	.08	.42	--	3340	--	1400	1200
MAY												
01...	--	--	.91	.02	.28	.2	.31	--	1290	--	560	380
JUNE												
05...	--	--	.00	.00	.56	.00	1.4	--	2630	--	960	750
13...	.006	.000	.84	.03	.00	.9	.31	30	43	424	21	3
JULY												
11...	4.2	.300	.69	.00	.08	.03	.16	560	1510	20	500	210
AUG.												
14...	--	--	.84	.00	.28	.08	.19	--	1340	--	400	120
SEP.												
18...	.100	.019	.99	.00	.05	.05	.31	80	103	126	52	0

CHOCOLATE BAYOU BASIN

08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
04...	3.6	833	7.4	26.0	45	6.1	74	3.2	22	--	--	--
NOV.												
06...	1.2	245	7.4	23.5	60	6.6	77	2.4	28	110	0	1
DEC.												
13...	6.8	4230	7.3	7.5	7	12.4	104	2.9	13	--	--	--
JAN.												
16...	2.6	825	7.5	15.0	55	11.1	109	3.3	22	--	--	--
FEB.												
20...	1.0	208	7.3	12.0	120	9.4	87	3.3	30	--	--	--
MAR.												
27...	8.0	5930	7.2	16.5	7	8.8	92	6.0	7.0	0	0	0
MAY												
01...	4.6	2340	7.8	21.0	15	8.2	91	4.1	21	--	--	--
JUNE												
05...	8.3	4630	7.6	28.0	15	6.6	85	14	38	--	--	--
13...	.3	58	6.6	21.5	150	7.5	84	1.7	10	130	0	0
JULY												
11...	7.3	2740	7.4	29.5	8	6.0	79	2.8	1.0	0	0	1
AUG.												
14...	7.6	2410	7.6	27.0	35	5.0	62	1.8	49	--	--	--
SEP.												
18...	.5	154	6.5	27.5	65	5.9	74	1.7	24	80	10	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
06...	0	0	4	170	0	0	0	.5	0	40	40
DEC.											
13...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
16...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
20...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
27...	0	0	3	30	0	40	2400	.2	2	2400	30
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	0	0	2	100	0	0	20	<.2	0	80	30
JULY											
11...	0	0	2	0	0	20	320	.2	0	890	0
AUG.											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
18...	0	0	2	120	0	0	10	<.2	0	0	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT.											
12...	1345	.23	29.0	.00	.0	.00	3.6	.00	7.6	.00	1.9
NOV.											
06...	1620	31	23.5	.00	.0	.00	380	.00	290	.00	210
FEB.											
20...	1050	47	12.0	.00	.0	.00	2.7	.00	23	.00	21
MAR.											
27...	0920	.17	16.5	.00	.0	.00	37	.00	260	.00	50
JUNE											
13...	1417	2200	21.5	.00	--	.00	--	.02	--	.00	--
JULY											
11...	1025	.61	29.5	.00	.0	.00	11	.00	41	.00	7.8
SEP.											
18...	1445	156	27.5	.00	--	.00	--	.00	--	.00	--

CHOCOLATE BAYOU BASIN

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08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 12...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
NOV. 06...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 20...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 27...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 13...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 11...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 18...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 12...	0	.0	0	.01	.00	.00	.00	.00	.00	.00
NOV. 06...	0	.0	0	.00	.00	.00	.00	.04	.00	.02
FEB. 20...	0	.0	0	.00	.00	.00	.00	3.1	.00	.05
MAR. 27...	0	.0	0	.00	.00	.00	.00	.03	.00	.00
JUNE 13...	--	.0	--	.00	.00	.00	.00	.00	.00	.00
JULY 11...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SEP. 18...	--	.0	--	.00	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

08169580 GUADALUPE RIVER BELOW NEW BRAUNFELS, TEX.

LOCATION.--Lat 29°40'00", long 98°04'14", Comal County, in Lake Dunlap, 8 miles (9.6 km) southeast of New Braunfels, 15 miles (24 km) downstream from Interstate 35 Bridge.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
NOV. 09...	1230	15	76	16	11	270	0	24
JAN. 12...	1730	11	69	17	12	264	0	24
MAR. 14...	1545	9.8	67	17	9.7	252	0	22
MAY 29...	1445	10	62	17	15	254	0	22
JULY 18...	1520	9.7	56	16	15	240	0	19
SEP. 19...	1800	12	63	13	12	242	0	16

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)
NOV. 09...	20	.2	.53	.01	.16	1.2	.22	301	260
JAN. 12...	16	.2	.22	.01	.05	1.1	.06	284	240
MAR. 14...	18	.2	.37	.00	.10	.8	.05	271	240
MAY 29...	17	.2	.00	.00	.12	.7	.05	271	220
JULY 18...	14	.2	.22	.00	.11	.5	.05	250	210
SEP. 19...	14	.2	.35	.01	.00	.7	.05	252	210

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
NOV. 09...	34	.3	533	7.6	22.0	8.4	95	1.3
JAN. 12...	26	.3	503	7.8	12.5	11.0	103	.5
MAR. 14...	30	.3	483	7.6	20.5	9.4	103	1.0
MAY 29...	16	.4	483	7.8	24.0	11.0	129	1.3
JULY 18...	9	.5	448	7.8	23.0	10.4	120	1.0
SEP. 19...	12	.4	441	8.1	26.0	14.2	173	1.0

GUADALUPE RIVER BASIN

593

08172000 SAN MARCOS RIVER AT LULING, TEX.

LOCATION.--Lat 29°39'54", long 97°38'59", Caldwell County, at gaging station 390 ft (120 m) downstream from bridge on State Highway 80, 1.0 miles (1.6 km) south of Luling, and 9.4 miles (15.1 km) upstream from Plum Creek.

DRAINAGE AREA.--838 mi² (2,170 km²).

PERIOD OF RECORD.--Chemical analyses: September 1961 to April 1966, October 1968 to September 1973.
Water temperatures: September 1961 to April 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 05...	1247	142	11	42	20	24	180	0	28	40
NOV. 09...	1141	199	11	68	11	30	252	0	24	30
DEC. 12...	1605	220	11	82	20	18	306	0	28	30
JAN. 18...	1505	260	7.8	80	18	20	288	0	33	30
MAR. 27...	1552	536	12	73	15	26	255	0	35	35
MAY 07...	1835	556	10	77	18	23	280	0	27	34
JUNE 08...	1522	321	11	50	17	19	200	0	24	30
JULY 12...	1330	1054	12	68	14	19	240	0	27	29
AUG. 15...	1000	504	11	70	16	30	284	0	26	29

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 05...	.2	1.5	261	190	38	.8	462	7.9	24.0
NOV. 09...	.2	1.5	305	210	8	.9	524	8.0	19.0
DEC. 12...	.2	.8	343	280	34	.5	609	7.7	9.0
JAN. 18...	.3	1.1	336	270	38	.5	591	8.1	15.5
MAR. 27...	.2	1.6	328	240	34	.7	572	7.5	19.0
MAY 07...	.2	2.7	339	270	36	.6	593	7.5	22.0
JUNE 08...	.2	1.1	254	200	31	.6	459	7.8	16.5
JULY 12...	.2	.9	291	230	30	.5	513	7.5	27.0
AUG. 15...	.2	1.4	328	240	8	.8	563	7.7	27.0

GUADALUPE RIVER BASIN

08173000 PLUM CREEK NEAR LULING, TEX.

LOCATION.--Lat 29°41'58", long 97°36'12", Caldwell County, at gaging station at bridge on county road, 1.2 miles (1.9 km) upstream from West Fork, 1.9 miles (3.1 km) upstream from Southern Pacific Railroad Co. bridge, 2.2 miles (3.5 km) upstream from McNeil Creek, and 3.0 miles (4.8 km) northeast of Luling.

DRAINAGE AREA.--309 mi² (800 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.
Water temperatures: October 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,000 micromhos May 14; minimum daily, 283 micromhos Apr. 17.
Water temperatures: Maximum, 30.0°C July 30; minimum, 8.0°C Jan. 8, 9, 10.

EXTREMES, October 1967 to September 1973.--Specific conductance: Maximum daily, 2,560 micromhos Oct. 27, 1968; minimum daily, 148 micromhos Dec. 1, 1968.
Water temperatures: Maximum, 35.0°C July 24, 1969; minimum, 4.0°C Jan. 4, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
04...	1347	1.5	17	110	11	170	--	6.2	346	0	88
NOV.											
09...	1446	3.8	19	120	11	--	140	--	310	0	77
JAN.											
25...	1100	20	7.8	48	3.8	26	--	3.8	112	0	46
FEB.											
21...	0920	51	12	78	7.2	--	56	--	172	0	75
APR.											
17...	1700	354	9.6	38	2.9	13	--	4.4	114	0	16
MAY											
03...	0800	40	8.6	48	4.2	--	29	--	126	0	43
JUNE											
23...	1830	3.2	13	79	8.6	--	79	--	208	0	56
26...	1000	2.6	15	98	13	--	110	--	210	0	93
JULY											
10...	1804	180	13	48	2.0	--	32	--	134	0	39
AUG.											
23...	0800	.96	14	85	9.5	--	68	--	226	0	31
SEP.											
21...	1800	4.1	17	96	9.6	--	71	--	217	0	61

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
04...	220	.5	.07	792	310	26	4.1	1360	8.2	27.0
NOV.										
09...	220	.4	1.5	739	340	86	3.3	1270	8.1	19.0
JAN.										
25...	36	.3	.9	231	140	44	1.0	392	7.7	10.0
FEB.										
21...	85	.4	1.5	405	220	83	1.6	709	7.4	11.0
APR.										
17...	17	.2	.8	161	110	13	.5	283	7.3	18.0
MAY										
03...	34	.3	1.2	234	140	34	1.1	417	7.6	18.0
JUNE										
23...	120	.4	.4	462	230	62	2.1	830	7.3	25.0
26...	190	.4	.7	624	300	130	2.8	1080	7.4	23.0
JULY										
10...	31	.1	.8	235	130	18	1.2	395	7.1	--
AUG.										
23...	130	.2	.8	448	250	66	1.9	897	7.2	25.0
SEP.										
21...	130	.1	2.2	501	280	100	1.8	982	7.2	27.0

GUADALUPE RIVER BASIN

595

08173000 PLUM CREEK NEAR LULING, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	122.5	1080	620	205	170	56	83	27	290
NOV.	280.9	1010	580	440	150	114	78	59	280
DEC.	203.6	1200	690	379	190	104	92	51	320
JAN. 1973....	923.5	774	450	1120	110	274	61	152	220
FEB.	2160	652	380	2220	84	490	53	309	200
MAR.	4698	561	330	4190	66	837	46	583	180
APR.	4153	591	340	3810	72	807	48	538	180
MAY	602.14	997	570	927	150	244	77	125	270
JUNE	12530.4	412	240	8120	37	1250	35	1180	140
JULY	2318.9	611	350	2190	76	476	50	313	190
AUG.	115.70	989	570	178	150	47	77	24	270
SEP.	1003.68	506	290	786	56	152	42	114	160
TOTAL	29112.32	--	--	24600	--	4850	--	3480	--
WTD. AVG. ...	79.8	538	310	--	62	--	44	--	170

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	979	843	1260	996	898	848	1050	1610	526	771	890
2	1390	1000	980	1120	937	962	626	1000	1650	1080	1270	1370
3	1350	1340	1050	950	991	987	1000	680	1430	753	1190	1400
4	1360	1310	823	820	800	996	1030	870	1530	900	805	1410
5	1370	1250	934	819	1150	1060	1070	1110	700	820	966	1430
6	1390	1060	1200	898	1190	1000	812	1120	830	780	1100	1450
7	1600	1300	1230	970	1170	1130	1090	1470	685	800	1200	1350
8	1430	1300	1240	920	1170	1150	1180	692	1630	926	1330	1450
9	1510	1290	1400	898	1180	1160	884	762	731	577	1280	1210
10	1470	1370	1290	1020	1080	589	874	1250	556	395	1320	1420
11	1450	1210	1300	895	800	1570	983	919	800	843	1390	1280
12	1550	1390	1280	1030	1020	854	1000	1300	393	720	1540	1390
13	1520	1200	1230	1090	800	1210	874	694	284	604	1370	1460
14	1510	900	1300	816	480	1130	1160	2000	330	630	1170	800
15	1510	980	1250	1080	391	1290	800	1150	380	603	825	533
16	1490	1100	1220	1000	677	800	329	1250	439	599	791	717
17	1620	770	1250	954	1410	530	283	934	500	604	814	900
18	1460	809	1140	932	680	607	452	1390	523	635	1210	1200
19	1430	905	1240	769	652	636	516	1250	570	635	1350	1000
20	1310	1040	1140	1080	635	1010	514	767	841	693	1110	1330
21	1420	785	1140	1130	550	809	891	1480	755	708	1380	1100
22	1410	1310	1130	1120	552	559	1150	1390	744	695	1210	1270
23	700	1170	1140	1020	501	1230	826	1550	830	758	1000	1010
24	515	1160	1200	1000	527	587	867	1520	1200	779	1260	1270
25	586	796	1480	480	661	369	923	1060	1150	804	1160	1290
26	1150	1000	1280	525	1100	494	1030	1470	800	840	1190	1140
27	1270	902	1160	537	803	520	836	942	763	900	1390	900
28	1460	807	1320	796	1080	583	1040	1660	844	722	1230	337
29	808	1000	1260	796	---	603	1130	1620	923	893	1400	394
30	878	841	1020	820	---	740	1180	1550	1110	974	1310	400
31	753	---	1370	903	---	1280	---	1630	---	1040	1340	---
MONTH	1290	1080	1190	918	857	882	873	1210	851	750	1180	1100

GUADALUPE RIVER BASIN

08173000 PLUM CREEK NEAR LULING, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	20.0	15.0	14.0	15.0	15.0	20.0	20.0	24.0	26.0	26.0	24.0
2	20.0	18.0	12.0	10.0	15.0	18.0	20.0	20.0	24.0	27.0	27.0	25.0
3	22.0	17.0	15.0	9.0	12.0	15.0	18.0	18.0	25.0	27.0	28.0	28.0
4	---	15.0	12.0	10.0	14.0	15.0	16.0	18.0	26.0	28.0	26.0	25.0
5	26.0	19.0	12.0	12.0	15.0	14.0	16.0	19.0	25.0	25.0	26.0	25.0
6	27.0	20.0	10.0	10.0	15.0	14.0	16.0	20.0	26.0	28.0	26.0	24.0
7	24.0	20.0	12.0	10.0	14.0	15.0	14.0	24.0	25.0	26.0	26.0	24.0
8	22.0	19.0	12.0	8.0	---	18.0	16.0	25.0	24.0	24.0	26.0	25.0
9	24.0	19.0	10.0	8.0	---	18.0	14.0	25.0	24.0	24.0	26.0	28.0
10	27.0	20.0	12.0	8.0	10.0	15.0	14.0	20.0	24.0	24.0	28.0	28.0
11	26.0	18.0	---	9.0	10.0	14.0	15.0	23.0	24.0	26.0	29.0	27.0
12	26.0	20.0	9.0	10.0	11.0	17.0	15.0	20.0	22.0	24.0	27.0	28.0
13	27.0	19.0	10.0	9.0	11.0	20.0	17.0	25.0	23.0	28.0	29.0	28.0
14	22.0	15.0	10.0	12.0	10.0	22.0	16.0	23.0	27.0	---	25.0	27.0
15	26.0	16.0	9.0	14.0	10.0	20.0	17.0	21.0	25.0	28.0	28.0	26.0
16	27.0	19.0	9.0	---	12.0	20.0	19.0	24.0	25.0	28.0	28.0	26.0
17	27.0	14.0	10.0	14.0	11.0	15.0	18.0	25.0	25.0	26.0	25.0	26.0
18	27.0	13.0	10.0	14.0	12.0	18.0	20.0	25.0	28.0	28.0	25.0	28.0
19	22.0	14.0	12.0	12.0	14.0	17.0	22.0	21.0	28.0	26.0	25.0	24.0
20	24.0	14.0	14.0	14.0	11.0	17.0	21.0	24.0	24.0	29.0	29.0	27.0
21	25.0	14.0	14.0	14.0	11.0	18.0	20.0	26.0	25.0	27.0	25.0	27.0
22	24.0	15.0	14.0	15.0	10.0	18.0	20.0	24.0	27.0	28.0	29.0	24.0
23	20.0	14.0	12.0	10.0	12.0	17.0	23.0	26.0	25.0	28.0	25.0	25.0
24	19.0	12.0	14.0	12.0	12.0	20.0	22.0	25.0	24.0	27.0	24.0	28.0
25	18.0	14.0	14.0	10.0	14.0	19.0	24.0	26.0	24.0	29.0	25.0	28.0
26	20.0	12.0	14.0	12.0	12.0	17.0	22.0	25.0	23.0	29.0	24.0	25.0
27	21.0	14.0	14.0	14.0	15.0	16.5	18.0	24.0	25.0	28.0	27.0	24.0
28	22.0	14.0	15.0	15.0	12.0	18.0	16.0	26.0	28.0	29.0	24.0	23.0
29	23.0	15.0	15.0	10.0	---	18.0	20.0	25.0	27.0	27.0	28.0	28.0
30	24.0	14.0	12.0	10.0	---	19.0	19.0	25.0	27.0	30.0	24.0	25.0
31	24.0	---	15.0	14.0	---	18.0	---	23.0	---	27.0	24.0	---
MONTH	24.0	16.0	12.5	11.5	12.5	17.5	18.5	23.0	25.0	27.0	26.5	26.0

GUADALUPE RIVER BASIN

597

08174600 PEACH CREEK BELOW DILWORTH, TEX.

LOCATION.--Lat 29°28'26", long 97°18'59", Gonzales County, at gaging station at bridge on U.S. Highway 90-A, 1.3 miles (2.1 km) downstream from Mitchell Creek, 3.1 miles (5.0 km) southwest of Dilworth, 6.4 miles (10.3 km) upstream from mouth, and 8.5 miles (13.7 km) southeast of Gonzales.

DRAINAGE AREA.--460 mi² (1,191 km²).

PERIOD OF RECORD.--Chemical analyses: April 1962 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
02...	1652	.38	18	61	15	91	206	0	100	94
27...	1703	3.3	19	45	12	63	204	0	59	49
NOV.										
14...	1245	5.8	16	16	4.4	63	166	0	25	22
DEC.										
12...	1115	1.9	15	20	4.6	76	190	0	34	30
JAN.										
16...	1630	6.7	7.8	37	9.8	58	104	0	100	47
FEB.										
20...	1110	94	15	22	5.6	23	46	0	45	28
MAR.										
02...	1150	15	12	39	9.0	39	82	0	82	46
06...	1151	12	15	60	14	65	112	0	140	76
23...	1335	28	13	60	14	70	116	0	130	86
27...	1035	1700	13	15	3.2	8.5	42	0	19	9.4
APR.										
20...	--	541	17	29	5.6	18	63	0	41	26
MAY										
04...	1025	529	13	20	3.7	14	47	0	25	20
JUNE										
04...	1257	4.5	23	120	31	120	172	0	310	170
JULY										
10...	1418	71	18	45	8.0	44	84	0	81	61
AUG.										
13...	1605	2.4	16	100	28	120	216	0	240	150
SEP.										
20...	1007	5.7	16	44	7.8	42	118	0	73	43

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
02...	.3	.2	485	210	44	2.7	858	8.2	26.0
27...	.2	.3	348	160	0	2.2	630	7.8	17.0
NOV.									
14...	.2	.3	230	58	0	3.6	417	8.0	15.0
DEC.									
12...	.2	.2	274	69	0	4.0	477	7.8	6.0
JAN.									
16...	.2	.4	314	130	48	2.2	521	7.6	8.5
FEB.									
20...	.2	.7	165	78	40	1.1	275	6.7	11.0
MAR.									
02...	.2	.3	268	130	67	1.5	460	6.9	17.0
06...	.2	.3	428	210	120	2.0	697	7.1	20.0
23...	.2	.8	437	210	110	2.1	730	7.5	17.5
27...	.2	.3	91	51	16	.5	148	7.0	18.0
APR.									
20...	.2	.6	170	95	44	.8	284	7.1	--
MAY									
04...	.1	.5	121	65	27	.8	207	6.5	20.0
JUNE									
04...	.2	.4	859	440	300	2.5	1340	7.6	17.0
JULY									
10...	.1	.5	300	140	76	1.6	497	6.7	27.0
AUG.									
13...	.3	.02	761	380	200	2.7	1240	7.2	27.5
SEP.									
20...	.0	.2	285	140	45	1.5	500	7.3	24.5

GUADALUPE RIVER BASIN

08175000 SANDIES CREEK NEAR WESTHOFF, TEX.

LOCATION.--Lat 29°12'54", long 97°26'57", DeWitt County, at gaging station 100 ft (30 m) downstream from bridge on county highway, 1.9 miles (3.1 km) upstream from Birds Creek, and 2.0 miles (3.2 km) northeast of Westhoff.

DRAINAGE AREA.--549 mi² (1,422 km²).

PERIOD OF RECORD.--Chemical analyses: April 1962 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.										
02...	1150	9.6	15	34	6.1	260	532	0	28	140
05...	1439	5.5	14	36	9.2	310	604	0	31	200
NOV.										
10...	1750	4.9	17	41	9.1	220	358	0	42	200
DEC.										
05...	1000	7.3	15	42	9.5	210	390	0	46	160
JAN.										
08...	1310	18	14	39	9.4	230	367	0	48	200
FEB.										
13...	1003	34	12	33	7.2	160	222	0	57	150
15...	1638	15	14	36	7.4	200	316	0	52	170
MAR.										
20...	1330	10	17	66	15	150	268	0	100	160
APR.										
17...	1750	6950	10	10	2.5	6.0	29	0	12	6.8
20...	0915	1440	15	14	3.4	13	50	0	16	11
30...	1335	22	19	74	17	140	204	0	140	170
MAY										
29...	1310	11	19	72	17	160	244	0	120	190
JULY										
05...	1530	47	24	72	16	130	204	0	130	160
AUG.										
06...	1130	13	17	47	11	190	246	0	73	200
SEP.										
18...	1012	32	18	43	9.4	160	270	0	52	160

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA, MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT.									
02...	.9	.9	743	110	0	11	1250	8.0	25.5
05...	.9	.9	901	130	0	12	1530	8.1	25.0
NOV.									
10...	.5	.1	701	140	0	8.0	1230	7.7	18.5
DEC.									
05...	.5	3.0	693	140	0	7.7	1190	8.1	13.5
JAN.									
08...	.6	3.0	735	140	0	8.7	1270	7.9	7.0
FEB.									
13...	.3	1.0	534	110	0	6.6	953	7.3	11.0
15...	.4	1.0	643	120	0	8.0	1140	7.9	11.5
MAR.									
20...	.3	1.2	655	230	6	4.5	1130	7.6	18.0
APR.									
17...	.2	.5	64	35	12	.4	104	7.1	19.0
20...	.2	.9	102	49	8	.8	164	6.4	24.0
30...	.3	.9	657	250	88	3.7	1120	7.7	20.5
MAY									
29...	.3	.4	705	250	50	4.4	1230	7.6	24.0
JULY									
05...	.2	1.0	632	250	78	3.6	1040	7.0	28.0
AUG.									
06...	.4	.9	661	160	0	6.4	1150	8.1	27.0
SEP.									
18...	.3	.8	581	150	0	5.9	1010	8.1	25.0

GUADALUPE RIVER BASIN

599

08175800 GUADALUPE RIVER AT CUERO, TEX.

LOCATION.--Lat 29°03'57", long 97°19'16", DeWitt County, at gaging station on U.S. Highway 77-A, 87, and 183, 2.1 miles (3.4 km) upstream from Gohike Creek, 2.4 miles (3.9 km) southwest of Cuero, and 4.2 miles (6.8 km) downstream from Sandies Creek.

DRAINAGE AREA.--4,934 mi² (12,779 km²).

PERIOD OF RECORD.--Chemical analyses: March 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA: WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 05...	1347	750	12	60	17	23	236	0	25	33
NOV. 10...	1448	696	12	73	17	20	277	0	20	31
DEC. 05...	1220	675	11	79	16	26	282	0	29	38
JAN. 08...	1720	996	10	77	17	32	287	0	31	41
FEB. 13...	1303	1170	11	64	16	33	246	0	39	36
MAR. 14...	0918	1400	11	74	17	23	274	0	31	32
20...	1650	1520	12	73	14	30	222	0	50	47
MAY 03...	1652	2820	13	67	14	32	256	0	30	35
JUNE 01...	1100	1460	12	74	18	20	272	0	30	33
JULY 05...	0835	2300	14	72	16	27	264	0	30	38
AUG. 06...	1757	3460	11	59	16	17	238	0	20	22
SEP. 18...	1550	1820	13	67	14	20	247	0	22	27

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 05...	.2	.8	290	220	24	.7	519	8.1	27.0
NOV. 10...	.2	1.0	314	250	25	.5	571	7.9	19.0
DEC. 05...	.2	1.4	344	260	33	.7	606	8.1	14.0
JAN. 08...	.2	1.5	356	260	25	.9	624	8.0	10.0
FEB. 13...	.2	1.1	325	230	24	1.0	540	8.0	12.5
MAR. 14...	.2	.8	327	250	30	.6	569	7.8	20.5
20...	.2	1.0	340	240	58	.8	593	7.9	19.0
MAY 03...	.2	1.0	322	220	14	.9	524	7.9	22.0
JUNE 01...	.2	.6	324	260	36	.5	569	7.8	26.5
JULY 05...	.2	.9	331	250	29	.7	571	7.9	28.5
AUG. 06...	.2	.8	266	210	18	.5	470	7.9	27.0
SEP. 18...	.2	1.2	290	220	22	.6	499	8.2	27.5

08176500 GUADALUPE RIVER AT VICTORIA, TEX.

LOCATION.--Lat 28°47'34", long 97°00'46", Victoria County, at gaging station at bridge on U.S. Highway 59 in Victoria, 1,300 feet (396 m) upstream from Southern Pacific Railroad Co. bridge, and 15 miles (24 km) upstream from Coleta Creek.

DRAINAGE AREA.--5,198 mi² (13,460 km²).

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, October 1948 to September 1973.

Water temperatures: November 1950 to September 1973.

Sediment records: October 1972 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 684 micromhos Jan. 13; minimum daily, 209 micromhos Apr. 18.

Water temperatures: Maximum, 29.0°C on several days during July; minimum, 6.0°C Jan. 11, 12.

EXTREMES, October 1945 to September 1946, October 1948 to September 1973.--Specific conductance: Maximum daily, 1,950 micromhos Jan. 11-17, 1946; minimum daily, 155 micromhos Sept. 22, 1967.

Water temperatures (1950-73): Maximum, 32.0°C Aug. 4, 27, 1952; minimum, 2.0°C Jan. 11, 12, 1962, Jan. 24, 1963.

REMARKS.--See Part 2 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)
OCT.									
03...	1652	897	13	--	--	--	--	2.5	--
NOV.									
09...	1000	799	13	70	16	--	23	--	252
JAN.									
08...	1410	1030	9.9	77	16	27	--	2.0	286
FEB.									
01...	0745	1160	11	59	12	--	22	--	196
14...	1200	1270	11	72	16	26	--	2.2	266
MAR.									
12...	1220	1510	11	75	16	23	--	2.2	268
24...	0730	6700	6.9	33	4.0	--	8.2	--	108
APR.									
17...	0800	14300	12	29	3.6	8.2	--	4.3	96
18...	1727	17300	9.8	32	3.4	6.2	--	4.5	106
MAY									
15...	1300	3480	11	44	8.3	--	19	--	152
24...	0800	1740	13	76	17	23	--	2.2	274
JUNE									
19...	0730	17400	14	42	5.0	--	13	--	146
25...	1430	3880	14	49	8.6	23	--	4.6	166
JULY									
12...	0955	6380	11	68	17	22	--	2.5	250
26...	1400	5540	10	60	16	13	--	2.4	242
AUG.									
01...	0730	5300	11	51	17	--	12	--	210
29...	1230	1690	13	71	16	20	--	2.1	268
SEP.									
25...	1700	1820	11	65	13	17	--	2.7	236
30...	0740	7040	12	66	14	--	15	--	252

DATE	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL KJEL. NITRO- GEN IN BOTTOM DEP. (MG/KG)
OCT.										
03...	0	26	36	.2	.70	--	--	--	--	--
NOV.										
09...	0	27	37	.3	1.0	--	--	--	--	--
JAN.										
08...	0	30	36	.2	1.2	.00	.03	.35	.38	--
FEB.										
01...	0	29	34	.2	1.2	--	--	--	--	--
14...	0	31	35	.2	1.2	.00	.03	.32	.35	--
MAR.										
12...	0	34	33	.2	1.1	.00	.07	.28	.35	--
24...	0	11	8.8	.1	1.1	--	--	--	--	--
APR.										
17...	0	11	10	.1	.50	.00	.10	1.4	1.5	--
18...	0	10	8.0	.1	.60	--	--	--	--	--
MAY										
15...	0	24	23	.2	1.0	--	--	--	--	--
24...	0	29	35	.4	1.0	.00	.02	.02	.04	600
JUNE										
19...	0	15	12	.1	.20	--	--	--	--	--
25...	0	27	35	.2	.70	.00	.09	.80	.89	--
JULY										
12...	0	27	39	.3	1.2	--	--	--	--	--
26...	0	22	18	.2	.60	.00	.17	.57	.74	--
AUG.										
01...	0	20	20	.2	.60	--	--	--	--	--
29...	0	23	29	.2	.80	.00	.00	.23	.23	--
SEP.										
25...	0	22	25	.2	.90	.00	.00	.26	.26	--
30...	0	17	20	.2	.40	--	--	--	--	--

GUADALUPE RIVER BASIN

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08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- PHORUS IN BOT- TOM DE- POSITS (MG/KG)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)
OCT.										
03...	--	--	--	--	--	--	571	--	--	--
NOV.										
09...	--	--	315	240	34	.6	576	8.0	--	--
JAN.										
08...	.11	--	344	260	24	.7	607	7.9	10.5	6
FEB.										
01...	--	--	268	200	36	.7	489	7.9	--	--
14...	.13	--	324	250	28	.7	583	7.9	13.5	25
MAR.										
12...	.14	--	331	250	34	.6	574	7.9	21.0	30
24...	--	--	130	99	10	.4	228	7.5	--	--
APR.										
17...	.36	--	128	87	8	.4	210	7.6	19.0	150
18...	--	--	129	94	7	.3	209	7.2	--	--
MAY										
15...	--	--	209	140	19	.7	370	7.3	24.0	--
24...	.30	120	331	260	35	.6	582	7.8	26.5	20
JUNE										
19...	--	--	174	120	6	.5	301	7.2	28.0	--
25...	.18	--	247	160	22	.8	435	7.2	25.5	90
JULY										
12...	--	--	315	240	34	.6	553	8.0	--	--
26...	.16	--	261	220	17	.4	472	7.6	28.0	90
AUG.										
01...	--	--	237	200	25	.4	427	7.6	--	--
29...	.05	--	310	240	24	.6	542	7.8	28.5	10
SEP.										
25...	.09	--	276	220	22	.5	483	7.8	29.0	20
30...	--	--	270	220	16	.4	475	7.7	25.0	--

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	ORGANIC CARBON IN BED MA- TERIAL (C) (G/KG)
OCT.								
03...	--	--	--	--	--	--	--	--
NOV.								
09...	--	--	--	--	--	--	--	--
JAN.								
08...	10.6	95	1.1	21000	88	240	--	--
FEB.								
01...	--	--	--	--	--	--	--	--
14...	10.2	97	1.6	15000	110	94	2.0	--
MAR.								
12...	9.2	102	1.1	54000	90	100	--	--
24...	--	--	--	--	--	--	--	--
APR.								
17...	7.1	76	4.7	280000	21000	25000	15	--
18...	--	--	--	--	--	--	--	--
MAY								
15...	--	--	--	--	--	--	--	--
24...	7.4	90	1.2	6000	80	78	8.0	5600
JUNE								
19...	--	--	--	--	--	--	--	--
25...	6.8	82	2.0	210000	7100	4200	--	--
JULY								
12...	--	--	--	--	--	--	--	--
26...	8.4	106	.6	120000	100	1500	16	--
AUG.								
01...	--	--	--	--	--	--	--	--
29...	7.8	100	1.2	1500	26	20	12	--
SEP.								
25...	9.8	126	.7	230	88	110	15	--
30...	--	--	--	--	--	--	--	--

GUADALUPE RIVER BASIN

08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
FEB.					
14...	0800	7.9	12.0	9.6	89
14...	1000	7.9	12.5	10.0	93
14...	1200	7.9	13.5	10.2	97
14...	1400	8.0	14.0	10.4	100
14...	1600	8.0	14.0	10.6	102
14...	1800	8.0	14.0	10.7	103
14...	2000	8.0	13.5	10.5	100
14...	2200	8.0	13.5	10.4	99
14...	2400	8.0	13.0	10.3	97
15...	0200	8.0	12.5	10.3	96
15...	0400	8.0	12.5	10.3	96
15...	0600	8.0	12.0	10.0	93
15...	0800	7.9	12.0	9.8	91
MAY					
23...	0800	7.8	26.0	7.4	90
23...	1000	7.8	26.0	7.5	91
23...	1200	7.9	26.5	7.8	95
23...	1400	7.9	27.0	8.0	99
23...	1600	7.9	27.5	8.2	102
23...	1800	7.9	27.5	8.2	102
23...	2000	7.8	27.5	8.1	101
23...	2200	7.8	27.0	7.9	90
23...	2400	7.8	27.0	7.6	94
24...	0200	7.8	26.5	7.5	91
24...	0400	7.8	26.5	7.4	90
24...	0600	7.8	26.5	7.4	90
24...	0800	7.8	26.5	7.4	90
JULY					
25...	0100	7.6	27.0	8.3	102
25...	0200	7.6	27.0	8.3	102
25...	0400	7.6	27.0	8.3	102
25...	0600	7.6	27.0	8.3	102
25...	0800	7.6	27.0	8.3	102
25...	1200	7.6	27.0	8.3	102
25...	1400	7.6	27.5	8.4	105
25...	1600	7.6	27.5	8.4	105
25...	1800	7.6	27.5	8.4	105
25...	2000	7.6	27.5	8.4	105
25...	2200	7.6	27.0	8.3	102
25...	2400	7.6	27.0	8.3	102
26...	1400	7.6	28.0	8.4	106

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC IN BOTTOM DE- POSITS (UG/G)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM DE- POSITS (UG/G)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM DE- POSITS (UG/G)
FEB.										
14...	1200	0	0	--	0	0	--	10	0	--
MAY										
24...	0800	0	0	7	0	0	1	0	0	6
JULY										
26...	1400	0	0	--	0	0	--	0	0	--
SEP.										
25...	1700	0	0	--	0	0	--	0	0	--

DATE	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM DE- POSITS (UG/G)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM DE- POSITS (UG/G)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM DE- POSITS (UG/G)	TOTAL LEAD (PB) (UG/L)
FEB.										
14...	0	0	--	3	3	--	740	10	--	4
MAY										
24...	0	0	4	1	1	11	470	10	2000	0
JULY										
26...	2	0	--	3	2	--	1600	0	--	4
SEP.										
25...	0	0	--	2	2	--	420	0	--	0

GUADALUPE RIVER BASIN

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08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LEAD IN BOTTOM DE- POSITS (UG/G)	TOTAL LITHIUM (LI) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MANGA- NESE IN BOTTOM DE- POSITS (UG/G)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY IN BOTTOM DE- POSITS (UG/G)
FEB. 14...	0	--	--	--	40	0	--	.4	.4	--
MAY 24...	0	90	10	10	50	0	180	.2	.2	.0
JULY 26...	0	--	--	--	60	0	--	<.2	<.2	--
SEP. 25...	0	--	--	--	0	0	--	<.2	<.2	--

DATE	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SELE- NIUM IN BOTTOM DE- POSITS (UG/G)	TOTAL STRON- TIUM (SR) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM DE- POSITS (UG/G)
FEB. 14...	--	--	2	2	--	--	--	20	20	--
MAY 24...	0	0	--	--	0	3	3	20	20	77
JULY 26...	--	--	0	0	--	--	--	10	0	--
SEP. 25...	--	--	0	0	--	--	--	0	0	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
JAN. 08...	1410 1030		10.5	34 95
FEB. 14...	1200 1250		13.5	52 175
MAR. 12...	1220 1500		21.0	67 271
APR. 17...	0800 14400		19.0	709 27600
JUNF 25...	1430 3880		25.5	281 2940
JULY 26...	1400 5540		28.0	272 4070

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	28923	547	320	25000	45	3510	31	2420	220
NOV.	26352	566	330	23500	47	3340	32	2280	230
DEC.	25938	608	350	24500	52	3640	34	2380	250
JAN. 1973....	34977	586	340	32100	50	4720	33	3120	240
FEB.	45770	547	320	39500	45	5560	31	3830	220
MAR.	78460	444	260	55100	35	7410	27	5720	180
APR.	155210	348	200	83800	25	10500	23	9640	140
MAY	69850	536	310	58500	44	8300	31	5850	220
JUNE	225330	325	190	116000	22	13400	22	13400	130
JULY	132590	484	280	100000	39	14000	29	10400	200
AUG.	84360	496	290	66100	40	9110	29	6610	200
SEP.	65670	510	290	51400	42	7450	30	5320	210
TOTAL	973430	--	--	676000	--	90900	--	71000	--
WTD. AVG. ...	2667	443	260	--	35	--	27	--	180

GUADALUPE RIVER BASIN

08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	550	613	595	613	489	518	442	596	492	500	427	535
2	536	564	590	612	639	536	444	562	534	528	457	548
3	544	539	600	610	596	548	485	592	520	545	465	544
4	519	543	608	585	589	548	529	567	579	571	472	544
5	568	546	610	581	582	548	545	498	568	589	486	549
6	512	515	622	588	575	550	562	497	562	601	487	525
7	553	542	635	602	568	550	559	508	566	598	482	540
8	568	532	621	591	568	564	564	535	581	610	483	556
9	580	575	625	597	562	567	569	586	582	521	460	560
10	524	569	593	601	562	557	564	591	591	582	500	542
11	572	532	611	605	550	570	529	595	587	462	497	507
12	572	575	603	630	562	577	552	553	409	551	433	496
13	563	551	611	684	573	578	584	567	298	404	516	525
14	566	564	586	615	584	580	622	398	246	435	504	549
15	566	502	600	607	580	577	584	365	237	461	501	547
16	564	552	621	611	572	571	447	453	222	476	519	519
17	572	571	604	632	578	567	232	471	230	486	534	406
18	568	544	615	620	550	565	209	513	262	510	517	425
19	575	545	597	604	503	565	246	573	301	465	523	423
20	541	591	616	603	588	552	262	583	413	394	524	515
21	550	585	554	603	540	579	271	569	481	385	553	564
22	571	604	619	598	507	598	309	577	516	481	542	540
23	587	571	583	593	452	544	385	554	476	466	539	533
24	576	597	619	609	538	228	459	586	428	481	534	528
25	575	652	624	560	534	328	494	585	459	466	534	514
26	574	602	619	584	509	401	530	563	413	471	511	481
27	571	595	630	567	527	347	569	573	479	468	531	471
28	574	589	605	596	528	330	520	583	518	467	529	515
29	472	553	621	516	---	312	488	589	465	468	524	534
30	399	565	613	456	---	336	558	579	479	469	540	475
31	571	---	610	453	---	419	---	579	---	467	540	---
MONTH	553	566	608	591	554	504	470	546	450	496	505	517

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	22.0	12.0	13.0	12.0	15.0	19.0	22.0	27.0	28.0	27.0	27.0
2	23.0	21.0	13.0	12.0	12.0	17.0	20.0	22.0	26.0	27.0	27.0	28.0
3	25.5	19.0	15.0	12.0	11.0	17.0	19.0	20.0	27.0	28.0	26.0	28.0
4	25.0	19.0	15.0	12.0	---	---	18.0	21.0	27.0	28.0	26.0	27.0
5	26.0	20.0	---	13.0	---	18.0	17.0	21.0	28.0	28.0	27.0	26.0
6	26.0	21.0	---	11.0	15.0	19.0	18.0	22.0	27.0	29.0	27.0	25.0
7	25.0	20.0	11.0	11.0	17.0	19.0	18.0	22.0	26.0	29.0	27.0	25.0
8	25.0	20.0	11.0	10.0	13.0	20.0	---	22.0	27.0	---	27.0	25.0
9	25.0	19.5	13.0	8.0	11.0	20.0	16.0	23.0	26.0	29.0	27.0	27.0
10	25.0	18.0	12.0	8.0	10.0	21.0	15.0	24.0	27.0	28.0	27.0	27.0
11	26.0	19.0	10.0	6.0	11.0	18.0	16.0	24.0	27.0	28.0	27.0	26.0
12	26.0	20.0	10.0	6.0	12.0	20.0	16.0	22.0	27.0	29.0	27.0	27.0
13	25.0	20.0	9.0	7.0	14.0	21.0	18.0	22.0	24.0	27.0	27.0	28.0
14	25.0	19.0	10.0	8.0	13.0	22.0	19.0	21.0	23.0	27.0	27.0	27.0
15	25.0	16.0	9.0	9.0	---	22.0	19.0	24.0	24.0	28.0	26.0	27.0
16	25.0	16.0	8.0	12.0	12.0	20.0	19.0	22.0	25.0	29.0	27.0	27.0
17	25.0	16.0	8.0	12.0	12.0	18.0	19.0	21.0	27.0	29.0	27.0	25.0
18	25.0	16.0	10.0	13.0	10.0	19.0	19.5	23.0	27.0	28.0	27.0	26.0
19	25.0	15.0	11.0	12.0	11.0	20.0	20.0	24.0	28.0	28.0	27.0	26.0
20	23.0	14.0	12.0	14.0	12.0	20.0	22.0	25.0	27.0	28.0	28.0	26.0
21	---	13.0	12.0	14.0	12.0	19.0	23.0	25.0	25.0	27.0	28.0	26.0
22	24.0	12.0	10.0	13.0	11.0	19.0	23.0	25.0	25.0	28.0	28.0	27.0
23	23.0	12.0	11.0	13.0	11.0	20.0	23.0	26.0	25.0	27.0	27.0	27.0
24	22.0	12.0	12.0	12.0	12.0	20.0	24.0	26.0	25.0	27.0	28.0	27.0
25	19.0	12.0	12.0	11.0	12.0	19.0	23.0	26.0	25.0	27.0	28.0	27.0
26	20.0	12.0	12.0	11.0	13.0	19.0	23.0	26.0	25.0	27.0	28.0	27.0
27	19.0	13.0	11.0	12.0	13.0	19.0	21.0	---	25.0	27.0	28.0	27.0
28	19.0	12.0	12.0	11.0	13.0	19.0	20.0	25.0	26.0	27.0	28.0	25.0
29	22.0	13.0	15.0	10.0	---	19.0	21.0	26.0	27.0	---	27.0	25.0
30	23.0	12.0	15.0	10.0	---	20.0	22.0	26.5	27.0	27.0	27.0	25.0
31	24.0	---	---	12.0	---	18.0	---	26.0	---	28.0	27.0	---
MONTH	24.0	16.5	11.5	11.0	12.0	19.0	19.5	23.5	26.0	28.0	27.0	26.5

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LOCATION.--Lat 28°45'10", long 97°00'30", Victoria County, at bridge on State Highway 175 loop south of Victoria, 6.8 miles (10.9 km) downstream from gaging station and 8.0 miles (12.9 km) upstream from Coletto Creek.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1973. (Discontinued)
Pesticide analyses: January 1968 to September 1973. (Discontinued)

DATE	TIME	DIS-	DIS-	DIS-	BICAR-	CAR-	DIS-	DIS-	DIS-	ORGANIC	
		SOLVED SILICA (SIO2) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)			SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	SOLVED SULFATE (SO4) (MG/L)	SOLVED CHLO- RIDE (CL) (MG/L)		SOLVED FLUO- RIDE (F) (MG/L)
NOV. 07...	0910	14	69	14	29	250	0	28	39	.2	.36
JAN. 08...	1335	9.9	78	16	30	286	0	31	38	.2	.26
MAR. 12...	1500	11	77	16	23	268	0	32	35	.3	.25
MAY 30...	2100	12	71	18	34	286	0	31	39	.2	.07
JULY 16...	1700	12	59	12	24	216	0	29	28	.2	.50
SEP. 18...	1230	13	52	10	21	188	0	21	26	.2	.55

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
NOV. 07...	.00	.28	1.1	.21	321	61	17	230	25	.8	569
JAN. 08...	.00	.11	1.3	.11	350	11	3	260	27	.8	604
MAR. 12...	.00	.05	1.1	.15	331	80	19	260	38	.6	586
MAY 30...	.00	.28	.8	.23	350	49	25	250	16	.9	602
JULY 16...	.00	.11	.5	.24	273	180	32	200	20	.7	486
SEP. 18...	.00	.02	.7	.28	238	262	36	170	17	.7	422

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
NOV. 07...	7.7	19.5	5	30	7.6	82	.8	13	10	0	1
JAN. 08...	7.8	11.5	10	15	10.1	92	1.0	2.0	10	0	0
MAR. 12...	7.9	21.0	20	40	9.0	100	.9	11	--	--	--
MAY 30...	8.0	26.5	5	20	9.0	110	1.5	8.5	10	0	0
JULY 16...	7.7	30.0	10	75	7.0	92	1.5	25	0	0	0
SEP. 18...	7.7	27.0	35	100	7.0	86	1.2	14	--	--	--

[illegible]

GUADALUPE RIVER BASIN

08176520 GUADALUPE RIVER BELOW VICTORIA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 07...	0910	19.5	.00	.0	.00	3.1	.00	4.5	.00	7.1	.00
JAN. 08...	1335	11.5	.00	.0	.00	4.4	.00	4.3	.00	3.0	.00
MAY 30...	2100	26.5	.00	.0	.00	.7	.00	1.8	.00	2.9	.00
JULY 16...	1700	30.0	.00	.0	.00	.6	.00	1.7	.00	2.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 07...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 08...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 30...	1.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 16...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 07...	58	.0	0	.00	.00	.00	.00	.00	.00	.00
JAN. 08...	49	.0	0	.00	.00	.00	.00	.00	.00	.00
MAY 30...	11	.0	0	.01	.00	.00	.00	.22	.00	.00
JULY 16...	7	.0	0	.01	.00	.00	.00	.03	.00	.02

08177600 OLMOS CREEK TRIBUTARY AT FARM ROAD 1535, SHAVANO PARK, TEX.

LOCATION.--Lat 29°34'35", long 98°32'45", Bexar County, at culvert on Farm Road 1535 at Shavano Park, and 1.9 miles (3.1 km) southeast of intersection of Farm Roads 1535 and 1604.

DRAINAGE AREA.--0.33 mi² (0.85 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
JUNE 12...	0700	39	10	23	1.2	1.0	69	0	1.2	3.0
25...	1455	15	15	26	1.3	3.3	87	0	.8	3.1
SEP. 16...	1330	46	12	21	1.1	2.4	70	0	.8	2.0

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)
JUNE 12...	.0	.01	.03	.7	.34	40	62	6	.1	139
25...	.1	.00	.00	.2	.19	60	70	0	.2	160
SEP. 16...	.0	.00	.00	.3	.27	45	57	0	.1	128

DATE	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)
JUNE 12...	8.6	18.0	8.9	94	3.8	.00	--	--	--	--
25...	8.1	20.5	8.4	92	2.7	.00	--	--	--	--
SEP. 16...	7.7	22.0	7.9	90	1.9	.00	30	0	0	0

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JUNE 12...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP. 16...	0	2	30	0	0	0	<.2	0	0	0

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
JUNE 12...	0700	39	18.0	.00	.00	.00	.00	.01	.00	.00	.00
25...	1455	15	20.5	.00	.00	.00	.00	.01	.00	.00	.00
SEP. 16...	1330	46	22.0	.00	.00	.00	.00	.01	.00	.00	.01

DATE	LINDANE (UG/L)	CHLORDANE (UG/L)	PCB (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
JUNE 12...	.00	.0	.0	.03	.00	.00	.00	.00	.00	.51
25...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.29
SEP. 16...	.00	.0	.0	.10	.00	.00	.00	--	--	--

GUADALUPE RIVER BASIN

08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.

LOCATION.--Lat 29°29'56", long 98°30'36", Bexar County, at gaging station at bridge on Dresden Drive at San Antonio, 0.15 mile (0.24 km) west of intersection of Blanco Road and Dresden Drive, and 4.0 miles (6.4 km) upstream from Olmos Dam.

DRAINAGE AREA.--21.2 mi² (54.9 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1969 to September 1973.

Sediment analyses: October 1970 to September 1973 (Discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
APR.											
06...	1230	53	10	53	2.0	6.6	153	0	16	8.2	.2
06...	1515	57	8.2	37	1.1	4.9	104	0	12	5.4	.2
MAY											
23...	1732	1.3	16	86	8.1	23	248	0	47	30	.4
JUNE											
11...	0810	155	5.6	38	1.7	9.5	112	0	17	8.2	.1
11...	1205	55	5.5	30	1.1	5.4	88	0	11	3.6	.1
12...	1500	205	9.0	38	1.4	5.0	113	0	11	3.8	.1
25...	1120	320	7.3	32	1.0	5.4	98	0	9.2	3.8	.0
25...	1500	560	9.2	29	1.2	6.0	92	0	9.2	2.8	.0
SEP.											
16...	1040	278	6.8	26	1.1	4.1	79	0	7.6	3.2	.0

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)
APR.										
06...	.01	.21	.4	1.1	70	173	140	15	.2	309
06...	.01	.10	.5	.59	40	122	97	12	.2	219
MAY										
23...	.00	.00	.7	.04	160	336	250	45	.6	579
JUNE										
11...	.00	.00	.3	.88	50	136	100	10	.4	237
11...	.01	.00	.6	.79	40	102	79	7	.3	181
12...	.01	.03	.5	.37	50	127	100	8	.2	220
25...	.00	.00	.1	.41	40	107	84	4	.3	190
25...	.00	.00	.4	.48	40	104	77	2	.3	177
SEP.										
16...	.01	.00	.3	1.1	35	89	69	5	.2	159

DATE	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)
APR.										
06...	7.4	14.0	8.5	82	13	.05	--	--	--	--
06...	8.2	13.5	8.8	83	8.0	.05	--	--	--	--
MAY										
23...	7.8	24.5	10.4	124	1.9	.00	--	--	--	--
JUNE										
11...	8.0	19.0	8.8	94	6.4	.00	--	--	--	--
11...	8.6	20.5	8.2	90	6.6	.00	--	--	--	--
12...	7.4	20.5	8.2	90	3.3	.00	--	--	--	--
25...	8.1	20.5	8.6	95	3.8	.00	--	--	--	--
25...	7.4	22.5	8.0	91	3.8	.00	--	--	--	--
SEP.										
16...	7.7	23.0	7.7	89	5.4	.00	40	0	0	0

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
APR.										
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	--	--	--	--	--	--	--	--	--	--
JUNE										
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP.										
16...	0	3	50	0	0	0	.2	0	60	0

GUADALUPE RIVER BASIN

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08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR.											
06...	1230	53	14.0	.00	.00	.00	.06	.10	.00	.00	.00
06...	1515	57	13.5	.00	.00	.00	.04	.02	.00	.00	.00
MAY											
23...	1732	1.3	24.5	.00	.00	.00	.00	.01	.00	.00	.00
JUNE											
11...	0810	155	19.0	.00	.00	.02	.04	.03	.00	.00	.00
11...	1205	55	20.5	.00	.00	.00	.01	.02	.00	.00	.00
12...	1500	205	20.5	.00	.00	.00	.00	.01	.00	.00	.02
25...	1120	320	20.5	.00	.00	.00	.03	.03	.00	.00	.03
25...	1500	560	22.5	.00	.00	.00	.02	.03	.00	.00	.03
SEP.											
16...	1045	278	23.0	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
APR.										
06...	.01	.3	.0	.02	.00	.00	.00	.02	.00	.13
06...	.02	.3	.0	.03	.00	.00	.00	.08	.00	.12
MAY										
23...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00
JUNE										
11...	.00	.3	.0	.11	.00	.00	.00	.00	.00	.19
11...	.00	.2	.0	.23	.00	.00	.00	.05	.00	.36
12...	.00	.1	.0	.06	.00	.00	.00	.02	.00	.07
25...	.00	.2	.0	.08	.00	.00	.00	.02	.00	.29
25...	.02	.1	.0	.15	.00	.00	.00	.02	.00	.35
SEP.										
16...	.00	.1	.0	.08	.00	.00	.00	.00	.00	.28

GUADALUPE RIVER BASIN

08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
OCT.								
26...	1645	.32	12.5	37	.03	--	--	--
NOV.								
03...	0840	.88	16.0	40	.10	--	--	--
10...	1522	.11	18.5	122	.04	--	--	--
17...	0900	.21	12.5	60	.03	--	--	--
22...	1604	.20	12.5	94	.05	--	--	--
28...	1632	.24	12.0	38	.02	--	--	--
DEC.								
08...	0915	.28	9.0	128	.10	--	--	--
15...	1405	.32	9.0	124	.11	--	--	--
21...	1400	.28	12.0	43	.03	--	--	--
JAN.								
05...	1214	1.2	11.0	13	.04	--	--	--
12...	0950	.50	8.0	109	.15	--	--	--
19...	0845	.36	12.5	74	.07	--	--	--
26...	1614	1.3	11.0	59	.21	--	--	--
FEB.								
02...	1310	.36	14.0	40	.04	--	--	--
08...	1237	7.0	7.0	89	1.7	--	--	--
13...	1235	7.0	7.0	165	3.1	--	--	--
16...	1005	.40	10.5	45	.05	--	--	--
23...	1000	2.5	10.0	108	.73	--	--	--
MAR.								
02...	1346	.71	18.0	53	.10	--	--	--
09...	1354	.71	21.5	126	.24	--	--	--
13...	1610	.45	22.5	81	.10	--	--	--
16...	0835	5.0	16.5	37	.50	--	--	--
23...	1312	.50	22.0	81	.11	--	--	--
24...	1012	28	18.0	304	23	--	--	--
30...	1532	6.0	22.5	80	1.3	--	--	--
APR.								
06...	1030	8.5	15.0	118	2.7	--	--	--
06...	1130	21	15.0	314	18	--	--	--
06...	1154	36	15.0	562	55	--	--	--
06...	1240	58	15.0	881	138	--	--	--
06...	1340	85	14.5	626	144	--	--	--
06...	1430	68	14.5	414	76	--	--	--
06...	1450	60	14.5	358	58	--	--	--
06...	1520	51	14.5	298	41	--	--	--
06...	1550	44	15.0	272	32	--	--	--
06...	1610	39	15.0	244	26	--	--	--
13...	1025	.05	18.0	68	.01	--	--	--
15...	1915	1560	19.5	3010	12700	--	--	--
15...	1930	1400	19.5	2850	10800	84	89	95
15...	1940	1250	19.5	2450	8270	--	--	--
15...	2005	1000	19.5	2180	5890	--	--	--
15...	2030	710	19.5	1810	3470	98	99	100
15...	2045	590	19.5	1960	3120	98	99	100
17...	0912	280	19.0	1320	998	96	97	98
17...	1528	320	18.0	700	605	--	--	--
17...	1640	200	19.0	367	198	98	99	100
20...	1540	.60	28.5	84	.14	--	--	--
27...	1010	.60	19.5	62	.10	--	--	--
MAY								
04...	1450	.41	26.0	24	.03	--	--	--
11...	1415	1.1	26.0	32	.10	--	--	--
18...	0845	1.4	20.0	32	.12	--	--	--
23...	1732	1.1	24.5	24	.07	--	--	--
25...	0926	.41	20.0	34	.04	--	--	--
JUNE								
05...	1410	.12	31.0	63	.02	--	--	--
08...	1554	.08	30.5	34	.01	--	--	--
11...	0810	136	19.0	199	73	--	--	--
12...	0700	2020	18.0	686	3740	--	--	--
12...	1500	2040	20.5	385	2120	--	--	--
22...	1315	.60	25.0	13	.02	--	--	--
25...	1120	328	20.5	670	593	--	--	--
25...	1425	590	20.5	167	266	--	--	--
JULY								
30...	1130	.26	30.5	23	.02	--	--	--
AUG.								
13...	1615	.08	35.0	52	.01	--	--	--
17...	1030	.12	29.5	93	.03	--	--	--
24...	1055	.12	29.0	79	.03	--	--	--
31...	0950	.05	28.5	27	.00	--	--	--
SEP.								
16...	1040	278	23.0	726	545	--	--	--
21...	1510	.60	31.0	14	.02	--	--	--
27...	1315	160	24.0	192	83	--	--	--

GUADALUPE RIVER BASIN

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08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT.							
26...	--	--	--	--	--	--	--
NOV.							
03...	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
DEC.							
08...	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--
JAN.							
05...	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--
FEB.							
02...	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
MAR.							
02...	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
APR.							
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--
15...	99	100	38	45	53	61	65
15...	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--
15...	--	--	58	75	90	94	97
15...	--	--	64	73	74	92	96
17...	99	100	46	67	78	91	94
17...	--	--	--	--	--	--	--
17...	--	--	61	74	86	94	98
20...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--
MAY							
04...	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
JUNE							
05...	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
JULY							
30...	--	--	--	--	--	--	--
AUG.							
13...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
SEP.							
16...	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--

GUADALUPE RIVER BASIN

08178000 SAN ANTONIO RIVER AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°24'34", long 98°29'41", Bexar County, at gaging station near South Alamo Street Bridge in San Antonio, 2.1 miles (3.4 km)-upstream from San Pedro Creek.

DRAINAGE AREA.--41.8 mi² (108 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
MAY										
23...	1625	40	11	75	17	--	12	--	264	0
JUNE										
11...	1025	642	4.0	36	3.5	--	5.2	--	113	0
11...	1445	620	4.3	41	3.3	--	10	--	116	0
12...	1115	1060	6.2	31	2.2	--	5.1	--	92	0
25...	1355	1170	7.0	30	2.3	--	6.6	--	94	0
JULY										
16...	1045	900	7.2	28	3.7	3.0	--	2.9	94	0
SEP.										
16...	1540	1370	6.9	28	2.4	--	4.7	--	84	0
27...	1415	1610	9.8	36	3.0	--	5.3	--	110	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
MAY										
23...	30	21	.4	--	.00	.00	1.4	.08	90	303
JUNE										
11...	12	5.6	.1	--	.01	.00	.6	1.0	60	125
11...	27	8.8	.1	--	.01	.00	.5	.81	60	154
12...	14	3.6	.1	--	.01	.00	.6	.95	50	110
25...	14	4.2	.0	--	.00	.00	.3	.54	40	111
JULY										
16...	8.4	5.2	.0	--	.00	.20	.5	.67	40	107
SEP.										
16...	13	4.0	.0	--	.00	.00	.5	.75	35	102
27...	14	4.4	.1	.73	.01	.10	.8	.68	40	130

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)
MAY										
23...	--	--	260	40	.3	534	8.0	24.0	--	--
JUNE										
11...	--	--	100	12	.2	228	8.1	20.0	--	--
11...	--	--	120	21	.4	275	6.9	22.5	--	--
12...	--	--	86	11	.2	193	7.4	20.5	--	--
25...	--	--	84	7	.3	198	7.4	22.0	--	--
JULY										
16...	--	--	85	8	.1	181	7.3	24.0	--	--
SEP.										
16...	--	--	80	11	.2	184	7.9	23.5	--	--
27...	568	292	100	12	.2	230	7.0	24.0	30	200

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
MAY										
23...	8.8	104	1.4	.00	--	--	--	--	--	--
JUNE										
11...	8.6	93	14	.00	--	--	--	--	--	--
11...	7.9	90	10	.00	--	--	--	--	--	--
12...	6.9	76	6.6	.00	--	--	--	--	--	--
25...	8.4	95	4.0	.02	--	--	--	--	--	--
JULY										
16...	7.5	88	4.8	.00	--	--	--	--	--	--
SEP.										
16...	7.7	90	4.9	.00	--	30	0	0	0	0
27...	8.1	95	2.4	.00	24	90	0	0	0	1

GUADALUPE RIVER BASIN

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08178000 SAN ANTONIO RIVER AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
MAY 23...	--	--	--	--	--	--	--	--	--
JUNE 11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
JULY 16...	--	--	--	--	--	--	--	--	--
SEP. 16...	4	50	0	0	0	.2	0	90	0
27...	4	70	0	0	0	<.2	0	100	40

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 23...	1625	40	24.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 11...	1025	779	20.0	.00	.00	.04	.36	.07	.00	.00	.00
11...	1445	757	22.5	.00	.00	.02	.04	.05	.00	.00	.00
12...	1115	1410	20.5	.00	.00	.02	.15	.04	.00	.00	.00
25...	1355	1500	22.0	.00	.02	.02	.08	.03	.00	.00	.00
JULY 16...	1045	--	24.0	.00	.02	.05	.19	.03	.00	.00	.00
SEP. 16...	1540	1430	23.5	.00	.02	.02	.07	.05	.00	.00	.00
27...	1415	1610	24.0	.00	.01	.00	.01	.03	.00	.00	.02

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
MAY 23...	.00	.0	.0	.02	.00	.00	.00	.00	.00	.00
JUNE 11...	.05	.5	.6	.27	.00	.00	.00	1.6	.00	.24
11...	.00	.2	.2	.12	.00	.00	.00	.00	.00	.18
12...	.00	.1	.0	.01	.00	.00	.00	.18	.00	.16
25...	.00	.2	.3	.17	.00	.00	.00	.19	.00	.18
JULY 16...	.00	.2	.0	.17	.00	.00	.00	.03	.00	.11
SEP. 16...	.00	.2	.0	.18	.00	.00	.00	.00	.00	.22
27...	.01	.1	.0	.16	.00	.00	.00	.00	.00	.16

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (T/DAY)
MAY 23...	1625	40	24.0	22	2.4
JUNE 11...	1025	642	20.0	598	1040
11...	1445	620	22.5	832	1390
12...	1410	1060	20.5	549	1570
25...	1355	1170	22.0	360	1140
JULY 16...	1045	900	24.0	414	1010
SEP. 16...	1540	1370	23.5	592	2190

GUADALUPE RIVER BASIN

08178300 ALAZAN CREEK AT ST. CLOUD STREET, SAN ANTONIO, TEX.

LOCATION.--Lat 29°27'29", long 98°32'59", Bexar County, at bridge on St. Cloud Street, San Antonio, and 1.5 miles (2.4 km) upstream from Woodlawn Lake Dam.

DRAINAGE AREA.--3.26 mi² (8.44 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Sediment analyses: October 1970 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
APR. 06...	1300	24	5.7	30	1.2	2.2	83	0	10	3.0	.2
MAY 23...	1057	.04	11	84	21	95	224	0	180	88	.6
JUNE 11...	0935	16	5.3	42	1.5	8.3	120	0	16	8.2	.2
25...	1000	140	7.3	28	1.3	6.7	92	0	8.4	3.2	.0
SEP. 16...	1140	13	6.0	30	1.6	8.2	92	0	12	6.8	.0

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
APR. 06...	.01	.04	.4	.33	40	95	80	12	.1	172
MAY 23...	.01	.00	1.9	.05	230	597	300	110	2.4	950
JUNE 11...	.02	.13	.6	.98	50	144	110	13	.3	258
25...	.00	.00	.3	.22	60	101	75	0	.3	174
SEP. 16...	.01	.00	.5	.25	45	112	81	6	.4	199

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
APR. 06...	8.0	14.0	9.4	90	5.0	.08	--	--	--	--
MAY 23...	7.8	22.5	9.7	110	1.5	.00	--	--	--	--
JUNE 11...	8.5	19.5	9.2	99	7.2	.00	--	--	--	--
25...	7.8	21.0	9.0	100	3.0	.00	--	--	--	--
SEP. 16...	7.6	24.0	7.7	91	3.1	.00	20	0	0	0

DATE	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PR) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
APR. 06...	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--
JUNE 11...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP. 16...	0	2	40	7	0	0	.2	1	90	0

GUADALUPE RIVER BASIN

615

08178300 ALAZAN CREEK AT ST. CLOUD STREET, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 06...	1300	24	14.0	.00	.10	.00	.17	.03	.00	.00	.00
MAY 23...	1057	.04	22.5	.00	.00	.00	.01	.01	.00	.00	.00
JUNE 11...	0935	16	19.5	.00	.01	.00	.04	.03	.00	.00	.00
25...	1000	140	21.0	.00	.00	.00	.03	.03	.00	.00	.00
SEP. 16...	1140	13	24.0	.00	.01	.00	.01	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
APR. 06...	.02	.2	.0	.42	.00	.00	.00	.00	.00	.11
MAY 23...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00
JUNE 11...	.00	.1	.0	.18	.00	.00	.00	.06	.00	.59
25...	.01	.1	.0	.23	.00	.00	.00	.03	.00	.45
SEP. 16...	.00	.0	.0	.08	.00	.00	.00	.25	.00	.40

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDIMENT DIS- CHARGE (T/DAY)
APR. 06...	1300	14	14.0	188	7.1
MAY 23...	1057	.20	22.5	48	.03
JUNE 11...	0935	16	19.5	1480	64
25...	1000	140	21.0	82	31
SEP. 16...	1140	13	24.0	238	8.4

GUADALUPE RIVER BASIN

08178600 PANTHER SPRINGS CREEK AT FARM ROAD 2696, NEAR SAN ANTONIO, TEX.

LOCATION.--Lat 29°37'31", long 98°31'06", Bexar County, at culvert on Farm Road 2696, 1.3 miles (2.1 km) north of intersection on Farm Roads 2696 and 1604, and 5.5 miles (8.8 km) north of San Antonio.

DRAINAGE AREA.--9.54 mi² (24.7 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-SIUM (K) (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
JUNE 12...	0625	80	8.6	30	1.2	--	1.2	--	96	0	.4	1.6
25...	1610	175	13	25	1.1	--	2.2	--	85	0	.4	1.0
SEP. 27...	1030	22	6.9	25	1.2	.8	--	3.1	79	0	.4	1.0

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
JUNE 12...	.0	--	.01	.00	.3	.20	40	91	--	--	80	1
25...	.0	--	.00	.00	.05	.18	40	85	--	--	67	0
SEP. 27...	.0	.23	.00	.19	.05	.07	30	78	25	5	67	3

DATE	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
JUNE 12...	.1	167	8.8	18.0	--	--	9.3	98	3.8	.00	--
25...	.1	142	8.0	20.5	--	--	8.6	95	2.5	.00	--
SEP. 27...	.0	135	7.3	22.0	90	10	8.1	92	1.3	.00	18

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
JUNE 12...	0625	80	18.0	.00	.00	.00	.00	.00	.00	.00	.00
25...	1610	175	20.5	.00	.00	.00	.00	.00	.00	.00	.00
SEP. 27...	1030	22	22.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	PCB (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
JUNE 12...	.00	.0	.0	.00	.00	.00	.00	.04	.00	.00
25...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
SEP. 27...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	SUS-PENDED SEDT-MENT (MG/L)	SUS-PENDED SEDT-MENT DIS-CHARGE (T/DAY)
JUNE 12...	0625	88	18.0	238	57
25...	1610	158	20.5	62	26

GUADALUPE RIVER BASIN

617

08178690 SALADO CREEK TRIBUTARY AT BITTERS ROAD, SAN ANTONIO, TEX.

LOCATION.--Lat 29°31'36", long 98°26'25", Bexar County, at culvert on Bitters Road, immediately east of MacArthur High School, San Antonio.

DRAINAGE AREA.--0.26 mi² (0.67 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Sediment analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
APR. 06...	1425	1.8	5.9	35	1.0	--	.9	--	75	0	27
MAY 11...	0920	11	2.7	22	1.0	--	2.5	--	66	0	5.2
JUNE 11...	1145	4.2	3.9	36	1.3	--	4.0	--	104	0	9.6
25...	0915	4.4	4.9	18	.7	--	2.7	--	58	0	3.2
JULY 16...	0910	10	7.0	17	.9	2.0	--	5.4	59	0	4.0
SEP. 16...	1415	8.2	7.0	18	1.2	--	3.8	--	58	0	5.6

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
APR. 06...	1.0	.1	.02	.10	.7	.38	30	111	91	30	.0
MAY 11...	2.0	.1	.01	.00	.5	.71	20	70	59	5	.1
JUNE 11...	4.2	.0	.04	.00	.7	.90	40	113	95	10	.2
25...	1.4	.0	.01	.00	.2	.30	40	61	48	0	.2
JULY 16...	2.4	.0	.01	.19	.4	.59	40	70	46	0	.1
SEP. 16...	2.0	.0	.01	.00	.5	.61	25	69	50	2	.2

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
APR. 06...	195	7.9	15.0	8.4	82	4.0	.05	--	--	--	--
MAY 11...	131	7.2	21.5	8.2	92	5.4	.00	--	--	--	--
JUNE 11...	211	7.2	24.5	5.8	69	7.8	.00	--	--	--	--
25...	110	7.1	22.5	8.2	93	2.3	.00	--	--	--	--
JULY 16...	118	7.3	23.0	7.8	90	3.4	.00	--	--	--	--
SEP. 16...	122	7.6	23.0	7.6	87	2.7	.04	40	0	0	0

DATE	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
APR. 06...	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--
JUNE 11...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
JULY 16...	--	--	--	--	--	--	--	--	--	--
SEP. 16...	0	4	60	2	0	0	.2	0	0	0

GUADALUPE RIVER BASIN

08178690 SALADO CREEK TRIBUTARY AT BITTERS ROAD, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 06...	1425	1.8	15.0	.00	.00	.00	.06	.01	.00	.00	.00
JUNE 11...	0920	12	21.5	.00	.00	.00	.02	.04	.00	.00	.02
11...	1145	4.2	24.5	.00	.00	.00	.02	.05	.00	.00	.02
25...	0915	4.4	22.5	.00	.00	.00	.04	.02	.00	.00	.02
JULY 16...	0910	10	23.0	.00	.00	.00	.02	.06	.00	.00	.05
SEP. 16...	1415	8.2	23.0	.00	.00	.00	.02	.03	.00	.00	.03

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
APR. 06...	.02	.3	.0	.04	.00	.00	.00	.04	.00	1.3
JUNE 11...	.01	.1	.0	.01	.00	.00	.00	.04	.00	.64
11...	.00	.1	.0	.01	.00	.00	.00	.04	.01	1.0
25...	.07	.1	.0	.13	.00	.00	.00	.03	.03	.58
JULY 16...	.04	.1	.0	.04	.00	.00	.00	.00	.01	2.2
SEP. 16...	.02	.0	.0	.68	.00	.00	.00	.00	.00	.46

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
APR. 06...	1425	1.8	15.0	106	.52
17...	0845	5.2	20.0	113	1.6
JUNE 11...	0920	12	21.5	286	9.3
11...	1145	4.2	24.5	126	1.4
25...	0915	4.4	22.5	32	.38
JULY 16...	0910	10	23.0	60	1.6
SEP. 16...	1415	8.2	23.0	34	.75

GUADALUPE RIVER BASIN

619

08178700 SALADO CREEK (UPPER STATION) AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°30'57", long 98°25'51", Bexar County, at gaging station at upstream bridge of two bridges on Interstate Highway 410 in San Antonio, 1.0 mile (1.6 km) west of Northeast School, 1.2 miles (1.9 km) upstream from Perrin-Beitel Creek, and 2.7 miles (4.3 km) east of San Antonio International Airport.

DRAINAGE AREA.--137 mi² (355 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Sediment analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
MAY											
23...	1350	.80	31	280	54	50	138	0	790	58	.6
JUNE											
11...	1010	3.0	27	290	57	49	108	0	850	59	.3
11...	1230	55	27	280	56	53	101	0	830	63	.4
12...	1105	4650	9.8	40	1.4	4.0	118	0	10	3.2	.2
25...	1005	36	15	100	14	33	150	0	200	35	.3
25...	1750	1340	13	32	1.4	6.2	96	0	12	4.4	.1
SEP.											
16...	1445	1740	11	26	1.6	11	78	0	19	6.6	.2

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
MAY										
23...	.10	.22	.9	.53	180	1340	920	800	.7	1630
JUNE										
11...	.00	.13	.07	.41	120	1390	950	860	.7	1710
11...	.00	.00	.00	.37	170	1350	920	840	.8	1680
12...	.01	.00	.6	.80	40	129	110	9	.2	226
25...	.00	.00	.1	.15	140	478	310	190	.8	740
25...	.00	.00	.4	.35	80	118	86	7	.3	199
SEP.										
16...	.00	.00	.5	1.5	30	116	71	8	.6	194

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	HIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTI- VE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
MAY										
23...	8.2	26.0	8.0	98	4.8	.00	--	--	--	--
JUNE										
11...	8.1	24.5	6.8	81	6.7	.00	--	--	--	--
11...	8.4	25.5	8.0	96	8.7	.00	--	--	--	--
12...	8.8	18.5	8.1	86	4.4	.00	--	--	--	--
25...	7.7	23.0	7.5	86	2.9	.06	--	--	--	--
25...	7.2	22.0	7.8	89	2.7	.00	--	--	--	--
SEP.										
16...	8.1	23.0	7.7	89	3.3	.00	50	0	0	0

DATE	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
MAY										
23...	--	--	--	--	--	--	--	--	--	--
JUNE										
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP.										
16...	0	1	70	0	420	0	.2	0	80	0

GUADALUPE RIVER BASIN

08178700 SALADO CREEK (UPPER STATION) AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 23...	1350	.75	26.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 11...	1010	2.4	24.5	.00	.00	.00	.00	.00	.00	.00	.00
11...	1230	51	25.5	.00	.00	.00	.00	.00	.00	.00	.00
SEP. 16...	1445	1740	23.0	.00	.00	.00	.00	.01	.00	.00	.01

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
MAY 23...	.00	.0	.0	.01	.00	.00	.00	.02	.01	.25
JUNE 11...	.00	.0	.0	.01	.00	.00	.00	.02	.00	.47
11...	.00	.0	.0	.01	.00	.00	.00	.02	.00	.40
SEP. 16...	.00	.0	.0	.11	.00	.01	.00	.10	.00	.18

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY 23...	1350	.75	26.0	24	.05
JUNE 11...	1010	2.4	24.5	34	.22
11...	1230	51	25.5	39	5.4
12...	1105	4650	--	597	7500
25...	1005	36	23.0	38	3.7
25...	1750	1340	22.0	310	1120
SEP. 16...	1445	1740	23.0	1680	7890

GUADALUPE RIVER BASIN

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08178736 SALADO CREEK TRIBUTARY AT BEE STREET, SAN ANTONIO, TEX.

LOCATION.--Lat 29°26'37", long 98°27'13", Bexar County, at culvert at intersection of Bee and Shirley Streets, San Antonio, and 0.25 mile (0.40 km) north of Pershing Elementary School.

DRAINAGE AREA.--0.45 mi² (1.17 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.

Pesticide analyses: October 1970 to September 1973.

Sediment analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
APR.											
06...	1345	17	5.7	26	1.1	2.9	78	0	6.4	2.3	.2
MAY											
23...	1445	3.4	14	180	35	230	232	20	76	560	.7
JUNE											
05...	1220	4.0	4.7	55	3.4	11	144	0	28	17	.2
06...	1430	3.4	13	54	12	68	248	8	44	45	.6
11...	1050	3.6	5.6	38	3.7	12	112	0	25	11	.2
11...	1640	3.2	12	200	33	270	224	0	68	680	.6
12...	0950	60	6.9	23	1.5	7.4	80	0	8.4	2.8	.1
25...	1640	43	8.1	25	1.6	7.4	82	0	10	4.2	.0
SEP.											
16...	1557	22	12	27	2.4	9.4	89	0	14	6.0	.0

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
APR.										
06...	.01	.06	.4	.28	160	85	69	5	.2	155
MAY										
23...	.02	.03	.9	.55	360	1240	590	360	4.2	2260
JUNE										
05...	.12	.52	1.2	.81	270	197	150	33	.4	363
06...	.02	.01	1.0	.56	250	371	180	0	2.2	628
11...	.03	.38	1.2	.62	320	157	110	18	.5	285
11...	.03	.07	1.8	.29	680	1380	620	440	4.8	2580
12...	.01	.21	.5	.43	140	92	64	0	.4	155
25...	.01	.00	.4	.20	240	98	69	2	.4	171
SEP.										
16...	.00	.00	.5	.26	300	117	77	4	.5	200

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
APR.										
06...	7.8	15.0	9.4	92	7.5	.15	--	--	--	--
MAY										
23...	8.5	24.5	9.7	115	1.6	.00	--	--	--	--
JUNE										
05...	7.7	28.5	7.6	97	48	.55	--	--	--	--
06...	8.4	23.5	12.4	144	3.5	.00	--	--	--	--
11...	7.7	25.5	9.0	108	7.1	.00	--	--	--	--
11...	7.9	24.5	9.0	107	5.7	.00	--	--	--	--
12...	7.1	20.5	7.2	79	4.8	.00	--	--	--	--
25...	7.2	23.0	8.5	98	2.9	.08	--	--	--	--
SEP.										
16...	7.2	25.0	8.3	99	3.0	.06	10	0	0	0

GUADALUPE RIVER BASIN

08178736 SALADO CREEK TRIBUTARY AT BEE STREET, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
APR. 06...	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--
JUNE 05...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP. 16...	0	5	50	15	0	0	<.2	1	70	0

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	DDO (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
APR. 06...	1345	17	15.0	.00	.00	.01	.34	.00	.00	.00	.00
MAY 23...	1445	3.4	24.5	.00	.00	.00	.01	.00	.00	.00	.00
JUNE 05...	1220	4.0	28.5	.00	.04	.02	.10	.01	.00	.00	.00
06...	1430	3.4	23.5	.00	.00	.00	.01	.00	.00	.00	.00
11...	1050	3.6	25.5	.00	.00	.01	.07	.01	.00	.00	.00
11...	1640	3.2	24.5	.00	.00	.00	.00	.00	.00	.00	.00
12...	0950	60	20.5	.00	.01	.02	.10	.01	.00	.00	.01
SEP. 16...	1557	22	25.0	.00	.00	.01	.02	.00	.00	.00	.01

DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	PCB (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
APR. 06...	.03	.1	.0	.05	.00	.00	.00	.00	.00	.02
MAY 23...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 05...	.00	.1	.0	.05	.00	.00	.00	.09	.00	.54
06...	.00	.0	.0	.01	.00	.02	.00	.00	.00	.02
11...	.00	.1	.0	.02	.00	.00	.00	.00	.00	.50
11...	.00	.0	.0	.02	.00	.00	.00	.03	.00	.05
12...	.00	.0	.0	.02	.00	.00	.00	.00	.00	.05
SEP. 16...	.00	.0	.0	.02	.00	.00	.00	.00	.00	.10

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	SUS-PENDEO SEDI-MENT (MG/L)	SUS-PENDEO SEDI-MENT DIS-CHARGE (T/DAY)
APR. 06...	1345	17	15.0	122	5.6
MAY 23...	1445	3.4	24.5	2	.02
JUNE 05...	1220	4.0	28.5	170	1.8
06...	1430	3.4	23.5	7	.06
11...	1050	3.6	25.5	163	1.6
11...	1640	3.2	24.5	6	.05
12...	0950	60	20.5	144	23
SEP. 16...	1557	22	25.0	109	6.5

08178800 SALADO CREEK (LOWER STATION) AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°21'25", long 98°24'45", Bexar County, at gaging station at bridge on Loop 13 at San Antonio, 1.4 miles (2.3 km) east of Brooks Air Force Base, and 3.3 miles (5.3 km) upstream Rosillo Creek.

DRAINAGE AREA.--189 mi² (490 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Sediment analyses: October 1972 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
APR.										
16...	1225	974	8.7	50	3.2	8.2	--	5.9	137	0
MAY										
23...	1540	22	15	96	18	--	43	--	314	0
JUNE										
11...	1110	31	11	64	12	--	36	--	221	0
11...	1540	63	12	79	14	--	48	--	274	0
12...	1015	838	6.1	38	4.0	--	14	--	118	0
12...	1210	1020	6.0	35	4.1	--	13	--	106	0
25...	1230	482	12	46	6.0	--	21	--	148	0
SFP.										
16...	1715	664	11	56	8.2	--	16	--	150	0
27...	1505	8860	11	35	1.9	--	4.9	--	106	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
APR.										
16...	29	10	.3	--	--	--	.07	--	60	183
MAY										
23...	60	58	.4	--	.00	.00	1.2	.19	210	450
JUNE										
11...	39	43	.3	--	.00	.00	1.0	.20	140	319
11...	50	55	.3	--	.00	.00	1.1	.32	170	398
12...	25	11	.2	--	.01	.08	.6	1.0	60	159
12...	28	11	.2	--	.01	.13	.3	.69	80	151
25...	31	20	.1	--	.00	.00	.7	.40	110	212
SFP.										
16...	48	22	.2	--	.00	.00	.8	1.0	100	239
27...	11	3.8	.2	1.3	.02	.08	.5	.58	40	122

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)
APR.										
16...	--	--	140	26	.3	323	7.6	22.0	--	--
MAY										
23...	--	--	310	56	1.1	778	8.1	23.5	--	--
JUNE										
11...	--	--	210	28	1.1	550	8.1	22.0	--	--
11...	--	--	250	30	1.3	684	7.6	24.5	--	--
12...	--	--	110	15	.6	282	7.3	20.0	--	--
12...	--	--	100	17	.6	270	7.5	21.0	--	--
25...	--	--	140	18	.8	368	7.4	22.5	--	--
SFP.										
16...	--	--	170	51	.5	417	7.2	23.5	--	--
27...	524	92	95	8	.2	211	7.1	23.0	50	180

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATU- RATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
APR.										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	8.2	95	1.5	.00	--	--	--	--	--	--
JUNE										
11...	7.6	86	2.3	.00	--	--	--	--	--	--
11...	6.8	81	3.2	.00	--	--	--	--	--	--
12...	7.1	77	6.6	.00	--	--	--	--	--	--
12...	5.5	61	6.8	.00	--	--	--	--	--	--
25...	7.4	84	3.1	.00	--	--	--	--	--	--
SFP.										
16...	6.7	78	4.8	.00	--	10	0	0	0	0
27...	7.0	80	3.2	.00	30	110	2	0	0	0

GUADALUPE RIVER BASIN

08178800 SALADO CREEK (LOWER STATION) AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
APR. 16...	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUNE 11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
SEP. 16...	1	20	0	270	0	.2	0	390	0
27...	3	130	0	10	0	.2	0	70	60

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	DDO (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
MAY 23...	1540	21	23.5	.00	.00	.00	.00	.01	.00	.00	.00
JUNE 11...	1110	24	22.0	.00	.00	.00	.00	.01	.00	.00	.00
11...	1540	61	24.5	.00	.00	.00	.01	.01	.00	.00	.00
12...	1015	853	20.0	.00	.00	.00	.04	.02	.00	.00	.00
12...	1210	1020	21.0	.00	.00	.01	.04	.02	.00	.00	.00
25...	1230	423	22.5	.00	.00	.00	.01	.01	.00	.00	.01
SEP. 16...	1715	678	23.5	.00	.00	.01	.03	.00	.00	.00	.00
27...	1505	8860	23.0	.00	.00	.00	.00	.01	.00	.00	.01

DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	PCB (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
MAY 23...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.05
JUNE 11...	.00	.1	.0	.07	.00	.00	.00	.02	.17	.02
11...	.00	.0	.0	.04	.00	.00	.00	.00	.23	.08
12...	.00	.1	.0	.09	.00	.00	.00	.12	.04	.09
12...	.00	.1	.0	.06	.00	.00	.00	.48	.17	.42
25...	.01	.0	.0	.14	.00	.00	.00	.10	.05	.21
SEP. 16...	.00	.0	.0	.01	.00	.00	.00	.02	.13	.13
27...	.00	.0	.0	.07	.00	.00	.00	.08	.06	.10

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	SUS-PENDED SEDIMENT (MG/L)	SUS-PENDED SEDIMENT DIS-CHARGE (T/DAY)
MAY 23...	1540	22	23.5	50	3.0
JUNE 11...	1110	31	22.0	119	10
11...	1540	63	24.5	212	36
12...	1015	838	20.0	601	1360
12...	1210	1020	21.0	647	1780
25...	1230	482	22.5	382	497
SEP. 16...	1715	664	23.5	738	1320

GUADALUPE RIVER BASIN

625

08180500 MEDINA RIVER NEAR RIOMEDINA, TEX.

LOCATION.--Lat 29°29'53", long 98°54'16", Medina County, at gaging station upstream from bridge at Baby's Crossing, 0.9 mile (1.4 km) downstream from Bexar, Medina and Atascosa Counties Water Control and Improvement District No. 1 diversion dam, and 4.2 miles (6.8 km) northwest of Riomedina.

DRAINAGE AREA.--650 mi² (1,680 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1973 (discontinued).

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 09...	0845	59	12	64	14	8.9	212	0	43
JAN. 12...	1600	73	9.7	60	14	9.2	200	0	43
MAR. 14...	1430	59	8.3	63	15	6.7	204	0	46
MAY 29...	1815	35	9.3	62	14	16	224	0	41
JULY 18...	1130	5700	7.8	43	10	8.7	150	0	31
SEP. 19...	1450	680	11	56	12	10	193	0	32

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV. 09...	12	.2	.54	.00	.02	.2	.00	259	220
JAN. 12...	12	.2	.09	.00	.00	.2	.02	247	210
MAR. 14...	12	.2	.18	.00	.05	.3	.01	253	220
MAY 29...	13	.2	.00	.00	.11	.4	.01	267	210
JULY 18...	8.0	.1	.24	.00	.00	.2	.03	184	150
SEP. 19...	12	.2	.25	.01	.00	.6	.01	231	190

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 09...	44	.3	433	7.6	18.5	7.8	83	.6
JAN. 12...	43	.3	435	7.7	12.5	10.1	94	.7
MAR. 14...	52	.2	444	7.7	19.0	9.2	98	.7
MAY 29...	29	.5	443	7.5	24.0	10.0	118	.9
JULY 18...	26	.3	323	7.8	25.5	8.5	102	1.1
SEP. 19...	31	.3	396	8.0	26.0	7.5	91	.5

GUADALUPE RIVER BASIN

08181000 LEON CREEK TRIBUTARY AT FARM ROAD 1604, SAN ANTONIO, TEX.

LOCATION.--Lat 29°35'14", long 98°37'40", Bexar County, at culvert on Farm Road 1604 at San Antonio and 1.5 miles (2.4 km) west of bridge over Leon Creek.

DRAINAGE AREA.--5.57 mi² (9.16 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Sediment analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)		
DATE	TIME										
JUNE 12...	0725	69	7.7	33	1.9	.6	105	0	1.2		
25...	1425	3.7	15	32	1.2	.3	102	0	.4		
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (R) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	
JUNE 12...	2.2	.0	.00	.03	.3	.13	50	100	90		
25...	1.0	.0	.00	.04	.07	.04	60	100	85		
DATE	TIME	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
JUNE 12...	4	.0	185	7.1	18.0	8.6	91	5.3	.00		
25...	1	.0	171	7.2	21.0	8.6	96	1.7	.05		
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
JUNE 12...	0725	69	18.0	.00	.00	.00	.00	.00	.00	.00	.00
25...	1425	3.7	21.0	.00	.00	.00	.00	.00	.00	.00	.00
DATE	TIME	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
JUNE 12...	.00	.0	.0	.0	.00	.00	.00	.00	.00	.00	.00
25...	.00	.0	.0	.0	.01	.00	.00	.00	.00	.00	.00
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY)							
JUNF 12...	0725	52	18.0	75	11						
25...	1425	1.0	21.0	17	.05						

GUADALUPE RIVER BASIN

627

08181400 HELOTES CREEK AT HELOTES, TEX.

LOCATION.--Lat 29°34'42", long 98°41'29", Bexar County, at gaging station at bridge on State Highway 16, 0.1 mile (0.2 km) northwest of Helotes, and 8.6 miles (13.8 km) upstream from mouth.

DRAINAGE AREA.--15.0 mi² (38.8 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
MAR. 29...	1116	7.0	6.6	62	11	--	7.3	--	222	0	14
APR. 17...	1300	199	3.2	62	6.6	4.2	--	1.6	206	0	11
MAY 23...	0955	3.6	7.9	69	16	--	8.3	--	258	0	18
JUNE 05...	1535	1.8	10	61	16	--	4.9	--	228	0	15
12...	0805	148	5.6	40	5.6	--	4.8	--	140	0	8.0
25...	0915	22	7.3	60	12	--	4.9	--	220	0	12
25...	1400	120	8.6	60	11	--	5.4	--	222	0	10
SEP. 16...	1235	590	6.6	38	4.2	--	2.1	--	127	0	4.8

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
MAR. 29...	12	.2	.00	.00	.5	.03	60	224	200	18	.2
APR. 17...	7.4	.2	--	--	.09	--	50	198	180	13	.1
MAY 23...	17	.3	.00	.00	.3	.01	60	265	240	26	.2
JUNE 05...	18	.2	.00	.00	.09	.02	--	--	220	31	--
12...	6.2	.0	.00	.00	.4	.19	50	141	120	8	.2
25...	11	.1	.00	.00	.3	.04	50	217	200	19	.2
25...	9.2	.1	.00	.00	.3	.04	60	215	200	13	.2
SEP. 16...	4.0	.0	.00	.00	.5	.27	35	124	110	8	.1

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)
MAR. 29...	498	7.7	19.0	--	--	1.9	.02	--	--	--	--
APR. 17...	358	8.2	18.5	--	--	--	--	--	--	--	--
MAY 23...	477	8.1	24.0	8.2	96	1.0	.00	--	--	--	--
JUNE 05...	431	7.9	29.0	9.6	123	.9	.00	--	--	--	--
12...	257	7.5	19.0	8.6	91	2.9	.00	--	--	--	--
25...	395	7.9	21.0	8.5	94	.7	.00	--	--	--	--
25...	388	8.2	20.5	8.8	97	.5	.02	--	--	--	--
SEP. 16...	227	7.9	22.5	8.3	94	1.9	.00	20	0	0	0

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
MAR. 29...	--	--	--	--	--	--	--	--	--	--
APR. 17...	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--
JUNE 05...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP. 16...	0	2	30	0	0	0	.2	0	0	0

GUADALUPE RIVER BASIN

08181400 HELOTES CREEK AT HELOTES, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAR. 29...	1116	7.1	19.0	.00	.00	.00	.00	.00	.00	.00	.00
APR. 17...	1300	236	18.5	.00	.00	.00	.00	.00	.00	.00	.00
MAY 23...	0955	4.7	24.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 12...	0805	158	19.0	.00	.00	.00	.00	.01	.00	.00	.00
25...	0915	38	21.0	.00	.00	.00	.00	.00	.00	.00	.00
25...	1400	120	20.5	.00	.00	.00	.00	.01	.00	.00	.00
SEP. 16...	1235	590	22.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
MAR. 29...	.00	.0	.0	.00	.00	.00	.00	.02	.00	.00
APR. 17...	.00	.0	.0	.04	.00	.00	.00	.02	.00	.00
MAY 23...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 12...	.00	.0	.0	.00	.00	.00	.00	.05	.00	.01
25...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
25...	.00	.0	.0	.01	.00	.00	.00	.00	.00	.00
SEP. 16...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
MAR. 29...	1116	7.1	19.0	58	1.1
APR. 17...	1300	236	18.5	278	149
MAY 23...	0955	4.7	24.0	23	.22
JUNE 12...	0805	158	19.0	328	131
16...	1235	590	22.5	526	838
25...	0915	38	21.0	98	5.8
25...	1400	120	20.5	70	16

GUADALUPE RIVER BASIN

629

08181450 LEON CREEK TRIBUTARY AT KELLY AIR FORCE BASE, TEX.

LOCATION.--Lat 29°23'12", long 98°36'00", Bexar County, at gaging station near bridge on Billy Mitchell Road at Kelly Air Force Base, 0.15 mile (0.24 km) upstream from mouth, and 2.0 miles (3.2 km) southeast of intersection of U.S. Highway 90 West and Loop 13.

DRAINAGE AREA.--1.19 mi² (3.08 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1973.

Pesticide analyses: October 1969 to September 1973.

Sediment analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
MAY 23...	1230	.02	2.9	38	22	11	180	0	38	15	.7
JUNE 12...	0915	79	3.4	20	.5	.7	61	0	2.0	.4	.0
25...	1250	134	4.3	18	.5	1.7	60	0	.8	.4	.0
SEP. 16...	1630	25	4.6	16	.6	.6	51	0	.4	.6	.0

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MH05)
MAY 23...	.00	.00	.00	.03	40	217	180	38	.4	399
JUNE 12...	.01	.00	.2	.14	20	58	52	2	.0	104
25...	.00	.00	.06	.11	10	56	47	0	.1	100
SEP. 16...	.00	.00	.2	.20	10	49	42	1	.0	90

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
MAY 23...	7.9	24.0	9.4	111	1.0	.00	--	--	--	--
JUNE 12...	7.2	18.5	8.5	90	2.3	.00	--	--	--	--
25...	7.2	20.5	8.4	92	1.6	.02	--	--	--	--
SEP. 16...	7.9	23.5	6.2	72	1.5	.02	50	0	0	0

DATE	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
MAY 23...	--	--	--	--	--	--	--	--	--	--
JUNE 12...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
SEP. 16...	0	4	50	0	0	0	.2	0	0	0

GUADALUPE RIVER BASIN

08181450 LEON CREEK TRIBUTARY AT KELLY AIR FORCE BASE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 23...	1230	.02	24.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 12...	0915	79	18.5	.00	.02	.02	.13	.00	.00	.00	.00
25...	1250	134	20.5	.00	.03	.02	.08	.00	.00	.00	.00
SEP. 16...	1630	25	23.5	.00	.10	.03	.16	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
MAY 23...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 12...	.00	.0	.0	.01	.00	.00	.00	.03	.00	.03
25...	.00	.0	.2	.09	.00	.00	.00	.02	.00	.02
SEP. 16...	.00	.1	.3	.01	.00	.00	.00	.00	.00	.02

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDIMENT DIS- CHARGE (T/DAY)
MAY 23...	1230	.02	24.0	2	.00
JUNE 12...	0915	65	18.5	88	15
25...	1250	113	20.5	36	11
SEP. 16...	1630	24	23.5	38	2.5

08181500 MEDINA RIVER AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°15'14", long 98°28'20", Bexar County, at gaging station at bridge on U.S. Highway 281 in San Antonio and 6.8 miles (10.9 km) upstream from mouth.

DRAINAGE AREA.--1,317 mi² (3,411 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1973.
Pesticide analyses: October 1970 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
NOV.												
08...	1625	147	16	87	18	46	286	0	76	48	.3	.44
JAN.												
12...	1445	152	13	85	19	45	268	0	79	51	.3	.31
FEB.												
15...	1430	183	12	80	16	42	238	0	77	51	.3	.52
APR.												
16...	0900	2440	11	47	13	54	174	0	52	64	.2	4.3
MAY												
24...	1600	117	15	100	21	50	294	0	93	64	.4	.00
JUNE												
13...	0945	906	8.8	54	7.5	28	152	0	50	30	.2	2.4
26...	1200	2080	13	61	14	61	182	0	80	76	.1	2.9
JULY												
09...	0950	986	9.4	48	8.8	23	152	0	40	22	.2	1.2
27...	1515	1770	11	68	15	17	224	0	47	22	.2	.66
AUG.												
07...	1030	908	12	80	16	17	242	0	54	28	.2	.61
30...	1245	303	14	90	20	43	292	0	73	50	.2	.34
SEP.												
26...	1300	640	11	90	19	31	276	0	69	42	.2	.46

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
NOV.												
08...	.17	.71	2.9	.86	447	72	22	290	55	1.2	723	7.9
JAN.												
12...	.07	.08	3.8	.75	442	11	3	290	72	1.1	737	7.8
FEB.												
15...	.17	.83	3.1	1.2	411	104	26	270	70	1.1	699	7.7
APR.												
16...	.08	.81	1.3	5.4	334	948	128	170	28	1.8	610	7.6
MAY												
24...	.00	.02	4.1	1.3	506	87	22	340	95	1.2	851	7.7
JUNE												
13...	.01	.14	1.8	2.0	262	816	156	170	41	.9	470	7.6
26...	.00	.42	1.2	1.6	400	244	54	210	60	1.8	707	7.6
JULY												
09...	.01	.04	2.2	.80	236	534	82	160	31	.8	405	7.5
27...	.00	.11	1.5	.24	297	190	24	230	48	.5	516	7.6
AUG.												
07...	.00	.06	2.4	.32	337	183	25	270	67	.5	570	7.6
30...	.00	.00	3.9	.39	451	73	7	310	68	1.1	742	7.6
SEP.												
26...	.00	.00	3.4	.29	413	73	10	300	76	.8	700	7.5

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
NOV.												
08...	19.5	5	35	8.4	90	2.4	0	23	10	0	0	0
JAN.												
12...	9.5	15	10	10.8	95	.6	1	10	10	0	0	20
FEB.												
15...	13.5	40	60	8.7	83	4.6	2	6.5	--	--	--	--
APR.												
16...	19.5	40	220	7.6	82	32	0	42	--	--	--	--
MAY												
24...	25.0	5	50	7.4	88	1.4	0	4.5	10	0	0	0
JUNE												
13...	23.0	50	260	6.8	78	5.2	0	29	--	--	--	--
26...	24.5	120	95	7.6	90	8.3	1	29	--	--	--	--
JULY												
09...	26.0	10	240	6.8	83	3.9	0	13	--	--	--	--
27...	28.0	20	85	7.1	90	1.9	0	14	0	0	0	0
AUG.												
07...	29.0	10	55	7.0	90	.7	3	9.0	--	--	--	--
30...	26.0	10	35	7.3	89	1.3	0	12	--	--	--	--
SEP.												
26...	26.5	15	35	7.0	85	.9	0	16	--	--	--	--

GUADALUPE RIVER BASIN

08181500 MEDINA RIVER AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	HFXA- VALENT CHROMIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 08...	--	0	2	0	0	10	0	<.2	0	680	0
JAN. 12...	0	0	5	0	0	20	0	.4	10	810	20
FEB. 15...	--	--	--	--	--	--	--	--	--	--	--
APR. 16...	--	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	0	1	40	0	60	0	<.2	0	830	10
JUNE 13...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
JULY 09...	--	--	--	--	--	--	--	--	--	--	--
27...	--	0	1	0	0	0	0	<.2	0	500	0
AUG. 07...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
SEP. 26...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 08...	1625	147	19.5	.00	.0	.00	.7	.00	2.1	.00	1.6
JAN. 12...	1445	152	9.5	.00	.0	.00	.0	.00	4.4	.00	4.8
MAY 24...	1600	117	25.0	.00	.0	.00	.7	.00	4.1	.00	4.1
JULY 27...	1515	1770	28.0	.00	.0	.00	.7	.00	2.9	.00	3.0

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 08...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 12...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 24...	.01	1.7	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 27...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	0	.0	0	.05	.00	.00	.00	.00	.00	.00
JAN. 12...	0	.0	0	.02	.00	.00	.00	.00	.00	.00
MAY 24...	13	.0	0	.00	.00	.00	.00	.00	.00	.00
JULY 27...	5	.0	0	.00	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

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08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.

LOCATION.--Lat 29°14'15", long 98°21'43", Bexar County, at gaging station 2,000 feet (610 m) downstream from Braunig Plant Lake, and 2.2 miles (3.5 km) southwest of Elmendorf.

DRAINAGE AREA.--1,743 mi² (4,514 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,240 micromhos Jan. 29; minimum daily, 263 micromhos Sept. 27.

Water temperatures: Maximum, 29.5°C Aug. 8; minimum, 5.5°C Jan. 10.

EXTREMES, October 1966 to September 1973.--Specific conductance: Maximum daily, 1,240 micromhos Jan. 29, 1973; minimum daily, 263 micromhos Sept. 27, 1973.

Water temperatures: Maximum, 32.0°C June 21, 1969; minimum, 5.5°C Jan. 10, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
25...	1408	241	6.9	76	17	59	--	5.8	250	0
NOV.										
08...	1415	276	17	82	17	--	63	--	270	0
27...	0955	369	5.3	71	28	--	130	--	240	0
DEC.										
01...	0840	346	11	78	22	--	88	--	244	8
JAN.										
04...	0830	465	13	78	15	46	--	5.2	230	0
12...	1400	361	14	88	18	--	51	--	268	0
FEB.										
05...	1330	298	12	88	19	--	62	--	272	0
15...	1400	379	13	77	14	51	--	5.1	228	0
MAR.										
24...	0830	1160	13	69	13	--	52	--	220	0
APR.										
16...	0945	5640	10	47	7.7	--	28	--	145	0
16...	1406	5180	10	52	7.7	28	--	7.9	166	0
MAY										
24...	1430	267	17	92	20	62	--	5.4	280	0
31...	0810	263	17	95	20	--	61	--	284	0
JUNE										
13...	0840	5770	11	51	4.9	--	24	--	168	0
13...	1100	5180	8.8	46	5.1	--	15	--	128	0
26...	1130	5000	12	52	7.1	--	27	--	156	0
JULY										
09...	1030	6320	8.1	37	4.5	--	15	--	121	0
17...	1205	26000	6.4	49	10	6.1	--	3.5	158	0
27...	1430	1880	12	70	15	--	24	--	236	0
AUG.										
07...	0915	1180	13	80	17	--	31	--	248	0
30...	1150	693	15	86	19	46	--	4.5	276	0
31...	0840	687	14	82	20	--	61	--	280	0
SEPT.										
26...	1205	895	14	88	19	--	50	--	292	0
27...	1537	39600	7.1	39	3.8	--	13	--	120	0

GUADALUPE RIVER BASIN

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.										
25...	75	72	.4	--	--	--	5.1	--	458	--
NOV.										
08...	74	67	.3	.50	.66	.33	4.5	2.4	476	57
27...	140	150	.5	--	--	--	5.2	--	656	--
DEC.										
01...	100	100	.5	--	--	--	4.3	--	548	--
JAN.										
04...	64	62	.4	--	--	--	4.3	--	416	--
12...	75	67	.3	.52	.78	.91	3.5	1.2	464	9
FEB.										
05...	82	72	.4	--	--	--	6.2	--	496	--
15...	70	62	.3	.52	.88	2.0	2.4	2.2	421	118
MAR.										
24...	61	55	.3	--	--	--	4.8	--	392	--
APR.										
16...	39	34	.2	2.9	.03	.56	1.1	3.0	243	1100
16...	40	32	.2	--	--	--	3.0	--	273	--
MAY										
24...	88	80	.5	.02	.79	2.2	2.4	4.0	519	46
31...	80	81	.4	--	--	--	5.8	--	520	--
JUNE										
13...	33	18	.3	--	--	--	.10	--	230	--
13...	34	18	.2	2.2	.02	.23	.90	1.8	194	928
26...	42	31	.1	1.8	.00	.39	.80	.92	252	544
JULY										
09...	24	12	.2	1.7	.03	.20	.70	.95	164	876
17...	34	12	.2	--	--	--	.40	--	201	--
27...	50	28	.2	.89	.18	.46	1.2	.92	322	330
AUG.										
07...	60	43	.2	.77	.26	.24	3.1	1.2	382	229
30...	69	66	.3	.83	.32	1.0	3.4	1.6	459	72
31...	72	65	.4	--	--	--	6.5	--	481	--
SEP.										
26...	71	56	.2	.58	.64	.27	3.1	1.9	459	73
27...	22	13	.2	--	--	--	.40	--	159	--

DATE	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT.										
25...	--	260	54	1.6	801	7.9	21.5	--	--	--
NOV.										
08...	13	280	59	1.7	794	7.8	21.5	10	30	7.6
27...	--	290	96	3.2	1100	8.1	16.0	--	--	--
DEC.										
01...	--	280	72	2.3	912	8.5	15.0	--	--	--
JAN.										
04...	--	260	68	1.3	701	8.1	14.0	--	--	--
12...	3	300	75	1.3	793	7.6	11.0	10	10	9.6
FEB.										
05...	--	300	74	1.6	835	7.7	6.5	--	--	--
15...	24	250	62	1.4	723	7.5	15.0	30	65	7.8
MAR.										
24...	--	230	45	1.5	646	7.3	20.0	--	--	--
APR.										
16...	142	150	30	1.0	446	7.5	19.0	35	280	6.4
16...	--	160	25	1.0	467	7.2	20.0	--	--	--
MAY										
24...	15	310	82	1.5	880	7.6	26.5	10	35	5.8
31...	--	320	87	1.5	894	7.5	25.5	--	--	--
JUNE										
13...	--	150	10	.9	376	7.3	22.0	--	--	--
13...	192	140	31	.6	347	7.5	22.0	50	280	6.4
26...	144	160	31	.9	442	7.5	23.5	90	210	6.4
JULY										
09...	164	110	12	.6	290	7.2	27.0	40	280	5.4
17...	--	160	34	.2	358	7.9	28.0	--	--	--
27...	54	240	42	.7	563	7.5	28.5	10	130	6.8
AUG.										
07...	32	270	66	.8	640	7.5	27.5	10	80	6.4
30...	10	290	66	1.2	783	7.5	27.0	10	35	6.2
31...	--	290	58	1.6	782	7.5	27.0	--	--	--
SEP.										
26...	15	300	58	1.3	757	7.5	27.0	20	30	6.3
27...	--	110	15	.5	263	7.5	23.0	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

GUADALUPE RIVER BASIN

081818000 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 08...	1415	21.5	.00	.0	.00	2.4	.00	2.2	.00	1.9	.01
JAN. 12...	1400	11.0	.00	.0	.00	4.7	.00	2.3	.00	.0	.01
MAY 24...	1430	26.5	.00	.0	.00	3.2	.00	.0	.00	3.3	.01
JULY 27...	1430	28.5	.00	.0	.00	1.9	.00	2.9	.00	17	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 08...	1.9	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 12...	4.4	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 24...	4.0	.00	.0	.00	.0	.00	.0	.01	.0	.0
JULY 27...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	11	.0	0	.17	.00	.00	.00	.00	.00	.01
JAN. 12...	26	.0	0	.08	.00	.00	.00	.00	.00	.01
MAY 24...	15	.0	50	.17	.00	.00	.00	.02	.00	.02
JULY 27...	3	.0	0	.03	.00	.00	.00	1.2	.03	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	8837	853	500	11900	82	1960	82	1960	290
NOV.	10912	800	470	13800	75	2210	78	2300	270
DEC.	10561	836	490	14000	80	2280	81	2310	280
JAN. 1973....	12765	796	470	16200	74	2550	78	2690	270
FEB.	14098	785	460	17500	73	2780	77	2930	270
MAR.	13096	828	490	17300	78	2760	80	2830	280
APR.	26339	664	390	27700	57	4050	67	4760	230
MAY	13525	789	470	17200	73	2670	77	2810	270
JUNE	37364	557	330	33300	43	4340	58	5850	200
JULY	116692	458	270	85100	30	9450	44	13900	170
AUG.	29649	685	400	32000	60	4800	68	5440	240
SEP.	82819	421	250	55900	26	5810	38	8500	160
TOTAL	376657	--	--	342000	--	45700	--	56300	--
WTD. AVG. ...	1032	570	340	--	45	--	55	--	200

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	824	818	912	831	950	858	836	817	894	692	616	819
2	787	670	824	778	1140	855	818	825	927	704	626	784
3	801	791	830	756	842	896	833	830	898	774	570	790
4	891	777	839	701	861	856	856	797	861	711	578	799
5	877	791	816	775	835	830	865	803	827	700	595	759
6	923	772	881	767	812	824	840	809	895	706	630	794
7	861	755	833	791	1140	852	661	817	923	711	646	662
8	864	788	1040	766	852	830	691	748	898	487	663	467
9	867	791	842	788	745	839	759	800	912	351	671	619
10	827	804	842	815	707	839	785	809	920	491	681	704
11	881	827	812	810	757	845	818	844	861	533	702	742
12	891	830	804	812	772	846	821	580	391	536	691	764
13	877	801	801	801	792	843	843	533	376	557	679	791
14	879	686	819	815	725	856	856	712	531	578	724	794
15	881	752	813	782	704	856	656	823	712	589	708	767
16	852	801	816	795	774	859	467	800	772	700	711	767
17	827	936	810	1210	809	849	606	806	657	382	715	395
18	888	821	801	832	653	859	627	811	678	402	700	308
19	888	812	790	987	731	824	484	806	663	427	674	462
20	906	806	848	836	763	830	651	850	619	424	741	569
21	891	796	832	778	797	848	720	797	442	446	717	634
22	884	853	858	921	708	855	749	803	634	465	731	673
23	816	815	851	744	712	868	771	851	691	489	741	694
24	748	809	824	799	758	646	801	841	687	512	743	700
25	801	660	809	680	782	739	837	860	601	537	769	723
26	836	717	782	553	798	789	837	894	444	550	761	745
27	842	1100	784	686	819	809	819	877	503	564	753	263
28	861	752	833	765	849	821	801	860	665	577	764	314
29	858	996	851	1240	---	856	787	844	685	575	790	547
30	827	820	858	763	---	852	793	877	697	574	846	643
31	817	---	864	811	---	865	---	894	---	587	782	---
MONTH	854	805	836	813	807	836	756	807	709	559	701	650

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	23.5	15.0	15.0	14.5	18.0	22.0	23.5	26.5	27.0	27.0	27.0
2	24.5	20.0	17.0	13.5	13.5	19.0	21.0	---	28.0	26.5	26.5	28.0
3	23.5	21.0	19.0	13.5	17.0	20.0	20.0	---	27.0	27.0	26.5	---
4	24.5	20.0	17.0	14.0	17.0	20.0	19.0	21.0	26.0	28.0	26.0	28.0
5	26.0	21.0	16.5	14.5	6.5	18.0	19.0	22.0	26.5	28.0	25.0	26.5
6	28.0	23.5	15.0	15.0	18.5	20.5	19.0	23.0	26.5	28.0	26.5	25.5
7	26.0	22.0	14.0	14.0	15.5	20.5	19.0	23.5	25.5	27.0	28.0	24.0
8	25.0	20.5	14.5	12.0	17.0	21.0	19.0	23.5	25.5	27.0	29.5	25.0
9	25.5	21.0	16.0	13.5	11.0	21.5	15.5	23.5	25.0	25.5	28.0	26.0
10	25.5	21.0	15.0	5.5	11.0	21.0	16.5	24.5	26.0	26.0	28.0	26.5
11	26.0	21.0	13.5	10.5	13.0	21.0	18.0	24.5	25.0	26.5	28.0	26.5
12	26.0	23.0	14.0	10.0	14.5	21.0	18.0	24.0	21.0	26.5	27.0	26.5
13	26.0	22.0	13.5	13.0	16.5	22.0	18.0	23.0	22.0	26.5	27.0	28.0
14	---	18.0	14.5	14.0	15.5	21.5	21.0	22.0	24.5	28.0	28.0	28.0
15	27.0	16.5	13.5	13.0	15.5	23.0	20.0	22.0	26.0	27.0	26.5	23.0
16	25.5	16.5	14.0	15.0	15.0	20.5	20.0	21.0	28.0	26.5	28.0	25.0
17	25.5	18.0	14.0	13.5	14.0	21.0	20.0	22.0	28.0	28.0	28.0	23.5
18	26.0	17.0	13.5	18.0	14.0	22.0	18.5	23.5	27.0	26.5	26.0	23.5
19	24.5	17.0	15.5	15.0	14.5	20.5	21.0	25.0	27.0	26.5	26.0	23.5
20	22.0	15.5	16.0	19.0	15.0	18.0	18.0	27.0	26.0	26.5	27.0	25.5
21	24.0	15.5	15.5	18.0	15.5	18.0	24.0	26.0	24.5	28.0	26.5	25.5
22	25.0	15.5	15.5	14.5	13.5	20.5	23.0	25.5	24.5	28.5	28.0	26.0
23	---	15.0	18.0	15.0	13.5	20.5	24.0	26.0	25.0	28.0	26.5	26.0
24	18.5	14.5	17.0	15.0	15.0	20.0	23.5	25.5	24.0	28.0	26.5	26.0
25	21.5	15.0	16.0	---	16.0	19.0	25.5	25.5	24.5	28.0	27.0	26.5
26	20.0	16.0	15.0	12.0	18.0	17.0	18.0	27.0	24.5	---	26.0	27.0
27	20.5	16.0	14.5	15.0	16.5	20.0	---	---	24.5	28.0	27.0	23.0
28	23.0	14.5	14.5	13.0	18.0	20.5	22.0	---	25.5	28.0	26.5	24.5
29	24.0	15.0	17.0	12.0	---	15.5	22.0	25.5	25.5	29.0	27.0	22.0
30	24.5	14.5	18.0	13.0	---	16.5	22.0	25.5	27.0	28.5	26.5	24.0
31	25.5	---	17.0	15.5	---	22.0	---	25.5	---	28.5	27.0	---
MONTH	24.5	18.5	15.5	14.0	15.0	20.0	20.0	24.0	25.5	27.5	27.0	25.5

GUADALUPE RIVER BASIN

08183500 SAN ANTONIO RIVER NEAR FALLS CITY, TEX.

LOCATION.--Lat 28°57'05", long 98°03'50", Karnes County, at gaging station at bridge on Farm Road 791, 0.9 mile (1.4 km) upstream from Scared Dog Creek, and 3.6 miles (5.8 km) southwest of Falls City.

DRAINAGE AREA.--2,113 mi² (5,473 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1973.
Sediment analyses: January 1966 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV. 08...	1215	330	17	87	18	66	268	0	86
JAN. 12...	1245	370	16	90	18	65	268	0	90
FEB. 15...	1200	883	15	86	17	62	262	0	82
APR. 16...	1050	2090	11	49	8.4	38	159	0	45
MAY 24...	1245	370	16	95	20	69	288	0	99
JUNE 12...	1525	5870	9.9	28	3.5	13	90	0	17
26...	1035	4610	9.4	32	3.3	9.4	104	0	15
JULY 09...	1200	1230	14	77	18	56	260	0	79
27...	1330	2520	12	71	15	23	236	0	51
AUG. 06...	1915	1510	14	82	17	31	258	0	61
30...	1050	750	16	92	21	61	296	0	88
SEP. 26...	1100	1180	14	90	19	47	296	0	75

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
NOV. 08...	75	.4	.72	.00	.18	5.6	1.8	507	290
JAN. 12...	80	.4	.59	.23	.93	4.5	3.8	513	300
FEB. 15...	71	.3	.72	.48	.44	5.0	3.8	486	280
APR. 16...	38	.3	4.9	.03	.20	2.5	3.9	279	160
MAY 24...	80	.4	.02	.06	.00	4.5	2.0	542	320
JUNE 12...	12	.1	2.3	.03	.22	1.0	2.1	132	84
26...	8.0	.1	1.4	.02	.14	.5	.52	131	93
JULY 09...	57	.3	1.0	.10	.04	3.2	1.6	444	270
27...	27	.2	.75	.10	.05	.9	.80	320	240
AUG. 06...	41	.2	.81	.11	.07	2.1	.94	383	270
30...	70	.3	.52	.03	.03	4.1	1.6	512	320
SEP. 26...	51	.2	.69	.20	.00	3.3	.90	458	300

GUADALUPE RIVER BASIN

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08183500 SAN ANTONIO RIVER NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
NOV. 08...	72	1.7	850	7.7	20.0	7.2	78	1.9
JAN. 12...	79	1.6	863	7.6	9.0	8.8	76	4.9
FEB. 15...	70	1.6	821	7.5	14.5	5.7	55	6.0
APR. 16...	26	1.3	491	7.5	19.0	5.4	57	16
MAY 24...	84	1.7	901	7.8	26.0	5.8	71	1.8
JUNE 12...	10	.6	230	7.6	20.5	6.6	73	5.9
26...	8	.4	229	7.5	23.5	6.0	70	3.5
JULY 09...	53	1.5	747	7.5	28.5	4.9	63	2.1
27...	45	.6	553	7.5	28.0	6.1	77	2.1
AUG. 06...	63	.8	641	7.5	27.5	6.1	76	1.1
30...	74	1.5	854	7.5	27.0	6.2	77	1.7
SEP. 26...	60	1.2	752	7.6	27.0	6.1	75	1.1

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT. 30...	1510	282	22.0	46	35
DEC. 07...	1345	340	13.0	67	62
JAN. 17...	1153	372	14.0	27	27
JUNE 07...	1105	254	26.0	82	56
JULY 19...	1000	15300	26.0	668	27600
20...	1150	20000	27.5	269	14500
AUG. 29...	1011	673	26.5	125	227
SEP. 28...	1515	14600	24.5	794	31300
29...	1035	23500	24.0	865	54900

GUADALUPE RIVER BASIN

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.

LOCATION.--Lat 29°00'50", long 97°55'48", Karnes County, at gaging station at bridge on State Highway 123, 5.7 miles (9.2 km) northeast of Falls City, and 10.4 miles (16.7 km) upstream from mouth.

DRAINAGE AREA.--827 mi² (2,142 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

Chemical and biochemical analyses: October 1969 to September 1973.

Water temperatures: October 1968 to September 1973.

Sediment records: October 1968 to September 1969.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,520 micromhos May 8; minimum daily, 176 micromhos Sept. 28.

Water temperatures: Maximum, 29.0°C on several days during summer months.

EXTREMES, October 1968 to September 1973.--Specific conductance: Maximum daily, 2,270 micromhos May 20, 21, 1971; minimum daily, 176 micromhos Sept. 28, 1973.

Water temperatures: Maximum, 33.0°C on several days during August, 1969; minimum, 4.5°C Jan. 7, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
16...	1600	18	16	73	23	130	--	6.7	142	0
NOV.										
02...	1540	28	17	--	23	--	--	--	--	0
08...	1100	29	18	110	22	--	120	--	276	0
DEC.										
01...	1300	30	15	--	22	--	--	--	--	0
JAN.										
12...	1215	36	12	120	23	--	120	--	308	0
26...	1500	40	10	98	24	130	--	6.1	206	0
FEB.										
15...	1115	168	11	100	17	--	93	--	286	0
22...	1300	76	14	70	11	--	63	--	160	0
MAR.										
26...	1300	144	12	49	5.2	--	33	--	142	0
APR.										
16...	1120	3870	8.6	38	4.1	--	17	--	116	0
17...	0800	5630	10	46	3.3	11	--	5.8	143	0
MAY										
22...	2000	35	16	110	22	--	140	--	276	0
24...	1200	35	17	120	21	--	120	--	270	0
JUNE										
12...	1345	8860	6.8	21	2.4	--	7.7	--	66	0
12...	1700	11200	6.7	28	2.3	--	12	--	102	0
26...	1000	5490	10	33	2.7	--	8.8	--	106	0
JULY										
09...	1250	208	17	90	14	--	83	--	278	0
10...	1830	3010	13	44	3.8	14	--	5.4	148	0
27...	1300	319	15	100	16	--	47	--	324	0
AUG.										
06...	1815	136	17	100	20	--	70	--	288	0
30...	0945	78	9.1	42	6.4	--	39	--	144	0
30...	1015	76	8.8	39	6.0	--	40	--	134	0
SEPT.										
26...	1030	96	15	86	13	--	68	--	240	0
28...	1415	33100	8.3	34	1.6	--	6.6	--	116	0

GUADALUPE RIVER BASIN

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08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)
OCT.									
16...	230	150	.3	--	--	--	.6	--	697
NOV.									
02...	200	120	.3	--	--	--	1.9	--	--
08...	200	120	.3	.14	.01	.12	1.9	.02	724
DEC.									
01...	190	120	.3	--	--	--	2.5	--	--
JAN.									
12...	200	140	.2	.30	.00	.02	2.7	.03	787
26...	220	160	.3	--	--	--	1.6	--	756
FEB.									
15...	120	110	.3	.56	.03	.16	3.3	.55	608
22...	110	78	.3	--	--	--	.8	--	426
MAR.									
26...	43	34	.4	--	--	--	1.6	--	254
APR.									
16...	22	18	.2	3.1	.00	.25	1.3	.91	171
17...	18	12	.2	--	--	--	1.6	--	183
MAY									
22...	230	140	.3	--	--	--	2.7	--	800
24...	230	140	.4	.02	.00	.00	.8	.10	791
JUNE									
12...	13	7.0	.1	1.3	.00	.14	.5	.75	92
12...	12	5.8	.1	--	--	--	.3	--	118
26...	12	9.0	.0	1.2	.00	.15	.3	.38	129
JULY									
09...	120	74	.3	.80	.00	.07	1.3	.22	540
10...	18	17	.2	--	--	--	.6	--	191
27...	85	45	.2	.39	.00	.00	1.1	.16	474
AUG.									
06...	130	76	.2	.46	.01	.01	2.5	.14	566
30...	47	32	.2	--	--	--	1.0	--	251
30...	48	33	.2	.75	.00	.06	.9	.34	245
SEP.									
26...	120	63	.3	.70	.00	.00	.9	.31	489
28...	6.4	2.0	.1	--	--	--	.3	--	117

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
16...	280	160	3.3	1220	7.5	27.0	--	--	--
NOV.									
02...	--	--	--	1200	--	16.0	--	--	--
08...	360	130	2.6	1150	7.9	18.5	9.0	96	1.2
DEC.									
01...	--	--	--	1060	--	24.0	--	--	--
JAN.									
12...	410	150	2.6	1270	7.8	7.0	12.3	101	1.0
26...	340	170	3.1	1330	7.9	23.0	--	--	--
FEB.									
15...	320	90	2.3	1010	7.6	12.0	9.1	84	5.0
22...	220	88	1.8	724	7.9	23.0	--	--	--
MAR.									
26...	140	27	1.2	443	7.7	23.0	--	--	--
APR.									
16...	110	17	.7	306	7.7	18.5	6.2	66	11
17...	130	11	.4	321	7.5	22.0	--	--	--
MAY									
22...	380	150	3.0	1260	7.9	26.0	--	--	--
24...	390	170	2.7	1270	7.9	25.5	7.9	95	1.6
JUNE									
12...	62	8	.4	164	7.9	20.0	7.0	76	4.7
12...	79	0	.6	212	6.9	20.0	--	--	--
26...	93	7	.4	227	7.4	24.0	6.0	71	3.4
JULY									
09...	280	54	2.1	857	7.6	29.0	6.6	85	1.6
10...	120	4	.5	306	7.3	27.0	--	--	--
27...	320	55	1.1	780	7.7	29.0	7.8	100	.5
AUG.									
06...	330	98	1.7	919	7.8	28.0	7.7	97	.9
30...	130	13	1.5	437	7.2	25.0	--	--	--
30...	120	12	1.6	433	7.3	25.0	6.7	90	3.7
SEP.									
26...	270	72	1.8	796	7.7	27.0	7.1	88	1.7
28...	91	0	.3	187	7.6	23.5	--	--	--

GUADALUPE RIVER BASIN

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 02...	1540	28	16.0	80	6.0
DEC. 07...	1133	28	9.0	54	4.1
JAN. 19...	1205	30	14.5	30	2.5
JULY 18...	1000	15000	26.5	779	31500
SEP. 28...	1415	33000	23.5	838	74700

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	673	1180	750	1360	140	254	220	400	330
NOV.	915	1120	710	1750	130	321	210	519	310
DEC.	876	1190	760	1800	140	331	230	544	330
JAN. 1973....	1229	1190	760	2520	140	465	230	763	330
FEB.	2223	930	570	3420	100	600	160	960	270
MAR.	2092	924	570	3220	100	565	150	847	270
APR.	12636	427	250	8530	34	1160	51	1740	140
MAY	1638	1190	760	3360	140	619	230	1020	330
JUNE	32186	307	180	15600	17	1480	27	2350	110
JULY	29839	383	220	17700	28	2260	43	3460	130
AUG.	3246	945	580	5080	110	964	160	1400	270
SEP.	47369	248	140	17900	9.0	1150	16	2050	98
TOTAL	134922	--	--	82200	--	10200	--	16100	--
WTD. AVG. ...	369.65	383	230	--	28	--	44	--	130

GUADALUPE RIVER BASIN

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08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	987	1070	1060	1210	1190	1140	1010	1050	1290	904	783	1070
2	1060	1140	1050	1230	1230	1140	1000	1100	1350	953	808	1040
3	1080	1160	1070	1290	1200	1140	1130	1200	1300	1020	678	1200
4	1160	1180	1100	1210	1210	1250	1120	1150	1350	1040	830	1140
5	1080	1180	1120	1170	1230	1260	1100	1120	1360	1100	870	1270
6	1160	1010	1280	1120	1250	1250	1160	1210	1360	1110	915	1190
7	1140	1020	1160	1120	1220	1250	1100	1280	1340	1220	908	1350
8	1120	1140	1140	1100	1260	1220	866	1520	1360	1300	966	1210
9	1120	1070	1160	1110	1260	1290	870	1240	1360	300	1000	1090
10	1120	1240	1170	1140	1270	1290	950	1240	1370	306	970	750
11	1220	1060	1170	1210	1280	1250	954	1280	1400	356	962	1090
12	1100	1140	1290	1210	1300	1330	958	1180	212	454	1050	1020
13	1160	1150	1170	1230	1160	1290	966	1060	321	550	978	1090
14	1230	1060	1140	1220	1180	1360	974	1010	282	627	991	1160
15	1170	1080	1230	1200	1040	1290	486	1080	350	708	983	1190
16	1220	1100	1150	1290	722	1340	350	1230	488	733	1010	241
17	1240	1000	1220	1210	715	1060	321	1310	590	334	1050	356
18	1280	1110	1200	1250	773	1060	350	1280	681	225	1070	356
19	1240	1170	1200	1270	770	1100	450	1170	771	317	1090	411
20	1360	1110	1200	1320	724	1030	500	1200	837	476	1080	450
21	1220	1150	1160	1310	728	1030	600	1250	263	610	1150	496
22	1270	1210	1230	1320	724	1050	700	1260	310	654	1210	567
23	1210	1090	1240	1300	770	1290	800	1190	447	692	1190	630
24	1270	1120	1150	1280	768	1290	900	1270	631	720	1190	694
25	1320	1160	1230	1310	768	676	1000	1260	195	745	1190	758
26	1330	1160	1280	1330	768	443	900	1250	251	768	1190	508
27	1300	1150	1250	1150	877	574	794	1160	312	787	1190	435
28	1220	1180	1220	1160	912	594	750	1270	532	815	900	176
29	1220	1150	1240	1020	---	694	900	1280	693	856	800	204
30	1200	1120	1250	1040	---	815	1000	1330	780	843	620	451
31	1130	---	1270	1020	---	818	---	1290	---	827	1080	---
MONTH	1190	1120	1190	1200	1010	1080	832	1220	793	721	990	786

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	27.5	29.0	---	28.0
2	---	---	---	---	---	---	---	---	27.5	28.5	---	27.0
3	---	---	---	---	---	---	---	---	27.5	28.5	---	29.0
4	---	---	---	---	---	---	---	---	29.0	29.0	---	28.0
5	---	---	---	---	---	---	---	22.0	29.0	29.0	---	27.0
6	---	---	---	---	---	---	---	24.0	---	28.0	---	24.0
7	---	---	---	---	---	---	---	26.0	28.0	29.0	28.0	24.0
8	---	---	---	---	---	---	---	26.0	27.0	---	29.0	27.0
9	---	---	---	---	---	---	---	25.0	---	---	---	27.5
10	---	---	---	---	---	---	---	25.0	26.5	27.0	---	---
11	---	---	---	---	---	---	---	27.0	25.5	27.5	27.5	27.0
12	---	---	---	---	---	---	---	25.0	20.0	28.0	27.0	28.0
13	---	---	---	---	---	---	---	24.0	23.0	---	26.0	---
14	---	---	---	---	---	---	---	24.0	25.0	29.0	28.0	27.0
15	---	---	---	---	---	---	---	23.0	---	28.0	28.0	27.5
16	---	---	---	---	---	---	---	24.0	27.0	28.0	29.0	27.0
17	---	---	---	---	---	---	---	24.0	28.0	26.5	29.0	24.5
18	---	---	---	---	---	---	---	26.0	29.0	27.0	28.0	27.0
19	---	---	---	---	---	---	---	25.0	28.5	26.0	---	25.0
20	---	---	---	---	---	---	---	24.0	27.0	26.5	29.0	---
21	---	---	---	---	---	---	---	27.0	23.5	28.5	28.0	26.0
22	---	---	---	---	---	---	---	26.0	25.0	29.0	27.0	27.0
23	---	---	---	---	---	---	---	26.0	25.0	29.0	29.0	---
24	---	---	---	---	---	---	---	25.0	25.0	---	27.0	27.5
25	---	---	---	---	---	---	---	---	24.0	28.5	28.0	27.5
26	---	---	---	---	---	---	---	27.0	25.0	29.0	---	25.0
27	---	---	---	---	---	---	---	28.0	23.0	---	29.0	25.0
28	---	---	---	---	---	---	---	26.0	27.0	---	---	23.5
29	---	---	---	---	---	---	---	26.0	27.5	---	20.5	25.0
30	---	---	---	---	---	---	---	27.0	---	---	25.0	24.5
31	---	---	---	---	---	---	---	27.0	---	---	27.0	---
MONTH	---	---	---	---	---	---	---	25.5	26.0	---	---	26.5

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.

LOCATION.--Lat 28°38'58", long 97°23'04", Goliad County, at gaging station at bridge on U.S. Highway 183, 1.2 miles (1.9 km) southeast of courthouse in Goliad.

DRAINAGE AREA.--3,921 mi² (10,155 km²).

PERIOD OF RECORD.--Chemical analyses: September 1945 to September 1946, September 1958 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1973.

Water temperatures: September 1958 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 1,220 micromhos June 6; minimum daily, 204 micromhos Oct. 28.

Water temperatures: Maximum, 30.0°C July 28; minimum, 3.5°C Jan 12.

EXTREMES, September 1945 to September 1946, September 1958 to September 1973.--Specific conductance: Maximum daily, 1,500 micromhos July 15, 17, 1969; minimum daily 138 micromhos Oct. 27, 1960.

Water temperatures (1958-73): Maximum, 36.0°C June 5, 1969; minimum, 3.5°C Feb. 3, 1972, Jan. 12, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
05...	0950	387	19	94	19	77	--	5.9	284	0	92	110
NOV.												
07...	0630	495	20	94	19	--	78	--	294	0	88	96
09...	1650	423	17	96	19	--	82	--	284	0	96	100
DEC.												
30...	0830	380	17	100	23	--	84	--	308	0	110	120
JAN.												
09...	0810	430	15	84	17	--	70	--	256	0	85	86
30...	0730	682	12	76	16	50	--	4.9	228	0	74	65
FEB.												
15...	1000	443	14	89	18	--	70	--	254	0	90	95
22...	0900	674	15	86	16	--	65	--	244	0	81	86
MAR.												
29...	0830	536	15	66	12	--	51	--	200	0	60	64
APR.												
16...	1245	780	17	83	15	--	67	--	233	0	78	90
19...	1100	7950	12	34	3.6	12	--	6.5	108	0	18	14
MAY												
24...	1030	493	19	110	20	--	86	--	308	0	100	110
30...	1510	428	21	110	23	--	120	--	332	0	120	140
JUNE												
12...	1200	1940	9.1	44	6.8	--	34	--	128	0	38	45
26...	0830	5540	13	37	3.4	--	16	--	119	0	14	20
28...	0800	8790	13	35	2.8	--	13	--	120	0	16	7.0
JULY												
09...	1400	1110	19	97	19	--	86	--	310	0	99	100
24...	1103	14700	12	54	11	10	--	4.5	176	0	37	16
27...	1130	6340	14	70	13	--	23	--	228	0	48	27
AUG.												
06...	1410	1950	16	90	17	--	38	--	274	0	66	54
30...	0700	820	18	84	23	--	97	--	280	20	99	96
30...	0900	820	18	100	22	--	75	--	320	0	99	97
SEP.												
26...	0915	1450	15	87	16	--	41	--	268	0	67	54
30...	0730	8370	8.4	45	2.9	--	10	--	158	0	8.2	4.0

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WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
05...	.4	--	--	--	3.6	--	571	--	--	310	80	1.9
NOV.												
07...	.4	.48	.00	.02	3.6	2.2	556	197	33	310	69	1.9
09...	.4	--	--	--	4.6	--	574	--	--	320	85	2.0
DEC.												
30...	.4	--	--	--	1.8	--	615	--	--	360	100	1.9
JAN.												
09...	.2	.49	.01	.08	3.3	2.0	498	79	13	280	71	1.8
30...	.4	--	--	--	4.2	--	429	--	--	260	68	1.4
FEB.												
15...	.3	.52	.01	.07	3.4	1.3	516	130	30	300	88	1.8
22...	.4	--	--	--	4.2	--	488	--	--	280	80	1.7
MAR.												
29...	.3	--	--	--	2.1	--	376	--	--	210	50	1.5
APR.												
16...	.3	1.0	.01	.07	3.9	1.9	482	298	42	270	78	1.8
19...	.2	--	--	--	1.7	--	161	--	--	100	11	.5
MAY												
24...	.5	.01	.00	.00	3.7	1.7	616	149	29	350	90	2.0
30...	.4	--	--	--	4.6	--	708	--	--	360	87	2.6
JUNE												
12...	.1	1.7	.00	.08	1.2	1.6	245	1160	332	140	33	1.3
26...	.0	1.7	.00	.08	.30	.53	164	776	132	110	9	.7
28...	.2	--	--	--	.30	--	147	--	--	99	0	.6
JULY												
09...	.3	.70	.00	.06	2.1	1.2	583	262	58	320	66	2.1
24...	.2	--	--	--	.40	--	234	--	--	180	36	.3
27...	.2	.79	.01	.04	.90	.47	311	244	50	230	41	.7
AUG.												
06...	.2	.79	.00	.00	2.1	1.1	426	350	44	290	70	1.0
30...	.3	--	--	--	3.8	--	590	--	--	300	94	2.4
30...	.2	.54	.00	.00	2.9	1.2	585	200	24	350	88	1.7
SEP.												
26...	.2	.77	.00	.00	2.1	.69	422	264	72	280	64	1.1
30...	.2	--	--	--	.60	--	159	--	--	120	0	.4

[illegible]

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV. 07...	1	0	0	3	0	0	20	0	<.2	0	930	10
DEC. 09...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 30...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 09...	0	0	0	3	0	0	20	0	.2	14	830	20
MAR. 30...	--	--	--	--	--	--	--	--	--	--	--	--
APR. 15...	--	--	--	--	--	--	--	--	--	--	--	--
MAY. 22...	--	--	--	--	--	--	--	--	--	--	--	--
JUN. 29...	--	--	--	--	--	--	--	--	--	--	--	--
JUL. 16...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 19...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 24...	0	0	0	3	50	3	20	0	<.2	0	950	10
OCT. 30...	--	--	--	--	--	--	--	--	--	--	--	--
NOV. 12...	--	--	--	--	--	--	--	--	--	--	--	--
DEC. 26...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 28...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 09...	--	--	--	--	--	--	--	--	--	--	--	--
MAR. 24...	--	--	--	--	--	--	--	--	--	--	--	--
APR. 27...	0	0	0	2	10	0	0	0	<.2	0	470	0
MAY. 06...	--	--	--	--	--	--	--	--	--	--	--	--
JUN. 30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL. 30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 30...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 26...	--	--	--	--	--	--	--	--	--	--	--	--
OCT. 30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI-ELDRIN (UG/L)
OCT. 30...	1230	--	.00	--	.00	--	.01	--	.01	--	.03
APR. 18...	1040	19.0	.00	--	.00	--	.01	--	.00	--	.00
AUG. 02...	1030	--	.00	.0	.00	.0	.01	.0	.00	.0	.01
SEP. 17...	1400	--	.00	.0	.00	.0	.01	.0	.01	.0	.01

DATE	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 30...	--	.00	--	.00	--	.00	--	.00	--	.0
APR. 18...	--	.00	--	.00	--	.00	--	.00	--	.0
AUG. 02...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 17...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 30...	--	.0	--	.11	.00	.00	.00	.00	.01	.03
APR. 18...	--	.0	--	.01	.00	.00	.00	.15	.00	.05
AUG. 02...	0	.0	0	.04	.00	.00	.00	.22	.14	.00
SEP. 17...	0	.0	0	.01	.00	.00	.00	.00	.00	.01

GUADALUPE RIVER BASIN

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08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	18895	732	440	22400	70	3570	69	3520	250
NOV.	13914	951	570	21400	100	3760	95	3570	310
DEC.	12272	988	600	19900	110	3640	100	3310	320
JAN. 1973....	13692	935	560	20700	98	3620	93	3440	310
FEB.	17310	843	510	23800	85	3970	82	3830	280
MAR.	16161	934	560	24400	98	4280	93	4060	310
APR.	53751	509	300	43500	40	5810	42	6100	180
MAY	18503	961	580	29000	110	5500	96	4800	310
JUNE	127599	345	200	68900	17	5860	22	7580	130
JULY	146410	489	290	115000	37	14600	40	15800	170
AUG.	43386	801	480	56200	80	9370	77	9020	270
SEP.	67332	525	310	56400	42	7640	44	8000	180
TOTAL	549225	--	--	502000	--	71600	--	73000	--
WTD. AVG. ...	1505	569	340	--	48	--	49	--	200

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	772	975	812	991	770	783	928	890	1150	458	668	996
2	620	1010	830	991	843	794	953	923	1130	609	676	896
3	744	1040	914	1000	902	907	957	934	1180	790	609	953
4	799	1030	936	1030	912	937	1030	938	1180	846	698	915
5	943	955	959	1060	927	957	1040	938	1200	890	729	962
6	983	928	992	1030	991	987	1020	934	1220	890	739	991
7	996	896	1000	910	1030	1000	953	950	1190	922	734	1010
8	1030	847	1000	873	1050	1010	996	958	1180	946	723	1030
9	1020	927	1000	841	1020	1030	987	974	1150	962	765	1000
10	1040	928	1000	894	1050	1020	945	1000	1190	949	777	949
11	1050	975	975	921	1050	996	877	987	1150	680	807	783
12	1060	975	1000	921	996	1000	733	950	620	397	810	504
13	1080	940	1020	943	983	1010	804	927	395	367	816	700
14	1070	1000	1020	951	914	1000	871	927	257	496	879	840
15	1070	1010	1010	943	876	1030	892	991	229	595	897	879
16	1040	1010	1030	971	873	1030	895	954	253	626	890	893
17	1050	951	987	983	877	1010	388	742	276	663	893	425
18	1060	940	975	983	874	1020	345	788	330	700	873	482
19	1080	854	1000	1000	781	1010	289	828	557	500	825	640
20	1080	854	996	991	784	1020	320	908	705	321	890	516
21	1070	943	1030	1000	799	1010	429	987	792	364	893	337
22	1070	979	1020	996	830	991	446	1020	648	370	904	335
23	1060	1000	1000	1040	751	991	510	1010	364	390	897	439
24	1040	979	1000	1030	770	937	661	1030	450	405	897	570
25	1080	996	996	910	794	987	753	1020	540	431	911	653
26	1020	1010	1000	924	687	991	835	1030	285	475	950	709
27	987	983	1020	955	699	818	857	1070	304	527	946	646
28	878	918	1030	913	781	827	867	1130	228	579	942	635
29	204	903	1040	872	---	637	437	1120	276	614	983	306
30	475	821	1050	703	---	717	895	1140	338	636	966	209
31	852	---	1010	758	---	865	---	1130	---	652	863	---
MONTH	946	953	989	946	879	946	764	972	692	615	834	707

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	21.0	9.0	13.0	12.0	15.5	21.0	22.0	26.5	26.5	29.5	26.5
2	23.0	19.5	11.0	11.0	11.0	16.5	20.0	23.5	28.0	26.5	26.5	26.5
3	22.0	18.5	14.5	11.0	10.0	18.5	21.0	22.0	26.5	28.0	28.0	25.5
4	22.0	18.5	13.5	11.0	13.0	20.0	18.5	25.5	28.0	28.0	25.5	25.5
5	23.5	19.0	13.5	12.0	14.5	20.0	18.5	20.0	28.0	28.0	28.0	25.5
6	25.5	20.0	11.0	11.0	14.5	20.0	16.5	22.0	26.5	28.0	28.0	26.5
7	24.0	21.0	10.0	10.0	18.5	20.0	16.5	22.0	28.0	29.0	28.0	25.5
8	23.5	18.5	11.0	9.5	13.0	20.0	19.5	25.5	26.5	29.0	28.0	25.5
9	24.0	20.0	9.0	7.0	7.0	21.0	16.5	25.5	25.5	29.0	28.0	25.5
10	24.0	18.0	12.0	6.0	9.0	22.0	16.5	24.5	25.5	29.0	29.0	26.5
11	23.5	16.5	9.0	4.5	10.0	21.0	15.5	25.0	25.5	29.5	28.0	25.5
12	25.0	19.5	9.0	3.5	12.0	18.5	18.5	24.0	21.0	26.5	26.5	25.5
13	25.0	19.5	7.0	4.0	14.5	21.0	18.5	24.0	22.0	24.0	26.5	26.5
14	23.5	16.5	9.0	7.0	13.0	21.0	18.5	24.0	22.0	28.0	29.0	26.5
15	23.5	14.5	7.0	10.0	11.0	22.0	20.0	22.0	22.0	29.0	28.0	25.5
16	25.0	15.5	5.5	11.0	11.0	21.0	21.0	23.5	25.5	29.0	28.0	28.0
17	24.0	15.5	7.0	13.0	10.0	18.5	19.5	24.0	25.5	29.0	26.5	25.5
18	24.0	15.0	10.0	14.5	10.0	20.0	20.0	24.0	26.5	29.5	26.5	24.0
19	21.0	14.5	13.0	12.0	9.0	20.0	20.0	24.5	28.0	29.0	28.0	25.5
20	19.5	13.0	14.5	20.0	13.0	18.5	21.0	25.5	26.5	26.5	28.0	25.5
21	29.5	12.0	13.0	15.0	12.0	20.0	22.0	25.5	25.5	28.0	28.0	24.0
22	23.5	10.0	11.0	14.5	12.0	19.5	22.0	25.5	25.5	28.0	28.0	26.5
23	21.0	11.0	10.0	13.0	13.0	19.5	22.0	26.5	25.0	28.0	28.0	25.5
24	20.0	10.0	12.0	12.0	13.0	16.5	23.5	26.5	24.0	27.5	28.0	25.5
25	19.5	11.0	12.0	11.0	14.5	18.5	24.0	26.5	24.0	28.0	26.5	25.5
26	18.0	9.0	12.0	10.0	13.0	19.5	24.0	26.5	23.5	28.0	28.0	26.5
27	18.0	13.0	12.0	13.0	14.0	18.5	21.0	28.0	22.0	29.5	28.0	25.5
28	18.0	12.0	11.0	11.0	13.0	19.5	22.0	26.5	22.0	30.0	26.5	24.0
29	22.0	12.0	15.5	9.0	---	19.5	22.0	24.0	25.5	29.5	26.5	23.5
30	22.0	11.0	15.5	9.0	---	20.0	22.0	27.0	26.5	29.5	26.5	22.0
31	24.0	---	14.5	13.0	---	20.0	---	26.5	---	29.5	26.5	---
MONTH	22.5	15.5	11.0	10.5	12.0	19.5	20.0	24.5	25.0	28.5	27.5	25.5

GUADALUPE RIVER BASIN

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08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.

LOCATION.--Lat 28°30'20", long 96°53'04", Refugio County, at mouth of Calhoun County Irrigation Canal, 550 feet (168 m) upstream from diversion dam and salt-water barrier, 0.4 mile (0.6 km) downstream from mouth of San Antonio River, 3.5 miles (5.6 km) north of Tivoli, and 10.2 miles (16.4 km) upstream from mouth.

DRAINAGE AREA.--10.128 mi² (26,232 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.

Chemical and biochemical analyses: October 1968 to September 1973.

Water temperatures: October 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 820 micromhos Nov. 27; minimum daily, 170 micromhos Oct. 30.

EXTREMES, October 1965 to September 1973.--Specific conductance (1965-70, 1972-73): Maximum daily, 990 micromhos Oct. 9, 1969; minimum daily, 170 micromhos Oct. 30, 1972.

Water temperatures (1966-69): Maximum, 32.0°C on several days during June, July and August, 1967, 1968 and 1969; minimum, 8.0°C Jan. 15, 1968.

REMARKS.--No discharge records available. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
04...	1137	15	72	14	43	--	4.0	236	4	41	62	.3
NOV.												
01...	1145	21	38	3.9	--	22	--	124	0	17	24	.2
07...	1300	16	74	14	--	43	--	240	0	47	60	.3
DEC.												
04...	1050	14	84	17	--	45	--	280	0	44	67	.3
JAN.												
08...	1230	13	89	17	--	57	--	296	0	58	76	.2
09...	1050	11	88	19	50	--	3.4	288	0	57	72	.3
FEB.												
02...	1125	11	62	12	--	37	--	204	0	39	51	.2
MAR.												
12...	1400	13	88	17	--	41	--	280	0	50	65	.3
26...	1125	12	52	10	--	32	--	172	0	34	42	.3
APR.												
19...	1158	12	45	6.3	28	--	5.3	132	0	24	48	.2
MAY												
01...	1257	15	78	14	--	53	--	240	0	58	66	.1
30...	1820	15	82	18	--	48	--	292	0	46	64	.3
JUNE												
18...	1000	13	34	3.2	--	15	--	122	0	13	12	.2
JULY												
17...	0910	14	62	10	--	37	--	204	0	47	41	.2
24...	1035	13	50	8.0	12	--	5.3	171	0	30	17	.2
AUG.												
31...	1055	16	86	19	--	37	--	292	0	52	52	.3
SEP.												
12...	1553	3.2	78	14	--	53	--	248	0	56	70	.2
18...	1430	14	62	11	--	39	--	190	0	42	56	.2

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.												
04...	--	--	--	1.4	--	378	--	--	240	44	1.2	654
NOV.												
01...	--	--	--	1.6	--	194	--	--	110	9	.9	309
07...	.30	.01	.11	1.6	.62	380	126	24	240	43	1.2	664
DEC.												
04...	--	--	--	1.8	--	417	--	--	280	50	1.2	720
JAN.												
08...	.37	.01	.14	2.0	.90	465	31	3	290	50	1.4	795
09...	--	--	--	1.7	--	450	--	--	300	62	1.3	779
FEB.												
02...	--	--	--	1.2	--	318	--	--	200	37	1.1	558
MAR.												
12...	.20	.01	.08	1.7	.68	420	118	30	290	60	1.0	723
26...	--	--	--	1.4	--	274	--	--	170	30	1.1	489
APR.												
19...	--	--	--	.9	--	238	--	--	140	30	1.0	418
MAY												
01...	--	--	--	4.8	--	423	--	--	250	56	1.5	701
30...	.00	.01	.23	1.2	.48	423	122	42	280	39	1.3	742
JUNE												
18...	--	--	--	.1	--	151	--	--	98	0	.6	256
JULY												
17...	.84	.00	.03	.6	.60	314	314	50	200	28	1.2	547
24...	--	--	--	.5	--	222	--	--	160	18	.4	388
AUG.												
31...	--	--	--	1.7	--	414	--	--	290	53	.9	752
SEP.												
12...	--	--	--	1.8	--	404	--	--	250	49	1.5	709
18...	1.6	.00	.02	1.4	.85	323	702	88	200	44	1.2	569

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.											
04...	8.4	24.5	--	--	--	--	--	--	--	--	--
NOV.											
01...	7.7	22.0	--	--	--	--	--	--	--	--	--
07...	7.7	21.5	10	55	6.8	76	1.6	18	10	0	1
DEC.											
04...	8.1	15.0	--	--	--	--	--	--	--	--	--
JAN.											
08...	7.8	11.0	10	35	9.3	84	1.4	10	20	0	0
09...	8.2	9.5	--	--	--	--	--	--	--	--	--
FEB.											
02...	7.8	13.5	--	--	--	--	--	--	--	--	--
MAR.											
12...	7.7	20.5	20	55	8.2	90	1.8	11	--	--	--
26...	7.9	19.0	--	--	--	--	--	--	--	--	--
APR.											
19...	7.4	21.5	--	--	--	--	--	--	--	--	--
MAY											
01...	8.1	22.0	--	--	--	--	--	--	--	--	--
30...	7.8	28.0	10	55	7.0	89	1.9	12	0	0	0
JUNE											
18...	7.2	28.0	--	--	--	--	--	--	--	--	--
JULY											
17...	7.4	29.0	20	130	5.3	68	1.8	8.0	0	0	1
24...	7.4	29.0	--	--	--	--	--	--	--	--	--
AUG.											
31...	7.5	29.0	--	--	--	--	--	--	--	--	--
SEP.											
12...	8.3	28.0	--	--	--	--	--	--	--	--	--
18...	7.5	27.0	25	190	6.1	75	1.7	18	--	--	--

GUADALUPE RIVER BASIN

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08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 04...	--	--	--	--	--	--	--	--	--	--	--
NOV. 01...	--	--	--	--	--	--	--	--	--	--	--
07...	0	0	4	0	0	10	0	<.2	0	480	0
DEC. 04...	--	--	--	--	--	--	--	--	--	--	--
JAN. 08...	0	0	4	0	0	20	0	.2	8	720	20
09...	--	--	--	--	--	--	--	--	--	--	--
FEB. 02...	--	--	--	--	--	--	--	--	--	--	--
MAR. 12...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
APR. 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 01...	--	--	--	--	--	--	--	--	--	--	--
30...	0	0	2	0	0	20	0	<.2	0	680	0
JUNE 18...	--	--	--	--	--	--	--	--	--	--	--
JULY 17...	0	0	3	10	0	10	0	<.2	0	500	0
24...	--	--	--	--	--	--	--	--	--	--	--
AUG. 31...	--	--	--	--	--	--	--	--	--	--	--
SEP. 12...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)	DI-ELDRIN (UG/L)
NOV. 07...	1300	21.5	.00	.0	.00	1.2	.00	2.6	.00	1.2	.00
JAN. 08...	1230	11.0	.00	.0	.00	3.7	.00	4.9	.00	2.4	.00
MAY 30...	1820	28.0	.00	.0	.00	.8	.00	2.2	.00	1.0	.00
JULY 17...	0910	29.0	.00	.0	.00	.7	.00	2.2	.00	1.4	.00

DATE	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 07...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 08...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 30...	.9	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 17...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 07...	4	.0	0	.03	.00	.00	.00	.00	.00	.01
JAN. 08...	9	.0	0	.03	.00	.00	.00	.00	.00	.00
MAY 30...	4	.0	0	.00	.00	.00	.00	.00	.00	.00
JULY 17...	4	.0	0	.03	.00	.00	.00	.02	.01	.04

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	320	780	800	610	660	500	700	760	280	610	750
2	655	390	770	790	580	630	550	700	760	340	610	760
3	640	470	750	790	600	640	560	710	760	400	640	760
4	670	530	730	780	700	670	610	690	730	480	630	760
5	660	570	740	780	710	680	640	710	730	600	660	720
6	670	660	770	780	700	680	650	710	730	690	650	720
7	700	670	780	800	740	700	690	700	750	710	660	740
8	735	640	780	810	740	710	700	700	760	740	660	750
9	750	630	790	790	750	730	640	680	760	780	640	760
10	760	630	800	750	750	730	660	700	760	760	660	760
11	760	660	800	740	730	730	740	710	730	760	680	770
12	770	700	800	730	700	730	750	730	740	770	690	720
13	760	710	790	750	710	740	690	730	640	790	690	700
14	770	750	790	770	740	740	660	720	340	470	700	540
15	770	750	790	780	730	750	690	690	280	470	700	590
16	790	720	800	780	730	750	690	610	270	520	720	640
17	790	730	800	760	710	750	700	680	260	550	730	670
18	795	760	800	750	730	750	600	680	260	580	730	660
19	780	770	800	770	740	730	470	650	270	610	710	540
20	770	740	800	750	680	720	500	650	290	620	710	520
21	770	740	790	760	610	710	430	660	350	600	710	520
22	770	750	790	760	680	720	430	690	510	420	730	510
23	790	720	800	760	660	730	400	700	620	390	740	440
24	790	750	800	760	620	720	440	710	620	370	730	380
25	790	800	810	780	590	660	480	700	500	390	730	450
26	780	800	810	810	650	490	540	710	450	400	750	530
27	800	820	800	780	670	540	580	710	440	430	750	580
28	800	810	800	730	640	650	650	710	370	460	740	580
29	760	790	780	670	---	660	670	710	330	500	730	570
30	700	790	790	700	---	540	670	730	300	540	730	600
31	290	---	800	690	---	510	---	750	---	580	750	---
MONTH	800	820	810	810	750	750	750	750	760	790	750	770

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	260	740	780	570	600	450	670	740	260	580	730
2	630	320	740	770	540	600	500	680	740	280	590	730
3	620	390	720	750	550	630	550	680	740	340	600	730
4	640	470	720	760	600	640	550	660	700	400	630	770
5	620	530	720	770	670	650	610	690	710	480	620	710
6	650	570	740	760	730	680	640	680	710	600	630	700
7	670	640	760	770	720	680	650	680	730	690	640	710
8	700	580	760	790	770	700	640	660	740	710	650	740
9	740	580	770	750	730	710	560	680	740	760	640	750
10	750	580	790	730	730	720	560	670	730	750	640	760
11	740	630	790	720	700	720	680	700	710	740	660	720
12	750	660	790	700	660	700	690	710	530	730	680	710
13	740	690	780	700	670	720	660	720	270	450	670	540
14	760	710	770	730	710	730	620	680	240	430	680	480
15	760	710	780	750	700	740	630	610	260	440	680	530
16	760	700	780	740	700	740	680	550	260	450	690	590
17	760	710	790	730	690	730	530	600	260	520	720	630
18	760	730	770	720	700	730	270	440	260	550	700	490
19	760	750	780	740	680	720	400	620	260	580	700	370
20	750	720	770	730	580	700	430	620	260	600	690	440
21	760	720	770	740	580	690	390	640	280	340	690	450
22	750	710	780	740	600	700	360	650	370	350	700	430
23	770	700	780	740	630	720	350	680	510	370	730	380
24	770	720	790	740	570	660	400	700	500	370	730	370
25	780	750	780	710	540	440	440	700	390	370	730	400
26	750	790	790	780	590	440	480	700	400	390	740	450
27	750	760	770	730	630	490	540	700	360	400	730	530
28	760	750	780	660	590	540	580	690	330	430	710	520
29	620	750	760	640	---	540	650	700	300	460	720	500
30	170	760	780	670	---	510	650	720	260	500	720	510
31	200	---	780	600	---	480	---	730	---	540	740	---
MONTH	170	260	720	600	540	440	270	550	240	260	580	370

GUADALUPE RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE GUADALUPE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08167700 CANYON LAKE NEAR NEW BRAUNFELS, TEX. (Lat 29°52'07", long 98°11'55")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 02...	1400	358700	10	51	17	9.6	2.1	210	0	19	17
JULY 02...	1230	383700	8.8	53	17	9.0	2.4	216	0	19	17
DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 02...	.2	.40	231	200	25	.3	412	7.7	10.5	0	160
JULY 02...	.2	.20	233	200	25	.3	423	7.1	15.0	0	70

08186500 ECLETO CREEK NEAR RUNGE, TEX. (Lat 28°55'12", long 97°46'19")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV. 02...	1200	.04	16.0	.01
DEC. 06...	1250	.08	11.5	.03

SALT CREEK BASIN

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08189100 SALT CREEK NEAR REFUGIO, TEX.

LOCATION.--Lat 28°19'00", long 97°00'24", Refugio County, at culvert on Farm Road 774, and 16.4 miles (26.4 km) east of Refugio.

DRAINAGE AREA.--13.6 mi² (22.8 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1970 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 04...	1030	7.6	24	20	3.7	23	5.1	108	0	6.8	10	.1
NOV. 08...	1455	.02	23	44	5.1	29	5.3	178	0	13	23	.2
JAN. 17...	1455	.02	11	46	5.4	28	5.3	177	0	24	26	.2
FEB. 20...	0835	1.1	14	25	4.3	25	7.6	96	0	20	29	.2
APR. 30...	1840	3.1	37	32	6.0	29	6.4	150	0	7.2	30	.2
JUNE 13...	1605	34	9.4	6.2	1.2	5.1	4.7	32	0	4.4	4.2	.1
JULY 11...	0749	.82	33	30	5.1	26	4.9	130	0	4.4	32	.1
SEP. 18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	1115	106	23	20	3.5	14	4.8	87	0	.4	10	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT. 04...	--	--	.36	.00	.08	.07	.05	--	146	--	65	0
NOV. 08...	.140	.022	.62	.00	.11	.09	.10	100	231	158	130	0
JAN. 17...	--	--	.49	.00	.08	.02	.07	--	233	--	140	0
FEB. 20...	.240	.001	.56	.00	.18	.07	.10	110	173	220	80	1
APR. 30...	.230	.040	1.2	.00	.18	.05	.06	180	222	160	100	0
JUNE 13...	.034	.001	.81	.00	.02	.03	.11	70	52	64	20	0
JULY 11...	.350	.048	1.7	.00	.19	.07	.13	200	200	174	96	0
SEP. 18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	.150	.014	.93	.00	.02	.03	.06	120	119	93	64	0

DATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)
OCT. 04...	1.2	233	6.9	23.0	70	5.7	66	1.7	27	--	--	--
NOV. 08...	1.1	383	8.6	19.5	80	8.3	89	5.3	37	40	0	1
JAN. 17...	1.0	403	8.7	18.0	50	10.0	105	3.9	18	--	--	--
FEB. 20...	1.2	289	7.2	13.0	100	8.8	83	5.0	33	--	--	--
APR. 30...	1.2	347	8.1	23.0	75	8.1	93	1.9	38	80	0	2
JUNE 13...	.5	77	7.5	22.0	40	6.8	77	3.6	14	100	0	2
JULY 11...	1.2	313	7.1	28.5	90	4.0	51	2.5	39	100	0	0
SEP. 18...	--	--	--	--	--	--	--	--	--	80	0	1
18...	.8	182	6.5	26.0	50	5.3	65	1.3	26	--	--	--

SALT CREEK BASIN

08189100 SALT CREEK NEAR REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 04...	--	--	--	--	--	--	--	--	--	--	--
NOV. 08...	0	1	8	70	0	10	0	.6	0	160	30
JAN. 17...	--	--	--	--	--	--	--	--	--	--	--
FEB. 20...	--	--	--	--	--	--	--	--	--	--	--
APR. 30...	0	0	5	90	3	0	0	.3	0	200	20
JUNE 13...	0	2	7	160	0	0	30	.2	6	90	110
JULY 11...	0	0	7	170	0	0	30	.2	0	180	0
SEP. 18...	0	1	2	110	0	0	0	<.2	0	0	10
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 08...	1455	.02	19.5	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 20...	0835	1.1	13.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 30...	1840	3.1	23.0	.00	--	.00	--	.00	--	.00	--
JUNE 13...	1605	34	22.0	.00	--	.00	--	.00	--	.00	--
JULY 11...	0749	.82	28.5	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 18...	1115	106	26.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN ROT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 08...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 20...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 30...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JUNE 13...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 11...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 18...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 30...	--	.0	--	.00	.00	.00	.00	.00	.00	.00
JUNE 13...	--	.0	--	.00	.00	.00	.00	.00	.00	.00
JULY 11...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SEP. 18...	--	.0	--	.01	.00	.00	.00	.00	.00	.12

COPANO CREEK BASIN

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08189200 COPANO CREEK NEAR REFUGIO, TEX.

LOCATION.--Lat 28°18'12", long 97°06'44", Refugio County, at bridge on Farm Road 774, 3.6 miles (5.8 km) upstream from Alameda Creek, 8.1 miles (13.0 km) east of Refugio, and 11.9 miles (19.1 km) upstream from mouth.

DRAINAGE AREA.--87.8 mi² (227 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1973.
Pesticide analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 04...	0945	35	16	10	2.6	27	5.4	50	0	4.6	34	.1
NOV. 08...	1600	.08	15	48	6.3	130	8.2	178	0	23	190	.2
DEC. 13...	1620	.08	8.7	84	14	600	9.4	148	0	250	870	.4
JAN. 17...	1420	.22	.6	60	11	560	8.6	171	0	190	750	.3
FEB. 19...	1742	25	8.6	21	4.4	150	7.1	52	0	27	240	.2
MAR. 26...	1730	.14	9.5	31	6.6	140	11	154	0	55	160	.3
APR. 30...	1740	5.5	25	18	4.8	41	7.7	90	0	17	41	.2
JUNE 14...	0810	710	8.3	6.0	1.5	8.8	4.5	32	0	5.2	8.6	.1
JULY 10...	1800	34	26	10	2.8	33	6.5	48	0	4.4	52	.1
AUG. 14...	0910	.30	19	34	5.9	110	8.5	162	0	48	130	.2
SEP. 18...	1000	723	13	11	2.3	7.4	5.0	49	0	.0	7.0	.0

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 04...	--	--	.52	.00	.16	.05	.12	--	125	--	36	0
NOV. 08...	1.4	.075	.92	.00	.11	.05	.14	330	511	166	150	4
DEC. 13...	--	--	.44	.00	.05	.04	.08	--	1920	--	270	150
JAN. 17...	--	--	.39	.00	.06	.00	.09	--	1670	--	190	54
FEB. 19...	1.4	.036	.57	.00	.22	.2	.18	430	496	252	70	28
MAR. 26...	--	--	2.2	.00	.21	.09	.41	--	491	--	110	0
APR. 30...	--	--	2.4	.00	.27	.3	.25	--	200	--	65	0
JUNE 14...	.059	.002	.93	.00	.02	.09	.11	110	60	71	21	0
JULY 10...	.370	.021	1.5	.00	.17	.05	.16	180	159	78	36	0
AUG. 14...	--	--	1.9	.00	.40	.1	.26	--	438	--	110	0
SEP. 18...	.110	.007	.71	.00	.06	.1	.07	80	70	63	37	0

COPANO CREEK BASIN

08189200 COPANO CREEK NEAR REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 04...	2.0	217	6.7	22.5	20	6.4	73	2.5	26	--	--	--
NOV. 08...	4.6	928	8.0	21.5	80	8.0	90	4.7	38	50	0	1
DEC. 13...	16	3420	7.7	9.0	55	10.4	90	2.1	18	--	--	--
JAN. 17...	17	2990	8.3	18.5	65	10.0	108	3.1	18	--	--	--
FEB. 19...	8.1	938	7.4	10.5	110	9.1	81	4.8	30	--	--	--
MAR. 26...	5.9	920	7.6	21.5	160	8.2	92	8.1	34	270	0	1
APR. 30...	2.2	317	8.4	22.5	220	7.2	82	3.6	49	--	--	--
JUNE 14...	.8	94	6.8	24.5	40	4.3	51	3.1	14	70	0	0
JULY 10...	2.4	252	6.9	32.0	35	5.1	69	2.9	36	50	0	1
AUG. 14...	4.7	749	7.2	26.5	110	4.0	49	1.9	46	--	--	--
SEP. 18...	.5	109	6.3	26.0	35	3.7	45	1.9	22	90	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 04...	--	--	--	--	--	--	--	--	--	--	--
NOV. 08...	0	1	5	80	0	20	0	.4	0	620	30
DEC. 13...	--	--	--	--	--	--	--	--	--	--	--
JAN. 17...	--	--	--	--	--	--	--	--	--	--	--
FEB. 19...	--	--	--	--	--	--	--	--	--	--	--
MAR. 26...	0	0	9	450	4	30	40	.2	4	990	70
APR. 30...	--	--	--	--	--	--	--	--	--	--	--
JUNE 14...	0	0	4	160	0	0	0	<.2	0	100	50
JULY 10...	0	0	4	260	0	0	30	.2	0	290	0
AUG. 14...	--	--	--	--	--	--	--	--	--	--	--
SEP. 18...	0	0	2	140	0	0	0	<.2	0	0	10

COPANO CREEK BASIN

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08189200 COPANO CREEK NEAR REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
NOV. 08...	1600	.08	21.5	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 19...	1742	25	10.5	.00	.0	.00	.0	.00	.0	.00	.0
MAR. 26...	1730	.14	21.5	.00	.0	.00	.0	.00	.0	.00	.0
JUNE 14...	0810	710	24.5	.00	--	.00	--	.00	--	.00	--
JULY 10...	1800	34	32.0	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 18...	1000	723	26.0	.00	--	.00	--	.00	--	.00	--

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 08...	.00	.5	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 19...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 26...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 14...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 10...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 18...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 19...	0	.0	0	.00	.00	.00	.00	.04	.00	.00
MAR. 26...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JUNE 14...	--	.0	--	.00	.00	.00	.00	.00	.00	.00
JULY 10...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
SFP. 18...	--	.0	--	.00	.00	.00	.00	.00	.00	.00

08189500 MISSION RIVER AT REFUGIO, TEX.

LOCATION.--Lat 28°17'30", long 97°16'44", Refugio County, at gaging station on upstream bridge of two bridges on U.S. Highway 77, 560 feet (171 m) upstream from Missouri Pacific Railroad Co. bridge, and 0.2 mile (0.3 km) southwest of Refugio.

DRAINAGE AREA.--690 mi² (1,787 km²).

PERIOD OF RECORD.--Chemical analyses: September 1961 to September 1973.

Chemical and biochemical analyses: January 1968 to September 1973.

Water temperatures: November 1962 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 6,200 micromhos June 6; minimum daily, 101 micromhos June 14.

Water temperatures: Maximum, 31.0°C May 24; minimum, 1.0°C Jan. 11.

EXTREMES, September 1961 to September 1973.--Specific conductance: Maximum daily, 100,000 micromhos Nov. 28, 1965 minimum daily, 85 micromhos Sept. 13, 1971.

Water temperatures (1962-73): Maximum, 37.0°C May 12, 1967; minimum, 1.0°C Jan. 11, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
31...	1700	784	11	24	2.5	14	--	5.6	82	0	4.6	21
NOV.												
02...	0915	152	17	52	5.9	--	56	--	156	0	9.2	97
07...	1600	46	33	110	14	--	220	--	296	0	23	380
DEC.												
04...	1725	22	29	110	20	--	430	--	250	0	28	740
JAN.												
09...	0905	17	37	150	23	--	450	--	366	0	38	780
27...	0930	104	22	72	12	110	--	3.6	186	0	25	210
FEB.												
14...	1025	25	20	85	14	--	300	--	174	0	25	540
MAR.												
13...	0810	18	30	160	25	--	570	--	332	0	35	1000
23...	1245	16	37	110	28	--	740	--	156	0	37	1300
APR.												
17...	1630	1190	11	37	3.4	23	--	4.9	113	0	6.4	40
MAY												
30...	0940	8.1	41	--	33	--	--	--	--	--	35	1600
30...	1600	7.9	40	160	32	850	--	--	302	0	38	1500
JUNE												
15...	1830	6100	8.6	14	1.6	--	4.0	--	54	0	39	4.0
JULY												
01...	1100	281	32	74	13	210	--	4.8	196	0	16	370
17...	1440	55	41	140	21	--	440	--	368	0	27	750
AUG.												
11...	1645	32	55	140	26	--	580	--	350	0	29	1000
SEP.												
18...	1600	2440	22	16	1.9	--	5.0	--	58	0	.4	7.4
18...	1730	2300	9.9	16	1.6	--	7.3	--	63	0	.4	6.0

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
31...	.2	--	--	--	1.0	--	127	--	--	70	3	.7
NOV.												
02...	.2	--	--	--	.3	--	316	--	--	150	26	2.0
07...	.2	.26	.00	.09	.06	.00	924	32	14	330	87	5.3
DEC.												
04...	.3	--	--	--	.1	--	1480	--	--	350	140	10
JAN.												
09...	.2	.18	.00	.11	.07	.03	1650	9	3	470	170	9.0
27...	.2	--	--	--	.09	--	547	--	--	230	76	3.2
FEB.												
14...	.2	--	--	--	.5	--	1070	--	--	270	130	8.0
MAR.												
13...	.3	.28	.00	.17	.03	.04	1990	67	16	490	220	11
23...	--	--	--	--	.09	--	2330	--	--	380	260	16
APR.												
17...	.2	--	--	--	.7	--	185	--	--	110	14	1.0
MAY												
30...	--	--	--	--	.5	--	--	--	--	--	--	--
30...	.3	.00	.00	.19	.06	.04	2750	67	26	540	290	16
JUNE												
15...	.1	--	--	--	.06	--	99	--	--	42	0	.3
JULY												
01...	.2	--	--	--	.3	--	816	--	--	240	78	5.8
17...	.2	.56	.00	.02	.1	.05	1600	37	4	430	130	9.2
AUG.												
11...	--	--	--	--	.4	--	2010	--	--	470	180	12
SEP.												
18...	.1	.93	.00	.07	.04	.09	82	125	14	48	0	.3
18...	.0	--	--	--	.5	--	74	--	--	46	0	.5

MISSION RIVER BASIN

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08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT.												
31...	229	8.0	26.0	--	--	--	--	--	--	--	--	--
NOV.												
02...	573	7.3	26.0	--	--	--	--	--	--	--	--	--
07...	1680	7.6	22.0	25	15	8.6	98	1.8	28	10	10	1
DEC.												
04...	2780	8.0	17.5	--	--	--	--	--	--	--	--	--
JAN.												
09...	2970	7.6	8.0	15	7	9.7	82	1.8	16	10	0	0
27...	996	8.0	11.0	--	--	--	--	--	--	--	--	--
FEB.												
14...	2000	7.9	14.0	--	--	--	--	--	--	--	--	--
MAR.												
13...	3660	7.7	20.0	30	20	7.5	82	1.9	11	--	--	--
23...	4430	7.9	20.0	--	--	--	--	--	--	--	--	--
APR.												
17...	333	7.6	21.0	--	--	--	--	--	--	--	--	--
MAY												
30...	5290	--	25.0	--	--	--	--	--	--	--	--	--
30...	4980	7.9	28.0	10	30	10.1	129	2.4	14	10	10	0
JUNE												
15...	114	6.3	26.5	--	--	--	--	--	--	--	--	--
JULY												
01...	1520	7.6	28.0	--	--	--	--	--	--	--	--	--
17...	2890	7.7	30.0	10	20	8.0	107	2.2	2.0	0	0	0
AUG.												
11...	3720	7.6	--	--	--	--	--	--	--	--	--	--
SEP.												
18...	125	7.7	26.0	140	55	5.8	71	2.7	22	--	--	--
18...	124	6.9	26.0	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.											
31...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
02...	--	--	--	--	--	--	--	--	--	--	--
07...	0	1	3	0	0	30	100	<.2	4	1600	10
DEC.											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
09...	0	0	7	0	0	70	200	.2	10	3500	30
27...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
14...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
13...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
APR.											
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
30...	--	--	--	--	--	--	--	--	--	--	--
30...	0	0	2	10	0	150	170	<.2	0	6000	10
JUNE											
15...	--	--	--	--	--	--	--	--	--	--	--
JULY											
01...	--	--	--	--	--	--	--	--	--	--	--
17...	0	0	4	20	0	60	160	<.2	0	2900	0
AUG.											
11...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	INSTANTANEOUS DISSOLVED CHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SOLIDS (MG/L)	SUSPENDED SOLIDS (T/DAY)
AUG.					
09...	1422	30	29.0	96	7.8

MISSION RIVER BASIN

08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 07...	1600	22.0	.00	.0	.00	7.8	.00	1.1	.00	3.8	.00
JAN. 09...	0905	8.0	.00	.0	.00	.0	.00	.0	.00	.0	.00
MAY 30...	1600	28.0	.00	.0	.00	1.1	.00	.4	.00	3.3	.00
JULY 17...	1440	30.0	.00	.0	.00	.0	.00	.0	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 07...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 09...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 30...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 17...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 07...	2	.0	0	.00	.00	.00	.00	.00	.00	.02
JAN. 09...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
MAY 30...	26	.0	0	.00	.00	.00	.00	.00	.00	.00
JULY 17...	11	.0	0	.00	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	5307	638	330	4730	160	2290	9.2	132	150
NOV.	1594	1400	750	3230	390	1680	19	82	220
DEC.	589	3130	1700	2700	920	1460	28	45	380
JAN. 1973....	740	2580	1400	2800	750	1500	25	50	330
FEB.	1728	973	510	2380	260	1210	13	61	180
MAR.	598	3330	1810	2920	980	1580	29	47	400
APR.	3575	813	430	4150	210	2030	11	106	160
MAY	391.8	3570	1940	2050	1100	1160	30	32	430
JUNE	55446.2	202	89	13300	25	3740	3.9	584	110
JULY	2553	2510	1360	9370	730	5030	25	172	320
AUG.	2219	1520	820	4910	430	2580	20	120	230
SEP.	15358	339	160	6630	66	2740	5.6	232	120
TOTAL	90099.0	--	--	59200	--	27000	--	1660	--
WTD. AVG. ...	247	483	240	--	110	--	6.8	--	140

MISSION RIVER BASIN

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08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	580	336	2410	3800	2890	2150	4100	2360	5510	1520	3240	1600
2	894	573	2620	3700	2880	2240	4240	2530	5600	2330	3380	1800
3	1380	870	2720	3650	3150	2480	4260	2260	5460	2070	3100	2010
4	1570	1120	2780	3540	3540	2700	4380	2590	5670	2240	2950	2250
5	1820	1360	2870	3460	3510	2820	4040	2990	6150	2380	2940	2690
6	2060	1540	2710	3800	3350	2780	3500	3180	6200	2480	3150	2670
7	2180	1560	2830	3500	3460	2910	2810	3280	5800	2570	3080	2740
8	2370	1740	2910	3140	3400	3210	334	2700	5900	2740	3020	2780
9	2620	1840	3010	2830	2640	3320	612	2970	5770	2640	3320	2980
10	2610	1880	2920	2750	2890	3290	847	3150	5850	2340	3430	2960
11	2720	1980	2830	2800	2200	3160	1420	3550	1290	2530	3720	2430
12	2790	2090	3080	2600	1730	3390	2170	3560	327	2640	3110	2120
13	2900	1970	2930	2740	1920	3550	2580	3420	129	2780	3000	1800
14	3040	1990	2990	2940	2000	3370	3370	3230	101	2870	2370	1070
15	3150	2000	2860	2860	2470	3660	3800	3760	114	2850	1070	1550
16	3250	1880	2900	3190	2540	3380	5000	3980	200	2830	1600	400
17	3220	2070	2960	3330	2300	3600	333	4160	486	2870	643	225
18	3270	2170	3260	3510	2120	3830	482	4300	1080	2900	240	124
19	3340	2310	3310	3520	379	4050	409	4180	1700	2920	495	229
20	3510	2470	3320	3630	648	3880	451	4380	1370	3000	897	386
21	4580	2640	3210	3560	850	3970	624	4390	541	3080	1530	409
22	3420	2510	3400	3550	1030	4020	831	4510	705	3100	2010	773
23	3220	2540	3590	3470	329	4430	1090	4750	1050	3120	2330	1100
24	3280	2620	3600	3550	240	3610	1410	4610	1410	3120	2540	1550
25	3300	2280	3700	3640	444	3550	1630	4840	207	3120	2630	1750
26	3560	1800	3740	2630	688	3560	1730	4980	126	3030	2750	2070
27	3530	1420	3770	996	1090	4090	1960	4710	130	2940	2870	280
28	3460	1490	3720	902	1480	4130	2300	4840	205	3070	2710	226
29	1400	1850	3940	1410	---	4150	2550	5000	380	3150	1400	198
30	188	2190	3900	1990	---	4180	2660	5120	900	3210	1670	300
31	220	---	3850	2400	---	3930	---	5200	---	3200	1800	---
MONTH	2560	1840	3180	3010	2010	3470	2200	3850	2350	2760	2350	1450

TEMPERATURE (DEG. C) OF WATER + WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.5	---	---	16.0	18.5	---	22.0	26.5	28.0	29.0	---
2	22.0	26.0	17.0	---	14.5	18.0	21.0	24.5	26.0	28.5	27.0	---
3	24.5	19.0	16.5	11.0	15.5	21.5	22.0	21.5	28.5	28.0	---	26.5
4	23.5	18.5	17.5	13.5	17.0	---	21.5	21.5	27.0	29.0	28.0	26.0
5	25.5	19.5	17.0	14.5	19.5	21.0	18.0	22.0	28.0	29.0	28.5	24.5
6	28.0	22.0	13.0	13.0	20.5	24.0	---	23.0	26.5	29.0	26.5	26.5
7	26.0	21.0	10.5	---	20.0	23.5	16.0	24.5	26.5	28.5	28.5	24.5
8	23.5	21.0	13.5	10.0	---	22.0	18.0	26.5	26.0	27.0	29.5	29.0
9	26.5	25.0	14.5	9.5	9.0	23.5	16.0	29.0	24.5	29.0	28.0	28.0
10	27.0	19.0	13.0	6.5	10.0	21.5	18.5	25.0	26.5	29.0	29.0	26.5
11	24.5	---	4.0	1.0	---	22.0	17.0	25.0	24.0	29.5	28.0	25.5
12	25.5	24.0	11.0	2.0	13.5	19.0	20.0	24.0	21.5	29.5	26.5	27.0
13	27.0	20.0	10.5	9.0	15.0	20.5	18.0	22.0	22.0	28.0	26.0	27.0
14	24.0	17.0	11.0	11.0	14.0	22.0	21.0	25.5	25.0	30.0	26.0	26.5
15	---	14.0	10.0	13.5	13.0	23.5	---	23.0	26.5	---	28.5	25.0
16	23.5	19.0	---	16.0	13.0	20.0	19.5	21.0	---	29.0	---	---
17	24.5	16.0	9.0	15.5	---	---	21.0	25.5	28.5	28.0	27.0	25.0
18	26.5	19.0	13.0	18.0	10.0	21.0	21.5	24.0	29.0	30.0	26.5	26.0
19	23.0	---	15.5	14.5	10.5	20.0	23.5	29.0	29.0	29.5	28.5	26.5
20	21.0	12.0	18.5	19.5	13.0	18.5	25.0	25.5	25.5	---	29.5	28.0
21	25.5	12.0	14.5	17.0	---	19.0	24.5	26.5	24.5	26.5	30.0	28.0
22	25.0	13.5	---	16.5	12.0	19.0	23.5	25.5	24.5	---	27.0	28.5
23	23.0	13.0	15.0	14.5	13.0	20.0	24.0	25.5	---	28.0	27.0	---
24	20.0	12.0	---	---	14.0	23.0	25.0	31.0	25.5	27.0	29.5	29.0
25	19.5	12.0	---	10.0	15.5	---	24.5	26.0	24.0	29.0	28.0	---
26	19.0	---	11.0	11.5	16.5	21.0	25.0	26.0	25.5	27.0	---	29.0
27	16.5	13.5	11.0	11.0	14.5	19.5	20.5	26.5	26.5	28.5	26.5	---
28	21.0	13.0	15.5	11.5	16.5	---	---	24.5	28.5	29.0	28.5	24.0
29	---	12.0	18.5	11.5	---	23.0	22.0	25.5	---	29.0	---	25.0
30	21.0	11.0	---	11.0	---	21.0	22.0	25.0	---	29.0	26.0	---
31	26.0	---	---	---	---	23.5	---	28.5	---	29.5	---	---
MONTH	23.5	17.5	---	12.0	14.5	21.0	21.0	25.0	26.0	28.5	28.0	---

ARANSAS RIVER BASIN

08189800 CHILTIPIN CREEK AT SINTON, TEX.

LOCATION.--Lat 28°02'48", long 97°30'13", San Patricio County, 100 ft (30 m) downstream from sewage outfall, 400 feet (120 m) downstream from bridge on U.S. Highway 77, and 0.8 mile (1.3 km) north of Sinton.

DRAINAGE AREA.--128 mi² (332 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.

Chemical and biochemical analyses: October 1969 to September 1973.

Pesticide analyses: October 1969 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
02...	1650	21	27	80	13	610	13	81	0	8.6	1100	.2
NOV.												
09...	1320	1.6	14	1600	250	15000	67	98	0	20	26000	.3
DEC.												
14...	0835	1.8	19	2300	360	21000	64	152	0	23	37000	.4
JAN.												
17...	0935	1.4	6.5	2200	330	21000	73	166	0	33	36000	.3
FEB.												
19...	1530	1.3	19	1900	290	18000	73	172	0	29	32000	.4
MAR.												
26...	1605	.25	15	2200	380	20000	42	86	0	35	36000	.3
APP.												
30...	1550	.12	7.6	620	130	5200	21	201	0	46	9300	.9
JUNE												
04...	1545	.46	11	200	61	3000	16	106	0	31	5100	1.2
12...	1815	453	16	18	2.8	22	7.1	71	0	6.8	32	.1
13...	0728	798	16	48	5.3	98	8.3	156	0	40	140	.2
14...	1043	2280	11	9.8	2.3	7.8	5.0	44	0	3.2	9.8	.1
14...	1328	2020	11	23	2.0	28	3.7	88	0	16	31	.2
JULY												
10...	1542	88	25	160	30	830	12	166	0	30	1500	.2
AUG.												
14...	1040	5.7	12	68	12	310	10	78	0	14	590	.1
SEP.												
17...	1640	432	16	16	3.9	14	8.6	60	0	4.0	19	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
02...	--	--	.43	.00	.32	.02	.85	--	1850	--	250	190
NOV.												
09...	190	9.4	.63	.00	2.0	.2	.08	22000	43300	29	5200	5100
DEC.												
14...	--	--	.24	.00	5.1	.01	.07	--	60300	--	7300	7100
JAN.												
17...	--	--	.12	.00	4.8	.00	.09	--	59300	--	6900	6700
FEB.												
19...	22	11	.25	.00	4.3	.09	.12	28000	52600	202	5900	5800
MAR.												
26...	--	--	.69	.00	3.6	.00	.22	--	58900	--	7200	7100
APR.												
30...	--	--	2.0	.00	.06	.06	.29	--	15400	--	2100	1900
JUNE												
04...	--	--	.04	.00	.31	.00	.34	--	8490	--	760	670
12...	.270	.029	2.3	.00	.28	.1	.94	140	141	568	56	0
13...	.720	.064	1.9	.09	1.6	.4	3.5	420	440	1510	140	14
14...	.079	.010	1.0	.00	.17	.1	.51	90	72	316	34	0
14...	.130	.009	1.1	.01	.18	.3	1.4	180	160	1780	66	0
JULY												
10...	8.4	.500	.00	.00	.04	.03	.38	990	2700	22	520	380
AUG.												
14...	--	--	.00	.00	.16	.08	.52	--	1050	--	220	160
SEP.												
17...	.240	.023	1.3	.00	.10	.08	.60	80	112	500	56	7

ARANSAS RIVER BASIN

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08189800 CHILTIPI CREEK AT SINTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
02...	17	3470	7.3	28.5	90	7.0	91	2.3	--	--	--	--
NOV.												
09...	92	67200	7.8	24.0	10	17.6	275	6.7	28	0	0	1
DEC.												
14...	108	89500	6.9	10.0	12	3.0	43	3.2	12	--	--	--
JAN.												
17...	110	88800	7.0	16.5	20	4.0	65	5.0	16	--	--	--
FEB.												
19...	102	79600	7.6	15.5	10	16.2	235	7.8	17	--	--	--
MAR.												
26...	104	86600	8.0	27.5	25	17.0	327	11	22	0	0	0
APR.												
30...	50	25500	8.0	22.0	30	9.9	122	16	24	--	--	--
JUNE												
04...	48	15000	8.7	29.0	10	11.0	149	8.1	18	--	--	--
12...	1.3	243	7.2	23.5	200	5.6	65	8.7	32	290	10	0
13...	3.6	807	7.4	25.5	350	5.5	66	15	--	--	--	--
14...	.6	114	7.1	25.0	140	3.7	44	3.7	18	180	10	0
14...	1.5	283	8.4	26.5	420	5.7	70	2.4	--	--	--	--
JULY												
10...	16	4890	7.9	34.5	10	9.4	132	3.4	13	0	10	0
AUG.												
14...	9.1	2050	7.4	28.5	50	6.8	87	2.9	23	--	--	--
SEP.												
17...	.8	172	6.7	26.5	180	6.3	77	3.1	23	330	10	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
09...	0	0	3	0	0	2100	950	<.2	0	120000	80
DEC.											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
17...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
19...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
26...	0	0	4	10	0	2900	530	<.2	3	140000	80
APR.											
30...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
04...	--	--	--	--	--	--	--	--	--	--	--
12...	0	0	7	420	0	10	40	<.2	2	220	130
13...	--	--	--	--	--	--	--	--	--	--	--
14...	0	1	5	220	0	0	0	<.2	4	160	60
14...	--	--	--	--	--	--	--	--	--	--	--
JULY											
10...	0	0	4	30	0	130	400	<.2	0	5700	0
AUG.											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
17...	0	0	4	380	0	0	20	<.2	2	0	10

ARANSAS RIVER BASIN

08189800 CHILTIPIN CREEK AT SINTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
NOV. 09...	1320	1.6	24.0	.00	.0	.00	.0	.00	.9	.00	.0
FEB. 19...	1530	1.3	15.5	--	.0	--	.0	--	1.2	--	.0
MAR. 26...	1605	.25	27.5	.00	.0	.00	.0	.00	.0	.00	.0
JUNE 12...	1815	453	23.5	.00	--	.00	--	.00	--	.00	--
JUNE 14...	1043	2280	25.0	.00	--	.00	--	.00	--	.00	--
JULY 10...	1542	88	34.5	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 17...	1640	432	26.5	.00	--	.00	--	.00	--	.00	--

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
NOV. 09...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 19...	--	.0	--	.0	--	.0	--	.0	--	.0	--
MAR. 26...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 12...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JUNE 14...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 10...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 17...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	PCR (UG/L)	PCR IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 09...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 19...	0	--	0	.00	.00	.00	.00	.14	.00	.00
MAR. 26...	0	.0	0	.00	.00	.00	.00	.08	.00	.00
JUNE 12...	--	.0	--	.01	.00	.00	.00	.04	.00	.01
JUNE 14...	--	.0	--	.00	.00	.00	.00	.02	.00	.02
JULY 10...	0	.0	0	.00	.00	.00	.00	.00	.00	.01
SEP. 17...	--	.0	--	.01	.00	.00	.00	.00	.00	.05

ARANSAS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE ARANSAS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08189700 ARANSAS RIVER NEAR SKIDMORE, TEX. (Lat 28°16'56", long 97°37'14")

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
OCT.					
31...	0930	8.6	25.0	30	.70
DEC.					
05...	1642	3.6	18.0	29	.28
JAN.					
08...	1202	3.7	10.0	30	.30
MAY					
29...	1355	1.2	28.5	34	.11

NUECES RIVER BASIN

08207000 FRIO RIVER AT CALLIHAM, TEX.

LOCATION.--Lat 28°29'31", long 98°20'47", McMullen County, at gaging station at county bridge, 0.6 mile (1.0 km) upstream from bridge on Farm Road 99, 0.8 mile (1.3 km) north of Calliham, and 10.7 miles (17.2 km) downstream from San Miguel Creek.

DRAINAGE AREA.--5,491 mi² (14,222 km²).

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1973.
Water temperatures: November 1967 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 3,100 micromhos Apr. 7; minimum daily, 168 micromhos Sept. 29.
Water temperatures: Maximum, 31.0°C July 21; minimum, 6.0°C Jan. 12, 13.

EXTREMES, November 1967 to September 1973.--Specific conductance: Maximum daily, 5,750 micromhos Nov. 30, 1968; minimum daily, 104 micromhos Feb. 13, 1969.
Water temperatures: Maximum, 33.0°C July 17, 1971; minimum, 6.0°C Jan. 9, 1970, Jan. 12, 13, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.											
27...	0845	20	6.5	170	35	260	--	6.9	240	0	320
NOV.											
28...	1040	28	8.4	200	42	--	320	--	244	0	430
DEC.											
22...	0900	31	9.6	150	42	--	280	--	120	0	400
FEB.											
27...	1100	122	13	87	14	--	130	--	148	0	130
MAR.											
05...	1045	50	9.5	160	30	--	200	--	214	0	290
APR.											
19...	1430	190	13	52	4.0	59	--	6.2	148	0	47
MAY											
14...	1140	33	7.8	170	37	--	220	--	204	0	340
JUNE											
14...	0835	1400	9.4	25	3.6	--	21	--	72	0	24
JULY											
17...	0815	1860	17	57	7.0	13	--	7.0	192	0	18
AUG.											
31...	1225	205	13	66	9.4	--	77	--	176	0	66
SEP.											
29...	1445	4410	11	21	2.6	--	8.1	--	72	0	9.6

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
27...	440	.3	.5	1360	570	380	4.7	2250	7.2	18.5
NOV.										
28...	500	.2	1.7	1610	660	460	5.3	2640	7.2	27.0
DEC.										
22...	460	.2	2.4	1420	550	450	5.3	2370	7.7	10.0
FEB.										
27...	210	.3	1.4	662	270	150	3.4	1180	7.8	14.5
MAR.										
05...	350	.2	1.3	1160	530	360	3.9	1920	7.8	20.0
APR.										
19...	78	.3	.9	336	150	24	2.1	584	7.7	24.0
MAY										
14...	390	.3	.8	1280	590	420	4.0	2130	7.2	24.0
JUNE										
14...	24	.2	1.2	148	77	18	1.0	267	6.9	24.0
JULY										
17...	24	.1	.3	238	170	14	.4	404	7.4	28.5
AUG.										
31...	91	.3	1.4	416	200	59	2.0	697	7.5	27.0
SEP.										
29...	5.0	.2	1.2	98	64	5	.4	168	6.5	26.5

08207000 FRIO RIVER AT CALLIHAM, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	1438	1600	960	3730	280	1090	240	932	400
NOV.	720	2640	1590	3090	510	991	430	836	670
DEC.	927	2520	1520	3800	480	1200	400	1000	640
JAN. 1973....	1168	2310	1390	4380	440	1390	370	1170	590
FEB.	1752	2070	1240	5870	390	1840	320	1510	520
MAR.	1325	2110	1270	4540	390	1400	330	1180	530
APR.	4391	1250	750	8890	210	2490	170	2020	310
MAY	1017	1910	1150	3160	350	961	290	796	480
JUNE	15225.9	455	260	10700	42	1730	37	1520	140
JULY	54179	414	240	35100	36	5270	32	4680	130
AUG.	11444	725	430	13300	99	3060	73	2260	190
SEP.	22969	385	220	13600	32	1980	28	1740	120
TOTAL	116555.9	--	--	110000	--	23400	--	19600	--
WTD. AVG. ...	319	597	350	--	74	--	62	--	170

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	828	2450	2560	2420	2250	1520	2520	1280	2580	806	555	752
2	1450	2470	2550	2390	2300	1640	2520	1190	2660	833	575	1260
3	2200	2560	2580	2330	2350	1700	2460	1100	2670	991	595	853
4	1930	2560	2550	2440	2280	1840	2460	1120	2610	1130	588	1040
5	1450	2560	2610	2410	2210	1920	2510	1290	2710	1130	630	1210
6	1450	2620	2620	2430	2170	2010	2550	1410	2680	1000	597	1280
7	1350	2690	2620	2440	2210	2030	3100	1590	2640	1010	613	1210
8	1270	2690	2630	2370	2250	2040	2640	1730	2660	1020	633	1200
9	1270	2690	2590	2340	2400	2030	2500	1820	2660	1470	653	614
10	1280	2690	2600	2300	2410	2010	2490	1920	2670	862	691	870
11	1320	2720	2600	2440	2350	2080	2500	1980	800	961	720	1260
12	1380	2730	2660	2410	2340	2060	2460	2050	472	1090	757	1390
13	1430	2750	2650	2340	2300	2030	2480	2130	449	1040	738	1540
14	1480	2730	2630	2340	2310	2100	2390	2130	267	430	776	1610
15	1510	2710	2600	2340	2280	2120	2390	2110	296	392	832	1530
16	1590	2740	2620	2320	2210	2160	1210	2240	355	396	854	1720
17	1640	2730	2570	2320	2600	2240	829	2220	464	404	871	1830
18	1730	2700	2440	2300	3040	2260	686	2290	484	461	1020	1600
19	1800	2660	2380	2280	2520	2260	584	2340	411	482	974	772
20	1830	2610	2370	2260	2410	2290	1370	2370	445	549	983	1300
21	1870	2530	2410	2260	2750	2340	2000	2350	460	379	987	651
22	1900	2510	2370	2270	2730	2370	1600	2440	408	282	996	510
23	1950	2550	2470	2250	2440	2400	1260	2470	450	293	1040	479
24	2020	2590	2530	2210	2150	2400	1190	2500	450	322	1060	556
25	2120	2850	2510	2150	1490	2430	1100	2530	453	368	1080	652
26	2200	2680	2490	2340	1440	2460	1240	2550	436	438	1120	791
27	2240	2640	2480	2220	1180	2480	805	2560	594	478	1140	664
28	2320	2620	2450	2180	1250	2460	1200	2570	636	499	1170	236
29	2390	2560	2430	2200	---	2460	1180	2570	676	516	1200	168
30	2480	2650	2420	2200	---	2460	1160	2570	835	534	1260	175
31	2430	---	2400	2240	---	2510	---	2580	---	553	697	---
MONTH	1750	2640	2530	2310	2240	2160	1850	2060	1210	681	852	991

NUECES RIVER BASIN

08207000 FRIO RIVER AT CALLIHAM, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	22.0	12.5	12.5	13.5	17.0	21.0	24.0	27.0	30.0	28.5	26.5
2	25.0	28.0	15.0	11.5	---	18.5	20.5	---	28.0	28.5	---	28.5
3	25.0	19.0	15.5	11.0	---	20.5	20.5	22.0	27.0	28.5	30.0	27.5
4	25.0	---	13.5	11.5	---	20.0	18.0	24.0	27.0	28.0	28.0	27.5
5	26.0	21.5	13.0	12.0	15.0	20.0	19.0	23.0	28.5	28.5	28.0	27.5
6	27.0	22.0	11.5	---	17.5	22.0	18.0	23.5	26.0	30.0	28.0	25.0
7	---	22.0	10.0	9.5	17.0	---	17.0	25.5	26.0	29.0	29.0	---
8	26.5	19.5	10.0	9.5	---	21.5	---	25.5	25.0	29.5	28.0	25.0
9	27.0	21.5	12.0	7.5	10.5	22.5	---	26.0	26.0	28.0	30.0	27.5
10	27.0	18.5	---	---	9.5	21.5	---	26.0	25.5	27.5	29.0	27.0
11	27.5	19.0	---	---	13.0	21.5	---	28.0	---	28.0	29.0	27.5
12	25.5	22.0	8.5	6.0	14.0	21.0	---	25.0	22.5	28.0	28.0	---
13	27.5	21.0	10.5	6.0	15.5	21.0	---	24.5	22.5	28.0	27.5	29.0
14	27.0	17.5	---	9.0	13.0	23.0	---	24.0	24.0	28.0	27.5	28.0
15	26.5	15.5	9.5	10.5	13.0	23.5	---	23.5	26.0	29.5	30.5	26.0
16	26.0	15.5	8.0	11.0	12.0	21.0	20.0	23.5	27.0	28.0	29.0	26.0
17	27.0	15.0	8.5	14.5	---	19.0	19.5	24.0	28.5	28.5	28.0	27.0
18	27.5	---	10.5	---	10.5	19.0	21.0	26.0	28.5	28.5	28.0	---
19	24.5	---	11.5	13.5	11.0	23.0	24.0	24.5	28.0	29.0	28.5	25.0
20	22.0	13.5	11.5	14.0	11.5	21.5	27.0	28.0	27.0	29.0	29.5	25.0
21	---	11.5	11.0	14.5	11.0	21.0	25.0	26.0	26.0	31.0	30.0	27.0
22	25.0	11.5	10.0	14.0	10.5	19.0	---	27.5	24.0	30.0	29.0	---
23	24.5	---	11.5	13.0	11.5	20.0	25.0	26.5	---	28.5	30.0	26.0
24	21.0	10.0	11.0	13.0	14.5	20.0	25.0	27.0	---	29.0	29.5	26.0
25	20.0	11.5	---	11.5	14.0	---	---	27.0	24.0	29.0	27.0	27.5
26	18.5	12.0	11.0	12.5	16.5	21.0	24.5	---	24.5	29.0	28.0	28.0
27	18.5	12.5	10.5	12.5	14.5	18.5	21.5	27.0	27.0	30.0	28.0	24.0
28	---	12.5	11.5	12.0	15.0	19.5	---	27.5	27.5	30.5	28.0	24.0
29	23.0	11.0	14.5	11.0	---	20.5	---	24.0	28.0	30.0	28.0	26.5
30	24.0	11.0	15.0	11.0	---	21.5	24.0	25.0	28.0	30.0	27.0	26.0
31	25.0	---	13.0	13.5	---	18.5	---	---	---	---	27.0	---
MONTH	25.0	17.0	11.5	11.5	13.0	20.5	---	25.5	26.5	29.0	28.5	26.5

NUECES RIVER BASIN

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08210000 NUECES RIVER NEAR THREE RIVERS, TEX.

LOCATION.--Lat 28°26'10", long 98°11'06", Live Oak County, at gaging station on downstream side of Missouri Pacific Railroad bridge, 0.2 mile (0.3 km) downstream from Frio River, and 1.7 miles (2.7 km) south of Three Rivers.

DRAINAGE AREA.--15,600 mi² (40,400 km²).

PERIOD OF RECORD.--Chemical analyses: October 1941 to September 1947, September 1950 to September 1952.

Chemical and biochemical analyses: January 1968 to September 1973.

Pesticide analyses: January 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 26...	1312	38	18	130	23	180	290	0	150	290	.2	--
NOV. 08...	0830	34	16	170	32	270	288	0	310	420	.3	.36
29...	1345	40	13	140	39	330	244	0	340	470	.3	--
JAN. 03...	1402	48	11	190	43	280	288	0	340	470	.3	--
09...	1045	57	11	180	36	300	308	0	350	440	.2	.21
29...	1455	63	18	170	33	280	264	0	300	440	.3	--
MAR. 06...	1320	122	15	110	16	170	184	0	160	280	.3	--
13...	0945	80	11	150	27	220	244	0	240	380	.2	.37
APR. 18...	0900	3540	17	47	3.0	39	122	0	46	45	.2	--
MAY 15...	1255	73	19	140	27	260	302	0	270	360	.3	--
30...	1230	25	17	170	37	290	252	0	370	440	.3	.00
JUNE 22...	0910	3400	15	42	4.1	31	126	0	31	36	.1	--
JULY 17...	1810	1640	17	52	7.2	23	178	0	24	27	.1	.94
24...	0925	6250	19	49	4.7	9.3	166	0	9.2	8.8	.1	--
AUG. 28...	1445	168	17	100	22	100	218	0	120	180	.2	--
SEP. 19...	1030	1390	27	55	8.3	73	135	0	66	100	.2	1.5

DATE	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT. 26...	--	--	.3	--	936	--	--	420	180	3.8	1650
NOV. 08...	.00	.21	.07	.07	1360	29	9	560	320	5.1	2230
29...	--	--	.5	--	1450	--	--	510	310	6.3	2320
JAN. 03...	--	--	3.1	--	1500	--	--	650	410	4.8	2440
09...	.01	.04	2.4	.11	1490	11	3	600	350	5.3	2420
29...	--	--	1.0	--	1380	--	--	550	340	5.1	2260
MAR. 06...	--	--	.9	--	850	--	--	340	190	4.1	1480
13...	.01	.09	1.0	.16	1160	70	13	500	300	4.4	1980
APR. 18...	--	--	1.0	--	262	--	--	130	30	1.5	444
MAY 15...	--	--	.7	--	1230	--	--	470	220	5.3	2050
30...	.01	.12	.08	.19	1450	55	14	570	360	5.4	2370
JUNE 22...	--	--	.8	--	225	--	--	120	18	1.2	392
JULY 17...	.00	.05	.3	.33	240	316	12	160	14	.8	418
24...	--	--	1.0	--	186	--	--	140	6	.3	311
AUG. 28...	--	--	1.7	--	657	--	--	340	160	2.4	1140
SEP. 19...	.00	.06	.9	.63	404	824	100	170	60	2.4	695

08210000 NUECES RIVER NEAR THREE RIVERS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 26...	7.9	19.0	--	--	--	--	--	--	--	--	--
NOV. 08...	7.8	17.5	10	15	8.0	83	2.1	25	0	0	1
29...	8.0	12.0	--	--	--	--	--	--	--	--	--
JAN. 03...	7.9	12.0	--	--	--	--	--	--	--	--	--
09...	7.7	7.5	15	5	11.0	92	1.4	10	10	0	0
29...	7.9	11.5	--	--	--	--	--	--	--	--	--
MAR. 06...	7.8	22.0	--	--	--	--	--	--	--	--	--
13...	7.8	21.0	30	30	7.8	87	3.0	14	--	--	--
APR. 18...	7.3	20.0	--	--	--	--	--	--	--	--	--
MAY 15...	7.9	24.0	--	--	--	--	--	--	--	--	--
30...	8.0	28.5	20	25	10.2	131	2.8	9.5	10	0	0
JUNE 22...	6.7	24.5	--	--	--	--	--	--	--	--	--
JULY 17...	7.4	30.0	40	100	5.6	74	2.8	12	10	10	0
24...	7.0	29.0	--	--	--	--	--	--	--	--	--
AUG. 28...	7.5	24.5	--	--	--	--	--	--	--	--	--
SEP. 19...	7.3	25.5	50	225	6.5	78	2.6	24	--	--	--

[illegible]

NUECES RIVER BASIN

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08210000 NUECES RIVER NEAR THREE RIVERS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 08...	0830	17.5	.00	.0	.00	.0	.00	.0	.00	.0	.00
JAN. 09...	1045	7.5	.00	.0	.00	.0	.00	.5	.00	.0	.00
MAY 30...	1230	28.5	.00	.0	.00	.0	.00	.0	.00	.0	.00
JULY 17...	1810	30.0	.00	.0	.00	.0	.00	.8	.00	.0	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN ROT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 08...	.3	.00	.0	.00	.0	.00	.0	.00	.0	.0
JAN. 09...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 30...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 17...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 08...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JAN. 09...	0	.0	0	.00	.00	.00	.00	.00	.00	.01
MAY 30...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JULY 17...	0	.0	0	.00	.00	.00	.00	.02	.00	.02

NUECES RIVER BASIN

08211000 NUECES RIVER NEAR MATHIS, TEX.

LOCATION.--Lat 28°02'17", long 97°51'36", San Patricio County, at intake tower at Wesley E. Seale Dam, 0.6 mile (1.0 km) upstream from gaging station at bridge on State Highway 359, and 4 miles (6 km) southwest of Mathis.

DRAINAGE AREA.--16,660 mi² (43,150 km²).

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1973.

Chemical and biochemical analyses: October 1969 to September 1970.

Water temperatures: October 1947 to September 1964, October 1965 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 923 micromhos June 8; minimum daily, 457 micromhos July 28.

Water temperatures: Maximum, 30.5°C Aug. 1, 2, Sept. 3; minimum 9.0°C Jan. 10.

EXTREMES, October 1947 to September 1973.--Specific conductance: Maximum daily, 1,040 micromhos July 1, 1948; minimum daily, 216 micromhos Sept. 19, 1971.

Water temperatures (1947-64, 1965-73): Maximum, 36.0°C Aug. 8, 1964; minimum, 3.0°C Jan. 19, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1050	108	16	67	8.2	69	--	7.6	159	0	54	120
NOV. 29...	1015	114	15	70	8.6	--	72	--	166	0	56	120
JAN. 03...	0925	112	--	--	--	--	--	--	--	--	--	--
23...	1600	64	21	78	9.7	82	--	6.6	208	0	62	130
29...	1215	136	--	--	--	--	--	--	--	--	--	--
FEB. 15...	1600	100	17	72	8.8	--	71	--	172	0	54	120
MAR. 06...	0925	82	17	71	9.0	--	76	--	180	0	58	120
23...	0910	92	--	--	--	--	--	--	--	--	--	--
APR. 17...	1030	24	--	--	--	--	--	--	--	--	--	--
30...	1600	96	16	77	9.8	80	--	7.3	184	0	67	140
MAY 15...	0855	124	--	--	--	--	--	--	--	--	--	--
31...	1600	155	17	88	11	--	79	--	184	0	72	150
JUNE 21...	1005	626	--	--	--	--	--	--	--	--	--	--
30...	1600	7160	.2	46	6.6	--	51	--	124	0	45	74
JULY 25...	1400	6550	15	44	5.9	40	--	6.8	122	0	38	63
AUG. 27...	1125	363	--	--	--	--	--	--	--	--	--	--
31...	1600	215	18	49	6.0	--	40	--	146	0	33	56
SEP. 30...	1600	6400	18	54	6.3	--	37	--	166	0	29	52

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 26...	.2	.06	419	200	70	2.1	755	8.2	22.0	--	10	0
NOV. 29...	.2	.5	426	210	74	2.2	761	7.9	14.0	--	0	0
JAN. 03...	--	--	--	--	--	--	--	--	11.5	--	0	0
23...	.3	.00	490	230	64	2.3	835	8.1	13.0	--	--	--
29...	--	--	--	--	--	--	--	--	10.0	--	0	0
FEB. 15...	.2	.2	431	220	74	2.1	779	8.0	13.5	--	--	--
MAR. 06...	.2	.1	441	210	66	2.3	777	7.4	14.5	--	--	--
23...	--	--	--	--	--	--	--	--	19.0	--	0	2
APR. 17...	--	--	--	--	--	--	--	--	20.0	--	0	0
30...	.2	.6	488	230	82	2.3	853	7.5	23.0	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	23.0	--	0	0
31...	.2	.2	506	260	110	2.1	912	7.4	27.0	--	--	--
JUNE 21...	--	--	--	--	--	--	--	--	28.5	20	10	0
30...	.1	.2	285	140	40	1.9	551	7.1	--	--	--	--
JULY 25...	.2	.4	273	130	34	1.5	483	7.4	29.5	30	10	1
AUG. 27...	--	--	--	--	--	--	--	--	2.5	10	10	0
31...	.2	.3	276	150	27	1.4	487	7.2	29.5	--	--	--
SEP. 30...	.2	.00	278	160	25	1.3	493	7.3	28.0	--	--	--

NUECES RIVER BASIN

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082110000 NUECES RIVER NEAR MATHIS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT.											
26...	0	0	2	--	0	--	--	.4	--	--	100
NOV.											
29...	0	--	2	--	0	--	--	.3	--	--	30
JAN.											
03...	0	--	3	--	0	--	--	.2	--	--	20
23...	--	--	--	--	--	--	--	--	--	--	--
29...	0	--	2	--	0	--	--	.3	--	--	30
FEB.											
15...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
06...	--	--	--	--	--	--	--	--	--	--	--
23...	0	--	6	--	3	--	--	.4	--	--	50
APR.											
17...	0	--	4	--	0	--	--	.2	--	--	30
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
15...	0	0	2	0	0	20	50	.2	0	430	20
31...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
21...	0	0	6	0	5	20	10	<.2	0	450	10
30...	--	--	--	--	--	--	--	--	--	--	--
JULY											
25...	0	0	8	30	4	10	20	.2	0	240	50
AUG.											
27...	0	0	3	20	0	10	10	<.2	0	240	20
31...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
30...	--	--	--	--	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	4985	750	420	5650	120	1620	54	727	200
NOV.	4139	759	420	4690	120	1340	55	615	210
DEC.	3822	761	430	4440	120	1240	55	568	210
JAN. 1973....	3840	766	430	4460	120	1240	55	570	210
FEB.	2927	773	430	3400	120	948	56	443	210
MAR.	3251	792	450	3950	120	1050	58	509	220
APR.	3215	828	470	4080	130	1130	62	538	230
MAY	4129	879	500	5570	140	1560	67	747	240
JUNE	126398	812	460	157000	130	44400	60	20500	220
JULY	52361	496	250	35300	62	8770	27	3820	120
AUG.	17555	477	240	11400	58	2750	25	1180	120
SEP.	33812	492	250	22800	62	5660	26	2370	120
TOTAL	260434	--	--	263000	--	71700	--	32600	--
WTD. AVG. ...	713.52	681	370	--	100	--	46	--	180

NUECES RIVER BASIN

082110000 NUECES RIVER NEAR MATHIS, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	751	754	763	761	765	775	807	860	904	554	477	488
2	747	759	762	761	765	781	804	853	904	589	466	492
3	744	757	760	764	770	778	811	857	908	567	464	491
4	742	765	762	763	770	778	817	857	908	575	471	487
5	740	760	757	763	770	778	822	863	911	562	481	493
6	742	760	757	761	768	777	799	860	904	595	476	494
7	732	755	760	763	768	781	817	866	911	574	478	509
8	744	752	762	768	770	775	817	860	923	568	475	498
9	754	760	760	761	768	775	819	863	912	565	474	496
10	758	756	758	763	781	778	825	864	912	559	473	497
11	752	756	761	763	776	783	822	866	693	558	476	502
12	754	757	760	756	778	786	822	863	729	562	476	493
13	749	757	762	761	773	778	825	870	621	549	477	493
14	749	755	757	753	776	784	825	876	869	559	477	691
15	752	757	757	766	779	814	828	877	879	548	481	477
16	752	762	762	768	782	792	828	876	886	543	480	488
17	754	752	755	771	771	800	845	876	900	540	481	482
18	752	757	767	773	773	794	844	873	908	530	481	487
19	754	755	760	784	778	794	828	877	912	524	479	485
20	761	776	761	768	781	800	832	884	908	517	483	485
21	748	755	758	761	776	805	831	891	902	513	483	485
22	752	762	773	789	768	799	828	894	904	512	486	487
23	757	769	760	835	774	801	832	897	897	509	479	492
24	756	755	775	768	774	800	832	894	883	493	485	488
25	758	755	762	761	774	803	835	894	853	487	487	490
26	755	760	765	768	774	806	835	894	782	474	487	492
27	761	762	761	761	774	806	847	898	743	464	491	488
28	763	782	771	763	773	806	857	898	681	457	496	489
29	756	763	761	767	---	806	850	901	575	459	502	493
30	758	762	758	765	---	806	853	901	551	479	509	493
31	768	---	764	765	---	811	---	912	---	477	487	---
MONTH	752	760	762	768	773	792	828	878	839	531	481	498

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	22.0	15.5	12.0	13.0	14.0	21.5	24.0	27.0	---	30.5	30.0
2	28.0	21.5	15.5	11.5	13.0	15.0	21.5	24.0	27.0	28.5	30.5	29.5
3	27.0	21.0	15.5	13.0	13.0	15.0	21.5	23.5	27.0	28.5	30.0	30.5
4	27.0	21.0	14.5	13.0	13.5	15.0	21.5	23.5	28.0	28.5	29.5	29.0
5	27.0	21.0	14.5	13.0	14.0	15.5	20.5	23.0	28.0	28.5	29.5	28.0
6	27.0	21.5	14.0	13.0	14.0	14.5	19.5	24.0	28.0	28.5	29.5	27.5
7	27.0	21.5	12.0	11.5	14.5	18.5	21.0	25.0	28.5	28.0	29.5	28.0
8	26.5	21.5	12.0	11.5	11.5	16.5	19.5	25.5	28.0	28.0	29.0	28.0
9	26.5	21.5	13.0	9.5	10.5	18.0	20.0	25.5	29.0	28.5	29.0	28.0
10	26.5	21.5	12.0	9.0	12.0	18.0	20.0	24.5	27.0	29.0	29.0	28.0
11	26.5	21.5	10.5	9.5	13.0	19.5	18.5	25.5	25.5	29.0	29.0	28.0
12	26.5	21.5	10.5	10.0	13.5	18.5	19.5	24.0	25.5	29.0	29.0	28.0
13	26.5	21.0	12.5	10.0	14.0	17.0	19.5	25.0	25.0	29.0	29.0	28.5
14	27.0	19.5	13.5	12.0	14.0	19.5	20.0	25.0	25.0	29.0	29.0	28.5
15	26.5	19.5	12.0	---	13.5	20.0	20.5	23.5	25.0	29.0	29.0	28.0
16	26.5	19.5	10.5	12.0	12.0	20.0	20.0	25.0	25.0	29.0	29.5	28.0
17	26.5	21.0	12.0	12.0	11.0	20.5	21.0	24.5	25.0	29.0	29.5	28.0
18	26.5	19.5	12.0	12.0	11.5	20.0	21.0	25.0	25.0	29.0	29.5	28.0
19	25.5	20.0	12.0	12.0	11.5	19.5	21.0	25.0	25.0	29.0	29.5	28.0
20	25.0	17.0	11.5	13.0	12.0	20.0	21.5	25.5	25.0	29.0	29.5	29.0
21	26.5	15.5	12.0	11.5	11.5	20.0	21.0	25.5	27.0	29.0	29.5	28.0
22	26.5	15.5	12.0	13.0	11.5	19.5	21.0	21.0	27.0	29.0	29.5	28.0
23	26.0	15.0	12.0	13.0	12.0	19.5	21.0	25.5	27.0	29.0	29.5	28.0
24	23.0	14.5	13.0	11.5	13.0	19.5	21.5	25.5	27.0	29.0	29.5	28.0
25	24.0	14.5	13.0	11.0	13.0	20.0	21.5	25.5	27.0	29.5	29.0	27.0
26	23.0	15.0	12.0	11.5	13.0	20.0	24.0	25.5	27.0	29.0	29.0	27.0
27	24.0	15.5	12.0	11.5	13.0	20.0	23.5	25.5	27.0	29.5	29.0	28.0
28	23.5	15.0	12.0	10.5	13.0	21.0	24.0	26.5	---	29.5	29.0	28.5
29	24.0	14.0	12.0	11.0	---	20.0	24.0	28.0	27.0	29.5	28.5	28.0
30	24.0	14.0	12.0	11.0	---	19.0	23.0	27.0	---	29.5	29.5	28.0
31	24.5	---	12.0	12.0	---	21.0	---	27.0	---	29.5	29.5	---
MONTH	26.0	19.0	12.5	11.5	12.5	18.5	21.0	25.0	26.5	29.0	29.5	28.0

NUECES RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE NUECES RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1972 TO SEPTEMBER 1973

08211500 NUECES RIVER AT CALALLEN, TEX. (Lat 27°52'31", long 97°37'36")

DATE	TIME	TEMPER- ATURE (DEG C)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
OCT. 25...	1635	24.0	--	10	0	0	0	6
NOV. 29...	0825	14.5	--	0	0	0	--	4
JAN. 03...	0820	14.0	--	0	0	0	--	3
27...	1000	11.0	--	0	0	0	--	4
MAR. 23...	0830	20.0	--	0	1	0	--	4
APR. 17...	1200	22.0	--	0	0	0	--	4
MAY 15...	1000	25.0	--	0	0	0	0	2
JUNE 20...	1530	28.0	20	10	0	0	0	3
JULY 25...	1030	29.0	40	10	0	0	0	7
AUG. 28...	1250	--	20	10	1	0	0	10

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 25...	--	0	--	--	.2	--	--	110
NOV. 29...	--	0	--	--	.4	--	--	40
JAN. 03...	--	0	--	--	.2	--	--	30
27...	--	0	--	--	.2	--	--	30
MAR. 23...	--	3	--	--	.2	--	--	30
APR. 17...	--	0	--	--	.2	--	--	40
MAY 15...	0	0	20	30	.2	0	550	20
JUNE 20...	20	0	20	30	.3	0	430	20
JULY 25...	50	4	10	10	.2	0	260	20
AUG. 28...	10	4	10	10	.2	0	350	20

OSO CREEK BASIN

08211520 OSO CREEK AT CORPUS CHRISTI, TEX.

LOCATION.--Lat 27°42'40", long 97°30'06", Nueces County, at gaging station at bridge on Farm Road 763, 1.6 miles (2.6 km) downstream from West Oso Creek, and 1.9 miles (3.1 km) southwest of intersection of Farm Road 665 and State Highway 357, the city limits of Corpus Christi.

DRAINAGE AREA.--90.3 mi² (234 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: July 1972 to September 1973.
Pesticide analyses: July 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (Mg) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 02...	1255	10	20	420	45	2500	20	142	0	43	4600	.3
NOV. 09...	1025	2.9	16	1200	170	9400	51	161	0	81	17000	.4
DEC. 14...	1045	3.1	22	1300	160	9300	50	227	0	120	17000	.5
JAN. 17...	1150	6.1	.5	540	80	3500	27	138	0	130	6300	.3
FEB. 19...	1205	3.0	19	810	130	6200	32	117	0	150	11000	.4
MAR. 26...	1230	2.3	32	1700	180	11000	67	226	0	110	21000	.5
APR. 30...	1305	2.1	15	770	140	6300	40	207	0	69	11000	.3
JUNE 04...	1240	1.5	17	150	32	510	21	154	0	170	960	.0
13...	0728	135	--	--	--	--	--	--	--	--	--	--
14...	1328	1760	--	--	--	--	--	--	--	--	--	--
JULY 10...	1220	2.9	16	200	31	410	11	162	0	120	920	.2
AUG. 14...	1315	3.0	20	150	22	290	13	146	0	100	620	.2
SEP. 17...	1225	769	18	32	3.1	17	6.7	124	0	7.2	17	.2
DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 02...	--	--	.40	.31	.71	.7	.76	--	7730	--	1200	1100
NOV. 09...	95	4.9	1.0	.32	8.6	.2	4.0	20000	28200	13	3800	3700
DEC. 14...	--	--	.87	.17	16	.6	5.3	--	27800	--	3900	3700
JAN. 17...	--	--	.78	.38	12	.5	4.6	--	10600	--	1700	1600
FEB. 19...	63	3.1	.74	.19	13	.6	6.1	12000	18500	17	2500	2400
MAR. 26...	--	--	2.0	.08	10	.2	6.5	--	34300	--	5100	4900
APR. 30...	--	--	2.1	.48	9.7	.1	3.4	--	18700	--	2500	2300
JUNE 04...	--	--	.00	.78	.58	.1	1.6	--	1940	--	510	380
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 10...	4.8	.310	.01	.21	.13	.3	1.5	700	1790	18	640	500
AUG. 14...	--	--	.00	.42	1.2	.5	2.5	--	1290	--	460	340
SEP. 17...	.180	.033	1.1	.03	.07	.08	.68	90	163	800	93	0

OSO CREEK BASIN

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08211520 OSO CREEK AT CORPUS CHRISTI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
02...	31	13800	7.5	27.0	45	6.3	82	3.9	17	--	--	--
NOV.												
09...	67	46500	7.6	18.5	3	12.5	158	3.7	33	10	10	1
DEC.												
14...	65	45400	7.4	8.0	6	9.0	93	7.1	14	--	--	--
JAN.												
17...	37	18500	8.1	18.5	4	14.5	165	3.4	18	--	--	--
FEB.												
19...	53	31400	7.6	12.0	10	13.0	135	3.5	22	--	--	--
MAR.												
26...	68	54800	7.7	21.5	6	12.4	170	26	24	10	0	1
APR.												
30...	55	30000	7.6	23.0	4	11.1	142	6.2	9.5	--	--	--
JUNE												
04...	9.8	3590	9.3	29.5	45	19.0	262	26	52	--	--	--
13...	--	--	--	25.5	--	--	--	--	--	130	10	1
14...	--	--	--	26.5	--	--	--	--	--	380	10	0
JULY												
10...	7.0	3260	8.5	30.5	7	15.1	201	9.0	17	0	10	0
AUG.												
14...	5.9	2380	8.0	29.5	40	8.8	116	5.3	26	--	--	--
SEP.												
17...	.8	267	6.9	28.0	250	6.5	82	2.2	24	50	20	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
09...	0	1	5	0	0	1700	1300	.2	0	89000	80
DEC.											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
17...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
19...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
26...	0	0	5	20	0	2100	960	.2	2	110000	60
APR.											
30...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
04...	--	--	--	--	--	--	--	--	--	--	--
13...	0	2	6	120	0	20	60	<.2	0	790	60
14...	0	2	3	240	0	10	0	.2	5	270	20
JULY											
10...	0	0	4	10	0	60	400	.2	0	2800	30
AUG.											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
17...	0	0	3	60	0	0	0	<.2	0	0	0

OSO CREEK BASIN

08211520 OSO CREEK AT CORPUS CHRISTI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 09...	1025	2.9	18.5	.00	.0	.00	.9	.00	5.4	.00	.0
FEB. 19...	1205	3.0	12.0	.00	.0	.00	3.8	.00	41	.00	1.9
MAR. 26...	1230	2.3	21.5	.00	.0	.00	2.0	.00	8.7	.00	.0
JUNE 13...	0728	13	25.5	.00	--	.00	--	.01	--	.00	--
14...	1328	1.5	26.5	.00	--	.00	--	.00	--	.00	--
JULY 10...	1220	2.9	30.5	.00	.0	.00	1.0	.00	4.2	.00	.0
SEP. 17...	1225	1110	--	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 09...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 19...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 26...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 13...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
14...	.00	--	.00	--	.00	--	.00	--	.00	--	.0
JULY 10...	.00	.0	.00	.0	.00	.0	.00	.0	.01	.0	.0
SEP. 17...	.00	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
NOV. 09...	0	.0	0	.04	.00	.00	.00	.00	.00	.00
FEB. 19...	0	.0	0	.00	.00	.00	.00	.04	.00	.03
MAR. 26...	0	.0	0	.04	.00	.00	.00	.13	.00	.08
JUNE 13...	--	.0	--	.03	.00	.00	.00	.21	.00	.08
14...	--	.0	--	.00	.00	.00	.00	.00	.00	.02
JULY 10...	0	.0	0	.03	.00	.00	.00	.00	.00	.04
SEP. 17...	--	.0	--	.01	.00	.00	.00	.00	.00	.00

RIO GRANDE BASIN

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08364000 RIO GRANDE AT EL PASO, TEX.

LOCATION.--Lat 31°48'10", long 106°32'25", at gaging station on the downstream side of the Courchesne Bridge, 5.6 miles (9.0 km) upstream from the Santa Fe Street-Juarez Avenue bridge between El Paso, Texas, and Cd. Juarez, and 1.7 miles (2.7 km) upstream from the American Dam.

DRAINAGE AREA.--29,267 mi² (75,801 km²).

PERIOD OF RECORD.--Chemical analyses: February 1930 to September 1973.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletins 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	116	26	420	8.6	310	0	574	340
NOV. 01-30	124	35	552	8.9	356	0	712	450
JAN. 01-31	103	34	565	8.3	318	0	710	462
FEB. 01-28	112	35	570	8.5	342	0	722	475
MAR. 01-31	78	13	94	6.5	190	0	163	100
APR. 01-30	88	16	128	7.6	192	0	255	99
MAY 01-31	90	17	135	7.6	218	0	266	104
JUNE 01-30	84	16	127	7.4	218	0	254	90
JULY 01-31	84	17	122	7.3	212	0	242	89
AUG. 01-31	84	17	126	7.4	220	0	238	96
SEP. 01-30	118	23	222	9.9	290	0	382	182

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.3	1640	1670	396	142	9.2	2550	7.9
NOV. 01-30	.06	2060	2160	454	162	11	3200	8.0
JAN. 01-31	.02	2040	2050	397	136	12	3180	7.9
FEB. 01-28	.03	2090	2120	424	143	12	3260	8.2
MAR. 01-31	.9	552	588	248	92	2.6	945	7.4
APR. 01-30	.1	688	725	286	128	3.3	1120	7.4
MAY 01-31	.06	727	786	294	116	3.4	1190	7.5
JUNE 01-30	.6	688	698	276	97	3.3	1090	7.5
JULY 01-31	.00	665	703	280	106	3.2	1080	7.8
AUG. 01-31	.7	680	787	280	99	3.3	1090	7.7
SEP. 01-30	.2	1080	1150	389	152	4.9	1720	7.8

RIO GRANDE BASIN

08370500 RIO GRANDE AT FORT QUITMAN, TEX.

LOCATION.--Lat 31°05'05", long 105°36'25", at gaging station on the rectified channel of the Rio Grande, 1.5 miles (2.4 km) downstream from Old Fort Quitman and 81.1 river miles (130.5 km) downstream from the American Dam at El Paso.

DRAINAGE AREA.--32,035 mi² (82,970 km²) (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: February 1930 to September 1973.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	172	38	493	9.8	224	0	520	680
NOV. 01-30	289	70	876	14	328	0	876	1260
JAN. 01-31	455	150	1590	16	300	0	1520	2450
FEB. 01-28	410	145	1460	14	236	0	1380	2300
MAR. 01-31	465	162	1710	15	288	0	1580	2650
APR. 01-30	305	109	1110	13	268	0	1160	--
MAY 01-31	445	150	1440	15	248	0	1350	2360
JUNE 01-30	500	192	1920	21	170	0	1930	2980
JULY 01-31	146	29	330	9.1	220	0	364	460
AUG. 01-31	350	108	1140	15	300	0	1120	1660
SEP. 01-30	92	13	82	7.8	266	0	146	71

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	2.2	2030	2060	586	402	8.9	3300	7.7
NOV. 01-30	3.8	3560	3710	1010	740	12	5660	7.9
JAN. 01-31	.1	6330	6730	1750	1510	17	9710	7.9
FEB. 01-28	.05	5930	6020	1620	1430	16	9070	7.8
MAR. 01-31	.2	6730	7440	1830	1590	17	10500	7.7
APR. 01-30	1.4	4440	4590	1210	990	14	6890	7.6
MAY 01-31	.5	5880	6960	1730	1520	15	9160	7.7
JUNE 01-30	.4	7630	8160	2040	1900	18	11500	7.3
JULY 01-31	1.6	1450	1570	484	304	6.5	2420	8.2
AUG. 01-31	.3	4540	4860	1320	1070	14	7030	7.9
SEP. 01-30	1.0	547	612	283	65	2.1	911	8.1

RIO GRANDE BASIN

683

08371500 RIO GRANDE ABOVE RIO CONCHOS NEAR PRESIDIO, TEX.

LOCATION.--Lat 29°37'15", long 104°28'50", at gaging station 7.8 river miles (12.6 km) above the junction of the Rio Conchos, and about 10 miles (16 km) northwest of the towns of Presidio, Texas and Ojinaga, Chihuahua, and 285.7 river miles (459.7 km) below the American Dam at El Paso.

DRAINAGE AREA.--34,988 mi² (90,619 km²) (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: February 1935 to September 1973.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43. Records prior to 1964 were published under the title "Rio Grande at Upper Presidio".

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	--	--	478	--	236	0	--	652
NOV. 01-30	--	--	684	--	244	0	--	940
DEC. 01-31	--	--	856	--	250	0	--	1220
JAN. 01-31	--	--	985	--	244	0	--	1320
FEB. 01-28	--	--	940	--	204	0	--	1300
MAR. 01-31	310	91	1000	15	256	0	1140	1400
JULY 01-31	98	14	164	7.8	180	0	284	160
AUG. 01-31	--	--	191	--	168	0	--	207
SEP. 01-30	--	--	130	--	176	0	--	85

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	--	--	2120	705	512	7.8	3410	7.4
NOV. 01-30	--	--	2950	855	655	10	4460	7.5
DEC. 01-31	--	--	3740	1080	875	11	5730	7.7
JAN. 01-31	--	--	4030	1140	940	13	6260	7.6
FEB. 01-28	--	--	3970	1080	913	12	6000	7.7
MAR. 01-31	.00	4080	4380	1150	938	13	6410	7.8
JULY 01-31	.00	817	872	302	154	4.1	1340	7.5
AUG. 01-31	--	--	1030	354	216	4.4	1530	7.7
SEP. 01-30	--	--	670	224	80	3.8	1010	7.8

RIO GRANDE BASIN

08375000 RIO GRANDE AT JOHNSON RANCH, TEX.

LOCATION.--Lat 29°02'05", long 103°23'30", Brewster County, at gaging station about 2 miles (3.2 km) upstream from Johnson Ranch, 14 miles (23 km) downstream from Castolon, and 392.9 river miles (631.7 km) below American Dam at El Paso.

DRAINAGE AREA.--70,715 mi² 183,152 km² (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: June 1947 to September 1973.

REMARKS.--Records of specific conductance and records of discharge of water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	--	--	137	--	190	0	--	88
NOV.								
01-30	--	--	210	--	188	0	--	143
DEC.								
01-31	--	--	192	--	200	0	--	128
JAN.								
01-31	--	--	197	--	198	0	--	140
FEB.								
01-28	--	--	205	--	166	0	--	148
MAR.								
01-31	124	23	228	7.5	170	0	516	168
APR.								
01-30	--	--	244	--	172	0	--	157
MAY								
01-31	--	--	151	--	196	0	--	92
JUNE								
01-30	--	--	156	--	200	0	--	77
JULY								
01-31	120	11	94	6.1	198	0	335	33
AUG.								
01-31	--	--	117	--	192	0	--	39
SEP.								
01-30	--	--	82	--	188	0	--	30

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	--	--	776	308	152	3.4	1190	7.3
NOV.								
01-30	--	--	1160	386	232	4.6	1630	7.9
DEC.								
01-31	--	--	1070	384	220	4.3	1550	7.7
JAN.								
01-31	--	--	1040	372	210	4.4	1570	7.5
FEB.								
01-28	--	--	1050	360	224	4.7	1600	7.7
MAR.								
01-31	.3	1150	1230	404	264	4.9	1780	7.4
APR.								
01-30	--	--	1330	424	283	5.1	1900	7.3
MAY								
01-31	--	--	998	390	230	3.3	1420	7.4
JUNE								
01-30	--	--	880	304	140	3.9	1280	7.6
JULY								
01-31	.6	699	756	344	182	2.2	1010	7.4
AUG.								
01-31	--	--	749	272	114	3.1	992	7.8
SEP.								
01-30	--	--	568	228	74	2.4	810	7.7

RIO GRANDE BASIN

685

0837720 RIO GRANDE AT FOSTER RANCH, NEAR LANGTRY, TEX.

LOCATION.--Lat29°46'50", long 101°45'20", Val Verde County, at gaging station 0.1 mile (0.2 km) downstream from Terrell-Val Verde county line and 16.9 river miles (27.2 km) from Langtry and 597.2 river miles (960.9 km) below the American Dam at El Paso.

DRAINAGE AREA.--84,120 mi² (217,870 km²) (United States and Mexico).

PERIOD OF RECORD.--Chemical analyses: April 1944 to September 1973.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	94	12	108	5.5	206	0	262	63
NOV. 01-30	100	22	151	5.6	178	0	362	107
DEC. 01-31	94	21	138	5.3	178	0	342	95
JAN. 01-31	89	20	130	5.2	172	0	320	91
FEB. 01-28	90	21	136	5.6	180	0	319	97
MAR. 01-31	86	22	131	5.4	180	0	305	99
APR. 01-30	77	23	102	5.2	184	0	253	72
MAY 01-31	98	21	102	5.7	188	0	308	64
JUNE 01-30	100	19	132	6.5	190	0	337	86
JULY 01-31	92	11	91	5.5	224	0	234	37
AUG. 01-31	90	12	103	5.6	180	0	283	36
SEP. 01-30	81	8.4	67	4.8	214	0	174	24

DATE	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.6	648	657	284	115	2.8	1020	7.9
NOV. 01-30	.6	839	898	340	194	3.6	1300	7.6
DEC. 01-31	.6	786	834	321	175	3.4	1220	7.5
JAN. 01-31	.4	742	782	304	164	3.2	1170	7.4
FEB. 01-28	.3	759	766	311	164	3.4	1200	7.9
MAR. 01-31	.7	741	807	305	158	3.3	1200	7.5
APR. 01-30	.3	624	679	286	136	2.6	1020	7.0
MAY 01-31	.4	693	749	331	177	2.4	1080	7.6
JUNE 01-30	.6	776	808	328	172	3.2	1210	7.4
JULY 01-31	.7	584	633	274	91	2.4	915	7.5
AUG. 01-31	1.0	623	630	274	126	2.7	949	7.7
SEP. 01-30	.8	468	498	236	61	1.9	725	7.6

RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TEX.

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, at gaging station at bridge on Farm Road 652, 5.5 miles (8.8 km) downstream from Salt (screwbean) Draw, 5.9 miles (9.5 km) northeast of Orla, and 8.5 miles (13.7 km) downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 mi² (54,930 km²), approximately (contributing area).

PERIOD OF RECORD.--Chemical analyses: July 1937 to September 1973.

Water temperatures: March 1953 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 24,900 micromhos Jan. 6; minimum daily, 6,990 micromhos July 12.

Water temperatures: Maximum, 26.5°C June 28; minimum, 0.5°C Jan. 11.

EXTREMES, July 1937 to September 1973.--Specific conductance: Maximum daily, 29,100 micromhos Sept. 2, 1969, July 22, 1972; minimum daily, 1,610 micromhos June 2, 1948.

Water temperatures (1953-61, 1968-73): Maximum, 28.0°C June 22, 1972; minimum, 0.5°C Jan. 6, 1971, Jan. 11, 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT. 30...	1245	21	7.0	720	260	3300	--	49	132	0
NOV. 24...	0845	19	6.8	680	260	--	3000	--	132	0
JAN. 09...	1700	13	4.7	880	360	4200	--	34	172	0
FEB. 28...	1015	13	2.7	790	330	--	4000	--	152	0
MAR. 05...	0845	11	.6	780	320	--	3800	--	140	0
APR. 03...	1200	389	5.6	440	150	1500	--	52	111	0
MAY 31...	1200	408	7.4	520	180	--	2000	--	134	0
JUNE 19...	1310	190	9.8	460	140	--	1400	--	136	0
JULY 25...	1210	53	6.6	460	150	1200	--	37	114	0
AUG. 16...	0830	47	12	440	32	--	1200	--	120	0
SEP. 15...	0830	78	13	490	18	--	1900	--	144	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 30...	2600	5200	--	12200	2900	2800	27	17900	7.6	19.0
NOV. 24...	2400	4700	--	11100	2800	2700	--	16500	7.9	6.5
JAN. 09...	3200	6700	--	15400	3700	3500	30	22300	7.8	3.0
FEB. 28...	2900	6400	--	14400	3300	3200	--	21300	7.3	13.0
MAR. 05...	2800	6000	--	13800	3200	3100	--	20000	7.9	13.0
APR. 03...	1500	2400	--	6150	1700	1600	16	9490	7.4	13.5
MAY 31...	1800	3200	--	7840	2000	1900	--	11800	7.6	23.0
JUNE 19...	1500	2200	--	5650	1700	1600	14	8680	7.5	21.0
JULY 25...	1500	2000	--	5340	1800	1700	12	8080	7.2	26.0
AUG. 16...	1400	1600	.3	4780	1200	1100	15	7120	7.2	24.0
SEP. 15...	1600	2600	--	6760	1300	1200	--	10200	7.8	22.0

RIO GRANDE BASIN

687

08412500 PECOS RIVER NEAR ORLA, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	755	17100	11600	23600	5000	10200	2500	5100	2800
NOV.	652	17100	11600	20400	5000	8800	2500	4400	2800
DEC.	444.5	17700	12000	14400	5200	6240	2600	3120	2900
JAN. 1973....	301.7	21100	14400	11700	6300	5130	3000	2440	3400
FEB.	333.6	21800	14900	13400	6500	5850	3000	2700	3500
MAR.	313.8	21700	14800	12500	6500	5510	3000	2540	3500
APR.	3658.7	10400	6960	68800	2700	26700	1700	16800	1800
MAY	2678	12900	8690	62800	3600	26000	2000	14500	2200
JUNE	5675	8880	5910	90600	2200	33700	1500	23000	1600
JULY	5377	7810	5160	74900	1900	27600	1400	20300	1400
AUG.	6770	7480	4940	90300	1800	32900	1400	25600	1400
SEP.	6121	8370	5550	91700	2100	34700	1500	24800	1500
TOTAL	33080.3	--	--	575000	--	223000	--	145000	--
WTD. AVG. ...	90.6	9650	6440	--	2500	--	1600	--	1700

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16000	17800	17800	17100	21200	20400	22500	14400	11700	9110	8030	8140
2	16300	17600	17700	16800	21100	19800	22600	15700	11800	9110	8120	8140
3	16400	17900	18100	16400	21300	19400	9490	15800	11800	8870	8350	7950
4	16300	18200	17900	19300	21800	19800	9490	15900	11800	8870	8350	7950
5	16500	17800	17900	21000	21500	20000	9670	15900	11800	8500	8350	7550
6	16700	17300	17800	24900	21100	20600	9720	14400	11600	8500	8350	7550
7	16900	17200	17900	21200	21400	21000	9860	14100	10400	8470	9080	7740
8	16900	17200	17600	20600	20600	21200	9860	13600	10000	8400	9080	7800
9	17100	17000	17600	22300	20600	21500	9810	13400	9860	8400	13400	7930
10	17100	16900	17600	22200	21000	21500	9720	11000	9860	8370	9810	9580
11	17200	16700	17900	22600	22900	21600	10100	11500	9810	7030	8250	9630
12	17400	16700	17800	22100	22900	21600	10100	11700	8690	6990	8250	7550
13	17100	16700	17800	21200	22600	22900	10200	12800	8410	7210	8520	8310
14	17000	16600	17900	21200	22400	22800	11800	12800	9540	7210	8520	9540
15	17000	16800	17900	22100	22300	22800	12800	12900	9450	8790	7170	10200
16	17000	16700	18100	21900	22400	22100	12800	12900	9120	7210	7120	18200
17	17000	16400	17900	21600	22500	24400	12600	12500	8730	7560	7330	9810
18	17100	16400	17900	21500	22100	24300	12600	12500	8730	7020	7330	9450
19	17100	16400	17600	21500	21800	21800	12500	12900	8680	7370	7440	9450
20	17400	16600	17400	21400	21800	21800	12400	12900	7860	7980	7440	9450
21	16900	16700	17500	21400	22100	21700	11400	16600	7790	7910	7430	9360
22	17100	16600	17500	21300	20900	22200	11400	16700	7540	8100	7400	9280
23	18300	16300	17500	21100	20400	22400	11500	16600	8010	8100	7320	9280
24	19100	16500	17500	21400	22900	22100	11600	16600	8010	7910	7300	9280
25	18400	16500	17300	21600	22900	22400	11600	13600	7790	8080	7350	14200
26	17600	17600	17200	21300	22200	22300	11600	13600	8610	8130	7390	8770
27	17500	18900	16900	21300	21900	22500	12400	12900	8840	8170	7390	8270
28	17500	18400	17000	21400	21300	22700	13100	12400	8870	7920	7390	8340
29	17500	18100	17100	21700	---	22700	14300	12400	9620	7880	7390	8960
30	17600	18100	17300	21700	---	22600	14300	11900	9400	7920	7460	8960
31	17900	---	17000	21700	---	22600	---	11800	---	8000	7460	---
MONTH	17190	17150	17610	21120	21780	21850	12130	13700	9470	8040	8050	9220

RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TEX.--Continued

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	11.0	6.5	5.5	5.5	13.5	13.0	17.0	20.5	25.0	24.5	23.5
2	20.0	10.5	7.0	4.0	6.5	13.5	13.5	20.0	21.5	24.5	25.0	24.0
3	20.5	11.5	7.0	3.5	4.5	14.5	13.5	21.5	23.0	25.0	24.5	24.0
4	21.0	11.5	8.0	4.0	5.5	15.5	11.5	20.5	24.0	25.5	24.5	23.5
5	21.0	13.5	8.0	6.0	8.5	13.0	10.5	21.0	20.5	25.5	25.0	24.0
6	22.0	14.0	8.0	7.0	9.5	14.0	10.5	20.0	21.5	25.0	24.5	24.0
7	19.5	13.0	5.0	6.0	11.0	13.0	11.5	16.0	18.0	25.0	25.5	21.5
8	19.5	13.0	6.0	5.0	6.5	14.0	10.0	19.0	19.5	25.5	25.0	21.5
9	20.0	13.5	8.0	3.0	4.5	15.0	9.5	19.0	20.0	25.0	25.0	22.0
10	21.0	12.0	8.0	1.0	5.5	14.5	9.0	16.5	21.5	25.0	26.0	24.0
11	22.0	11.5	5.0	0.5	6.0	15.0	11.0	19.0	19.5	21.5	26.0	22.0
12	22.0	12.0	3.0	1.0	6.5	13.5	12.0	18.5	22.0	24.0	25.5	23.0
13	22.0	11.0	4.0	1.5	9.5	13.5	12.0	17.0	23.5	23.5	25.0	24.0
14	21.0	10.5	5.5	3.5	9.5	14.0	16.0	16.5	19.5	24.0	24.5	23.5
15	21.0	9.5	5.0	6.0	8.5	12.0	13.5	17.0	20.0	23.0	24.5	22.0
16	19.0	9.5	3.0	10.0	8.5	10.5	13.0	16.5	20.0	24.5	24.0	23.0
17	20.0	10.0	3.0	10.0	8.0	13.0	15.5	20.5	20.0	24.5	24.5	22.0
18	23.0	9.5	5.0	10.5	6.5	13.5	15.0	20.0	20.0	23.5	25.0	22.0
19	19.5	10.0	4.5	10.0	8.0	13.0	15.0	22.0	21.0	24.5	25.0	22.0
20	14.5	9.5	8.5	10.0	10.0	13.5	15.5	22.0	21.0	24.5	24.5	23.0
21	13.5	8.5	9.5	9.5	9.0	13.0	15.0	23.0	21.0	26.0	24.5	23.5
22	14.0	6.5	10.0	10.5	7.0	14.0	20.5	23.0	20.5	25.0	24.0	21.5
23	15.5	8.0	8.5	5.5	6.0	15.5	17.0	23.0	20.0	24.5	24.0	23.0
24	15.5	6.5	7.0	4.0	8.5	14.5	18.0	23.0	20.5	25.0	24.0	23.5
25	15.0	8.5	7.0	4.5	10.0	13.5	18.5	23.0	21.0	26.0	24.0	21.5
26	15.0	8.0	5.5	4.5	12.0	12.0	18.0	20.0	23.0	25.0	21.0	22.0
27	15.5	9.5	5.5	5.5	12.0	13.5	15.0	23.0	22.0	24.5	24.0	19.5
28	15.5	9.5	8.0	4.5	13.0	13.5	16.0	22.0	26.5	25.0	24.0	18.5
29	15.0	10.5	9.5	3.5	---	13.0	16.5	23.0	24.5	25.5	24.0	18.5
30	19.0	10.5	6.0	4.5	---	13.0	18.5	22.0	25.5	24.0	23.5	19.0
31	15.5	---	5.5	5.5	---	12.0	---	23.0	---	25.5	23.5	---
MONTH	18.5	10.5	6.5	5.5	8.0	13.5	14.0	20.0	21.5	24.5	24.5	22.5

RIO GRANDE BASIN

689

08414000 PECOS RIVER NEAR MENTONE, TEX.

LOCATION.--Lat 31°40'07", long 103°37'34", Loving County, at bridge on State Highway 302, 3.0 miles (4.8 km) southwest of Mentone.

DRAINAGE AREA.--21,650 mi² (56,070 km²), approximately (contributing area).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 30...	1500	13	.0	660	300	3200	56	0	2400	5200
DEC. 04...	1400	17	.0	660	290	3100	93	0	2400	5000
JAN. 10...	0930	14	.8	660	300	3100	154	0	2500	5000
FEB. 28...	1225	11	.1	780	340	4000	133	0	3000	6400
APR. 02...	1400	5.0	.0	940	410	4800	92	0	3600	7600
17...	1700	41	1.2	520	170	1800	80	0	1700	2900
MAY 22...	1415	23	.4	490	190	2200	42	0	1800	3500
JUNE 19...	1525	211	5.6	450	150	1500	84	0	1600	2400
JULY 25...	1710	46	5.0	410	120	1200	39	0	1400	1800
AUG. 28...	1700	426	10	440	140	1100	116	0	1500	1700

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 30...	--	.00	11800	2900	2800	--	16800	7.4	19.0
DEC. 04...	--	.00	11600	2800	2800	--	16700	7.8	8.0
JAN. 10...	--	.3	11600	2900	2800	--	16700	7.7	1.0
FEB. 28...	--	--	14500	3400	3200	--	21200	7.3	13.0
APR. 02...	--	--	17500	4000	4000	--	24800	7.3	16.5
17...	--	--	7120	2000	2000	--	11100	7.1	23.0
MAY 22...	--	--	8220	2000	2000	--	12600	6.5	28.0
JUNE 19...	--	--	6060	1700	1700	16	9140	6.9	26.0
JULY 25...	--	.9	4980	1500	1500	13	7570	6.6	30.0
AUG. 28...	.6	.02	4950	1600	1600	12	7380	7.2	27.0

RIO GRANDE BASIN

08435600 PAISANO CREEK NEAR ALPINE, TEX.

LOCATION.--Lat 30°21'30", long 103°42'48", Brewster County, on right bank 200 ft (61 m) upstream from bridge on Farm Road 1703 and 3.4 miles (5.5 km) west of Alpine.

DRAINAGE AREA.--27.9 mi² (72.3 km²).

PERIOD OF RECORD.--Chemical analyses: May 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JULY											
14...	1530	35	17	6.0	1.8	1.0	5.1	19	0	2.6	.6
14...	1600	14	--	6.2	1.8	--	--	21	0	--	.6
14...	1630	4.2	--	5.3	1.5	--	--	17	0	--	.6

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY										
14...	.3	1.1	60	48	22	7	.1	43	6.7	18.0
14...	--	--	--	--	23	6	--	49	6.4	18.0
14...	--	--	--	--	19	5	--	44	6.5	17.0

RIO GRANDE BASIN

691

08435620 ALPINE CREEK AT ALPINE, TEX.

LOCATION.--Lat 30°21'06", long 103°40'00", Brewster County, on left bank at low-water crossing at Avenue G in Alpine.

DRAINAGE AREA.--18.1 mi² (46.9 km²).

PERIOD OF RECORD.--Chemical analyses: October 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JULY											
14...	1625	104	13	20	1.9	1.3	4.7	78	0	3.2	.6
14...	1700	71	11	14	1.7	1.2	4.8	54	0	3.6	.5
14...	2000	4.2	13	12	2.0	1.8	5.9	47	0	4.4	1.1

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY										
14...	.2	.5	40	85	58	0	.1	133	6.9	23.0
14...	.1	.9	40	68	42	0	.1	106	7.0	24.0
14...	.2	1.1	40	68	38	0	.1	95	6.5	24.0

RIO GRANDE BASIN

08435660 WEST MOSS CREEK NEAR ALPINE, TEX.

LOCATION.--Lat 30°20'10", long 103°38'24", Brewster County, on right bank 0.3 mile (0.5 km) upstream from State Highway 118 and 1.8 miles (2.9 km) south of Alpine.

DRAINAGE AREA.--11.3 mi² (29.3 km²).

PERIOD OF RECORD.--Chemical analyses: May 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JULY											
14...	1600	77	22	24	4.1	3.5	4.2	102	0	3.2	1.1
14...	1635	102	--	20	2.8	--	--	84	0	--	1.6
18...	1700	7.8	--	10	2.0	--	--	40	0	--	1.2
18...	1740	12	15	10	2.0	1.4	6.9	42	0	.8	1.4
19...	1545	324	--	22	2.8	--	--	84	0	--	1.1
19...	1620	141	--	16	2.4	--	--	60	0	--	1.1
19...	1700	77	--	17	2.7	--	--	63	0	--	1.4

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY										
14...	.2	.6	50	115	77	0	.2	170	6.9	18.0
14...	--	--	--	--	61	0	--	151	6.9	20.0
18...	--	--	--	--	33	0	--	86	6.5	25.0
18...	.1	1.0	50	63	33	0	.1	86	6.6	25.0
19...	--	--	--	--	66	0	--	151	6.9	19.0
19...	--	--	--	--	50	1	--	117	6.9	19.0
19...	--	--	--	--	54	2	--	126	6.7	20.0

RIO GRANDE BASIN

693

08446500 PECOS RIVER NEAR GIRVIN, TEX.

LOCATION.--Lat 31°06'40", long 102°25'00", Pecos County, at gaging station 2.4 miles (3.9 km) upstream from Comanche Creek, 2.6 miles (4.2 km) northwest of Girvin, and 7.8 miles (12.6 km) upstream from bridge on Highway 67.

DRAINAGE AREA.--29,560 mi² (76,560 km²) approximately (contributing area).

PERIOD OF RECORD.--Chemical analyses: October 1939 to June 1941, October 1946 to September 1947, October 1953 to September 1973.

Pesticide analyses: October 1968 to September 1973.

Water temperatures: October 1953 to January 1959, March 1964 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 24,800 micromhos Apr. 24; minimum daily, 4,850 micromhos July 19.

Water temperatures: Maximum, 32.0°C on several days during July and August; minimum, 5.0°C Jan. 10, Feb. 9.

EXTREMES, October 1939 to June 1941, October 1946 to September 1947, October 1953 to September 1973.--Specific conductance: Maximum daily, 38,900 micromhos Aug. 6, 1965; minimum daily, 790 micromhos Apr. 26, 1957.

Water temperatures (1953-59, 1964-68, 1970-73): Maximum, 34.0°C July 21, 1971; minimum, 3.0°C Feb. 3, 4, 1956.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 14...	1630	14	1.9	650	320	--	2800	--	46	0
NOV. 01...	1255	42	.7	720	420	--	3400	--	57	0
DEC. 06...	1100	19	2.8	730	450	--	3500	--	76	0
JAN. 20...	1330	28	2.5	820	510	3900	--	48	206	0
FEB. 27...	1330	32	4.4	760	470	--	3600	--	178	0
MAR. 14...	1745	36	2.1	520	270	--	2200	--	160	0
APR. 04...	1125	22	.2	890	590	4400	--	50	182	0
MAY 24...	1135	21	6.9	750	290	--	3600	--	72	0
JUNE 21...	1145	29	9.8	860	500	--	3900	--	80	0
JULY 24...	1845	95	1.3	760	380	3100	--	59	72	0
AUG. 04...	1730	28	4.0	410	26	--	2200	--	76	0
SEP. 30...	2000	27	1.8	710	410	--	3100	--	73	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 14...	2800	4400	.16	11000	3000	2900	--	16100	7.2	27.0
NOV. 01...	3300	5300	.09	13200	3500	3500	--	18800	7.4	15.0
DEC. 06...	3400	5400	.07	13500	3700	3600	--	19000	7.8	7.0
JAN. 20...	3700	6300	.01	15300	4100	4000	26	21400	8.1	14.0
FEB. 27...	3300	5800	.04	14000	3800	3700	--	20000	7.9	17.0
MAR. 14...	2000	3500	.03	8560	2400	2300	--	12800	7.8	19.0
APR. 04...	4000	7100	.02	17100	4600	4500	28	23800	7.5	10.0
MAY 24...	3200	5400	.10	13300	3100	3000	--	18600	6.7	23.0
JUNE 21...	4000	6100	.70	15400	4200	4200	--	21300	7.2	26.0
JULY 24...	3000	5200	.00	12500	3500	3400	23	18100	7.1	29.5
AUG. 04...	1900	2800	.04	7370	1100	1100	--	10900	6.8	29.0
SEP. 30...	3000	5000	.45	12200	3400	3400	--	17000	6.8	26.0

RIO GRANDE BASIN

08446500 PECOS RIVER NEAR GIRVIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAR. 01...	1015	31	--	.00	.00	.00	.00	.00	.00	.00	.00
APR. 19...	1233	24	23.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
MAR. 01...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
APR. 19...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

MONTH	DISCHARGE (FT ³ /S)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1972....	570	15200	10500	16200	4200	6460	2700	4160	--
NOV.	677	18700	13200	24100	5300	9690	3200	5850	--
DEC.	678	19400	13800	25300	5600	10300	3400	6220	--
JAN. 1973....	854	20700	14800	34100	6000	13800	3600	8300	--
FEB.	807	20500	14600	31800	5900	12900	3500	7630	--
MAR.	955	19600	13900	35800	5600	14400	3400	8770	--
APR.	889	23800	17200	41300	7000	16800	4100	9840	--
MAY	549.7	19800	14100	20900	5700	8460	3400	5050	--
JUNE	254.7	21600	15500	10700	6300	4330	3700	2540	--
JULY	1731.9	11700	7840	36700	3100	14500	2100	9820	--
AUG.	701	13700	9380	17800	3700	7000	2400	4540	--
SEP.	752	16200	11300	22900	4500	9140	2800	5690	--
TOTAL	9419.3	--	--	318000	--	128000	--	78400	--
WTD. AVG. ...	25.8	17700	12500	--	5000	--	3100	--	--

RIO GRANDE BASIN

695

08446500 PECOS RIVER NEAR GIRVIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14600	18700	18300	20800	21100	20500	23400	21900	20400	21400	13400	16000
2	14800	19400	18400	20600	20900	20400	23600	21600	19800	21600	12300	15800
3	14600	19000	18900	20100	20800	20900	23700	20900	19800	21900	11600	15700
4	13000	18500	18600	20100	20700	20900	23800	20700	19600	22000	10900	16000
5	12500	19000	18400	20700	21200	21100	23600	20900	19400	22400	11400	15800
6	12200	18300	19000	20700	21200	21300	23500	20700	19600	22200	11400	15700
7	12200	18200	18900	20500	21300	21400	23000	20500	20000	21700	11700	14200
8	13000	18000	19100	19900	20800	21600	24100	20700	19800	21800	12200	15300
9	14400	18300	19300	19800	20300	21700	23900	20500	19800	22000	12300	15600
10	14800	18100	19500	20500	20600	19100	23800	21000	19900	20900	12700	15700
11	15500	18000	19100	21600	20700	21100	23800	20100	20000	22500	13000	16100
12	15800	18200	19100	21600	20600	20600	23700	19700	20400	19300	13300	16200
13	16000	18700	19200	21400	20500	15400	24600	19700	20900	20300	13700	15400
14	16100	18800	19400	21100	20200	12800	24200	19300	20700	18200	14100	15800
15	15500	18700	19500	21200	20400	16100	23800	19200	20900	16000	14400	15700
16	15000	18800	19500	21300	20900	15700	24400	19000	20800	17500	14500	16000
17	14200	19400	19500	21100	20700	18400	24300	18800	20700	20300	14200	16300
18	13600	19700	19600	21000	20200	19100	23900	18800	21400	9330	14300	16800
19	13900	19200	18900	21100	20600	19600	24300	18800	21400	4850	14400	16900
20	13800	18900	19800	21400	20200	19200	24200	18600	21500	5950	14500	17000
21	14600	19300	19600	21400	20200	18600	22500	18500	21400	12100	14400	17000
22	15800	18800	19600	21100	20000	18500	23400	19300	24400	20000	14600	17000
23	15400	18900	19800	20700	20000	19500	23900	19100	23400	17800	14700	16800
24	16000	19100	19800	20500	20000	19700	24800	18600	22600	18100	14900	16800
25	15900	19100	20500	20500	20200	20300	21100	18200	22400	16500	14800	16900
26	16100	18300	19800	20300	20200	21100	24700	18400	22600	14200	15000	17100
27	16500	18300	19100	20100	20000	21700	24400	18600	22300	10400	15300	16800
28	17100	18200	20000	20700	20200	22200	23500	18400	22200	7920	15800	16800
29	17400	17900	20200	20500	---	22200	22600	18400	21900	10000	16000	17000
30	17600	18200	20200	19900	---	22600	22200	20100	21200	12700	16200	17000
31	18200	---	20400	20200	---	23000	---	20600	---	13700	16500	---
MONTH	15040	18670	19390	20720	20530	19880	23690	19660	21040	16950	13820	16240

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	15.0	15.0	9.0	10.0	17.0	25.0	24.0	27.0	---	29.0	29.0
2	24.0	17.0	14.0	7.0	---	14.0	20.0	22.0	28.0	26.0	29.0	29.0
3	23.0	17.0	15.0	11.0	14.0	18.0	18.0	24.0	28.0	30.0	29.0	29.0
4	24.0	19.0	15.0	11.0	14.0	17.0	10.0	23.0	26.0	31.0	29.0	29.0
5	25.0	17.0	17.0	12.0	15.0	19.0	17.0	21.0	28.0	32.0	29.0	28.0
6	23.0	19.0	7.0	11.0	15.0	19.0	19.0	21.0	29.0	30.0	29.0	20.0
7	24.0	17.0	13.0	9.0	17.0	19.0	23.0	26.0	29.0	27.0	30.0	22.0
8	25.0	17.0	11.0	7.0	7.0	18.0	14.0	26.0	29.0	30.0	30.0	27.0
9	28.0	18.0	---	6.0	5.0	18.0	18.5	27.0	28.0	29.0	31.0	28.0
10	27.0	16.0	8.0	5.0	9.0	15.0	18.0	29.0	28.0	31.0	31.0	26.0
11	28.0	---	8.0	7.0	10.0	17.0	21.0	30.0	29.0	26.0	30.0	30.0
12	26.0	16.0	11.0	9.0	---	16.0	24.0	25.0	30.0	29.0	31.0	30.0
13	25.0	16.0	11.0	16.0	16.0	19.0	24.0	22.0	30.0	29.0	31.0	29.0
14	27.0	15.0	11.0	12.0	15.0	19.0	20.0	20.0	28.0	29.0	29.0	29.0
15	---	14.0	10.0	14.0	16.0	18.0	23.0	19.0	30.0	28.0	31.0	29.0
16	25.0	15.0	9.0	15.0	11.0	19.0	23.0	21.0	29.0	29.0	32.0	29.0
17	28.0	14.0	10.0	15.0	10.0	18.0	21.0	23.0	31.0	29.0	30.0	26.0
18	27.0	15.0	12.0	---	14.0	19.0	24.0	26.0	31.0	29.0	32.0	27.0
19	17.0	14.0	13.0	15.0	13.0	20.0	20.0	27.0	31.0	28.0	28.0	28.0
20	17.0	11.0	11.0	14.0	13.0	18.0	24.0	29.0	30.0	28.0	---	29.0
21	19.0	14.0	11.0	15.0	16.0	20.0	20.0	30.0	26.0	29.0	32.0	29.0
22	20.0	15.0	14.0	13.0	9.0	19.0	25.0	29.0	29.0	27.0	32.0	27.0
23	18.0	---	12.0	12.0	16.0	19.0	26.0	28.0	28.0	29.0	32.0	27.0
24	17.0	15.0	14.0	9.0	16.0	19.0	25.0	23.0	27.0	29.5	31.0	27.0
25	17.0	15.0	14.0	12.0	14.0	19.0	25.0	26.0	28.0	29.0	30.0	---
26	20.0	15.0	15.0	14.0	15.0	19.0	22.0	27.0	29.0	28.0	30.0	26.0
27	19.0	16.0	17.0	15.0	17.0	20.0	15.0	25.0	30.0	27.0	30.0	24.0
28	19.0	15.0	15.0	10.0	15.0	19.0	---	27.0	31.0	27.0	28.0	25.0
29	20.0	14.0	17.0	10.0	---	21.0	23.0	26.0	31.0	---	29.0	25.0
30	21.0	13.0	15.0	12.0	---	19.0	22.0	25.0	30.0	31.0	24.0	26.0
31	16.0	---	13.0	14.0	---	---	---	26.0	---	28.0	27.0	---
MONTH	22.5	15.5	12.5	11.5	13.0	18.5	21.0	25.0	29.0	29.0	30.0	27.0

RIO GRANDE BASIN

08447000 PECOS RIVER NEAR SHEFFIELD, TEX.

LOCATION.--Lat 30°39'34", long 101°46'11", Pecos County, at bridge on U.S. Highway 290, 3.5 miles (5.6 km) southeast of Sheffield, and 4 miles (6 km) upstream from Live Oak Creek.

DRAINAGE AREA.--31,600 mi² (81,800 km²) approximately (contributing area).

PERIOD OF RECORD.--Chemical analyses: November 1939 to June 1941, October 1946 to September 1947, October 1968 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 17...	1230	19	10	280	170	1000	199	0	860
NOV. 14...	1315	29	7.0	400	190	1500	180	0	1200
DEC. 18...	1255	114	8.5	500	320	2200	190	0	2000
JAN. 23...	1120	36	5.8	630	360	2500	172	0	2500
FEB. 26...	1200	38	3.4	600	350	2600	145	0	2400
APR. 19...	1540	42	.1	640	430	3200	134	0	2900
MAY 24...	1315	15	2.2	360	190	1500	200	0	1300
JUNE 26...	1410	26	13	400	220	1800	168	0	1500
JULY 27...	1345	71	4.9	480	140	1200	118	0	1600
AUG. 30...	1230	11	8.3	340	180	1300	182	0	1200

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 17...	1900	.5	4330	1400	1200	12	7190	7.9	21.0
NOV. 14...	2700	.2	6060	1800	1600	16	9710	8.0	14.0
DEC. 18...	3600	.4	8760	2600	2400	--	12800	7.6	10.0
JAN. 23...	4200	--	10200	3000	2900	--	15200	7.6	10.0
FEB. 26...	4200	--	10300	2900	2800	--	15400	7.7	14.0
APR. 19...	5200	--	12400	3400	3300	--	18000	7.5	21.0
MAY 24...	2400	--	5900	1700	1500	16	9140	7.3	25.0
JUNE 26...	2900	--	6900	1900	1800	18	10600	7.4	26.0
JULY 27...	1800	.2	5200	1800	1700	12	7770	7.0	27.0
AUG. 30...	2200	--	5320	1600	1400	14	8350	7.4	25.0

RIO GRANDE BASIN

697

08447410 PECOS RIVER NEAR LANGTRY, TEX.

LOCATION.--Lat 29°48'10", long 101°26'45", at gaging station 7.5 miles (12.1 km) east of Langtry, Tex., 15.0 river miles (24.1 km) upstream from its confluence with the Rio Grande, which is 638.2 river miles (1,027 km) downstream from the American Dam at El Paso.

DRAINAGE AREA.--35,179 mi² (91,114 km²).

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1973.

REMARKS.--Records of specific conductance and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	129	52	369	7.1	176	0	344	610
NOV.								
01-30	123	52	330	6.0	192	0	306	545
DEC.								
01-31	136	57	358	6.2	196	0	350	600
JAN.								
01-31	155	69	450	7.6	194	0	436	740
FEB.								
01-28	172	79	522	8.3	196	0	498	880
MAR.								
01-31	172	86	568	8.8	174	0	534	970
APR.								
01-30	160	81	538	9.2	168	0	488	920
MAY								
01-31	151	74	495	8.7	164	0	464	830
JUNE								
01-30	125	60	390	7.1	162	0	352	642
JULY								
01-31	120	57	352	7.3	174	0	326	590
AUG.								
01-31	146	71	469	8.4	158	0	436	770
SEP.								
01-30	133	62	398	8.6	158	0	380	680

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.8	1600	1650	536	392	6.9	2760	7.5
NOV.								
01-30	1.6	1460	1550	521	364	6.3	2510	7.6
DEC.								
01-31	2.0	1610	1720	574	414	6.5	2760	7.7
JAN.								
01-31	.8	1960	2220	670	512	7.6	3320	7.5
FEB.								
01-28	.9	2260	2260	754	594	8.2	3760	8.1
MAR.								
01-31	.7	2430	2810	782	640	8.8	4090	7.6
APR.								
01-30	.3	2280	2520	732	594	8.7	3850	7.0
MAY								
01-31	.2	2100	2370	681	546	8.3	3580	7.4
JUNE								
01-30	.5	1660	1750	559	426	7.2	2840	7.5
JULY								
01-31	.2	1540	1690	534	392	6.6	2650	7.4
AUG.								
01-31	.4	1980	2150	656	527	8.0	3300	7.7
SEP.								
01-30	.6	1740	1990	587	458	7.1	3010	7.6

RIO GRANDE BASIN

08450900 RIO GRANDE BELOW AMISTAD DAM, NEAR DEL RIO, TEX.

LOCATION.--Lat 29°25'00", long 101°02'00", 2.2 river miles (3.5 km) downstream from Amistad Dam, and 10 miles (16 km) northwest of Del Rio.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

REMARKS.--The flow is controlled largely by releases from Amistad Reservoir. Records of mean daily discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletins 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	68	12	75	4.3	152	0	157	71
NOV.								
01-30	76	13	75	4.2	166	0	165	72
DEC.								
01-31	91	12	72	3.0	156	0	188	79
JAN.								
01-31	84	11	73	3.0	142	0	187	78
FEB.								
01-28	74	13	74	4.2	168	0	164	70
MAR.								
01-31	83	12	76	3.4	162	0	187	74
APR.								
01-30	71	14	81	4.6	168	0	162	77
MAY								
01-31	71	13	78	4.6	168	0	150	76
JUNE								
01-30	70	15	83	4.6	162	0	174	82
JULY								
01-31	68	15	87	4.8	164	0	173	85
AUG.								
01-31	67	16	90	4.9	152	0	179	86
SEP.								
01-30	68	16	92	5.0	152	0	189	89

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.2	463	466	219	94	2.2	780	7.9
NOV.								
01-30	.2	488	519	243	107	2.1	818	7.5
DEC.								
01-31	.3	523	572	276	148	1.9	869	7.5
JAN.								
01-31	.2	507	540	254	138	2.0	849	7.5
FEB.								
01-28	.1	483	531	238	100	2.1	824	7.7
MAR.								
01-31	.3	517	554	256	124	2.1	873	7.7
APR.								
01-30	.08	493	530	234	97	2.3	840	7.4
MAY								
01-31	.06	476	543	230	93	2.2	833	7.4
JUNE								
01-30	.00	509	527	236	103	2.3	846	8.0
JULY								
01-31	.05	514	573	231	96	2.5	863	7.5
AUG.								
01-31	.1	518	599	233	108	2.6	858	7.7
SEP.								
01-30	.06	534	594	236	111	2.6	894	7.9

RIO GRANDE BASIN

699

08459000 RIO GRANDE AT LAREDO, TEX.

LOCATION.--Lat 27°29'45", long 99°29'30", at gaging station 1.1 miles (1.8 km) downstream from the highway bridge between Laredo, Texas and Nuevo Laredo, Tamaulipas, and 891.0 river miles (1,434 km) below the American Dam at El Paso.

DRAINAGE AREA.--135,976 mi² (352,178 km²) (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31):

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1973.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
01-31	--	3590	--	--	--	70	--	166	0	--	69	--
NOV.												
01-30	--	1160	--	--	--	64	--	148	0	--	66	--
DEC.												
01-31	--	937	--	--	--	73	--	132	0	--	77	--
JAN.												
01-31	--	810	--	--	--	77	--	138	0	--	86	--
11...	1345	862	12	90	18	77	2.3	194	0	190	83	.3
FEB.												
01-28	--	1810	--	--	--	80	--	160	0	--	84	--
13...	1000	3250	15	89	15	77	3.1	188	0	180	79	.5
MAR.												
01-31	--	603	--	90	24	110	3.3	166	0	254	123	--
14...	1000	593	12	98	24	99	3.0	184	0	240	110	.4
APR.												
01-30	--	1220	--	--	--	91	--	164	0	--	96	--
18...	1010	1840	17	88	17	86	3.7	188	0	200	84	.6
MAY												
01-31	--	3800	--	--	--	81	--	182	0	--	81	--
22...	1300	590	16	76	16	90	4.5	164	0	190	87	.7
JUNE												
01-30	--	1540	--	--	--	89	--	160	0	--	94	--
25...	1030	2710	15	74	15	90	3.9	162	0	190	90	.6
JULY												
01-31	--	1660	--	70	16	81	4.4	160	0	169	81	--
24...	1200	1910	14	70	14	68	4.0	164	0	150	70	.5
AUG.												
01-31	--	2610	--	--	--	89	--	164	0	--	88	--
27...	1200	3850	16	71	16	88	4.5	160	0	180	86	.6
SEP.												
01-30	--	5520	--	--	--	84	--	160	0	--	82	--
24...	1145	9890	8.8	64	9.5	53	4.6	136	0	120	53	.4

RIO GRANDE BASIN

08459000 RIO GRANDE AT LAREDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL KJEL- NITRO- GEN IN BOTTOM DEP. (MG/KG)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- IN BOT- TOM DE- POSITS (MG/KG)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
01-31	--	--	--	--	--	--	--	--	--	232	96	2.0
NOV.												
01-30	--	--	--	--	--	--	--	--	--	220	98	1.9
DEC.												
01-31	--	--	--	--	--	--	--	--	--	238	130	2.1
JAN.												
01-31	--	--	--	--	--	--	--	--	--	250	137	2.1
11...	.90	.00	.00	.19	.19	--	.04	--	572	300	140	1.9
FEB.												
01-28	--	--	--	--	--	--	--	--	--	270	139	2.1
13...	.70	.00	.08	.24	.32	--	.08	--	551	280	130	2.0
MAR.												
01-31	.60	--	--	--	--	--	--	--	689	323	187	2.7
14...	.60	.00	.11	.35	.46	--	.06	--	678	340	190	2.3
APR.												
01-30	--	--	--	--	--	--	--	--	--	244	109	2.5
18...	.70	.00	.00	.52	.52	--	.14	--	590	290	140	2.2
MAY												
01-31	--	--	--	--	--	--	--	--	--	234	85	2.3
22...	.40	.00	.09	.05	.14	500	.16	55	561	260	120	2.4
JUNE												
01-30	--	--	--	--	--	--	--	--	--	240	109	2.5
25...	.70	.00	.12	.80	.92	--	.17	--	559	250	110	2.5
JULY												
01-31	.60	--	--	--	--	--	--	--	503	240	110	2.3
24...	.70	.00	.00	.49	.49	--	.12	--	471	230	98	1.9
AUG.												
01-31	--	--	--	--	--	--	--	--	--	252	118	2.4
27...	.30	.00	.00	.46	.46	--	.08	--	543	240	110	2.5
SEP.												
01-30	--	--	--	--	--	--	--	--	--	230	99	2.4
24...	.50	.00	.06	2.7	2.8	--	1.3	--	388	200	87	1.6

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	ORGANIC CARBON IN BED MA- TERIAL (C) (G/KG)
OCT.												
01-31	785	8.0	--	--	--	--	--	--	--	--	--	--
NOV.												
01-30	745	7.6	--	--	--	--	--	--	--	--	--	--
DEC.												
01-31	813	7.6	--	--	--	--	--	--	--	--	--	--
JAN.												
01-31	882	7.3	--	--	--	--	--	--	--	--	--	--
11...	917	8.1	7.5	2	11.8	98	.8	2700	40	240	--	--
FEB.												
01-28	896	7.5	--	--	--	--	--	--	--	--	--	--
13...	882	7.9	11.5	50	9.8	89	1.6	9000	24	31	6.5	--
MAR.												
01-31	1140	7.4	--	--	--	--	--	--	--	--	--	--
14...	1080	7.8	22.0	30	7.8	89	1.2	1500	1000	320	--	--
APR.												
01-30	974	7.1	--	--	--	--	--	--	--	--	--	--
18...	932	8.0	24.0	80	8.1	95	.9	74000	160	160	4.0	--
MAY												
01-31	884	7.4	--	--	--	--	--	--	--	--	--	--
22...	916	7.9	26.0	20	7.9	96	1.7	14000	520	800	9.5	1000
JUNE												
01-30	923	7.8	--	--	--	--	--	--	--	--	--	--
25...	906	7.8	25.0	90	7.4	88	1.0	170000	6200	5100	--	--
JULY												
01-31	843	7.5	--	--	--	--	--	--	--	--	--	--
24...	775	7.6	29.0	60	8.0	103	1.0	28000	130	150	10	--
AUG.												
01-31	887	7.7	--	--	--	--	--	--	--	--	--	--
27...	887	7.6	28.5	40	7.4	95	.9	7200	66	84	11	--
SEP.												
01-30	861	7.5	--	--	--	--	--	--	--	--	--	--
24...	644	7.5	25.5	380	5.8	70	5.5	100000	6100	2800	38	--

RIO GRANDE BASIN

701

08459000 RIO GRANDE AT LAREDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
FEB.							
		12...	1400	7.9	12.0	9.7	90
		12...	1600	7.9	13.5	10.2	97
		12...	1800	7.9	13.0	10.0	94
		12...	2000	7.9	12.0	10.1	94
		12...	2200	7.9	12.0	10.1	94
		12...	2400	7.9	11.5	10.1	92
		13...	0200	7.9	11.5	10.1	92
		13...	0400	7.9	11.5	10.0	91
		13...	0600	7.9	11.0	9.8	88
		13...	0800	7.9	11.0	9.7	87
		13...	1000	7.9	11.5	9.8	89
		13...	1200	7.9	12.0	9.9	92
MAY							
		21...	1300	7.9	26.5	8.0	98
		21...	1500	7.9	26.5	8.2	100
		21...	1700	7.9	27.0	8.4	104
		21...	1900	7.9	27.0	8.4	104
		21...	2100	7.9	27.0	8.3	102
		21...	2300	7.9	26.5	8.0	98
		22...	0100	7.9	26.0	7.7	96
		22...	0300	7.9	25.5	7.8	94
		22...	0500	7.9	25.5	7.6	92
		22...	0700	7.9	25.5	7.6	92
		22...	0900	7.9	25.5	7.6	92
		22...	1100	7.9	26.0	7.7	94
		22...	1300	7.9	26.0	7.9	96
JULY							
		23...	0200	7.6	29.5	8.0	104
		23...	0400	7.6	29.0	8.0	103
		23...	0600	7.6	28.5	7.8	100
		23...	0800	7.6	28.0	7.7	97
		23...	1000	7.6	28.5	7.8	100
		23...	1200	7.4	29.5	8.0	104
		23...	1400	7.4	29.5	8.0	104
		23...	1600	7.5	30.0	8.0	104
		23...	1800	7.6	30.0	8.1	107
		23...	2000	7.6	30.0	8.1	107
		23...	2200	7.6	30.0	8.1	107
		23...	2400	7.6	29.5	8.1	105
		24...	1200	7.6	29.0	8.0	103

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC IN BOTTOM DE- POSITS (UG/G)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM DE- POSITS (UG/G)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM DE- POSITS (UG/G)
FEB.											
13...	1000	0	0	--	--	0	0	--	0	0	--
MAR.											
01-31	--	--	--	--	250	--	--	--	--	--	--
MAY											
22...	1300	0	0	2	--	0	0	1	0	0	3
JULY											
01-31	--	--	--	--	170	--	--	--	--	--	--
24...	1200	0	0	--	--	0	0	--	0	0	--
SEP.											
24...	1145	2	0	--	--	1	0	--	0	0	--

DATE	TIME	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM DE- POSITS (UG/G)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM DE- POSITS (UG/G)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM DE- POSITS (UG/G)	TOTAL LEAD (PB) (UG/L)
FEB.											
13...		0	0	--	2	2	--	1100	0	--	10
MAR.											
01-31	--	--	--	--	--	--	--	--	--	--	--
MAY											
22...		0	0	2	2	2	4	620	0	5300	5
JULY											
01-31	--	--	--	--	--	--	--	--	--	--	--
24...		2	2	--	4	4	--	1500	10	--	4
SEP.											
24...		12	0	--	15	2	--	1900	10	--	55

RIO GRANDE BASIN

08459000 RIO GRANDE AT LAREDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LEAD IN BOTTOM DE- POSITS (UG/G)	TOTAL LITHIUM (LI) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MANGA- NESE IN BOTTOM DE- POSITS (UG/G)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY IN BOTTOM DE- POSITS (UG/G)
FEB. 13...	0	--	--	--	50	0	--	.2	.2	--
MAR. 01-31	--	--	--	--	--	--	--	--	--	--
MAY 22...	0	10	30	30	50	0	88	.2	.2	.0
JULY 01-31	--	--	--	--	--	--	--	--	--	--
24...	0	--	--	--	40	0	--	<.2	<.2	--
SEP. 24...	0	--	--	--	690	0	--	<.2	<.2	--

DATE	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SELE- NIUM IN BOTTOM DE- POSITS (UG/G)	TOTAL STRON- TIUM (SR) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM DE- POSITS (UG/G)
FEB. 13...	--	--	2	2	--	--	--	10	10	--
MAR. 01-31	--	--	--	--	--	--	--	--	--	--
MAY 22...	0	0	--	--	3	2	2	20	10	10
JULY 01-31	--	--	--	--	--	--	--	--	--	--
24...	--	--	0	0	--	--	--	20	0	--
SEP. 24...	--	--	0	0	--	--	--	130	10	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)	SUS- SED. SIEVE DIAM. % FINER THAN .062 MM	SUS- SED. SIEVE DIAM. % FINER THAN .125 MM
JAN. 11...	1345	862	7.5	6	14	--	--
FEB. 06...	1500	607	--	16	26	97	99
13...	1000	3250	11.5	140	1230	--	--
MAR. 14...	1000	593	22.0	48	77	--	--
APR. 18...	1010	1840	24.0	185	919	--	--
MAY 05...	1410	8260	24.0	999	22300	93	98
22...	1300	590	26.0	55	88	--	--
JUNE 25...	1030	2710	25.0	267	1950	--	--
JULY 24...	1200	1910	29.0	116	598	--	--

DATE	SUS- SED. SIEVE DIAM. % FINER THAN .250 MM	SUS- SED. SIEVE DIAM. % FINER THAN .500 MM	SUS- SED. FALL DIAM. % FINER THAN .002 MM	SUS- SED. FALL DIAM. % FINER THAN .004 MM	SUS- SED. FALL DIAM. % FINER THAN .008 MM	SUS- SED. FALL DIAM. % FINER THAN .016 MM	SUS- SED. FALL DIAM. % FINER THAN .031 MM
JAN. 11...	--	--	--	--	--	--	--
FEB. 06...	100	--	64	71	81	88	90
13...	--	--	--	--	--	--	--
MAR. 14...	--	--	--	--	--	--	--
APR. 18...	--	--	--	--	--	--	--
MAY 05...	99	100	43	55	65	70	73
22...	--	--	--	--	--	--	--
JUNE 25...	--	--	--	--	--	--	--
JULY 24...	--	--	--	--	--	--	--

RIO GRANDE BASIN

703

08459000 RIO GRANDE AT LAREDO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	721	718	809	984	1220	1170	852	1060	913	871	877
2	760	726	754	826	974	1270	1100	851	1070	912	830	906
3	759	738	798	818	1010	1230	1170	918	1110	915	823	910
4	764	706	819	826	1030	1160	1160	841	1090	888	858	912
5	759	727	819	869	999	1060	1150	836	1050	895	885	930
6	752	733	845	834	976	1060	1160	818	1020	908	893	862
7	751	765	784	906	964	1080	1100	829	998	903	891	913
8	744	723	816	865	957	1070	1140	837	992	900	890	900
9	741	728	850	814	931	1070	1130	839	952	977	895	892
10	754	711	865	820	860	1060	1130	847	862	910	892	880
11	740	711	872	813	892	999	1090	845	942	892	903	886
12	747	698	845	817	813	1040	1040	847	902	897	881	890
13	745	719	829	803	821	1060	1000	847	943	914	888	887
14	748	737	802	818	790	1050	934	849	917	904	881	885
15	752	774	759	827	801	1070	954	841	910	877	896	876
16	762	743	779	806	791	1050	870	855	916	859	891	885
17	759	769	751	797	838	1090	923	859	878	761	901	899
18	759	743	818	799	796	1090	884	865	884	743	918	879
19	775	736	765	915	852	1120	927	876	838	655	910	909
20	783	784	763	951	848	1120	856	870	726	677	902	905
21	795	753	765	873	851	1140	863	888	797	777	861	912
22	814	731	773	852	923	1120	819	865	826	826	883	925
23	823	764	769	873	906	1090	887	925	739	810	888	931
24	829	756	764	871	921	1120	893	932	876	791	893	779
25	844	733	772	884	997	1120	911	932	900	828	896	519
26	862	681	793	916	1050	1120	907	953	927	836	899	536
27	812	660	811	916	1130	1110	880	966	845	831	894	762
28	787	758	800	880	1210	1120	865	998	876	850	895	409
29	728	774	829	837	---	1150	889	1020	944	871	900	414
30	706	760	857	886	---	1130	912	1040	929	858	900	890
31	757	---	829	900	---	1110	---	1040	---	867	908	---
MONTH	770	735	800	852	926	1110	990	890	924	853	888	832

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	18.0	21.0	24.5	26.5	29.0	31.0	28.0
2	---	---	---	---	---	18.5	22.0	25.5	25.5	29.5	26.5	27.0
3	---	---	---	---	---	19.5	21.0	24.5	26.5	29.0	29.0	26.5
4	---	---	---	---	---	20.5	19.0	23.5	27.0	29.5	30.0	28.5
5	---	---	---	---	---	21.0	18.0	24.0	28.0	28.0	30.0	26.5
6	---	---	---	---	---	21.5	18.5	24.5	27.0	30.0	29.5	---
7	---	---	---	---	---	21.0	18.0	23.0	28.0	30.0	26.5	25.5
8	---	---	---	---	---	22.0	19.0	23.5	28.0	30.0	28.5	26.5
9	---	---	---	---	---	23.0	16.5	22.0	27.0	29.5	26.5	27.0
10	---	---	---	---	---	---	18.5	24.5	24.0	29.5	29.0	27.0
11	---	---	---	---	---	21.5	17.0	24.5	27.0	29.0	29.0	28.5
12	---	---	---	---	---	20.0	18.0	24.5	---	26.5	29.0	26.5
13	---	---	---	---	11.5	21.0	19.5	24.5	28.0	29.0	29.5	29.0
14	---	---	---	---	11.5	21.5	20.0	24.5	26.5	28.0	29.0	28.0
15	---	---	---	---	12.0	21.0	21.0	24.5	28.0	29.0	29.5	28.0
16	---	---	---	---	12.0	20.0	23.5	21.0	26.5	30.0	29.0	28.0
17	---	---	---	---	11.0	19.5	21.0	21.0	27.0	29.0	28.0	28.0
18	---	---	---	---	10.0	19.0	23.0	22.0	28.0	28.5	29.0	25.5
19	---	---	---	---	12.0	20.0	21.0	24.5	28.0	28.0	29.0	26.5
20	---	---	---	---	13.5	20.0	26.0	25.5	28.0	29.0	29.0	26.5
21	---	---	---	---	11.5	20.0	25.5	25.5	26.5	30.0	---	26.0
22	---	---	---	---	12.0	20.0	25.5	25.5	26.0	30.0	29.0	28.0
23	---	---	---	---	11.0	21.0	25.5	26.0	26.5	30.0	29.0	28.0
24	---	---	---	---	13.5	21.5	25.5	26.5	26.0	26.5	29.0	25.0
25	---	---	---	---	15.5	20.5	25.5	28.0	25.5	30.0	29.0	---
26	---	---	---	---	15.5	20.0	25.5	28.5	25.5	28.0	29.0	26.5
27	---	---	---	---	15.5	20.5	23.5	29.0	25.5	28.0	29.0	26.5
28	---	---	---	---	16.0	21.0	23.5	27.0	---	29.0	28.0	24.0
29	---	---	---	---	---	22.0	23.0	26.5	29.0	28.0	28.0	24.0
30	---	---	---	---	---	20.0	23.0	28.0	---	30.0	28.0	---
31	---	---	---	---	---	20.0	---	26.5	---	28.0	28.0	---
MONTH	---	---	---	---	---	20.5	21.5	25.0	27.0	29.0	29.0	27.0

RIO GRANDE BASIN

08461300 RIO GRANDE BELOW FALCON DAM, TEX.

LOCATION.--Lat 26°33'25", long 99°10'05", U.S. Tailrace at Falcon Dam.

DRAINAGE AREA.--164,482 mi² (426,008 km²) (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1973.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	72	19	91	4.5	128	0	204	106
NOV. 01-30	73	21	93	4.5	128	0	214	108
DEC. 01-31	74	21	95	4.5	130	0	222	109
MAR. 01-31	77	21	97	4.4	140	0	219	112
APR. 01-30	76	22	98	4.7	140	0	222	113
MAY 01-31	79	22	100	4.6	144	0	226	117
JUNE 01-30	78	23	105	4.5	148	0	236	117
JULY 01-31	76	24	106	4.6	138	0	234	117
AUG. 01-31	74	23	106	4.6	134	0	238	116
SEP. 01-30	74	22	108	4.7	128	0	240	120

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.09	560	584	258	152	2.5	945	7.8
NOV. 01-30	.2	578	628	268	164	2.5	962	7.4
DEC. 01-31	.02	590	627	271	164	2.5	974	7.4
MAR. 01-31	.3	601	645	278	164	2.5	1010	7.3
APR. 01-30	.01	605	635	280	166	2.5	1020	6.9
MAY 01-31	.05	620	701	288	170	2.6	1040	7.5
JUNE 01-30	.09	637	672	289	168	2.7	1060	7.6
JULY 01-31	.00	630	674	288	175	2.7	1050	7.6
AUG. 01-31	.00	628	695	279	169	2.8	1040	7.6
SEP. 01-30	.3	633	714	275	170	2.8	1050	7.5

RIO GRANDE BASIN

705

08464700 RIO GRANDE AT FORT RINGGOLD, RIO GRANDE CITY, TEX.

LOCATION.--Lat 26°22'05", long 98°48'20", Starr County, at gaging station about one mile (2km) downstream from Rio Grande City, 3.9 miles (6.3 km) below the mouth of the Rio San Juan, and 1,014.3 river miles (1,632 km) below the American Dam at El Paso.

DRAINAGE AREA.--180,396 mi² (467,226 km²) (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: January 1959 to September 1973.

REMARKS.--Records of specific conductance and daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	77	19	100	4.4	136	0	214	118
NOV. 01-30	78	21	115	4.2	144	0	217	137
DEC. 01-31	84	22	122	4.1	152	0	232	146
JAN. 01-31	94	24	165	3.8	174	0	253	206
FEB. 01-28	80	22	120	4.3	146	0	235	138
MAR. 01-31	84	23	129	4.1	156	0	237	156
APR. 01-30	78	22	103	4.7	142	0	226	120
MAY 01-31	80	23	105	4.7	146	0	235	120
JUNE 01-30	72	18	83	3.8	148	0	182	95
JULY 01-31	66	14	59	4.6	164	0	122	69
AUG. 01-31	70	19	81	3.7	145	0	181	91
SEP. 01-30	74	16	72	3.6	160	0	163	82

DATE	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.2	601	623	270	158	2.6	1000	7.8
NOV. 01-30	.9	647	702	281	163	3.0	1090	7.4
DEC. 01-31	.7	689	728	300	176	3.1	1150	7.5
JAN. 01-31	.6	835	866	333	190	3.9	1420	7.7
FEB. 01-28	.2	672	725	290	170	3.1	1130	7.5
MAR. 01-31	.4	712	766	304	176	3.2	1210	7.4
APR. 01-30	.1	624	673	285	168	2.7	1060	7.2
MAY 01-31	.05	640	693	294	174	2.7	1070	7.6
JUNE 01-30	.4	529	550	254	132	2.3	880	7.5
JULY 01-31	.3	417	444	222	88	1.7	709	7.3
AUG. 01-31	.03	517	615	252	134	2.2	864	7.5
SEP. 01-30	.5	492	529	250	120	2.0	823	7.4

RIO GRANDE BASIN

08469200 RIO GRANDE AT ANZALDUAS DAM, TEX.

LOCATION.--Lat 26°08'00", long 98°20'05", Hidalgo County, at gaging station 0.5 mile (0.8 km) below Anzalduas Dam, 12.2 miles (19.6 km) from Hidalgo, and 1,077.1 river miles (1,733.1 km) below the American Dam at El Paso.

DRAINAGE AREA.--182,138 mi² (471,737 km²) (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: March 1959 to September 1973.

Pesticide analyses: October 1968 to September 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1972 to September 1973 given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	76	20	109	4.3	138	0	211	136
NOV. 01-30	98	29	158	4.6	156	0	274	216
DEC. 01-31	97	29	167	4.7	152	0	281	224
JAN. 01-31	94	31	194	4.6	124	0	320	260
FEB. 01-28	93	28	162	4.4	146	0	279	212
MAR. 01-31	104	34	232	5.0	134	0	334	330
APR. 01-30	80	23	114	4.7	140	0	238	136
MAY 01-31	84	23	119	4.8	146	0	247	145
JUNE 01-30	79	19	109	4.4	160	0	198	130
JULY 01-31	69	16	85	5.1	154	0	150	105
AUG. 01-31	76	20	101	3.8	150	0	192	122
SEP. 01-30	70	17	90	4.1	140	0	175	108

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.2	625	627	272	159	2.9	1060	7.9
NOV. 01-30	.7	860	882	364	236	3.6	1430	7.9
DEC. 01-31	.7	881	948	362	237	3.8	1480	7.6
JAN. 01-31	.5	967	1020	362	260	4.4	1640	7.4
FEB. 01-28	.4	853	858	347	228	3.8	1440	7.6
MAR. 01-31	.4	1110	1190	400	290	5.0	1870	7.5
APR. 01-30	.02	665	710	294	180	2.9	1120	6.9
MAY 01-31	.07	695	762	304	184	3.0	1160	7.6
JUNE 01-30	.04	619	648	275	144	2.9	1040	7.5
JULY 01-31	.3	504	528	238	112	2.4	863	7.5
AUG. 01-31	.2	590	681	272	149	2.7	980	7.6
SEP. 01-30	.5	536	571	244	130	2.5	914	7.7

RIO GRANDE BASIN

707

08470200 NORTH FLOODWAY NEAR SEBASTIAN, TEX.

LOCATION.--Lat 26°18'51", long 97°46'36", Cameron County, at International Boundary and Water Commission gaging station on U.S. Highway 77, approximately 2 miles (3 km) south of Sebastian, Texas.

PERIOD OF RECORD.--Sediment records: February 1966 to September 1973.

REMARKS.--Records of Discharge given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
MAY 01...	1645	139	25.0	489	184	98	99
		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
MAY 01...		100	75	84	89	92	97

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1972 TO SEPTEMBER 1973

DATE	DISCHARGE (CFS DAYS)	MEAN WEIGHTED SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT. 1972....	3314.8	257	2300
NOV.....	2977.4	205	1650
DEC.....	2530.5	240	1640
JAN. 1973....	4275.1	187	2150
FEB.....	9492	354	9090
MAR.....	8859	243	5820
APR.....	3886	256	2690
MAY.....	5753.5	382	5930
JUNE.....	10918	499	14700
JULY.....	6832	309	5700
AUG.....	5752	337	5230
SEP.....	10787	318	9270
TOTAL.....	75377.3	325	66170

RIO GRANDE BASIN

08470300 ARROYO COLORADO FLOODWAY AT EL FUSTE SIPHON, SOUTH OF MERCEDES, TEX.

LOCATION.--Lat 26°07'45", long 97°54'45", at International Boundary and Water Commission gaging station, 50 feet (15 m) above Mercedes Canal Fuste Siphon on Arroyo Colorado, 1.5 miles (2.4 km) south of Mercedes, and approximately 1.4 miles (2.3 km) downstream from Arroyo Colorado heading on the main floodway.

PERIOD OF RECORD.--Chemical analyses: November 1967 to February 1968.

Pesticide analyses: May 1968 to September 1973.

Sediment records: February 1966 to September 1973.

REMARKS.--Records of discharge given in International Boundary and Water Commission Water Bulletin Numbers 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPER- ATURE (DEG C)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
DEC. 05...	1530	24.0	.00	.0	.00	2.6	.03	14	.00	4.0	.02
SEP. 18...	1350	--	.00	.0	.00	.0	.03	1.1	.00	.0	.05

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
DEC. 05...	.0	.02	1.9	.00	.0	.00	.0	.00	.0
SEP. 18...	.0	.00	.0	.00	.0	.00	.0	.04	.0

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
DEC. 05...	0	.0	0	.00	.00	.00	.00	.00	.00	.01
SEP. 18...	0	.0	0	.06	.00	.08	.20	.06	.00	.01

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1972 TO SEPTEMBER 1973

DATE	DISCHARGE (CFS DAYS)	MEAN WEIGHTED SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT. 1972....	3680.5	159	1580
NOV.....	3053.6	139	1150
DEC.....	2638.4	125	890
JAN. 1973....	3667.3	119	1180
FEB.....	4798.1	164	2130
MAR.....	4167.8	115	1290
APR.....	3655.7	105	1040
MAY.....	4030.5	152	1660
JUNE.....	11897	229	7340
JULY.....	11755.7	233	7400
AUG.....	4063.2	95	1040
SEP.....	6932.8	110	2050
TOTAL.....	64340.6	165	28750

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.

LOCATION.--Lat 25°52'35", long 97°27'15", Cameron County, at International Boundary and Water Commission gaging station, 1,000 ft (300 m) downstream from El Jardin pumping plant, 6.8 river miles (15.3 km) below International Bridge between Brownsville, Texas and Matamoros, Tamps., and 48.8 river miles (78.5 km) above the Gulf of Mexico.

PERIOD OF RECORD.--Chemical analyses: October 1967 to January 1968.

Specific conductance: April 1967 to October 1969, October 1970 to September 1973.

Water temperatures: October 1966 to September 1969, October 1970 to September 1973.

Sediment records: February 1966 to September 1973.

EXTREMES, October 1972 to September 1973.--Specific conductance: Maximum daily, 2,910 micromhos Mar. 18; minimum daily, 581 micromhos Oct. 2.

Water temperatures: Maximum, 33.0°C on several days during August and September.

Sediment concentrations: Maximum daily, 1,620 mg/l June 28; minimum daily, 19 mg/l Jan. 12.

Sediment loads: Maximum daily, 44,600 tons Sept. 18; minimum daily, 2.80 tons June 2.

EXTREMES, February 1966 to September 1973.--Specific conductance (April 1967 to September 1969, October 1970 to September 1973): Maximum daily, 4,130 micromhos May 29, 1972; minimum daily, 337 micromhos Sept. 3, 1967.

Water temperatures (October 1966 to September 1969, October 1970 to September 1973): Maximum, 33.0°C on several days during August 1968, August and September 1973; minimum, 8.0°C Jan. 10, 1967.

Sediment concentrations: Maximum daily, 3,560 mg/l Sept. 16, 1971; minimum daily, 4 mg/l Apr. 26, 1970.

Sediment loads: Maximum daily, 83,500 tons Sept. 16, 1971; minimum daily, 0.58 tons Apr. 30, 1970.

REMARKS.--Records of discharge given in International Boundary and Water Commission Water Bulletins No. 42 and 43.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
OCT.								
01...	0900	6150	29.0	1310	21800	96	97	99
02...	1845	4910	30.0	740	9810	97	98	100
04...	1830	3320	29.0	468	4200	94	97	98
MAR.								
14...	1800	1040	27.0	434	1220	93	95	99
AUG.								
13...	0700	5960	32.0	501	8060	98	99	100
31...	0645	5090	32.0	405	5570	99	100	--
SEP.								
19...	0845	11600	33.0	703	22000	93	96	100
19...	1715	11700	33.0	692	21900	91	98	99

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT.							
01...	100	--	59	76	80	92	98
02...	--	--	68	78	88	95	95
04...	99	100	61	71	77	88	92
MAR.							
14...	100	--	60	73	76	85	92
AUG.							
13...	--	--	52	68	80	97	98
31...	--	--	62	77	85	93	98
SEP.							
19...	--	--	66	70	78	84	88
19...	100	--	67	68	76	81	91

RIO GRANDE BASIN

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	617	1360	1500	---	1800	1660	---	1160	2540	797	1150	1000
2	581	1440	---	1510	2130	1730	1640	1180	---	693	1140	1000
3	674	1430	---	1560	---	---	1730	1150	---	679	1160	963
4	751	---	1770	1440	---	---	1800	1220	1550	679	---	972
5	786	---	1880	1530	2420	1680	1800	---	1140	957	---	985
6	838	1490	2030	---	2380	1690	2000	---	1100	744	1130	966
7	900	1460	2090	---	2260	1680	---	1250	1180	739	1770	976
8	952	1410	2050	1400	2070	1670	---	1350	1100	880	1770	1040
9	936	1510	---	1390	2070	1720	1550	1340	---	880	1290	1040
10	1040	1600	---	1400	---	---	724	1420	---	884	815	1020
11	1020	---	1900	1400	---	---	1770	1410	1150	880	733	1050
12	1050	1610	1740	1400	2090	1760	1080	---	1190	889	824	1030
13	1030	1590	1640	---	2050	1900	1060	---	1140	910	876	1050
14	1070	1560	1820	---	2050	2030	1060	1060	1240	957	980	1070
15	---	1600	1920	1550	1980	2050	1050	1090	1250	944	920	1030
16	1060	1600	---	1450	1890	2380	1020	1300	---	940	1130	1030
17	1060	1640	---	1450	---	2490	1050	1370	---	807	1130	---
18	1180	---	1540	1430	---	2910	976	1230	1270	824	1130	863
19	1250	---	1540	1470	1440	2860	1040	---	1520	841	1000	829
20	1240	1770	1670	---	1430	---	1040	---	1240	878	1000	---
21	---	1740	1680	---	1480	2640	1040	1410	1220	906	986	---
22	---	1740	1690	1670	1480	2670	1050	1460	1220	915	804	---
23	1230	1560	---	1700	1480	2600	1040	1190	---	927	788	---
24	1250	1530	---	1680	---	---	1060	1370	---	967	830	---
25	1250	1440	---	1690	---	---	1100	1300	1200	1030	758	625
26	1210	---	1450	1690	1660	2260	1080	---	1200	1090	884	663
27	1290	1330	1530	---	1680	2080	1140	---	1900	1150	881	717
28	---	1270	1740	---	1660	1980	1140	1330	1220	---	924	732
29	---	1430	1880	1650	---	1800	---	1220	976	---	881	676
30	1340	1500	---	1690	---	1960	1150	2470	1010	1080	945	958
31	1330	---	---	1470	---	---	---	2380	---	1060	1030	---
MONTH	1040	1530	---	---	---	---	1240	---	---	894	1020	929

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	26.5	20.0	---	20.0	19.0	---	26.0	31.0	30.0	32.0	32.5
2	29.0	27.0	---	17.0	19.0	19.0	27.0	26.0	---	29.5	32.0	32.5
3	29.0	27.0	---	16.0	---	---	26.0	26.0	---	30.0	32.0	32.0
4	29.0	---	20.0	16.0	---	---	26.0	26.0	30.0	30.0	---	32.0
5	29.0	---	23.5	16.0	18.0	22.0	25.0	---	---	29.5	---	32.0
6	29.0	27.0	19.0	---	18.0	19.0	25.0	---	29.0	29.0	32.0	32.0
7	29.0	27.0	20.0	---	17.0	21.0	---	27.0	29.0	30.0	32.0	32.0
8	---	27.0	20.0	14.0	13.0	21.0	---	26.0	29.0	30.0	32.0	32.5
9	29.0	27.0	---	13.0	13.0	24.0	24.0	27.0	---	29.5	31.0	32.5
10	28.0	27.0	---	11.0	---	---	25.0	26.5	---	30.0	31.0	32.5
11	28.0	---	18.0	12.0	---	---	25.0	27.0	29.0	30.0	31.0	32.5
12	29.0	27.0	17.0	12.0	17.0	26.0	25.0	---	29.0	30.0	32.0	32.5
13	29.0	27.0	15.0	---	18.0	26.0	24.0	---	29.0	30.0	32.0	32.5
14	28.5	26.0	16.0	---	18.0	26.0	25.0	27.0	29.0	30.5	32.0	33.0
15	---	26.0	15.0	14.0	18.0	27.0	25.0	25.0	29.0	30.0	---	33.0
16	29.0	26.0	---	15.0	18.0	24.0	25.0	26.0	---	30.0	32.0	33.0
17	29.0	25.5	---	15.0	---	27.0	25.0	25.0	---	30.0	32.0	---
18	29.0	---	17.0	15.0	---	27.0	25.0	25.0	31.0	30.0	32.0	33.0
19	28.5	---	18.0	15.0	18.0	27.0	26.0	---	31.0	30.0	32.0	33.0
20	28.0	26.0	18.0	---	18.0	---	26.0	---	30.0	30.5	32.0	---
21	---	24.0	17.0	---	18.0	26.0	27.0	26.0	30.0	30.0	32.0	---
22	---	24.0	17.0	18.0	18.0	26.0	27.0	26.0	31.0	31.0	32.0	---
23	28.0	23.0	---	19.0	18.0	26.0	27.0	26.0	---	31.0	32.5	---
24	27.5	23.0	---	20.0	---	---	27.0	26.0	---	31.0	33.0	---
25	27.0	23.0	---	21.0	---	---	27.0	28.0	30.0	31.0	33.0	32.5
26	27.0	---	18.0	21.0	19.0	27.0	26.0	---	30.0	31.0	33.0	33.0
27	27.0	24.0	19.0	---	19.0	27.0	27.5	---	30.0	32.0	33.0	32.0
28	---	19.0	19.0	---	19.0	27.0	26.0	29.0	30.0	---	32.5	32.0
29	---	19.0	19.0	20.0	---	28.0	---	30.0	30.0	---	32.0	32.0
30	28.0	19.0	---	19.0	---	28.0	26.0	---	30.0	31.0	32.0	32.0
31	27.0	---	---	21.0	---	---	---	30.0	---	32.0	32.0	---
MONTH	28.5	25.0	---	---	---	---	26.0	---	---	30.5	32.0	32.5

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6360	1230	21100	486	44	58	592	78	125
2	5420	770	11300	455	150	184	528	85	121
3	4320	770	8980	488	80	105	534	95	137
4	3630	490	4800	407	70	77	612	108	178
5	3460	400	3740	273	70	52	563	95	144
6	3190	310	2670	214	72	42	499	94	127
7	3040	318	2610	241	63	41	548	122	181
8	3210	314	2720	303	70	57	615	107	178
9	3220	322	2800	222	71	43	692	95	177
10	2930	405	3200	132	69	25	572	85	131
11	2350	358	2270	151	80	33	475	77	99
12	1930	292	1520	285	97	75	397	73	78
13	1650	366	1630	517	153	214	267	85	61
14	1350	208	758	678	65	119	149	44	18
15	925	100	250	485	46	60	110	46	14
16	711	58	111	267	46	33	137	50	18
17	577	34	53	105	39	11	179	50	24
18	320	54	47	101	40	11	140	60	23
19	180	28	14	107	45	13	134	52	19
20	129	22	7.7	101	51	14	166	43	19
21	146	40	16	101	61	17	131	38	13
22	391	50	53	96	75	19	82	43	9.5
23	466	65	82	122	48	16	67	50	9.0
24	367	40	40	414	51	57	73	50	9.9
25	323	33	29	490	40	53	112	67	20
26	276	38	28	712	70	135	255	67	46
27	255	34	23	764	102	210	180	67	33
28	272	30	22	829	143	320	92	33	8.2
29	290	30	23	898	107	259	69	35	6.5
30	397	29	31	756	88	180	64	40	6.9
31	451	40	49	--	--	--	57	45	6.9
TOTAL	52536	--	70976.7	11200	--	2533	9091	--	2040.9
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	89	50	12	1070	117	338	536	41	59
2	232	52	33	1000	109	294	490	72	95
3	456	81	100	683	120	221	335	60	54
4	522	40	56	642	115	199	264	50	36
5	376	37	38	917	113	280	288	41	32
6	193	35	18	945	100	255	301	27	22
7	276	35	26	772	128	267	317	35	30
8	411	36	40	523	61	86	319	23	20
9	446	23	28	315	55	47	312	59	50
10	496	41	55	213	50	29	284	60	46
11	506	27	37	180	50	24	284	50	38
12	435	19	22	207	51	29	778	197	414
13	357	30	29	227	51	31	1070	268	774
14	324	50	44	270	54	39	1100	323	959
15	325	61	54	282	40	30	1010	247	674
16	312	28	24	212	40	23	1030	279	776
17	295	30	24	233	45	28	1200	350	1130
18	280	39	29	296	50	40	829	252	564
19	303	71	58	374	53	54	508	106	145
20	276	50	37	409	57	63	358	75	72
21	314	40	34	429	102	118	261	58	41
22	327	33	29	418	53	60	185	59	29
23	434	26	30	465	53	67	138	61	23
24	452	28	34	508	65	89	120	55	18
25	404	29	32	493	80	106	127	60	21
26	421	28	32	572	93	144	211	59	34
27	587	40	63	587	83	132	332	74	66
28	600	50	81	568	71	109	284	51	39
29	500	57	77	--	--	--	215	75	44
30	479	87	113	--	--	--	164	92	41
31	564	21	32	--	--	--	157	90	38
TOTAL	11992	--	1321	13810	--	3202	13807	--	6384

RIO GRANDE BASIN

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	299	85	69	801	82	177	22	97	5.8
2	268	86	62	599	120	194	21	50	2.8
3	168	78	35	343	69	64	21	100	5.7
4	87	64	15	281	24	18	101	50	14
5	53	33	4.7	493	30	40	679	200	367
6	36	43	4.2	414	40	45	782	470	992
7	33	45	4.0	206	59	33	536	85	123
8	318	180	155	143	28	11	319	130	112
9	1830	660	3260	122	31	10	486	200	262
10	2640	1000	7130	90	31	7.5	1000	250	675
11	2810	590	4480	112	125	38	1040	330	927
12	2440	500	3290	206	250	139	848	100	229
13	2250	420	2550	561	460	697	483	85	111
14	2360	850	5420	1600	680	2940	278	35	26
15	2480	460	3080	2280	750	4620	98	31	8.2
16	2800	460	3480	1420	730	2800	508	50	69
17	3050	600	4940	560	300	454	1060	70	200
18	2860	360	2780	400	152	164	404	101	110
19	2390	363	2340	600	177	287	141	42	16
20	2430	306	2010	775	350	732	170	200	92
21	2540	257	1760	1140	108	332	183	184	91
22	2630	328	2330	815	70	154	582	212	333
23	2880	268	2080	423	60	69	1050	250	709
24	2780	275	2060	223	46	28	1290	250	871
25	1950	357	1880	132	79	28	1040	200	562
26	1260	186	633	57	60	9.2	1990	460	2470
27	896	60	145	26	50	3.5	4600	910	11300
28	505	35	48	46	49	6.1	8460	1620	37000
29	382	83	86	85	103	24	11100	1160	34800
30	623	82	138	34	157	14	12500	960	32400
31	--	--	--	23	113	7.0	--	--	--
TOTAL	48048	--	56268.9	15010	--	14145.3	51792	--	124883.5
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	13300	660	23700	1010	42	115	5370	374	5420
2	13800	550	20500	503	25	34	5780	481	7510
3	14200	370	14200	528	51	73	6250	354	5970
4	14600	500	19700	554	60	90	6570	390	6920
5	14900	460	18500	606	70	115	6560	336	5950
6	15400	410	17000	968	85	222	6270	299	5060
7	15600	230	9690	1290	500	1740	5960	359	5780
8	15300	169	6980	1920	504	2610	6040	321	5230
9	14600	238	9380	3180	459	3940	6810	321	5900
10	13100	222	7850	3520	491	4670	7130	387	7450
11	11200	260	7860	4090	553	6110	6570	353	6260
12	9730	440	11600	5270	860	12200	6030	307	5000
13	8660	516	12100	6200	613	10300	5780	290	4530
14	7590	478	9800	6860	508	9410	5560	335	5030
15	6580	380	6750	7010	400	7570	5470	746	11000
16	5690	510	7840	7050	372	7080	6590	800	14200
17	5050	376	5130	6900	407	7580	9490	1000	25600
18	4460	368	4430	6170	273	4550	11400	1450	44600
19	3650	417	4110	5790	284	4440	12100	807	26400
20	2760	511	3810	6170	331	5510	12300	800	26600
21	2200	444	2640	7530	637	13000	12900	750	26100
22	1950	334	1760	8140	652	14300	13600	700	25700
23	1530	250	1030	7980	414	8920	14000	600	22700
24	1070	396	1140	7770	353	7410	14300	500	19300
25	582	700	1100	7560	445	9080	14100	466	17700
26	291	420	330	7360	330	6560	13100	412	14600
27	193	45	23	7230	332	6480	11600	508	15900
28	267	60	43	7030	333	6320	11400	538	16600
29	462	70	87	6320	346	5900	12400	610	20400
30	881	94	224	5670	348	5330	13400	804	29100
31	1000	76	205	5340	359	5180	--	--	--
TOTAL	220596	--	229512	153519	--	176839	274830	--	438510
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									876231
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									1126616.3

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