TEXAS WATER DEVELOPMENT BOARD

REPORT 108

BIOCHEMICAL OXYGEN DEMAND, DISSOLVED OXYGEN, SELECTED NUTRIENTS, AND PESTICIDE RECORDS OF TEXAS SURFACE WATERS, 1968

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By Alton J. Dupuy, Douglas B. Manigold,
and Jean A. Schulze

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BIOCHEMICAL OXYGEN DEMAND, DISSOLVED OXYGEN, SELECTED NUTRIENTS, AND PESTICIDE RECORDS OF TEXAS SURFACE WATERS, 1968

INTRODUCTION

Data presented in this report were collected as a part of continuing statewide water-quality investigations by the U.S. Geological Survey. Data-collection networks for BOD (Biochemical oxygen demand), dissolved oxygen, and selected nutrients and for pesticides were established in January 1968 in cooperation with the Texas Water Development Board to provide additional base-line information on the quality of surface waters of the State. Data collected through September 1968 at 58 BOD and nutrient stations and at 26 pesticides stations in the network are given in Tables 1 and 2, respectively. Pesticide records for October 1967 to September 1968 for three stations in the U.S. Geological Survey pesticide monitoring network (Brown and Nishioka, 1967; Manigold and Schulze, 1969) are also included in Table 2. The data were collected principally at selected existing streamflow gaging stations throughout the State, most of which are sites where additional chemical quality data are collected on a continuous, daily, or periodic basis. The U.S. Geological Survey station numbers are shown on the tables and on Figure 1.

The data given in this report represent the condition of the stream only at the sampling site and at the time of sampling. The constituents and properties reported are affected by sunlight intensity, air temperature, stream-channel characteristics, and other variables. Conditions vary significantly with place and time. However, repetitive sampling at a site provides data that are representative of the general character of the stream at that location; for a stream with several sampling sites, the data provide a general indication of changing conditions from site to site.

DEFINITIONS OF TERMS AND ABBREVIATIONS

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

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

Daily mean discharge is the mean discharge for 1 day.

Cubic feet per second (cfs) is a unit for expressing rates of discharge. One cubic foot per second is equal to the discharge of a stream of rectangular cross section, 1 foot wide and 1 foot deep, flowing water at an average velocity of 1 foot per second.

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

Specific conductance X (0.65 ± 0.05) = mg/l dissolved solids.

Milligrams per liter (mg/l) is a unit for expressing concentrations of chemical constituents. It is, as the term implies, milligrams of solute per liter of solution.

Nutrients are substances required to promote and sustain life. Nutrients tend to enrich water and subsequently may cause undesirable weed and algal growths and their associated nuisances. In this report consideration has been limited to the most dominant nutrients, nitrogen and phosphorus.

Biochemical oxygen demand (BOD) is a measure of the amount of oxygen required by aerobic bacteria while stabilizing decomposable organic matter. Thus, the determination of BOD provides an indication of the quantity of organic material in the water at the sampling point. Complete stabilization may require a period too long for practical purposes. For this reason the 5-day BOD test has been accepted as standard.

Dissolved oxygen (DO) is the amount of oxygen dissolved in a water and is one of the most important indicators of the biological, chemical, or sanitary quality of the water.

Percent saturation of dissolved oxygen is the quantity of oxygen dissolved in a water at a given temperature and salinity in relation to the maximum equilibrium quantity of oxygen dissolved in the water when exposed to water-saturated air.

Pesticides as used in this report include insecticides and herbicides.

Insecticides are substances or a mixture of substances intended to prevent, destroy, or repel insects. Technical names for insecticides analyzed for 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.

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

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

Herbicides are substances or a mixture of substances intended to control or destroy any vegetation. Technical names for herbicides analyzed for 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

COLLECTION OF SAMPLES

Samples for BOD determination were collected in 1-liter polyethylene bottles, immediately placed in ice, and held at a temperature of about 1°C until transported to the laboratory. The refrigerated samples were held no more than 3 days before the 5-day BOD analysis was begun. Samples for nutrient analysis were collected in 1-liter polyethylene bottles and immediately treated with chloroform. A depth-integrated sample was collected with a BOD sampler (provides for a threefold displacement of water in a BOD bottle without aeration) for streamside measurement of dissolved oxygen and temperature. Dissolved oxygen was measured with a temperature-compensated instrument. Calibration of the instrument was checked frequently by the Winkler method (azide modification) using saturated distilled water (Rainwater and Thatcher, 1960, p. 233-235). Temperature was measured with a glass thermometer and is reported in degrees Celsius. Depth-integrated samples for pesticide analysis were collected in 1-quart Boston round glass bottles and sealed with a Teflon-lined screw cap. Two bottles were collected at each station, one being used for insecticide analysis and the other for herbicides.

ANALYTICAL PROCEDURES

The BOD determination was performed on the basis of a 5-day incubation period at 20°C. (American Public Health Association and others, 1965, p. 415-421).

A modification of the persulfate digestion method developed by Gales and others (1966) was used for the determination of total inorganic and organic phosphorus as phosphate (PO_4).

The nitrate values include all inorganic forms of nitrogen as nitrate (NO_3). The methods used are described by Rainwater and Thatcher (1960, p. 211-226).

Pesticide samples were analyzed by methods developed in U.S. Geological Survey laboratories specifically for pesticides in water. Insecticide samples were extracted with hexane and analyzed by electron capture gas chromatography (Lamar and others, 1966, p. 187-199). Herbicide samples were acidified and extracted with ether. The herbicides were converted to their methyl esters to facilitate analysis, and were also analyzed by electron capture gas chromatography. The methyl ester values were converted to the acid for reporting (Goerlitz and Lamar, 1967, p. 1-21).

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Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
7-2275. CANADIAN RIVER NEAR AMARILLO (35°28'10", 101°52'45")										
3/14/68	1945	a24	25	7.0	3060	8.2	13	10.0	99	7.7
7-2280. CANADIAN RIVER NEAR CANADIAN (35°56', 100°22')										
3/14/68	1645	a400	0.2	0.09	2730	8.3	16	9.4	99	2.1
7-3127. WICHITA RIVER NEAR CHARLIE (34°03'20", 98°17'41")										
3/14/68	1200	1350	1.4	0.42	1590	7.7	12	9.0	87	3.4
7-3355. RED RIVER AT ARTHUR CITY (33°52'30", 95°30'10")										
1/16/68	1200	1160	0.0	0.21	1100	7.0	5	10.0	81	1.3
2/14/68	1500	2120	.0	.07	932	7.3	6	13.0	104	.8
3/19/68	1215	7440	.3	.16	364	7.4	15	9.7	99	.9
4/17/68	1140	5580	.0	.13	1270	7.9	20	8.7	99	1.3
5/15/68	0935	34500	3.6	.18	440	7.8	22	6.4	75	2.0
6/11/68	1825	33200	.8	.06	1420	7.6	26	8.2	102	1.1
7/16/68	1450	2180	.2	.12	1000	7.9	29	8.7	114	2.7
8/13/68	1225	2760	.2	.26	977	7.7	28	6.8	87	1.8
7-3368.2. RED RIVER NEAR DeKALB (33°41'15", 94°41'39")										
1/16/68	1005	3400	0.0	0.08	894	7.0	5	9.8	79	2.0
2/14/68	1300	4400	.0	.08	634	7.4	7	12.0	99	.8
3/19/68	1035	17800	.0	.22	210	7.7	14	10.0	101	.8
4/17/68	1410	12300	.2	.08	1110	7.9	20	8.9	101	1.3

See footnote at end of table.

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
7-3368.2. RED RIVER NEAR DeKALB (33°41'15", 94°41'39")--continued										
5/15/68	1200	48000	3.4	0.18	262	7.7	22	6.1	72	1.5
6/12/68	1010	35000	1.3	.08	1320	7.5	26	7.2	90	1.3
7/16/68	1305	11300	.1	.06	1170	7.7	29	7.4	97	1.9
8/13/68	1005	5800	.1	.16	1270	8.0	29	7.1	93	1.9
7-3370. RED RIVER AT INDEX, ARKANSAS (33°33'07", 94°02'28")										
1/16/68	0830	4880	0.3	0.06	1110	7.0	3	10.0	79	2.6
2/14/68	1045	7140	.0	.14	582	7.5	6	11.0	96	.9
3/19/68	0815	18400	.0	.33	206	7.5	14	9.8	98	.9
4/17/68	1610	10100	.0	.17	946	7.8	21	8.7	100	1.8
5/15/68	1345	45500	.6	.21	330	7.9	24	6.3	77	1.4
6/12/68	1130	42500	.5	.06	1230	7.5	26	7.0	89	1.1
7/16/68	1120	8080	.1	.18	1340	7.7	29	7.4	97	1.4
8/12/68	1855	4880	.1	.17	1100	8.1	31	7.8	105	2.8
7-3432. SULPHUR RIVER NEAR TALCO (33°23'20", 95°07'50")										
1/16/68	1330	290	0.0	0.37	410	7.5	6	10.0	86	1.8
2/14/68	1630	118	.0	.16	723	7.2	8	12.0	103	1.4
3/19/68	1345	305	.8	.22	435	7.4	17	9.1	97	1.1
4/17/68	1030	140	.0	.24	671	7.7	21	7.3	84	1.9
5/14/68	1620	14500	5.8	.22	237	7.9	24	7.0	84	2.1
6/11/68	1700	98	2.8	.22	333	7.2	30	6.1	81	1.9
7/16/68	1720	275	4.5	.53	337	7.2	28	6.7	86	2.3
8/13/68	1350	105	.2	.10	574	7.3	29	6.2	82	1.3

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
7-3460.7. LITTLE CYPRESS CREEK NEAR JEFFERSON (32°42'46", 94°20'44")										
1/16/68	1520	1100	1.4	0.09	152	7.0	5	10.0	81	1.1
2/13/68	1745	440	.0	.05	236	6.9	8	10.0	90	.3
3/18/68	1545	900	.0	.09	147	6.8	16	7.9	83	.7
4/18/68	0855	910	.0	.10	183	6.4	21	5.3	61	.8
5/15/68	1550	8000	1.2	.14	51	6.5	24	5.1	61	1.2
6/12/68	1350	240	1.8	.16	183	6.5	27	5.2	66	1.2
7/16/68	0900	84	.1	.31	209	6.5	26	5.9	74	1.3
8/12/68	1645	31	1.3	.36	178	6.6	28	4.9	63	.7
8-0175. SABINE RIVER NEAR EMORY (32°46'23", 95°47'56")										
1/17/68	0950	81	0.0	0.06	216	7.0	6	10.0	84	1.1
2/15/68	0845	990	.0	.12	216	6.9	7	12.0	99	1.2
3/19/68	1545	3000	.0	.07	210	7.5	14	11.0	110	.8
4/16/68	1630	50	.4	.12	192	7.0	19	6.7	74	2.1
5/14/68	1415	5000	.4	.11	196	7.7	24	6.8	83	1.1
6/11/68	1515	135	1.9	.10	208	7.1	26	7.3	92	1.5
7/16/68	1920	47	.7	.11	208	7.1	28	6.7	86	.9
8/13/68	1540	12	.2	.17	219	6.9	26	5.5	70	2.1
8-0200. SABINE RIVER NEAR GLADEWATER (32°32', 94°57')										
1/16/68	1730	5400	0.0	0.08	264	6.9	5	10.0	81	1.0
2/13/68	1545	4500	.5	.12	248	7.1	10	8.8	79	1.2
3/18/68	1315	8900	.1	.25	168	6.9	15	7.0	71	.9
4/18/68	1115	5000	.2	.29	297	6.7	20	5.1	58	1.2
5/16/68	0930	33000	.8	.25	126	6.7	23	4.1	49	1.4

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0200. SABINE RIVER NEAR GLADEWATER (32°32', 94°57')--continued										
6/12/68	1640	2850	0.9	0.15	235	6.7	27	5.4	68	2.1
7/15/68	1555	480	.2	.19	219	6.7	28	6.8	87	1.0
8/12/68	1445	120	1.1	.28	190	6.7	29	5.2	68	.9
8-0220. SABINE RIVER NEAR TATUM (32°22'11", 94°27'28")										
1/16/68	1615	6300	0.0	0.18	251	7.1	5	9.8	79	1.8
2/13/68	1700	5200	.5	.23	263	6.9	10	9.6	86	1.5
3/18/68	1500	5200	.4	.24	209	6.9	14	7.9	79	1.6
4/18/68	1000	8200	.0	.18	234	6.8	26	5.0	57	1.5
5/15/68	1650	9800	.8	.20	146	6.7	24	4.4	54	1.6
6/12/68	1445	5800	.8	.26	252	6.7	28	4.8	62	2.1
7/15/68	1705	700	.2	.22	493	6.7	29	5.0	66	3.3
8/12/68	1555	280	.3	.86	649	6.9	30	4.4	59	16
8-0253.5. TOLEDO BEND RESERVOIR NEAR BURKEVILLE (31°11'47". 93°34'24")										
5/21/68	1200		0.3	0.08	250	6.9	25	7.7	95	1.2
6/18/68	1130		.0	.09	203	6.6	22	3.1	36	1.8
7/24/68	1200		.1	.27	225	6.5	23	2.8	33	2.3
8/21/68	1000		.1	.13	205	6.8	24	3.6	44	2.5
8-0260. SABINE RIVER BELOW TOLEDO BEND NEAR BURKEVILLE (31°03'50", 93°31'10")										
5/21/68	1100	9960	0.4	0.08	245	6.6	20	9.6	109	1.3
6/18/68	1000	6580	.0	.10	207	6.6	22	8.1	95	1.7
7/24/68	1030	5600	.2	.14	168	6.7	24	7.4	90	1.6
8/21/68	1100	2070	.1	.16	181	6.7	24	6.2	76	1.4

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0305. SABINE RIVER NEAR RULIFF (30°18'13", 93°44'37")										
2/28/68	1040	1320	0.0	0.09	109	6.9	12	9.7	93	1.4
3/28/68	1000	2900	.2	.08	89	6.7	18	8.3	89	1.0
4/22/68	1800	2160	.4	.14	79	6.5	24	6.9	84	1.6
5/20/68	1715	6740	.1	.21	182	6.7	22	7.5	88	2.3
6/17/68	1800	18500	.1	.08	203	6.6	25	6.1	75	1.4
7/24/68	1430	3590	.0	.12	160	6.8	28	6.8	87	1.3
8/21/68	1230	2780	.0	.15	158	6.9	30	6.9	92	.9
8-0325. NECHES RIVER NEAR ALTO (31°34'45", 95°09'55")										
2/13/68	1400	a1600	0.0	0.06	247	7.1	10	9.2	85	1.4
3/18/68	1115	a2450	.0	.11	245	6.8	15	7.8	80	.9
4/18/68	1320	a3800	.0	.18	341	6.5	21	5.0	57	.8
5/16/68	1125	a19100	1.0	.19	110	6.6	24	5.2	63	1.2
6/13/68	0945	a1460	1.2	.20	176	6.6	27	5.7	72	1.6
7/15/68	1335	a1280	.3	.15	187	6.7	26	7.0	89	.4
8/12/68	1240	297	.4	.11	252	7.0	28	6.2	81	.9
8-0335. NECHES RIVER NEAR ROCKLAND (31°01'45", 94°23'46")										
2/27/68	1710	a1820	1.2	0.07	281	7.0	11	10.0	93	1.1
3/27/68	1200	3160	.0	.09	237	6.8	17	8.3	88	1.1
4/23/68	1330	9410	.0	.14	137	6.5	20	5.0	57	1.6
5/21/68	1730	5010	.1	.23	143	6.7	23	6.3	75	2.3
6/19/68	1000	2240	.1	.16	167	6.7	26	6.4	80	1.8
7/23/68	1330	1880	.1	.21	201	6.6	28	6.5	83	1.9
8/20/68	1330	364	.3	.23	259	7.0	32	6.5	88	.8

See footnote at end of table.

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0370. ANGELINA RIVER NEAR LUFKIN (31°27'26", 94°43'34")										
1/03/68	0730	a137	0.0	0.10	174	7.0	8	12.9	111	0.9
2/26/68	1410	a635	.0	.08	235	7.2	12	10.0	96	1.1
3/26/68	1515	a1150	.0	.12	333	6.9	18	12.6	135	1.0
4/24/68	1030	a3480	.0	.25	243	6.7	19	5.8	64	.8
5/22/68	0945	a4290	.0	.22	167	6.7	22	6.4	75	2.0
6/19/68	1800	a304	.4	.17	196	6.4	26	5.2	66	1.9
7/22/68	1800	a328	.5	.22	182	6.6	27	5.9	75	1.0
8/19/68	1600	a155	.2	.21	151	7.0	31	5.8	78	1.2
9/18/68	1015	1020	.2	.34	101	6.0	22	6.6	77	.9
8-0370.8. BAYOU LaNANA NEAR NACOGDOCHES (31°31'10", 94°39'21")										
1/03/68	0900		0.0	1.6	267	7.3	9	6.7	60	6.0
2/26/68	1510		.5	.70	263	7.1	13	7.1	70	6.0
3/26/68	1600		2.1	.80	227	6.9	18	7.7	84	5.6
4/24/68	0900		2.9	4.3	183	6.6	18	6.5	70	5.8
5/22/68	0900		1.7	14	212	6.6	21	6.1	70	3.6
6/19/68	1610		1.8	7.2	399	6.6	26	3.0	38	6.1
7/22/68	1700		.2	.21	88	6.3	26	5.1	64	5.8
8/19/68	1700		8.0	3.3	272	7.0	28	2.7	35	4.3
9/18/68	1100		8.8	1.8	219	6.6	22	4.4	51	3.6

See footnote at end of table.

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0372. PAPER MILL CREEK NEAR HERTY (31°23'32", 94°39'46")										
1/03/68	1030		2.0	1.3	1670	7.1	31	5.1	69	25
2/26/68	1630		.0	.23	1620	7.5	32	3.7	50	23
3/26/68	1700		.0	.70	1740	7.6	33	3.8	53	23
4/24/68	1130		.0	.38	1450	7.6	33	5.4	75	7.2
5/22/68	1015		1.4	1.5	1490	7.5	36	4.6	66	19
6/19/68	2000		.0	.44	1430	7.5	36	5.3	77	14
7/22/69	1900		2.2	.60	1370	7.2	36	4.9	70	12
8/19/68	1800		.4	.85	1330	7.9	38	5.7	84	7.7
9/18/68	1300		.2	.64	1380	7.6	37	4.4	64	7.5
8-0372.5. ANGELINA RIVER BELOW PAPER MILL CREEK NEAR HERTY (31°26'22", 94°37'11")										
2/26/68	1730		1.1	0.09	402	7.1	12	8.5	82	3.6
3/26/68	1745		6.4	.22	361	6.9	17	7.6	81	2.3
8-0373.3. ANGELINA RIVER NEAR ETOILE (31°22'24", 94°28'27")										
1/03/68	1450		1.5	0.33	391	7.0	8	10.1	88	2.1
2/27/68	0850		.0	.09	370	7.0	10	8.3	76	2.4
3/27/68	0830		.0	.11	274	6.6	16	7.1	74	1.3
4/24/68	1330		3.3	.21	187	6.7	21	1.2	14	1.9
5/22/68	1130		.9	.32	205	6.6	24	1.1	13	1.7
6/19/68	1400		.0	.31	182	6.4	26	1.9	24	3.0
7/23/68	0930		.2	.34	164	6.3	27	1.6	20	1.3
8/20/68	0900		.2	.41	174	6.5	30	1.4	18	.8
9/17/68	1640		.1	.30	202	6.6	24	2.7	33	1.6

Table 1 --Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0394. ANGELINA RIVER BELOW SAM RAYBURN DAM NEAR JASPER (31°03'30", 94°06'20")										
1/04/68	1500		1.9	0.02	251	7.0	12	11.3	109	0.9
2/27/68	1245		1.3	.03	250	7.3	13	10.0	100	1.0
3/27/68	1345		.0	.08	195	7.1	20	10.1	113	1.6
4/23/68	1130		1.5	.06	235	7.0	16	9.0	95	.7
5/21/68	1600		.6	.02	184	6.8	23	6.6	79	.9
6/18/68	1500		.2	.04	189	6.5	22	3.4	40	1.0
7/23/68	1430		2.2	.05	185	6.6	24	2.3	28	1.3
8/20/68	1530		.4	.06	179	6.7	26	2.3	29	.6
9/17/68	1150		.1	.04	198	6.4	22	3.6	42	.9
8-0410. NECHES RIVER AT EVADALE (30°21'22", 94°05'36")										
2/28/68	1140	2010	0.0	0.07	224	7.1	12	10.0	99	1.5
3/28/68	1130	4880	.0	.10	185	7.0	18	9.0	97	1.2
4/22/68	1630	14700	.0	.12	106	6.5	23	5.9	70	1.8
5/20/68	1545	16300	.3	.14	157	6.7	24	6.6	80	2.1
6/17/68	1630	8010	.1	.09	162	7.0	28	6.6	86	2.0
7/24/68	1600	4140	.1	.11	177	6.7	29	6.7	88	1.5
8/21/68	1400	4460	.4	.06	179	7.1	31	6.8	92	.9
8-0480. WEST FORK TRINITY RIVER AT FORT WORTH (32°45'40", 97°19'55")										
1/18/68	0900	60	0.0	0.58	604	7.1	8	6.5	58	6.6
2/15/68	1545	80	.0	.46	452	7.3	7	11.0	92	4.4
3/20/68	1515	6000	2.1	.31	222	7.9	11	9.4	88	8.0
4/15/68	1650	295	.1	.11	404	8.0	21	9.3	107	1.5
5/13/68	1600	2100	.5	.11	345	8.2	26	7.7	96	1.4

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0480. WEST FORK TRINITY RIVER AT FORT WORTH (32°45'40", 97°19'55")--continued										
6/10/68	1610	113	0.2	0.15	417	7.7	28	7.6	97	2.7
6/24/68	1130	1060	3.7	.52	238	7.6	25	6.1	75	5.5
7/17/68	1505	24	.2	.40	466	7.2	28	4.2	54	6.4
7/30/68	1115	5	.2	.30	516	7.0	29	2.7	36	4.2
8/14/68	1440	260	3.2	.40	219	7.1	26	5.0	63	4.4
8/28/68	0835	11	.3	.27	401	7.5	26	4.0	51	3.8
8-0495. WEST FORK TRINITY RIVER AT GRAND PRAIRIE (32°45'46", 96°59'42")										
1/17/68	1645	125	69	13	1170	7.3	11	3.4	32	16
2/15/68	1400	340	35	9.2	905	7.3	9	5.8	52	19
3/20/68	1330	9000	.0	6.9	248	7.7	13	7.9	77	7.6
4/15/68	1835	400	13	3.2	608	7.4	21	4.8	55	11
5/13/68	1740	7500	3.8	.50	249	7.9	22	5.5	65	6.5
6/10/68	1745	280	13	3.6	641	7.7	29	8.3	109	12
6/24/68	1245	740	17	2.5	582	7.4	26	5.2	65	7.8
7/17/68	1410	120	36	11	884	7.5	30	5.5	73	11
7/30/68	1215	108	47	11	1190	7.5	30	5.1	68	13
8/14/68	1345	1650	36	9.6	977	7.1	27	.3	4	73
8/27/68	0945	94	59	12	1230	7.6	28	1.1	14	16

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0574.1. TRINITY RIVER BELOW DALLAS (32°42'27", 96°44'08")										
1/17/68	1540	450	33	15	911	7.0	12	5.7	54	11
2/15/68	1300	940	24	7.6	710	7.5	8	7.6	67	10
3/20/68	1145	8200	2.5	.99	426	7.7	15	6.4	65	7.8
4/16/68	0950	3700	1.0	.67	409	7.5	17	8.0	85	4.1
5/14/68	0850	12000	3.9	.57	407	7.7	22	5.2	61	7.3
6/11/68	0915	3500	1.3	.68	378	7.5	25	7.6	94	2.8
6/24/68	1415	3950	12	1.3	341	7.1	25	4.2	52	19
7/17/68	1300	700	13	8.5	740	7.3	28	4.7	61	16
7/30/68	1340	630	24	10	764	7.2	29	2.2	29	13
8/14/68	1200	3400	13	2.9	476	7.0	26	1.2	15	8.4
8/28/68	1100	358	26	18	821	7.5	28	.5	6	22
8-0620. EAST FORK TRINITY RIVER NEAR CRANDALL (32°38'18", 96°29'05")										
1/17/68	1415	265	0.0	3.0	430	7.1	9	9.2	82	2.9
2/15/68	1210	1750	.0	.57	405	7.2	6	11.0	89	2.4
3/20/68	1100	1160	.1	1.0	402	7.7	15	7.8	80	3.8
4/16/68	1045	2700	.9	.28	347	7.5	19	6.6	73	2.7
5/14/68	0940	4300	3.1	.35	361	7.9	24	5.7	70	2.3
6/11/68	1010	640	1.8	.89	351	7.4	27	5.2	66	3.6
6/24/68	1500	2600	3.6	.56	255	7.4	26	6.4	80	4.8
7/17/68	1115	1600	2.3	.39	340	7.4	28	7.1	91	1.8
7/30/68	1445	1370	2.6	1.4	365	7.2	29	5.8	76	3.3
8/14/68	1115	410	.1	5.8	423	7.1	28	1.0	13	8.4
8/28/68	1145	27	13	7.2	466	7.2	28	2.2	28	7.5

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0625. TRINITY RIVER NEAR ROSSER (32°25'35", 96°27'45")										
1/17/68	1310	1100	14	7.0	694	7.1	8	8.3	72	7.5
2/15/68	1120	2900	4.9	3.0	573	7.6	7	9.1	77	5.8
3/20/68	0930	4200	4.0	2.3	602	7.4	16	5.7	60	6.9
4/16/68	1155	7100	5.4	1.0	395	7.5	19	6.8	76	4.4
5/14/68	1045	12600	1.6	.27	383	7.7	23	5.3	63	2.8
6/11/68	1110	4300	5.1	1.4	395	7.2	26	5.3	66	4.0
6/24/68	1600	4600	7.5	.53	323	7.3	26	5.6	70	3.6
7/17/68	1020	2600	6.1	2.6	450	7.3	28	5.3	68	4.1
7/30/68	1545	2500	7.0	4.2	511	7.3	28	5.3	69	7.2
8/14/68	1020	1260	22	9.1	638	7.2	28	2.2	28	13
8/28/68	1230	620	34	12	727	7.7	28	5.1	66	18
8-0627. TRINITY RIVER AT TRINIDAD (32°08'05", 96°06'20")										
1/17/68	1115	1300	1.2	4.2	610	7.4	8	8.9	77	6.5
2/15/68	1000	2100	10	3.2	572	7.6	8	8.7	77	5.3
3/19/68	1730	10000	1.7	1.1	362	7.4	16	8.1	84	2.5
4/16/68	1430	9500	3.9	.72	392	7.5	20	6.4	73	3.4
5/14/68	1225	a22000	7.2	.65	297	7.7	24	5.8	70	2.1
6/11/68	1320	4300	5.6	1.6	401	7.3	27	5.3	67	3.0
6/24/68	1725	2800	4.9	.83	419	7.2	28	4.6	59	4.4
7/17/68	0840	2650	.1	2.9	409	7.2	28	5.0	64	4.0
7/30/68	1715	2000	4.6	2.2	466	7.3	30	5.1	68	2.9
8/14/68	0840	1080	22	7.2	572	7.2	29	2.1	28	18
8/28/68	1400	1020	21	8.3	574	8.1	29	7.6	100	13

See footnotes at end of table.

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0653.5. TRINITY RIVER NEAR CROCKETT (31°20'20", 95°39'25")										
2/13/68	1135	4410	7.7	1.3	519	7.5	12	6.2	60	3.5
3/18/68	1000	a20600	3.0	.37	296	7.5	16	7.2	75	1.5
4/18/68	1445	a21300	.0	.52	215	7.3	21	6.1	70	1.8
5/16/68	1230	37800	3.3	.34	214	7.5	25	4.9	60	1.3
6/13/68	1100	7920	4.8	.78	391	7.3	28	5.6	72	2.2
7/15/68	1205	4410	1.1	1.6	447	7.4	28	6.3	82	1.5
8/12/68	1115	a1520	8.6	3.0	547	7.7	30	6.4	85	2.6
8-0665. TRINITY RIVER AT ROMAYOR (30°25'30", 94°51'02")										
2/28/68	1415	a4730	0.0	.68	510	7.7	12	8.9	86	1.7
3/28/68	1330	a17400	4.6	.16	357	7.6	17	8.2	87	2.9
4/22/68	1450	a27500	.0	.68	349	7.6	23	6.3	75	1.8
5/20/68	1345	a37000	.0	.39	232	7.2	24	5.6	68	1.9
6/17/68	1430	a8100	1.9	.66	391	7.5	30	6.3	83	1.3
7/24/68	1730	a6820	2.0	1.3	382	7.3	30	6.3	84	1.3
8/21/68	1630	a2660	.8	.59	535	9.2	33	15.0	208	7.6
8-0680. WEST FORK SAN JACINTO RIVER NEAR CONROE (30°14'41", 95°27'26")										
2/28/68	1630	a81	0.0	0.10	520	7.7	13	9.4	92	1.6
3/28/68	1600	a172	.0	.16	448	7.5	21	8.8	101	1.7
4/22/68	1130	a200	.0	.24	357	7.3	22	7.7	90	1.6
5/20/68	1130	a3500	.0	.48	180	7.1	24	6.4	78	3.0
6/17/68	1230	a105	.0	.24	345	7.2	29	7.8	103	2.0
7/24/68	1930	a64	.1	.23	316	7.0	30	7.5	100	1.8
8/21/68	1800	a21	.2	.15	309	7.1	30	6.5	87	1.0

See footnote at end of table.

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0840. CLEAR FORK BRAZOS RIVER AT NUGENT (32°41'25", 99°40'10")										
2/03/68	1000	15.2	0.0	0.28	2670	7.9	11	11.0	101	2.5
3/13/68	1630	160	6.2	.08	2780	8.0	12	12.0	113	2.8
8-0841. DEADMAN CREEK NEAR NUGENT (32°40'36", 99°37'100")										
2/03/68	0900	a58.0	9.9	46	1940	7.7	12	9.6	91	4.2
3/13/68	1715	a74.0	4.8	2.6	1380	8.0	12	12.0	115	6.4
8-0920. NOLANDS RIVER AT BLUM (32°09'02", 97°24'10")										
1/18/68	1110	4.2	3.6	12	617	7.1	12	7.7	74	7.6
2/16/58	0945	17	.0	5.2	635	7.1	8	12.0	103	5.4
3/21/68	0950	1100	.2	.18	294	7.1	10	12.0	106	.9
4/15/68	1500	60	2.3	.78	428	8.6	23	13.4	160	1.9
5/13/68	1405	19000	2.3	.33	190	8.2	22	7.7	90	2.8
6/10/68	1430	37	1.3	.58	504	7.7	20	13.5	153	5.5
7/18/68	0920	13	.2	3.7	653	7.8	26	6.1	77	2.9
8/14/68	1610	17	1.7	5.5	641	8.1	28	9.7	124	3.3
8-0935. AQUILLA CREEK NEAR AQUILLA (31°50'40", 97°12'06")										
1/18/68	1210	78	0.2	0.38	760	7.2	10	10.0	96	1.5
2/16/68	1045	90	5.6	.47	775	7.3	6	10.0	88	2.0
3/21/68	1045	2450	3.0	.30	250	7.9	10	11.0	103	3.0
4/15/68	1350	50	7.7	.23	750	7.7	20	8.4	95	1.8
5/13/68	1315	540	5.0	.05	638	7.9	22	7.8	91	1.8

See footnote at end of table.

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-0935. AQUILLA CREEK NEAR AQUILLA (31°50'40", 97°12'06")--continued										
6/10/68	1330	45	7.8	0.24	971	7.7	28	7.0	90	1.0
7/18/68	1025	6.0	2.6	.08	959	7.4	27	6.9	87	.6
8/14/68	1735	3.5	7.4	.05	1210	7.5	27	7.8	99	1.1
8-0965. BRAZOS RIVER AT WACO (31°33'40", 97°07'42")										
3/21/68	1145	14900	3.4	0.06	919	8.0	12	12.0	114	1.4
4/15/68	1215	8300	3.2	.05	755	8.0	20	9.6	108	.9
5/13/68	1200	7660	3.2	.08	822	8.1	22	7.5	88	1.2
6/10/68	1215	5720	1.2	.09	660	7.7	26	7.4	94	.7
7/18/68	1125	5720	.6	.09	736	7.6	27	7.2	91	.6
8/15/68	0900	330	.4	.08	880	7.4	27	7.0	89	1.0
8-0982.9. BRAZOS RIVER NEAR HIGHBANK (31°08'02", 96°49'29")										
1/18/68	1705	1830	0.0	0.52	842	7.1	12	10.0	99	1.2
2/16/68	1515	2980	1.6	.24	1020	7.4	11	10.0	97	1.0
3/21/68	1345	10750	.9	.11	1120	8.1	11	12.0	109	1.3
4/15/68	1030	6460	1.8	.18	806	7.9	20	8.1	92	1.5
5/13/68	1025	28600	4.6	.12	425	8.0	21	7.1	82	1.7
6/10/68	1100	2250	1.6	.16	671	8.1	28	7.4	95	1.5
7/18/68	1250	6660	.5	.11	724	7.9	29	7.7	101	1.5
8/15/68	1035	1010	.0	.27	958	7.9	28	6.0	77	3.0

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1039. SOUTH FORK ROCKY CREEK NEAR BRIGGS (HYDROLOGIC BENCHMARK STATION) (30°54'40", 98°02'10")										
1/26/68	1110	64	5.8	0.00	492	7.4	14	9.7	96	1.1
2/22/68	0915	56	3.6	.01	513	7.9	5	10.0	81	1.0
3/25/68	0915	41	5.3	.02	493	8.2	14	10.0	101	.5
4/25/68	1015	27	2.9	.00	512	8.0	19	8.9	99	1.0
5/29/68	0920	37	3.0	.00	512	8.2	22	8.0	94	.8
6/26/68	0940	8.8	2.4	.00	486	8.2	24	7.7	94	.2
7/31/68	0830	.70	1.8	.07	494	8.0	26	5.4	68	.2
8/26/68	1000	.00	--	--	--	--	--	--	--	--
9/27/68	1015	.02	.8	.08	443	8.0	20	7.4	83	.4
8-1065. LITTLE RIVER AT CAMERON (30°49'53", 96°57'01")										
1/18/68	1630	1360	9.0	0.45	444	7.2	12	11.0	101	2.2
2/16/68	1710	4850	2.7	.15	484	7.8	10	10.0	96	.7
3/21/68	1450	5100	4.5	.13	479	8.1	13	11.0	111	1.1
4/15/68	0900	5160	3.8	.14	414	8.0	18	8.6	93	1.1
5/13/68	0910	9650	10	.16	350	8.0	23	7.2	86	1.5
6/10/68	0900	4650	3.0	.12	464	7.8	26	7.7	97	.6
7/18/68	1340	2780	2.9	.16	504	7.5	28	7.0	90	.9
8/15/68	1130	324	5.0	.18	567	7.6	30	6.2	82	3.8
8-1140. BRAZOS RIVER AT RICHMOND (29°34'56", 95°45'27")										
1/31/68	1800	a24800	2.9	0.13	769	7.7	16	10.0	104	1.2
3/07/68	0930	a7230	1.9	.10	633	7.8	13	10.0	98	1.1

See footnote at end of table.

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1140. BRAZOS RIVER AT RICHMOND (29°34'56", 95°45'27")--continued										
4/08/68	1345	a12600	3.2	0.10	548	7.9	21	7.6	87	1.3
5/07/68	1200	a9200	2.5	.12	765	8.0	24	7.9	96	1.9
6/04/68	1330	a23300	3.0	.25	345	7.7	25	6.7	83	2.3
7/10/68	1700	a26500	.1	.16	340	7.6	28	6.2	79	1.5
8/07/68	1400	a4010	.2	.24	578	8.1	31	7.0	95	1.5
8-1361. CONCHO RIVER AT SIXMILE CROSSING NEAR SAN ANGELO (31°28'07", 100°20'30")										
2/02/68	1330	a0.94	3.7	0.08	1390	8.0	16	10.0	103	2.4
3/13/68	1300	a5.40	3.3	.07	1300	7.8	15	11.0	108	1.7
8-1365. CONCHO RIVER NEAR PAINT ROCK (31°31'05", 99°55'10")										
2/03/68	1510	23.0	19	0.10	1840	8.0	15	10.0	105	2.7
3/13/68	1415	27.0	7.3	.05	2090	8.0	12	12.0	115	1.7
8-1470. COLORADO RIVER NEAR SAN SABA (31°13'05", 98°33'50")										
1/26/68	0900		2.8	0.15	382	7.4	10	9.4	87	2.1
3/16/68	1630		3.0	.07	916	8.0	16	9.6	100	1.6
4/25/68	1200		4.9	.14	956	7.9	20	8.4	95	1.9
5/29/68	1045		2.0	.26	798	7.9	24	7.2	88	2.7
6/26/68	1130		3.2	.27	768	8.3	26	7.1	90	1.8
7/31/68	1015		.2	.10	1440	8.2	28	6.1	79	1.8
8/26/68	1130		.3	.12	873	7.7	28	6.4	83	1.5

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1586.5. COLORADO RIVER AT FARM ROAD 973 BELOW AUSTIN (30°12'28", 97°38'15")										
2/01/68	1410	6510	0.0	0.12	493	7.3	14	12.0	117	1.4
3/07/68	1610	4890	1.1	.04	463	7.8	14	12.0	121	.6
4/08/68	0830	4890	1.2	.15	453	8.0	17	9.3	99	.9
5/07/68	0740	5030	1.6	.22	441	7.7	17	9.7	103	1.3
6/04/68	0900	4750	.4	.22	465	7.9	20	9.3	106	.8
7/11/68	1415	3560	.2	.45	483	7.6	26	8.2	102	1.4
8/08/68	1330	2750	2.6	.71	507	7.9	30	8.4	112	2.0
8-1592. COLORADO RIVER AT BASTROP (30°06'20", 97°19'08")										
2/01/68	1325	7220	3.5	0.13	503	7.8	16	11.0	109	0.9
3/07/68	1500	6360	1.2	.08	468	7.6	15	11.0	110	1.1
4/08/68	0930	6080	1.2	.13	459	8.1	18	8.3	91	.5
5/07/68	0840	6500	.5	.28	425	7.8	19	8.4	93	1.6
6/04/68	1000	6500	.1	.12	464	8.0	22	8.3	97	1.2
7/11/68	1330	4080	.5	.24	473	7.8	26	7.4	94	1.6
8/08/68	1230	2480	.0	.48	508	8.0	30	7.9	105	1.3
8-1610. COLORADO RIVER AT COLUMBUS (29°42'20", 96°32'05")										
2/01/68	1115	a7790	4.9	0.19	505	7.5	18	9.9	109	1.3
3/07/68	1230	a5834	.4	.10	469	7.8	14	11.0	109	.7
4/08/68	1200	a5720	.0	.23	463	8.1	20	7.9	89	.6
5/07/68	1015	a6280	.2	.15	440	7.9	22	8.0	94	1.6
6/04/68	1200	a12800	.4	.19	307	7.7	23	7.3	87	2.7

See footnote at end of table.

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1610. COLORADO RIVER AT COLUMBUS (29°42'20", 96°32'05")--continued										
7/11/68	1030	a5320	0.0	0.09	493	8.0	27	7.9	100	1.6
8/08/68	1045	a2190	.1	.45	463	8.2	30	8.0	107	6.0
8-1620. COLORADO RIVER AT WHARTON (29°18'30", 96°06'15")										
1/31/68	1715	a7900	0.3	0.15	494	7.2	18	9.9	108	1.0
3/07/68	0830	a5920	.6	.08	464	7.2	13	10.0	100	1.1
4/08/68	1600	a5720	1.8	.11	463	8.1	22	7.8	91	.6
5/07/68	1415	a5600	.0	.33	445	8.1	24	8.1	99	1.5
6/04/68	1445	a8120	.2	.16	420	8.0	25	7.6	94	2.0
7/10/68	1300	a5990	1.2	.24	454	8.0	27	7.6	96	2.0
8/07/68	1155	a1550	.1	.23	489	8.0	31	6.8	92	3.2
8-1645. NAVIDAD RIVER NEAR GANADO (29°01'32", 96°33'08")										
1/31/68	1610	304	0.9	0.22	441	7.6	20	9.1	103	1.7
3/06/68	1700	180	.4	.05	520	7.8	15	10.0	107	2.3
4/08/68	1700	55	.8	.06	773	8.1	24	7.6	92	1.1
5/07/68	1520	113	.5	.12	633	8.1	25	7.7	95	2.6
6/04/68	1550	895	.8	.37	216	7.4	25	6.9	85	4.0
7/10/68	1130	582	.0	.20	340	7.6	26	7.1	89	2.3
8/07/68	1055	214	.2	.31	604	8.0	28	6.8	87	1.5

See footnote at end of table.

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1695.8. GUADALUPE RIVER AT LAKE DUNLAP BELOW NEW BRAUNFELS (29°40'00", 98°04'14")										
1/30/68	1000		6.4	0.11	533	7.5	20	6.8	77	1.5
3/05/68	0915		3.7	.13	520	7.9	15	7.2	73	.8
4/10/68	1500		3.4	.15	348	7.7	20	7.7	88	1.9
5/09/68	1200		2.8	.11	476	7.7	21	8.0	92	1.3
6/06/68	1130		4.2	.14	471	7.7	22	7.5	88	1.3
7/09/68	0900		5.6	.15	494	7.8	26	7.9	100	1.7
8/08/68	0930		2.8	.16	486	7.7	28	7.3	94	2.3
8-1765.2. GUADALUPE RIVER BELOW VICTORIA (28°45'10", 97°00'30")										
1/31/68	1425	3700	1.4	0.14	510	7.7	19	9.4	104	1.3
3/06/68	1345	1680	5.1	.17	689	7.9	18	10.0	114	1.8
4/09/68	0900	1840	3.2	.13	609	8.1	20	8.0	91	.8
5/07/68	1715	1880	.9	.14	611	7.9	25	7.7	95	1.7
6/04/68	1745	6550	.2	.22	410	7.9	26	7.4	92	2.6
7/10/68	1000	1490	2.0	.09	654	8.1	28	7.1	91	.7
8/07/68	0915	1150	.1	.22	598	8.0	32	6.3	85	1.4
8-1805. MEDINA RIVER NEAR RIOMEDINA (29°29'53", 98°54'16")										
1/30/68	1230	24	3.6	0.02	450	7.5	16	8.6	90	0.8
3/05/68	1140	27	3.5	.01	462	7.7	13	8.1	79	.5
4/10/68	1230	22	1.8	.03	478	7.7	20	9.0	102	.2
5/09/68	0845	27	2.8	.01	468	7.5	21	6.4	74	1.2
6/06/68	0900	29	2.6	.03	478	7.4	23	5.7	68	.8

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1805. MEDINA RIVER NEAR RIOMEDINA (29°29'53", 98°54'16")--continued										
6/19/68	0845	27	3.2	0.02	492	7.4	23	5.9	70	0.5
7/09/68	1100	24	2.6	.03	490	7.5	24	6.6	80	.8
7/24/68	1000	22	2.4	.02	488	7.7	25	7.7	85	.3
8/06/68	1120	28	2.4	.04	500	7.6	24	7.6	93	1.0
8/27/68	1415	22	2.4	.03	481	7.6	25	9.0	112	1.4
8-1818. SAN ANTONIO RIVER NEAR ELMENDORF (29°14'15", 98°21'43")										
1/30/68	1530	576	20	5.1	533	7.3	20	7.3	83	4.3
3/05/68	1400	312	.0	4.0	985	7.8	15	7.2	73	4.9
4/10/68	0900	499	16	6.8	957	7.7	22	5.6	65	17
5/08/68	1630	432	.4	7.5	765	7.4	23	3.6	43	22
6/05/68	1700	326	20	7.4	854	7.6	27	4.3	54	7.5
6/19/68	1045	190	19	7.4	937	7.7	27	3.7	47	8.2
7/09/68	1300	188	13	4.2	891	7.6	28	3.6	46	5.4
7/24/68	1200	286	27	10	916	7.7	29	3.3	43	4.5
8/06/68	1245	188	22	2.7	867	7.8	29	4.4	58	5.3
8/27/68	1245	192	30	3.3	841	7.6	28	4.4	57	9.3
8-1835. SAN ANTONIO RIVER NEAR FALLS CITY (28°57'05", 98°03'50")										
1/30/68	1700	925	13	2.2	946	7.4	20	6.2	70	3.6
3/05/68	1500	380	.4	5.5	1130	7.7	15	6.2	63	2.4
4/09/68	1800	526	1.9	9.0	1090	7.5	22	4.2	49	7.2
5/08/68	1500	532	13	4.2	719	7.4	24	2.7	33	6.8
6/05/68	1515	1140	20	4.5	808	7.5	26	2.4	30	5.0

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1835. SAN ANTONIO RIVER NEAR FALLS CITY (28°57'05", 98°03'50")--continued										
6/19/68	1230	243	17	5.5	1070	7.7	28	4.0	51	3.2
7/09/68	1420	236	17	3.7	994	7.6	28	5.2	67	2.0
7/24/68	1300	266	16	5.2	1010	7.9	30	5.0	66	1.4
8/06/68	1345	190	13	3.8	1070	7.9	28	5.6	73	1.2
8/27/68	1145	156	13	4.9	959	7.8	28	6.1	79	1.8
8-1885. SAN ANTONIO RIVER AT GOLIAD (28°38'58", 97°23'04")										
1/31/68	0950	1630	9.5	1.5	873	7.6	18	8.3	91	2.0
3/05/68	1800	638	10	4.5	1260	7.9	14	8.8	88	1.4
4/09/68	1400	503	12	4.7	1240	8.1	23	8.5	101	2.1
5/08/68	0940	1280	7.7	2.6	725	7.7	22	6.1	72	3.4
6/05/68	1015	1770	4.4	1.6	761	7.8	26	6.1	76	4.5
6/19/68	1515	489	13	5.5	984	7.8	28	5.9	76	2.0
7/09/68	1720	396	.0	3.9	1160	7.9	28	6.9	88	1.7
7/24/68	1430	372	11	3.2	1210	8.3	30	8.0	107	3.1
8/06/68	1650	324	4.6	2.9	1220	8.3	28	9.8	127	2.2
8/27/68	1030	288	15	4.6	1210	7.9	27	7.4	94	1.5
8-1888. GUADALUPE RIVER NEAR TIVOLI (28°30'20", 96°53'04")										
1/31/68	1240		3.3	1.8	466	7.1	20	8.0	90	1.8
3/06/68	1115		4.8	.63	855	7.8	14	9.7	98	2.2
4/09/68	1130		.0	1.1	791	8.0	22	7.1	83	1.7
5/07/68	1840		.3	.38	662	7.9	25	6.9	85	2.7
6/04/68	1900		.6	1.2	734	7.8	26	6.7	85	2.3

(Continued)

Table 1.--Biochemical oxygen demand and selected nutrients records of Texas surface waters, 1968--continued

(Results in milligrams per liter except as indicated)

Date	Time (24 hour)	Discharge (cfs)	Nitrate (NO_3)	Phosphate (PO_4)	Specific conductance (micromhos at 25° C)	pH (field)	Temperature (°C)	Dissolved oxygen (DO)		Biochemical oxygen demand (BOD)
								mg/l	Percent saturation	
8-1888. GUADALUPE RIVER NEAR TIVOLI (28°30'20", 96°53'04")--continued										
7/10/68	0845		0.3	0.38	621	8.0	28	5.4	70	1.6
8/07/68	0800		2.4	.80	774	7.7	30	5.3	71	1.5
8-1895. MISSION RIVER AT REFUGIO (28°17'30", 97°16'44")										
1/31/68	1055	28	3.1	0.06	7810	7.5	21	6.8	78	2.0
3/06/68	1000	24	2.2	.05	11800	7.4	14	8.0	83	3.1
4/09/68	1245	16	4.2	.08	16100	7.6	24	7.2	87	2.4
5/08/68	0845	24	3.3	.15	12200	7.6	24	5.0	60	2.3
6/05/68	0910	198	1.4	.10	2310	7.8	26	6.2	78	2.1
7/10/68	0740	37	2.3	.08	7440	7.6	26	5.8	72	1.3
8/06/68	1755	25	2.6	.13	8780	7.7	32	7.4	101	1.1
8-2100. NUECES RIVER NEAR THREE RIVERS (28°26'10", 98°11'10")										
1/31/68	0730	1470	0.0	0.20	739	7.6	18	8.9	97	1.9
3/05/68	1620	286	2.4	.06	1010	7.9	13	10	98	2.6
4/09/68	1600	134	1.6	.18	1210	9.0	23	9.0	107	1.9
5/08/68	1330	5060	.9	.33	434	7.4	21	5.7	66	4.3
6/05/68	1300	596	3.6	.42	699	7.8	27	7.1	90	3.7
7/09/68	1540	71	.1	.43	1000	8.0	30	8.7	114	3.4
8/06/68	1520	37	.2	.37	1650	8.1	30	9.0	120	2.8

a Daily mean discharge.

Table 2.--Pesticides in Texas surface waters, 1967-68

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
7-2275. CANADIAN RIVER NEAR AMARILLO (35°28'10", 101°52'45")														
3/22/68	1045	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.00	0.00
5/14/68	1625	159	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00
7/16/68	1630	148	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.02
8/08/68	1500	12.2	.00	.00	.00	.00	.00	.00	.00	.00	.01	.16	.01	.02
7-2995.7. RED RIVER NEAR QUANAH (34°24'45", 99°44'00")														
3/12/68	1627	31.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/20/68	1845	12.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7/16/68	1145	731	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
9/04/68	1540	257	.00	.01	.01	.01	.00	.00	.00	.00	.00	.00	.04	.02
7-3160. RED RIVER NEAR GAINESVILLE (33°43'40", 97°09'35")														
4/09/68	1230	1850	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/14/68	0800	25100	.00	.00	.01	.01	.00	.00	.00	.00	.00	.15	.00	.03
7/23/68	0830	3480	.00	.00	.01	.03	.00	.00	.00	.00	.00	.00	.00	.03
8/26/68	1900	928	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7.3432. SULPHUR RIVER NEAR TALCO (33°23'20", 95°07'50")														
1/16/68	1330	290	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
3/19/68	1345	305	.00	.00	.01	.04	.00	.00	.00	.00	.00	.00	.00	.00
4/17/68	1030	140	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
5/14/68	1620	14500	.00	.00	.02	.07	.00	.00	.00	.00	.00	.28	.00	.03
8/13/68	1350	105	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
7-3460.7. LITTLE CYPRESS CREEK NEAR JEFFERSON (32°42'46", 94°20'44")														
3/18/68	1545	900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
4/18/68	0855	910	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
5/15/68	1550	8000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.01	.02
6/12/68	1350	240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
8/12/68	1645	31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-0220. SABINE RIVER NEAR TATUM (32°22'11", 94°27'28")														
3/18/68	1500	5200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
4/18/68	1000	8200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.01
5/15/68	1650	9800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.03
6/12/68	1445	5800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.02
8/12/68	1555	280	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
8-0305. SABINE RIVER NEAR RULIFF (30°18'13", 93°44'37")														
2/28/68	1040	1320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/28/68	1000	2900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00
4/22/68	1800	2160	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5/20/68	1715	6740	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/21/68	1230	2780	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-0410. NECHES RIVER AT EVADALE (30°21'22", 94°05'36")														
2/28/68	1140	2010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
3/28/68	1130	4880	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.02
4/22/68	1630	14700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
5/20/68	1545	16300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/21/68	1400	4460	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-0625. TRINITY RIVER NEAR ROSSER (32°25'35", 96°27'45")														
1/17/68	1310	1100	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/20/68	0930	4200	.00	.02	.02	.04	.02	.00	.00	.00	.01	.11	.00	.02
4/16/68	1145	7100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.02
5/14/68	1045	12600	.00	.01	.01	.03	.03	.00	.00	.00	.00	.17	.00	.05
6/11/68	1110	4300	.00	.00	.01	.00	.01	.00	.00	.00	.00	.10	.00	.02
8-0665. TRINITY RIVER AT ROMAYOR (30°25'30", 94°51'02")														
2/28/68	1415	a4730	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/28/68	1330	a17400	.00	.01	.00	.02	.01	.00	.00	.00	.00	.06	.00	.02
4/22/68	1450	a27500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00	.01
5/20/68	1345	a37000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.02
8/21/68	1630	a2660	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03

See footnote at end of table.

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-0720. LAKE HOUSTON AT MUNICIPAL INTAKE (29°54'58", 95°08'28")														
5/03/68	1310		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
6/14/68	2055		.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.01
7/08/68	1055		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/13/68	1420		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9/17/68	1310		.00	.00	.00	.01	.00	.00	.00	.00	.00	.05	.00	.03
8-0873. CLEAR FORK BRAZOS RIVER AT ELIASVILLE (32°57'30", 98°46'10")														
3/06/68	1615	201	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
5/16/68	1140	560	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00
7/24/68	2000	38.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
8/29/68	1210	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08
8-0880. BRAZOS RIVER NEAR SOUTH BEND (33°01'30", 98°38'50")														
3/06/68	1330	434	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/16/68	0840	2020	.00	.00	.01	.04	.00	.00	.00	.00	.00	.02	.00	.00
7/24/68	2100	1120	.00	.00	.01	.02	.00	.00	.00	.00	.00	.00	.00	.15
8/29/68	1000	149	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
8-0965. BRAZOS RIVER AT WACO (31°33'40", 97°07'42")														
3/21/68	1145	14900	0.00	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
4/15/68	1215	8300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.01
5/13/68	1200	7660	.00	.00	.01	.00	.00	.00	.00	.00	.00	.06	.00	.02
6/10/68	1215	5720	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.01
8/15/68	0900	330	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-1140. BRAZOS RIVER AT RICHMOND (29°34'56", 95°45'27")														
10/26/67	1400	1000	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
12/08/67	1400	1100	.00	.00	.01	.01	.00	.00	.00	.00	.01	.00	.00	.00
1/10/68	1335	8030	.00	.01	.02	.04	.00	.00	.00	.00	.00	.00	.00	.00
2/16/68	1400	10600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3/22/68	1430	16000	.00	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
4/24/68	--	12700	.00	.00	.00	.00	.01	.00	.00	.00	.00	.06	.00	.00
5/27/68	1335	29700	.00	.00	.02	.00	.00	.00	.00	.00	.00	.07	.00	.00
7/03/68	1445	21000	.00	.01	.01	.02	.00	.00	.00	.00	.00	.11	.00	.01
7/30/68	1215	6320	.00	.00	.01	.00	.00	.02	.00	.00	.00	--	--	--
9/01/68	1200	3520	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
8-1166.5. BRAZOS RIVER NEAR ROSHARON (29°20'58", 95°34'56")														
2/01/68	0945	26700	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/07/68	1100	7670	.00	.00	.01	.04	.00	.00	.00	.00	.00	.14	.00	.02
5/07/68	1300	9970	.00	.00	.01	.01	.00	.00	.00	.00	.00	.18	.00	.00
7/10/68	1530	19500	.00	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
8/07/68	1300	4170	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.02
8-1239. COLORADO RIVER NEAR SILVER (32°01'10", 100°44'08")														
4/18/68	1220	16.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0 00	0.02
7/02/68	1445	.76	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.26

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-1365. CONCHO RIVER NEAR PAINT ROCK (31°31'05", 99°55'10")														
4/15/68	1145	33.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--	--
5/13/68	1150	86.0	.00	.00	.01	.00	.00	.00	.00	.00	.00	0.03	0.00	0.00
6/17/68	--	a10.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.23
7/22/68	1325	1.90	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
8/26/68	1400	a1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-1470. COLORADO RIVER NEAR SAN SABA (31°13'05", 98°33'50")														
1/26/68	0900	7940	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/25/68	1200	1560	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00
5/15/68	1530	4100	.00	.00	.02	.00	.00	.00	.00	.00	.00	.04	.00	.03
5/29/68	1045	1240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
6/20/68	--	a898	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
6/26/68	1130	710	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
8/26/68	1130	130	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/28/68	1415	a125	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-1620. COLORADO RIVER AT WHARTON (29°18'30", 96°06'15")														
10/24/67	1445	984	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/67	--	670	.00	.01	.00	.01	.01	.07	.00	.00	.00	--	--	--
1/09/68	1600	2340	.00	.04	.02	.12	.00	.00	.00	.00	.00	.00	.00	.00
2/14/68	1030	6370	.00	.01	.01	.03	.00	.00	.00	.00	.00	.00	.01	.00
3/13/68	0715	7600	.00	.01	.01	.05	.00	.00	.00	.00	.00	.00	.00	.00

See footnote at end of table.

(Continued)

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-1620. COLORADO RIVER AT WHARTON (29°18'30", 96°06'15")--continued														
4/16/68	1425	8020	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01
5/23/68	1230	12500	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00
7/02/68	1700	6740	.00	.01	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
8/08/68	1650	1570	.00	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
9/03/68	1420	1420	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-1640. LAVACA RIVER NEAR EDNA (28°57'35", 96°41'10")														
1/31/68	1540	181	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/06/68	1630	104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00
5/07/68	1600	178	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00
7/10/68	1100	200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00
8/07/68	1000	23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-1645. NAVIDAD RIVER NEAR GANADO (29°01'32", 96°33'08")														
1/31/68	1610	304	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/06/68	1700	180	.00	.00	.00	.01	.00	.00	.00	.00	.00	1.4	.00	.00
5/07/68	1520	113	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00
7/10/68	1130	582	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/07/68	1055	214	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-1765.2. GUADALUPE RIVER BELOW VICTORIA (28°45'10", 97°00'30")														
1/31/68	1425	3700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
3/06/68	1345	1680	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00	.01	.00
6/04/68	1745	6550	.00	.00	.00	.00	.01	.00	.00	.00	.00	.07	.00	.00
7/10/68	1000	1490	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/07/68	0915	1150	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-1818. SAN ANTONIO RIVER NEAR ELMENDORF (29°14'15", 98°21'43")														
1/30/68	1515	576	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
3/05/68	1400	312	.00	.04	.00	.03	.02	.00	.00	.00	.00	.12	.02	.00
5/08/68	1630	432	.00	.09	.06	.18	.00	.00	.00	.00	.10	.25	.00	.07
7/09/68	1300	188	.00	.02	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
8/06/68	1245	188	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-1885. SAN ANTONIO RIVER AT GOLIAD (28°38'58", 97°23'04")														
1/31/68	1005	1630	0.00	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	--	--	--
3/05/68	1800	638	.00	.02	.00	.04	.01	.00	.00	.00	.00	0.00	0.00	0.02
5/08/68	0940	1280	.00	.02	.10	.06	.00	.00	.00	.00	.01	.03	.00	.06
7/09/68	1720	396	.00	.01	.00	.01	.01	.00	.00	.00	.01	.09	.00	.02
8/06/68	1650	324	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-2100. NUECES RIVER NEAR THREE RIVERS (28°26'10", 98°11'10")														
1/31/68	0800	1470	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/05/68	1620	286	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5/08/68	1330	5060	.00	.00	.01	.01	.00	.00	.00	.00	.00	.64	.00	.00
7/09/68	1540	71	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.04
8/06/68	1520	37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-4465. PECOS RIVER NEAR GIRVIN (31°06'35", 102°25'00")														
5/07/68	1515	a12.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/19/68	1530	a4.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8-4692. RIO GRANDE BELOW ANZALDUAS DAM (26°08'00", 98°20'05")														
10/16/67	0830	16800	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/67	1430	3600	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
12/11/67	1300	2620	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
1/16/68	0850	2280	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2/14/68	1230	1940	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3/12/68	0915	2300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4/15/68	0850	1350	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5/15/68	0830	1880	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
6/17/68	1330	3270	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7/16/68	0945	3220	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8/15/68	0715	621	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9/23/68	0735	191	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00

See footnote at end of table.

Table 2.--Pesticides in Texas surface waters, 1967-68--continued

(DDT, DDD, and DDE concentrations include any isomers present. Herbicides are reported as acids.)

Date	Time (24 hour)	Discharge (cfs)	Micrograms per liter											
			Aldrin	DDD	DDE	DDT	Dieldrin	Endrin	Heptachlor	Heptachlor epoxide	Lindane	2,4-D	Silvex	2,4,5-T
8-4703. ARROYO COLORADO AT EL FUSTE (26°07'24", 97°54'33")														
5/08/68	0945	77.1	0.00	0.00	0.09	0.05	0.00	0.00	0.00	0.00	0.11	0.35	0.00	0.04
6/05/68	1045	108	.00	.01	.04	.00	.01	.00	.00	.00	.02	.00	.00	.00
7/03/68	0720	94.7	.00	.04	.05	.00	.01	.00	.00	.00	.03	.09	.00	.06
8/08/68	0930	97.4	.00	.03	.02	.02	.00	.01	.00	.00	.01	.00	.00	.00

a Daily mean discharge.