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Report 282

*CHEMICAL AND PHYSICAL
CHARACTERISTICS OF WATER
IN ESTUARIES OF TEXAS
OCTOBER 1976—SEPTEMBER 1978*

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TEXAS DEPARTMENT OF WATER RESOURCES

REPORT 282

CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN ESTUARIES OF TEXAS OCTOBER 1976—SEPTEMBER 1978

By

J. C. Fisher
U.S. Geological Survey

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under cooperative agreement with the
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TEXAS DEPARTMENT OF WATER RESOURCES

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ABSTRACT

This report presents basic data on the chemical and physical characteristics of water in the estuaries of Texas for October 1976-September 1978. The properties or constituents that were measured in the field are dissolved oxygen (DO), specific conductance, temperature, pH, and transparency by Secchi disk. Analyses conducted in the laboratory include the principal inorganic ions, biochemical oxygen demand (BOD), total organic carbon (TOC), ammonium, nitrite, nitrate, and total phosphate.

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**CHEMICAL AND PHYSICAL CHARACTERISTICS
OF WATER IN ESTUARIES OF TEXAS
OCTOBER 1976—SEPTEMBER 1978**

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INTRODUCTION

Purpose and Scope of the Investigation

The Texas Water Plan (Texas Water Development Board, 1968) proposes development and utilization of water resources in Texas and includes provision for the use and preservation of water in the estuaries of the State. Management of estuarine waters requires knowledge of the hydrodynamics and of the continuing changes in the chemical and physical characteristics of water in the estuaries.

In September 1967, the U.S. Geological Survey and the Texas Water Development Board (now Texas Department of Water Resources) began a cooperative water-resources investigation of the principal estuaries along the Texas Coast (Figure 1) except the Rio Grande estuary, which is under the jurisdiction of the International Boundary and Water Commission, United States and Mexico.

The objectives of the investigation are to define: (1) the occurrence, source, and distribution of nutrients; (2) the physical, organic, and inorganic water-quality constituents and their areal distribution and time variations; (3) the chemical and physical characteristics of gulf water that enters the estuaries; (4) the occurrence, quality, quantity, and dispersion of drainage entering the estuarine systems; and (5) the current patterns, directions, and rates of water movement.

The coastal waters of Texas are not classical estuaries, but are similar to them in ecosystems and mixing phenomena. A description of various types of estuaries is presented in "Estuaries" edited by Lauff (1967, p. 3-11). The term estuary as used in this report, refers to concomitant water bodies in which streamflow mixes with seawater.

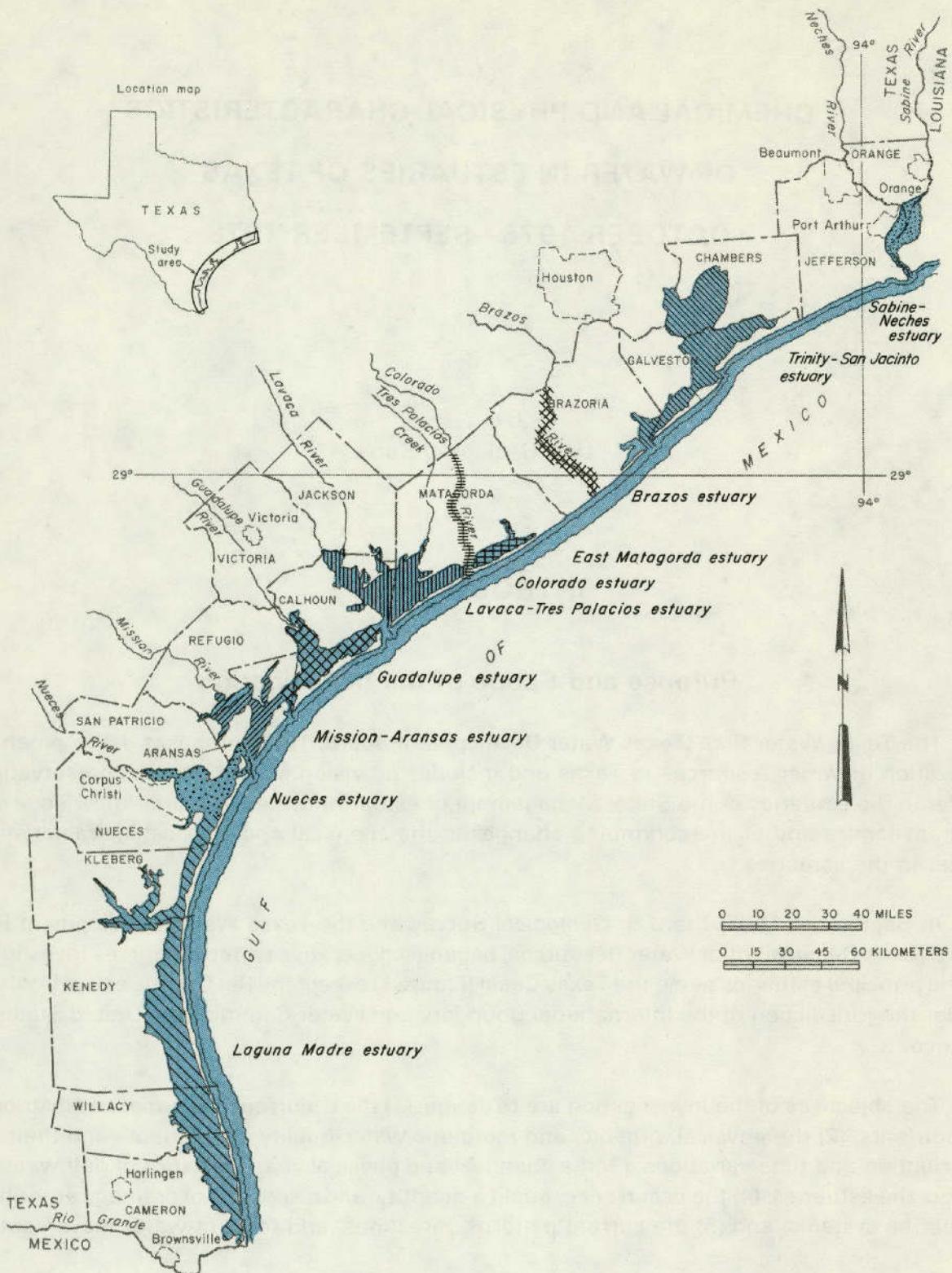


Figure 1
Locations of the Estuaries

Base from Official State Highway Map of Texas, 1971

Status of the Project

The first three objectives of the project are being met by a three-phased water-quality data-collection program of: (1) reconnaissance for establishment of an optimum data-collection network; (2) repetitive surveys throughout this network to determine the general chemical and physical characteristics of the estuarine systems; and (3) continued data collection at a reduced number of sites and at a reduced frequency to maintain definition of the chemical and physical characteristics of each estuarine system and of the relationship between systems. The first two phases have been completed and the third phase began in September 1973.

The fourth objective of the project is being met by data collection at six continuous streamflow-measuring stations and 11 stations at which monthly data on streamflow and water quality are obtained. The dispersion of water entering an estuary is being documented under the data-collection activities to meet the first three objectives.

The fifth objective of the project is being met by short-duration, intensive studies of inflow. Two such studies will be completed for each estuary. The studies on the Guadalupe estuary were completed in November 1970 and August 1973; the studies on the Lavaca-Tres Palacios estuary were completed in March 1971 and October 1972; the studies on the Mission-Aransas and Nueces estuaries were completed in November 1971 and May-June 1974; the studies on the Sabine-Neches estuary were completed in September 1974 and July 1975; one study on the Trinity-San Jacinto estuary was completed in July 1976; and two studies on the Colorado estuary were completed in May and July 1977. These studies are providing data on inflow and exchange of water through the passes. Three short-duration studies of water quality and water exchange were done on the Trinity River tidal marsh in November and December 1976 and July and August 1977.

Previous and Related Reports

This report, which presents data collected during water years 1977-78, is one of a series of basic-data reports that have been prepared since 1970 (Hahl and Ratzlaff, 1970, 1972, 1973, and 1975; Ratzlaff, 1976; Lind and Ratzlaff, 1979; and Lind, 1980 and 1983). A report by Grozier and others (1968, p. 47-61) includes data collected during flooding caused by Hurricane Beulah.

Metric Conversions

Metric equivalents of inch-pound units of measurements are given in parentheses in the text. The inch-pound units used in this report may be converted to metric units by using the following conversion factors:

From	Multiply by	To obtain
acre-foot	1,233	cubic meter (m^3)
cubic foot per second (ft^3/s)	.02832	cubic meter per second (m^3/s)
foot	.3048	meter (m)

<u>From</u>	<u>Multiply by</u>	<u>To obtain</u>
mile	1.609	kilometer (km)
square mile	2.590	square kilometer (km^2)

Acknowledgements

The U.S. Army Corps of Engineers (Galveston District), the Texas Parks and Wildlife Department, and the Texas Department of Water Resources provided data and field assistance. Many private citizens and commercial fishermen furnished information on historical changes and existing conditions in the estuaries.

DATA-COLLECTION METHODS

Approximately 234 data-collection sites were visited during the 1977-78 water years. About 50 percent of these sites are located adjacent to or between navigation aids, bridge piers, power poles, survey platforms, well structures, or other landmarks and can be reoccupied exactly. About 19 percent of the sites are close to shore features or reefs and are located by onboard radar or by compass heading and distance from the feature and water depth at the site; these sites can be reoccupied within 100 feet (30.5 m). About 31 percent of the sites are remote to any reference. They are reached by traveling from a known landmark at a known speed on a predetermined compass course. Verification of site location is made by checking the alignment of one or more distant landmarks by visual observation or by onboard radar. These sites can be reoccupied within approximately 0.25 mile (0.4 km).

At each data-collection site, field data are collected from several points along a vertical. Samples for laboratory analyses are collected from a predetermined number of data-collection sites and at other sites in the network when significant changes in field data indicate a need for additional samples.

The properties or constituents that are measured in the field are dissolved oxygen (DO), specific conductance, temperature, pH, and transparency by Secchi disk. Analyses conducted in the laboratory include the principal inorganic ions, biochemical oxygen demand (BOD), total organic carbon (TOC), ammonium, nitrite, nitrate, and total phosphate.

Field Instruments

The field instruments used in this investigation are given in the following table. The mention of the names of the manufacturers of the instruments is for identification purposes only and does not constitute an endorsement by the Geological Survey.

<u>Parameter measured</u>	<u>Instrument</u>	<u>Model</u>	<u>Manufacturer</u>
pH, dissolved oxygen, temperature, specific conductance	Surveyor	6	Hydrolab Corporation

<u>Parameter measured</u>	<u>Instrument</u>	<u>Model</u>	<u>Manufacturer</u>
pH	Specific ion meter	401	Orion Research
pH	pH meter	7417	Leeds and Northrup
Dissolved oxygen	Oxygen meter	54	Yellow Springs Instruments

The instruments used for pH measurements were calibrated daily during each water-quality survey by using three standards: pH 4.0, 7.0, and 10.0. The dissolved-oxygen meters were calibrated at least twice daily by using the oxygen-saturation data compiled by the American Public Health Association and others (1971, p. 480). The Surveyor was calibrated using the procedure provided by the manufacturer. In addition, instrument calibrations were rechecked at the end of each day.

Treatment of Samples

All water samples, except those for TOC, were collected in plastic throw-away bottles. The BOD, TOC, and nutrient samples were chilled and stored in crushed ice and shipped to the laboratory as soon as possible.

Water samples for the principal dissolved constituents were filtered through 0.45-micrometer membrane filters. Water samples for dissolved inorganic cations, heavy metals, and other selected trace constituents were treated with 1:1 nitric acid until the pH of the sample was less than 2.0.

QUALITY OF WATER IN THE ESTUARIES

Sabine-Neches Estuary

The Sabine-Neches estuary, which has an area of about 100 square miles (260 km^2), consists of the tidal parts of the Sabine and Neches Rivers and other tributaries, Sabine Lake, the Sabine-Neches Canal, the Port Arthur Canal, parts of the Intracoastal Waterway, and Sabine Pass (Figure 2). Water depth at mean low water is greater than 40 feet (12.2 m) in dredged parts of the rivers, canals, and pass; about 15 feet (4.6 m) in the Intracoastal Waterway; and generally about 10 feet (3.0 m) in Sabine Lake.

Water-quality data (Table 1) were collected during October-December 1976; January, February, June, August, and September 1977; and February, May, and June 1978.

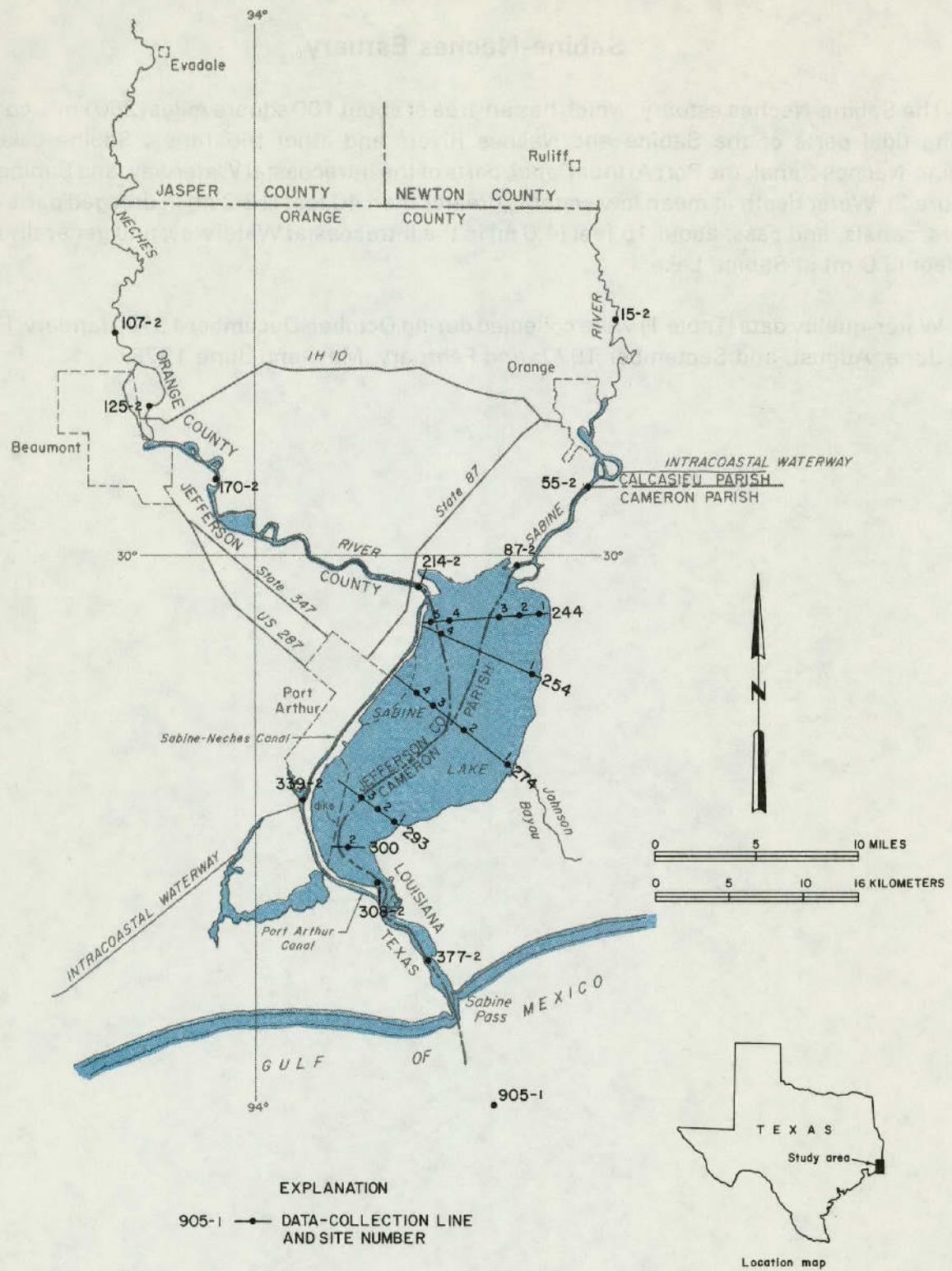


Figure 2
Data-Collection Sites in the Sabine-Neches Estuary

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

300953093420600 LINE 015 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
19...	1035	1.0	660	7.2	19.5	.48	6.3	71
19...	1037	10	850	7.3	19.0	--	6.0	67
19...	1039	12	4000	7.1	20.5	--	5.1	59
19...	1041	15	14000	7.0	22.0	--	3.7	46
19...	1043	28	19000	7.1	23.5	--	5.0	64
NOV								
15...	1620	1.0	500	7.4	12.0	.28	8.2	79
15...	1622	6.0	1000	7.4	12.0	--	8.1	78
15...	1624	15	20000	6.9	18.5	--	.6	8
15...	1626	30	22000	7.0	18.0	--	1.6	19
DEC								
15...	0900	1.0	200	6.4	11.0	.20	9.4	88
15...	0902	15	150	6.5	11.0	--	9.5	89
15...	0904	33	350	6.6	11.0	--	9.0	84
JUN , 1977								
06...	1310	1.0	170	6.8	30.0	.36	6.3	84
06...	1312	29	170	7.1	30.0	--	6.5	86
20...	1525	1.0	160	7.2	27.5	.49	6.8	87
20...	1527	10	160	7.2	28.0	--	7.0	90
20...	1529	30	160	7.1	28.0	--	7.0	90
20...	1531	40	160	7.1	27.0	--	6.7	85
AUG								
23...	1050	1.0	660	7.1	28.0	.41	6.2	79
23...	1052	13	660	7.3	28.5	--	6.3	82
23...	1054	25	660	7.3	28.0	--	6.3	81
SEP								
21...	1315	1.0	270	7.0	27.0	.65	6.2	78
21...	1317	20	280	7.1	27.0	--	6.2	78
21...	1319	41	290	7.1	27.0	--	6.1	77
MAY , 1978								
31...	1155	1.0	244	7.3	28.0	.62	6.7	86
31...	1157	13	244	7.2	27.5	--	5.9	76
31...	1159	26	250	7.4	27.5	--	5.5	71

300252093433000 LINE 065 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
19...	1155	1.0	14000	7.6	20.5	.54	6.3	76
19...	1157	10	20000	7.8	20.5	--	6.1	75
19...	1159	15	23000	7.9	21.0	--	6.0	75
19...	1201	30	28000	8.0	21.0	--	6.0	77
NOV								
15...	1705	1.0	15000	7.7	12.5	.61	8.0	82
15...	1707	15	25000	8.1	13.5	--	7.8	85
15...	1709	33	34000	8.1	14.0	--	7.4	85
DEC								
15...	0930	1.0	2500	6.8	11.5	.27	9.0	87
15...	0932	8.0	3000	6.8	11.0	--	9.0	85
15...	0934	15	13000	7.3	12.0	--	8.5	85
15...	0936	33	25000	7.5	12.0	--	6.9	73
JUN , 1977								
06...	1415	1.0	5000	7.4	30.0	.55	6.1	82
06...	1417	15	5000	7.2	29.5	--	6.7	89
06...	1419	25	24000	7.2	29.5	--	3.1	45
20...	1610	1.0	1500	7.3	28.5	.51	6.8	88
20...	1612	15	1600	7.2	28.5	--	6.7	87
20...	1614	31	6000	7.0	28.5	--	5.1	68
AUG								
23...	1120	1.0	1300	7.2	29.0	.64	6.2	82
23...	1122	14	1200	7.3	29.0	--	5.9	78
23...	1124	29	1400	7.0	29.5	--	.9	12
SEP								
21...	1400	1.0	1200	7.0	28.5	.60	6.3	82
21...	1402	5.0	1500	7.0	27.5	--	5.7	73
21...	1404	10	3000	7.0	28.0	--	5.3	69
21...	1406	20	13000	7.1	28.5	--	3.9	53
21...	1408	33	18000	7.1	28.5	--	3.0	42
FEB , 1978								
07...	1320	1.0	240	6.8	6.5	.25	11.2	94
07...	1322	16	880	7.1	6.5	--	11.1	94
07...	1324	35	880	7.1	6.5	--	10.9	92
MAY								
31...	1215	1.0	5000	7.5	29.5	.88	7.7	104
31...	1216	19	11500	6.9	29.5	--	3.7	51
31...	1217	38	20000	6.9	29.5	--	2.7	38

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

295938093465000 LINE 087 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,		
		LING	CIFIC		CON-	PAR-	SOLVED
		DEPTH	AMCE	(MICRO-	TEMPER-	(SECCHI	(PER-
		(FT)	MHOS)	(UNITS)	ATURE	DISK)	CENT
OCT , 1976							
19...	1215	1.0	20000	8.0	20.0	.67	6.6
19...	1217	15	28000	8.2	20.5	--	5.8
19...	1219	34	32000	8.2	20.5	--	5.5
NOV							
15...	1725	1.0	20000	8.0	12.5	.67	9.5
15...	1727	10	25000	8.1	12.5	--	8.2
15...	1729	20	32000	8.2	13.0	--	7.9
15...	1731	35	34000	8.2	13.0	--	7.6
16...	0950	1.0	19000	7.9	12.5	.77	8.5
16...	0952	15	27000	8.0	12.5	--	8.2
16...	0954	33	32000	8.1	10.5	--	8.1
DEC							
15...	0955	1.0	3000	7.4	11.5	.23	8.8
15...	0957	15	17000	7.7	12.0	--	8.9
15...	0959	37	23000	7.7	12.1	--	8.6
JUN , 1977							
20...	1630	1.0	3800	7.5	29.0	.60	7.3
20...	1632	10	4200	7.5	29.0	--	7.3
20...	1634	25	4800	7.4	28.5	--	6.5
AUG							
23...	1230	1.0	4000	7.4	29.0	.61	6.1
23...	1232	10	8400	7.3	29.5	--	4.9
23...	1234	20	18000	7.4	30.0	--	3.7
23...	1236	34	22000	7.2	31.0	--	1.9
SEP							
21...	1420	1.0	4400	7.2	29.0	.82	6.2
21...	1422	10	10000	7.2	28.5	--	5.1
21...	1424	20	23000	7.4	29.0	--	4.0
21...	1426	36	25000	7.4	29.0	--	3.7
FEB , 1978							
07...	1425	1.0	350	6.8	6.5	.20	11.2
07...	1427	17	400	6.9	6.5	--	11.2
07...	1429	34	10000	7.1	6.0	--	10.4
MAY							
31...	1320	1.0	9130	7.5	30.0	.71	9.0
31...	1322	18	18000	7.4	29.5	--	7.1
31...	1325	35	22600	7.2	30.0	--	4.0
							59

300922094064900 LINE 107 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,		
		LING	CIFIC		CON-	PAR-	SOLVED
		DEPTH	(MICRO-	(PH	TEMPER-	(SECCHI	(PER-
		(FT)	MHOS)	(UNITS)	ATURE	DISK)	CENT
OCT , 1976							
19...	1035	1.0	170	7.1	18.0	.55	8.0
19...	1037	10	160	7.1	18.0	--	8.0
19...	1039	23	160	5.4	18.0	--	8.4
NOV							
15...	1600	1.0	170	7.6	11.0	.61	9.9
15...	1602	10	170	7.7	11.0	--	9.9
15...	1604	17	200	7.8	11.0	--	9.9
DEC							
15...	0940	1.0	100	6.4	11.0	.40	9.1
15...	0942	10	110	6.5	11.0	--	9.6
15...	0944	20	100	6.6	11.0	--	9.2
15...	0946	30	95	6.6	11.0	--	8.8
FEB , 1977							
01...	1100	1.0	300	6.9	9.0	.51	9.6
01...	1105	15	300	6.9	9.0	--	9.6
01...	1107	25	300	6.9	8.5	--	9.7
JUN							
06...	1600	1.0	170	6.7	30.0	.35	11.8
06...	1602	10	170	6.7	30.0	--	10.4
06...	1604	27	170	6.9	30.0	--	11.6
20...	1250	1.0	150	--	27.0	.39	10.8
20...	1252	12	120	--	27.0	--	10.2
20...	1254	25	140	--	27.0	--	10.2
AUG							
23...	1109	1.0	200	7.4	29.0	.45	6.9
23...	1102	10	200	7.5	29.0	--	6.1
23...	1104	21	200	7.7	29.0	--	6.1
SEP							
21...	1115	1.0	190	6.9	27.5	.49	7.0
21...	1117	5.0	200	6.8	27.5	--	6.9
21...	1119	15	200	6.9	27.5	--	6.8
MAY , 1978							
31...	1440	1.0	504	7.2	29.0	.36	8.0
31...	1441	8.0	620	6.9	25.0	--	6.1
31...	1443	12	8000	6.6	27.5	--	1.8
31...	1445	17	10000	6.7	26.0	--	.5
							6

Table 1A--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

300618094051300 LINE 125 SITE 02

DATE	TIME	DEPTH (FT)	SAMP-	DUCT-	PH	TEMPER-	OXYGEN,	OXYGEN,
			LING	ANCE			(MICRO-	ATURE
			MHOS)	(UNITS)	(DEG C)	SOLVED	SOLVED	
MAY , 1978								
31...	1510	1.0	2000	6.9	28.5	6.6	85	
31...	1511	5.0	2000	6.8	27.0	6.0	77	
31...	1512	10	9000	6.6	26.5	.7	9	
31...	1513	15	11000	6.6	26.5	.3	4	
31...	1514	25	14000	6.6	26.5	.3	4	
31...	1515	35	14000	6.6	27.0	.3	4	
31...	1516	45	14000	6.5	27.0	.5	6	

300319094014600 LINE 170 SITE 02

DATE	TIME	DEPTH (FT)	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,
			LING	ANCE			(MICRO-	ATURE
			MHOS)	(UNITS)	(DEG C)	(SECCHI (00010)	(PER-	
			(00003)	(00095)	(00400)	(00078)	DIS-	
						(00030)	SATUR-	
							ATION)	
OCT , 1976								
19...	1115	1.0	3000	7.5	21.5	.43	6.4	75
19...	1117	10	12000	7.5	22.0	--	4.8	59
19...	1119	20	22000	7.6	23.0	--	3.8	49
19...	1121	40	27000	7.8	23.0	--	4.6	60
NOV								
15...	1630	1.0	7000	7.3	12.5	.64	8.2	82
15...	1632	10	14000	7.3	16.0	--	6.4	70
15...	1634	20	27000	7.4	16.0	--	4.3	50
15...	1636	40	34000	7.8	15.0	--	6.9	81
DEC								
15...	0835	1.0	2000	6.8	11.5	.49	8.0	76
15...	0837	10	2000	6.9	11.5	--	7.8	74
15...	0839	20	6000	7.0	12.5	--	7.5	74
15...	0841	25	15000	7.4	12.5	--	6.3	64
15...	0843	30	23000	7.6	13.0	--	5.7	61
15...	0845	43	28000	7.8	12.0	--	5.7	61
FEB , 1977								
01...	1130	1.0	2900	7.1	10.0	.51	9.4	87
01...	1132	10	3200	7.2	9.5	--	9.3	85
01...	1134	20	13000	7.4	9.0	--	8.8	82
01...	1136	25	21000	7.6	9.0	--	8.4	82
01...	1138	30	25000	7.8	9.5	--	8.0	80
01...	1140	47	38000	7.9	9.5	--	7.7	79
JUN								
06...	1515	1.0	5000	7.4	32.5	.48	10.1	142
06...	1517	20	22000	7.1	28.0	--	3.7	53
06...	1519	45	30000	7.2	28.5	--	3.1	45
20...	1225	1.0	900	--	29.0	.48	10.8	142
20...	1227	10	1000	--	27.5	--	9.6	123
20...	1229	20	1300	--	27.5	--	7.8	100
20...	1231	35	9000	--	27.5	--	6.3	83
20...	1233	47	30000	--	28.5	--	5.6	81
AUG								
23...	1135	1.0	3500	6.9	29.5	.53	5.3	70
23...	1137	10	6500	6.9	30.0	--	3.4	46
23...	1139	20	16000	6.7	30.0	--	.0	0
23...	1141	42	24000	6.7	29.5	--	.5	7
SEP								
21...	1140	1.0	7400	6.8	32.0	.68	3.8	53
21...	1142	5.0	5900	6.9	29.0	--	3.9	52
21...	1144	10	7200	6.8	29.0	--	3.2	43
21...	1146	15	12000	6.8	29.0	--	1.2	16
21...	1148	20	15000	6.9	29.0	--	1.1	14
21...	1150	30	18000	6.8	29.0	--	.2	3
21...	1152	44	21000	6.9	29.0	--	.3	4
FEB , 1978								
07...	1135	1.0	145	6.4	7.5	.25	11.6	97
07...	1137	10	145	6.4	6.5	--	11.9	91
07...	1139	23	200	6.4	6.5	--	11.9	94
07...	1141	46	210	6.5	6.5	--	11.9	97
MAY								
31...	1545	1.0	11000	6.8	28.5	--	4.3	58
31...	1546	20	15000	6.7	28.5	--	1.8	25
31...	1547	42	19000	6.8	28.5	--	1.8	25

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

295842093514900 LINE 214 SITE 02

		SAMP-	SPE-	TRANS-	OXYGEN,			
		LING	CIFIC	PAR-	DIS-			
		DEPTH	CON-	ENCY	SOLVED			
DATE	TIME	(FT)	(MICRO-	(SECCHI	OXYGEN,			
		MHOS)	(UNITS)	ATURE	DIS-			
			(DEG C)	DISK)	SOLVED			
				(M)	(MG/L)			
OCT , 1976								
19...	1155	1.0	19000	8.3	22.5	.64	6.3	80
19...	1157	20	31000	8.5	22.0	--	6.3	84
19...	1159	40	34000	8.4	22.0	--	6.6	88
NOV								
16...	1215	1.0	23000	7.9	12.5	.55	7.7	81
16...	1217	15	31000	8.0	12.5	--	7.6	83
16...	1219	35	25000	8.1	12.0	--	8.4	88
DEC								
15...	1110	1.0	7000	7.2	13.0	.49	8.2	82
15...	1112	10	10000	7.4	13.0	--	8.2	83
15...	1114	20	20000	7.8	13.5	--	8.0	85
15...	1116	25	21000	7.9	13.5	--	8.1	87
15...	1118	30	23000	8.0	13.0	--	8.4	89
15...	1120	44	30000	8.1	12.5	--	8.4	91
FEB , 1977								
01...	1300	1.0	13000	7.5	9.5	.56	9.1	86
01...	1302	10	15000	7.7	10.0	--	9.0	86
01...	1304	20	18000	7.3	10.0	--	8.9	86
01...	1306	45	32000	8.1	9.5	--	8.0	82
JUN								
06...	1440	1.0	14000	7.3	31.0	.50	7.9	112
06...	1442	20	26000	7.6	29.5	--	5.3	78
06...	1444	44	36000	7.7	29.0	--	3.8	58
07...	1000	1.0	14000	7.2	29.0	.58	6.6	91
07...	1002	20	19000	7.2	29.0	--	5.1	72
07...	1004	40	26000	7.2	28.5	--	4.0	58
20...	1430	1.0	5900	--	29.5	.57	7.3	99
20...	1432	20	7000	--	28.5	--	7.6	101
20...	1434	45	17000	--	29.0	--	7.2	100
21...	0830	1.0	5000	--	29.0	.60	8.1	108
21...	0832	20	5000	--	28.5	--	5.4	71
21...	0834	45	7000	--	28.5	--	6.4	86
AUG								
23...	1215	1.0	14000	7.1	30.0	.50	4.0	56
23...	1217	10	18000	7.1	30.0	--	3.2	45
23...	1219	20	22000	7.1	29.5	--	2.9	41
23...	1221	38	32000	7.2	29.5	--	1.8	27
SEP								
21...	1220	1.0	15000	7.3	30.5	.64	4.5	63
21...	1222	5.0	16000	7.3	30.0	--	4.0	56
21...	1224	10	19000	7.3	30.0	--	3.6	52
21...	1226	20	24000	7.5	29.0	--	4.1	58
21...	1228	30	27000	7.6	29.0	--	4.0	58
21...	1230	44	31000	7.7	29.0	--	3.8	55
21...	1440	1.0	14000	7.3	30.5	--	4.9	69
21...	1442	10	16000	7.2	29.5	--	3.9	55
21...	1444	20	23000	7.4	29.0	--	3.9	55
21...	1446	44	30000	7.6	29.0	--	3.8	55
22...	1220	1.0	12000	7.4	31.0	.70	5.1	72
22...	1221	10	16000	7.4	30.5	--	4.3	61
22...	1222	20	20000	7.6	30.0	--	4.3	61
22...	1223	44	29000	7.7	29.0	--	3.9	58
FEB , 1978								
07...	1235	1.0	1800	7.0	6.5	.19	10.9	92
07...	1237	21	3300	7.2	6.5	--	10.9	92
07...	1239	41	16000	7.5	6.5	--	10.4	92
08...	1105	1.0	2100	8.1	6.0	--	11.5	96
08...	1110	22	17000	8.2	6.0	--	10.8	96
08...	1112	44	22000	8.1	6.0	--	10.8	108
MAY								
31...	1640	1.0	17300	7.3	30.0	--	5.9	83
31...	1643	23	21000	7.3	29.5	--	4.5	64
31...	1645	46	--	7.2	30.5	--	--	--
JUN								
01...	0830	1.0	19000	7.5	29.5	.62	5.6	79
01...	0831	20	22000	7.5	29.5	--	4.8	68
01...	0832	40	19000	7.5	29.0	--	4.2	59
01...	1330	1.0	18000	7.4	30.5	--	5.6	80
01...	1333	19	20000	7.3	30.0	--	4.8	68
01...	1335	38	21000	7.4	30.0	--	4.4	64

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

295736093454600 LINE 244 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPECI- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (MG/L)	SATUR- ATION
OCT , 1976									
18..	1615	1.0	15000	8.2	19.0	.89	6.7	78	
18..	1617	5.5	19000	7.9	19.0	--	6.2	74	
NOV									
16..	1010	1.0	19000	7.8	8.5	1.46	10.1	96	
16..	1012	6.0	19000	7.8	9.0	--	10.1	97	
DEC									
15..	1050	1.0	14000	7.5	11.0	.99	9.8	97	
15..	1052	7.0	14000	7.5	11.0	--	9.8	97	
JUN , 1977									
07..	1055	1.0	10000	7.7	29.0	.45	8.4	113	
07..	1057	6.0	12000	7.7	28.5	--	8.0	108	
21..	0920	1.0	5800	7.5	28.5	.53	6.2	83	
21..	0922	5.0	6000	7.5	28.5	--	5.8	78	
AUG									
23..	1345	1.0	7600	7.8	28.5	.56	9.1	121	
23..	1347	6.0	7700	7.7	28.5	--	7.9	105	
SEP									
22..	1145	1.0	9700	7.9	29.5	1.04	3.5	47	
22..	1146	4.0	9800	8.0	28.0	--	3.7	49	
22..	1147	5.0	10000	7.5	28.0	--	2.7	36	
22..	1148	6.0	11000	7.3	28.0	--	1.7	23	
22..	1215	1.0	15000	7.9	30.5	.75	7.2	101	
22..	1216	3.0	16000	7.9	30.5	--	7.6	107	
JUN , 1978									
01..	0920	1.0	13000	7.6	29.5	.85	8.9	122	
01..	0921	5.0	16000	7.4	28.5	--	7.4	103	

295728093464500 LINE 244 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPECI- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (MG/L)	SATUR- ATION
OCT , 1976									
18..	1525	1.0	17000	8.2	19.5	1.14	7.7	92	
18..	1527	7.5	17000	8.2	18.5	--	7.4	86	
NOV									
16..	1020	1.0	22000	7.9	9.5	1.84	9.7	96	
16..	1022	7.0	22000	7.9	9.0	--	10.1	98	
DEC									
15..	1045	1.0	9500	7.3	11.0	.43	9.1	88	
15..	1047	3.0	9500	7.3	11.0	--	9.1	88	
15..	1049	7.0	13000	7.1	11.5	--	8.3	82	
JUN , 1977									
07..	1045	1.0	13000	7.7	28.5	.70	7.8	105	
07..	1047	7.0	14000	7.7	28.5	--	7.7	105	
21..	0915	1.0	8600	7.5	29.0	.55	6.1	83	
21..	0917	6.0	8600	7.5	29.0	--	6.0	81	
AUG									
23..	1335	1.0	7800	7.8	28.5	.82	7.2	96	
23..	1337	6.5	9400	7.6	28.5	--	6.0	81	
SEP									
22..	1150	1.0	9600	7.9	28.0	1.06	7.3	97	
22..	1152	5.0	9700	7.8	28.0	--	6.8	91	
22..	1154	7.0	11000	7.4	28.0	--	4.6	62	
22..	1205	1.0	9600	8.0	29.5	.93	8.2	111	
22..	1206	5.0	9600	7.8	28.0	--	7.7	103	
22..	1207	7.0	14000	7.1	29.0	--	3.6	50	
JUN , 1978									
01..	0910	1.0	12000	7.5	29.0	--	8.4	114	
01..	0911	6.0	17000	7.2	29.0	--	5.6	78	

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

295720093474500 LINE 244 SITE 03

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-	
		LING	ANCE			(MICRO-	(SECCHI	OXYGEN,	SOLVED
		(FT)	MICROS)	(UNITS)	(DEG C)	DISK)	(MG/L)	(PER-	
OCT , 1976						(M)	SATUR-	CENT	
	18..	1505	1.0	17400	8.2	19.5	.97	6.8	81
	18..	1507	5.5	21000	8.2	18.0	--	6.2	73
	19..	1230	1.0	17000	8.1	18.5	1.06	8.1	94
	19..	1232	4.0	18000	8.1	18.5	--	7.9	92
	19..	1234	6.0	20000	7.9	18.5	--	6.7	79
	19..	1236	6.5	23000	7.7	19.5	--	5.2	63
NOV									
	16..	1030	1.0	21000	8.0	10.0	1.80	9.8	97
	16..	1032	7.0	22000	8.0	9.5	--	9.7	96
DEC									
	15..	1030	1.0	9500	7.3	11.5	.33	8.9	87
	15..	1032	6.0	14000	7.3	11.5	--	8.9	89
JUN , 1977									
	07..	1030	1.0	14000	7.4	29.0	.80	9.1	125
	07..	1032	6.0	16000	7.5	29.0	--	9.1	126
	21..	0905	1.0	90000	7.4	29.0	.50	5.8	79
	21..	0907	6.0	90000	7.4	29.0	--	5.7	78
AUG									
	23..	1325	1.0	11000	7.6	28.5	.91	6.2	84
	23..	1327	7.0	11000	7.5	28.5	--	5.6	75
SEP									
	22..	1200	1.0	7200	7.4	28.0	.93	6.3	83
	22..	1201	5.0	8800	7.3	28.0	--	6.2	82
	22..	1202	7.0	12000	7.0	29.0	--	2.3	32
JUN , 1978									
	01..	0900	1.0	14700	7.6	28.5	--	7.8	106
	01..	0903	7.0	18000	7.5	28.5	--	6.9	96

295701093501200 LINE 244 SITE 04

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-	
		LING	ANCE			(MICRO-	(SECCHI	OXYGEN,	SOLVED
		(FT)	MICROS)	(UNITS)	(DEG C)	DISK)	(MG/L)	(PER-	
OCT , 1976						(M)	SATUR-	CENT	
	18..	1455	1.0	16000	8.2	19.5	.80	7.6	90
	18..	1457	3.0	16000	8.2	19.5	--	6.9	82
	18..	1459	5.5	24000	8.3	20.5	--	6.2	78
NOV									
	16..	1045	1.0	21000	8.0	9.5	1.86	10.2	99
	16..	1047	6.0	22000	8.0	9.5	--	10.0	99
DEC									
	15..	1025	1.0	9500	7.3	12.0	.41	9.1	90
	15..	1027	5.5	13000	7.2	11.5	--	9.0	89
JUN , 1977									
	07..	1025	1.0	14000	7.7	29.0	.78	6.8	93
	07..	1027	6.0	14000	7.7	29.0	--	7.3	100
	21..	0845	1.0	11000	7.7	28.5	.69	6.7	91
	21..	0847	5.0	11000	7.7	28.5	--	6.5	88
	21..	0850	1.0	10000	7.7	28.5	.80	6.6	88
	21..	0852	5.0	10000	7.9	28.5	--	6.9	92
AUG									
	23..	1315	1.0	15000	7.6	29.5	.69	6.1	84
	23..	1317	5.5	15000	7.6	29.5	--	5.8	80
FEB , 1978									
	08..	0900	1.0	19000	7.4	6.0	.22	10.6	94
	08..	0902	5.0	19000	7.3	5.5	--	10.9	97
JUN									
	01..	0850	1.0	19000	7.8	28.5	--	6.6	92
	01..	0851	5.0	19000	7.8	28.5	--	6.6	92

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

295651093512300 LINE 244 SITE 05

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPE- RATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
NOV , 1976							
16...	1050	1.0	25000	8.1	12.0	.79	8.8
16...	1052	4.0	26000	8.1	11.5	--	8.6
DEC							
15...	1015	1.0	8500	7.1	12.0	.41	8.8
15...	1017	4.0	8500	7.0	12.0	--	9.0
JUN , 1977							
07...	1015	1.0	17000	7.6	28.5	--	7.2
07...	1017	3.0	17000	7.8	28.5	--	7.4
21...	0835	1.0	4900	7.1	28.5	.52	5.4
21...	0837	3.0	5000	7.1	28.5	--	5.4
AUG							
23...	1305	1.0	16000	7.5	30.5	.65	5.4
23...	1307	4.0	18000	7.5	29.0	--	4.6
JUN , 1978							
01...	0835	1.0	20000	7.6	29.5	--	6.1
01...	0836	4.0	20000	7.6	29.0	--	5.8

295454093460700 LINE 254 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPE- RATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976							
18...	1630	1.0	17000	7.8	18.5	.81	6.6
18...	1632	6.5	20000	7.5	18.5	--	6.5
NOV							
16...	1130	1.0	20000	7.9	8.5	.93	10.3
16...	1132	6.0	20000	7.9	8.5	--	10.3
DEC							
15...	1105	1.0	11000	7.3	11.0	.75	9.7
15...	1107	7.0	16000	7.2	11.0	--	9.4
JUN , 1977							
21...	0935	1.0	8800	7.4	29.0	.48	5.7
21...	0937	6.0	9000	7.4	29.0	--	5.5
SEP							
22...	1135	1.0	11000	7.9	27.5	1.06	6.9
22...	1137	5.0	11000	8.0	27.5	--	7.0
22...	1139	7.0	13000	7.1	28.0	--	2.1
JUN , 1978							
01...	0930	1.0	19000	7.3	29.0	--	5.4
01...	0932	7.0	21000	7.0	29.0	--	4.0

295629093504500 LINE 254 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPE- RATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976							
18...	1445	1.0	16000	8.2	20.0	.72	5.8
18...	1447	4.5	17000	8.3	21.5	--	6.0
NOV							
16...	1100	1.0	26000	8.1	11.5	.93	8.9
16...	1102	4.5	27000	8.1	11.5	--	8.9
DEC							
15...	1020	1.0	95000	7.3	12.0	.75	8.6
15...	1022	5.5	13000	7.2	11.0	--	9.0
JUN , 1977							
21...	0845	1.0	11000	7.7	28.5	.69	6.7
21...	0847	5.0	11000	7.7	28.5	--	6.5
SEP							
22...	1115	1.0	15000	7.8	30.0	.75	7.2
22...	1117	5.5	15000	7.8	30.0	--	6.7
JUN , 1978							
01...	0845	1.0	21000	7.6	29.0	.65	5.9
01...	0847	3.0	21000	7.6	29.5	--	5.8

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

296109093472000 LINE 274 SITE 01

		SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SATUR- ATION)
DATE	TIME	DEPTH (FT)					
OCT , 1976							
18...	1645	1.0	15000	7.9	18.5	.68	6.9
18...	1647	5.0	15000	7.7	17.5	--	6.7
NOV							
16...	1220	1.0	20000	7.9	8.5	.50	10.4
16...	1222	5.0	18000	7.9	8.5	--	10.4
DEC							
15...	1120	1.0	13000	7.5	11.0	.43	9.9
15...	1122	5.0	14000	7.6	11.0	--	10.0
JUN , 1977							
07...	1230	1.0	4000	7.3	29.5	.35	9.4
07...	1232	6.0	4000	7.3	30.0	--	7.5
21...	0955	1.0	11000	7.7	29.5	.63	6.0
21...	0957	5.0	10000	7.6	29.0	--	5.7
AUG							
23...	1415	1.0	14000	7.6	28.5	.62	6.4
23...	1417	5.5	14000	7.5	28.5	--	6.0
SEP							
22...	1030	1.0	12000	7.2	28.0	.55	3.9
22...	1032	4.0	14000	7.4	28.0	--	4.6
JUN , 1978							
01...	0945	1.0	22000	7.5	29.0	--	6.4
01...	0947	7.0	22000	7.4	29.0	--	6.3

295228093492000 LINE 274 SITE 02

		SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SATUR- ATION)
DATE	TIME	DEPTH (FT)					
OCT , 1976							
18...	1655	1.0	16000	7.8	18.5	.69	6.4
18...	1657	8.0	21000	7.6	17.5	--	6.1
NOV							
16...	1235	1.0	22000	7.9	9.0	.71	9.8
16...	1237	7.0	22000	7.8	9.0	--	10.0
DEC							
15...	1130	1.0	13000	7.6	11.0	.70	9.9
15...	1132	8.0	16000	7.5	11.0	--	9.8
JUN , 1977							
07...	1235	1.0	7000	7.3	29.5	.53	8.2
07...	1237	8.0	7000	7.1	29.0	--	8.7
21...	1010	1.0	12000	7.6	29.5	.97	6.8
21...	1012	8.0	12000	7.6	29.0	--	6.6
AUG							
23...	1430	1.0	17000	7.8	28.5	.62	6.5
23...	1432	8.5	17000	7.6	28.5	--	6.2
SEP							
22...	1040	1.0	14000	8.1	28.0	1.40	7.7
22...	1042	5.0	14000	8.1	27.5	--	7.6
22...	1044	8.0	16000	7.3	28.0	--	3.8
FEB , 1978							
08...	0945	1.0	3400	7.4	5.5	.14	11.7
08...	0947	8.0	3400	7.5	5.5	--	11.7
JUN							
01...	1000	1.0	22000	7.7	29.0	.98	6.7
01...	1002	8.0	22000	7.6	29.0	--	6.5

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

295329093505500 LINE 274 SITE 03

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	{PER-	CENT
		LING	CIFIC		DIS-		
		DEPTH	CON-	DUCT-	OXYGEN,	SOLVED	SATUR-
		(FT)	(MICRO-	(PH)	(SECCHI	(MG/L)	ATION)
OCT , 1976							
18...	1705	1.0	22000	7.9	18.5	.80	94
18...	1707	7.5	23000	7.7	18.0	--	86
NOV							
16...	1255	1.0	27000	8.0	9.5	1.13	94
16...	1257	6.0	27000	8.0	9.5	--	96
DEC							
15...	1140	1.0	12000	7.5	11.0	.65	9.9
15...	1142	8.0	13000	7.5	11.0	--	9.6
JUN , 1977							
07...	1245	1.0	9000	7.2	29.5	.55	8.3
07...	1247	8.0	9000	7.2	29.5	--	7.3
21...	1020	1.0	13000	7.6	29.0	1.34	6.4
21...	1022	8.0	13000	7.6	29.5	--	6.3
AUG							
23...	1440	1.0	16000	6.0	28.5	.97	6.9
23...	1442	4.0	16000	6.0	28.5	--	6.8
23...	1444	8.0	16000	7.8	28.5	--	6.5
SEP							
22...	1050	1.0	15000	8.1	28.8	1.22	7.6
22...	1052	5.0	15000	8.1	28.5	--	7.4
22...	1054	8.0	15000	8.1	28.5	--	7.3
JUN , 1978							
01...	1010	1.0	22000	7.7	28.5	1.27	6.8
01...	1012	6.0	22000	7.7	28.5	--	6.5
							92

295402093514300 LINE 274 SITE 04

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	{PER-	CENT
		LING	CIFIC		DIS-		
		DEPTH	CON-	DUCT-	OXYGEN,	SOLVED	SATUR-
		(FT)	(MICRO-	(PH)	(SECCHI	(MG/L)	ATION)
OCT , 1976							
18...	1715	1.0	21000	7.8	19.0	.79	88
18...	1717	5.5	22000	7.6	17.0	--	76
NOV							
16...	1310	1.0	23000	8.1	11.0	1.07	9.4
16...	1312	5.0	22000	8.1	11.0	--	9.5
DEC							
15...	1145	1.0	12000	7.4	11.0	.52	9.3
15...	1147	4.0	12000	7.4	11.0	--	9.3
15...	1149	6.5	12000	7.3	11.0	--	8.4
JUN , 1977							
07...	1300	1.0	9000	7.1	29.5	.83	6.6
07...	1302	7.0	9000	7.1	29.0	--	7.0
21...	1025	1.0	11000	7.7	29.0	1.00	6.7
21...	1027	7.0	11000	7.7	29.0	--	6.6
AUG							
23...	1445	1.0	16000	5.9	28.5	1.23	6.5
23...	1447	6.5	16000	5.8	28.5	--	6.7
SEP							
22...	1105	1.0	10000	8.3	29.0	.84	8.1
22...	1107	6.0	10000	8.3	29.0	--	7.9
JUN , 1978							
01...	1018	1.0	26600	7.7	29.0	1.21	6.4
01...	1020	6.0	26600	7.7	29.0	--	6.4
							92

Table 1A--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

294847093525700 LINE 293 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
18..	1755	1.0	14000	7.8	17.0	.52	7.7	87
18..	1757	6.0	15000	7.6	17.0	--	7.7	87
NOV								
16..	1330	1.0	21000	7.9	8.5	.84	10.3	98
16..	1332	5.0	21000	7.9	8.5	--	10.3	98
DEC								
15..	1225	1.0	16000	7.6	11.0	.65	10.0	100
15..	1227	6.0	16000	7.5	11.0	--	10.5	105
JUN , 1977								
07..	1335	1.0	7000	7.5	29.5	.60	8.7	117
07..	1337	6.0	9000	7.4	30.0	--	9.4	129
21..	1055	1.0	13000	--	28.5	.83	9.8	132
21..	1057	6.0	13000	--	28.5	--	9.8	132
SEP								
22..	1010	1.0	16000	7.4	27.5	.80	5.5	74
22..	1012	5.5	19000	7.5	27.5	--	5.6	78
JUN , 1978								
01..	1055	1.0	21000	7.5	28.5	--	6.5	92
01..	1057	6.0	21000	7.5	28.5	--	6.5	91

294917093534500 LINE 293 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
18..	1745	1.0	17000	7.8	18.0	.47	8.3	97
18..	1747	5.0	17000	7.8	18.0	--	8.4	98
NOV								
16..	1340	1.0	25000	7.9	8.5	.48	10.1	101
16..	1342	6.0	25000	7.9	9.0	--	10.2	100
DEC								
15..	1215	1.0	15000	7.5	11.0	.59	9.8	97
15..	1217	5.5	15000	7.5	11.0	--	9.7	96
JUN , 1977								
07..	1325	1.0	7000	7.4	30.0	--	7.2	97
07..	1327	6.5	9000	7.2	29.5	--	8.7	118
21..	1045	1.0	13000	--	29.0	.97	9.4	129
21..	1047	7.0	13000	--	29.0	--	9.2	126
SEP								
22..	1005	1.0	18000	7.8	28.5	1.23	7.3	101
22..	1006	7.0	23000	7.6	28.5	--	5.7	80
JUN , 1978								
01..	1047	1.0	25000	7.7	28.5	.80	6.5	94
01..	1049	6.0	25000	7.6	28.5	--	6.5	94

294947093543400 LINE 293 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
18..	1735	1.0	15000	7.9	18.0	.70	8.5	98
18..	1737	5.5	16000	7.8	18.0	--	8.4	98
NOV								
16..	1350	1.0	24000	8.0	9.0	1.08	10.2	100
16..	1352	6.0	24000	8.0	9.0	--	10.2	100
DEC								
15..	1210	1.0	12000	7.4	11.0	.66	10.1	99
15..	1212	6.0	12000	7.4	11.0	--	9.4	92
JUN , 1977								
07..	1320	1.0	7000	7.5	30.0	.65	8.6	116
07..	1322	6.0	5000	7.3	31.0	--	7.1	97
21..	1050	1.0	12000	7.6	29.0	1.33	7.0	96
21..	1052	6.0	12000	7.6	29.0	--	7.0	96
SEP								
22..	0955	1.0	17000	7.8	28.0	1.12	7.0	96
22..	0957	6.0	17000	7.9	28.0	--	7.0	96
JUN , 1978								
01..	1040	1.0	26000	7.7	28.5	.98	6.5	95
01..	1042	6.0	26000	7.7	28.5	--	6.5	95

Table IA.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

294735093545900 LINE 300 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT)	
							(M)	OXYGEN, DIS- SOLVED (MG/L)
OCT , 1976								
18...	1805	1.0	16000	7.7	18.0	.72	7.9	92
18...	1807	5.0	26000	8.0	18.5	--	8.5	104
18...	1809	7.5	27000	8.0	18.5	--	7.7	94
NOV								
16...	1400	1.0	26000	8.0	9.0	.65	9.8	98
16...	1402	8.0	26000	8.0	9.0	--	9.8	98
DEC								
15...	1300	1.0	16000	7.8	21.0	.79	9.7	99
15...	1302	5.0	16500	7.8	12.0	--	9.7	99
15...	1304	8.0	16500	7.8	12.0	--	9.6	98
JUN , 1977								
21...	1030	1.0	19000	--	29.0	.62	7.5	105
21...	1032	10	20000	--	29.5	--	7.7	108
AUG								
23...	1430	1.0	21000	8.1	23.5	.95	6.4	90
23...	1432	9.0	30000	7.9	28.0	--	4.1	59
SEP								
22...	0940	1.0	25000	7.6	28.0	1.04	6.3	88
22...	0943	5.0	24000	7.7	28.5	--	6.0	86
JUN , 1978								
01...	1105	1.0	27000	7.7	29.0	--	6.4	93
01...	1107	9.0	30000	7.6	29.0	--	5.6	83

294606093535000 LINE 308 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (PER- CENT)		
						(M)	OXYGEN, DIS- SOLVED (MG/L)	SATUR- ATION)
FEB , 1978								
08...	1025	1.0	3100	7.5	5.0	11.6	95	
08...	1027	17	3300	7.4	5.5	12.1	100	
08...	1029	35	4000	7.4	5.0	11.6	95	

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

294945093571700 LINE 339 SITE 02

DATE	TIME	SPE-	CIFIC	CON-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-	
		SAMP-	ANCE					ENCY	(SECCHI	SOLVED	
		DEPTH	MHZS)					DISK)	M)		(PER-
OCT , 1976											
18...	1500	1.0	25000	8.2	18.5	1.10	8.4		102		
18...	1502	10	31000	8.1	18.5	--	7.6		96		
18...	1504	20	37000	8.1	19.5	--	5.8		91		
18...	1506	40	37000	8.1	19.5	--	6.8		91		
NOV											
16...	1130	1.0	32000	8.0	10.0	.76	8.3		86		
16...	1132	10	32500	8.1	10.0	--	8.9		93		
16...	1134	20	36000	8.1	11.0	--	8.2		90		
16...	1136	40	29000	8.1	11.5	--	8.2		87		
DEC											
15...	1145	1.0	5000	7.1	12.0	.24	7.7		75		
15...	1147	10	10000	7.4	11.5	--	7.5		74		
15...	1149	15	12000	7.5	12.0	--	8.0		80		
15...	1151	20	22000	8.0	12.5	--	8.7		92		
15...	1153	30	31000	8.2	13.0	--	8.4		93		
15...	1155	43	40000	8.2	12.5	--	7.9		91		
FEB , 1977											
01...	1345	1.0	22000	8.0	9.0	--	9.6		93		
01...	1347	20	29000	8.1	9.0	--	9.2		93		
01...	1349	30	25000	8.1	9.0	--	8.6		84		
01...	1351	45	34000	8.1	9.0	--	8.8		91		
JUN											
07...	1415	1.0	25000	7.1	29.5	--	8.5		124		
07...	1417	20	28000	7.2	29.0	--	7.7		112		
07...	1419	45	37000	7.1	28.5	--	5.9		90		
21...	0900	1.0	9000	--	29.0	.52	7.8		105		
21...	0902	20	14000	--	29.0	--	5.7		78		
21...	0904	44	36000	--	28.0	--	7.6		113		
AUG											
23...	1300	1.0	23000	7.8	29.0	.48	4.4		63		
23...	1302	10	28000	7.8	29.0	--	3.9		57		
23...	1304	20	41000	8.0	29.0	--	3.7		57		
23...	1306	39	48000	8.1	29.0	--	3.9		63		
SEP											
22...	0811	1.0	25000	7.5	28.0	.65	5.5		77		
22...	0812	10	28000	7.6	28.0	--	5.1		74		
22...	0814	20	37000	7.8	28.5	--	5.1		77		
22...	0816	44	38000	7.8	28.0	--	4.9		74		
OCT											
18...	1500	1.0	27000	8.2	18.5	1.10	8.4		102		
18...	1502	10	34000	8.1	18.5	--	7.6		96		
18...	1504	20	41000	8.1	19.5	--	6.8		91		
18...	1506	40	41000	8.1	19.5	--	6.8		91		
FEB , 1978											
08...	1045	1.0	16000	8.2	6.0	--	11.2		99		
08...	1047	22	25000	8.2	5.5	--	10.7		99		
08...	1049	44	30000	8.1	6.0	--	10.4		97		
JUN											
01...	1300	1.0	27300	7.8	29.5	--	6.2		91		
01...	1302	22	28900	7.7	29.5	--	5.5		80		
01...	1305	45	28900	7.7	29.5	--	5.5		80		

Table 1A.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Field Determinations--Continued

294252093512000 LINE 377 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976									
18...	1630		1.0	38000	8.2	19.0	.72	7.8	101
18...	1532		10	46000	8.2	18.5	--	7.3	97
18...	1534		20	48000	8.2	18.5	--	7.1	96
18...	1536		40	48000	8.1	18.5	--	7.0	95
NOV									
16...	1015		1.0	29000	8.0	9.5	.58	9.0	92
16...	1017		10	35000	8.0	10.0	--	8.9	93
16...	1019		20	36000	8.0	11.0	--	8.3	91
16...	1021		40	40000	8.1	12.0	--	8.2	94
DEC									
15...	1230		1.0	16000	7.7	11.5	.64	9.3	94
15...	1232		10	18000	7.9	11.5	--	9.4	95
15...	1234		20	25000	8.1	12.0	--	9.1	96
15...	1236		40	37000	8.2	12.5	--	8.5	97
FEB , 1977									
01...	1415		1.0	10000	8.0	7.5	.43	10.5	94
01...	1417		10	18000	8.1	8.0	--	10.1	94
01...	1419		25	34000	8.2	8.5	--	9.4	96
01...	1421		40	38000	8.2	8.5	--	9.2	96
JUN									
21...	0930		1.0	20000	--	28.5	.68	8.4	117
21...	0932		25	45000	--	28.0	--	7.5	118
21...	0934		50	45000	--	28.0	--	7.7	121
AUG									
23...	1330		1.0	34000	8.2	28.5	.84	5.6	83
23...	1332		10	41000	8.1	28.5	--	4.6	7
23...	1334		20	48000	8.2	29.0	--	4.3	70
23...	1336		41	48000	8.2	29.0	--	4.3	70
SEP									
22...	0834		1.0	34000	7.8	28.0	.88	6.3	93
22...	0836		10	38000	7.9	28.5	--	6.3	95
22...	0838		20	44000	7.9	28.5	--	6.6	71
22...	0840		44	45000	8.1	28.5	--	6.5	103
JUN , 1978									
01...	1230		1.0	25000	8.4	29.0	--	7.4	105
01...	1232		17	33000	8.0	29.0	--	4.2	63
01...	1235		34	33000	8.0	29.0	--	4.0	59

293702093492000 LINE 905 SITE 01

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976									
18...	1605		1.0	48000	8.3	20.0	1.25	7.0	97
18...	1607		10	48000	8.3	19.5	--	7.1	97
18...	1609		20	48000	8.2	19.5	--	7.0	96
18...	1611		35	48000	8.2	19.5	--	6.8	93
NOV									
16...	1040		2.0	40000	8.1	11.5	1.80	8.2	92
16...	1042		15	45000	8.1	12.5	--	8.0	95
16...	1043		29	45000	8.1	12.5	--	8.2	98
JUN , 1977									
21...	1000		1.0	40000	--	29.0	.50	8.1	125
21...	1002		20	45000	--	28.0	--	7.8	122
21...	1004		42	45000	--	28.0	--	4.9	77
SEP									
22...	0901		5.0	44000	8.1	28.0	1.70	7.1	109
22...	0903		20	45000	8.0	28.0	--	6.3	99
22...	0905		46	45000	8.0	28.0	--	5.6	87
JUN , 1978									
01...	1205		1.0	20700	8.5	29.0	1.39	7.8	111
01...	1207		13	22000	8.5	28.5	--	7.3	103
01...	1210		27	40000	7.8	29.0	--	1.5	22

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

300953093420600 LINE 015 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
19...	1035	1.0	.10	.01	.11	.06	.34	.40	.51	2.3	.030
19...	1043	28	.49	.01	.50	.12	.47	.59	1.1	4.8	.050
NOV											
15...	1620	1.0	.01	.00	.01	.05	.41	.46	.47	2.1	.040
DEC											
15...	0900	1.0	.03	.00	.03	.03	.65	.68	.71	3.1	.040
JAN , 1977											
31...	1345	1.0	.11	.00	.11	.00	.17	.17	.28	1.2	.010
JUN											
06...	1310	1.0	.02	.01	.03	.02	.51	.53	.56	2.5	.040
20...	1525	1.0	.04	.01	.05	.02	.08	.10	.15	.70	.010
AUG											
23...	1050	1.0	.03	.01	.04	.01	.58	.59	.63	2.8	.040
SEP											
21...	1315	1.0	.01	.00	.01	.01	.38	.39	.40	1.8	.030
MAY , 1978											
31...	1155	1.0	.00	.01	.01	.01	.34	.35	.36	1.6	.020

300252093433000 LINE 055 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978												
07...	1320	1.0	.8	.05	.01	.06	.02	.35	.37	.43	1.9	.040
07...	1324	35	1.2	.11	.02	.13	.33	.87	1.2	1.3	5.9	.080

295938093465000 LINE 087 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976												
19...	1215	1.0	2.2	.19	.03	.22	.13	.69	.82	1.0	4.6	.060
19...	1219	34	--	.05	.01	.06	.14	.62	.76	.82	3.6	.080
NOV												
15...	1725	1.0	1.3	.11	.01	.12	.21	.89	1.1	1.2	5.4	.070
15...	1731	35	.9	.01	.00	.01	.05	.76	.81	.82	3.6	.060
DEC												
15...	0955	1.0	2.2	.09	.01	.10	.13	.87	1.0	1.1	4.9	.070
JAN , 1977												
31...	1455	1.0	--	.10	.01	.11	.23	.04	.27	.38	1.7	.040
31...	1501	35	--	.10	.02	.12	.18	.39	.57	.69	3.1	.060
JUN												
20...	1630	1.0	1.7	.02	.03	.05	.03	.83	.86	.91	4.0	.030
20...	1634	25	1.0	.03	.02	.05	.06	.46	.52	.57	2.5	.030
AUG												
23...	1230	1.0	1.0	.10	.01	.11	.03	.48	.51	.62	2.7	.040
23...	1236	34	2.0	.28	.14	.42	.03	.75	.78	1.2	5.3	.080
SEP												
21...	1420	1.0	2.4	.04	.01	.05	.08	.46	.54	.59	2.6	.060
21...	1426	36	1.2	.08	.08	.16	.02	.52	.54	.70	3.1	.090
FEB , 1978												
07...	1425	1.0	--	.09	.01	.10	.08	.46	.54	.64	2.8	.050
07...	1429	34	--	.16	.01	.17	.27	.66	.93	1.1	4.9	.080
MAY												
31...	1320	1.0	2.5	.02	.01	.03	.06	1.4	1.5	1.5	6.8	.040
31...	1325	35	1.7	.21	.05	.26	.20	.50	.70	.96	4.3	.060

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

300922094064900 LINE 107 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976												
19..	1035		1.0	.04	.00	.04	.01	.52	.53	.57	2.5	.040
NOV												
15..	1600		1.0	.01	.00	.01	.02	.41	.43	.44	1.9	.030
DEC												
15..	0940		1.0	.03	.00	.03	.01	.53	.54	.57	2.5	.040
FEB , 1977												
01..	1100		1.0	.03	.00	.03	.03	.28	.31	.34	1.5	.030
JUN												
06..	1600		1.0	--	.01	.00	.00	.40	.40	.40	1.8	.030
20..	1250		1.0	.05	.00	.05	.05	.49	.54	.59	2.6	.060
AUG												
23..	1100		1.0	.00	.01	.01	.01	.41	.42	.43	1.9	.040
SEP												
21..	1115		1.0	.01	.00	.01	.01	.59	.60	.61	2.7	.030
MAY , 1978												
31..	1440		1.0	.01	.01	.02	.06	4.5	4.6	4.6	20	.050

300319094014600 LINE 170 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978												
07..	1135		1.0	.09	.01	.10	.07	.60	.67	.77	3.4	.060
07..	1141		46	.06	.01	.07	.05	.42	.47	.54	2.4	.070

295842093514900 LINE 214 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976													
19..	1155		1.0	1.8	.30	.03	.33	.13	.56	.69	1.0	4.5	.070
19..	1159		40	1.0	.04	.01	.05	.12	.32	.44	.49	2.2	.060
NOV													
16..	1215		1.0	1.1	.12	.01	.13	.23	.56	.79	.92	4.1	.080
16..	1219		35	.9	.03	.00	.03	.14	.72	.86	.89	3.9	.080
DEC													
15..	1110		1.0	2.2	.22	.01	.23	.30	.80	1.1	1.3	5.9	.070
15..	1120		44	1.0	.10	.01	.11	.28	.56	.84	.95	4.2	.100
FEB , 1977													
01..	1300		1.0	1.8	.21	.00	.21	.34	.03	.37	.58	2.6	.500
01..	1306		45	1.2	.00	.01	.01	.22	.05	.27	.28	1.2	.090
JUN													
06..	1440		1.0	1.8	.02	.05	.07	.00	1.0	1.0	1.1	4.7	.060
06..	1444		44	1.8	.01	.03	.04	.09	.77	.86	.90	4.0	.120
20..	1430		1.0	3.3	.09	.01	.10	.16	.75	.91	1.0	4.5	.060
20..	1434		45	1.6	.15	.03	.18	.22	1.2	1.4	1.6	7.0	.090
AUG													
23..	1215		1.0	1.6	.35	.04	.39	.01	.82	.83	1.2	5.4	.060
23..	1221		38	2.4	.20	.18	.38	.07	1.1	1.2	1.6	7.0	.260
SEP													
21..	1220		1.0	1.9	.10	.03	.13	.06	.76	.82	.95	4.2	.060
21..	1230		44	.9	.09	.10	.19	.05	.39	.44	.63	2.8	.120
FEB , 1978													
07..	1235		1.0	1.6	.11	.01	.12	.13	.61	.74	.86	3.8	.070
07..	1239		41	1.5	.16	.01	.17	.20	.60	.80	.97	4.3	.080
MAY													
31..	1640		1.0	1.9	.46	.04	.50	.04	.82	.86	1.4	6.0	.050
31..	1645		46	2.2	.18	.04	.22	.24	.86	1.1	1.3	5.8	.130

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

295728093464500 LINE 244 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS NO ₃)
JUN , 1977 21...	0915	1.0	.09.	.03	.12	.12	.34	.46	.58	2.6	.020

295720093474500 LINE 244 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976 18...	1505	1.0	.24	.05	.29	.15	.74	.89	1.2	5.2	.060
NOV 16...	1030	1.0	.16	.02	.18	.06	1.1	1.2	1.4	6.1	.080
DEC 15...	1030	1.0	.12	.01	.13	.23	.87	1.1	1.2	5.4	.070
FEB , 1977 01...	1025	1.0	.10	.00	.10	.15	.53	.68	.78	3.5	.050
JUN 07...	1030	1.0	.00	.01	.01	.04	.90	.94	.95	4.2	.050
AUG 23...	1325	1.0	.16	.05	.21	.01	.73	.74	.95	4.2	.100
SEP 22...	1200	1.0	.04	.03	.07	.08	.15	.23	.30	1.3	.060
JUN , 1978 01...	1202	7.0	.09	.05	.14	.14	.69	.83	.97	4.3	.090
	0900	1.0	.06	.02	.08	.12	.88	1.0	1.1	4.8	.030

295701093501200 LINE 244 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978 08...	0900	1.0	.12	.01	.13	.12	.63	.75	.88	3.9	.070
08...	0902	5.0	.13	.01	.14	.12	.74	.86	1.0	4.4	.060

295454093460700 LINE 254 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976 18...	1630	1.0	.04	.01	.05	.13	.58	.71	.76	3.4	.050
NOV 16...	1130	1.0	.09	.00	.09	.09	.88	.97	1.1	4.7	.060
DEC 15...	1105	1.0	.16	.02	.18	.27	.72	.99	1.2	5.2	.060
FEB , 1977 01...	1110	1.0	.10	.00	.10	.13	.77	.90	1.0	4.4	.070
JUN 21...	0935	1.0	--	.01	.00	.07	.61	.68	.68	3.0	.030
SEP 22...	1135	1.0	.00	.01	.01	.05	.19	.24	.25	1.1	.050
JUN , 1978 01...	0930	1.0	.20	.03	.23	.06	.57	.63	.86	3.8	.030

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

295629093504500 LINE 254 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NO ₃ TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
18...	1445	1.0	.15	.03	.18	.09	.60	.69	.87	3.9	.050
NOV											
16...	1100	1.0	.12	.01	.13	.19	.62	.81	.94	4.2	.070
DEC											
15...	1020	1.0	.21	.01	.22	.34	.86	1.2	1.4	6.3	.070
FEB , 1977											
01...	1000	1.0	.12	.00	.12	.15	.45	.60	.72	3.2	.040
JUN											
21...	0845	1.0	.00	.01	.01	.03	.35	.38	.39	1.7	.010
SEP											
22...	1115	1.0	.05	.03	.08	.05	.64	.69	.77	3.4	.070
JUN , 1978											
01...	0845	1.0	.02	.01	.03	.11	.48	.59	.52	2.7	.020

295109093472000 LINE 274 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NO ₃ TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
18...	1645	1.0	.04	.00	.04	.07	.57	.64	.68	3.0	.040
18...	1647	5.0	.03	.01	.04	.09	.50	.59	.63	2.8	.030
NOV											
16...	1220	1.0	.09	.00	.09	.08	.92	1.0	1.1	4.8	.060
DEC											
15...	1120	1.0	.19	.01	.20	.27	.93	1.2	1.4	6.2	.060
15...	1122	5.0	.21	.01	.22	.32	.68	1.0	1.2	5.4	.060
FEB , 1977											
01...	1128	1.0	.09	.01	.10	.19	.51	.70	.80	3.5	.060
01...	1130	4.5	.10	.00	.10	.20	.54	.74	.84	3.7	.060
JUN											
07...	1230	1.0	.00	.01	.00	.01	1.1	1.1	1.1	4.9	.060
07...	1232	6.0	.00	.01	.00	.00	.95	.95	.95	4.2	.060
21...	0955	1.0	.00	.01	.00	.03	.75	.78	.78	3.5	.030
21...	0957	5.0	.01	.02	.03	.05	.63	.68	.71	3.1	.030
AUG											
23...	1415	1.0	.04	.05	.09	.02	.72	.74	.83	3.7	.070
23...	1417	5.5	.03	.05	.08	.03	.93	.96	1.0	4.6	.070
SEP											
22...	1030	1.0	.00	.03	.03	.05	1.1	1.2	1.2	5.4	.070
JUN , 1978											
01...	0945	1.0	.00	.01	.01	.04	.64	.68	.69	3.1	.020
01...	0947	7.0	.00	.01	.01	.04	.73	.77	.78	3.5	.030

295228093492000 LINE 274 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NO ₃ TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976												
18...	1655	1.0	--	.03	.01	.04	.14	.55	.69	.73	3.2	.060
DEC												
15...	1130	1.0	--	.17	.02	.19	.34	.76	1.1	1.3	5.7	.060
FEB , 1977												
01...	1140	1.0	--	.12	.01	.13	.21	.30	.51	.64	2.8	.050
JUN												
07...	1235	1.0	--	.00	.01	.01	.00	.97	.97	.98	4.3	.050
21...	1010	1.0	--	.00	.01	.01	.02	.64	.66	.67	3.0	.010
AUG												
23...	1430	1.0	--	.01	.05	.06	.06	.70	.76	.82	3.6	.070
SEP												
22...	1040	1.0	--	.01	.00	.01	.03	.62	.65	.66	2.9	.020
22...	1044	8.0	--	.01	.02	.03	.27	2.1	2.4	2.4	11	.070
FEB , 1978												
08...	0945	1.0	1.4	.09	.01	.10	.14	.78	.92	1.0	4.5	.090
08...	0947	8.0	1.2	.09	.01	.10	.16	.73	.89	.99	4.4	.090
JUN												
01...	1000	1.0	--	.01	.01	.02	.06	.62	.68	.70	3.1	.030

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

295329093505500 LINE 274 SITE 03												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
OCT , 1976												
18...	1705	1.0	.20	.04	.24	.12	.53	.65	.89	3.9	.060	
NOV												
16...	1255	1.0	.12	.01	.13	.18	.82	1.0	1.1	5.0	.600	
DEC												
15...	1140	1.0	.15	.01	.16	.29	.71	1.0	1.2	5.1	.060	
FEB , 1977												
DL...	1155	1.0	.12	.00	.12	.16	.45	.61	.73	3.2	.050	
JUN												
07...	1245	1.0	.00	.01	.01	.02	1.5	1.5	1.5	6.7	.050	
21...	1020	1.0	.00	.01	.01	.05	.75	.80	.81	3.6	.010	
AUG												
23...	1440	1.0	.00	.03	.03	.00	.24	.24	.27	1.2	.030	
SEP												
22...	1050	1.0	.00	.01	.01	.05	.21	.26	.27	1.2	.040	
JUN , 1978												
01...	1010	1.0	.02	.01	.03	.08	.63	.71	.74	3.3	.030	
295402093514300 LINE 274 SITE 04												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
OCT , 1976												
18...	1715	1.0	.28	.04	.32	.13	.58	.71	1.0	4.6	.070	
18...	1717	5.5	.25	.03	.28	.14	.57	.71	.99	4.4	.060	
DEC												
15...	1145	1.0	.20	.01	.21	.35	.85	1.2	1.4	6.2	.050	
15...	1149	6.5	.20	.01	.21	.47	.63	1.1	1.3	5.8	.070	
FEB , 1977												
01...	1210	1.0	.11	.01	.12	.17	.13	.30	.42	1.9	.040	
01...	1212	6.5	.11	.01	.12	.21	.31	.52	.64	2.8	.060	
JUN												
07...	1300	1.0	.02	.01	.03	.04	.96	1.0	1.0	4.6	.030	
07...	1302	7.0	.02	.01	.03	.06	1.2	1.3	1.3	5.9	.050	
21...	1025	1.0	.00	.00	.00	.02	.74	.76	.76	3.4	.040	
21...	1027	7.0	.00	.00	.00	.02	.83	.85	.85	3.8	.040	
AUG												
23...	1445	1.0	.05	.01	.06	.00	.15	.15	.21	.90	.030	
23...	1447	6.5	.01	.02	.03	.00	.10	.10	.13	.60	.030	
SEP												
22...	1105	1.0	.01	.00	.01	.01	.66	.67	.68	3.0	.040	
NOV												
16...	1310	1.0	.11	.01	.12	.24	.96	1.2	1.3	5.8	.060	
16...	1312	6.0	.15	.02	.17	.25	.67	.92	1.1	4.8	.050	
JUN , 1978												
01...	1018	1.0	.00	.01	.01	.03	.45	.48	.49	2.2	.040	
01...	1020	6.0	.00	.01	.01	.03	.51	.54	.55	2.4	.040	
294735093545900 LINE 300 SITE 02												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
OCT , 1976												
18...	1805	1.0	.04	.01	.05	.19	.50	.69	.74	3.3	.060	
NOV												
16...	1400	1.0	.12	.01	.13	.19	.68	.87	1.0	4.4	.070	
DEC												
15...	1300	1.0	.24	.01	.25	.45	.75	1.2	1.4	6.4	.050	
JUN , 1977												
21...	1030	1.0	.05	.01	.06	.11	.86	.97	1.0	4.6	.070	
AUG												
23...	1430	1.0	.06	.06	.12	.00	.20	.20	.32	1.4	.050	
SEP												
22...	0940	1.0	.02	.05	.07	.01	.53	.54	.61	2.7	.150	
JUN , 1978												
01...	1105	1.0	.04	.01	.05	.04	.69	.73	.78	3.5	.030	

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

294606093535000 LINE 308 SITE 02

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	
		LING	GEN,	GEN,	NITRITE	NO ₂ +NO ₃	AMMONIA	ORGANIC	MONIA +	GEN,	PHORUS,
		DEPTH	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	ORGANIC	TOTAL	TOTAL	
		(FT)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1978											
08...	1025		1.0	.08	.01	.09	.10	.90	1.0	1.1	.35
											.030

294945093571700 LINE 339 SITE 02

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	DEMAND,	GEN,	NITRATE	NITRITE	NO ₂ +NO ₃	AMMONIA	ORGANIC	MONIA +	PHORUS,
		DEPTH	BIOCHEM	UNINHIB	TOTAL	TOTAL	TOTAL	TOTAL	ORGANIC	TOTAL	TOTAL
		(FT)	(MG/L)	(AS N)	(MG/L)	(AS N)	(MG/L)	(AS N)	(MG/L)	(AS N)	(MG/L)
OCT , 1976											
18...	1500		1.0	.7	.03	.01	.04	.09	.58	.67	.71
18...	1506		40	1.0	.01	.01	.02	.10	.19	.29	.31
NOV											
16...	1130		1.0	.7	.09	.01	.10	.12	.44	.56	.66
16...	1136		40	.9	.06	.00	.06	.13	.50	.63	.69
DEC											
15...	1145		1.0	1.5	.09	.02	.11	.46	1.0	1.5	1.6
15...	1155		43	1.4	.04	.01	.05	.16	.67	.83	.88
FEB , 1977											
01...	1345		1.0	--	.12	.01	.13	.25	.07	.32	.45
JUN											
07...	1415		1.0	1.4	.03	.04	.07	.06	.94	1.0	1.1
07...	1419		45	1.0	.01	.02	.03	.10	.89	.99	1.0
21...	0900		1.0	2.2	.15	.03	.18	.27	.83	1.1	1.3
21...	0904		44	1.9	.06	.04	.10	.19	.67	.86	.96
AUG											
23...	1300		1.0	1.0	.21	.15	.36	.03	.59	.62	.98
23...	1306		39	2.2	.07	.09	.16	.02	.58	.60	.76
SEP											
22...	0811		1.0	1.3	.06	.07	.13	.04	.64	.68	.81
22...	0816		44	1.3	.04	.04	.08	.05	.77	.82	.90
FEB , 1978											
08...	1045		1.0	.7	.26	.01	.27	.12	.41	.53	.80
08...	1049		44	1.2	.26	.01	.27	.10	.57	.67	.94
JUN											
01...	1300		1.0	1.7	.13	.04	.17	.10	.49	.59	.76
01...	1305		45	1.4	.09	.03	.12	.13	.53	.66	.78
											.040

294252093512000 LINE 377 SITE 02

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	DEMAND,	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	AMONIA +	GEN,	PHORUS,
		DEPTH	BIOCHEM	UNINHIB	TOTAL	TOTAL	NITRITE	NO ₂ +NO ₃	AMMONIA	ORGANIC	TOTAL
		(FT)	(MG/L)	(AS N)	(MG/L)	(AS N)	(MG/L)	(AS N)	(MG/L)	(AS N)	(MG/L)
OCT , 1976											
18...	1530		1.0	.8	.02	.01	.03	.09	.25	.34	.37
18...	1536		40	.7	.01	.01	.02	.11	.48	.59	.61
NOV											
16...	1015		1.0	--	.11	.01	.12	.16	.60	.76	.88
16...	1021		40	--	.03	.01	.04	.09	.44	.53	.57
DEC											
15...	1230		1.0	--	.18	.01	.19	.38	.92	1.3	1.5
15...	1236		40	--	.06	.01	.07	.15	.44	.59	.66
FEB , 1977											
01...	1415		1.0	--	.14	.01	.15	.20	.31	.51	.66
01...	1421		40	--	.00	.02	.02	.16	.08	.24	.26
JUN											
21...	0930		1.0	--	.08	.02	.10	.11	.64	.75	.85
21...	0934		50	--	.02	.01	.03	.06	1.6	1.7	1.7
AUG											
23...	1330		1.0	--	.07	.10	.17	.00	.00	.00	.17
23...	1336		41	--	.06	.08	.14	.00	.14	.14	.28
SEP											
22...	0834		1.0	--	.02	.05	.07	.05	.02	.07	.14
22...	0840		44	--	.01	.02	.03	.07	--	.03	.06
JUN , 1978											
01...	1230		1.0	--	.18	.01	.19	.12	.30	.42	.61
01...	1235		34	--	.10	.02	.12	.20	.80	1.0	1.1
											.040

Table 1B.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

293702093492000 LINE 905 SITE 01

DATE	TIME	SAMP- LING	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	
			GEN, NITRATE TOTAL (MG/L AS N)	GEM, NITRITE TOTAL (MG/L AS N)	NO ₂ +NO ₃ TOTAL (MG/L AS N)	AMMONIA TOTAL (MG/L AS N)	ORGANIC TOTAL (MG/L AS N)	MONIA + ORGANIC TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS N)	PHORUS, TOTAL (MG/L AS NO ₃) AS P)	
OCT , 1976											
18...	1605		1.0	.00	.01	.01	.11	.69	.80	.81	3.6
18...	1611	35	.00	.01	.01	.01	.12	.55	.67	.68	3.0
NOV											
16...	1040		2.0	.02	.01	.03	.07	.38	.45	.48	2.1
16...	1043	29	.00	.01	.01	.01	.06	.71	.77	.78	3.5
JUN , 1977											
21...	1000		1.0	.00	.01	.01	.03	.32	.35	.36	1.6
21...	1004	42	.00	.03	.03	.03	.09	.82	.91	.94	4.2
SEP											
22...	0901		5.0	.00	.01	.01	.03	.02	.05	.06	.30
22...	0905	46	.02	.01	.01	.03	.05	.43	.48	.51	2.3
JUN , 1978											
01...	1205		1.0	.22	.01	.23	.12	.56	.68	.91	4.0
01...	1210	27	.04	.01	.05	.35	.47	.82	.87	.87	3.9

Table 1C.--Quality of water in the Sabine-Neches estuary, water years 1977-78
Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

300953093420600 LINE 015 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MG/L AS HC03)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	
JAN , 1977	31...	1345	1.0	--	34	13	7.0	4.1	19	52	1.4
			POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CAC03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDs, SUM OF CONTEN- TS, DIS- SOLVED (TONS AC-FT)

JAN , 1977
31... 2.7 26 0 21 17 25 .1 7.1 95 .13

295938093465000 LINE 087 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MG/L AS HC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
FEB , 1978	07...	1425	1.0	350	39	23	6.4	5.5	50	72	3.5	2.7
			BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CAC03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDs, SUM OF CONTEN- TS, DIS- SOLVED (TONS AC-FT)	

FEB , 1978
07... 19 0 16 4.8 14 89 .0 7.5 184 .25

300319094014600 LINE 170 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MG/L AS HC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
FEB , 1978	07...	1135	1.0	145	25	11	6.8	2.0	16	56	1.4	2.0
			BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CAC03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDs, SUM OF CONTEN- TS, DIS- SOLVED (TONS AC-FT)	

FEB , 1978
07... 17 0 14 11 15 28 .0 9.9 88 .12

295728093464500 LINE 244 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	
JUN , 1977	21...	0915	1.0	8600	810	780	51	160	1400	78	21

Table 1C.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Chemical Analyses--Continued

295728093464500 LINE 244 SITE 02--Continued

DATE	POTAS-SIUM, DIS-SOLVED (MG/L) AS K)	BICAR-BONATE (MG/L) AS HC03)	CAR-BONATE (MG/L) AS CO3)	ALKALINITY (MG/L) CACO3)	SULFATE DIS-SOLVED (MG/L) AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F)	SILICA, DIS-SOLVED (MG/L) AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, (MG/L) AS SOLVED)	SOLIDS, DIS-SOLVED (TONS) PER AC-FT)
	JUN , 1977 21..	51	42	0	34	350	2300	.2	6.7	4350

295720093474500 LINE 244 SITE 03

DATE	TIME	SPE-CIFIC CON- DUCT- ANCE	HARD-NESS, NONCAR-BONATE (MG/L) AS CACO3)	CALCIUM DIS-SOLVED (MG/L) AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG)	SODIUM, DIS-SOLVED (MG/L) AS NA)	SODIUM RATIO	POTAS-SIUM, AD-SORPTION DIS-SOLVED (MG/L) AS K)			
		DEPTH (FT) (MICRO- MHOS)	(MG/L) CACO3)	(MG/L) AS CA)	(MG/L) AS MG)	(MG/L) AS NA)	PERCENT				
OCT , 1976 18...	1505	1.0	17400	1700	1600	110	340	2800	77	30	110
NOV 16...	1030	1.0	21000	2800	2700	200	550	4600	77	38	180
DEC 15...	1030	1.0	9500	960	920	70	190	1800	79	25	64
FEB , 1977 01...	1025	1.0	--	570	540	45	110	1000	78	18	42
JUN 07...	1030	1.0	14000	1400	1400	100	280	2300	77	27	85
AUG 23...	1325	1.0	11000	1100	1000	80	210	2000	79	27	73
JUN , 1978 01...	0900	1.0	14700	1600	1500	110	310	2500	76	28	110

DATE	BICAR-BONATE (MG/L) AS HC03)	CAR-BONATE (MG/L) AS CO3)	ALKALINITY (MG/L) CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L) AS CO2)	SULFATE DIS-SOLVED (MG/L) AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F)	SILICA, DIS-SOLVED (MG/L) AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, (MG/L) AS SOLVED)	SOLIDS, DIS-SOLVED (TONS) PER AC-FT)
	JUN , 1976 18...	70	0	57	--	690	5200	.6	5.5	9290
NOV 16...	92	0	75	--	1100	7900	.6	3.7	14600	19.9
DEC 15...	46	0	38	--	430	3000	.3	6.2	5580	7.59
FEB , 1977 01...	33	0	27	--	240	1800	.2	7.1	3260	4.43
JUN 07...	59	0	48	--	630	4300	.4	5.9	7730	10.5
AUG 23...	56	0	46	--	480	3400	.3	7.1	6280	8.54
JUN , 1978 01...	68	0	56	2.7	680	4100	.5	5.6	7850	10.7

295402093514300 LINE 274 SITE 04

DATE	SPE-CIFIC CON- DUCT- ANCE	HARD-NESS, NONCAR-BONATE (MG/L) AS CACO3)	CALCIUM DIS-SOLVED (MG/L) AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG)	SODIUM, DIS-SOLVED (MG/L) AS NA)	SODIUM RATIO	POTAS-SIUM, AD-SORPTION DIS-SOLVED (MG/L) AS K)				
	DEPTH (FT) (MICRO- MHOS)	(MG/L) CACO3)	(MG/L) AS CA)	(MG/L) AS MG)	(MG/L) AS NA)	PERCENT					
JUN , 1978 01...	1018	1.0	26600	2900	2800	190	590	5000	78	40	200
JUN , 1978 01...	82	0	57	2.6	1200	8700	.6	2.8	15900	21.6	

Table 1C.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Chemical Analyses--Continued

294735093545900 LINE 300 SITE 02

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHO)	SPE- CIFIC CON- DUCT- ANCE (MG/L CACO ₃)	HARD- NESS, (MG/L CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L CACO ₃)	CALCIUM SOLVED (MG/L AS CA)	MAGNE- SIUM, SOLVED (MG/L AS MG)	SODIUM, SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT , 1976												
18...	1805	1.0	16000	1600	1500	110	320	2600	77	28	100	
NOV												
16...	1400	1.0	26000	3200	3100	220	650	5200	76	40	210	
DEC												
15...	1300	1.0	16000	1700	1600	110	340	2900	77	31	130	
JUN , 1977												
21...	1030	1.0	19000	1800	1800	130	370	3300	78	33	110	
AUG												
23...	1430	1.0	21000	2200	2100	150	440	3000	73	28	140	
SEP												
22...	0940	1.0	--	2300	2300	160	470	3800	77	34	150	

DATE	BICAR- BONATE (MG/L HCO ₃)	CAR- BONATE (MG/L AS CO ₃)	ALKA- LINITY (MG/L CACO ₃)	CARBON DIOXIDE (MG/L AS CO ₂)	DIOXIDE DIS- SOLVED (MG/L AS SO ₄)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTITUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (MG/L AC-FT)
OCT , 1976											
18...	62	0	51	--	630	4900	.5	6.0	8700	11.8	
NOV											
16...	93	0	76	--	1300	9000	.8	3.2	16600	22.6	
DEC											
15...	67	0	55	--	670	5200	.4	5.0	9390	12.8	
JUN , 1977											
21...	66	0	54	--	830	5600	.4	5.4	10400	14.1	
AUG											
23...	70	0	57	--	900	6700	6.7	5.6	11400	15.5	
SEP											
22...	80	0	66	3.2	970	7300	.6	3.8	12900	17.5	

2946060935635000 LINE 308 SITE 02

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHO)	SPE- CIFIC CON- DUCT- ANCE (MG/L CACO ₃)	HARD- NESS, (MG/L CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L CACO ₃)	CALCIUM SOLVED (MG/L AS CA)	MAGNE- SIUM, SOLVED (MG/L AS MG)	SODIUM, SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1978												
08...	1025	--	--	310	290	25	61	510	77	13	21	
BICAR- BONATE (MG/L HCO ₃)	CAR- BONATE (MG/L AS CO ₃)	ALKA- LINITY (MG/L CACO ₃)	CARBON DIOXIDE (MG/L AS CO ₂)	DIOXIDE DIS- SOLVED (MG/L AS SO ₄)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTITUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (MG/L AC-FT)		
FEB , 1978												
08...	25	0	21	--	130	940	.1	6.3	1710	2.33		

294945093571700 LINE 339 SITE 02

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHO)	SPE- CIFIC CON- DUCT- ANCE (MG/L CACO ₃)	HARD- NESS, (MG/L CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L CACO ₃)	CALCIUM SOLVED (MG/L AS CA)	MAGNE- SIUM, SOLVED (MG/L AS MG)	SODIUM, SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
FEB , 1977											
01...	1345	1.0	22000	2500	2500	170	500	4400	78	38	

Table 1C.--Quality of water in the Sabine-Neches estuary, water years 1977-78--Continued
Chemical Analyses--Continued

294945093571700 LINE 339 SITE 02--Continued

DATE	POTAS-	SUM,	BICAR-	ALKA-	SULFATE	CHLO-	FLUO-	SILICA,	SUM OF	SOLIDS,
	DIS-	BONATE	CAR-	LINITY	DIS-	RIDE,	RIDE,	DIS-	CONSTI-	DIS-
	SOLVED	(MG/L)	BONATE	(MG/L)	SOLVED	SOLVED	SOLVED	(MG/L)	TUENTS,	SOLVED
	(MG/L)	AS	(MG/L)	AS	(MG/L)	(MG/L)	(MG/L)	AS	(TONS	
	AS K)	HC03)	AS C03)	CAC03)	AS SO4)	AS CL)	AS F)	SiO2)	SOLVED	PER
	(00935)	(00440)	(00445)	(00410)	(00945)	(00940)	(00950)	(00955)	(70301)	(70303)
FEB 1977										
01...	180	7	0	6	1000	7500	.6	4.8	13800	18.8

Trinity-San Jacinto Estuary

The Trinity-San Jacinto estuary, which has an area of about 590 square miles ($1,530 \text{ km}^2$), consists of the tidal parts of the Trinity and San Jacinto Rivers and other tributaries, the Houston Ship Channel, part of the Intracoastal Waterway, Galveston Bay, East Bay, West Bay, and Trinity Bay (Figure 3). Water depth at mean low water is less than 10 feet (3.0 m) in East Bay, West Bay, and Trinity Bay. Galveston Bay is generally less than 10 feet (3.0 m) deep except near Bolivar Road where the depth increases to about 40 feet (12.2 m). The Houston Ship Channel is more than 40 feet (12.2 m) deep, and the Intracoastal Waterway is about 15 feet deep (4.6 m).

Water-quality data (Table 2) were collected during October-December 1976; February and April-September 1977; and January, February, and June 1978. Data for the San Jacinto River and for the upper part of the Houston Ship Channel are being collected by other agencies.

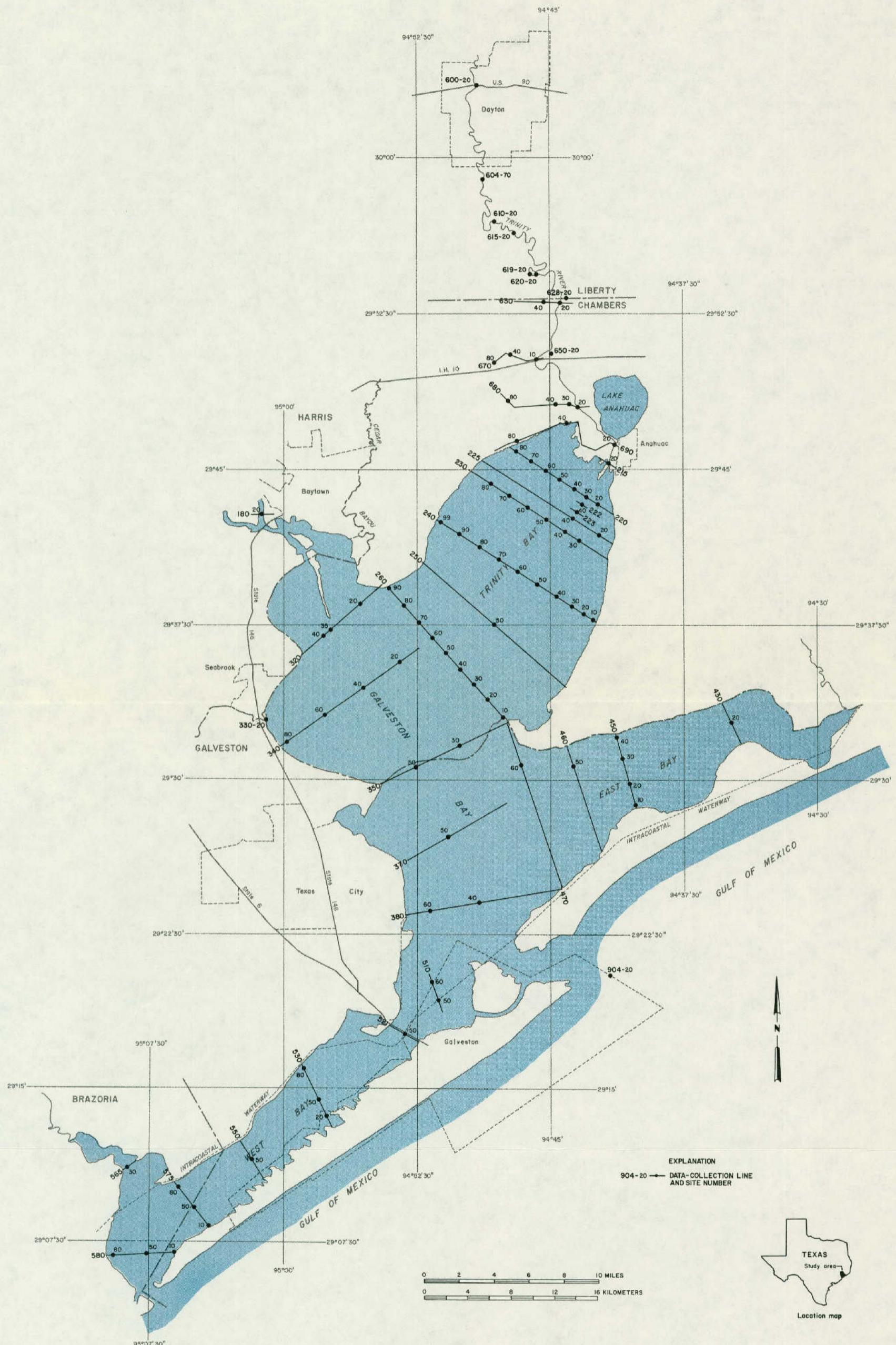


Figure 3
Data-Collection Sites in the Trinity-San Jacinto Estuary

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

294255095011300 LINE 180 SITE 20

DATE	TIME	SAMP-	CIFIC	TRANS-	OXYGEN,	(PER-	CENT
		LING	DUCT-	PAR-	DIS-		
		CON-	ENCY	OXYGEN,	SOLVED		
		(SECCHI	(MG/L)	(M)	(MG/L)		
		DEPTH	(MICRO- MHOS)	(UNITS)	(DEG C)		
		(FT)					
OCT , 1976							
21...	1315	1.0	22000	8.2	18.0	.56	--
21...	1317	20	23000	8.2	18.0	--	--
21...	1319	40	27000	8.3	18.0	--	--
NOV							
18...	1240	1.0	25000	--	12.5	.93	8.3
18...	1242	10	28000	--	12.5	--	7.6
18...	1244	25	37000	--	12.0	--	7.8
18...	1246	42	39000	--	12.0	--	7.9
FEB , 1977							
03...	1445	1.0	22000	7.6	10.5	.59	8.4
03...	1447	10	24000	7.6	10.5	--	8.0
03...	1449	20	25000	7.6	10.0	--	8.0
03...	1451	42	30000	7.8	10.0	--	8.2
JUN							
23...	1315	1.0	18000	8.0	29.5	.38	5.6
23...	1317	10	18000	8.0	29.0	--	5.3
23...	1319	25	18000	7.9	29.0	--	4.8
23...	1321	45	19000	8.0	29.5	--	5.0
AUG							
25...	1230	1.0	24000	7.6	30.5	.47	3.7
25...	1232	10	25000	7.6	30.0	--	2.9
25...	1234	20	26000	7.7	30.0	--	2.9
25...	1236	41	33000	7.8	30.0	--	2.2
FEB , 1978							
08...	1150	1.0	19100	7.9	7.5	--	9.6
08...	1152	20	20000	7.9	7.5	--	9.8
08...	1154	42	23000	8.0	7.5	--	9.8
JUN							
07...	1131	1.0	16500	7.3	27.5	.68	5.5
07...	1132	20	16500	7.3	27.5	--	7.5
07...	1136	45	19400	7.4	27.5	--	7.1

294429094421800 LINE 215 SITE 20

DATE	TIME	SAMP-	CIFIC	TRANS-	OXYGEN,
		LING	DUCT-	PAR-	DIS-
		CON-	ENCY	OXYGEN,	SOLVED
		(SECCHI	(MG/L)	(M)	(MG/L)
		DEPTH	(MICRO- MHOS)	(UNITS)	(DEG C)
		(FT)			
MAY , 1977					
10...	1410	6.0	320	7.5	24.5
10...	1412	12	320	7.5	24.5
				6.5	6.5
					79

294330094421700 LINE 220 SITE 20

DATE	TIME	SAMP-	CIFIC	TRANS-	OXYGEN,
		LING	DUCT-	PAR-	DIS-
		CON-	ENCY	OXYGEN,	SOLVED
		(SECCHI	(MG/L)	(M)	(MG/L)
		DEPTH	(MICRO- MHOS)	(UNITS)	(DEG C)
		(FT)			
DEC , 1976					
10...	1120	1.0	16000	8.6	12.5
10...	1122	4.0	16000	8.6	13.0
13...	1320	1.0	10000	8.6	12.0
13...	1322	5.0	10000	8.6	12.0
29...	1100	1.0	1300	8.0	10.5
29...	1102	2.5	1300	8.0	10.5
				.69	10.1
				--	9.8
				.41	11.5
				--	11.4
				.19	10.2
				--	9.5
					93

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294349094424800 LINE 220 SITE 30

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1445	1.0	800	8.3	16.5	.49	9.4	99
21...	1447	5.0	1500	8.3	16.0	--	8.6	91
21...	1449	8.0	9000	8.2	14.5	--	7.1	74
NOV								
18...	1225	1.0	27000	--	10.5	.34	10.2	95
18...	1227	8.0	42000	--	10.5	--	10.0	94
DEC								
10...	1330	1.0	220	7.7	11.5	--	9.6	91
10...	1332	8.0	220	7.8	11.5	--	9.7	92
13...	1420	1.0	250	8.0	11.5	.13	10.1	95
13...	1422	8.0	250	8.0	11.5	--	10.1	95
28...	1205	1.0	330	7.8	11.0	.33	9.4	88
28...	1207	9.0	330	7.8	11.0	--	9.5	89
29...	1230	1.0	330	7.0	11.0	.25	9.3	87
29...	1232	8.0	330	7.1	11.0	--	9.6	90
JUL , 1977								
06...	1410	1.0	1250	8.2	31.0	.52	7.0	95
06...	1412	5.0	2200	8.1	30.5	--	7.0	95
06...	1414	12	2400	8.1	30.0	--	6.2	84
SEP								
20...	1200	1.0	12000	8.3	27.5	.45	7.1	95
20...	1202	3.0	16000	8.2	27.5	--	5.8	78
20...	1204	5.0	18000	8.2	27.5	--	4.0	54
20...	1206	10	17000	8.2	27.5	--	4.0	54

294416094433300 LINE 220 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
DEC , 1976								
10...	1145	1.0	8500	8.3	12.0	.28	10.0	99
10...	1147	6.0	17000	8.6	11.5	--	10.0	101
13...	1335	1.0	2100	8.4	11.5	.25	10.0	103
13...	1337	5.0	19000	8.5	11.5	--	7.0	71
29...	1115	1.0	550	8.1	10.5	.22	10.4	96
29...	1117	3.5	550	8.1	10.5	--	10.5	97
JUL , 1977								
06...	1340	1.0	2600	8.1	30.5	.43	7.4	100
06...	1342	6.0	2600	7.9	29.5	--	6.4	85
SEP								
20...	1140	1.0	13000	8.5	27.5	.60	6.9	92
20...	1142	5.0	19000	8.2	27.5	--	4.3	59
20...	1144	7.5	19000	8.2	27.5	--	4.1	56

294443094441700 LINE 220 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1535	1.0	10000	8.6	15.5	.37	11.0	117
21...	1537	6.0	17000	8.4	15.0	--	8.7	95
NOV								
18...	1210	1.0	17000	--	10.0	1.16	11.0	107
18...	1212	6.0	21000	--	10.0	--	9.8	97

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294513094450300 LINE 220 SITE 60

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
							(MG/L)	CENT	
								SATUR-	
								ATION)	
DEC , 1976									
10...	1155	1.0	11000	8.3	12.0	.56	10.1	101	
10...	1157	6.0	14000	8.4	12.0	--	9.8	99	
13...	1345	1.0	8000	8.4	12.5	.30	10.8	108	
13...	1347	6.0	10000	8.4	12.0	--	10.0	99	
29...	1125	1.0	720	8.2	10.5	.23	10.4	96	
29...	1127	4.0	930	8.2	10.5	--	10.0	93	
SEP , 1977									
20...	1130	1.0	15000	8.5	27.5	.40	6.5	87	
20...	1132	5.5	17000	8.2	27.5	--	4.1	55	

294541094454900 LINE 220 SITE 70

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
							(MG/L)	CENT	
								SATUR-	
								ATION)	
OCT , 1976									
21...	1545	1.0	15000	8.6	16.0	.52	11.8	130	
21...	1547	6.0	16000	8.4	15.0	--	9.4	102	
NOV									
18...	1200	1.0	18000	--	10.0	.94	10.8	105	
18...	1202	5.0	20000	--	10.0	--	9.5	94	

294611094463800 LINE 220 SITE 80

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
							(MG/L)	CENT	
								SATUR-	
								ATION)	
DEC , 1976									
10...	1205	1.0	9000	8.4	12.5	.36	9.8	98	
10...	1207	5.0	10000	8.4	12.5	--	9.8	98	
13...	1400	1.0	9000	8.4	12.5	.30	11.0	110	
13...	1402	3.0	10000	8.5	12.5	--	11.1	111	
29...	1135	2.0	600	8.3	11.0	--	11.1	105	
JUL , 1977									
06...	1330	1.0	1500	8.5	31.5	.42	7.2	99	
06...	1332	5.0	2400	8.5	31.0	--	6.9	95	

294322094430700 LINE 222 SITE 40

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
							(MG/L)	CENT	
								SATUR-	
								ATION)	
DEC , 1976									
10...	1400	1.0	3000	7.8	11.5	9.5	91		
10...	1402	4.0	4500	8.0	12.0	9.8	95		
10...	1404	6.0	12000	8.4	12.0	9.8	98		

294256094432600 LINE 223 SITE 40

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
							(MG/L)	CENT	
								SATUR-	
								ATION)	
DEC , 1976									
10...	1350	1.0	15000	8.5	13.0	.51	10.6	109	
10...	1352	8.0	18000	8.4	11.5	--	9.2	93	

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294149094422400 LINE 225 SITE 20

DATE	TIME	SAMP-	CPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PAR-	DIS-
DEPTH	CON-	ANCE	ENCY	ENCY	SOLVED			
(FT)	MICRO-	(MICRO-	(SECCHI	OXYGEN,	(PER-			
	MHOS)	MHOS)	DISK)	DIS-	CENT			
			(M)	SOLVED	SATUR-			
				(MG/L)	ATION)			
DEC , 1976								
10...	1315	1.0	19000	8.6	12.0	.41	10.2	105
10...	1317	6.5	19000	8.6	12.0	--	10.2	105

294232094434400 LINE 225 SITE 40

DATE	TIME	SAMP-	CPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PAR-	DIS-
DEPTH	CON-	ANCE	ENCY	ENCY	SOLVED			
(FT)	MICRO-	(MICRO-	(SECCHI	OXYGEN,	(PER-			
	MHOS)	MHOS)	DISK)	DIS-	CENT			
			(M)	SOLVED	SATUR-			
				(MG/L)	ATION)			
DEC , 1976								
10...	1250	1.0	19000	8.6	12.0	.56	10.1	103
10...	1252	5.0	19000	8.6	12.0	--	10.2	105

294122094424400 LINE 230 SITE 20

DATE	TIME	SAMP-	CPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PAR-	DIS-
DEPTH	CON-	ANCE	ENCY	ENCY	SOLVED			
(FT)	MICRO-	(MICRO-	(SECCHI	OXYGEN,	(PER-			
	MHOS)	MHOS)	DISK)	DIS-	CENT			
			(M)	SOLVED	SATUR-			
				(MG/L)	ATION)			
DEC , 1976								
13...	1300	1.0	8000	8.4	12.5	.33	10.2	102
13...	1302	5.0	9000	8.4	12.0	--	10.1	100
13...	1304	7.0	21000	8.6	12.0	--	9.0	94
29...	1215	1.0	650	8.1	11.0	.20	10.3	96
29...	1217	5.5	2200	8.1	10.5	--	10.0	93
APR , 1977								
26...	1345	1.0	390	8.0	23.0	.20	9.8	117
26...	1347	3.5	420	8.0	20.5	--	8.7	99
26...	1349	7.0	460	7.7	20.5	--	8.1	92
MAY								
04...	1315	1.5	500	8.1	25.0	.11	7.0	86
04...	1317	7.0	500	8.1	25.0	--	7.7	95
JUN								
16...	1300	1.0	5200	8.5	27.0	.32	8.1	105
16...	1302	8.0	5200	8.5	27.0	--	7.8	101
JUL								
06...	1105	1.0	3500	8.4	31.5	.31	7.3	100
06...	1107	7.0	3500	8.2	30.0	--	6.5	87
SEP								
20...	1040	1.0	21000	8.2	27.5	.58	6.4	89
20...	1042	7.0	21000	8.2	27.0	--	5.5	75

294143094432200 LINE 230 SITE 30

DATE	TIME	SAMP-	CPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PAR-	DIS-
DEPTH	CON-	ANCE	ENCY	ENCY	SOLVED			
(FT)	MICRO-	(MICRO-	(SECCHI	OXYGEN,	(PER-			
	MHOS)	MHOS)	DISK)	DIS-	CENT			
			(M)	SOLVED	SATUR-			
				(MG/L)	ATION)			
FEB , 1977								
03...	1230	1.0	14000	--	9.0	.41	10.2	96
03...	1232	6.0	20000	--	9.0	--	8.7	84
JUN								
23...	1120	1.0	4000	--	29.5	.28	6.6	88
23...	1122	7.0	--	--	29.5	--	6.3	84
AUG								
26...	1415	1.0	16000	8.3	30.0	.57	7.2	101
26...	1417	7.5	16000	8.2	29.5	--	5.5	78
FEB , 1978								
08...	1435	1.0	13000	8.3	6.0	--	10.9	94
08...	1437	6.0	17000	8.1	6.0	--	10.3	91
JUN								
05...	1345	1.0	1700	8.2	29.5	.83	9.1	121
05...	1347	8.0	2000	8.1	28.5	--	5.2	68

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

29420509440400 LINE 230 SITE 40

DATE	TIME	SAMP-	DUCT-	SPE-	TRANS-	OXYGEN,	
				CIFIC		DIS-	SOLVED
		LING	ANCE	PH	TEMPER-	(SECCHI	(PER-
				(MICRO-	(DEG C)	(DISK)	CENT
				MHOS)		(M)	(MG/L)
DEC , 1976							
13...	1250	1.0	11000	8.6	11.5	.36	10.8
13...	1252	5.0	14000	8.6	12.0	--	10.9
13...	1254	8.0	19000	8.6	11.5	--	9.3
29...	1210	1.0	620	8.1	11.0	.20	10.3
29...	1212	5.5	620	8.1	11.0	--	10.3
APR , 1977							
26...	1400	1.0	390	7.8	23.0	.30	8.6
26...	1402	4.0	370	7.7	21.0	--	7.9
26...	1404	8.5	390	7.6	20.5	--	6.9
MAY							
04...	1300	1.5	380	8.0	25.0	--	7.5
04...	1302	7.0	380	8.1	25.0	--	7.5
10...	1325	1.0	380	8.3	25.0	.36	8.4
10...	1327	4.0	380	8.3	25.0	--	8.2
10...	1329	7.0	380	8.1	25.0	--	7.5
11...	0815	1.0	430	8.2	22.5	--	8.1
11...	0817	7.0	420	8.1	22.5	--	8.1
11...	1040	1.0	400	8.3	23.0	--	8.7
11...	1042	7.0	400	8.2	22.5	--	8.6
16...	1415	1.0	460	8.4	25.0	.27	8.2
16...	1417	7.0	460	8.4	25.0	--	8.2
17...	0835	1.0	450	8.2	24.5	.17	7.6
17...	0837	7.0	460	8.2	24.5	--	7.5
31...	1720	1.0	1400	8.6	31.0	.32	10.3
31...	1722	2.0	1000	8.4	29.5	--	9.2
31...	1724	3.5	840	7.9	28.5	--	7.4
31...	1726	7.5	1500	7.6	28.5	--	4.9
JUN							
01...	0925	1.0	2800	8.5	28.5	.27	7.2
01...	0927	7.5	3000	8.4	28.5	--	7.1
16...	1255	1.0	5000	8.3	27.0	.26	7.7
16...	1257	8.0	5000	8.3	27.0	--	7.3
JUL							
06...	1051	1.0	4500	8.4	31.0	.48	7.3
06...	1053	4.0	5000	8.4	30.0	--	6.5
06...	1055	8.0	5500	8.3	29.5	--	6.0
SEP							
20...	1050	1.0	22000	8.4	27.5	.55	5.6
20...	1052	5.0	22000	8.3	27.5	--	4.9
20...	1054	8.0	22000	8.3	27.5	--	4.5

294239094450700 LINE 230 SITE 50

DATE	TIME	SAMP-	DUCT-	SPE-	TRANS-	OXYGEN,	
				CIFIC		DIS-	SOLVED
		LING	ANCE	PH	TEMPER-	(SECCHI	(PER-
				(MICRO-	(DEG C)	(DISK)	CENT
				MHOS)		(M)	(MG/L)
FEB , 1977							
03...	1245	1.0	13000	--	9.0	.46	10.0
03...	1247	6.0	20000	--	9.0	--	9.0
JUN							
23...	1130	1.0	4500	--	29.0	.23	7.2
23...	1132	9.0	4500	--	29.5	--	6.5
AUG							
26...	1400	1.0	14000	8.2	30.0	.39	7.3
26...	1402	8.0	14000	8.2	29.5	--	6.7
FEB , 1978							
08...	1420	1.0	12000	8.5	6.5	--	10.9
08...	1422	6.0	17000	8.2	7.0	--	10.4
JUN							
05...	1334	1.0	1700	8.1	28.0	.86	8.5
05...	1336	9.0	1900	7.8	28.5	--	4.7

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294313094460800 LINE 230 SITE 60

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-	SOLVED			
		LING	CIFIC							
		DEPTH	(MICRO-	ANCE	PH	TEMPER-	ENCY	OXYGEN,	DIS-	SATUR-
		(FT)	MHOS)	(UNITS)		(DEG C)	(SECCHI	(MG/L)	SOLVED	(PER-
DEC , 1976										
10...	1230	1.0	20000	8.6	12.0	.51	10.7	110		
10...	1232	7.5	20000	8.6	12.0	--	10.6	109		
13...	1240	1.0	15000	8.6	12.0	.43	11.1	112		
13...	1242	7.0	16000	8.6	11.5	--	9.9	100		
29...	1200	1.0	1300	8.3	11.0	.24	10.6	100		
29...	1202	6.0	1300	8.3	11.0	--	10.8	102		
APR , 1977										
26...	1410	1.0	340	8.0	23.5	.27	9.8	118		
26...	1412	4.0	340	7.6	21.0	--	7.7	89		
26...	1414	8.0	360	7.6	21.0	--	6.6	76		
MAY										
04...	1330	1.5	350	7.6	25.0	--	8.1	100		
04...	1332	8.0	350	8.0	25.0	--	7.6	94		
10...	1345	1.0	340	8.2	25.5	.29	8.2	102		
10...	1347	8.0	350	8.1	25.0	--	7.5	93		
17...	0845	1.0	2400	8.3	25.0	.14	7.3	91		
17...	0847	9.0	2500	8.3	25.0	--	7.0	88		
JUN										
16...	1230	1.0	5200	8.3	27.0	--	7.3	95		
16...	1232	8.0	5500	8.3	27.0	--	7.1	92		
JUL										
06...	1120	1.0	6000	8.5	31.5	.61	7.1	99		
06...	1122	5.0	6700	8.4	30.5	--	6.2	85		
06...	1124	8.0	7500	8.3	30.5	--	5.8	79		
SEP										
20...	1100	1.0	20000	8.3	27.5	.48	6.0	82		
20...	1102	3.0	20000	8.4	27.5	--	5.4	74		
20...	1104	5.0	21000	8.3	27.5	--	3.9	54		
20...	1106	7.5	21000	8.2	27.5	--	3.4	47		

294346094470800 LINE 230 SITE 70.

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-	SOLVED			
		LING	CIFIC							
		DEPTH	(MICRO-	ANCE	PH	TEMPER-	ENCY	OXYGEN,	DIS-	SATUR-
		(FT)	MHOS)	(UNITS)		(DEG C)	(SECCHI	(MG/L)	SOLVED	(PER-
FEB , 1977										
03...	1300	1.0	13000	--	9.0	.48	10.3	96		
03...	1302	7.0	21000	--	9.0	--	9.0	87		
JUN										
23...	1140	1.0	4000	--	29.5	.29	6.8	91		
23...	1142	8.0	4000	--	29.5	--	6.8	92		
AUG										
26...	1335	1.0	18000	8.2	31.0	.30	6.1	87		
26...	1337	8.0	18000	8.2	30.5	--	5.6	80		
FEB , 1978										
08...	1368	1.0	12000	8.3	6.0	--	11.1	96		
08...	1400	6.0	13000	8.2	6.0	--	11.1	96		
JUN										
05...	1323	1.0	1600	8.1	28.5	.88	8.9	116		
05...	1325	9.0	1900	7.5	28.5	--	4.4	57		

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294420094480900 LINE 230 SITE 80

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
DEC , 1976								
10...	1215	1.0	4500	8.4	12.5	--	10.0	98
10...	1217	6.0	12000	8.3	12.5	--	9.4	95
13...	1230	1.0	12000	8.6	12.0	.66	11.1	111
13...	1232	5.5	15000	8.6	12.0	--	11.1	112
29...	1142	4.0	8100	8.0	13.5	--	9.9	101
APR , 1977								
26...	1430	1.0	360	7.8	24.0	--	8.7	106
26...	1432	4.5	450	7.5	23.0	--	6.9	82
26...	1434	3.0	370	7.5	23.0	--	6.7	80
26...	1436	6.0	6800	7.8	23.0	--	7.1	87
MAY								
04...	1350	1.5	400	7.5	25.0	--	7.1	88
04...	1352	7.0	400	7.5	25.0	--	7.2	89
JUN								
16...	1210	1.0	7000	8.6	27.5	.37	8.8	114
16...	1212	6.0	8000	8.5	27.0	--	8.3	109
JUL								
06...	1140	1.0	3500	8.5	32.5	.44	7.5	104
06...	1142	4.0	3800	8.5	32.5	--	7.5	104
06...	1144	6.0	10000	8.3	32.5	--	6.4	92
SEP								
20...	1120	1.0	21000	8.4	28.0	.53	7.0	99
20...	1122	5.0	23000	8.3	27.5	--	5.3	73
20...	1124	7.5	23000	8.3	27.5	--	5.4	74

29374609443300 LINE 240 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
DEC , 1976								
13...	1115	1.0	11000	8.5	11.0	.30	10.1	99
13...	1117	6.0	11000	8.6	11.0	--	10.1	99
APR , 1977								
26...	1330	1.0	440	8.0	22.5	--	8.7	102
26...	1332	3.5	470	7.9	20.5	--	7.8	89
26...	1334	7.0	470	7.9	21.0	--	7.5	86
MAY								
05...	1345	1.0	600	7.6	24.5	--	8.0	98
05...	1347	12	600	7.6	24.5	--	8.1	99
31...	1440	1.0	1500	8.5	28.0	.26	9.0	117
31...	1442	4.0	1800	8.4	28.5	--	7.3	95
31...	1444	8.0	2000	8.1	28.0	--	6.2	81
JUN								
16...	0900	1.0	6600	8.4	26.0	.50	7.3	94
16...	0902	8.0	6700	8.4	26.0	--	7.2	92

29381009441100 LINE 240 SITE 30

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
OCT , 1976								
21...	1425	1.0	14000	8.5	15.5	.46	9.3	101
21...	1427	5.0	19000	8.4	15.5	--	8.4	93
21...	1429	7.0	25000	8.3	15.5	--	7.4	84
NOV								
18...	1115	1.0	17000	--	9.5	1.10	10.9	105
18...	1117	9.0	25000	--	10.0	--	9.6	97
FEB , 1977								
03...	1430	1.0	18000	--	9.0	.41	9.9	94
03...	1432	8.0	21000	--	9.0	--	8.7	84
JUN								
23...	1300	1.0	6000	--	29.0	.40	7.5	100
23...	1302	9.0	6000	--	29.0	--	7.1	95
AUG								
26...	1240	1.0	21000	8.4	30.0	.66	7.0	101
26...	1242	9.5	24000	8.3	29.5	--	5.6	82
FEB , 1978								
08...	1445	1.0	19000	8.2	6.0	--	10.7	96
08...	1447	6.0	19000	8.2	6.0	--	10.6	94
JUN								
05...	1243	1.0	1800	8.2	28.5	.82	8.8	114
05...	1245	10	2300	8.0	28.0	--	5.6	73

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued.
Field Determinations--Continued

293850094451500 LINE 240 SITE 40

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		DEPTH	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
		(FT)					(MG/L)	CENT	
								SATUR-	
								ATION)	
DEC , 1976									
13...	1130	1.0	15000	8.6	11.5	.46	10.2	102	
13...	1132	8.5	15000	8.6	11.0	--	10.1	100	
APR , 1977									
26...	1315	1.0	480	8.1	23.5	.15	9.1	110	
26...	1317	2.5	500	7.9	21.0	--	7.8	900	
26...	1319	4.0	520	7.9	20.5	--	7.5	85	
26...	1321	8.5	530	7.8	21.0	--	7.3	84	
JUN									
16...	0905	1.0	8700	8.5	26.0	.39	7.3	94	
16...	0907	10	8700	8.5	26.0	--	7.3	94	
JUL									
06...	1305	1.0	5400	8.6	31.5	.60	7.6	106	
06...	1307	5.0	10000	8.5	31.0	--	7.2	100	
06...	1309	9.0	10000	8.5	30.5	--	6.4	89	

293927094461100 LINE 240 SITE 50

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		DEPTH	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
		(FT)					(MG/L)	CENT	
								SATUR-	
								ATION)	
OCT , 1976									
21...	1412	1.0	18000	8.4	16.0	.43	9.3	103	
21...	1414	5.0	23000	8.4	15.0	--	8.4	93	
21...	1416	9.0	27000	8.3	15.5	--	7.6	87	
JUN , 1977									
23...	1235	1.0	8000	--	29.0	.38	7.3	99	
23...	1237	10	9000	--	29.0	--	6.9	93	
AUG									
26...	1255	1.0	25000	8.4	30.0	.67	7.1	103	
26...	1257	9.0	26000	8.3	29.5	--	5.8	86	
JUN , 1978									
05...	1253	1.0	2000	8.3	28.5	.92	8.6	112	
05...	1255	10	2300	8.1	29.0	--	6.1	80	

294004094470900 LINE 240 SITE 60

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,		
		LING	ANCE				(MICRO-	ATURE	DISK)
		DEPTH	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	(PER-	
		(FT)					(MG/L)	CENT	
								SATUR-	
								ATION)	
DEC , 1976									
13...	1140	1.0	18000	8.7	11.5	.46	10.2	103	
13...	1142	9.0	22000	8.6	11.6	--	9.6	99	
APR , 1977									
26...	1300	1.0	510	8.1	23.5	.17	9.0	108	
26...	1302	3.0	780	7.9	21.5	--	7.4	86	
26...	1304	4.5	800	7.8	21.0	--	7.1	82	
26...	1306	9.0	650	7.8	21.0	--	7.0	80	
MAY									
05...	1215	1.0	350	7.4	24.0	.18	7.5	91	
05...	1217	10	350	7.0	24.0	--	7.8	95	
31...	1505	1.0	2500	8.6	30.0	.30	9.7	129	
31...	1507	4.5	2200	8.1	27.5	--	6.5	83	
31...	1509	9.0	3100	8.2	27.5	--	6.4	83	
JUN									
16...	0915	1.0	8100	8.3	26.5	.29	6.7	87	
16...	0917	10	8100	8.3	26.5	--	6.8	88	
JUL									
06...	1220	1.0	8000	8.5	31.5	.51	7.4	104	
06...	1222	5.0	8400	8.5	30.0	--	7.1	97	
06...	1224	9.0	9700	8.4	30.0	--	5.8	79	

Table 2A--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294042094480700 LINE 240 SITE 70

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING-	CIFIC	PAR-	DIS-			
DEPTH	DUCT-	ANCE	(MICRO-	ENCY	ENCY	SOLVED		
(FT)	MHOS)	(UNITS)	MHOS)	(DEG C)	(SECCHI	(PER-		
				(M)	DIS-	CENT		
					SOLVED	(MG/L)		
					OXYGEN,	SATUR-		
					(MG/L)	ATION)		
OCT , 1976								
21...	1400	1.0	24000	8.4	16.0	.52	8.9	102
21...	1402	5.0	27000	8.4	15.5	--	8.3	95
21...	1404	9.0	28000	8.3	15.5	--	7.9	91
NOV								
18...	1130	1.0	18000	--	9.5	1.25	11.1	107
18...	1132	8.0	26000	--	10.0	--	9.3	95
JUN , 1977								
23...	1210	1.0	13000	--	29.0	.34	6.8	93
23...	1212	9.0	14000	--	29.0	--	6.4	88
AUG								
26...	1310	1.0	24000	8.4	30.0	--	7.0	101
26...	1312	9.0	24000	8.3	29.5	--	5.7	83
FEB , 1978								
08...	1343	1.0	17000	8.3	6.0	--	10.6	94
08...	1345	6.0	18000	8.2	6.0	--	10.6	94
JUN								
05...	1301	1.0	2100	8.3	28.5	1.06	8.5	112
05...	1303	11	2300	8.2	29.0	--	6.9	91

294120094490600 LINE 240 SITE 80

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING-	CIFIC	PAR-	DIS-			
DEPTH	DUCT-	ANCE	(MICRO-	ENCY	ENCY	SOLVED		
(FT)	MHOS)	(UNITS)	MHOS)	(DEG C)	(SECCHI	(PER-		
				(M)	DIS-	CENT		
					SOLVED	(MG/L)		
					OXYGEN,	SATUR-		
					(MG/L)	ATION)		
DEC , 1976								
13...	1200	1.0	21000	8.6	11.5	.36	10.3	106
13...	1202	8.0	21000	8.6	12.0	--	10.2	106
APR , 1977								
26...	1240	1.0	900	8.3	23.5	.21	10.1	122
26...	1242	2.5	1150	8.2	22.0	--	9.2	108
26...	1244	4.0	1400	7.9	21.0	--	7.6	88
26...	1246	8.5	1300	7.9	21.5	--	7.6	88
JUN								
16...	0930	1.0	8200	8.3	26.5	.23	6.8	88
16...	0932	9.0	8200	8.3	26.5	--	6.3	82
JUL								
06...	1205	1.0	9000	8.4	31.5	.51	68.0	96
06...	1207	5.0	9000	8.4	31.0	--	6.5	90
06...	1209	8.0	9000	8.3	31.0	--	5.7	79

294158094500500 LINE 240 SITE 90

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING-	CIFIC	PAR-	DIS-			
DEPTH	DUCT-	ANCE	(MICRO-	ENCY	ENCY	SOLVED		
(FT)	MHOS)	(UNITS)	MHOS)	(DEG C)	(SECCHI	(PER-		
				(M)	DIS-	CENT		
					SOLVED	(MG/L)		
					OXYGEN,	SATUR-		
					(MG/L)	ATION)		
OCT , 1976								
21...	1350	1.0	22000	8.4	16.0	.55	9.1	103
21...	1352	3.0	25000	8.4	16.0	--	8.3	95
NOV								
18...	1140	1.0	20000	--	9.5	1.28	11.0	107
18...	1142	8.0	27000	--	10.0	--	9.4	96
FEB , 1977								
03...	1315	1.0	10000	--	9.0	.43	10.7	99
03...	1317	6.0	12000	--	--	--	9.7	91
JUN								
23...	1200	1.0	13000	--	29.0	.20	6.5	89
23...	1202	8.0	13000	--	29.0	--	6.5	89
AUG								
26...	1320	1.0	16000	8.4	30.0	.50	7.2	101
26...	1322	8.0	16000	8.4	30.0	--	6.9	97
FEB , 1978								
08...	1340	1.0	16000	8.3	7.0	--	10.6	97
08...	1342	6.0	16000	8.3	7.0	--	10.4	95
JUN								
05...	1314	1.0	1900	8.2	28.5	.90	8.4	109
05...	1316	9.0	2000	8.1	29.0	--	6.7	88

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294236094510400 LINE 240 SITE 99

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
						(M)	OXYGEN, DIS- SOLVED (MG/L)	
DEC , 1976								
13..	1215	1.0	16000	8.6	12.0	.56	10.6	108
13..	1217	6.0	16000	8.6	12.0	--	10.6	107
APR , 1977								
26..	1226	1.0	1800	8.1	21.5	.27	9.7	113
26..	1227	5.0	3000	8.1	21.5	--	8.7	102
MAY								
05..	1145	1.0	1200	7.8	24.0	--	7.4	90
05..	1147	6.0	1200	7.9	24.0	--	7.6	93
31..	1526	1.0	5500	8.5	29.5	.40	8.3	112
31..	1527	5.0	5500	8.4	29.5	--	7.9	107
JUN								
16..	0945	1.0	13000	8.4	26.5	.24	7.0	92
16..	0947	6.0	13000	8.2	26.5	--	6.5	86

293754094480600 LINE 250 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
						(M)	OXYGEN, DIS- SOLVED (MG/L)	
JUL , 1977								
06..	1225	1.0	13000	8.6	31.5	.76	7.8	109
06..	1227	5.0	13000	8.4	30.5	--	6.2	87
06..	1229	10	13000	8.4	30.0	--	5.8	80

293348094482800 LINE 260 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
						(M)	OXYGEN, DIS- SOLVED (MG/L)	
OCT , 1976								
21..	1255	1.0	22000	8.3	15.0	.43	8.5	94
21..	1257	6.0	22000	8.3	15.0	--	8.4	93
NOV								
18..	1030	1.0	16000	--	9.5	.88	10.9	105
18..	1032	6.0	19000	--	9.5	--	10.6	103
DEC								
13..	1030	1.0	19000	8.6	11.5	.25	9.4	96
13..	1032	6.0	19000	8.6	11.0	--	9.3	94
FEB , 1977								
03..	1400	1.0	17000	--	9.0	.46	9.7	92
03..	1402	4.0	19000	--	8.5	--	9.0	86
APR								
26..	1055	1.0	4600	8.1	21.0	.17	8.3	97
26..	1057	2.5	5200	8.1	21.0	--	7.5	89
26..	1059	4.0	5600	8.1	21.0	--	7.3	86
26..	1101	8.0	6200	8.0	21.5	--	6.9	82
MAY								
05..	1020	1.5	2800	7.8	23.5	--	7.4	90
05..	1022	7.0	2800	7.8	23.5	--	7.9	96
11..	0910	1.0	720	8.3	23.5	--	7.5	90
11..	0912	7.0	740	8.4	23.5	--	7.5	90
17..	1030	1.0	7800	8.4	24.5	.18	7.9	100
17..	1032	7.0	8800	8.3	24.5	--	7.5	95
19..	0930	1.0	4700	8.3	25.0	--	7.4	92
19..	0932	8.0	7600	8.2	25.0	--	6.3	79
31..	1610	1.0	4200	8.5	30.0	.34	9.3	124
31..	1612	3.5	4400	8.2	28.5	--	7.5	99
31..	1614	7.0	4800	8.0	28.0	--	6.0	79
JUN								
16..	1115	1.0	8000	8.5	26.5	.25	7.1	92
16..	1117	8.0	8000	8.4	26.5	--	6.6	86
AUG								
26..	1220	1.0	29000	8.5	30.0	.45	7.2	108
26..	1222	8.0	29000	8.5	29.5	--	6.8	100
FEB , 1978								
08..	1510	1.0	18000	8.2	7.0	--	10.6	97
08..	1512	7.0	19000	8.2	7.0	--	10.5	97
07..	0947	1.0	27000	8.0	27.0	.21	6.7	94
07..	0949	6.0	32000	8.0	27.0	--	6.5	94

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

293519094500800 LINE 260 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
OCT , 1976								
21...	1305	1.0	19000	8.4	15.5	.52	8.2	91
21...	1307	7.0	23000	8.3	15.5	--	7.5	88
NOV								
18...	1045	1.0	23000	--	9.5	1.49	10.6	105
18...	1047	7.0	24000	--	9.5	--	10.5	105
DEC								
13...	0950	1.0	22000	8.6	11.5	.30	9.8	101
13...	0952	9.0	22000	8.5	11.5	--	9.8	101
APR , 1977								
26...	1110	1.0	2000	8.2	21.5	.18	8.9	103
26...	1112	2.5	3700	8.2	21.5	--	8.4	99
26...	1114	4.0	5100	8.3	21.0	--	8.0	94
26...	1116	8.0	5400	8.3	21.0	--	8.0	94
MAY								
05...	1030	1.5	1300	7.8	24.0	.10	7.5	91
05...	1032	8.0	1200	7.7	24.0	--	7.9	96
11...	0920	1.0	1100	8.4	24.0	.11	7.5	91
11...	0922	8.5	1100	8.4	24.0	--	7.6	93
19...	0945	1.0	1500	8.4	24.5	.11	7.3	90
19...	0947	10	1400	8.3	25.0	--	7.2	89
31...	1620	1.0	5700	8.5	30.0	.34	9.4	127
31...	1622	9.5	7200	7.9	27.5	--	5.9	77
JUN								
16...	1100	1.0	13000	8.3	26.5	.35	6.8	90
16...	1102	9.5	13000	8.4	26.5	--	6.8	90
AUG								
25...	1205	1.0	28000	8.4	29.5	.45	7.3	108
26...	1207	9.0	28000	8.4	29.5	--	6.9	101
JUN , 1978								
07...	1003	1.0	26000	8.0	27.0	.20	6.6	92
07...	1005	7.0	26000	8.1	27.0	--	6.5	91

293650094514800 LINE 260 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
OCT , 1976								
21...	1315	1.0	25000	8.3	16.0	.58	8.2	94
21...	1317	5.0	25000	8.3	15.5	--	8.0	91
21...	1319	9.0	29000	8.2	16.0	--	7.3	86
NOV								
18...	1110	1.0	24000	--	10.0	1.28	10.5	106
18...	1112	9.0	29000	--	10.5	--	9.5	99
DEC								
13...	0930	1.0	21400	8.3	11.5	.46	9.4	97
13...	0932	9.0	22000	7.2	11.5	--	9.5	98
FEB , 1977								
03...	1345	1.0	18000	--	9.0	.48	10.0	95
03...	1347	7.0	22000	--	9.0	--	8.9	86
APR								
26...	1120	1.0	6550	8.7	21.5	.34	11.1	133
26...	1122	3.0	6300	8.6	21.5	--	10.5	126
26...	1124	4.5	6600	8.5	21.0	--	8.8	103
26...	1126	9.0	6600	8.5	21.0	--	8.5	100
MAY								
05...	1045	1.5	1200	7.9	24.0	--	7.8	95
05...	1047	9.0	1000	7.9	24.0	--	7.6	93
11...	0940	1.0	5300	8.4	24.5	.15	7.4	92
11...	0942	10	5500	8.4	24.5	--	7.9	99
17...	1045	1.0	1470	8.5	24.5	.09	7.6	94
17...	1047	11	1200	8.6	24.5	--	7.5	93
19...	0955	1.0	3200	8.2	24.5	.12	7.0	86
19...	0957	10	3200	8.2	24.5	--	6.9	85
31...	1635	1.0	6600	8.5	30.0	.42	9.1	123
31...	1637	5.0	6700	8.2	27.5	--	7.0	92
31...	1639	10	9500	8.0	27.5	--	5.6	75
JUN								
16...	1020	1.0	17900	8.5	26.5	.28	6.7	90
16...	1022	10	18000	8.4	26.5	--	6.6	87
AUG								
25...	1140	1.0	21000	8.3	29.5	.55	6.2	88
25...	1142	9.5	21000	8.3	29.0	--	5.6	80
FEB , 1978								
06...	1310	1.0	24000	8.1	6.5	--	10.3	96
06...	1312	9.0	23000	8.1	6.0	--	10.5	94
JUN								
07...	1015	1.0	27400	8.1	27.0	.30	6.7	94
07...	1017	9.0	27200	8.1	27.0	--	6.5	91

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

293821094532900 LINE 260 SITE 80

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1330	1.0	27000	8.4	16.0	.58	9.0	105
21...	1332	5.0	26000	8.4	15.5	--	8.8	101
21...	1334	9.0	29000	8.4	15.5	--	7.8	91
NOV								
18...	1125	1.0	24000	--	10.0	1.13	10.4	105
18...	1127	9.0	29000	--	10.5	--	9.2	96
DEC								
13...	0915	1.0	18000	8.2	11.5	.94	9.5	96
13...	0917	9.0	25000	8.1	12.0	--	8.6	91
FEB , 1977								
03...	1330	1.0	7000	--	9.0	.36	10.5	95
03...	1332	8.0	25000	--	9.0	--	8.9	87
APR								
26...	1140	1.0	4300	8.5	21.0	.46	11.3	131
26...	1142	3.0	5300	8.4	21.5	--	10.3	122
26...	1144	5.0	6800	8.1	21.0	--	8.2	97
26...	1146	10	8000	8.1	21.0	--	7.1	85
MAY								
05...	1115	1.5	1200	7.8	24.0	--	7.8	95
05...	1117	10	1200	7.8	24.0	--	7.8	95
11...	0955	1.0	1500	8.5	24.5	.17	7.4	91
11...	0957	9.0	1600	8.5	24.5	--	7.3	90
17...	1115	1.0	9400	8.6	25.0	.18	7.4	94
17...	1117	10	9500	8.5	25.0	--	7.1	90
19...	1010	1.0	6200	8.3	25.0	.16	7.6	95
19...	1012	9.5	7100	8.3	25.0	--	7.3	91
31...	1650	1.0	8200	8.5	31.0	.29	9.6	135
31...	1652	4.5	8900	8.4	30.5	--	8.9	124
31...	1654	7.0	9000	8.1	28.5	--	5.7	77
31...	1656	9.5	9000	8.2	28.5	--	5.6	75
JUN								
16...	1010	1.0	19000	8.3	26.5	.28	6.5	87
16...	1012	9.0	19000	8.4	26.5	--	6.4	86
AUG								
26...	1110	1.0	18000	8.3	29.0	.45	6.7	93
26...	1112	8.5	19000	8.2	28.5	--	6.2	86
FEB , 1978								
08...	1235	1.0	21000	8.1	7.0	--	10.4	97
08...	1237	7.0	21000	8.1	7.0	--	10.4	97
JUN								
07...	1045	1.0	27000	8.2	27.0	.60	6.8	96
07...	1047	8.0	28000	8.2	27.0	--	6.7	94

293829094560900 LINE 320 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
NOV , 1976								
18...	1245	1.0	27000	--	11.5	.75	8.9	91
18...	1247	6.0	28000	--	12.0	--	8.7	93
FEB , 1977								
03...	1355	1.0	20000	8.7	9.0	.38	12.0	115
03...	1357	8.0	21000	8.7	9.0	--	11.3	110
AUG								
26...	1120	1.0	19000	8.3	29.5	.51	6.4	91
26...	1122	8.5	19000	8.3	29.5	--	6.1	86
FEB , 1978								
08...	1225	1.0	22000	8.2	7.0	--	10.2	94
08...	1227	6.0	22000	8.1	7.5	--	10.1	96
JUN								
07...	1058	1.0	26000	8.1	27.0	.50	6.6	92
07...	1100	6.0	27000	8.1	27.0	--	6.5	91

293722094573200 LINE 320 SITE 35

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
23...	1245	1.0	19000	8.0	29.0	.40	5.8	82
23...	1247	10	20000	8.0	29.0	--	5.4	76
23...	1249	20	23000	7.9	29.0	--	5.0	71
23...	1251	34	23000	7.9	29.5	--	4.4	63

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

293707094574800 LINE 320 SITE 40

		SAMP-	SPE-	TRANS-	OXYGEN,		
		LING	CIFIC	PAR-	DIS-		
		TIME	CON-	ENCY	SOLVED		
DATE	DEPTH	(MICRO-	(MHOH)	(SECCHI	OXYGEN,		
	(FT)	(UNITS)	(DEG C)	DISK)	DIS-		
				(M)	SOLVED		
FEB , 1977					(MG/L)	SATUR-	
03...	1410	1.0	29000	8.5	10.0	--	ATION)
03...	1412	5.0	30000	8.4	9.5	--	12.3 127
03...	1414	10	31000	8.3	9.5	--	11.4 116
03...	1416	20	34000	8.2	9.0	--	10.0 103
03...	1418	39	41000	8.0	8.5	--	9.0 93
AUG							
25...	1205	1.0	28000	8.1	30.0	.58	7.2 106
25...	1207	5.0	28000	8.1	30.0	--	7.2 106
25...	1209	9.5	29000	8.0	30.0	--	4.6 68
FEB , 1978							
08...	1113	1.0	25000	8.2	7.0	--	10.0 94
08...	1115	9.0	25000	8.2	7.0	--	10.0 94
JUN							
07...	1205	1.0	22000	7.7	27.5	.58	6.5 90
07...	1207	8.0	26000	7.9	27.5	--	6.3 90

293253095010400 LINE 330 SITE 20

		SAMP-	SPE-	TRANS-	OXYGEN,		
		LING	CIFIC	PAR-	DIS-		
		TIME	CON-	ENCY	SOLVED		
DATE	DEPTH	(MICRO-	(MHOH)	(SECCHI	OXYGEN,		
	(FT)	(UNITS)	(DEG C)	DISK)	DIS-		
				(M)	SOLVED		
OCT , 1976					(MG/L)	SATUR-	
21...	1220	2.0	24000	6.7	17.0	.63	-- --
21...	1222	5.0	24000	6.7	17.0	--	-- --
21...	1224	17	24000	7.5	17.0	--	-- --
NOV							
18...	1335	1.0	22000	--	12.0	.68	10.6 110
18...	1337	8.0	24000	--	11.5	--	9.9 103
18...	1339	17	26000	--	11.0	--	9.2 102
FEB , 1977							
03...	1305	1.0	19000	8.6	10.5	.40	10.6 106
03...	1307	5.0	20000	8.6	10.5	--	10.6 106
03...	1309	15	20000	8.6	10.5	--	10.6 106
JUN							
23...	1155	1.0	22000	8.2	29.0	.42	6.3 89
23...	1157	10	23000	8.3	29.0	--	6.4 91
23...	1159	20	23000	8.3	30.0	--	6.3 91
AUG							
25...	1125	1.0	28000	8.2	30.0	.33	6.7 99
25...	1127	10	28000	8.2	29.5	--	5.2 76
25...	1129	19	28000	8.2	29.5	--	4.7 68
FEB , 1978							
08...	0945	1.0	18000	8.4	7.0	--	9.9 90
08...	0947	18	20000	8.3	6.5	--	10.0 91
JUN							
07...	1305	1.0	26000	8.2	27.5	.35	6.3 90
07...	1307	10	26000	8.2	27.5	--	6.4 91
07...	1309	23	27000	8.3	27.5	--	6.3 90

293549094535000 LINE 340 SITE 20

		SAMP-	SPE-	TRANS-	OXYGEN,		
		LING	CIFIC	PAR-	DIS-		
		TIME	CON-	ENCY	SOLVED		
DATE	DEPTH	(MICRO-	(MHOH)	(SECCHI	OXYGEN,		
	(FT)	(UNITS)	(DEG C)	DISK)	DIS-		
				(M)	SOLVED		
NOV , 1976					(MG/L)	SATUR-	
18...	1055	1.0	27000	--	10.0	1.59	10.2 104
18...	1057	9.0	29000	--	10.5	--	9.6 100
FEB , 1977							
03...	1210	1.0	22000	8.5	8.5	.39	9.9 96
03...	1212	5.0	30000	8.5	8.5	--	9.4 94
03...	1216	10	32000	8.5	9.0	--	9.3 95
JUN							
23...	1100	1.0	23000	8.1	29.0	.50	6.2 88
23...	1102	10	23000	8.1	29.0	--	5.3 76
AUG							
25...	1030	1.0	23000	8.4	30.0	.78	6.9 100
25...	1032	5.0	26000	8.3	29.0	--	5.8 84
25...	1034	11	28000	8.1	29.0	--	3.6 52
FEB , 1978							
08...	1255	1.0	19000	8.2	6.0	--	10.6 94
08...	1257	8.0	22000	8.1	6.5	--	10.4 96
JUN							
07...	1025	1.0	27000	8.1	27.0	.30	6.7 94
07...	1027	9.0	29000	8.1	26.5	--	6.7 94

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

293428094553800 LINE 340 SITE 40

DATE	TIME	SAMP- LING	DUCT- (MICRO- (FT)	SPE- CIFIC CON- CENTR- (MHOS)	PH	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
OCT , 1976									
21...	1155	2.0	--	8.4	17.0	.56	--	--	
21...	1157	10	29000	8.4	17.0	--	--	--	
21...	1159	20	30000	8.3	17.0	--	--	--	
21...	1201	38	35000	8.4	17.5	--	--	--	
NOV									
18...	1035	1.0	28000	--	10.3	1.14	9.9	102	
18...	1037	20	37000	--	11.0	--	8.6	95	
18...	1039	44	44000	--	11.5	--	8.2	95	
FEB , 1977									
03...	1145	1.0	28000	8.9	9.0	--	11.7	117	
03...	1147	5.0	30000	8.7	9.0	--	10.4	105	
03...	1149	10	32000	8.7	9.0	--	10.1	103	
03...	1151	20	35000	8.5	8.5	--	9.2	94	
03...	1153	40	39000	8.3	8.5	--	8.8	92	
JUN									
23...	1045	1.0	22100	8.1	29.0	.40	5.4	78	
23...	1047	10	23000	8.1	29.0	--	5.2	75	
23...	1049	20	24000	8.0	29.0	--	5.2	74	
23...	1051	33	26000	8.0	29.0	--	4.4	63	
AUG									
25...	1010	1.0	25000	8.2	29.0	--	5.7	82	
25...	1012	10	33000	8.2	29.5	--	4.9	74	
25...	1014	20	38000	8.2	29.5	--	5.0	78	
25...	1016	45	42000	8.1	29.5	--	3.8	61	
FEB , 1978									
08...	1045	1.0	22000	8.3	6.5	--	10.4	96	
08...	1047	20	28000	8.3	6.0	--	10.2	94	
08...	1049	48	38000	8.5	6.0	--	9.4	93	
JUN									
07...	1225	1.0	30100	8.1	27.5	.50	6.6	95	
07...	1227	20	33000	8.1	28.0	--	6.4	94	
07...	1229	45	30800	8.1	28.0	--	6.3	92	

293301094573200 LINE 340 SITE 60

DATE	TIME	SAMP- LING	DUCT- (MICRO- (FT)	SPE- CIFIC CON- CENTR- (MHOS)	PH	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
NOV , 1976									
18...	1005	1.0	28000	--	10.5	1.12	10.1	104	
18...	1007	9.0	29000	--	10.5	--	10.0	104	
FEB , 1977									
03...	1230	1.0	28000	8.7	9.0	.48	10.7	107	
03...	1232	5.0	28000	8.7	9.0	--	10.3	103	
03...	1234	10	29000	8.6	9.0	--	10.1	102	
JUN									
23...	1120	1.0	23000	8.1	28.5	.47	6.2	87	
23...	1122	11	23000	8.1	29.0	--	6.0	86	
AUG									
25...	1100	1.0	29000	8.3	30.0	.50	8.3	124	
25...	1102	3.0	29000	8.4	30.0	--	7.9	118	
25...	1104	5.0	29000	8.3	29.5	--	5.9	87	
25...	1106	11	29000	8.2	29.0	--	4.8	71	
FEB , 1978									
08...	1025	1.0	25000	8.4	6.0	--	10.3	94	
08...	1027	10	27000	8.3	5.5	--	10.2	93	
JUN									
07...	1243	1.0	27000	8.1	27.5	.45	6.7	96	
07...	1245	10	28000	8.1	27.0	--	6.6	92	

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

293133094592900 LINE 340 SITE 80

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(DISK)	(PER-
		DEPTH	(MICRO-	(UNITS)	(DEG C)	(M)	SOLVED	CENT
		(FT)	MHOS)				(MG/L)	SATUR-
NOV , 1976								
18...	0950	1.0	26000	--	10.5	.93	10.2	105
18...	0952	8.0	27000	--	10.5	--	9.8	101
FEB , 1977								
03...	1250	1.0	29000	8.4	10.5	--	9.7	101
03...	1252	5.0	29000	8.4	10.5	--	9.6	100
03...	1254	9.0	29000	8.4	10.5	--	9.1	95
JUN								
23...	1140	1.0	23000	8.2	29.0	.37	6.3	89
23...	1142	8.0	23000	8.2	29.0	--	5.7	82
AUG								
25...	1115	1.0	29000	8.2	29.5	.42	5.9	87
25...	1117	7.5	29000	8.2	29.5	--	4.8	71
FEB , 1978								
08...	1013	1.0	26000	8.4	6.0	--	10.2	94
08...	1015	9.0	27000	8.4	5.5	--	10.2	93
JUN								
07...	1325	1.0	28000	8.2	27.5	.70	6.7	96
07...	1327	10	28000	8.2	27.5	--	6.6	95

293133094501400 LINE 350 SITE 30

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(DISK)	(PER-
		DEPTH	(MICRO-	(UNITS)	(DEG C)	(M)	SOLVED	CENT
		(FT)	MHOS)				(MG/L)	SATUR-
NOV , 1976								
17...	1215	2.0	26000	--	9.0	.34	9.7	97
17...	1217	10	26000	--	9.0	--	9.6	96
APR , 1977								
26...	1040	1.0	2200	8.2	21.0	.17	9.0	105
26...	1042	3.0	2900	8.1	21.0	--	8.3	97
26...	1044	5.0	4800	8.2	21.0	--	7.6	90
26...	1046	10	4500	8.5	21.5	--	7.8	92
MAY								
05...	1005	1.5	3000	7.8	23.5	--	7.7	94
05...	1007	9.0	2800	7.6	23.5	--	7.4	90
11...	0950	1.0	6300	8.3	24.0	.23	7.3	91
11...	0952	5.0	6700	8.3	24.0	--	7.1	89
11...	0954	10	7800	8.2	24.5	--	6.3	79
17...	1005	1.0	5700	8.3	24.5	.12	7.4	93
17...	1007	9.0	5700	8.3	24.5	--	7.5	94
31...	1600	1.0	4800	8.4	27.5	.28	8.5	110
31...	1602	5.5	8000	8.0	27.5	--	5.9	78
31...	1604	11	10000	7.9	27.5	--	5.3	72
JUN								
23...	0955	1.0	23000	8.1	29.0	.40	5.6	80
23...	0957	11	24000	8.2	29.0	--	5.5	79
AUG								
24...	1205	1.0	32000	8.2	29.0	.53	7.0	103
24...	1207	10	32000	8.2	29.0	--	6.1	89
25...	0955	1.0	32000	8.2	29.0	.48	6.0	88
25...	0957	11	32000	8.2	29.0	--	5.5	82
FEB , 1978								
08...	1525	1.0	18000	8.1	6.0	--	10.6	93
08...	1527	8.0	20000	8.1	6.5	--	10.4	95
09...	1233	1.0	22000	8.1	6.0	--	10.7	97
09...	1235	6.0	23000	8.1	6.0	--	10.7	97
JUN								
06...	1122	1.0	30000	8.2	28.0	.30	6.5	95
06...	1124	10	30000	8.2	28.0	--	6.5	95
07...	0933	1.0	28000	7.9	27.5	.30	6.6	95
07...	0935	10	29000	8.0	27.0	--	6.6	94

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

293030094523500 LINE 350 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1125	2.0	27000	8.3	16.7	.63	--	--
21...	1127	10	28000	8.3	17.0	--	--	--
21...	1129	20	31000	8.3	17.0	--	--	--
21...	1131	46	36000	8.3	17.5	--	--	--
NOV								
17...	1225	2.0	32000	--	10.0	1.16	9.9	103
17...	1227	10	32000	--	10.0	--	9.9	103
17...	1229	20	36000	--	11.0	--	8.8	97
17...	1231	40	40000	--	12.0	--	8.2	94
FEB , 1977								
03...	1100	1.0	30000	8.5	8.5	.76	9.0	90
03...	1102	5.0	31000	8.5	8.5	--	8.8	89
03...	1104	10	32000	8.5	8.5	--	8.8	89
03...	1106	20	34000	8.4	8.5	--	8.5	87
03...	1108	45	45000	8.2	8.5	--	8.0	87
JUN								
23...	1015	1.0	28000	8.2	29.0	.53	5.9	86
23...	1017	10	28000	8.2	29.0	--	5.7	83
23...	1019	25	34000	8.1	29.0	--	5.3	79
23...	1021	40	39000	8.1	29.0	--	4.1	63
AUG								
25...	0935	1.0	34000	8.3	29.5	.46	6.5	99
25...	0937	10	37000	8.2	29.5	--	5.7	88
25...	0939	20	43000	8.2	30.0	--	5.5	88
25...	0941	37	44000	8.2	30.0	--	5.4	86
FEB , 1978								
09...	1300	1.0	25000	8.1	6.5	--	10.8	100
09...	1302	20	27000	8.1	6.5	--	10.7	100
09...	1304	40	35000	8.2	7.0	--	10.2	101
JUN								
06...	1140	2.0	33000	8.2	28.5	.40	6.4	96
06...	1142	20	34000	8.2	28.5	--	6.5	97
06...	1144	42	34000	8.2	28.0	--	6.5	96

292653094503200 LINE 370 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1100	2.0	31000	8.4	18.0	.55	--	--
21...	1102	20	36000	8.4	18.5	--	--	--
21...	1104	42	36000	8.5	18.5	--	--	--
NOV								
17...	1250	2.0	32000	--	10.0	--	9.8	102
17...	1252	10	32000	--	10.0	--	9.7	101
17...	1254	20	34000	--	10.0	--	9.4	99
17...	1255	40	40000	--	11.5	--	8.3	94
FEB , 1977								
03...	1035	1.0	20000	8.6	9.0	.46	9.8	94
03...	1037	5.0	30000	8.4	8.5	--	9.0	90
03...	1039	10	34000	8.3	8.5	--	8.8	89
03...	1041	20	36000	8.3	8.5	--	8.6	88
03...	1043	45	45000	8.2	8.5	--	8.1	89
JUN								
23...	0935	1.0	29000	8.2	29.0	.57	5.8	86
23...	0937	10	31000	8.2	29.0	--	5.5	80
23...	0939	25	39000	8.1	29.0	--	4.6	71
23...	0941	42	42000	8.1	29.0	--	4.6	71
AUG								
25...	0920	1.0	37000	8.3	29.5	.59	5.6	86
25...	0922	10	46000	8.2	29.5	--	5.1	82
25...	0924	20	50000	8.1	30.0	--	5.2	87
25...	0926	41	51000	8.1	29.5	--	5.4	89
FEB , 1978								
09...	1320	1.0	27000	8.2	6.0	--	10.9	101
09...	1322	20	32000	8.2	6.5	--	10.5	101
09...	1324	43	35000	8.2	6.5	--	10.4	101
JUN								
06...	1100	2.0	32000	8.4	28.5	.40	6.5	96
06...	1104	41	33000	8.3	28.5	--	6.5	97

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

292427094463700 LINE 380 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
20...	1505	1.0	35000	8.1	17.5	.36	--	--
20...	1507	5.0	34000	8.1	17.5	--	--	--
20...	1509	11	35000	8.1	17.0	--	--	--
21...	1010	1.0	34000	7.9	17.5	.25	--	--
21...	1012	12	35000	7.5	18.0	--	--	--
NOV								
17...	1345	2.0	32000	--	10.0	.52	9.6	100
17...	1347	15	36000	--	10.0	--	9.1	97
FEB , 1977								
03...	0940	1.0	42000	8.2	9.0	.25	8.8	95
03...	0942	10	42000	8.2	9.0	--	8.9	96
JUN								
22...	1300	1.0	45000	--	29.0	.43	9.5	151
22...	1302	16	45000	--	29.0	--	9.1	145
AUG								
24...	1315	1.0	47000	8.0	30.0	1.00	6.6	107
24...	1317	10	50000	8.0	29.5	--	5.5	90
FEB , 1978								
09...	1335	1.0	28000	8.2	6.0	--	10.7	99
09...	1337	10	29000	8.2	6.0	--	10.6	99

292401094490700 LINE 380 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
20...	1520	1.0	26000	8.0	17.5	.69	--	--
20...	1522	15	26000	8.1	18.0	--	--	--
20...	1524	30	27000	8.1	18.0	--	--	--
20...	1526	42	36000	8.1	18.0	--	--	--
21...	1040	2.0	36000	8.1	18.5	.74	--	--
21...	1042	20	36000	8.2	19.0	--	--	--
21...	1044	43	36000	8.0	19.0	--	--	--
NOV								
17...	1315	2.0	32000	--	10.0	.61	9.7	101
17...	1317	15	36000	--	10.0	--	9.1	97
17...	1319	30	30000	--	10.0	--	9.4	97
FEB , 1977								
03...	1000	1.0	41000	8.2	8.5	.45	8.5	90
03...	1002	10	42000	8.2	8.5	--	8.5	90
03...	1004	45	46000	8.2	8.5	--	8.2	89
JUN								
22...	1315	1.0	46000	--	29.0	1.17	9.6	153
22...	1317	20	45000	--	28.5	--	9.0	143
22...	1319	46	46000	--	28.5	--	9.2	145
AUG								
24...	1245	1.0	46000	8.1	30.0	.80	6.6	106
24...	1247	10	50000	8.0	29.5	--	5.9	96
24...	1249	20	52000	8.0	29.5	--	5.2	86
24...	1251	41	52000	8.0	29.5	--	5.2	86
25...	0905	1.0	50000	8.1	29.5	.72	5.5	92
25...	0907	10	53000	8.1	29.5	--	5.3	88
25...	0909	22	53000	8.1	29.5	--	5.3	88
25...	0911	45	53000	8.1	29.5	--	5.1	85
FEB , 1978								
09...	1353	1.0	29000	8.1	6.0	--	10.8	101
09...	1355	20	29000	8.2	6.0	--	10.6	99
09...	1357	44	33000	8.1	6.0	--	10.3	99
JUN								
06...	1215	2.0	34100	8.3	28.0	.83	6.4	94
06...	1217	20	33000	8.3	28.5	--	6.4	95
06...	1219	40	34100	8.3	28.0	--	6.2	91

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

292327094513300 LINE 380 SITE 60

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DEPTH (FT)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976									
20...	1540	1.0	29000		8.2	16.0	.53	--	--
20...	1544	7.0	29000		8.1	16.0	--	--	--
NOV									
17...	1330	2.0	31000		--	9.0	.64	10.3	104
17...	1332	12	25000		--	9.5	--	9.8	98
FEB , 1977									
03...	1015	1.0	36000		8.3	85.0	.62	8.8	90
03...	1017	9.0	40000		8.2	8.5	--	8.6	89
JUN									
22...	1313	1.0	46000		--	29.5	.40	7.7	124
22...	1315	10	46000		--	29.0	--	8.7	138
AUG									
24...	1300	1.0	47000		8.0	20.0	.71	6.1	99
24...	1302	10	47000		7.9	29.5	--	5.5	89
FEB , 1978									
09...	1400	1.0	29000		8.1	6.0	--	10.8	101
09...	1402	7.0	29000		8.1	6.0	--	10.6	99
JUN									
06...	1039	1.0	33000		8.3	28.5	.48	6.6	99
06...	1041	7.0	33000		8.3	28.5	--	6.5	97

293243094345200 LINE 430 SITE 20

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DEPTH (FT)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976									
21...	1055	1.0	24000		8.0	14.5	.70	8.8	98
21...	1057	5.0	24000		7.7	14.5	--	8.7	97
NOV									
17...	1015	1.0	22000		--	7.5	.55	10.7	101
17...	1017	5.0	22000		--	8.0	--	10.7	102
FEB , 1977									
02...	1230	1.0	18000		--	7.5	.20	9.6	88
02...	1232	6.0	18000		--	7.5	--	9.0	83
JUN									
22...	0845	1.0	15000		--	28.0	.33	8.5	115
22...	0847	6.0	16000		--	28.5	--	8.9	123
AUG									
24...	1000	1.0	25000		8.1	29.0	.44	4.8	68
24...	1002	4.0	25000		8.1	28.5	--	5.3	75
FEB , 1978									
09...	1100	1.0	16000		8.2	5.5	--	11.3	98
09...	1102	4.0	17000		8.2	5.5	--	11.3	98
JUN									
06...	0949	1.0	34000		8.0	28.0	.29	6.2	91
06...	0950	6.0	34000		8.0	28.0	--	6.2	91

292841094402900 LINE 450 SITE 10

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DEPTH (FT)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976									
21...	1125	1.0	24000		8.3	14.5	.37	8.6	96
21...	1127	3.0	24000		8.3	14.5	--	8.5	94
NOV									
17...	1105	3.0	25000		--	8.0	.52	10.8	104
FEB , 1977									
02...	1300	1.0	21000		--	7.5	.61	9.7	92
02...	1302	5.0	21000		--	8.0	--	9.7	92
JUN									
22...	0915	1.0	20000		--	28.5	.50	11.7	162
22...	0917	5.0	20000		--	28.5	--	11.7	162
AUG									
24...	1115	1.0	25000		8.2	28.5	.57	6.3	90
24...	1117	5.0	25000		8.2	28.5	--	5.6	81
FEB , 1978									
09...	1128	1.0	18000		8.3	6.0	--	11.4	101
09...	1130	3.0	18000		8.2	6.0	--	11.2	99
JUN									
06...	0900	1.0	33000		8.0	27.5	.33	6.2	91
06...	0902	4.0	33000		8.0	27.5	--	6.1	90

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

292950094404100 LINE 450 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1133	1.0	24000	8.3	15.0	.46	8.4	94
21...	1135	6.0	24000	8.3	15.0	--	8.4	94
NOV								
17...	1100	2.0	24500	--	8.0	.43	10.5	101
17...	1102	7.0	24500	--	8.0	--	10.5	101
FEB , 1977								
02...	1330	1.0	25000	--	8.0	.66	9.5	91
02...	1332	7.0	25000	--	8.0	--	9.5	91
JUN								
22...	0920	1.0	19000	--	29.0	.57	10.6	150
22...	0922	8.0	19000	--	29.0	--	9.6	136
AUG								
24...	1100	1.0	30000	8.2	29.0	.43	5.8	86
24...	1102	6.0	30000	8.1	29.0	--	5.8	86
FEB , 1978								
09...	1135	1.0	22000	8.4	6.0	--	11.3	102
09...	1137	6.0	22000	8.4	6.0	--	11.1	100
JUN								
06...	0906	1.0	33000	8.1	27.5	.31	6.1	90
06...	0908	7.0	33000	8.1	27.5	--	6.1	90

293058094405400 LINE 450 SITE 30

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1143	1.0	24000	8.3	14.5	.43	8.4	93
21...	1145	7.0	24000	8.3	14.0	--	8.4	92
NOV								
17...	1050	2.0	26000	--	9.0	.52	10.0	100
17...	1052	7.0	26000	--	9.0	--	10.1	101
FEB , 1977								
02...	1345	1.0	25000	--	8.0	.51	9.3	89
02...	1347	7.0	25000	--	8.0	--	9.3	89
JUN								
22...	0930	1.0	19000	--	29.0	.46	11.0	155
22...	0932	8.0	19000	--	29.0	--	10.7	151
FEB , 1978								
09...	1145	1.0	22000	8.4	6.0	--	11.1	100
09...	1147	5.0	23000	8.3	6.0	--	11.1	100
JUN								
06...	0915	1.0	33000	8.1	28.0	.28	6.4	94
06...	0917	8.0	33000	8.1	27.5	--	6.2	91

293206094410600 LINE 450 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
21...	1153	1.0	24000	8.4	14.5	.61	8.7	97
21...	1155	4.0	24000	8.4	14.5	--	8.7	97
NOV								
17...	1045	1.0	23500	--	8.5	1.01	10.8	105
17...	1047	4.0	23500	--	8.5	--	10.9	106
FEB , 1977								
02...	1400	1.0	21000	--	7.5	.53	9.7	92
02...	1402	4.0	21000	--	7.5	--	9.7	92
JUN								
22...	0940	1.0	15000	--	29.0	.23	10.8	147
22...	0942	6.0	15000	--	29.0	--	10.4	142
AUG								
24...	1035	1.5	30000	8.1	28.5	--	5.9	86
FEB , 1978								
09...	1153	1.0	21000	8.4	6.0	--	10.9	98
09...	1155	4.0	22000	8.2	6.0	--	10.9	98
JUN								
06...	0925	1.0	30000	8.1	28.0	.20	6.1	88
06...	0927	8.0	31000	8.1	27.5	--	6.1	88

Table 2A---Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

292720094451300 LINE 470 SITE 30

DATE	TIME	SAMP- LING DEPTH (FT)	SPECI- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
OCT , 1976								
21...	1220	1.0	24000	8.3	15.0	.40	8.1	91
21...	1222	6.0	24000	8.3	15.0	--	7.8	88
NOV								
17...	1130	2.0	27000	--	9.0	.46	10.0	100
17...	1132	7.0	27000	--	9.0	--	9.9	99
FEB , 1977								
02...	1430	1.0	32000	--	8.0	.51	9.2	92
02...	1432	8.0	32000	--	8.0	--	9.2	92
JUN								
22...	1150	1.0	19000	--	29.5	.54	10.7	151
22...	1152	6.0	19000	--	29.0	--	10.5	114
AUG								
24...	1130	1.0	34000	8.2	29.0	.53	6.2	92
24...	1132	7.0	41000	8.0	29.0	--	4.6	71
JUN , 1978								
06...	0818	1.0	33000	8.2	28.0	.27	6.7	99
06...	0820	8.0	33000	8.1	27.5	--	6.6	97

293029094462800 LINE 470 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	SPECI- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
OCT , 1976								
21...	1103	1.0	23000	8.3	14.5	.43	8.5	93
21...	1105	6.0	23000	8.3	14.5	--	8.5	93
NOV								
17...	1150	1.0	17000	--	9.0	.34	10.6	101
17...	1152	6.0	17000	--	9.0	--	10.7	102
FEB , 1977								
02...	1410	1.0	26000	--	8.0	.38	9.2	89
02...	1412	6.0	25000	--	8.0	--	9.4	90
JUN								
22...	0945	1.0	16000	--	29.0	.25	11.0	153
22...	0947	7.0	14000	--	29.0	--	10.6	145
AUG								
24...	1150	1.0	35000	8.1	29.0	.52	6.0	89
24...	1152	7.0	36000	8.1	29.0	--	5.6	85
FEB , 1978								
09...	1210	1.0	24000	8.2	6.0	--	10.9	100
09...	1212	6.0	26000	8.2	6.0	--	10.8	100
JUN								
06...	0833	1.0	33900	8.3	28.0	.22	6.2	91
06...	0835	9.0	33800	8.2	28.0	--	6.5	95

291926094511000 LINE 510 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	SPECI- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
FEB , 1977								
02...	0915	1.0	38000	8.3	7.5	.89	9.2	94
02...	0917	7.0	40000	8.3	7.5	--	9.2	94

292013094513400 LINE 510 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	SPECI- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
OCT , 1976								
20...	1300	1.0	34000	8.2	17.0	.60	7.3	89
20...	1302	5.0	34000	8.2	17.0	--	7.2	88
20...	1304	7.0	35000	8.2	17.0	--	7.2	88
NOV								
17...	1435	1.0	40000	8.3	10.5	.66	9.5	105
17...	1437	10	40000	8.3	10.5	--	9.5	105

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

291744094531200 LINE 521 SITE 50

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
20...	1320		1.0	37000	8.2	16.0	.54	7.2
20...	1322		5.0	37000	8.2	16.0	--	7.0
20...	1324		14	37000	8.2	16.0	--	7.2
NOV								
17...	1415		1.0	38000	8.3	10.0	.52	9.7
17...	1417		9.0	39000	8.3	10.0	--	9.7
FEB , 1977								
02...	0940		1.0	36000	8.3	8.0	.90	9.3
02...	0942		5.0	40000	8.3	8.0	--	9.1
02...	0944		12	40000	8.3	8.0	--	9.1
JUN								
22...	0905		1.0	45000	8.3	29.0	.34	5.6
22...	0907		13	44000	8.3	28.5	--	5.4
AUG								
24...	0930		1.0	49000	8.1	28.5	.53	5.5
24...	0932		12	52000	8.1	29.0	--	5.1
JAN , 1978								
25...	1030		1.0	37000	7.9	6.5	--	10.5
25...	1032		10	36000	7.7	6.5	--	10.8
FEB								
09...	1000		1.0	36000	8.3	6.5	--	11.0
09...	1002		13	37000	8.3	6.0	--	10.0
JUN								
07...	0914		1.0	41000	7.9	27.5	.19	5.8
07...	0916		14	41000	7.9	27.5	--	5.8
291339094573400 LINE 530 SITE 20								
DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
20...	1350		1.0	38000	8.3	16.0	.64	8.2
20...	1352		2.5	38000	8.3	16.0	--	8.1
NOV								
17...	1045		2.0	36000	8.3	9.0	2.00	10.3
FEB , 1977								
02...	1035		2.0	36000	8.1	8.0	.76	9.6
AUG								
24...	1030		1.0	52000	8.2	29.5	.47	5.5
24...	1032		4.0	52000	8.2	29.5	--	9.1
FEB , 1978								
09...	1050		1.0	37000	8.4	6.5	.75	10.8
09...	1052		4.0	37000	8.4	6.0	--	10.0
JUN								
07...	0959		1.0	42000	7.9	27.0	.21	5.8
07...	1000		4.0	42000	7.9	27.0	--	5.8
291428094575900 LINE 530 SITE 50								
DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOES)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976								
20...	1400		1.0	39000	8.3	16.0	.76	7.8
20...	1402		6.0	39000	8.3	16.0	--	7.8
NOV								
17...	1015		1.0	37000	8.3	9.0	.60	9.7
17...	1017		6.5	37000	8.3	9.0	--	9.7
FEB , 1977								
02...	1025		1.0	41000	8.2	8.0	.66	9.4
02...	1027		6.0	37000	8.2	8.0	--	9.6
JUN								
22...	0940		1.0	45000	8.3	28.5	.64	5.8
22...	0942		6.5	45000	8.3	28.5	--	5.8
AUG								
24...	1020		1.0	49000	8.1	29.0	.62	5.6
24...	1022		7.0	49000	8.1	29.0	--	5.7
FEB , 1978								
09...	1040		1.0	36000	8.3	6.0	.56	10.2
09...	1042		8.0	36000	8.3	6.0	--	10.2
JUN								
07...	0949		1.0	44200	7.9	27.5	.23	5.7
07...	0950		7.0	44200	7.9	27.5	--	5.7
291428094575900 LINE 530 SITE 50								

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

291601094585200 LINE 530 SITE 80

DATE	TIME	SAMP-	SPC-	TRANS-	OXYGEN,			
		LING	CIFIC					
		DEPTH	DUCT-	PH	TEMPER-	ENCY	SOLVED	SOLVED
		(FT)	(MICRO-	(UNITS)	(DEG C)	(SECCHI	(PER-	(PER-
			MHOS)			DISK)	CENT	CENT
OCT , 1976								
20...	1415	1.0	39000	8.4	16.0	.72	8.1	100
20...	1417	4.0	39000	8.4	16.0	--	8.4	104
NOV								
17...	1000	1.0	36000	8.3	8.5	1.42	9.8	101
17...	1002	5.0	36000	8.3	8.5	--	10.6	110
FEB , 1977								
02...	1010	1.0	40000	8.2	7.5	.44	9.5	97
02...	1012	4.5	40000	8.2	8.0	--	9.4	97
JUN								
22...	0925	1.0	39000	8.3	28.5	.24	6.0	91
22...	0927	4.5	40000	8.3	28.5	--	6.0	91
AUG								
24...	1010	1.0	47000	8.1	29.0	.35	5.9	93
24...	1012	3.5	47000	8.1	28.5	--	5.9	94
FEB , 1978								
09...	1030	1.0	35000	8.4	6.0	.66	10.7	103
09...	1032	5.5	35000	8.4	5.5	--	10.3	97
JUN								
07...	0940	1.0	39000	8.0	27.5	.40	5.8	87
07...	0942	4.0	41000	8.0	27.5	--	5.6	87

291127095015500 LINE 550 SITE 50

DATE	TIME	SAMP-	SPC-	TRANS-	OXYGEN,			
		LING	CIFIC					
		DEPTH	DUCT-	PH	TEMPER-	ENCY	SOLVED	SOLVED
		(FT)	(MICRO-	(UNITS)	(DEG C)	(SECCHI	(PER-	(PER-
			MHOS)			DISK)	CENT	CENT
OCT , 1976								
20...	1450	1.0	39000	8.4	16.5	.61	7.7	96
20...	1452	6.0	39000	8.4	16.5	--	7.7	96
NOV								
17...	1115	1.0	36000	8.3	8.5	.55	10.0	103
17...	1117	6.5	36000	8.3	8.5	--	10.1	104
FEB , 1977								
02...	1100	1.0	40000	8.3	8.0	.62	9.5	98
02...	1102	6.0	39000	8.2	8.0	--	9.5	98
JUN								
22...	1010	1.0	45000	8.4	28.5	.40	5.4	86
22...	1012	6.0	45000	8.4	28.5	--	5.4	90
AUG								
24...	1055	1.0	48000	8.2	29.5	.61	6.0	97
24...	1057	6.0	52000	8.1	29.0	--	5.4	87
FEB , 1978								
09...	1110	1.0	34000	8.3	6.0	.51	10.5	101
09...	1112	5.0	34000	8.3	6.0	--	10.3	99
JUN								
07...	1022	1.0	37000	8.1	27.5	.38	6.0	90
07...	1024	7.0	39000	8.1	27.5	--	5.8	86

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

291106095084200 LINE 565 SITE 30

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976							
20...	1545	1.0	36000	8.2	15.5	.58	8.3 100
20...	1547	5.0	37000	8.2	15.5	--	8.1 98
20...	1549	8.0	37000	8.2	15.5	--	7.4 89
20...	1551	10	38000	8.2	15.5	--	6.8 70
NOV							
17...	1310	1.0	35000	8.2	9.5	.52	10.2 106
17...	1312	10	35000	8.2	9.0	--	10.1 104
FEB , 1977							
02...	1305	1.0	30000	8.4	9.0	.52	9.9 100
02...	1307	5.0	33000	8.3	9.0	--	9.7 100
02...	1309	11	26000	8.3	8.5	--	10.7 105
JUN							
22...	1140	1.0	20000	8.6	29.0	.30	6.4 91
22...	1142	5.0	20000	8.6	2.9	--	6.4 91
22...	1144	10	40000	8.4	29.0	--	4.5 70
AUG							
24...	1125	1.0	54000	8.2	29.5	.45	5.7 95
24...	1127	7.0	53000	8.2	29.5	--	5.6 93
24...	1245	1.0	49000	8.1	29.0	.48	4.6 7
24...	1247	11	49000	8.0	29.0	--	4.7 76
FEB , 1978							
09...	1300	1.0	20000	8.6	7.0	.56	10.9 100
09...	1302	7.0	35000	8.6	6.5	--	10.0 97
JUN							
07...	1208	1.0	15000	8.0	26.5	.20	6.4 85
07...	1210	12	21000	8.0	26.5	--	5.8 80

290823095040200 LINE 575 SITE 10

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT , 1976							
20...	1510	1.0	41000	8.3	16.0	.77	7.7 96
20...	1512	7.0	41000	8.3	16.5	--	7.7 96
NOV							
17...	1140	1.0	37000	8.2	8.5	.80	10.1 104
17...	1142	8.0	37000	8.2	8.5	--	10.1 95
FEB , 1977							
02...	1125	1.0	32000	8.2	8.5	.81	10.0 101
02...	1127	7.0	41000	8.1	9.0	--	8.4 90
JUN							
28...	1030	1.0	48000	8.4	28.5	.47	5.3 84
28...	1032	8.0	48000	8.4	28.5	--	5.2 83
AUG							
24...	1115	1.0	51000	8.2	29.5	.53	5.7 93
24...	1117	8.0	51000	8.1	29.5	--	5.5 91
FEB , 1978							
09...	1128	1.0	36000	8.6	6.5	.60	10.3 101
09...	1130	9.0	37000	8.5	6.0	--	10.2 99
JUN							
07...	1039	1.0	35000	8.2	27.0	.54	6.2 90
07...	1041	8.0	35000	8.2	27.0	--	6.0 87

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

290924095045100 LINE 575 SITE 50

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-		
		LING	CIFIC		CON-		PAR-	SOLVED
		DEPTH	DUCT-	PH	TEMPER-	(SECHI)	OXYGEN,	(PER-
		(FT)	ANCE	(MICRO-	ATURE	DISK)	DIS-	CENT
			MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	SATUR-
							(MG/L)	ATION)
OCT , 1976								
20...	1520	1.0	41000	8.3	16.5	.72	7.7	96
20...	1522	7.0	41000	8.3	16.5	--	7.7	96
NOV								
17...	1150	1.0	35000	8.3	9.0	.45	9.9	102
17...	1152	7.0	36000	8.3	9.0	--	9.9	103
FEB , 1977								
02...	1140	1.0	34000	8.2	8.5	.72	9.7	99
02...	1142	7.0	40000	8.2	8.5	--	9.4	98
JUN								
22...	1035	1.0	48000	8.4	28.5	.44	5.6	88
22...	1037	7.5	48000	8.4	29.0	--	5.5	89
FEB , 1978								
09...	1135	1.0	37000	8.6	6.5	.58	10.6	104
09...	1137	9.0	36000	8.4	6.5	--	10.8	106
JUN								
07...	1048	1.0	37000	8.1	27.0	.46	6.2	91
07...	1050	8.0	39000	8.1	27.0	--	5.9	89

291023095053900 LINE 575 SITE 80

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-		
		LING	CIFIC		CON-		PAR-	SOLVED
		DEPTH	DUCT-	PH	TEMPER-	(SECHI)	OXYGEN,	(PER-
		(FT)	ANCE	(MICRO-	ATURE	DISK)	DIS-	CENT
			MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	SATUR-
							(MG/L)	ATION)
OCT , 1976								
21...	1530	1.0	40000	8.3	17.0	.69	7.9	99
21...	1532	5.0	40000	8.3	17.0	--	7.9	99
NOV								
17...	1205	1.0	37000	8.3	9.0	.78	10.1	105
17...	1207	6.0	37000	8.3	9.0	--	10.2	106
FEB , 1977								
02...	1150	1.0	34000	8.3	8.5	.77	9.9	101
02...	1152	6.5	35000	8.2	8.5	--	9.6	98
JUN								
22...	1040	1.0	39000	8.3	28.5	.47	5.5	83
22...	1042	6.5	42000	8.4	29.0	--	5.6	87
AUG								
24...	1130	1.0	50000	8.2	29.5	.58	5.9	97
24...	1132	5.5	53000	8.2	29.0	--	5.2	86
FEB , 1978								
09...	1148	1.0	37000	8.6	6.5	.84	10.6	104
09...	1150	7.0	37000	8.5	6.5	--	10.5	103
JUN								
07...	1104	1.0	33000	8.1	27.0	.28	5.7	82
07...	1106	6.0	36000	8.0	27.0	--	5.3	78

290659095063500 LINE 580 SITE 10

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-		
		LING	CIFIC		CON-		PAR-	SOLVED
		DEPTH	DUCT-	PH	TEMPER-	(SECHI)	OXYGEN,	(PER-
		(FT)	ANCE	(MICRO-	ATURE	DISK)	DIS-	CENT
			MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	SATUR-
							(MG/L)	ATION)
OCT , 1976								
20...	1640	1.0	46000	8.3	17.0	1.06	8.0	104
20...	1642	5.0	46000	8.3	17.0	--	8.0	104
NOV								
17...	1225	1.0	36000	8.2	8.5	.70	10.2	105
17...	1227	4.0	37000	8.2	8.5	--	10.3	106
FEB , 1977								
02...	1205	1.0	36000	8.3	8.5	.54	10.0	103
02...	1207	5.5	41000	8.3	8.5	--	9.6	102
JUN								
22...	1100	1.0	49000	8.3	28.0	.40	6.2	99
22...	1102	4.0	49000	8.3	28.0	--	6.3	100
AUG								
24...	1150	1.0	54000	8.1	30.0	.37	6.0	100
24...	1152	2.5	54000	8.1	30.0	--	5.9	99
FEB , 1978								
09...	1204	1.0	36000	8.6	6.5	.65	10.6	104
09...	1206	4.0	37000	8.6	6.5	--	10.8	106
JUN								
07...	1129	1.0	34000	8.3	27.0	.25	6.5	94
07...	1130	3.0	34000	8.3	26.5	--	6.6	95

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

290654095075100 LINE 580 SITE 50

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(MICRO-	(DEG C)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	SOLVED
OCT , 1976								
20...	1630	1.0	44000	8.3	16.0	.89	7.9	100
20...	1632	5.0	44000	8.3	16.0	--	8.1	103
NOV								
17...	1230	1.0	38000	8.3	9.0	.43	9.8	101
17...	1232	6.0	39000	8.2	9.0	--	10.1	106
FEB , 1977								
02...	1215	1.0	41000	8.4	9.0	.50	9.6	104
02...	1217	5.0	40000	8.4	9.0	--	9.8	104
JUN								
22...	1110	1.0	48000	8.3	28.0	.33	6.2	99
22...	1112	7.0	48000	8.3	28.0	--	6.1	96
AUG								
24...	1215	1.0	54000	8.1	29.5	.39	5.6	93
24...	1217	5.0	54000	8.1	29.5	--	5.6	93
FEB , 1978								
09...	1215	1.0	38000	8.7	6.5	.50	9.9	99
09...	1217	5.5	38000	8.7	6.5	--	10.1	101
JUN								
07...	1140	1.0	36000	8.3	27.5	--	6.1	91
07...	1141	5.0	37000	8.3	27.0	--	6.0	89

290650095092500 LINE 580 SITE 80

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(MICRO-	(DEG C)
		(FT)	MHOS)	(UNITS)	(DEG C)	(M)	SOLVED	SOLVED
OCT , 1976								
20...	1600	1.0	42000	8.3	16.0	.85	7.8	98
20...	1602	4.5	42000	8.3	16.0	--	7.7	96
NOV								
17...	1245	1.0	36000	8.3	9.0	.72	10.0	104
17...	1247	5.5	36000	8.3	9.0	--	10.1	105
FEB , 1977								
02...	1220	1.0	33000	8.4	9.0	.71	9.8	101
02...	1222	3.0	34000	8.4	9.0	--	9.8	101
JUN								
22...	1120	1.0	48000	8.4	28.5	.45	5.9	94
22...	1122	5.5	48000	8.4	28.5	--	6.2	99
AUG								
24...	1230	1.0	53000	8.2	29.0	.49	5.9	96
24...	1232	5.0	54000	8.1	29.5	--	5.5	92
FEB , 1978								
09...	1230	1.0	37000	8.6	6.5	.65	10.5	103
09...	1232	5.5	37000	8.6	6.5	--	10.1	99
JUN								
07...	1149	1.0	32000	8.3	27.0	.33	6.6	95
07...	1150	5.0	33000	8.3	27.0	--	6.3	91

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

300328094490500 LINE 600 SITE 20

		SPE-	CIFIC	TRANS-	OXYGEN,		
		CON-		PAR-	DIS-		
SAMP-	DUCT-	ENCY		SOLVED	SOLVED		
DATE	TIME	DEPTH (FT)	LING (MICRD- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	(SECCHI DISK)	(PER- CENT SATUR- ATION)
NOV , 1976							
30...	1030	1.0	320	8.3	7.5	--	11.6 100
30...	1032	8.0	320	8.3	7.5	--	11.6 100
30...	1300	1.0	305	8.4	8.5	--	11.6 103
30...	1302	20	300	8.5	8.5	--	11.6 103
30...	1600	1.0	310	8.6	9.0	--	11.6 104
30...	1602	20	305	8.8	9.0	--	11.8 105
30...	1900	1.0	320	8.3	9.0	--	11.6 104
30...	1902	20	320	8.4	9.0	--	12.0 107
30...	2200	1.0	320	8.3	9.0	--	11.6 104
30...	2202	20	320	8.3	9.0	--	11.6 104
DEC							
01...	0100	1.0	320	8.2	9.0	--	11.4 102
01...	0102	20	320	8.2	9.0	--	11.6 104
01...	0400	1.0	370	8.1	8.0	--	11.4 99
01...	0402	20	320	8.1	8.0	--	11.4 99
01...	0700	1.0	320	8.1	8.0	--	11.4 99
01...	0702	20	320	8.1	8.0	--	11.4 99
01...	1000	1.0	320	8.2	8.0	--	11.4 99
01...	1002	20	320	8.2	8.0	--	11.6 101
08...	1000	1.0	180	7.6	11.0	.10	8.9 83
08...	1002	10	180	7.7	11.0	--	8.9 83
MAY , 1977							
10...	1640	1.0	339	--	25.5	--	8.1 101
JUL							
20...	0100	1.0	380	8.2	30.5	--	7.5 100
20...	0102	9.0	380	8.2	30.5	--	7.4 99
20...	0104	18	375	8.2	30.5	--	7.4 99
20...	1000	1.0	360	8.2	31.0	--	6.5 88
20...	1002	9.0	360	8.1	30.5	--	6.4 85
20...	1004	18	365	8.1	30.5	--	6.2 83
20...	1300	1.0	360	8.1	30.0	--	6.9 92
20...	1302	9.0	360	8.1	30.0	--	6.8 91
20...	1304	18	370	8.1	30.0	--	6.9 92
20...	1600	1.0	365	8.2	30.0	--	7.6 101
20...	1602	9.0	365	8.2	30.0	--	7.6 101
20...	1604	18	365	8.2	30.0	--	7.7 103
20...	1900	1.0	360	8.3	30.5	--	8.2 109
20...	1902	9.0	360	8.3	30.5	--	8.1 108
20...	1904	18	360	8.3	30.5	--	8.2 109
20...	2200	1.0	365	8.3	31.0	--	8.6 116
20...	2202	9.0	370	8.3	30.5	--	8.6 115
20...	2204	18	370	8.3	30.5	--	8.9 119
21...	0400	1.0	385	8.2	30.0	--	7.2 96
21...	0402	9.0	380	8.2	30.0	--	7.2 96
21...	0404	18	385	8.2	30.0	--	7.2 96
21...	0700	1.0	370	8.2	30.0	--	7.0 93
21...	0702	9.0	370	8.2	30.0	--	7.0 93
21...	0704	18	390	8.2	30.0	--	7.0 93
21...	1000	1.0	375	8.2	29.0	--	7.2 95
21...	1002	9.0	375	8.1	29.0	--	7.2 95
21...	1004	18	375	8.1	29.0	--	7.3 96
AUG							
10...	1000	1.0	380	8.4	31.0	--	6.6 89
10...	1002	8.5	380	8.3	31.0	--	6.6 89
10...	1004	17	380	8.3	31.0	--	6.7 91
10...	1300	1.0	380	8.5	31.0	--	7.4 100
10...	1302	8.5	380	8.5	31.0	--	7.4 100
10...	1304	17	380	8.5	31.0	--	7.4 100
10...	1600	1.0	380	8.6	31.5	--	7.9 107
10...	1602	8.5	380	8.7	31.5	--	7.9 107
10...	1604	17	380	8.7	31.5	--	7.9 107
10...	1900	1.0	370	8.7	32.0	--	8.3 114
10...	1902	8.5	370	8.7	32.0	--	8.3 114
10...	1904	17	370	8.7	32.0	--	8.4 115
10...	2200	1.0	380	8.7	32.0	--	7.8 107
10...	2202	8.5	380	8.7	32.0	--	7.8 107
10...	2204	17	380	8.7	32.0	--	7.8 107
11...	0100	1.0	380	8.6	31.5	--	7.2 97
11...	0102	8.5	380	8.6	31.5	--	7.2 97
11...	0104	17	380	8.6	31.5	--	7.3 99
11...	0400	1.0	380	8.3	31.5	--	6.4 86
11...	0402	8.5	380	8.3	31.5	--	6.4 86
11...	0404	17	380	8.3	31.5	--	6.4 86
11...	0700	1.0	380	8.3	31.0	--	6.1 82
11...	0702	8.5	380	8.3	31.0	--	6.2 84
11...	0704	17	380	8.3	31.0	--	6.3 85
11...	1000	1.0	380	8.3	30.5	--	6.2 83
11...	1002	8.5	380	8.3	30.5	--	6.3 84
11...	1004	17	380	8.4	30.5	--	6.2 83

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

295855094485200 LINE 604 SITE 70

DATE	TIME	SAMP- LING	DUCT- ANCE	PH	TEMPER- ATURE	TRANS- PAR- ENCY	OXYGEN, (PER- CENT SATUR- ATION)	
		DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(SECCHI DISK) (M)	DIS- SOLVED (MG/L)	
DEC , 1976								
08...	1030	1.0	140	7.4	9.0	.08	8.6	77
08...	1032	9.5	140	7.5	9.0	--	8.5	76

295650094480000 LINE 610 SITE 20

DATE	TIME	SAMP- LING	DUCT- ANCE	PH	TEMPER- ATURE	TRANS- PAR- ENCY	OXYGEN, (PER- CENT SATUR- ATION)	
		DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(SECCHI DISK) (M)	DIS- SOLVED (MG/L)	
DEC , 1976								
08...	1115	1.0	180	7.5	11.0	.10	8.8	82
08...	1117	10	180	7.5	11.0	--	8.7	81

295616094465600 LINE 615 SITE 20

DATE	TIME	SAMP- LING	DUCT- ANCE	PH	TEMPER- ATURE	TRANS- PAR- ENCY	OXYGEN, (PER- CENT SATUR- ATION)	
		DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(SECCHI DISK) (M)	DIS- SOLVED (MG/L)	
DEC , 1976								
08...	1130	1.0	180	7.6	11.0	.13	8.9	83
08...	1132	13	180	7.6	11.0	--	8.9	83

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

295420094460600 LINE 619 SITE 20

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-
		CON-	DUCT-	PAR-	OXYGEN,	SOLVED
SAMP-	LING	ANCE	PH	TEMPER-	(SECCHI	(PER-
DEPTH	(FT)	(MICRO-	(UNITS)	(DEG C)	DISK)	CENT
		MHOS		(M)	SOLVED	SATUR-
					(MG/L)	ATION
NOV , 1976						
30...	1100	1.0	240	--	7.0	.52
30...	1102	3.2	280	--	7.0	--
30...	1104	6.5	280	--	6.5	--
30...	1400	1.0	190	--	8.5	.48
30...	1402	3.5	220	--	8.5	--
30...	1404	7.0	230	--	8.5	--
30...	1700	1.0	220	--	8.5	.51
30...	1702	3.5	240	--	8.5	--
30...	1704	7.0	200	--	8.5	--
30...	2000	1.0	300	--	7.0	--
30...	2002	3.5	300	--	6.5	--
30...	2004	7.0	200	--	6.0	--
30...	2300	1.0	290	--	7.0	--
30...	2302	3.5	290	--	7.0	--
30...	2304	7.0	300	--	6.5	--
DEC						
01...	0200	1.0	300	--	6.5	--
01...	0202	3.5	290	--	6.5	--
01...	0204	7.0	290	--	6.0	--
01...	0500	1.0	300	--	7.0	--
01...	0502	3.5	280	--	6.5	--
01...	0504	7.0	280	--	6.0	--
01...	0800	1.0	280	--	7.0	.48
01...	0802	3.5	300	--	7.0	--
01...	0804	7.0	300	--	7.0	--
01...	1100	1.0	290	--	7.5	.53
01...	1102	3.5	290	--	7.5	--
01...	1104	7.0	280	--	7.5	--
02...	1100	1.0	310	7.6	8.5	.49
02...	1102	3.7	310	7.5	8.5	--
02...	1104	7.5	310	7.4	8.5	--
02...	1400	1.0	320	7.6	9.0	.51
02...	1402	3.7	320	7.6	8.5	--
02...	1404	7.5	320	7.6	8.5	--
02...	1700	1.0	315	7.9	9.0	.44
02...	1702	3.7	320	7.9	9.0	--
02...	1704	7.5	320	7.9	9.0	--
02...	2000	1.0	320	7.9	8.5	--
02...	2002	3.7	320	7.9	8.5	--
02...	2004	7.5	320	7.9	8.5	--
02...	2300	1.0	310	7.9	8.5	--
02...	2302	3.7	310	8.0	8.5	--
02...	2304	7.5	310	7.9	8.5	--
03...	0200	1.0	300	7.9	85.0	--
03...	0202	3.7	310	8.0	8.5	--
03...	0204	7.5	310	8.0	8.0	--
03...	0500	1.0	300	7.9	8.5	--
03...	0502	3.7	300	7.9	8.5	--
03...	0504	7.5	300	7.9	8.5	--
03...	0800	1.0	300	7.9	8.5	.49
03...	0802	3.7	300	7.9	8.5	--
03...	0804	7.5	300	7.9	8.5	--
JUL , 1977						
20...	1020	2.5	350	7.7	30.5	.57
20...	1300	3.5	360	7.7	30.5	.54
20...	1600	3.5	355	7.7	30.5	.57
20...	1900	3.5	355	7.8	30.5	.50
20...	2200	1.0	355	7.7	30.5	--
20...	2202	6.0	355	7.7	30.0	--
20...	2204	3.5	355	7.7	30.5	--
21...	0100	3.5	355	7.7	30.0	--
21...	0400	3.5	355	7.6	29.5	--
21...	0700	3.5	360	7.6	29.5	--
21...	1000	3.5	360	7.6	30.0	--
AUG						
10...	1000	1.0	410	7.6	30.5	--
10...	1002	6.0	410	7.6	30.5	--
10...	1300	1.0	400	7.8	31.0	--
10...	1302	6.0	400	7.8	31.0	--
10...	1600	1.0	400	7.9	32.0	--
10...	1602	6.0	400	7.7	31.5	--
10...	1900	1.0	400	7.9	31.5	--
10...	1902	6.0	400	7.8	31.0	--
10...	2200	1.0	410	7.7	30.5	--
10...	2202	6.0	410	7.7	30.5	--
11...	0100	1.0	410	7.7	30.5	--
11...	0102	6.0	410	7.7	30.0	--
11...	0400	1.0	410	7.7	30.5	--
11...	0402	6.0	410	7.6	30.0	--
11...	0700	1.0	410	7.7	30.5	--
11...	0702	6.0	410	7.7	30.5	--
11...	1000	1.0	410	7.7	30.5	--
11...	1002	6.0	410	7.7	30.5	--

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

295424094454500 LINE 620 SITE 20

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(MICRO-	ATURE
		(FT)	MICRO-	(UNITS)	(DEG C)	(M)	SOLVED	SOLVED
DEC , 1976								
08...	1200	1.0	180	7.7	11.0	.13	8.9	83
08...	1202	10	180	7.7	11.0	--	8.9	83
JUL , 1977								
06...	1610	1.0	410	8.2	32.5	.84	8.0	110
06...	1612	5.0	410	7.9	31.5	--	6.3	85
06...	1614	10	410	7.8	31.0	--	5.6	76
06...	1616	14	410	7.8	31.5	--	5.3	72

295316094440100 LINE 628 SITE 20

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(MICRO-	ATURE
		(FT)	MICRO-	(UNITS)	(DEG C)	(M)	SOLVED	SOLVED
NOV , 1976								
30...	1200	1.0	170	7.3	8.0	.13	9.3	81
30...	1500	1.0	170	8.3	8.0	--	10.7	96
30...	1800	1.0	150	7.4	8.0	--	7.6	66
30...	2100	1.0	170	7.2	6.5	--	7.7	65
DEC								
01...	0001	1.0	150	7.0	5.0	--	7.7	62
01...	0300	1.0	160	5.3	4.5	--	7.5	60
01...	0600	1.0	150	6.9	4.5	--	7.1	57
01...	0900	1.0	150	7.7	5.0	--	7.0	56
JUL , 1977								
20...	1005	1.5	440	7.5	29.5	--	--	--
20...	1600	1.5	410	7.3	30.0	--	--	--
20...	1900	1.5	420	7.4	30.5	--	--	--
20...	2200	1.5	420	7.4	30.0	--	--	--
21...	0100	1.5	410	7.4	29.5	--	--	--
21...	0400	1.5	410	7.4	29.0	--	--	--
21...	0700	1.5	360	7.3	28.0	--	--	--
21...	1000	1.5	360	7.2	28.0	--	--	--
21...	1300	1.5	410	7.3	30.0	--	--	--
AUG								
10...	1015	--	430	--	31.0	--	5.5	74
10...	1300	1.0	430	--	31.5	--	5.3	72
10...	1600	1.0	430	--	32.0	--	5.6	90
10...	1900	1.0	450	--	32.5	--	7.8	107
10...	2200	1.0	430	--	32.0	--	6.7	92
11...	0100	1.0	410	--	29.5	--	4.7	62
11...	0400	1.0	450	--	29.5	--	6.0	79
11...	0700	1.0	440	--	30.5	--	6.8	91
11...	1000	1.0	430	--	30.5	--	--	--

295259094442400 LINE 630 SITE 20

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE				(MICRO-	ATURE
		(FT)	MICRO-	(UNITS)	(DEG C)	(M)	SOLVED	SOLVED
DEC , 1976								
08...	1235	1.0	200	7.8	11.5	--	8.8	83
08...	1237	18	180	7.9	11.5	--	8.7	82
10...	0900	1.0	180	7.5	11.0	--	10.0	93
10...	0902	16	180	7.6	11.0	--	9.2	86
28...	1445	1.0	290	7.8	11.5	.36	9.4	89
28...	1447	18	320	7.7	11.5	--	9.2	87
29...	1330	1.0	330	7.8	11.5	.39	8.8	82
29...	1332	13	330	7.8	11.5	--	9.0	85

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

295310094453200 LINE 630 SITE 40

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE			(MICRO-	PAR-	ENCY
		DEPTH	MHOS)	(UNITS)	(DEG C)	(SECCHI DISK)	SOLVED (PER-	
		(FT)				(M)	CENT	
							SATUR-	
							ATION)	
DEC , 1976								
08..	1415	1.0	400	7.2	10.0	.25	8.3	76
08..	1417	5.0	400	7.2	8.5	--	8.0	71
10..	0950	1.0	200	7.5	11.5	.18	9.3	88
10..	0952	7.0	200	7.5	11.0	--	9.4	88
28..	1345	1.0	330	7.8	11.5	.25	9.0	85
28..	1347	3.0	330	7.8	11.5	--	9.0	85
SEP , 1977								
20..	1420	1.0	380	7.7	29.5	.34	5.5	72
20..	1422	3.5	460	7.6	28.5	--	5.4	70

295034094450700 LINE 650 SITE 20

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE			(MICRO-	PAR-	ENCY
		DEPTH	MHOS)	(UNITS)	(DEG C)	(SECCHI DISK)	SOLVED (PER-	
		(FT)				(M)	CENT	
							SATUR-	
							ATION)	
DEC , 1976								
08..	1300	1.0	180	7.8	11.5	.13	8.6	81
08..	1302	6.0	180	7.8	11.5	--	8.6	81
10..	0915	1.0	220	7.6	11.0	.13	10.0	93
10..	0917	6.0	220	7.6	11.0	--	10.1	94
28..	1510	1.0	370	7.5	12.5	.29	8.0	78
28..	1512	6.0	370	7.5	12.5	--	8.1	79
29..	1315	1.0	400	7.5	11.5	.25	7.7	73
29..	1317	5.0	400	7.5	11.5	--	8.0	75

295015094454800 LINE 670 SITE 10

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE			(MICRO-	PAR-	ENCY
		DEPTH	MHOS)	(UNITS)	(DEG C)	(SECCHI DISK)	SOLVED (PER-	
		(FT)				(M)	CENT	
							SATUR-	
							ATION)	
DEC , 1976								
29..	1535	1.0	340	8.0	11.5	.19	9.3	88
29..	1537	7.0	350	8.0	11.5	--	8.8	83
SEP , 1977								
20..	1345	1.0	429	7.6	29.5	.22	4.9	64
20..	1347	5.0	480	7.5	28.0	--	3.4	44
20..	1349	12	510	7.5	28.0	--	3.4	44

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

295034094471200 LINE 670 SITE 40

		SPE-	CIFIC	TRANS-	OXYGEN,		
		CON-	DUCT-	PAR-	DIS-		
	TIME	SAMP-	ANCE	ENCY	SOLVED		
	DATE	DEPTH (FT)	(MICRO- MHGS)	PH (UNITS)	TEMPER- ATURE (DEG C)	(SECCHI DISK)	(PER- CENT SATUR- ATION)
DEC , 1976							
02...	1235	4.0	450	--	8.5	--	8.1
02...	1515	4.0	500	--	8.0	--	7.6
02...	1800	4.0	500	--	8.0	--	7.6
02...	2130	4.0	450	--	7.0	--	8.4
03...	0001	4.0	450	--	5.0	--	7.3
03...	0325	4.0	500	--	5.0	--	8.0
03...	0600	4.0	500	--	5.5	--	8.4
03...	0915	4.0	460	--	6.5	--	7.1
08...	1435	1.0	220	7.4	10.5	.10	8.6
08...	1437	9.0	250	7.4	9.0	--	8.1
10...	1010	1.0	220	7.7	12.5	.13	9.6
10...	1012	10	220	7.7	12.5	--	9.6
13...	1450	1.0	200	8.0	12.5	.15	10.3
13...	1452	9.0	220	8.0	12.0	--	10.1
28...	1410	1.0	330	8.1	13.0	.26	10.2
28...	1412	8.5	330	8.0	13.0	--	10.2
29...	1510	1.0	330	7.7	11.5	.27	8.5
29...	1512	4.5	330	7.7	12.0	--	8.5
JUL , 1977							
20...	1130	1.0	380	7.2	27.5	--	7.0
20...	1132	9.0	300	7.0	26.5	--	6.8
20...	1300	1.0	360	7.6	28.0	--	7.0
20...	1302	9.0	350	7.4	27.0	--	7.5
20...	1600	1.0	380	7.8	29.0	--	7.7
20...	1602	9.0	350	7.4	28.0	--	7.1
20...	1900	1.0	350	7.9	29.0	--	6.6
20...	1909	9.0	360	7.7	28.0	--	6.7
20...	2200	1.0	350	7.9	29.0	--	7.4
20...	2202	9.0	350	7.7	28.0	--	6.0
21...	0100	1.0	350	7.6	28.0	--	6.7
21...	0102	9.0	350	7.6	28.0	--	6.4
21...	0400	1.0	360	7.5	28.0	--	6.2
21...	0402	9.0	350	7.6	28.0	--	6.0
21...	0700	1.0	350	7.5	28.0	--	5.8
21...	0702	9.0	350	7.6	28.0	--	5.9
21...	1000	1.0	350	7.9	28.0	--	6.0
21...	1002	9.0	350	7.9	28.0	--	5.9
AUG							
10...	1030	1.0	800	--	30.0	--	5.9
10...	1032	10	850	--	29.0	--	5.4
10...	1300	1.0	850	8.3	31.0	--	6.5
10...	1302	10	880	7.4	30.5	--	4.7
10...	1600	1.0	650	9.1	33.0	--	7.1
10...	1602	10	800	8.7	32.5	--	4.9
10...	1900	1.0	700	9.1	33.0	--	7.6
10...	1902	10	750	9.0	31.0	--	5.4
10...	2200	1.0	600	8.5	31.0	--	6.1
10...	2202	10	620	8.5	31.0	--	7.0
11...	0100	1.0	560	8.5	31.0	--	6.2
11...	0102	9.5	600	8.6	29.0	--	6.4
11...	0500	1.0	520	8.1	28.0	--	5.1
11...	0502	10	560	8.3	31.0	--	5.2
11...	0700	1.0	560	8.2	28.5	--	4.7
11...	0702	10	560	8.3	28.5	--	5.0
11...	1000	1.0	690	9.1	30.0	--	6.0
11...	1002	10	720	9.2	30.0	--	5.8
SEP							
20...	1320	1.0	2400	8.4	27.5	.43	8.5
20...	1322	3.0	2600	7.9	27.0	--	5.4
20...	1324	5.0	2700	7.8	26.0	--	4.8
20...	1326	8.0	2700	7.8	26.5	--	4.5

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

295003094480700 LINE 670 SITE 80

		SPE- CIFIC CON- DUCT- LING	TRANS- PAR- ENCY	OXYGEN, (PER- CENT SOLVED)			
DATE	TIME	DEPTH (MICRO- (FT) MMOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	(SECCHI DISK)	SOLVED (MG/L)	SATUR- ATION)
DEC , 1976							
02...	1200	3.0	280	--	9.0	--	8.2
02...	1630	3.0	300	--	9.0	--	7.3
02...	1820	3.0	320	--	8.0	--	7.1
02...	2100	3.0	320	--	8.0	--	7.2
03...	0025	3.0	340	--	6.0	--	6.9
03...	0625	3.0	290	--	5.0	--	6.9
03...	0900	3.0	260	--	6.0	--	6.4
08...	1450	1.0	150	7.0	12.5	--	7.9
08...	1452	4.0	150	7.0	12.0	--	7.9
10...	1020	1.0	190	7.5	12.0	.15	9.4
10...	1022	6.0	170	7.5	12.0	--	9.4
13...	1500	1.0	140	7.5	13.0	.13	8.8
13...	1502	5.0	130	7.5	13.0	--	8.8
28...	1315	1.0	300	7.8	13.0	.33	9.1
28...	1317	4.0	320	7.8	12.5	--	8.9
29...	1440	1.0	330	7.7	12.5	.21	8.4
29...	1442	4.0	330	7.7	12.5	--	8.3
JUL , 1977							
20...	1100	1.0	550	8.1	28.0	--	--
20...	1102	5.5	550	7.9	27.0	--	--
20...	1300	1.0	425	8.1	27.0	--	7.8
20...	1302	5.5	460	8.1	25.5	--	8.2
20...	1400	1.0	440	8.1	27.0	--	8.4
20...	1402	5.5	460	8.1	26.0	--	8.5
20...	1500	1.0	440	8.0	27.5	--	7.3
20...	1502	5.5	460	7.8	28.0	--	7.1
20...	1600	1.0	450	8.1	28.0	--	8.1
20...	1602	5.7	400	7.8	28.0	--	8.1
20...	1700	1.0	450	8.1	28.0	--	7.8
20...	1702	5.8	420	8.0	28.0	--	7.4
20...	1900	1.0	450	8.1	28.0	--	8.2
20...	1902	6.0	300	8.1	28.5	--	8.2
20...	2000	1.0	450	7.9	28.0	--	7.6
20...	2002	6.0	430	7.9	28.0	--	7.8
20...	2100	1.0	450	7.8	28.0	--	6.6
20...	2102	6.0	450	7.8	28.0	--	6.8
20...	2200	1.0	450	7.9	28.0	--	6.6
20...	2202	6.0	450	7.9	28.0	--	7.2
20...	2300	1.0	400	7.8	28.0	--	6.3
20...	2302	6.0	400	7.8	28.0	--	6.9
21...	0002	6.0	380	7.7	27.0	--	7.5
21...	0100	1.0	425	7.9	27.0	--	7.6
21...	0102	6.0	425	7.9	27.0	--	7.3
21...	0200	1.0	475	8.1	27.5	--	6.6
21...	0202	6.0	450	8.0	27.0	--	7.1
21...	0300	1.0	510	8.2	27.5	--	6.8
21...	0302	6.2	490	8.2	27.0	--	7.6
21...	0400	1.0	425	8.0	27.0	--	6.7
21...	0402	6.0	450	8.0	27.0	--	7.1
21...	0500	1.0	425	7.7	27.0	--	6.1
21...	0502	6.0	425	7.8	27.0	--	7.3
21...	0600	1.0	400	7.6	27.0	--	5.7
21...	0602	5.9	400	7.7	26.0	--	6.9
21...	0700	1.0	410	7.6	25.0	--	7.5
21...	0702	6.0	410	7.6	25.5	--	7.6
21...	0800	1.0	450	7.6	27.0	--	5.4
21...	0802	5.7	450	7.6	25.5	--	6.0
21...	0900	1.0	450	7.5	27.0	--	5.2
21...	0902	5.7	430	7.5	27.0	--	5.8
21...	1000	1.0	460	7.7	27.5	--	5.6
21...	1002	5.7	450	7.7	27.0	--	5.4
AUG							
10...	0700	1.0	850	7.6	27.5	--	4.2
10...	0702	5.0	850	7.6	27.0	--	4.1
10...	1035	1.0	1000	8.0	30.5	--	6.1
10...	1037	5.0	1100	7.9	30.0	--	5.8
10...	1300	1.0	1100	8.3	31.5	--	6.4
10...	1302	5.0	1100	8.2	31.0	--	5.3
10...	1600	1.0	1000	8.5	33.0	--	8.2
10...	1602	5.0	900	8.2	31.5	--	6.2
10...	1900	1.0	850	8.4	32.0	--	7.4
10...	1902	5.0	900	8.2	32.0	--	6.9
10...	2200	1.0	900	8.0	31.0	--	6.6
10...	2202	5.0	900	8.1	30.5	--	6.7
11...	0100	1.0	800	7.8	29.0	--	5.1
11...	0102	5.0	800	7.8	29.0	--	5.1
11...	0400	1.0	700	7.5	28.0	--	3.9
11...	0402	5.0	700	7.5	28.0	--	3.7
11...	1000	1.0	900	8.0	28.0	--	5.3
11...	1002	5.0	900	8.0	28.0	--	5.7
SEP							
20...	1310	1.0	2200	8.1	28.0	--	7.7
20...	1312	5.0	2400	7.7	26.0	--	4.7
							100
							59

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294759094432700 LINE 680 SITE 20

DATE	TIME	SPE-	CIFIC	CON-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-	OXYGEN,
		SAMP-	ANCE					(SECCHI)	ENCY		SOLVED
		LING	(MICRO-	DEPTH	(FT)	(UNITS)	(DEG C)	DISK)	(M)	DIS-	SATUR-
			MHDS)							MG/L)	(PER-
OCT , 1976											
21...	1505	1.0	420	8.3		17.0		.43	10.0		106
21...	1507	8.0	420	8.3		17.0		--	9.7		103
NOV											
18...	1245	1.0	400	--		10.5		.46	10.0		93
18...	1247	8.0	400	--		10.5		--	10.0		93
DEC											
02...	1130	1.0	360	--		9.0		--	10.4		93
02...	1132	10	380	--		9.0		--	10.4		93
02...	1720	1.0	350	--		9.0		--	10.6		95
02...	1722	9.0	360	--		9.0		--	10.7		96
02...	2330	1.0	360	--		8.0		--	10.7		93
02...	2332	10	360	--		8.0		--	10.7		93
03...	0600	1.0	350	--		8.0		--	10.8		94
03...	0602	9.0	350	--		8.0		--	10.8		94
03...	1130	1.0	360	--		8.5		--	11.0		97
03...	1132	9.0	360	--		8.5		--	11.0		97
08...	1330	1.0	190	7.6		12.0		.10	8.5		82
08...	1332	9.0	190	7.6		12.0		--	8.5		82
10...	1100	1.0	220	7.6		11.0		--	9.7		91
10...	1102	10	200	7.7		11.0		--	9.6		90
13...	1545	1.0	220	7.8		11.5		.13	10.8		102
13...	1547	10	220	7.9		11.5		--	11.7		110
28...	1530	1.0	350	7.8		11.5		.38	9.1		86
28...	1532	9.5	350	7.8		11.5		--	9.0		85
29...	1255	1.0	330	7.8		11.0		.36	9.4		88
29...	1257	8.0	330	7.7		11.0		--	9.3		87
FEB , 1977											
03...	1215	1.0	500	--		9.0		.61	9.7		87
03...	1217	9.0	500	--		10.0		--	9.4		86
APR											
25...	1445	1.0	340	7.4		21.5		.18	8.6		76
25...	1447	6.5	340	7.4		21.5		--	6.5		76
25...	1449	13	340	7.5		21.5		--	6.7		78
26...	1530	1.0	340	7.4		21.5		--	6.5		76
26...	1532	6.5	340	7.4		21.5		--	6.5		76
26...	1534	13	340	7.4		21.5		--	6.5		76
MAY											
04...	1235	1.0	300	7.6		23.5		.45	6.7		81
04...	1237	7.0	300	7.6		23.5		--	6.7		81
10...	1300	1.0	320	7.5		24.0		--	6.2		76
10...	1302	7.0	320	7.5		24.0		--	6.2		76
10...	1304	14	320	7.5		24.0		--	6.2		76
16...	1345	1.0	310	7.8		25.0		.44	7.8		96
16...	1347	10	310	7.8		25.0		--	7.8		96
19...	1200	1.0	360	7.8		24.5		.45	7.8		96
19...	1202	10	360	7.8		24.5		--	7.6		94
JUN											
01...	1100	1.0	380	8.4		28.5		.45	8.6		112
01...	1102	9.5	380	8.4		28.5		--	8.4		109
13...	1450	1.0	430	8.0		29.5		.59	7.0		92
13...	1452	8.5	430	8.0		29.5		--	7.2		95
23...	1100	1.0	400	--		29.0		.18	6.4		84
23...	1102	10	450	--		29.0		--	6.4		84
JUL											
06...	1455	1.0	400	8.1		31.5		.63	6.7		91
06...	1457	5.0	400	8.0		31.0		--	6.5		88
06...	1459	9.0	400	8.0		31.0		--	5.9		80
AUG											
26...	1440	1.0	650	8.2		31.5		.49	7.6		103
26...	1442	10	550	8.0		30.5		--	5.6		75
SEP											
20...	1220	1.0	1100	8.0		29.0		.60	5.2		68
20...	1222	5.0	1300	7.9		28.5		--	4.2		55
20...	1224	9.0	2000	7.8		28.5		--	4.0		52
JAN , 1978											
24...	0916	1.0	310	7.9		6.0		.29	12.2		101
24...	0918	11	310	7.9		6.0		--	12.0		99
JUN											
05...	1410	1.0	637	8.4		29.0		.33	8.2		108
05...	1412	11	599	8.0		28.0		--	5.7		73

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294809094434600 LINE 680 SITE 30

DATE	TIME	SAMP-	SPE-	OXYGEN,	OXYGEN,	
		LING	CIFIC	CON-	DIS-	SOLVED
		DUCT-	TEMPER-	OXYGEN,	(PER-	
		ANCE	ATURE	DIS-	CENT	
		(MICRO-	(DEG C)	SOLVED	SATUR-	
		MHOS)		(MG/L)	ATION)	
DEC , 1976						
02...	1100	1.0	350	9.0	10.4	93
02...	1102	11	350	9.0	10.2	91
02...	1700	1.0	360	9.0	10.7	96
02...	1702	11	360	9.0	10.8	96
02...	2300	1.0	360	8.0	10.7	93
02...	2302	10	360	8.0	10.7	93
03...	0515	1.0	350	8.0	10.7	93
03...	0517	9.0	350	8.0	10.7	93
03...	1100	1.0	360	8.5	10.9	96
03...	1102	9.0	360	8.5	11.0	97

294815094444200 LINE 680 SITE 40

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	OXYGEN,		
		LING	CIFIC	CON-	PAR-	DTS-	SOLVED	
		DUCT-	PH	ENCY	SOLVED	(PER-		
		ANCE	(UNITS)	(SECCI	(MG/L)	CENT		
		(MICRO-		H DISK)		SATUR-		
		MHOS)	(DEG C)	(M)		ATION)		
APR , 1977								
25...	1500	1.0	330	7.5	21.5	.23	7.8	91
25...	1502	13	330	7.6	21.5	--	7.9	92
25...	1504	26	330	7.5	21.5	--	7.8	91
MAY								
04...	1225	1.0	300	7.8	24.0	.43	7.0	86
04...	1227	10	300	7.7	24.0	--	6.8	83
04...	1229	20	300	7.6	24.5	--	6.8	83
10...	1240	1.0	310	7.6	24	--	6.9	84
10...	1242	15	310	7.6	24.0	--	6.8	83
10...	1244	30	310	7.6	24.0	--	6.9	84
16...	1315	1.0	320	8.0	25.0	.38	7.7	95
16...	1317	13	320	8.0	25.0	--	7.5	93
19...	1145	1.0	350	8.0	25.0	.31	7.6	94
19...	1147	27	350	8.0	25.0	--	7.6	94
JUN								
01...	1030	1.0	390	8.6	29.0	.35	6.9	91
01...	1032	12	390	8.6	29.0	--	6.8	89
01...	1034	24	390	8.5	29.0	--	6.7	88
13...	1415	1.0	860	8.2	27.5	.35	6.9	88
13...	1417	10	650	8.2	27.5	--	7.3	94
13...	1419	26	880	8.2	27.5	--	7.4	95
SEP								
20...	1230	1.0	2600	8.1	28.5	.50	6.1	80
20...	1232	3.0	6800	8.0	27.0	--	5.3	68
20...	1234	5.0	7800	8.0	26.5	--	5.0	65
20...	1236	10	8400	8.0	26.5	--	4.8	62
20...	1238	15	8700	8.0	26.5	--	4.8	62
20...	1240	25	9200	8.0	26.5	--	4.7	61
JAN , 1978								
24...	0905	1.0	260	7.9	6.0	.27	12.0	99
24...	0907	5.0	260	7.9	6.0	--	11.8	98
24...	0909	15	270	8.0	6.0	--	12.0	99
24...	0911	25	260	8.0	6.0	--	11.8	98

294813094471300 LINE 680 SITE 80

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	OXYGEN,		
		LING	CIFIC	CON-	PAR-	DTS-	SOLVED	
		DUCT-	PH	ENCY	SOLVED	(PER-		
		ANCE	(UNITS)	(SECCI	(MG/L)	CENT		
		(MICRO-		H DISK)		SATUR-		
		MHOS)	(DEG C)	(M)		ATION)		
DEC , 1976								
02...	1110	1.0	900	8.2	9.5	--	8.7	79
02...	1112	3.0	2200	8.2	9.0	--	8.6	77
02...	1114	6.5	6400	8.2	9.0	--	8.2	75
02...	1116	10	11000	8.2	9.0	--	7.7	72
02...	1118	13	12000	8.1	9.0	--	7.2	67
02...	1430	1.0	720	8.4	10.0	--	9.2	84
02...	1432	6.5	6000	8.2	8.5	--	8.4	76
02...	1434	13	12000	8.2	9.0	--	7.3	68
02...	1700	1.0	850	8.3	10.0	--	8.9	82
02...	1702	3.0	1150	8.3	10.0	--	8.9	82
02...	1704	5.5	3800	8.2	9.0	--	8.5	77
02...	1706	8.0	6000	8.2	8.5	--	8.4	76
02...	1708	11	11500	8.2	9.0	--	7.5	70

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294813094471300 LINE 680 SITE 80--Continued

		SPE- CIFIC CON-		TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
SAMP- LING TIME DATE	DEPTH (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	(M)
DEC , 1976--Continued					
02...	2000	1.0	1100	8.2	10.0
02...	2002	5.5	2900	8.2	9.0
02...	2004	11	12000	8.0	8.5
02...	2300	1.0	800	8.0	9.5
02...	2302	5.5	1300	8.0	9.0
02...	2304	11	12000	8.2	8.5
03...	0220	1.0	540	8.1	9.0
03...	0222	5.0	2600	8.1	9.0
03...	0224	11	11500	8.0	8.5
03...	0500	1.0	720	8.1	9.0
03...	0502	5.5	2600	8.1	9.5
03...	0504	11	11500	8.0	8.2
03...	0800	1.0	900	8.0	9.0
03...	0802	5.5	2900	8.0	9.0
03...	0804	8.0	4300	8.0	9.0
03...	0806	11	11500	8.0	8.5
03...	1000	1.0	650	7.9	9.0
03...	1002	5.5	3000	8.1	9.5
03...	1004	11	11000	8.0	9.0
08...	1515	1.0	320	7.9	11.5
08...	1517	11	400	7.5	11.5
10...	1030	1.0	200	7.7	12.0
10...	1032	12	200	7.7	11.5
13...	1515	1.0	140	7.5	13.0
13...	1517	11	140	7.5	12.5
28...	1300	1.0	330	8.0	12.5
28...	1302	11	330	8.0	12.5
29...	1550	1.0	360	8.1	12.5
29...	1552	10	360	8.1	12.5
APR , 1977					
25...	1520	1.0	330	7.5	21.5
25...	1522	8.0	330	7.5	21.5
25...	1524	16	330	7.5	22.0
MAY					
04...	1210	1.0	300	7.5	25.0
04...	1212	7.0	300	7.6	24.5
04...	1214	15	300	7.5	25.0
10...	1230	1.0	280	7.4	24.0
10...	1232	7.0	280	7.3	24.0
10...	1234	13	280	7.3	24.0
16...	1300	1.0	310	8.2	25.5
16...	1302	13	310	8.0	25.5
19...	1130	1.0	360	8.1	25.5
19...	1132	15	370	8.1	25.0
JUN					
01...	1000	1.0	390	8.3	28.5
01...	1002	13	390	8.3	28.0
13...	1200	1.0	1400	8.1	28.0
13...	1202	13	3200	7.9	28.0
JUL					
06...	1515	1.0	600	8.6	32.5
06...	1517	3.0	670	8.5	32.0
06...	1519	5.0	1500	7.8	30.5
06...	1521	11	2200	7.6	30.0
20...	1015	1.0	850	8.4	29.0
20...	1017	11	1000	8.4	29.0
20...	1315	1.0	700	8.4	28.5
20...	1317	12	700	8.4	28.5
20...	1615	1.0	700	8.3	29.0
20...	1617	11	700	8.2	28.5
20...	1915	1.0	900	8.3	28.5
20...	1917	11	1700	8.2	28.5
20...	2205	1.0	1300	8.3	28.0
20...	2207	11	1300	8.3	28.5
21...	0115	1.0	2200	8.5	28.0
21...	0117	11	2200	8.5	28.0
21...	0415	1.0	2000	8.4	28.0
21...	0417	11	2200	8.4	28.0
21...	0715	1.0	1700	8.3	27.0
21...	0717	11	1800	8.3	27.0
21...	1000	1.0	1300	8.2	27.0
21...	1002	12	2200	8.2	28.0
AUG					
10...	1000	1.0	3900	8.3	31.0
10...	1002	6.0	5300	8.3	31.0
10...	1004	13	6000	7.7	30.0
10...	1320	1.0	3800	8.5	31.5
10...	1322	7.0	5800	8.2	30.5
10...	1324	14	6000	7.9	30.0
10...	1600	1.0	3500	8.6	33.5
10...	1602	6.0	5700	8.1	31.0
10...	1604	13	6000	8.1	31.0
10...	1900	1.0	4400	8.5	32.0
10...	1902	7.0	5500	8.1	31.0
10...	1904	15	6000	8.1	30.5

Table 2A--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

294813094471300 LINE 680 SITE 80--Continued

DATE	TIME	SAMP-	LING	SPE-	CIFIC	TRANS-	OXYGEN,		
		DEPTH	DUCT-	CON-	ANCE	PH	TEMPER-	PAR-	DIS-
		(MICRO-	(FT)	MHOS)	(UNITS)	(DEG C)	ENCY	SOLVED	SOLVED
AUG , 1977--Continued									
10...	2200	1.0	4500	8.4	30.5	--	4.5	61	
10...	2202	7.0	5400	8.3	30.5	--	3.4	47	
10...	2204	14	6100	8.0	29.0	--	2.6	35	
11...	0100	1.0	4000	8.4	30.0	--	4.2	56	
11...	0102	7.0	5500	8.2	30.0	--	2.9	39	
11...	0104	14	6000	7.9	29.5	--	2.2	30	
11...	0400	1.0	4600	8.3	29.5	--	4.0	53	
11...	0402	7.0	5500	8.2	30.0	--	2.6	35	
11...	0404	14	6000	7.9	29.5	--	1.5	20	
11...	0700	1.0	3800	8.2	29.0	--	3.9	51	
11...	0702	7.0	55	7.9	29.5	--	2.2	30	
11...	0704	14	6000	7.8	29.5	--	2.1	28	
11...	1000	1.0	3800	8.2	29.0	--	4.2	55	
11...	1002	7.0	5400	8.1	29.5	--	2.5	34	
11...	1004	15	6000	7.8	29.5	--	2.3	31	
SEP									
20...	1250	1.0	5300	8.3	27.0	.48	7.2	94	
20...	1252	3.0	7300	7.8	26.5	--	4.3	56	
20...	1254	5.0	8200	7.9	27.0	--	4.0	53	
20...	1256	11	9800	7.8	27.0	--	3.4	45	

294605094412400 LINE 690 SITE 20

DATE	TIME	SAMP-	LING	SPE-	CIFIC	TRANS-	OXYGEN,		
		DEPTH	DUCT-	CON-	ANCE	PN	TEMPER-	DIS-	
		(MICRO-	(FT)	MHOS)	(UNITS)	(DEG C)	SOLVED	SOLVED	
JUN , 1977									
13...	1505	1.0	990	8.0	28.0	7.2	94		
13...	1507	14	1000	7.9	28.0	6.9	90		
16...	1320	1.0	390	8.1	27.5	6.1	78		
16...	1322	12	390	8.0	27.0	5.6	71		

294712094440200 LINE 690 SITE 40

DATE	TIME	SAMP-	LING	SPE-	CIFIC	TRANS-	OXYGEN,		
		DEPTH	DUCT-	CON-	ANCE	PH	TEMPER-	PAR-	
		(MICRO-	(FT)	MHOS)	(UNITS)	(DEG C)	ENCY	SOLVED	
DEC , 1976									
08...	1630	1.0	200	7.5	12.0	.13	9.1	88	
08...	1632	14	200	7.6	11.5	--	9.1	86	
10...	1045	1.0	200	7.7	11.0	.13	9.7	91	
10...	1047	17	200	7.7	11.0	--	9.6	91	
13...	1530	1.0	220	7.9	11.5	.13	10.7	111	
13...	1532	4.0	200	7.9	11.5	--	10.4	98	
28...	1235	1.0	330	7.9	11.0	.28	9.8	92	
28...	1237	5.0	290	7.9	11.0	--	9.8	92	
28...	1239	15	290	7.9	11.0	--	9.8	92	
MAY , 1977									
10...	1250	1.0	310	7.6	24.0	--	6.7	82	
10...	1252	17	310	7.6	24.0	--	6.6	80	

294629094465400 LINE 690 SITE 80

DATE	TIME	SAMP-	LING	SPE-	CIFIC	TRANS-	OXYGEN,		
		DEPTH	DUCT-	CON-	ANCE	PH	TEMPER-	PAR-	
		(MICRO-	(FT)	MHOS)	(UNITS)	(DEG C)	ENCY	SOLVED	
DEC , 1976									
08...	1545	1.0	400	7.7	10.0	10.2	94		
08...	1547	7.0	400	7.7	10.5	10.2	94		

Table 2A.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Field Determinations--Continued

291929094393300 LINE 904 SITE 20

		SPE- CIFIC CON- DUCT- ANCE	TRANS- PAR- ENCY	OXYGEN, (PER- CENT SATUR- ATION)	
TIME	DEPTH (FT)	PH (MICRO- MHOS)	TEMPER- ATURE (DEG C)	(SECCHI DISK) (M)	DIS- SOLVED (MG/L)
DATE		(UNITS)			
OCT , 1976					
20...	1430	1.0	29000	8.1	17.5 .13 -- --
20...	1432	15	29000	8.1	18.0 -- -- --
20...	1434	30	29000	8.0	18.0 -- -- --
20...	1436	45	31000	8.0	18.0 -- -- --
JUN , 1977					
22...	1415	1.0	50000	--	28.5 .40 7.9 127
22...	1417	20	50000	--	28.0 -- 7.3 118
22...	1419	45	46000	--	27.5 -- 5.1 79
AUG					
24...	1400	1.0	50000	--	30.0 -- 5.6 93
24...	1402	15	52000	--	29.5 -- 5.3 87
24...	1404	31	52000	--	29.5 -- 5.1 84
JUN , 1978					
06...	0955	2.0	26300	8.4	28.5 -- 6.7 97
06...	0957	20	34000	8.4	28.0 -- 6.5 95
06...	0959	40	41000	8.2	28.0 -- 5.7 87

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

294256095011300 LINE 180 SITE 20

DATE	TIME	SAMP- LING	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976													
21..	1315		1.0	2.8	.13	.17	.30	.68	.92	1.6	1.9	8.4	.870
21..	1319		40	2.0	.07	.06	.13	.32	.88	1.2	1.3	5.9	.460
NOV													
18..	1240		1.0	2.4	.15	.05	.20	.80	1.2	2.0	2.2	9.7	1.70
18..	1246		42	2.6	.00	.17	.01	--	--	1.4	1.4	6.2	.510
FEB , 1977													
03..	1445		1.0	--	.22	.04	.26	1.5	.50	2.0	2.3	10	1.50
03..	1451		42	--	.11	.04	.15	.73	.57	1.3	1.4	6.4	.920
JUN													
23..	1315		1.0	2.0	.09	.16	.25	.38	.82	1.2	1.4	6.4	.580
23..	1321		45	1.9	.08	.15	.23	.38	.82	1.2	1.4	6.3	.550
AUG													
25..	1230		1.0	2.8	.22	.98	1.2	.45	.65	1.1	2.3	10	13.0
25..	1236		41	2.0	.08	.38	.46	.22	.38	.60	1.1	4.7	.590
FEB , 1978													
08..	1150		1.0	2.0	.32	.06	.38	1.1	.40	1.5	1.9	8.3	.720
08..	1154		42	1.6	.26	.06	.32	.77	.63	1.4	1.7	7.6	.570
JUN													
07..	1131		1.0	7.6	.11	.89	1.0	1.6	1.4	3.0	4.0	18	1.60
07..	1136		45	7.3	.20	1.0	1.2	1.1	1.2	2.3	3.5	16	1.40

29433009442170D LINE 220 SITE 20

DATE	TIME	SAMP- LING	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976													
10..	1120		1.0	3.0	.00	.01	.01	.04	.87	.91	.92	4.1	.240
13..	1320		1.0	--	.01	.01	.02	.11	1.1	1.2	1.2	5.4	.220
29..	1100		1.0	--	.22	.01	.23	.02	.98	1.0	1.2	5.4	.170

294349094424800 LINE 220 SITE 30

DATE	TIME	SAMP- LING	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976													
10..	1330		1.0	1.9	.23	.00	.23	.04	.79	.83	1.1	4.7	.160
29..	1230		1.0	--	.22	.01	.23	.01	.68	.69	.92	4.1	.130
SEP , 1977													
20..	1200		1.0	--	.00	.00	.00	.04	.93	.97	.97	4.3	.210

29441609443300 LINE 220 SITE 40

DATE	TIME	SAMP- LING	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
DEC , 1976													
13..	1335		1.0	.19	.01	.20	.05	.79	.84	1.0	4.6	.130	
29..	1115		1.0	.24	.01	.25	.01	.77	.78	1.0	4.6	.150	
JUL , 1977													
06..	1340		1.0	.00	.01	.00	.02	.43	.45	.45	2.0	.160	
SEP													
20..	1140		1.0	.00	.00	.00	.03	.97	1.0	1.0	4.4	.210	

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

294443094441700 LINE 220 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
21...	1535	1.0	.00	.00	.00	.04	1.1	1.1	1.1	4.9	.290
21...	1537	6.0	.00	.00	.00	.07	.90	.97	.97	4.3	.420
NOV											
18...	1210	1.0	.03	.01	.04	.01	1.1	1.1	1.1	5.0	.330
18...	1212	6.0	.01	.01	.02	.12	.98	1.1	1.1	5.0	.360

294513094450300 LINE 220 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
10...	1155	1.0	.06	.01	.07	.04	.87	.91	.98	4.3	.200
13...	1345	1.0	.12	.01	.13	.07	1.0	1.1	1.2	5.4	.200

294322094430700 LINE 222 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
10...	1400	1.0	.21	.01	.22	.05	.78	.83	1.0	4.6	.140
10...	1404	6.0	.01	.01	.02	.05	1.0	1.1	1.1	5.0	.250

294149094422400 LINE 225 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
10...	1315	1.0	.00	.01	.01	.05	.75	.80	.81	3.6	.360

294232094434400 LINE 225 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
10...	1250	1.0	.00	.01	.01	.02	.87	.89	.90	4.0	.330

294122094424400 LINE 230 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
29...	1215	1.0	.23	.01	.24	.01	.77	.78	1.0	4.5	.150
APR , 1977											
26...	1345	1.0	.48	.02	.50	.04	.75	.79	1.3	5.7	.150
MAY											
04...	1315	1.5	.34	.02	.36	.05	.90	.95	1.3	5.8	.270
JUN											
16...	1300	1.0	.00	.01	.01	.01	.88	.89	.90	4.0	.170
JUL											
06...	1105	1.0	.00	.01	.00	.01	.70	.71	.71	3.1	.160
SEP											
20...	1040	1.0	.00	.00	.00	.04	.92	.96	.96	4.2	.310

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

294239094450700 LINE 230 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
03..	1245	1.0	.01	.00	.01	.10	.73	.83	.84	3.7	.510
03..	1247	6.0	.01	.00	.01	.08	.36	.44	.45	2.0	.460
JUN											
23..	1130	1.0	.00	.02	.01	.04	.69	.73	.74	3.3	.190
23..	1132	9.0	.00	.03	.01	.08	.85	.93	.94	4.2	.230
AUG											
26..	1400	1.0	.00	.01	.01	.04	.61	.65	.66	2.9	.310
26..	1402	8.0	.00	.01	.01	.04	.78	.82	.83	3.7	.320
FEB , 1978											
08..	1420	1.0	.05	.04	.09	.23	.72	.95	1.0	4.6	.210
08..	1422	6.0	.27	.06	.33	.23	.71	.94	1.3	5.6	.300
JUN											
05..	1334	1.0	.00	.01	.01	.01	.53	.54	.55	2.4	.120
05..	1336	9.0	.00	.01	.01	.05	.61	.66	.67	3.0	.190

294313094460800 LINE 230 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
10..	1230	1.0	.00	.00	.00	.04	.70	.74	.74	3.3	.350
10..	1232	7.5	.00	.01	.01	.03	.97	1.0	1.0	4.5	.360
29..	1200	1.0	.22	.01	.23	.01	.87	.88	1.1	4.9	.190
29..	1202	6.0	.21	.01	.22	.01	1.2	1.2	1.4	6.3	.250
APR , 1977											
26..	1410	1.0	.45	.01	.46	.02	.71	.73	1.2	5.3	.130
26..	1414	8.0	.45	.02	.47	.07	1.1	1.2	1.7	7.4	.170
MAY											
04..	1330	1.5	.39	.02	.41	.04	.78	.82	1.2	5.4	.120
04..	1332	8.0	.42	.00	.42	.04	.25	.29	.71	3.1	.190
10..	1345	1.0	.36	.00	.36	.04	.29	.33	.59	3.1	.190
10..	1347	8.0	.34	.00	.34	.04	.57	.61	.95	4.2	.250
17..	0845	1.0	.04	.00	.04	.06	1.6	1.6	1.6	7.3	.330
17..	0847	9.0	.06	.00	.06	.12	1.3	1.4	1.5	6.5	.350
JUN											
16..	1230	1.0	.02	.01	.03	.05	.93	.98	1.0	4.5	.220
JUL											
06..	1120	1.0	--	.01	.00	.00	.56	.56	.56	2.5	.190
06..	1124	8.0	.00	.02	.01	.02	.91	.93	.94	4.2	.230
SEP											
20..	1100	1.0	.00	.00	.00	.04	1.2	1.2	1.2	5.3	.370
20..	1106	7.5	.01	.00	.01	.11	1.1	1.2	1.2	5.4	.430

294420094480900 LINE 230 SITE 80

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976												
13..	1230	1.0	3.9	--	--	--	--	--	--	5.7	--	--
29..	1141	1.0	--	.29	.03	.32	.11	.86	.97	1.3	5.7	.330
APR , 1977												
26..	1430	1.0	--	.32	.03	.35	.06	.79	.85	1.2	5.3	.130
MAY												
04..	1350	1.5	--	.26	.00	.26	.04	.68	.72	.98	4.3	.230
JUL												
06..	1140	1.0	--	--	.01	.00	.02	.68	.70	.70	3.1	.190
SEP												
20..	1120	1.0	--	.00	.00	.00	.01	1.1	1.1	1.1	4.9	.340

Table 28.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

293810094441100 LINE 240 SITE 30

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
21..	1425	1.0	.00	.00	.00	.05	.92	.97	.97	4.3	.350
21..	1429	7.0	.00	.00	.00	.08	.92	1.0	1.0	4.4	.420
NOV											
18..	1115	1.0	.01	.00	.01	.01	.92	.93	.94	4.2	.310
18..	1117	9.0	.03	.00	.03	.05	1.2	1.3	1.3	5.9	.490
FEB , 1977											
03..	1430	1.0	.00	.01	.01	.10	.52	.62	.63	2.8	.550
03..	1432	8.0	.00	.01	.01	.05	.41	.46	.47	2.1	.390
JUN											
23..	1300	1.0	.00	.02	.01	.04	--	--	--	--	.180
23..	1302	9.0	.00	.02	.00	.04	.86	.90	.90	4.0	.190
AUG											
26..	1240	1.0	.01	.00	.01	.03	.38	.41	.42	1.9	.340
26..	1242	9.5	.02	.01	.03	.03	.64	.67	.70	3.1	.340
FEB , 1978											
08..	1445	1.0	.03	.01	.04	.03	.86	.89	.93	4.1	.340
08..	1447	6.0	.29	.06	.35	.29	.65	.94	1.3	5.7	.340
JUN											
05..	1243	1.0	.01	.02	.03	.01	1.1	1.1	1.1	5.0	.140
05..	1245	10	.00	.01	.01	.08	.78	.86	.87	3.9	.240

293850094451500 LINE 240 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
13..	1130	1.0	.00	.01	.01	.06	.70	.76	.77	3.4	.260
13..	1132	8.5	.00	.01	.01	.07	.75	.82	.83	3.7	.270
APR , 1977											
26..	1315	1.0	.56	.01	.57	.06	.80	.86	1.4	6.3	.230
26..	1321	8.5	.54	.02	.56	.07	1.4	1.5	2.1	9.1	.320
JUN											
16..	0905	1.0	.00	.01	.01	.01	.86	.87	.88	3.9	.210
16..	0907	10	.00	.01	.01	.01	.92	.93	.94	4.2	.220
JUL											
06..	1305	1.0	.00	.01	.01	.02	.50	.52	.53	2.3	.170
06..	1309	9.0	.00	.01	.00	.01	.74	.75	.75	3.3	.220

294004094470900 LINE 240 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
13..	1140	1.0	.01	.00	.01	.06	.85	.91	.92	4.1	.310
13..	1142	9.0	.00	.01	.01	.07	1.1	1.2	1.2	5.4	.440
APR , 1977											
26..	1300	1.0	.54	.02	.56	.04	.77	.81	1.4	6.1	.230
26..	1306	9.0	.51	.02	.53	.09	.87	.96	1.5	6.6	.270
MAY											
31..	1605	1.0	.01	.02	.03	.02	1.2	1.2	1.2	5.4	.170
31..	1509	9.0	.00	.03	.03	.10	1.0	1.1	1.1	5.0	.180
JUN											
16..	0915	1.0	.00	.01	.01	.03	1.1	1.1	1.1	4.9	.260
16..	0917	10	.00	.01	.01	.04	1.2	1.2	1.2	5.4	.280
JUL											
06..	1220	1.0	.00	.01	.00	.02	.56	.57	.57	2.5	.200
06..	1224	9.0	.00	.01	.00	.03	7.7	7.7	7.7	34	.240

Table 2B:--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

294120094490600 LINE 240 SITE 80

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976											
13..	1200	1.0	.01	.00	.01	.08	1.1	1.2	1.2	5.4	.440
13..	1202	8.0	.00	.01	.01	.07	.93	1.0	1.0	4.5	.470
APR , 1977											
26..	1240	1.0	.56	.02	.58	.07	.93	1.0	1.6	7.0	.200
26..	1246	8.5	.49	.02	.51	.13	.83	.96	1.5	6.5	.230
JUN											
16..	0930	1.0	.01	.01	.02	.05	.93	.98	1.0	4.4	.280
16..	0932	9.0	.00	.01	.01	.05	1.4	1.5	1.5	6.7	.320
JUL											
06..	1205	1.0	.00	.01	.00	.01	.99	1.0	1.0	4.4	.220
06..	1209	8.0	.00	.01	.01	.03	.84	.87	.88	3.9	.250

294158094500500 LINE 240 SITE 90

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV , 1976											
18..	1140	1.0	.00	.00	.00	.02	.95	.97	.97	4.3	.360
18..	1142	8.0	.08	.02	.10	.11	.82	.93	1.0	4.6	.410
FEB , 1977											
03..	1315	1.0	.00	.00	.00	.09	1.0	1.1	1.1	4.9	.380
03..	1317	6.0	.00	.01	.01	.07	.12	.19	.20	.90	.380
JUN											
23..	1200	1.0	.00	.02	.00	.05	.95	1.0	1.0	4.4	.240
23..	1202	8.0	.00	.02	.01	.05	.66	.71	.72	3.2	.270
AUG											
26..	1320	1.0	.00	.01	.01	.03	.79	.82	.83	3.7	.360
26..	1322	8.0	.00	.01	.01	.04	.58	.62	.63	2.8	.360
FEB , 1978											
08..	1340	1.0	.17	.04	.21	.23	.70	.93	1.1	5.0	.270
08..	1342	6.0	.17	.04	.21	.23	.65	.88	1.1	4.8	.270
JUN											
05..	1314	1.0	.00	.01	.01	.01	.61	.62	.63	2.8	.170
05..	1316	9.0	.00	.01	.01	.03	.97	1.0	1.0	4.5	.220

293348094482800 LINE 260 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
21..	1255	1.0	.00	.01	.01	.09	1.1	1.2	1.2	5.4	.430
21..	1257	6.0	.00	.01	.01	.08	.92	1.0	1.0	4.5	.450
NOV											
18..	1030	1.0	.01	.00	.01	.01	.91	.92	.93	4.1	.310
18..	1032	6.0	.02	.00	.02	.02	.90	.92	.94	4.2	.350
FEB , 1977											
03..	1400	1.0	.01	.00	.01	.06	1.3	1.4	1.4	6.2	.530
03..	1402	4.0	.01	.00	.01	.05	.72	.77	.78	3.5	.420
AUG											
26..	1220	1.0	.00	.01	.01	.03	.05	.08	.09	.40	.320
26..	1222	8.0	.01	.00	.01	.05	.48	.53	.54	2.4	.320
FEB , 1978											
08..	1510	1.0	.24	.05	.29	.27	.72	.99	1.3	5.7	.290
08..	1512	7.0	.25	.05	.30	.27	.66	.93	1.2	5.4	.320
JUN											
07..	0947	1.0	.02	.01	.03	.10	1.2	1.3	1.3	5.9	.160
07..	0949	6.0	.01	.01	.02	.08	1.0	1.1	1.1	5.0	.120

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

293519094500800 LINE 260 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, AS NO ₃) TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L)
DEC , 1976											
13..	0950	1.0	.00	.01	.01	.11	1.1	1.2	1.2	5.4	.460
13..	0952	9.0	.00	.01	.01	.11	1.1	1.2	1.2	5.4	.470
APR , 1977											
26..	1110	1.0	.36	.02	.38	.09	.86	.95	1.3	5.9	.220
26..	1116	8.0	.08	.01	.09	.37	.63	1.0	1.1	4.8	.270
MAY											
05..	1030	1.5	.51	.01	.52	.07	1.7	1.8	2.3	10	.360
06..	1032	8.0	.52	.01	.53	.09	1.5	1.6	2.1	9.4	.410
11..	0922	8.5	.26	.00	.26	.03	1.4	1.4	1.7	7.3	.280
JUN											
16..	1100	1.0	.01	.01	.02	.07	.93	1.0	1.0	4.5	.220

293650094514800 LINE 260 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, AS NO ₃) TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L)
OCT , 1976												
21..	1315	1.0	1.5	.00	.01	.01	.07	.55	.62	.63	2.8	.400
21..	1319	9.0	1.9	.02	.01	.03	.05	.55	.60	.63	2.8	.440
NOV												
18..	1110	1.0	2.6	.01	.01	.02	.06	.84	.90	.92	4.1	.380
18..	1112	9.0	1.5	.09	.02	.11	.16	.72	.88	.99	4.4	.410
DEC												
13..	0930	1.0	--	.15	.03	.18	.32	.98	1.3	1.5	6.6	.810
13..	0932	9.0	--	.15	.03	.18	.32	1.1	1.4	1.6	7.0	.800
FEB , 1977												
03..	1345	1.0	8.2	.01	.00	.01	.04	.92	.96	.97	4.3	.420
03..	1347	7.0	6.4	.01	.00	.01	.05	.68	.73	.74	3.3	.410
APR												
26..	1120	1.0	--	.02	.01	.03	.03	.96	.99	1.0	4.5	.220
26..	1126	9.0	--	.00	.02	.02	.08	.92	1.0	1.0	4.5	.310
MAY												
05..	1045	1.5	--	.35	.01	.36	.07	1.0	1.1	1.5	6.5	.330
05..	1047	9.0	--	.35	.00	.36	.06	1.8	1.9	2.3	10	.320
11..	0940	1.0	--	.22	.01	.23	.02	1.7	1.7	1.9	8.5	.350
11..	0942	10	--	.21	.00	.21	.06	1.8	1.9	2.1	9.3	.470
17..	1045	1.0	--	.05	.00	.05	.06	1.3	1.4	1.4	6.4	.420
17..	1047	11	--	.05	.00	.05	.06	1.1	1.2	1.2	5.5	.360
19..	0955	1.0	--	.07	.00	.07	--	--	1.5	1.6	6.9	.370
JUN												
16..	1020	1.0	--	.00	.01	.01	.04	.79	.83	.84	3.7	.250
16..	1022	10	--	.00	.01	.01	.06	.89	.95	.96	4.2	.270
AUG												
26..	1140	1.0	1.3	.00	.01	.01	.03	.07	.10	.11	.50	.310
26..	1142	9.5	2.0	.00	.01	.00	.03	1.3	1.3	1.3	5.8	.420
FEB , 1978												
08..	1310	1.0	1.8	.24	.05	.29	.32	.52	.84	1.1	5.0	.320
08..	1312	9.0	2.2	.22	.05	.27	.31	.66	.97	1.2	5.5	.320
JUN												
07..	1015	1.0	2.4	.01	.01	.02	.06	.86	.92	.94	4.2	.250
07..	1017	9.0	2.2	.00	.01	.01	.04	.94	.98	.99	4.4	.260

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

293821094532900 LINE 260 SITE 80

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHBT (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
21...	1330	1.0	--	.00	.00	.00	.03	.94	.97	.97	4.3
21...	1334	9.0	--	.00	.01	.01	.04	.96	1.0	1.0	4.5
NOV											
18...	1128	1.0	--	.08	.01	.09	.10	.90	1.0	1.1	4.8
18...	1127	9.0	--	.11	.03	.14	.25	.85	1.1	1.2	5.5
DEC											
13...	0915	1.0	2.8	.16	.03	.19	.39	1.1	1.5	1.7	.770
13...	0917	9.0	--	.14	.03	.17	.32	.88	1.2	1.4	.710
FEB , 1977											
03...	1330	1.0	--	.03	.00	.03	.03	1.4	1.4	1.4	.420
03...	1332	8.0	--	.01	.00	.01	.06	.50	.56	.57	.410
APR											
26...	1140	1.0	--	.17	.02	.19	.07	.86	.93	1.1	.50
26...	1146	10	--	.16	.04	.20	.34	1.4	1.7	1.9	.630
MAY											
05...	1115	1.5	--	.35	.01	.36	.07	1.5	1.6	2.0	.87
05...	1117	10	--	.36	.01	.37	.08	1.5	1.6	2.0	.320
11...	0955	1.0	--	.21	.00	.21	.03	1.6	1.6	1.8	.310
11...	0957	9.0	--	.21	.00	.21	.07	1.1	1.2	1.4	.330
17...	1115	1.0	--	.06	.00	.06	.04	1.2	1.2	1.3	.390
17...	1117	10	--	.05	.00	.05	.09	1.4	1.5	6.9	.590
JUN											
16...	1010	1.0	--	.00	.01	.01	.08	9.6	9.7	43	.270
16...	1012	9.0	--	.00	.01	.01	.10	.58	.68	.69	.320
AUG											
26...	1110	1.0	--	.00	.01	.00	.03	1.1	1.1	1.1	.390
26...	1112	8.5	--	.00	.01	.01	.05	1.5	1.6	1.6	.470
FEB , 1978											
08...	1236	1.0	--	.32	.07	.39	.68	.52	1.2	1.6	7.0
08...	1237	7.0	.28	.06	.34	.63	.47	1.1	1.4	6.4	.470
JUN											
07...	1045	1.0	.01	.01	.02	.05	.93	.98	1.0	4.4	.350
07...	1047	8.0	.01	.01	.02	.06	1.3	1.4	1.4	6.3	.310

293253095010400 LINE 330 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976										
21...	1220	2.0	.00	.01	.01	.06	.78	.84	.85	3.8
21...	1224	17	.01	.01	.02	.07	1.4	1.5	1.5	4.50
NOV										
18...	1335	1.0	.10	.02	.12	.05	1.1	1.2	1.3	5.8
FEB , 1977										
03...	1305	1.0	.00	.01	.01	.22	1.5	1.7	1.7	7.6
JUN										
23...	1155	1.0	.02	.07	.09	.07	1.0	1.1	1.2	5.3
AUG										
25...	1125	1.0	.02	.13	.15	.14	.57	.71	.86	3.8
FEB , 1978										
08...	0945	1.0	.39	.08	.47	.47	.83	1.3	1.8	7.8
JUN										
07...	1305	1.0	.03	.01	.04	.22	1.1	1.3	1.3	5.9
										.470

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

293428094553800 LINE 340 SITE 40

DATE	TIME	SAMP- LING	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL
				(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
OCT , 1976													
21..	1155	2.0	--	.04	.02	.06	1.5	.84	.92	.98	4.3	.330	
21..	1201	38	1.4	.01	.01	.02	.09	.57	.66	.68	3.0	.170	
NOV													
18..	1035	1.0	2.4	.11	.02	.13	.23	.70	.93	1.1	4.7	.510	
18..	1039	44	3.5	.02	.00	.02	.09	2.2	2.3	2.3	10	.540	
FEB , 1977													
03..	1145	1.0	--	.00	.01	.01	.23	1.6	1.8	1.8	8.0	.690	
03..	1153	40	--	.00	.01	.01	.10	.71	.81	.82	3.6	.270	
JUN													
23..	1045	1.0	1.7	.07	.13	.20	.20	.55	.75	.95	4.2	.600	
23..	1051	33	1.8	.04	.09	.13	.19	.73	.92	1.0	4.6	.470	
AUG													
25..	1010	1.0	1.6	.02	.01	.03	.15	.13	.28	.31	1.4	.300	
25..	1016	45	2.6	.03	.05	.03	.16	1.1	1.3	1.3	5.9	.380	
FEB , 1978													
08..	1045	1.0	1.9	.35	.06	.41	.52	.47	.99	1.4	6.2	.430	
08..	1049	48	2.4	.20	.01	.21	.16	.94	1.1	1.3	5.8	.270	
JUN													
07..	1225	1.0	2.6	.04	.05	.09	.09	1.0	1.1	1.2	5.3	.350	
07..	1229	45	2.5	.01	.02	.03	.06	2.9	3.0	3.0	13	.290	

293133094501400 LINE 350 SITE 30

DATE	TIME	SAMP- LING	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL	
				(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
APR , 1977													
26..	1040	1.0	.32	.04	.36	.14	.14	.84	.98	1.3	5.9	.240	
26..	1046	10	.10	.04	.14	.33	.97	1.3	1.4	6.4	.490		
MAY													
17..	1005	1.0	.17	.00	.17	.09	1.9	2.0	2.2	9.6	.360		
17..	1007	9.0	.17	.00	.17	.09	2.5	2.6	2.8	12	.360		

293030094523500 LINE 350 SITE 50

DATE	TIME	SAMP- LING	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL	
				(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
OCT , 1976													
21..	1125	2.0	.00	.01	.01	.08	.40	.48	.49	2.2	.290		
21..	1131	46	.00	.01	.01	.11	.87	.98	.99	4.4	.190		
NOV													
17..	1225	2.0	.00	.01	.01	.04	.75	.79	.80	3.5	.260		
17..	1231	40	.01	.00	.01	.07	.26	.33	.34	1.5	.130		
FEB , 1977													
03..	1100	1.0	.00	.01	.01	.05	.48	.53	.54	2.4	.290		
03..	1108	45	.00	.01	.01	.15	.80	.95	.96	4.2	.340		
JUN													
23..	1015	1.0	--	.04	.03	.04	.57	.61	.64	2.8	.350		
23..	1021	40	.00	.03	.01	.11	.54	.65	.66	2.9	.210		
AUG													
25..	0935	1.0	.01	.00	.01	.05	.03	.08	.09	.40	.320		
25..	0941	37	.01	.00	.01	.05	--	.04	.05	.20	.210		
FEB , 1978													
09..	1300	1.0	.23	.05	.28	.29	.49	.78	1.1	4.7	.270		
09..	1304	40	.19	.01	.20	.13	.56	.69	.89	3.9	.140		
JUN													
06..	1140	2.0	.00	.01	.01	.03	.58	.61	.62	2.7	.120		
06..	1144	42	.00	.01	.01	.01	1.1	1.1	1.1	4.9	.130		

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

29240109449070D LINE 380 SITE 40

DATE	TIME	DEPTH (FT)	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	
			GEN, NITRATE TOTAL (MG/L AS N)	GEN, NITRITE TOTAL (MG/L AS N)	GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	GEN, AMMONIA TOTAL (MG/L AS N)	GEN, ORGANIC TOTAL (MG/L AS N)	GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS NO ₃)	TOTAL (MG/L AS P)
OCT , 1976											
20...	1520	1.0	.00	.01	.01	.05	.30	.35	.36	1.6	.130
20...	1526	42	.00	.01	.01	.06	.72	.78	.79	3.5	.180
21...	1040	2.0	.00	.01	.01	.09	.34	.43	.44	1.9	.100
21...	1044	43	.00	.01	.01	.08	.30	.38	.39	1.7	.130
NOV											
17...	1315	2.0	.01	.00	.01	.04	.80	.64	.65	2.9	.230
17...	1319	30	.01	.00	.01	.05	.57	.62	.63	2.8	.150
FEB , 1977											
03...	1000	1.0	.00	.01	.01	.09	.11	.20	.21	.90	.150
03...	1004	45	.01	.01	.02	.12	.32	.44	.46	2.0	.120
JUN											
22...	1315	1.0	--	.03	.01	.04	.15	.19	.20	.90	.090
22...	1319	46	.00	.03	.03	.06	.33	.39	.42	1.9	.090
AUG											
24...	1245	1.0	.00	.01	.01	.00	.16	.16	.17	.80	.120
24...	1251	41	.02	.01	.03	.00	.00	.00	.03	.10	.050
FEB , 1978											
09...	1353	1.0	.07	.03	.10	.13	.44	.57	.67	3.0	.150
JUN											
06...	1215	2.0	.10	.01	.11	.08	.75	.83	.94	4.2	.020
06...	1219	40	.10	.01	.11	.12	.44	.56	.67	3.0	.020

293243094345200 LINE 430 SITE 20

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL (MG/L AS DAY 5 MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)		
			SAMP- LING	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL (MG/L AS DAY 5 MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)
OCT , 1976														
21...	1055	1.0	4.4	.00	.00	.00	.00	.03	1.4	1.4	6.2	.110		
21...	1057	5.0	4.2	.00	.00	.00	.02	1.2	1.2	1.2	5.3	.130		
NOV														
17...	1015	1.0	2.8	.00	.00	.00	.02	.91	.93	.93	4.1	.080		
17...	1017	5.0	3.0	.04	.00	.04	.02	1.2	1.2	1.2	5.5	.110		
FEB , 1977														
02...	1230	1.0	1.5	.10	.01	.11	.34	.31	.65	.76	3.4	.070		
02...	1232	6.0	1.4	.09	.01	.10	.33	.49	.82	.92	4.1	.080		
JUN														
22...	0845	1.0	2.8	.01	.03	.01	.05	.72	.77	.78	3.5	.110		
22...	0847	6.0	3.1	.00	.03	.00	.06	1.3	1.4	1.4	6.2	.130		
AUG														
24...	1000	1.0	4.1	.00	.01	.01	.07	.93	1.0	1.0	4.5	.200		
FEB , 1978														
09...	1100	1.0	1.4	--	--	--	--	--	--	--	--	--		
JUN														
06...	0949	1.0	2.5	.00	.01	.01	.06	.86	.92	.93	4.1	.040		
06...	0950	6.0	--	.00	.01	.01	.04	1.1	1.1	1.1	4.9	.050		

292720094451300 LINE 470 SITE 30

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)		
			SAMP- LING	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)
OCT , 1976													
21...	1220	1.0	.01	.00	.01	.05	.77	.82	.83	3.7	.410		
21...	1222	6.0	.00	.01	.01	.10	.82	.92	.93	4.1	.400		
NOV													
17...	1130	2.0	.01	.00	.01	.04	.72	.76	.77	3.4	.300		
17...	1132	7.0	.01	.00	.01	.05	1.0	1.1	1.1	4.9	.280		
FEB , 1977													
02...	1430	1.0	.00	.01	.01	.08	.30	.38	.39	1.7	.210		
02...	1432	8.0	.00	.01	.01	.08	.36	.44	.45	2.0	.200		
JUN													
22...	1150	1.0	.01	.00	.01	.04	.86	.90	.91	4.0	.240		
22...	1152	6.0	.01	.01	.02	.05	.90	.95	.97	4.3	.270		
AUG													
24...	1130	1.0	.00	.01	.00	.03	.43	.46	.46	2.0	.270		
24...	1132	7.0	.00	.01	.01	.05	.30	.35	.36	1.6	.250		
JUN , 1978													
06...	0818	1.0	.00	.01	.01	.04	.88	.92	.93	4.1	.050		
06...	0820	8.0	.00	.01	.01	.04	2.1	2.1	2.1	9.3	.050		

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

293029094462800 LINE 470 SITE 60

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976												
21..	1103	1.0	2.4	.00	.01	.01	.10	.73	.83	.84	3.7	.410
21..	1105	6.0	2.1	.01	.01	.02	.01	1.2	1.2	1.2	5.4	.480
NOV												
17..	1150	1.0	2.6	.00	.00	.00	.03	.81	.84	.84	3.7	.330
17..	1152	6.0	2.5	.01	.00	.01	.02	1.1	1.1	1.1	4.9	.330
FEB , 1977												
02..	1410	1.0	4.1	.00	.01	.01	.09	.67	.76	.77	3.4	.360
02..	1412	6.0	5.0	.00	.01	.01	.09	.64	.73	.74	3.3	.380
JUN												
22..	0945	1.0	2.1	.00	.00	.00	.10	.88	.98	.98	4.3	.230
22..	0947	7.0	2.6	.01	.00	.01	.05	.91	.96	.97	4.3	.270
AUG												
24..	1150	1.0	1.7	.01	.00	.01	.01	.01	.22	.23	.24	.250
24..	1152	7.0	1.8	.00	.01	.01	.03	.37	.40	.41	1.8	.250
JUN , 1978												
06..	0833	1.0	2.3	.00	.01	.01	.05	.79	.84	.85	3.8	.090
06..	0835	9.0	2.5	.00	.01	.01	.06	.76	.82	.83	3.7	.100

291744094531200 LINE 521 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976												
20..	1320	1.0	--	.00	.00	.00	.00	.07	.54	.61	2.7	.020
20..	1324	14	--	.00	.00	.00	.09	.67	.76	.76	3.4	.250
NOV												
17..	1415	1.0	--	.01	.00	.01	.05	.59	.64	.65	2.9	.160
17..	1417	9.0	--	.01	.00	.01	.04	.46	.50	.51	2.3	.170
FEB , 1977												
02..	0940	1.0	--	.01	.00	.01	.09	.10	.19	.20	.90	.170
02..	0944	12	--	.00	.01	.01	.08	.23	.31	.32	1.4	.150
JUN												
22..	0905	1.0	--	--	.02	.01	.06	.25	.31	.32	1.4	.110
22..	0907	13	--	.00	.01	.00	.04	.80	.84	.84	3.7	.170
AUG												
24..	0930	1.0	--	.03	.02	.05	.04	.19	.23	.28	1.2	.100
24..	0932	12	--	.01	.00	.01	.03	.15	.18	.19	.80	.120
FEB , 1978												
09..	1000	1.0	2.2	--	--	--	--	--	--	--	--	--
JUN												
07..	0914	1.0	--	.01	.01	.02	.06	.76	.82	.84	3.7	.070
07..	0916	14	--	.02	.01	.03	.06	.59	.65	.68	3.0	.060

291428094575900 LINE 530 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
OCT , 1976												
20..	1400	1.0	.00	.00	.00	.06	.47	.53	.53	2.3	.160	
20..	1402	6.0	.00	.00	.00	.07	.63	.70	.70	3.1	.150	
NOV												
17..	1015	1.0	.01	.00	.01	.04	.51	.55	.56	2.5	.180	
17..	1017	6.5	.01	.00	.01	.04	.50	.54	.55	2.4	.180	
FEB , 1977												
02..	1025	1.0	.01	.00	.01	.07	.06	.13	.14	.60	.130	
02..	1027	6.0	.00	.01	.01	.07	.02	.09	.10	.40	.130	
JUN												
22..	0940	1.0	.00	.01	.00	.04	.45	.49	.49	2.2	.110	
22..	0942	6.5	--	.01	--	.04	.31	.35	.35	1.5	.110	
AUG												
24..	1020	1.0	.00	.01	.00	.00	.14	.14	.14	.60	.080	
24..	1022	7.0	.00	.01	.00	.05	.30	.35	.35	1.5	.130	
JUN , 1978												
07..	0949	1.0	.01	.01	.02	.08	.67	.75	.77	3.4	.060	
07..	0950	7.0	.02	.01	.03	.06	.50	.56	.59	2.6	.060	

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

291127095015500 LINE 550 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
20...	1450	1.0	.00	.00	.00	.06	.61	.67	.67	3.0	.140
20...	1452	6.0	.00	.00	.00	.07	.63	.70	.70	3.1	.150
NOV											
17...	1115	1.0	.01	.00	.01	.03	.66	.69	.70	3.1	.190
17...	1117	6.5	.01	.00	.01	.05	.83	.88	.89	3.9	.180
FEB , 1977											
02...	1100	1.0	.01	.00	.01	.06	.20	.26	.27	1.2	.150
02...	1102	6.0	.01	.00	.01	.05	.17	.22	.23	1.0	.140
JUN											
22...	1010	1.0	.00	.01	.00	.04	.40	.44	.44	1.9	.110
22...	1012	6.0	.00	.01	.00	.05	.73	.78	.78	3.5	.120
AUG											
24...	1055	1.0	.00	.01	.00	.00	.31	.31	.31	1.4	.050
24...	1057	6.0	.00	.00	.00	.03	.38	.41	.41	1.8	.060
JUN , 1978											
07...	1022	1.0	.02	.01	.03	.03	.73	.76	.79	3.5	.030
07...	1024	7.0	.01	.01	.02	.04	.71	.75	.77	3.4	.030

291106095084200 LINE 565 SITE 30

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976												
20...	1545	1.0	--	.00	.00	.00	.50	.29	.79	.79	3.5	.120
20...	1551	10	--	.00	.01	.01	.08	.83	.91	.92	4.1	.130
NOV												
17...	1310	1.0	--	.01	.00	.01	.04	.80	.84	.85	3.8	.140
17...	1312	10	--	.01	.00	.01	.06	1.7	1.8	1.8	8.0	.250
FEB , 1977												
02...	1305	1.0	--	.01	.00	.01	.05	.63	.68	.69	3.1	.140
02...	1309	11	--	.00	.01	.01	.08	.41	.49	.50	2.2	.150
JUN												
22...	1140	1.0	--	.00	.01	.00	.05	1.6	1.7	1.7	7.5	.120
22...	1144	10	--	.00	.02	.00	.07	1.0	1.1	1.1	4.9	.120
AUG												
24...	1245	1.0	--	.02	.01	.03	.01	.77	.78	.81	3.6	.100
24...	1247	11	--	.00	.01	.01	.04	.46	.50	.51	2.3	.070
FEB , 1978												
09...	1300	1.0	2.3	--	--	--	--	--	--	--	--	--
JUN												
07...	1208	1.0	--	.41	.05	.46	.14	1.5	1.6	2.1	9.1	.060
07...	1210	12	--	.33	.05	.38	.17	2.7	2.9	3.3	15	.060

290664095075100 LINE 580 SITE 50

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT , 1976											
20...	1630	1.0	.00	.01	.01	.08	.51	.59	.60	2.7	.100
20...	1632	5.0	.00	.01	.01	.08	.44	.52	.53	2.3	.110
NOV											
17...	1230	1.0	.01	.00	.01	.05	.71	.76	.77	3.4	.160
17...	1232	6.0	.01	.00	.01	.03	.53	.56	.57	2.5	.160
FEB , 1977											
02...	1215	1.0	.00	.01	.01	.08	.08	.16	.17	.80	.150
02...	1217	5.0	.00	.01	.01	.07	.52	.59	.60	2.7	.170
JUN											
22...	1110	1.0	.00	.02	.02	.05	.54	.59	.61	2.7	.090
22...	1112	7.0	.01	.02	.03	.07	.49	.56	.59	2.6	.110
AUG											
24...	1215	1.0	.01	.02	.03	.00	.00	.00	.03	.10	.030
24...	1217	5.0	.02	.01	.03	.00	.04	.04	.07	.30	.040
JUN , 1978											
07...	1140	1.0	.05	.00	.05	.04	2.1	2.1	2.2	9.5	.010
07...	1141	5.0	.05	.01	.06	.06	.52	.58	.64	2.8	.010

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

300328094490500 LINE 600 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976												
08..	1000	1.0	2.0	.23	.00	.23	.06	1.1	1.2	1.4	6.3	.200
APR , 1977												
26..	0800	--	--	.55	.01	.56	.08	.66	.74	1.3	5.8	.160
MAY												
04..	1600	--	2.5	.64	.00	.64	.01	.21	.22	.86	3.8	.180
10..	1540	1.0	--	.54	.00	.54	.04	.52	.56	1.1	4.9	.210
16..	1615	--	--	.61	.00	.61	.04	.65	.69	1.3	5.8	.180
19..	1345	--	--	.71	.00	.71	.02	.31	.33	1.0	4.6	.170
JUN												
01..	0745	--	--	.00	.01	.01	.02	.63	.65	.66	2.9	.100
16..	1500	--	--	.07	.01	.08	.02	.78	.80	.88	3.9	.150

295855094485200 LINE 604 SITE 70

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976												
08..	1030	1.0	3.2	.06	.00	.06	.06	1.7	1.8	1.9	8.2	.220

295424094454500 LINE 620 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUL , 1977												
06..	1610	1.0	2.6	.00	.01	.00	.01	.34	.35	.35	1.5	.110
06..	1616	14	--	.00	.00	.00	.80	--	.57	.67	3.0	.130

295259094442400 LINE 630 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976												
08..	1235	1.0	2.0	.16	.01	.17	.02	1.1	1.1	1.3	5.6	.190
08..	1237	18	--	.16	.01	.17	.03	1.2	1.2	1.4	6.1	.220
10..	0900	1.0	--	.22	.01	.23	.05	.69	.74	.97	4.3	.160
28..	1445	1.0	1.6	.33	.01	.34	.02	.61	.63	.97	4.3	.150
29..	1330	1.0	--	.32	.01	.33	.01	.62	.63	.96	4.2	.140

295310094453200 LINE 630 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC , 1976												
10..	0950	1.0	1.7	.19	.00	.19	.03	.64	.67	.86	3.8	.130
28..	1345	1.0	1.3	.29	.01	.30	.02	.61	.63	.93	4.1	.150
SEP , 1977												
20..	1420	1.0	1.7	.04	.03	.07	.40	--	.23	.30	1.3	.130

Table 26.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

295034094450700 LINE 650 SITE 20

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, TOTAL 5 DAY	NITRO- GEN, TOTAL AS N)	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL AS N)	NITRO- GEN, TOTAL AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
DEC , 1976												
28..	1510	1.0	1.5	.01	.00	.01	.01	.72	.73	.74	3.3	.090
29..	1315	1.0	--	.00	.00	.01	.01	.75	.76	.76	3.4	.100

295015094454800 LINE 670 SITE 10

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL AS N)	NITRO- GEN, TOTAL AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
DEC , 1976												
29..	1535	1.0	--	.14	.01	.15	.00	.92	.92	1.1	4.7	.130
SEP , 1977												
20..	1345	1.0	2.7	.17	.05	.22	.02	.77	.79	1.0	4.5	.140
20..	1349	12	--	.16	.03	.19	.02	.85	.87	1.1	4.7	.150

295034094471200 LINE 670 SITE 40

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL AS N)	NITRO- GEN, TOTAL AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
DEC , 1976												
08..	1435	1.0	--	.05	.00	.05	.02	1.2	1.2	1.2	5.5	.130
08..	1437	9.0	--	.05	.01	.06	.03	1.4	1.4	1.5	6.5	.130
10..	1010	1.0	--	.10	.01	.11	.05	.79	.84	.95	4.2	.120
13..	1450	1.0	--	.15	.01	.16	.04	.72	.76	.92	4.1	.130
28..	1410	1.0	1.9	.15	.01	.16	.00	.72	.72	.88	3.9	.130
29..	1510	1.0	--	.24	.01	.25	.01	.74	.75	1.0	4.4	.130
SEP , 1977												
20..	1320	1.0	--	.00	.01	.01	.03	1.5	1.5	1.5	6.7	.170

295003094480700 LINE 670 SITE 80

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, 5 DAY	NITRO- GEN, TOTAL AS N)	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL AS N)	NITRO- GEN, TOTAL AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
DEC , 1976												
08..	1450	1.0	--	.03	.01	.04	.01	.99	1.0	1.0	4.6	.120
10..	1020	1.0	--	.17	.01	.18	.06	--	.03	.21	.90	.120
13..	1500	1.0	--	.07	.01	.08	.02	.90	.92	1.0	4.4	.140
28..	1315	1.0	1.9	.14	.01	.15	.01	.66	.67	.82	3.6	.120
29..	1440	1.0	--	.15	.01	.16	.03	.72	.75	.91	4.0	.130
SEP , 1977												
20..	1310	1.0	--	.00	.00	.00	.01	1.5	1.5	1.5	6.6	.190

Table 28.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

294759094432700 LINE 680 SITE 20

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHBT	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL	
			(MG/L)	(MG/L) AS N)	(MG/L) AS N)	(MG/L)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	
OCT , 1976													
21..	1505	1.0	2.4	.00	.00	.00	.00	.72	.72	.72	3.2	.140	
21..	1507	2.0	2.2	.00	.00	.00	.01	.73	.74	.74	3.3	.130	
NOV													
18..	1245	1.0	2.4	.03	.00	.03	.02	.84	.86	.89	3.9	.120	
18..	1247	8.0	2.1	--	.50	.02	.01	.83	.86	.86	3.8	.110	
DEC													
08..	1330	1.0	1.8	.15	.01	.16	.20	.90	1.1	1.3	5.6	.210	
10..	1100	1.0	1.8	.22	.01	.23	.04	.77	.81	1.0	4.6	.160	
13..	1545	1.0	--	.24	.01	.25	.06	.69	.75	1.0	4.4	.200	
28..	1530	1.0	--	.28	.01	.29	.01	.68	.69	.98	4.3	.140	
29..	1255	1.0	--	.29	.01	.30	.00	.69	.69	.99	4.4	.130	
FEB , 1977													
03..	1216	1.0	2.1	.39	.01	.40	.02	.60	.62	1.0	4.5	.130	
03..	1217	9.0	1.4	.40	.01	.41	.03	.62	.65	1.1	4.7	.140	
APR													
25..	1445	1.0	--	.50	.01	.51	.02	.46	.48	.99	4.4	.130	
MAY													
04..	1235	1.0	--	.61	.00	.61	.02	.33	.35	.96	4.2	.180	
16..	1345	1.0	--	.42	.00	.42	.07	.52	.59	1.0	4.5	.190	
16..	1347	10	--	.44	.00	.44	.07	1.0	1.1	1.5	6.8	.200	
19..	1200	1.0	--	.57	.00	.57	.01	.23	.24	.81	3.6	.170	
19..	1202	10	--	.57	.00	.57	.01	.26	.27	.84	3.7	.200	
JUN													
01..	1100	1.0	--	.08	.02	.10	.08	.47	.55	.65	2.9	.100	
13..	1452	8.5	--	.00	.01	.01	.01	.75	.76	.77	3.4	.090	
23..	1100	1.0	2.0	.05	.00	.05	.05	.63	.68	.73	3.2	.240	
23..	1102	10	1.9	.08	.00	.08	.07	1.2	1.2	1.4	6.1	.260	
JUL													
06..	1455	1.0	--	.00	.00	.00	.02	.56	.58	.58	2.6	.120	
AUG													
26..	1440	1.0	2.3	.01	.01	.02	.01	.64	.65	.67	3.0	.210	
26..	1442	10	1.4	.02	.01	.03	.02	.75	.77	.80	3.5	.200	
SEP													
20..	1220	1.0	--	.01	.02	.03	.03	.70	.73	.76	3.4	.120	
JAN , 1978													
24..	0916	1.0	.9	.15	.01	.16	.07	.59	.66	.82	3.6	.110	
24..	0918	11	.9	--	.01	--	.00	.56	.56	--	--	.120	
JUN													
05..	1410	1.0	2.9	.00	.01	.01	.01	.01	1.3	1.3	1.3	5.8	.080
05..	1412	11	2.0	.01	.01	.02	.08	.65	.73	.75	3.3	.090	

294813094471300 LINE 680 SITE 80

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL	
			(MG/L) AS N)	(MG/L) AS N)	(MG/L)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
DEC , 1976												
08..	1515	1.0	.06	.01	.07	.01	.91	.92	.99	4.4	.130	
08..	1517	11	.00	.01	.01	.01	1.1	1.1	1.1	4.9	.120	
10..	1030	1.0	.22	.01	.23	.06	.58	.64	.87	3.9	.120	
28..	1300	1.0	.14	.01	.15	.00	.69	.69	.84	3.7	.110	
28..	1302	11	.14	.01	.15	.01	.69	.70	.85	3.8	.110	
29..	1550	1.0	.12	.01	.13	.01	.76	.77	.90	4.0	.130	
APR , 1977												
25..	1520	1.0	.50	.02	.52	.06	.51	.57	1.1	4.8	.160	
25..	1524	16	.51	.02	.53	.07	.79	.86	1.4	6.2	.200	
JUN												
13..	1200	1.0	.00	.01	.01	.01	1.4	1.4	1.4	6.2	.180	
13..	1202	13	.00	.01	.01	.01	1.5	1.5	1.5	6.7	.240	
JUL												
06..	1515	1.0	.89	.01	.90	.07	.76	.83	1.7	7.7	.190	
06..	1521	11	.00	.01	.01	.32	1.1	1.4	1.4	6.2	.220	
SEP												
20..	1250	1.0	.01	.00	.01	.01	1.3	1.3	1.3	5.8	.150	
20..	1256	11	.00	.00	.00	.04	1.1	1.1	1.1	4.9	.220	

Table 2B.--Quality of water in the Trinity-San Jacinto estuary, water year 1977-78--Continued
Nutrient Analyses--Continued

29471209444D200 LINE 690 SITE 40

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)
DEC , 1976												
08...	1630	1.0	1.7	.14	.01	.15	.01	.90	.91	1.1	4.7	.140
10...	1045	1.0	--	.22	.01	.23	.04	.62	.66	.89	3.9	.130
13...	1530	1.0	--	.23	.01	.24	.07	.62	.69	.93	4.1	.140
28...	1235	1.0	--	.24	.01	.25	.01	.66	.67	.92	4.1	.130

294629094465400 LINE 690 SITE 80

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)
DEC , 1976												
08...	1545	1.0	1.9	.08	.01	.09	.01	1.2	1.2	1.3	5.7	.130

291929094393300 LINE 904 SITE 20

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)
OCT , 1976											
20...	1430	1.0	.00	.01	.01	.11	.31	.42	.43	1.9	.070
20...	1436	45	.01	.01	.02	.13	.81	.94	.96	4.2	.170
JUN , 1977											
22...	1415	1.0	.00	.01	.01	.04	.26	.30	.31	1.4	.070
22...	1419	45	.03	.03	.06	.06	.59	.65	.71	3.1	.070
AUG											
24...	1400	1.0	.02	.02	.04	.00	.00	.00	.04	.20	.020
24...	1404	31	.01	.03	.04	.02	.25	.27	.31	1.4	.040
JUN , 1978											
06...	0955	2.0	.09	.01	.10	.12	1.5	1.6	1.7	7.5	.060
06...	0959	40	.03	.01	.04	.16	.70	.86	.90	4.0	.020

Table 2C.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78
 Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

294255095011300 LINE 180 SITE 20

DATE	TIME	SPECIFIC COND.		HARD- NESS	NONCAR- BONATE	CALCIUM	MAGNE- SIUM,	SODIUM,	SODIUM	
		SAMP- LING	DEPTH (FT)	(MG/L MHS)	(MG/L CACO ₃)	(MG/L CACO ₃)	SOLVED (MG/L AS CA)	SOLVED (MG/L AS MG)	SOLVED (MG/L AS NA)	AD- SORP- TION RATIO
OCT , 1976										
21...	1315	1.0	22000	2900	2800	210	570	4600	76	37
NOV										
18...	1240	1.0	25000	2800	2700	200	570	4000	74	33
FEB , 1977										
03...	1445	1.0	22000	2600	2500	200	500	4400	77	38
JUN										
23...	1315	1.0	18000	1900	1800	150	360	3100	77	31
AUG										
25...	1230	1.0	24000	2700	2600	210	520	4500	77	38
FEB , 1978										
08...	1150	1.0	19100	2000	2000	140	410	.9	0	.0
JUN										
07...	1131	1.0	16500	1800	1600	150	340	3000	77	31

DATE	POTAS- SIUM, DIS- SOLVED (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (MG/L)	ALKA- LINITY (CACO ₃)	SULFATE (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L)	SILICA, DIS- SOLVED (MG/L)	SOLIDs, CONSTITUENTS, (TONS)	SOLIDs, DIS- SOLVED (AC-Ft)
	AS K)	HCO ₃)	AS CO ₃)	AS	AS SO ₄)	AS CL)	AS F)	SiO ₂)	AS	PER
OCT , 1976										
21...	180	145	--	119	1200	--	1.3	5.5	15400	20.9
NOV										
18...	200	131	--	107	1100	8300	1.5	5.2	14400	19.6
FEB , 1977										
03...	180	140	0	115	1000	7500	1.5	5.9	13900	18.9
JUN										
23...	110	134	--	110	810	5300	.8	5.8	9900	13.5
AUG										
25...	170	150	0	123	1100	8100	4.5	5.8	14700	20.0
FEB , 1978										
08...	130	100	0	82	850	6000	--	5.1	7590	10.3
JUN										
07...	120	160	--	131	0	5400	1.2	8.3	9100	12.4

294416094433300 | THE 220 SITE 40

294322094430700 LINE 222 SITE 40

Table 2G.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Chemical Analyses--Continued

294322094430700 LINE 222 SITE 40--Continued

DATE	POTAS-SIUM, DIS-SOLVED (MG/L)	BICAR-BONATE (MG/L)	ALKALINITY (MG/L)	SULFATE SOLVED (MG/L)	CHLO- RIDE, DIS-SOLVED (MG/L)	FLUO- RIDE, DIS-SOLVED (MG/L)	SILICA, DIS-SOLVED (MG/L)	SOLIDS, CONSTITUENTS, (TONS PER AC-FT)	
	AS K) HCO3)	AS CACO3)	AS AS CACO3)	AS AS SO4)	AS AS CL)	AS AS F)	AS AS SiO2)	SOLIDS, SUM OF TANTS, (TONS AC-FT)	
DEC , 1976 10...	140	107	88	570	4100	.6	4.9	7550	10.3

294313094460800 LINE 230 SITE 60

DATE	SPE-CIFIC CONDUC-TION TIME		HARD-NESS, DUCT-ANCE (MICRO-MHOS)	HARD-NESS, NONCAR-BONATE (MG/L)	CALCIUM BONATE (MG/L)	MAGNE-SIUM, DIS-SOLVED (MG/L)	SODIUM, DIS-SOLVED (MG/L)	SODIUM ADSORPTION RATIO		
	SAMP-LING	DEPTH (FT)	AS CACO3)	AS CACO3)	AS CA)	AS MG)	AS NA)	PERCENT		
APR , 1977 26...	1410	1.0	340	120	26	38	5.3	27	32	1.1
MAY 04...	1330	1.5	350	110	14	37	4.3	27	34	1.1
10...	1345	1.0	340	120	24	40	4.5	25	30	1.0
JUL 06...	1120	1.0	6000	680	570	75	120	1000	75	17
SEP 20...	1100	1.0	20000	2400	2300	190	460	4000	77	36

DATE	POTAS-SIUM, DIS-SOLVED (MG/L)	BICAR-BONATE (MG/L)	ALKALINITY (MG/L)	SULFATE SOLVED (MG/L)	CHLO- RIDE, DIS-SOLVED (MG/L)	FLUO- RIDE, DIS-SOLVED (MG/L)	SILICA, DIS-SOLVED (MG/L)	SOLIDS, SUM OF TANTS, (TONS PER AC-FT)		
	AS K) HCO3)	AS CACO3)	AS AS CACO3)	AS AS SO4)	AS AS CL)	AS AS F)	AS AS SiO2)	SOLIDS, SUM OF TANTS, (TONS AC-FT)		
APR , 1977 26...	4.6	110	--	90	41	34	.3	5.5	210	.29
MAY 04...	4.6	117	0	96	40	32	.2	3.9	207	.28
10...	4.7	115	0	94	39	36	.3	6.2	212	.29
JUL 06...	42	130	0	107	260	1800	.5	7.1	3370	4.58
SEP 20...	150	150	--	123	970	6800	.9	3.5	12600	17.1

293650094514800 LINE 260 SITE 60

DATE	SPE-CIFIC CONDUC-TION TIME		HARD-NESS, DUCT-ANCE (MICRO-MHOS)	HARD-NESS, NONCAR-BONATE (MG/L)	CALCIUM BONATE (MG/L)	MAGNE-SIUM, DIS-SOLVED (MG/L)	SODIUM, DIS-SOLVED (MG/L)	SODIUM ADSORPTION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L)		
	SAMP-LING	DEPTH (FT)	AS CACO3)	AS CACO3)	AS CA)	AS MG)	AS NA)	PERCENT	AS K)		
DEC , 1976 13...	0930	1.0	21400	2400	2300	180	480	3800	76	34	170
APR , 1977 26...	1120	1.0	6550	620	530	68	110	1000	76	17	42
MAY 05...	1045	1.5	1200	170	68	38	17	160	66	5.4	11
11...	0940	1.0	5300	610	510	64	110	920	76	16	12
17...	1045	1.0	1470	190	87	38	22	210	69	6.7	14
19...	0955	1.0	3200	390	290	53	62	570	75	13	27
JUN 16...	1020	1.0	17900	--	--	--	380	3200	142	--	120
JUN , 1978 07...	1015	1.0	27400	2700	2600	200	540	5000	79	42	200

Table 2C---Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Chemical Analyses--Continued

293650094514800 LINE 260 SITE 60--Continued

	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLID(S, CONSTITUENTS, (MG/L AS SiO2)	SUM OF SOLIDS, DIS-SOLVED (TONS AC-FT)
DATE										
DEC , 1976										
13...	113	0	93	--	970	7200	1.0	3.7	12900	17.5
APR , 1977										
26...	114	0	94	--	260	1800	.5	4.5	3340	4.54
MAY										
05...	118	0	97	--	70	260	.4	4.8	619	.84
11...	118	0	97	--	270	1600	.5	4.2	3040	4.13
17...	120	0	98	--	77	330	.4	--	--	--
19...	120	0	98	1.2	160	940	.4	5.2	1880	2.56
JUN										
16...	--	--	--	--	780	--	.7	5.0	--	--
JUN , 1978										
07...	130	0	107	1.7	1500	8400	.7	3.1	15900	21.6

293428094553800 LINE 340 SITE 40

	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	HARD-NESS, NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SOLID(S, ADSORP-TION RATIO	SODIUM DIS-SOLVED (MG/L AS K)	POTAS-SIUM, DIS-SOLVED (TONS AC-FT)			
TIME	DEPTH (FT)										
DATE											
OCT , 1976											
21...	1155	2.0	--	3900	3800	270	780	4400	70	31	230
NOV											
18...	1035	1.0	28000	3300	3200	200	680	5400	77	41	220
JUN , 1977											
23...	1045	1.0	22100	2300	2200	180	450	4100	78	37	150
AUG											
25...	1010	1.0	25000	2700	2600	200	540	4400	76	37	200
FEB , 1978											
08...	1045	1.0	22000	2500	2400	170	510	4100	77	36	170
JUN											
07...	1225	1.0	30100	3500	3300	230	700	5800	77	43	230

	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLID(S, CONSTITUENTS, (MG/L AS SiO2)	SUM OF SOLIDS, DIS-SOLVED (TONS AC-FT)	
DATE											
OCT , 1976											
21...	142	0	116	--	1200	11000	1.1	2.8	18000	24.5	
NOV											
18...	150	0	123	--	1300	9700	1.1	3.5	17600	23.9	
JUN , 1977											
23...	139	0	114	--	1000	7000	.8	4.7	13000	17.7	
AUG											
25...	150	0	123	--	1200	8400	.7	5.4	15000	20.4	
FEB , 1978											
08...	120	0	98	--	1000	7800	.7	3.9	13800	18.8	
JUN											
07...	140	0	115	1.8	980	11000	.9	2.1	19000	25.8	

293133094501400 LINE 350 SITE 30

	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	HARD-NESS, NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SOLID(S, ADSORP-TION RATIO				
TIME	DEPTH (FT)									
DATE										
APR , 1977										
26...	1040	1.0	2200	390	300	53	63	570	74	13

	POTAS-SIUM, DIS-SOLVED (MG/L AS K) HCO3	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLID(S, CONSTITUENTS, (MG/L AS SiO2)	SUM OF SOLIDS, DIS-SOLVED (TONS AC-FT)
DATE											
APR , 1977											
26...	26	110	0	90	170	1000	.4	5.1	1940	2.64	

Table 2C.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Chemical Analyses--Continued

293243094345200 LINE 430 SITE 20

DATE	TIME	SAMP-	LING	DEPTH	(FT)	SPECIFIC CON-	DUCT-	NESS	HARD-	NONCAR-	CALCIUM	MAGNE-	SODIUM,	SODIUM	SODIUM	POTAS-			
		(MICRO-	(MHO)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	RATIO	SOLVED			
		CACO ₃)	CACO ₃)	CACO ₃)	CACO ₃)	AS NA)	AS NA)	PERCENT	AS K)										
OCT , 1976																			
21...		1055		1.0	24000		2700		2600		190		540		4400		77	37	170
NOV																			
17...		1015		1.0	22000		2400		2300		170		470		3800		76	34	150
FEB , 1977																			
02...		1230		1.0	18000		1900		1800		120		380		5800		86	58	140
JUN																			
22...		0845		1.0	15000		1300		1300		110		260		2500		79	30	90
AUG																			
24...		1000		1.0	25000		2700		2600		210		540		4800		78	40	190
FEB , 1978																			
09...		1100		1.0	16000		1800		1800		120		369		2800		76	29	110
JUN																			
06...		0949		1.0	34000		3800		3700		250		770		6600		78	47	260

DATE	HCO ₃)	BICAR-	BONATE	CAR-	BONATE	ALKA-	LINITY	DIOXIDE	CARBON	DIOXIDE	SULFATE	CHLO-	FLUO-	SILICA,	SOLIDS,	SUM OF	DIS-			
		(MG/L	AS	(MG/L	AS	(MG/L	AS	(MG/L	AS	(MG/L	AS	(MG/L	AS	(MG/L	AS	(MG/L	CONSTITUENTS,	SOLVENTS,	SOLVED	
OCT , 1976																				
21...		112		0		92		--		1100		8100		.7		--	--	--	--	
NOV																				
17...		90		0		74		--		930		6900		.6		3.9		12600		17.0
FEB , 1977																				
02...		76		0		62		--		800		--		.5		--	--	--	--	
JUN																				
22...		88		0		72		--		610		4100		.5		--	--	--	--	
AUG																				
24...		130		0		107		--		1100		8300		.6		5.3		15200		20.7
FEB , 1978																				
09...		78		0		64		--		720		5300		.4		2.7		9460		12.9
JUN																				
06...		120		0		98		1.9		1600		12000		.7		3.9		21500		29.2

293029094462800 LINE 470 SITE 60

DATE	TIME	SAMP-	LING	DEPTH	(FT)	SPECIFIC CON-	DUCT-	NESS	HARD-	NONCAR-	CALCIUM	MAGNE-	SODIUM,	SODIUM	SODIUM	AD-			
		(MICRO-	(MHO)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	RATIO	SORPTION			
		CACO ₃)	CACO ₃)	CACO ₃)	CACO ₃)	AS NA)	AS NA)	PERCENT	AC-FT)										
JUN , 1977																			
22...		0945		1.0	16000		1900		1800		150		370		19100		95	191	
FEB , 1978																			
09...		1210		1.0	24000		2800		2700		190		560		--		--	--	--
JUN																			
22...		126		0		103		820		5900		.6		5.4		26500		36.0	
FEB , 1978																			
09...		180		1.0		98		--		8500		.4		2.8		--	--	--	--

291744094531200 LINE 521 SITE 50

DATE	TIME	SAMP-	LING	DEPTH	(FT)	SPECIFIC CON-	DUCT-	NESS	HARD-	NONCAR-	CALCIUM	MAGNE-	SODIUM,	SODIUM	SODIUM	AD-			
		(MICRO-	(MHO)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	RATIO	SORPTION			
		CACO ₃)	CACO ₃)	CACO ₃)	CACO ₃)	AS NA)	AS NA)	PERCENT	AC-FT)										
FEB , 1978																			
09...		1000		1.0	36000		4100		4000		260		840		6700		78	45	

Table 2C.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Chemical Analyses--Continued

291744094531200 LINE 521 SITE 50--Continued

DATE	POTAS-	BICAR-	ALKA-	SULFATE	CHLO-	FLUO-	SILICA,	SOLIDS,	
	SIUM, DIS- SOLVED (MG/L AS K)	BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	LINITY (MG/L CAC03)	DIS- SOLVED (MG/L AS SO4)	RIDE, DIS- SOLVED (MG/L AS CL)	RIDE, DIS- SOLVED (MG/L AS F)	SOLID, DIS- SOLVED (MG/L AS S102)	SUM OF SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1978 09...	.9	130	0	107	1900	12000	1.0	1.2	21800 29.6

291428094575900 LINE 530 SITE 50

TIME	SPE- CIFIC CON- DUCT- LING	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM (MG/L AS CAC03)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM RATIO	POTAS- SIUM, DIS- SOLVED (TONS PER AC-FT)
	DEPTH (FT)	(MICRO- MHOS)	(MG/L AS CAC03)	(MG/L AS CAC03)	(MG/L AS CA)	(MG/L AS MG)	PERCENT	(MG/L AS K)
OCT , 1976 20...	1400	1.0	39000	4800	4600	320	960	39000
NOV 17...	1015	1.0	37000	4500	4400	320	910	7200
FEB , 1977 02...	1025	1.0	41000	5500	5400	610	970	8500
JUN 22...	0940	1.0	45000	4800	4700	350	960	9300
AUG 24...	1020	1.0	49000	5900	5700	370	1200	9800
JUN , 1978 07...	0949	1.0	44200	5200	5100	280	1100	8500
								77 51 350

DATE	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
	TIME	SAMP- LING DEPTH (FT)	SPEC- IFIC COND- DUCT- ANCE (MICRO- MHOS)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM (MG/L CAC03)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
OCT , 1976 20...	144	0	118	--	--	14000	1.1	.9	-- --
NOV 17...	140	0	115	--	1800	13000	1.1	1.4	23600 32.1
FEB , 1977 02...	130	0	107	--	2000	15000	.6	1.1	27500 37.4
JUN 22...	146	0	120	--	2900	16000	3.3	--	-- --
AUG 24...	160	0	131	--	2300	19000	1.1	2.9	33100 45.0
JUN , 1978 07...	140	0	115	2.8	1300	16000	.8	2.9	27600 37.5

290654095075100 LINE 580 SITE 50

DATE	SPE- CIFIC CON- DUCT- LING	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM (MG/L CAC03)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
	TIME	DEPTH (FT)	(MG/L CAC03)	(MG/L CAC03)	(MG/L AS MG)	(MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
JUN , 1977 22...	1110	1.0	48000	5600	5400	380	1100	9600 78 56
JUN , 1977 22...	340	150	0	123	2300	18000	2.6	2.0 31800 43.2

Table 2C.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Chemical Analyses--Continued.

300328094490500 LINE 600 SITE 20

DATE	TIME	SAMP-LING (FT)	DEPTH (MICRO-MHOS)	SPE-CIFIC DUCT-ANCE (MG/L CACO ₃)	HARD-NESS, NONCAR-BONATE (MG/L CACO ₃)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
DEC , 1976										
08...	1000	1.0	180	99	17	35	2.7	20	30	.9
MAY , 1977										
04...	1600	--	--	110	15	36	3.7	21	29	.9
10...	1540	1.0	339	110	17	37	3.8	20	28	.8
16...	1615	--	--	120	18	40	3.9	20	26	.8
19...	1345	--	--	110	13	38	4.0	21	28	.9
JUN										
01...	0745	--	--	130	14	45	3.9	21	25	.8
16...	1500	--	--	72	10	25	2.4	14	29	.7
DATE		POTAS-SIUM, (MG/L AS K)	BICAR-BONATE (MG/L AS HC03)	CAR-BONATE (MG/L AS C03)	ALKALINITY (MG/L CACO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLID(S), SUM OF TUENTS, DIS-SOLVED (TONS PER AC-FT)
DEC , 1976										
08...	4.0	99	0	81	24	25	.3	7.8	168	.23
MAY , 1977										
04...	4.3	110	0	90	38	23	.3	3.2	184	.25
10...	4.2	111	0	91	33	--	.2	5.6	--	--
16...	4.4	120	0	98	36	24	.2	7.1	195	.27
19...	4.4	120	0	98	35	22	.2	7.7	191	.26
JUN										
01...	4.2	140	0	115	32	23	.2	5.8	204	.28
16...	2.8	76	0	62	18	--	.1	6.6	--	--

29525909442400 LINE 630 SITE 20

DATE	TIME	SAMP-LING (FT)	DEPTH (MICRO-MHOS)	SPE-CIFIC DUCT-ANCE (MG/L CACO ₃)	HARD-NESS, NONCAR-BONATE (MG/L CACO ₃)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
DEC , 1976										
28...	1445	1.0	290	93	12	32	3.1	22	39	1.0
DATE		POTAS-SIUM, (MG/L AS K)	BICAR-BONATE (MG/L AS HC03)	CAR-BONATE (MG/L AS C03)	ALKALINITY (MG/L CACO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLID(S), SUM OF TUENTS, DIS-SOLVED (TONS PER AC-FT)
DEC , 1976										
28...	4.0	98	0	80	28	27	.3	8.4	173	.24

295034094471200 LINE 670 SITE 40

DATE	TIME	SAMP-LING (FT)	DEPTH (MICRO-MHOS)	SPE-CIFIC DUCT-ANCE (MG/L CACO ₃)	HARD-NESS, NONCAR-BONATE (MG/L CACO ₃)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
DEC , 1976										
29...	1510	1.0	330	100	17	35	3.2	23	32	1.0
DATE		POTAS-SIUM, (MG/L AS K)	BICAR-BONATE (MG/L AS HC03)	CAR-BONATE (MG/L AS C03)	ALKALINITY (MG/L CACO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLID(S), SUM OF TUENTS, DIS-SOLVED (TONS PER AC-FT)
DEC , 1976										
29...	4.0	102	0	84	29	27	.3	8.4	180	.24

Table 2C.--Quality of water in the Trinity-San Jacinto estuary, water years 1977-78--Continued
Chemical Analyses--Continued

294759094432700 LINE 680 SITE 20

DATE	TIME	SAMP- LING DEPTH (FT)	SPEC- IFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS, AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
NOV , 1976										
18..	1245	1.0	400	150	60	43	11	40	36	1.4
FEB , 1977										
03..	1215	1.0	500	120	23	41	4.2	36	38	1.4

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
NOV , 1976										
18..	4.0	113	0	93	36	67	.3	8.6	266	.36
FEB , 1977										
03..	4.4	118	0	97	31	50	.3	8.0	233	.32

DATE	TIME	SAMP- LING DEPTH (FT)	SPEC- IFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS, AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAY , 1977											
19..	1200	1.0	360	110	12	38	3.8	24	31	1.0	4.4
JUN											
01..	1100	1.0	380	130	20	44	4.1	31	34	1.2	4.3
23..	1100	1.0	400	120	16	41	4.0	23	29	.9	4.1
AUG											
26..	1440	1.0	650	150	22	49	5.6	54	44	1.9	4.7
JAN , 1978											
24..	0916	1.0	310	110	99	37	3.9	27	34	1.1	4.0
JUN											
05..	1410	1.0	637	140	32	43	7.5	67	50	2.5	5.9

DATE	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
MAY , 1977											
19..	120	0	98	--	34	28	.2	7.1	199	.27	
JUN											
01..	130	0	107	--	36	38	.3	6.0	228	.31	
23..	126	0	103	--	30	26	.3	6.8	197	.27	
AUG											
26..	150	0	123	--	37	84	.3	7.9	316	.43	
JAN , 1978											
24..	11	0	9	--	30	38	.2	6.6	152	.21	
JUN											
05..	130	0	107	.8	49	96	.4	6.4	339	.46	

29471209440200 LINE 690 SITE 40

DATE	TIME	SAMP- LING DEPTH (FT)	SPEC- IFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS, AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
DEC , 1976										
10..	1045	1.0	200	91	20	31	3.4	28	39	1.3
28..	1235	1.0	330	97	16	33	3.5	28	37	1.2

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DEC , 1976										
10..	3.9	87	0	71	24	35	.2	7.8	176	.24
28..	4.0	99	0	81	33	35	.3	8.1	194	.26

Brazos Estuary

The Brazos estuary, which has an area of about 3 square miles (8 km^2) consists of the tidal parts of the Brazos River and parts of the Intracoastal Waterway (Figure 4). Although Freeport Harbor is not directly connected with the estuary, wastes from industrial operations around the harbor are discharged into the estuary. Water depth at mean low water is about 10 feet (3.0 m) in the river and about 15 feet (4.6 m) in the Intracoastal Waterway.

Water-quality data (Table 3) were collected during February and June 1977 and February and May 1978.

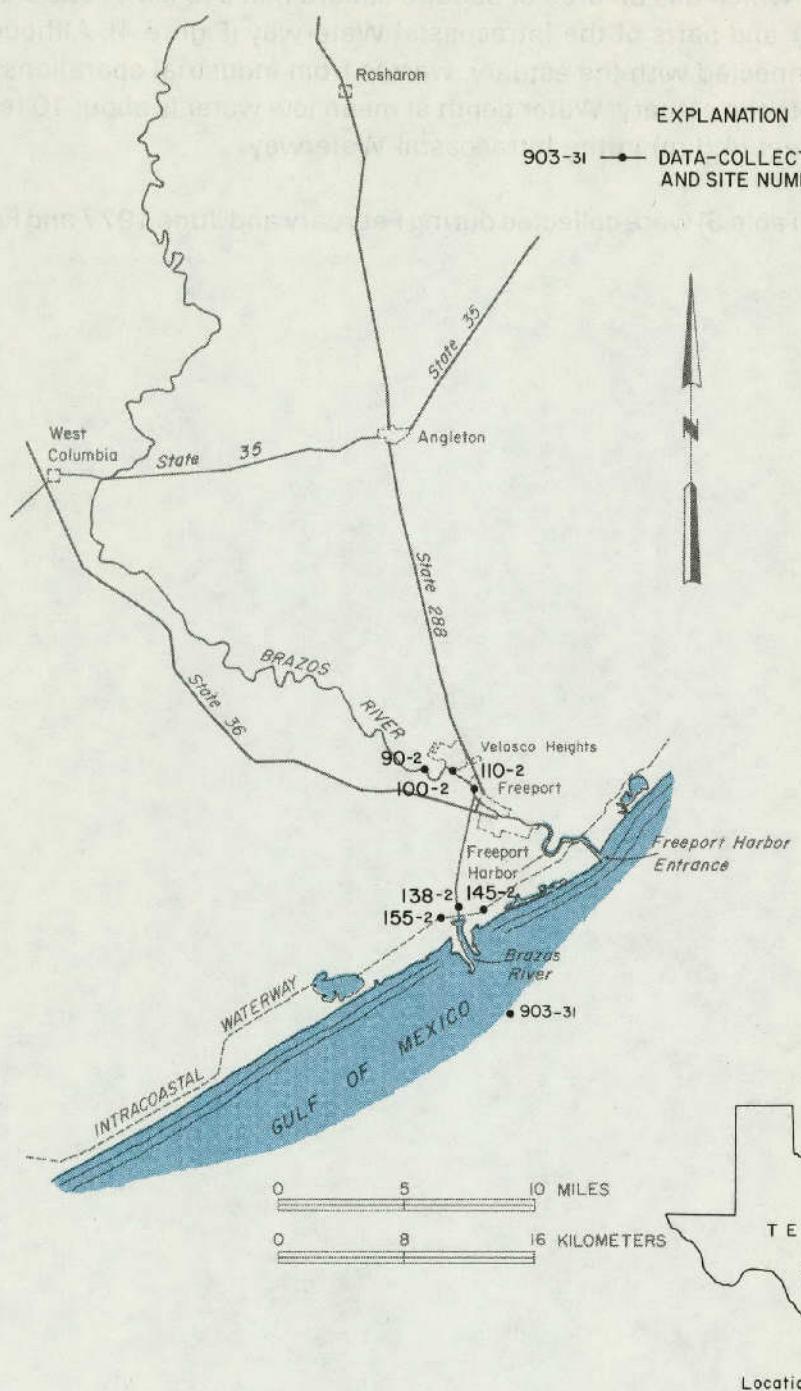


Figure 4
Data-Collection Sites in the Brazos Estuary

Table 3A.--Quality of water in the Brazos estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

285903095252100 LINE 090 SITE 02

		SAMP-	SPE-	TRANS-	OXYGEN,			
	TIME	LING	CIFIC	PAR-	DIS-			
	DATE	DEPTH	DUCT-	ENCY	SOLVED			
FEB , 1977								
09...	1230	1.0	687	7.9	11.0	.13	11.2	105
09...	1232	5.0	690	7.9	10.5	--	11.2	104
09...	1234	18	690	7.9	11.0	--	11.1	104
JUN								
29...	1140	1.0	2000	8.2	30.0	.40	6.2	83
29...	1142	10	21000	7.7	30.5	--	4.1	60
29...	1144	21	46000	7.6	31.0	--	2.2	36
FEB , 1978								
01...	1345	1.0	2330	7.9	8.5	.39	10.0	88
01...	1347	5.0	4900	7.9	8.0	--	9.7	86
01...	1350	7.0	32000	7.8	10.5	--	8.4	89
01...	1352	9.0	39000	7.9	12.5	--	7.4	85
01...	1354	17	46000	7.9	12.5	--	6.7	80
MAY								
30...	1155	1.0	34800	--	--	--	--	--
30...	1157	21	--	--	--	--	--	--
30...	1525	1.0	34800	8.3	32.0	.43	8.0	125
30...	1527	10	44000	7.9	33.0	--	3.8	64
30...	1529	21	46000	7.7	34.0	--	3.8	65

286851095232600 LINE 100 SITE 02

		SAMP-	SPE-	TRANS-	OXYGEN,			
	TIME	LING	CIFIC	PAR-	DIS-			
	DATE	DEPTH	DUCT-	ENCY	SOLVED			
FEB , 1977								
09...	1205	1.0	2000	7.8	11.0	.12	10.9	103
09...	1207	5.0	11000	7.6	12.5	--	10.4	105
09...	1209	8.0	20000	7.3	13.5	--	9.9	105
09...	1211	11	34000	7.2	15.0	--	9.1	107
JUN								
29...	1155	1.0	6000	8.1	30.5	.54	6.3	87
29...	1157	7.0	40000	7.9	32.0	--	5.0	81
29...	1159	15	45000	7.6	32.0	--	4.5	75
FEB , 1978								
01...	1355	1.0	5600	8.0	12.0	.23	9.6	94
01...	1400	7.0	33000	7.7	11.5	--	8.6	95
01...	1402	10	31000	7.7	12.0	--	8.5	92
MAY								
30...	1536	1.0	41000	8.3	33.0	.65	7.8	131
30...	1538	15	46000	8.0	34.5	--	5.7	100

285754095223000 LINE 110 SITE 02

		SAMP-	SPE-	TRANS-	OXYGEN,			
	TIME	LING	CIFIC	PAR-	DIS-			
	DATE	DEPTH	DUCT-	ENCY	SOLVED			
FEB , 1977								
09...	1145	1.0	4700	7.8	12.0	.13	10.7	104
09...	1147	5.0	9000	7.6	12.0	--	10.4	103
09...	1149	12	28000	8.0	15.0	--	9.0	102
JUN								
29...	1210	1.0	9000	8.1	31.0	.60	6.3	88
29...	1212	10	44000	7.6	31.5	--	4.1	68
FEB , 1978								
01...	1412	1.0	21000	8.6	10.5	.25	9.1	92
01...	1414	7.0	28000	9.5	12.5	--	8.6	92
01...	1416	14	28000	9.6	12.5	--	8.6	92
MAY								
30...	1550	1.0	43300	8.3	33.5	.65	7.5	126
30...	1552	11	44800	8.1	33.5	--	4.3	74

Table 3A.--Quality of water in the Brazos estuary, water year 1977-78--Continued
Field Determinations--Continued

285430095231100 LINE 138 SITE 02

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
FEB , 1977									
09...	1045	1.0	8000	6.9	12.0	.21	11.1	111	
09...	1047	5.0	9000	6.7	12.5	--	10.9	109	
09...	1049	10	12000	7.5	13.0	--	10.6	108	
09...	1051	20	18000	7.9	13.5	--	10.1	106	
JUN									
29...	1225	1.0	15000	8.0	30.5	.78	6.4	91	
29...	1227	10	40000	7.8	31.0	--	4.2	66	
29...	1229	21	50000	7.9	30.0	--	4.2	69	
FEB , 1978									
01...	1420	1.0	19000	8.6	10.5	.51	8.8	88	
01...	1422	9.0	26000	8.1	10.0	--	8.8	90	
01...	1424	17	26000	8.1	10.0	--	9.1	93	
MAY									
30...	1605	1.0	44000	8.1	34.0	.77	5.3	90	
30...	1607	10	44000	8.0	34.0	--	5.2	87	
30...	1609	20	44000	8.0	33.5	--	4.1	69	

285407095221900 LINE 145 SITE 02

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
FEB , 1977									
09...	1015	1.0	14000	8.1	12.0	.18	10.7	108	
09...	1017	5.0	14000	7.9	12.0	--	10.2	103	
09...	1019	14	21000	7.8	11.0	--	9.3	95	
JUN									
29...	1300	1.0	32000	7.9	30.5	.47	5.5	83	
29...	1302	11	50000	7.8	29.5	--	4.1	67	
FEB , 1978									
01...	1445	1.0	26000	8.1	10.0	.46	8.9	91	
01...	1447	8.0	25000	8.2	10.5	--	8.7	89	
01...	1449	16	27000	8.1	10.0	--	8.7	89	
MAY									
30...	1627	1.0	41000	8.0	33.5	.62	5.8	97	
30...	1629	15	42000	7.9	32.0	--	5.3	86	

285355095235300 LINE 155 SITE 02

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
FEB , 1977									
09...	1030	1.0	15000	7.7	13.0	.38	10.7	111	
09...	1032	5.0	20000	8.0	11.5	--	10.4	107	
09...	1034	14	22000	7.7	11.5	--	10.4	108	
JUN									
29...	1240	1.0	32000	7.9	30.5	.55	5.5	83	
29...	1242	10	40000	8.1	30.0	--	5.2	81	
FEB , 1978									
01...	1435	1.0	38000	8.2	10.5	.40	8.4	92	
01...	1437	12	39000	8.2	10.0	--	8.2	89	
MAY									
30...	1619	1.0	42000	8.2	34.0	.37	7.5	127	
30...	1621	8.0	42000	8.1	32.5	--	6.1	100	
30...	1623	18	43000	8.2	31.5	--	4.8	78	

284955095212000 LINE 903 SITE 31

DATE	TIME	SAMP- LING (FT)	DEPTH (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L)	
FEB , 1977									
09...	0925	5.0	44000	--	9.5	.76	10.8	119	
09...	0927	31	44000	--	9.5	--	10.7	117	

Table 3B.--Quality of water in the Brazos estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

285903095252100 LINE 090 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1230	1.0	.00	.00	.00	.01	.71	.72	.72	3.2	.170
09...	1234	18	.07	.01	.08	.01	1.4	1.4	1.5	6.6	.250
JUN											
29...	1140	1.0	.40	.01	.41	.02	.32	.34	.75	3.3	.080
29...	1144	21	.22	.02	.24	.24	.66	.90	1.1	5.0	.170
FEB , 1978											
01...	1345	1.0	.67	.03	.70	.24	.73	.97	1.7	7.4	.230
01...	1354	17	.80	.02	.82	.42	.51	.93	1.7	7.7	.110
MAY											
30...	1155	1.0	.10	.02	.12	.17	.82	.99	1.1	4.9	.070
30...	1157	21	.23	.08	.31	.40	.90	1.3	1.6	7.1	.060

285754095223000 LINE 110 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB .5 DAY (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1145	1.0	1.4	.11	.00	.11	.03	.88	.91	1.0	4.6	.170
09...	1149	12	3.8	.12	.00	.12	.45	2.1	2.6	2.7	12	.190
JUN												
29...	1210	1.0	1.4	.39	.00	.39	.06	.58	.64	1.0	4.6	.060
29...	1212	10	2.5	.22	.01	.23	.30	.42	.72	.95	4.2	.050
FEB , 1978												
01...	1412	1.0	1.9	.68	.03	.71	.27	.73	1.0	1.7	7.6	.210
01...	1416	14	2.1	.51	.03	.54	.65	1.7	2.4	2.9	13	.070
MAY												
30...	1550	1.0	3.0	.14	.05	.19	.51	.03	.54	.73	3.2	.040
30...	1552	11	--	.09	.04	.13	1.1	1.2	2.3	2.4	11	.050

284955095212000 LINE 903 SITE 31

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	0925	5.0	.00	.00	.00	.02	.37	.39	.39	1.7	.070
09...	0927	31	.00	.00	.00	.03	.50	.53	.53	2.3	--

Table 3C.--Quality of water in the Brazos estuary, water years 1977-78
Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

285903095252100 LINE 090 SITE 02

DATE	TIME	DEPTH (FT)	SPE- CIFIC CON- DUCT- LING	HARD- NESS, ARCE	HARD- NESS, NONCAR- BONATE	CALCIUM (MG/L CACO ₃)	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM AD- SORP- TION
			SAMP- LING	AS CACO ₃	AS CACO ₃	(MG/L AS CA)	(MG/L AS MG)	(MG/L AS NA)	PERCENT
FEB , 1977									
09...	1230	1.0	687	190	68	61	9.9	58	39
JUN									1.8
29...	1140	1.0	2000	370	190	77	43	370	68
FEB , 1978									
01...	1345	1.0	2330	280	190	45	40	360	73
MAY									9.4
30...	1155	1.0	34800	3500	3400	250	710	6700	79
									49
POTAS-									
SUM,	BICAR-			ALKA-	SULFATE	CHLO- RIDE,	FLUO- RIDE,	SILICA,	SOLID,
DIS-	BONATE	CAR-		LINITY	DIS-	DIS-	DIS-	SUM OF	DIS-
SOLVED	(MG/L	BONATE	(MG/L	(MG/L	SOLVED	SOLVED	SOLVED	SOLVENTS,	SOLVED
(MG/L	AS	(MG/L	AS	(MG/L	(MG/L	(MG/L	(MG/L	(TONS	
DATE	AS K)	HC03)	AS CO ₃)	CACO ₃)	AS SO ₄)	AS CL)	AS F)	AS SiO ₂)	SOLVED PER AC-FT)
FEB , 1977									
09...	4.3	152	0	125	59	89	.2	9.2	365
JUN									.50
29...	14	220	0	180	120	620	.3	9.1	1360
FEB , 1978									
01...	15	110	0	90	99	610	.1	8.5	1230
MAY									1.67
30...	250	180	0	148	2000	12000	.7	1.9	22000
									29.9

East Matagorda Estuary

The East Matagorda estuary, which has an area of about 56 square miles (145 km²), consists of East Matagorda Bay, part of the Intracoastal Waterway, the tidal reaches of Caney Creek and Live Oak Bayou, and the tidal part of small tributaries (Figure 5). The maximum water depth at mean low water is 5 feet (1.5 m) in East Matagorda Bay and about 15 feet (4.6 m) in the Intracoastal Waterway.

Water-quality data (Table 4) were collected during February and April-June 1977 and February and May 1978.

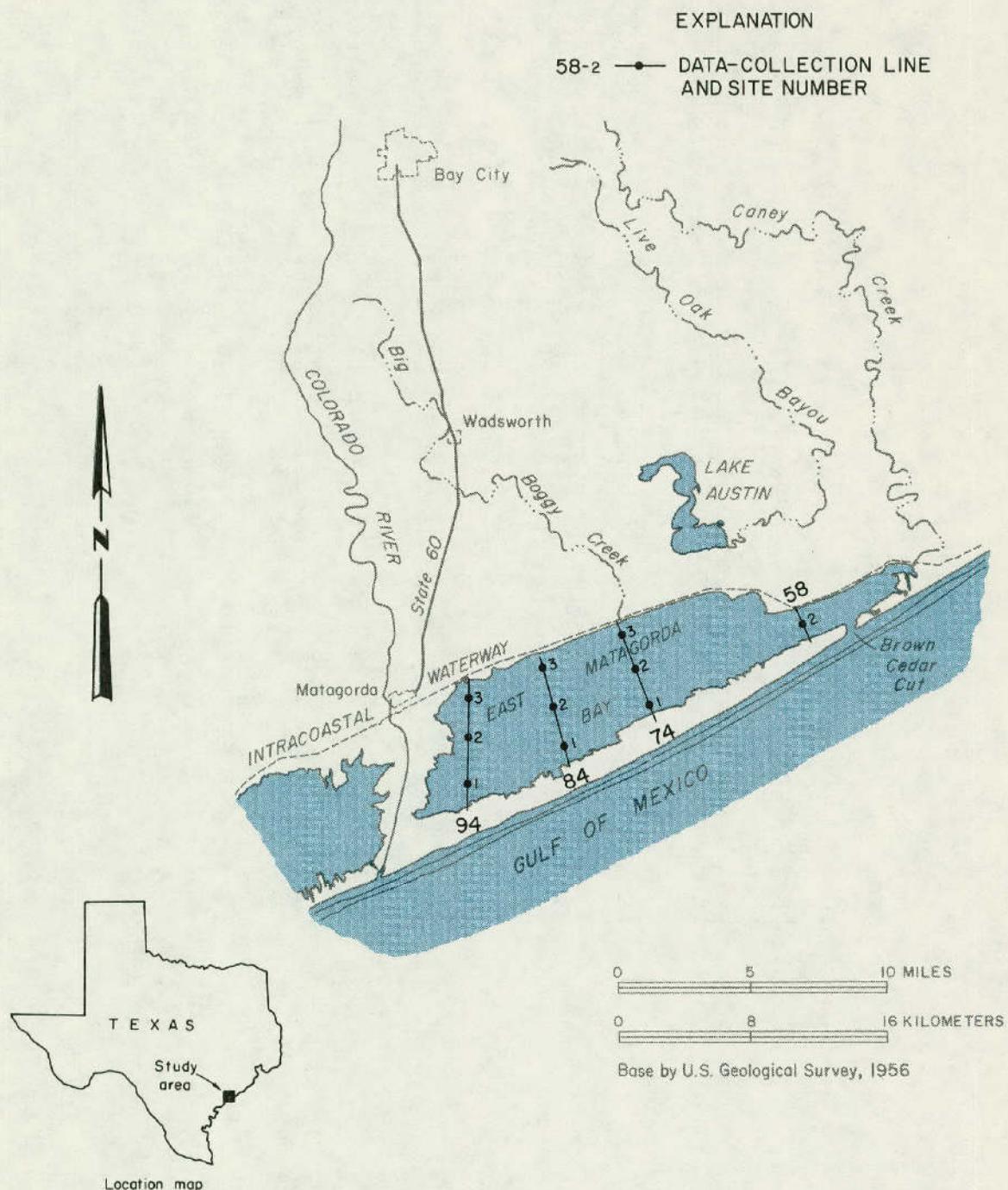


Figure 5.—Data-Collection Sites in the East Matagorda Estuary

Table 4A.--Quality of water in the East Matagorda estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

284349095433000 LINE 058 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING ANCE (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (UNITS)	PH	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977										
08...	1100	1.0	32000	7.9	10.5	.46	11.2	118		
08...	1102	2.5	32000	7.8	10.5	--	11.5	121		
APR										
26...	1610	1.0	28000	8.3	23.5	.33	7.6	101		
26...	1612	4.0	28000	8.3	23.5	--	7.3	98		
26...	1620	1.0	28000	8.4	23.5	--	8.0	106		
26...	1622	3.5	28000	8.3	23.0	--	7.9	104		
JUN										
28...	0900	1.0	24000	8.2	28.0	.23	6.2	87		
28...	0902	3.5	24000	8.2	28.0	--	6.1	86		
MAY , 1978										
31...	1142	1.0	41200	8.1	28.0	.43	5.7	87		
31...	1144	4.0	41200	8.1	28.0	--	5.6	86		

284123095490200 LINE 074 SITE 01

DATE	TIME	DEPTH (FT)	SAMP- LING ANCE (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (UNITS)	PH	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977										
08...	1125	1.0	27000	8.0	11.0	1.07	10.5	109		
08...	1127	3.5	27000	8.1	11.0	--	10.5	109		
APR										
26...	1640	1.0	28000	8.4	23.0	.41	7.7	101		
26...	1642	4.5	28000	8.3	22.5	--	7.3	96		
JUN										
28...	0930	1.0	23000	8.2	28.0	.40	6.4	90		
28...	0932	4.0	22000	8.3	28.0	--	6.5	91		
FEB , 1978										
01...	1030	1.0	28000	8.1	7.0	.44	9.7	93		
MAY										
31...	1210	1.0	39000	8.1	29.0	.66	5.9	91		
31...	1212	5.0	39000	8.0	29.0	--	5.8	89		

284219095492900 LINE 074 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING ANCE (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (UNITS)	PH	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977										
08...	1135	1.0	26000	8.0	11.0	.87	10.6	110		
08...	1137	4.5	26000	8.0	11.0	--	10.6	110		
APR										
26...	1635	1.0	28000	8.4	23.0	.46	7.7	101		
26...	1637	5.0	28000	8.4	22.0	--	7.1	92		
JUN										
28...	0940	1.0	26000	8.2	28.0	.25	6.1	87		
28...	0942	4.0	26000	8.2	28.0	--	6.2	88		
FEB , 1978										
01...	1045	1.0	30000	8.2	6.5	.39	9.5	90		
MAY										
31...	1218	1.0	40000	8.1	29.5	.67	6.2	96		
31...	1220	5.0	40000	8.1	29.0	--	6.1	94		

Table 4A.--Quality of water in the East Matagorda estuary, water years 1977-78--Continued
Field Determinations--Continued

284331095500300 LINE 074 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08..	1145	1.0	22000	8.2	11.5	.07	10.8	111
08..	1147	3.5	22000	8.2	11.0	--	10.6	108
APR								
26..	1650	1.0	28000	8.4	23.5	.33	7.6	101
26..	1652	4.0	28000	8.4	23.5	--	7.6	101
JUN								
28..	0945	1.0	25000	8.2	28.0	.25	6.4	90
28..	0947	4.0	25000	8.2	28.0	--	6.5	91
MAY , 1978								
31..	1227	1.0	39000	8.1	29.5	.43	6.3	97
31..	1229	4.5	39000	8.1	29.0	--	6.3	97

283945095515700 LINE 084 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
APR , 1977								
27..	0950	1.0	29000	8.2	21.5	.61	7.3	94
27..	0952	4.5	29000	8.2	21.5	--	7.3	94
28..	0915	1.0	28000	8.3	21.5	.10	7.2	92
28..	0917	5.0	28000	8.3	21.5	--	7.1	91
MAY								
03..	1305	1.0	27000	8.1	25.5	.53	6.8	94
03..	1307	3.0	27000	8.1	25.2	--	6.7	91

284058095522600 LINE 084 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08..	1245	1.0	21000	8.1	11.5	.79	11.0	113
08..	1247	2.5	21000	8.1	11.5	--	11.0	113
APR								
27..	1000	1.0	28000	8.3	22.0	.30	7.4	96
27..	1002	4.0	28000	8.3	22.0	--	7.4	96
28..	0905	1.0	28000	8.3	21.5	.10	7.1	91
28..	0907	4.0	28000	8.3	21.5	--	7.1	91

284208095525600 LINE 084 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	CIFIC DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
APR , 1977								
27..	1010	1.0	22000	8.4	22.0	.38	7.8	99
27..	1012	4.0	28000	8.3	21.5	--	7.0	90
28..	0900	1.0	19000	8.4	21.5	.10	7.1	89
28..	0902	4.0	19000	8.3	21.5	--	7.1	89
MAY								
03..	1250	1.0	13000	8.2	26.0	.46	7.6	99
03..	1252	3.0	15000	8.1	24.7	--	6.6	84
JUN								
28..	1030	1.0	15000	8.1	29.0	.32	6.2	86
28..	1032	3.5	21000	8.1	28.0	--	5.8	82
FEB , 1978								
01..	1055	1.0	31000	8.2	6.0	.52	9.3	89
MAY								
31..	1241	1.0	36300	8.1	29.5	.37	6.2	95
31..	1243	4.0	36300	8.1	29.0	--	6.4	97

Table 4A.--Quality of water in the East Matagorda estuary, water years 1977-78--Continued
Field Determinations--Continued

283852095545100 LINE 094 SITE 01

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))
FEB , 1977								
08...	1225		1.0	22000	7.9	11.5	.32	10.3
08...	1227		4.5	22000	7.9	11.5	--	10.4
APR								
26...	1720		1.0	13000	8.5	23.3	.66	9.9
26...	1722		3.0	13000	8.5	23.5	--	10.1
26...	1724		4.0	14000	8.5	23.5	--	9.8
26...	1726		4.5	19100	8.1	23.0	.66	5.0
27...	0930		1.0	14000	8.3	21.5	--	8.4
27...	0932		4.5	20000	8.3	22.0	--	7.5
27...	1700		1.0	16000	8.3	24.0	.30	8.8
27...	1702		5.0	16000	8.3	24.0	--	8.4
28...	0935		1.0	24000	8.3	21.0	.71	6.9
28...	0937		4.0	24000	8.3	21.0	--	6.8
MAY								
03...	1320		1.0	24000	8.1	25.0	.66	6.8
03...	1322		4.0	26000	8.0	24.0	--	6.2
11...	1320		1.0	19000	8.1	24.0	.13	6.9
11...	1322		4.0	19000	8.1	24.0	--	6.8
JUN								
28...	1000		1.0	24000	8.2	28.0	.38	6.4
28...	1002		4.0	24000	8.2	28.5	--	6.2
FEB , 1978								
01...	1025		1.0	30000	8.1	7.5	.48	9.7
MAY								
31...	1313		1.0	32000	8.0	29.5	.65	6.7
31...	1315		4.5	32000	8.0	29.5	--	6.7
31...	1315		4.5	32000	8.1	29.0	--	100

284000095545700 LINE 094 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))
FEB , 1977								
08...	1215		1.0	21000	8.2	11.0	.80	10.7
08...	1217		4.0	21000	8.1	11.0	--	10.7
APR								
26...	1710		1.0	14000	8.5	24.0	.41	9.2
26...	1712		4.0	18000	8.2	23.0	--	6.6
27...	0920		1.0	11000	8.3	22.0	.30	7.7
27...	0922		3.5	19000	8.2	22.0	--	6.2
27...	1650		1.0	16000	8.3	24.5	.10	8.2
27...	1652		4.0	16000	8.3	24.5	--	8.2
28...	0945		1.0	15000	8.4	21.5	.20	7.1
28...	0947		4.0	15000	8.3	21.5	--	7.1
MAY								
11...	1330		1.0	17000	8.2	24.5	.13	6.5
11...	1332		4.0	17000	8.2	24.5	--	6.4
JUN								
28...	1010		1.0	24000	8.2	28.0	.24	6.4
28...	1012		4.0	24000	8.2	28.5	--	6.1
FEB , 1978								
01...	1020		1.0	30000	8.1	7.5	.37	9.9
MAY								
31...	1303		1.0	31000	8.1	29.0	.48	6.9
31...	1305		4.0	32000	8.1	29.0	--	101
31...	1305		4.0	32000	8.1	29.0	--	100

Table 4A.--Quality of water in the East Matagorda estuary, water years 1977-78--Continued
Field Determinations--Continued

284115095550400 LINE 094 SITE 03

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-	(PER-		
		SAMP-	DUCT-		PAR-				
		LING	ANCE	(MICRO-	PH	ATURE,	(SECCHI	DIS-	SATUR-
		(FT)	(MHOS)	(UNITS)		(DEG C)	DISK)	(M)	(MG/L)
FEB , 1977									
08...	1205	1.0	21000	7.6	11.0	.91	11.2	114	
08...	1207	3.0	21000	7.6	11.0	--	11.0	112	
APR									
26...	1740	1.0	18000	8.5	24.0	.61	9.7	124	
26...	1742	3.0	22000	8.4	24.5	--	8.6	115	
27...	0910	1.0	13000	8.4	22.0	.46	8.2	100	
27...	0912	3.0	14000	8.3	22.0	--	7.7	95	
27...	1635	1.0	13000	8.4	25.0	.10	9.0	115	
27...	1637	3.0	13000	8.3	24.5	--	9.2	116	
28...	0950	1.0	14000	8.4	21.5	.20	7.4	91	
28...	0952	3.0	14000	8.4	21.5	--	7.4	91	
MAY									
03...	1335	1.0	19000	8.1	26.0	.46	7.2	96	
03...	1337	3.0	19000	8.1	26.0	--	7.3	98	
11...	1340	1.0	23000	8.1	24.5	.36	7.0	94	
11...	1342	3.0	23000	8.0	24.5	--	6.6	88	
11...	1344	6.0	25000	7.9	24.5	--	5.2	70	
JUN									
28...	1020	1.0	24000	8.2	28.0	.38	6.6	92	
28...	1022	3.5	24000	8.2	28.0	--	6.5	91	
FEB , 1978									
01...	1000	1.0	30000	8.1	7.5	.40	10.1	98	
MAY									
31...	1254	1.0	35000	8.1	29.5	.47	6.6	100	
31...	1256	3.0	35000	8.1	29.5	--	6.5	99	

Table 4B.--Quality of water in the East Matagorda estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

284349095433000 LINE 058 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
08...	1100	1.0	--	.04	.00	.04	.02	.52	.54	.58	2.6	.090
APR												
26...	1610	1.0	8.1	.00	.01	.01	.07	.74	.81	.82	3.6	.070
JUN												
28...	0900	1.0	--	.00	.01	.01	.07	.76	.83	.84	3.7	.120
MAY , 1978												
31...	1142	1.0	--	.01	.01	.02	.08	.53	.61	.63	2.8	.060

2841230956490200 LINE 074 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977												
08...	1125	1.0	.00	.00	.00	.03	.42	.45	.45	2.0	.060	
APR												
26...	1640	1.0	.01	.01	.02	.05	.43	.48	.50	2.2	.060	
JUN												
28...	0930	1.0	.00	.01	.00	.04	.58	.62	.62	2.7	.080	
FEB , 1978												
01...	1030	1.0	.01	.03	.04	.69	--	.65	.69	3.1	.110	
MAY												
31...	1210	1.0	.00	.01	.01	.01	.54	.55	.56	2.5	.040	

284331095500300 LINE 074 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
APR , 1977												
26...	1650	1.0	.01	.01	.02	.07	.33	.40	.42	1.9	.060	

283945095515700 LINE 084 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
MAY , 1977												
03...	1305	1.0	1.3	.00	.01	.01	.05	.30	.35	.36	1.6	.050

284058095522600 LINE 084 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
08...	1245	1.0	1.0	.00	.00	.00	.01	.43	.44	.44	1.9	.040
APR												
27...	1000	1.0	1.1	.00	.01	.01	.05	.37	.42	.43	1.9	.060

Table 4B.--Quality of water in the East Matagorda estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

284208095525600 LINE 084 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977											
28..	1030	1.0	1.3	--	--	--	--	--	--	--	--
FEB , 1978											
01..	1055	1.0	2.0	--	--	--	--	--	--	--	--
MAY											
31..	1241	1.0	2.9	.00	.01	.01	.03	1.3	1.3	1.3	5.8
31..	1243	4.0	--	--	--	--	--	--	--	--	.070

283852095545100 LINE 094 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977											
26..	1720	1.0	2.5	.07	.03	.10	.05	.58	.63	.73	3.2
26..	1726	4.5	1.3	.12	.01	.13	.10	.46	.56	.69	.090
27..	0930	1.0	1.0	.09	.01	.10	.01	.58	.59	.69	3.1
27..	0932	4.5	1.1	.00	.01	.01	.05	.60	.65	.66	.050
MAY											
03..	1320	1.0	.8	.01	.01	.02	.00	.38	.38	.40	1.8
03..	1322	4.0	--	.00	.01	.01	.01	.39	.40	.41	1.8
11..	1320	1.0	--	.04	.00	.04	.01	1.6	1.6	1.6	.110
11..	1322	4.0	--	.04	.00	.04	.02	.69	.71	.75	.120

284000095545700 LINE 094 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977											
08..	1215	1.0	.00	.00	.00	.01	.46	.47	.47	2.1	.050
JUN											
28..	1010	1.0	.01	.02	.03	.06	.38	.44	.47	2.1	.090
FEB , 1978											
01..	1020	1.0	.03	.01	.04	.08	.51	.59	.63	2.8	.110
MAY											
31..	1303	1.0	.00	.01	.01	.01	.53	.54	.55	2.4	.060

284115095560400 LINE 094 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977											
26..	1740	1.0	2.4	.01	.01	.02	.02	.62	.64	.66	2.9
27..	0910	1.0	1.9	.09	.01	.10	.06	.77	.83	.93	4.1
MAY											
03..	1335	1.0	.9	.00	.01	.00	.00	.37	.37	.37	1.6
11..	1340	1.0	--	.04	.00	.04	.02	.98	1.0	1.0	.050

Table 4C.--Quality of water in the East Matagorda estuary, water years 1977-78
 Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

284058095522600 LINE 084 SITE 02

Colorado Estuary

The Colorado estuary, which has an area of about 2 square miles (5 km^2), consists of the tidal part of the Colorado River and part of the Intracoastal Waterway (Figure 6). The minimum depth at mean low water is about 6 feet (1.8 m) in the river channel and about 15 feet (4.6 m) in the Intracoastal Waterway.

Water-quality data (Table 5) were collected during February and April-July 1977 and February and May 1978.

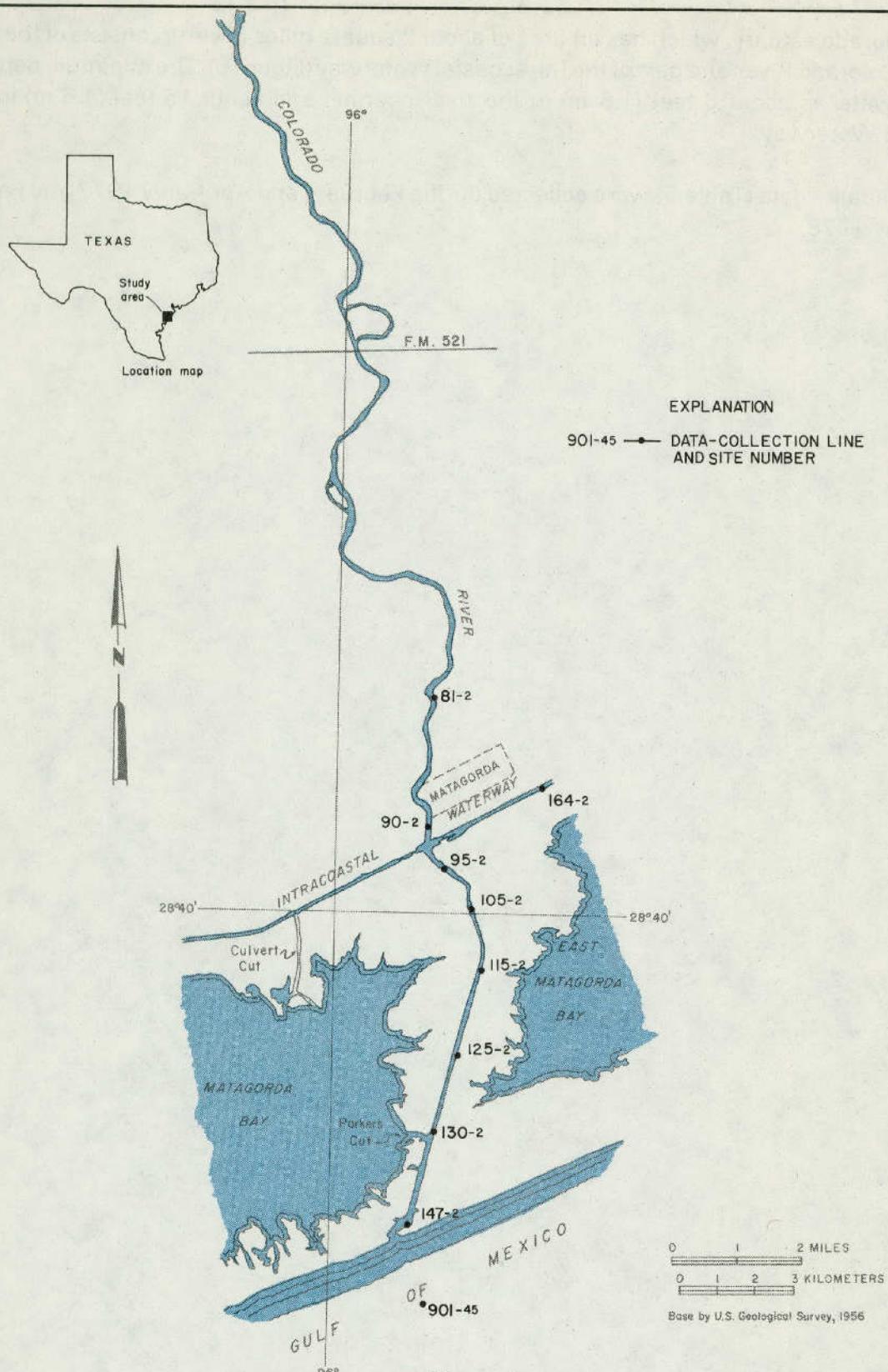


Figure 6
Data-Collection Sites in the Colorado Estuary

Table 5A.--Quality of water in the Colorado estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

284255095583500 LINE 081 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SATUR- ATION)
FEB , 1977								
07...	1330	1.0	600	7.6	11.5	.13	9.9	93
07...	1332	10	600	7.6	12.0	--	9.9	95
07...	1334	20	600	7.5	11.5	--	9.9	93
07...	1336	45	600	7.8	11.5	--	9.8	92
MAY								
11...	1420	1.0	650	8.3	24.5	.30	7.7	94
11...	1422	5.0	650	8.3	24.5	--	7.7	94
11...	1424	10	650	8.3	24.5	--	7.7	94
11...	1426	20	650	8.4	24.5	--	7.7	94
11...	1428	29	650	8.4	24.5	--	7.6	93
JUN								
28...	1115	1.0	1000	8.4	29.0	.46	6.9	91
28...	1117	5.0	1100	8.3	29.0	--	6.9	91
28...	1119	7.0	16000	8.2	29.0	--	6.4	89
28...	1121	10	38000	7.6	29.0	--	4.0	62
28...	1123	20	48000	7.7	29.0	--	2.9	47
28...	1125	40	48000	7.5	29.0	--	2.6	42
FEB , 1978								
02...	0920	1.0	14000	8.0	8.5	.98	8.5	79
02...	0922	21	17000	8.0	8.5	--	8.2	78
MAY								
31...	1452	1.0	13300	8.3	30.5	.78	7.6	107
31...	1454	5.0	24000	7.9	29.0	--	2.9	42
31...	1456	10	32000	7.8	28.5	--	3.7	55
31...	1458	20	37000	7.7	27.5	--	1.6	24
31...	1500	41	37000	7.5	25.5	--	.3	4

284107095583400 LINE 090 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (M)	OXYGEN, (PER- CENT SATUR- ATION)
MAY , 1977								
25...	1200	1.0	500	8.1	25.0	--	8.0	99
25...	1202	10	2700	8.2	25.0	--	7.8	98
25...	1204	15	12000	8.1	25.0	--	7.1	91
25...	1206	20	20000	8.1	26.5	--	6.9	94
25...	1500	1.0	550	8.2	25.5	.26	8.0	100
25...	1502	8.0	800	8.2	25.5	--	8.0	100
25...	1504	15	7500	8.1	25.5	--	7.5	95
25...	1506	20	10000	8.1	26.0	--	7.3	99
25...	1800	1.0	500	8.2	25.5	--	8.0	100
25...	1802	10	550	8.2	25.5	--	8.0	100
25...	1804	15	4500	8.2	26.0	--	7.7	97
25...	1806	20	13000	8.1	26.5	--	7.5	99
25...	2100	1.0	500	8.3	25.5	--	8.0	100
25...	2102	10	760	8.2	25.5	--	7.8	98
25...	2104	15	7000	8.1	25.5	--	7.7	97
25...	2106	20	18000	8.1	26.5	--	7.2	96
26...	0001	1.0	510	8.1	25.0	--	8.0	100
26...	0002	10	600	8.1	25.5	--	8.1	101
26...	0004	15	7100	8.1	25.5	--	7.7	97
26...	0006	20	18000	8.1	25.5	--	7.1	94
26...	0300	1.0	500	8.2	25.5	--	8.1	101
26...	0302	10	550	8.2	25.5	--	8.0	100
26...	0304	15	9000	8.1	25.5	--	7.5	96
26...	0306	20	18000	8.1	25.5	--	7.0	92
26...	0600	1.0	510	8.1	25.0	--	8.1	100
26...	0602	10	560	8.1	25.5	--	8.0	100
26...	0604	15	8000	8.1	25.5	--	7.6	98
26...	0606	20	18000	8.1	25.5	--	7.2	95
26...	0900	1.0	520	8.2	25.5	--	8.2	102
26...	0902	10	1800	8.2	25.5	--	8.1	101
26...	0904	15	10000	8.2	26.0	--	7.7	99
26...	0906	19	19000	8.2	25.5	--	7.4	100
26...	1200	1.0	590	8.2	25.5	--	8.2	102
26...	1202	10	1100	8.2	26.0	--	8.1	101
26...	1204	15	7600	8.2	26.0	--	7.7	99
26...	1206	19	15000	8.1	26.5	--	7.2	96
JUL								
27...	1600	1.0	4100	8.2	31.5	--	7.6	104
27...	1602	9.5	29000	8.0	30.0	--	4.8	73
27...	1604	19	45000	8.0	30.0	--	5.4	87

Table 5A.--Quality of water in the Colorado estuary, water years 1977-78--Continued
Field Determinations--Continued

284107095583400 LINE 090 SITE 02--Continued

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT (M))	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))
JUL , 1977								
27...	1900	1.0	3700	8.1	31.5	--	7.5	103
27...	1902	9.5	24000	7.9	30.5	--	5.3	79
27...	1904	19	45000	8.0	30.0	--	5.1	82
27...	2200	1.0	33000	8.1	31.5	--	7.2	99
27...	2202	9.0	26000	8.0	30.0	--	5.9	87
27...	2204	18	45000	8.0	30.0	--	4.8	77
28...	0102	9.0	22000	8.1	30.5	--	5.9	88
28...	0104	18	45000	8.0	30.0	--	4.7	76
28...	0400	1.0	3400	8.1	30.5	--	6.9	93
28...	0402	9.0	26000	8.0	30.0	--	5.9	87
28...	0404	18	46000	8.0	30.0	--	4.7	76
28...	0700	1.0	4100	8.1	30.5	--	6.7	91
28...	0702	9.0	34000	8.0	30.5	--	5.2	80
28...	0704	18	44000	7.9	30.0	--	4.7	76
28...	1600	1.0	4100	8.1	31.5	.53	8.5	116
28...	1602	4.0	13000	7.9	31.5	--	7.1	100
28...	1604	8.5	30000	7.9	30.0	--	6.0	900
28...	1606	17	35000	8.2	30.0	--	7.7	120

284038095582100 LINE 095 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT (M))	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))
FEB , 1977								
07...	1255	1.0	2000	8.0	12.0	.13	9.9	95
07...	1257	5.0	2000	7.7	11.5	--	9.8	93
07...	1259	10	4000	7.7	12.0	--	9.8	95
07...	1301	15	28000	8.0	12.0	--	8.9	94
JUN								
28...	1210	1.0	6000	8.2	30.0	.60	7.4	100
28...	1212	6.0	16000	8.1	29.0	--	6.8	95
28...	1214	13	48000	8.0	29.0	--	5.3	86
FEB , 1978								
02...	1140	1.0	41000	7.9	6.5	.60	9.0	90
02...	1142	15	41000	8.0	6.0	--	8.9	89
MAY								
31...	1711	1.0	18000	8.3	30.5	.67	7.7	109
31...	1713	7.0	29000	8.0	29.0	--	5.1	75
31...	1715	14	41000	7.9	29.0	--	3.8	58

284005095575400 LINE 105 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT (M))	OXYGEN, DIS- SOLVED (PER- CENT (MG/L))
APR , 1977								
26...	1445	1.0	550	8.1	20.0	.05	8.2	93
26...	1447	5.0	550	8.1	20.0	--	8.1	92
26...	1449	10	550	8.2	20.0	--	8.1	92
MAY								
03...	1445	1.0	700	7.9	23.5	.20	7.4	89
03...	1447	8.0	800	8.0	23.5	--	7.5	90
03...	1449	15	900	8.0	24.0	--	7.6	93
11...	1135	1.0	1000	8.1	24.0	.36	7.8	95
11...	1137	5.0	1100	8.2	24.0	--	7.7	94
11...	1139	7.0	1300	8.1	24.0	--	7.7	94
11...	1141	10	7000	7.9	24.0	--	7.5	93
11...	1143	11	34000	7.9	24.5	--	6.3	88
11...	1145	12	38000	7.9	24.5	--	6.1	88
11...	1147	15	41000	7.9	25.0	--	6.1	88
11...	1149	18	41000	7.8	24.5	--	6.1	88

Table 5A--Quality of water in the Colorado estuary, water years 1977-78--Continued
Field Determinations--Continued

283916095574500 LINE 115 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-				
		LING	CIFIC		DUCT-		CON-	ENCY	SOLVED	
		(FT)	ANCE	(MICRO-	PH	ATURE,	(SECCHI	OXYGEN,	(PER-	
				MHOS)	(UNITS)	(DEG C)	DISK)	DIS-	CENT	
							(M)	SOLVED	SATUR-	
								(MG/L)	ATION	
FEB , 1977										
07...	1240	1.0	1000		7.7	12.0	.12	10.0	96	
07...	1242	5.0	2000		7.5	11.5	--	9.8	93	
07...	1244	10	24000		7.7	12.0	--	9.0	94	
07...	1246	17	45000		7.6	12.0	--	8.2	96	
JUN										
28...	1220	1.0	28000		8.1	29.0	.71	7.0	101	
28...	1222	10	48000		8.0	28.5	--	5.6	88	
28...	1224	19	48000		8.0	29.0	--	5.3	86	
FEB , 1978										
02...	1147	1.0	23000		8.0	6.5	.79	10.1	92	
02...	1149	15	37000		7.9	6.5	--	9.1	89	
MAY										
31...	1723	1.0	25000		8.2	30.5	.71	7.8	115	
31...	1725	5.0	25000		8.0	30.0	--	6.2	89	
31...	1727	10	41000		7.9	29.0	--	4.4	68	
31...	1729	19	41000		7.8	28.5	--	3.2	49	

283807095580700 LINE 125 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-				
		LING	CIFIC		DUCT-		CON-	ENCY	SOLVED	
		(FT)	ANCE	(MICRO-	PH	ATURE,	(SECCHI	OXYGEN,	(PER-	
				MHOS)	(UNITS)	(DEG C)	DISK)	DIS-	CENT	
							(M)	SOLVED	SATUR-	
								(MG/L)	ATION	
MAY , 1977										
03...	1500	1.0	1600		8.0	24.0	.30	7.4	90	
03...	1502	5.0	1500		8.1	23.5	--	7.3	88	
03...	1504	10	24000		8.1	24.0	--	6.7	89	
03...	1506	13	7000		8.1	23.5	--	7.3	89	
03...	1508	15	30000		8.0	24.0	--	6.1	83	
03...	1510	19	37000		8.1	24.5	--	5.9	83	
11...	1115	1.0	1400		8.1	24.0	.46	7.7	94	
11...	1117	5.0	1600		8.1	24.0	--	7.2	93	
11...	1119	6.5	9000		7.9	24.0	--	7.5	94	
11...	1121	8.0	14000		7.9	24.0	--	7.2	93	
11...	1123	10	18000		7.9	24.0	--	7.1	91	
11...	1125	12	29000		7.9	24.0	--	6.9	93	
11...	1127	15	33000		7.9	24.0	--	6.6	91	
11...	1129	21	36000		7.8	24.0	--	6.1	85	
25...	1210	1.0	2500		8.3	26.0	--	7.8	99	
25...	1212	5.0	2600		8.3	25.0	--	7.7	96	
25...	1214	10	7000		8.1	26.0	--	7.6	98	
25...	1216	15	10000		8.2	25.5	--	7.2	92	
25...	1218	27	18000		8.2	25.0	--	6.8	90	
25...	1505	1.0	1500		8.3	26.0	--	8.0	100	
25...	1507	5.0	2000		8.3	26.0	--	7.9	99	
25...	1509	10	3500		8.3	25.5	--	7.7	96	
25...	1511	15	9000		8.2	25.5	--	7.2	92	
25...	1513	20	12000		8.1	26.0	--	7.0	91	
25...	1810	1.0	2100		8.2	25.5	--	7.9	99	
25...	1812	5.0	2300		8.2	25.5	--	7.8	98	
25...	1814	10	2500		8.3	25.5	--	7.8	98	
25...	1816	15	4500		8.2	25.5	--	7.7	96	
25...	1818	20	6000		8.2	25.5	--	7.5	95	
25...	2140	1.0	3500		8.3	25.0	.34	7.2	90	
25...	2142	5.0	4500		8.2	25.0	--	7.3	91	
25...	2144	10	5500		8.2	25.5	--	7.3	92	
25...	2146	15	6000		8.2	25.5	--	7.3	92	
25...	2148	19	8500		8.2	25.5	--	7.4	95	
26...	0300	1.0	2500		8.3	25.0	--	7.7	96	
26...	0302	5.0	2500		8.3	25.0	--	7.7	96	
26...	0304	10	3500		8.3	25.0	--	7.5	94	
26...	0306	15	6000		8.3	25.0	--	7.5	94	
26...	0308	21	10000		8.2	25.5	--	7.2	92	

Table 5A.--Quality of water in the Colorado estuary, water years 1977-78--Continued
Field Determinations--Continued

283807095580700 LINE 125 SITE 02--Continued

DATE	TIME	SAMP-	LING	DUCT-	CON-	PH	TEMPER-	OXYGEN,	OXYGEN,			
								DIS-		SOLVED	(PER-	CENT
		DEPTH	MHOS)				(DEG C)	WATER	SOLVED	(MG/L)	SATUR-	ATION
MAY , 1977												
26..	0435	1.0	3500		8.3	25.0		7.7		96		
26..	0437	5.0	3500		8.2	25.0		7.6		95		
26..	0439	10	6000		8.2	25.5		7.6		96		
26..	0441	15	8000		8.2	25.3		6.2		79		
26..	0443	24	8500		8.2	25.1		6.1		77		
26..	0615	1.0	2500		8.3	25.0		7.6		95		
26..	0617	5.0	2500		8.3	25.0		7.6		95		
26..	0619	10	3000		8.3	25.0		7.6		95		
26..	0621	15	5000		8.2	25.0		7.5		94		
26..	0623	20	7000		8.2	25.0		7.4		92		
26..	0900	1.0	2500		8.2	25.0		7.7		96		
26..	0902	5.0	3000		8.3	25.0		7.6		95		
26..	0904	10	4000		8.3	25.0		7.5		94		
26..	0906	15	5500		8.2	25.0		7.4		92		
26..	0908	20	7500		8.2	25.0		7.3		91		
26..	0910	25	7500		8.2	25.0		7.3		91		
26..	1220	1.0	3000		8.3	25.0		8.0		101		
26..	1222	5.0	3000		8.3	25.5		8.0		100		
26..	1224	10	6000		8.2	25.0		7.4		92		
26..	1226	15	8000		8.2	25.5		7.2		92		
26..	1228	20	9000		8.2	25.5		7.2		92		
26..	1230	25	9000		8.2	25.5		7.1		91		
JUL												
27..	1600	1.0	16000		8.2	32.0		8.0		119		
27..	1602	8.0	46000		8.2	30.5		6.3		103		
27..	1604	15	50000		8.1	30.5		5.4		92		
27..	1900	1.0	17000		8.1	31.5		6.7		97		
27..	1902	7.0	20000		8.0	31.5		6.6		96		
27..	1904	14	44000		8.0	30.5		5.6		90		
27..	2200	1.0	19000		8.0	31.0		6.6		96		
27..	2202	7.0	26500		8.0	31.0		6.2		93		
27..	2204	15	44000		8.0	30.5		5.4		87		
29..	0100	1.0	22000		8.1	31.0		5.8		85		
28..	0102	7.5	27000		8.5	32.0		5.1		77		
28..	0104	15	29000		8.0	32.0		6.0		92		
28..	0400	1.0	25000		8.1	31.0		5.0		74		
28..	0402	8.5	50000		8.1	30.0		5.3		87		
28..	0404	17	51000		8.1	30.0		5.4		90		
28..	0700	1.0	28000		8.1	30.0		6.0		88		
28..	0702	12	50000		8.1	30.0		5.3		88		
28..	0704	24	50000		8.0	29.5		5.7		93		
28..	1000	1.0	42000		8.1	29.5		5.0		78		
28..	1002	12	50000		8.0	29.5		4.6		75		
28..	1004	24	50000		8.0	29.5		4.7		77		
28..	1300	1.0	33000		8.0	30.5		6.4		98		
28..	1302	10	48000		8.0	29.5		5.6		89		
28..	1304	20	50000		8.0	29.5		5.3		87		
28..	1600	1.0	18000		8.2	32.0		9.1		132		
28..	1602	8.5	41000		8.2	30.0		6.8		108		
28..	1604	17	50000		8.1	29.5		5.2		84		

283706095582500 LINE 130 SITE 02

DATE	TIME	SAMP-	LING	DUCT-	CON-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-		
								(MICRO-			(PER-	
		DEPTH	MHOS)				(DEG C)	(UNITS)	WATER	DISK)	(M)	SATUR-
FEB , 1977												
07..	1225	1.0	3500		8.1	11.5		.10		9.9		95
07..	1227	5.0	8000		8.0	11.5		--		9.7		95
07..	1229	10	40000		7.6	11.5		--		8.6		96
JUN												
28..	1230	1.0	47000		8.0	29.0		.75		6.6		105
28..	1232	7.0	50000		8.0	28.5		--		5.5		88
28..	1234	20	51000		7.7	29.0		--		5.2		84
FEB , 1978												
02..	1155	1.0	22000		8.1	6.5		.82		9.9		90
02..	1157	14	40000		8.0	6.5		--		9.4		94
MAY												
31..	1746	1.0	29300		8.0	30.0		--		7.8		116
31..	1748	5.0	37000		8.0	29.0		--		5.6		84
31..	1750	11	41300		7.9	29.0		--		5.8		90

Table 5A.--Quality of water in the Colorado estuary, water years 1977-78--Continued
Field Determinations--Continued

283555095584400 LINE 147 SITE 02

		SPE-CIFIC CON-	TRANS-	OXYGEN,			
		DUCT-LING ANCE (MICRO-MHOS)	PH	TEMPER-ATURE, WATER (DEG C)	ENCY (SECCHI DISK)	PAR-	DIS-
	DATE	DEPTH (FT)	(UNITS)	(DEG C)	(M)	OXYGEN, (PER-	SOLVED SATUR-
FEB , 1977							
07...	1215	1.0	5000	8.1	11.5	.16	9.9
07...	1217	7.0	7000	8.1	11.5	--	9.7
MAY							
25...	1200	1.0	7000	8.3	27.0	--	7.6
25...	1202	5.0	35000	8.3	26.0	--	6.6
25...	1204	11	36000	8.2	26.0	--	6.5
25...	1800	1.0	5000	8.2	25.5	--	8.0
25...	1802	5.0	7500	8.1	25.5	--	7.8
25...	1804	11	14000	8.1	25.5	--	7.5
25...	2100	1.0	5000	7.8	25.0	--	7.7
25...	2102	11	5500	7.8	25.0	--	7.6
26...	0001	1.0	5500	8.2	25.0	--	7.4
26...	0002	11	5500	8.5	25.0	--	7.5
26...	0300	1.0	6000	8.2	25.0	--	7.1
26...	0302	10	5500	8.4	25.0	--	7.4
26...	0600	1.0	4500	8.2	25.0	--	7.1
26...	0602	10	4500	8.4	25.0	--	7.5
26...	0900	1.0	5200	8.2	25.0	--	7.5
26...	0902	5.0	5500	8.3	25.0	--	7.5
26...	0904	11	28000	8.2	25.5	--	6.9
26...	1200	1.0	5300	8.4	26.5	--	7.6
26...	1202	11	34000	8.4	26.5	--	6.5
26...	1500	1.0	6000	8.3	26.0	--	7.9
26...	1502	5.0	10000	8.3	25.5	--	7.6
26...	1503	11	35000	8.2	26.0	--	6.6
JUL							
27...	1625	1.0	27000	8.3	31.0	--	7.8
27...	1627	5.0	27000	8.2	31.0	--	7.3
27...	1629	10	48000	8.3	30.5	--	6.2
27...	2225	1.0	21000	7.7	30.5	--	6.1
27...	2227	5.0	30000	7.7	30.5	--	5.6
27...	2229	9.5	40000	7.7	30.5	--	5.1
28...	0115	1.0	55000	7.6	30.0	--	5.4
28...	0117	5.0	55000	7.7	30.0	--	5.4
28...	0119	9.0	55000	7.7	30.0	--	5.5
28...	0400	1.0	55000	7.7	29.5	--	5.4
28...	0402	5.0	55000	7.7	29.5	--	5.3
28...	0406	10	55000	7.7	29.0	--	5.2
28...	0700	1.0	4100	8.1	30.5	--	6.7
28...	0702	9.0	34000	8.0	30.5	--	5.2
28...	0704	18	44000	7.9	30.0	--	4.7
28...	0720	1.0	55000	7.7	29.0	--	4.8
28...	0722	5.0	55000	7.7	29.0	--	5.1
28...	0724	10	55000	7.7	29.0	--	5.2
28...	1000	1.0	55000	7.5	29.0	--	4.9
28...	1002	5.0	55000	7.6	29.0	--	5.1
28...	1004	10	55000	7.6	29.0	--	5.0
28...	1300	1.0	55000	7.9	30.5	.54	5.3
28...	1302	5.0	56000	7.9	30.0	--	5.1
28...	1304	10	55000	7.9	30.0	--	4.9
28...	1615	1.0	35000	8.2	31.5	--	7.7
28...	1617	5.0	47000	8.2	31.0	--	6.4
28...	1619	10	52000	8.1	30.5	--	5.3

284149095563300 LINE 164 SITE 02

		SPE-CIFIC CON-	TRANS-	OXYGEN,			
		DUCT-LING ANCE (MICRO-MHOS)	PH	TEMPER-ATURE, WATER (DEG C)	ENCY (SECCHI DISK)	PAR-	DIS-
	DATE	DEPTH (FT)	(UNITS)	(DEG C)	(M)	OXYGEN, (PER-	SOLVED SATUR-
FEB , 1977							
07...	1425	1.0	20000	8.3	12.0	.71	9.6
07...	1427	5.0	20000	8.2	12.0	--	9.5
07...	1429	16	20000	8.0	12.0	--	9.6
JUN							
28...	1045	1.0	22000	8.0	29.0	.56	6.4
28...	1047	5.0	24000	8.0	28.5	--	7.1
28...	1049	13	26000	8.0	28.5	--	5.9
FEB , 1978							
02...	0950	1.0	21000	8.2	7.5	.76	10.4
02...	0952	18	27000	8.2	7.5	--	9.5
MAY							
31...	1430	1.0	30000	8.0	30.0	.38	6.9
31...	1432	10	30000	8.0	29.0	--	6.2
31...	1434	19	32000	8.0	28.5	--	5.7

Table 5A.--Quality of water in the Colorado estuary, water years 1977-78--Continued
Field Determinations--Continued

283454095583400 LINE 901 SITE 45

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	OXYGEN,	OXYGEN,
		LING	ANCE		(MICRO-	ATURE,	DIS-
		(FT)	MHOS)	(UNITS)	WATER (DEG C)	SOLVED [MG/L]	SATUR- ATION)
JUL , 1977							
28...	1640	1.0	58000	8.1	30.5	4.9	86
28...	1642	7.5	58000	8.0	30.5	4.1	72
28...	1644	15	58000	8.1	30.5	4.3	76

Table 58.--Quality of water in the Colorado estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

284255095583500 LINE 081 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
07...	1330	1.0	--	.12	.01	.13	.01	.73	.74	.87	3.9	.190
07...	1336	45	--	.14	.01	.15	.01	1.1	1.1	1.2	5.5	.190
MAY												
11...	1420	1.0	.5	.45	.00	.45	.01	.04	.05	.50	2.2	.120
11...	1428	29	.7	.45	.00	.45	.01	.68	.69	1.1	5.0	.160
JUN												
28...	1115	1.0	--	.28	.01	.29	.01	.29	.30	.59	2.6	.040
28...	1125	40	--	.01	.05	.06	.37	.36	.73	.79	3.5	.210
FEB , 1978												
02...	0920	1.0	--	.69	.02	.71	.13	.41	.54	1.2	5.5	.130
02...	0922	21	--	.11	.01	.12	.23	.32	.55	.67	3.0	.090
MAY												
31...	1452	1.0	--	.00	.01	.00	.04	.56	.60	.60	2.7	.030
31...	1500	41	--	.00	.27	.26	.34	.42	.76	1.0	4.5	.110

284005095575400 LINE 105 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977												
26...	1447	5.0	1.1	.34	.02	.36	.05	1.7	1.8	2.2	9.6	.460
MAY												
11...	1135	1.0	.6	.47	.00	.47	.01	.55	.56	1.0	4.6	.080
11...	1149	18	.6	.09	.00	.09	.04	.24	.28	.37	1.6	.070

283807095580700 LINE 125 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
MAY , 1977												
03...	1500	1.0	.9	.39	.02	.41	.00	.45	.45	.86	3.8	.110
11...	1115	1.0	.4	.46	.00	.46	.01	.73	.74	1.2	5.3	.110
11...	1129	21	.7	.12	.00	.12	.04	.33	.37	.49	2.2	.110

283706095582600 LINE 130 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL 5 DAY	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
07...	1225	1.0	--	.13	.01	.14	.01	.82	.83	.97	4.3	.140
07...	1229	10	--	.08	.01	.09	.04	.38	.42	.51	2.3	.090
JUN												
28...	1230	1.0	1.8	.00	.01	.00	.02	.13	.15	.15	.70	.040
28...	1234	20	1.3	.01	.02	.03	.09	.65	.74	.77	3.4	.250
FEB , 1978												
02...	1155	1.0	1.3	.46	.03	.49	.18	.36	.54	1.0	4.6	.110
02...	1157	14	2.4	.18	.01	.19	.19	1.3	1.5	1.7	7.5	.210
MAY												
31...	1746	1.0	2.4	.01	.01	.02	.03	.41	.44	.46	2.0	.030
31...	1750	11	1.4	.00	.01	.01	.10	.34	.44	.45	2.0	.040

Table 5B.--Quality of water in the Colorado estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

284149095563300 LINE 164 SITE 02

DATE	TIME	SAMPLE LING	NITRO- GEN, TOTAL (MG/L (FT)	NITRO- NITRATE GEN, TOTAL (MG/L AS N)	NITRO- NITRITE NO ₂ +NO ₃ GEN, TOTAL (MG/L AS N)	NITRO- AMMONIA GEN, TOTAL (MG/L AS N)	NITRO- ORGANIC GEN, TOTAL (MG/L AS N)	NITRO- MONIA + ORGANIC GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
			DEPTH (MG/L AS N)	AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	
FEB , 1977												
07...	1425		1.0	.00	.00	.00	.01	.40	.41	.41	1.8	.040
07...	1429		16	.01	.00	.01	.02	.35	.37	.38	1.7	.050
JUN												
28...	1045		1.0	.16	.01	.17	.03	.10	.13	.30	1.3	.050
28...	1049		13	.13	.02	.15	.09	.19	.28	.43	1.9	.080
FEB , 1978												
02...	0950		1.0	.05	.00	.05	.01	.44	.45	.50	2.2	.080
02...	0952		18	.01	.02	.03	.03	.70	.73	.76	3.4	.080
MAY												
31...	1430		1.0	.01	.01	.02	.06	.45	.51	.53	2.3	.040
31...	1434		19	.00	.01	.01	.06	.45	.51	.52	2.3	.060

Table 5C.--Quality of water in the Colorado estuary, water years 1977-78
Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

284255095683500 LINE 081 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS, AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977										
07...	1330	1.0	600	170	30	47	12	27	26	.9
MAY										3.7
11...	1420	1.0	650	220	40	54	20	30	23	.9
JUN										3.4
28...	1115	1.0	1000	230	48	52	24	84	44	2.4
FEB , 1978										5.2
02...	0920	1.0	14000	1500	1300	130	280	2200	75	25
MAY										90
31...	1452	1.0	13300	1500	1300	130	280	2300	76	26
										96

DATE	BICAR- BONATE (MG/L AS HC0 ₃)	CAR- BONATE (MG/L AS AS CO ₃)	ALKA- LINITY (MG/L AS CACO ₃)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDs, SUM OF CONSTITUENTS, (TONS PER AC-FT)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977										
07...	167	--	137	--	34	44	.2	9.0	259	.35
MAY										
11...	216	--	177	--	42	49	.3	9.1	314	.43
JUN										
28...	220	--	180	--	50	140	.3	10	474	.64
FEB , 1978										
02...	210	--	172	--	550	4000	.4	8.8	7360	10.0
MAY										
31...	200	0	164	1.6	580	4200	.6	7.1	7690	10.5

283807095580700 LINE 125 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS, AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
MAY , 1977										
11...	1129	21	36000	4000	3900	270	810	6900	78	47
POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC0 ₃)	CAR- BONATE (MG/L AS AS CO ₃)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDs, SUM OF CONSTITUENTS, (TONS PER AC-FT)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)	
MAY , 1977										
11...	200	144	0	118	1700	12000	1.4	1.3	22000	29.9

Lavaca-Tres Palacios Estuary

The Lavaca-Tres Palacios estuary, which has an area of about 350 square miles (905 km²), consists of the tidal parts of the Lavaca and Navidad Rivers, Tres Palacios Creek and other tributaries, Lavaca Bay, Cox Bay, Keller Bay, Carancahua Bay, Tres Palacios Bay, Matagorda Bay, Matagorda Bay Entrance Channel, Pass Cavallo, and part of the Intracoastal Waterway (Figure 7). Water depth at mean low water is 13 feet (4.0 m) or less in Matagorda Bay, except in the Matagorda Ship Channel, which is more than 40 feet (12.2 m) deep. Lavaca and Tres Palacios Bays are less than 8 feet (2.4 m) deep at mean low water, and Cox, Keller, and Carancahua Bays are less than 5 feet (1.5 m) deep. The rivers are generally less than 15 feet (4.6 m) deep.

Water-quality data (Table 6) were collected during February and April-June 1977 and February, June and September 1978.

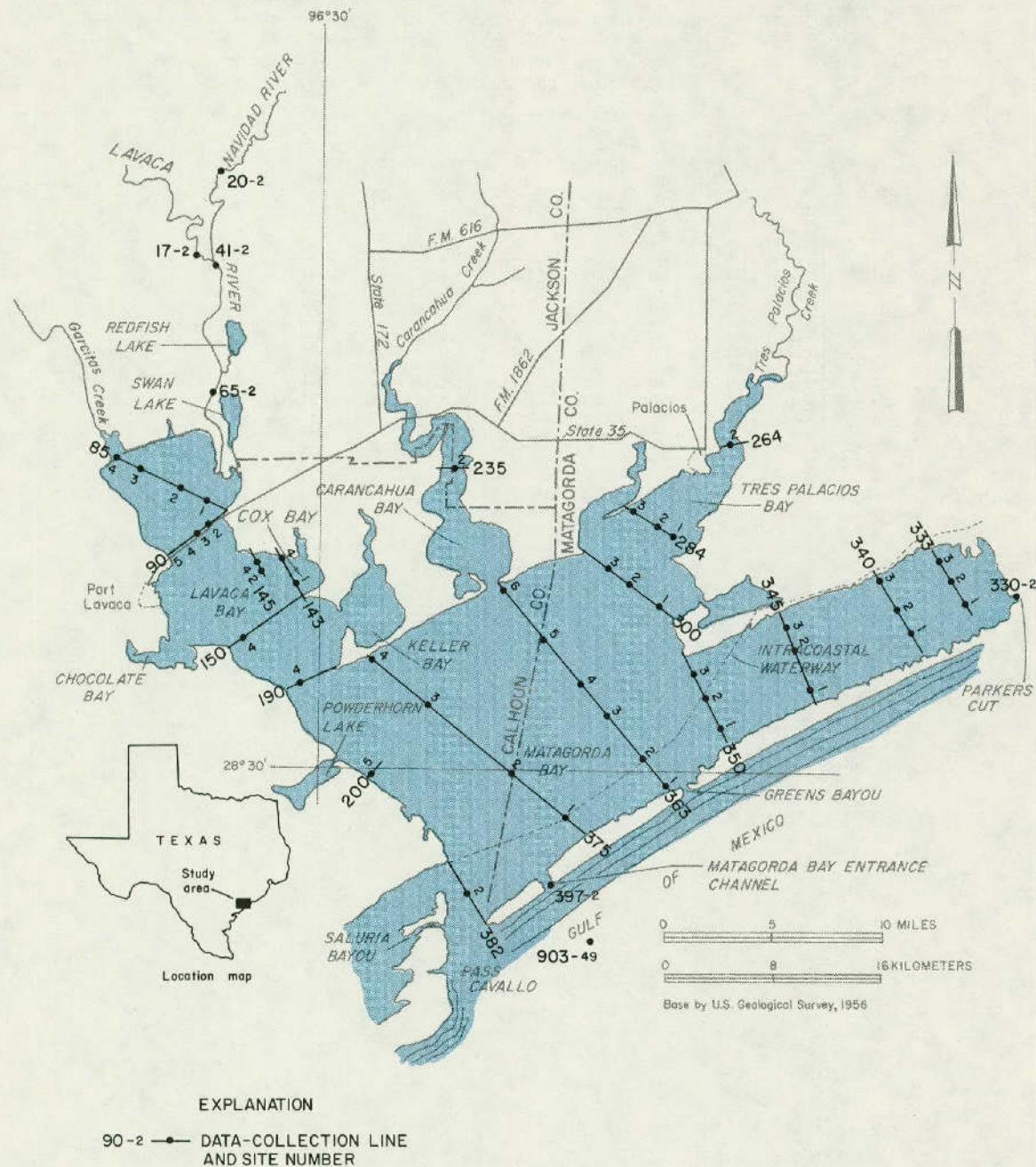


Figure 7.—Data-Collection Sites in the Lavaca-Tres Palacios Estuary

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

285003096352400 LINE 017 SITE 02

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,			
		DUCT-	CON-	PAR-	DIS-			
SAMP-	LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,		
	DEPTH	(MICRO-	(UNITS)	ATURE,	(SECCHI)	(PER-		
	(FT)	MHOS)		WATER	DISK)	CENT		
				(DEG C)	(M)	SOLVED		
						SATUR-		
						ATION)		
FEB , 1977								
09...	1130	1.0	400	7.3	12.0	--	9.2	88
09...	1132	10	650	7.9	11.5	--	9.3	88
JUN								
27...	1455	1.0	800	8.1	28.5	.25	5.8	75
27...	1457	8.5	600	8.1	29.5	--	5.3	70
JUN , 1978								
21...	0957	1.0	418	8.0	30.5	.41	6.5	87
21...	0959	10	451	8.1	30.5	--	6.3	84

285248096344400 LINE 020 SITE 02

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,			
		DUCT-	CON-	PAR-	DIS-			
SAMP-	LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,		
	DEPTH	(MICRO-	(UNITS)	ATURE,	(SECCHI)	(PER-		
	(FT)	MHOS)		WATER	DISK)	CENT		
				(DEG C)	(M)	SOLVED		
						SATUR-		
						ATION)		
SEP , 1978								
12...	1130	--	--	--	25.5	--	--	--
12...	1335	3.0	265	7.6	25.0	--	--	--
12...	1530	--	--	--	26.0	--	--	--
12...	1700	3.0	231	7.4	26.0	--	--	--
12...	1930	--	--	--	26.0	--	--	--
13...	0845	--	--	--	25.5	--	--	--
13...	0930	1.0	250	7.2	28.0	68.0	--	94
13...	0945	3.0	169	7.1	25.5	7.6	--	95
13...	1100	--	--	--	25.5	--	--	--
13...	1630	3.0	176	7.3	25.0	4.4	--	54
13...	1900	--	--	--	26.0	--	--	--
19...	0955	--	230	--	--	--	--	--
19...	0957	--	--	--	25.5	--	--	--

285223096343100 LINE 022 SITE 02

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,			
		DUCT-	CON-	PAR-	DIS-			
SAMP-	LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,		
	DEPTH	(MICRO-	(UNITS)	ATURE,	(SECCHI)	(PER-		
	(FT)	MHOS)		WATER	DISK)	CENT		
				(DEG C)	(M)	SOLVED		
						SATUR-		
						ATION)		
FEB , 1977								
09...	1115	1.0	350	7.8	11.5	--	9.3	88
09...	1117	8.0	350	7.8	11.0	--	9.3	87
JUN								
27...	1435	1.0	600	8.0	30.0	.39	5.6	75
27...	1437	7.0	600	8.0	29.5	--	4.6	61
JUN , 1978								
21...	0935	1.0	591	8.2	31.0	.43	6.7	91
21...	0937	5.0	201	8.2	31.0	--	6.7	91

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

284921096342100 LINE 041 SITE 02

		SAMP-	DUCT-	TEMPER-	OXYGEN,	OXYGEN,	
		LING	ANCE	PH	ATURE,	DIS-	DIS-
	TIME	DEPTH	(MICRO-	WATER	(DEG C)	SOLVED	SOLVED
	DATE	(FT)	MHOS)	(UNITS)		(MG/L)	(PER-
SEP , 1978							SATUR-
	12..	1206	1.0	264	7.7	25.6	ATION)
	12..	1208	20	240	7.8	25.5	54
	12..	1233	--	--	--	25.5	--
	12..	1238	--	331	--	--	--
	12..	1530	1.0	220	7.8	25.5	64
	12..	1532	20	310	7.8	26.0	62
	12..	1622	--	252	--	--	--
	12..	1810	1.0	220	7.7	25.5	65
	12..	1812	20	270	7.7	25.5	64
	12..	1900	--	290	--	--	--
	12..	2240	1.0	200	7.6	25.5	64
	12..	2242	20	220	7.6	25.5	60
	12..	2315	--	248	--	--	--
	13..	1920	1.0	170	6.1	26.0	62
	13..	1050	--	--	--	25.0	--
	13..	1325	--	--	--	26.0	--
	14..	0815	--	--	--	25.0	--
	14..	1425	--	--	--	26.0	--
	14..	1426	1.0	140	7.3	25.5	72
	14..	1430	--	160	--	--	--
	14..	1615	--	--	--	26.0	--
	14..	1618	1.0	130	7.1	25.5	70
	14..	1822	1.0	150	7.4	25.5	71
	14..	1824	--	155	--	26.0	--
	14..	2030	1.0	150	7.4	25.5	72
	14..	2228	1.0	150	7.1	25.0	72
	14..	2230	--	150	--	26.0	--
	15..	0715	1.0	140	7.7	25.0	69
	15..	0745	--	--	--	25.0	--
	15..	0755	--	135	--	--	--
	15..	0952	1.0	120	7.5	25.5	85
	15..	0954	--	--	--	25.0	--
	15..	1143	1.0	120	7.2	26.0	88
	15..	1348	1.0	120	7.7	25.5	86
	15..	1350	--	--	--	22.5	--
	15..	1542	1.0	110	7.8	25.5	88
	15..	1545	--	113	--	26.0	--
	15..	1747	1.0	110	7.6	25.5	88
	15..	1749	--	--	--	26.0	--
	15..	1940	1.0	110	7.6	25.5	85
	15..	1945	--	--	--	26.0	--
	19..	1330	1.0	250	7.4	30.0	96
	19..	1335	19	250	7.4	29.5	95
	19..	1358	--	--	--	26.0	--

284516096343400 LINE 065 SITE 02

		SAMP-	DUCT-	TEMPER-	TRANS-	OXYGEN,	OXYGEN,
		LING	ANCE	PH	PAR-	DIS-	DIS-
	TIME	DEPTH	(MICRO-	WATER	ENCY	(SECCHI	SOLVED
	DATE	(FT)	MHOS)	(UNITS)	(DEG C)	(DISK)	(MG/L)
JUN , 1977							
	27..	1410	1.0	800	8.7	29.0	.35
	27..	1412	13	860	8.7	29.0	--
	JUN , 1978						
	21..	1020	1.0	5000	8.0	30.0	.41
	21..	1022	7.5	12000	7.6	30.0	--
	21..	1024	15	12000	7.6	30.0	--

284035096351200 LINE 085 SITE 01

		SAMP-	DUCT-	TEMPER-	TRANS-	OXYGEN,	OXYGEN,
		LING	ANCE	PH	PAR-	DIS-	DIS-
	TIME	DEPTH	(MICRO-	WATER	ENCY	(SECCHI	SOLVED
	DATE	(FT)	MHOS)	(UNITS)	(DEG C)	(DISK)	(MG/L)
FEB , 1977							
	09..	1045	1.0	12000	8.3	11.0	--
	09..	1047	5.0	25000	8.2	11.0	--
	JUN						
	28..	0905	1.0	1800	8.4	27.5	.10
	28..	0907	4.5	1800	8.4	27.5	--
	JUN , 1978						
	21..	0849	1.0	19000	8.0	29.0	.53
	21..	0851	4.0	19000	8.0	28.5	--

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

284116096362700 LINE 085 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
JUN , 1977								
28...	0915	1.0	2500	8.4	27.5	.10	6.9	90
28...	0917	5.0	2400	8.4	27.5	--	6.9	90
JUN , 1978								
21...	0838	1.0	19000	8.0	28.5	.40	6.6	92
21...	0840	5.0	19000	8.0	28.5	--	6.5	90

284200096374500 LINE 085 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
JUN , 1977								
28...	0920	1.0	2000	8.3	27.5	.10	6.7	86
28...	0922	5.0	2100	8.3	27.5	--	6.7	86
FEB , 1978								
16...	0737	1.0	21000	8.5	8.0	--	10.4	99
16...	0739	4.0	23000	8.6	8.0	--	10.2	97
16...	1234	1.0	19000	8.6	9.5	--	12.6	123
16...	1236	5.0	20000	8.6	9.5	--	12.8	124
16...	1747	1.0	19000	8.8	10.5	--	13.3	133
16...	1749	5.0	20000	8.8	10.5	--	13.5	135
17...	0735	1.0	21000	8.9	10.0	--	11.0	110
17...	0737	5.0	21000	8.9	10.0	--	11.2	112
JUN								
20...	2012	1.0	17000	8.4	30.5	.26	6.6	95
20...	2014	4.0	18000	8.4	30.0	--	6.8	96
21...	0815	1.0	19100	8.0	28.5	.35	6.5	90
21...	0817	5.0	21000	8.0	28.5	--	6.7	95

284235096384900 LINE 085 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
09...	1030	1.0	13000	8.3	11.0	--	9.3	92
09...	1032	3.0	15000	8.3	11.0	--	8.9	88
JUN								
28...	0930	1.0	2400	8.3	27.5	.10	7.0	90
28...	0932	3.5	2300	8.4	28.0	--	6.8	88
JUN , 1978								
21...	0828	1.0	16000	8.0	28.5	.44	6.1	84
21...	0830	3.5	18000	8.0	28.5	--	6.3	87

283924096352000 LINE 090 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
JUN , 1977								
28...	0855	1.0	3900	8.4	27.5	.18	6.2	81
28...	0857	6.0	3500	8.4	28.0	--	6.4	83
JUN , 1978								
21...	1042	1.0	29000	8.0	29.5	.55	6.8	100
21...	1044	7.0	29000	8.0	30.0	--	6.7	100

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283912096354400 LINE 090 SITE 03

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE		ATURE,	ENCY	(PER-	CENT
		DEPTH	(MICRO-		WATER	(SECCHI	OXYGEN,	(MG/L)
		(FT)	MHOS)	(UNITS)	(DEG C)	DISK)	SOLVED	SATUR-
FEB , 1977								
09...	1015	1.0	18000	8.3	11.0	--	9.3	93
09...	1017	8.0	30000	8.2	11.5	--	8.3	89
JUN								
28...	0850	1.0	2200	8.5	28.0	.18	6.7	87
28...	0852	7.0	2800	8.5	27.5	--	6.6	86
FEB , 1978								
16...	0545	1.0	24000	8.4	8.0	--	10.3	99
16...	0547	11	36000	8.3	7.5	--	9.6	97
16...	1204	1.0	22000	8.6	9.0	--	11.8	114
16...	1205	10	33000	8.3	9.0	--	11.4	100
16...	1854	1.0	29000	8.6	9.0	--	12.2	123
16...	1856	7.0	35000	8.4	9.0	--	11.4	118
17...	0538	1.0	24000	8.6	9.5	--	11.0	110
17...	0540	9.0	32000	8.3	9.5	--	9.3	96
JUN								
20...	1958	1.0	31000	8.3	30.0	.22	6.4	97
20...	2000	9.0	35000	8.3	29.5	--	6.3	96
21...	0800	1.0	25000	8.0	29.0	.42	6.4	92
21...	0802	9.0	30500	7.9	29.0	--	6.4	93

283843096361600 LINE 090 SITE 04

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE		ATURE,	ENCY	(PER-	CENT
		DEPTH	(MICRO-		WATER	(SECCHI	OXYGEN,	(MG/L)
		(FT)	MHOS)	(UNITS)	(DEG C)	DISK)	SOLVED	SATUR-
JUN , 1977								
28...	0845	1.0	3800	8.6	27.5	.18	6.6	86
28...	0847	3.5	3800	8.5	27.0	--	6.4	82
JUN , 1978								
21...	1137	1.0	26000	8.0	30.0	--	6.7	99
21...	1139	5.0	29000	8.0	30.0	--	6.7	100

283716096310400 LINE 143 SITE 01

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE		ATURE,	ENCY	(PER-	CENT
		DEPTH	(MICRO-		WATER	(SECCHI	OXYGEN,	(MG/L)
		(FT)	MHOS)	(UNITS)	(DEG C)	DISK)	SOLVED	SATUR-
FEB , 1977								
09...	0945	1.0	32000	8.2	10.5	--	8.8	93
09...	0947	4.0	34000	8.2	10.5	--	8.8	94
JUN								
28...	1005	1.0	12000	8.5	28.0	.37	6.4	86
28...	1007	6.0	12000	8.3	27.5	--	6.2	83
FEB , 1978								
16...	0638	1.0	35000	8.6	8.5	--	10.8	111
16...	0640	7.0	35000	8.6	8.5	--	10.2	104
16...	1124	1.0	35000	8.4	9.0	--	11.1	114
16...	1126	7.0	37000	8.1	8.5	--	10.3	106
16...	1818	1.0	34000	8.6	10.0	--	12.0	127
16...	1820	7.0	34000	8.5	10.0	--	11.5	121
17...	0654	1.0	34000	8.6	9.5	--	10.5	109
17...	0656	6.0	34000	8.6	9.5	--	10.6	110
JUN								
20...	1926	1.0	31000	8.3	30.0	.41	6.5	99
20...	1928	6.0	28000	8.1	31.0	--	6.5	97
21...	0725	1.0	37000	8.1	29.0	.65	6.3	95
21...	0727	6.0	34000	7.9	27.0	--	6.1	89

283819096321100 LINE 143 SITE 04

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE		ATURE,	ENCY	(PER-	CENT
		DEPTH	(MICRO-		WATER	(SECCHI	OXYGEN,	(MG/L)
		(FT)	MHOS)	(UNITS)	(DEG C)	DISK)	SOLVED	SATUR-
JUN , 1977								
28...	1010	1.0	7300	8.5	28.0	.26	7.0	92
28...	1012	5.0	8400	8.3	28.5	--	6.2	83
JUN , 1978								
21...	1117	1.0	35000	8.0	30.0	.44	6.6	100
21...	1119	6.0	35000	8.0	32.0	--	6.5	101

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283802096330200 LINE 145 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SP- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
09..	1000	1.0	32000	8.3	11.0	--	8.4	90
09..	1002	10	37000	8.1	11.0	--	7.7	85
09..	1004	25	41000	8.1	10.0	--	6.5	72
09..	1006	35	37000	8.1	10.0	--	7.1	75
JUN								
26..	1025	1.0	7600	8.5	27.5	.25	6.9	90
28..	1027	4.0	8300	8.4	28.5	--	6.5	87
JUN , 1978								
21..	1100	1.0	35000	8.0	30.0	.32	8.4	128
21..	1102	5.0	35000	8.0	30.0	--	6.6	100

283812096331200 LINE 145 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SP- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
JUN , 1977								
28..	1015	1.0	6000	8.4	33.5	.21	6.8	97
28..	1017	3.0	6000	8.5	31.0	--	7.0	96
JUN , 1978								
21..	1109	1.0	35000	8.0	32.0	.32	6.5	101
21..	1111	4.0	35000	8.0	30.0	--	6.6	100

283522096332500 LINE 150 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SP- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1978								
16..	0623	1.0	27000	8.5	9.0	--	10.0	100
16..	0625	20	40000	8.2	9.0	--	9.7	102
16..	0627	42	43000	8.2	8.5	--	9.4	101
16..	1145	1.0	26000	8.5	9.0	.57	11.1	111
16..	1147	20	36000	8.2	9.0	--	9.9	104
16..	1149	38	41000	8.1	9.0	--	9.5	102
16..	1836	1.0	32000	8.8	9.0	--	13.1	134
16..	1838	20	39000	8.3	9.0	--	10.0	105
16..	1840	40	40000	8.2	9.0	--	9.9	105
17..	0628	1.0	31000	8.6	9.5	--	10.6	109
17..	0630	20	35000	8.4	9.0	--	10.0	104
17..	0632	35	39000	8.3	9.0	--	9.8	104
JUN								
20..	1945	1.0	37000	8.3	30.0	.64	6.3	97
20..	1947	20	41000	8.3	30.0	--	5.9	93
20..	1949	40	39000	8.0	29.5	--	5.6	87
21..	0742	1.0	34100	8.0	29.5	.39	5.9	89
21..	0744	20	36900	7.9	29.5	--	5.6	86
21..	0746	39	36900	7.9	29.5	--	5.6	87

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283337096305000 LINE 190 SITE 04

DATE	TIME	SAMP- LING	DUCT- ANCE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977									
09...	0920	1.0	34000	8.2	10.5	--	8.5	91	
09...	0922	10	34000	8.2	10.5	--	8.5	91	
09...	0924	25	43000	8.1	10.0	--	8.1	90	
09...	0926	36	43000	8.1	10.0	--	8.1	90	
JUN									
	27...	1510	1.0	18000	8.4	29.5	.21	7.8	111
	27...	1512	5.0	18000	8.4	29.5	--	7.8	109
	27...	1514	7.5	20000	8.3	29.0	--	7.3	103
	27...	1516	10	31000	8.1	28.5	--	5.2	77
	27...	1518	13	47000	7.8	28.0	--	3.7	58
	27...	1520	15	47000	7.9	28.0	--	3.5	55
	27...	1522	25	54000	7.8	27.5	--	3.4	55
	27...	1524	32	54000	7.8	27.5	--	3.3	53
	28...	0920	1.0	18000	7.9	28.0	.54	6.6	90
	28...	0922	5.0	20000	7.9	28.0	--	6.3	87
	28...	0924	10	21000	7.9	28.0	--	5.8	82
	28...	0926	15	33000	7.9	28.0	--	5.2	77
	28...	0928	25	50000	7.6	27.0	--	3.5	54
	28...	0930	32	50000	7.6	27.0	--	3.6	56
JUN , 1978									
21...	0725	1.0	38000	8.2	29.0	.58	6.3	97	
21...	0727	20	40000	8.2	29.0	--	6.3	97	
21...	0729	37	44000	8.2	29.0	--	6.2	97	

283018096275500 LINE 200 SITE 05

DATE	TIME	SAMP- LING	DUCT- ANCE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977									
08...	1350	1.0	41000	8.0	11.5	--	9.8	109	
08...	1352	3.0	41000	8.0	12.0	--	9.8	112	
JUN									
28...	0940	1.0	26000	7.8	28.5	.38	5.7	83	
28...	0942	3.0	26000	7.8	28.5	--	5.7	83	
FEB , 1978									
16...	0542	1.0	24000	8.5	8.0	--	9.9	96	
16...	0544	5.0	26000	8.5	8.0	--	9.9	96	
16...	1157	1.0	31000	8.7	11.0	--	10.5	112	
16...	1159	4.0	31000	8.7	11.0	--	10.5	112	
16...	1852	1.0	32000	8.5	9.5	--	10.7	110	
16...	1854	4.0	33000	8.5	9.5	--	10.5	109	
17...	0517	1.5	32000	8.7	9.5	--	10.0	103	
17...	0519	4.0	32500	8.7	9.5	--	9.8	101	
JUN									
20...	1904	1.0	40000	8.1	31.0	--	6.2	99	
20...	1906	4.0	41000	8.1	31.0	--	7.3	99	
21...	0858	1.0	39000	8.2	30.0	.83	6.1	96	
21...	0900	4.5	40000	8.2	30.0	--	6.0	93	

284153096240000 LINE 235 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHO)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977									
07...	1315	1.0	24000	8.5	12.0	.83	10.0	105	
07...	1317	3.0	24000	8.9	13.0	--	10.3	111	
JUN									
27...	1245	1.0	11000	8.6	28.0	.23	6.3	85	
27...	1247	5.5	13000	8.6	28.5	--	5.8	78	
JUN , 1978									
20...	0900	1.0	27100	8.2	29.0	.36	6.5	95	
20...	0902	6.0	33000	8.2	29.5	--	6.3	96	

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

284246096112800 LINE 264 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977							
08..	0900	1.0	35000	8.1	10.5	.62	8.4
08..	0902	4.0	36000	8.0	10.5	--	8.6
JUN							
27..	1140	1.0	10000	8.9	28.0	.26	7.3
27..	1142	4.5	10000	8.9	28.5	--	7.3
FEB , 1978							
14..	0547	3.5	11000	8.0	9.0	--	9.9
14..	0550	1.0	11000	8.0	9.5	--	9.7
14..	1108	1.0	19000	8.5	10.5	.21	10.7
14..	1110	3.5	21000	8.4	10.5	--	10.7
14..	1830	1.0	24000	8.8	11.0	--	13.6
14..	1832	4.0	31000	8.8	10.5	--	12.8
15..	0550	1.0	13000	8.2	9.5	--	10.5
15..	0552	3.5	16000	8.2	8.5	--	10.5
JUN							
19..	2008	1.0	23000	7.9	30.0	.44	6.4
19..	2010	4.0	29000	7.8	29.0	--	6.4
20..	0720	1.0	25400	8.2	29.5	.61	6.6
20..	0722	5.0	31400	8.0	29.0	--	6.3

283914096140600 LINE 284 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1978							
14..	0620	1.0	37000	8.6	10.0	--	10.2
14..	0622	3.0	37000	8.6	9.0	--	10.3
14..	1130	1.0	35000	8.4	10.5	.13	10.4
14..	1132	4.0	35000	8.5	10.5	--	10.6
14..	1813	1.0	35000	8.8	10.5	.44	12.1
14..	1815	4.0	36000	8.8	10.5	--	12.1
15..	0628	1.0	36000	8.5	10.0	--	11.4
15..	0630	4.0	36000	8.5	9.5	--	11.5
JUN							
19..	1955	1.0	34000	7.7	29.5	.37	6.2
19..	1957	4.0	34000	7.8	29.0	--	6.4
20..	0738	1.0	34000	8.1	28.0	.34	6.4
20..	0740	4.5	34000	8.1	28.5	--	6.4

283634096144200 LINE 300 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977							
08..	0955	1.0	41000	8.2	10.5	1.65	8.5
08..	0957	6.0	41000	8.2	10.5	--	8.7
JUN							
27..	1140	1.0	33000	8.2	28.5	.15	5.8
27..	1142	5.0	33000	8.2	28.5	--	5.7
JUN , 1978							
20..	0752	1.0	37000	8.1	28.5	.48	6.4
20..	0754	11	35000	8.0	28.5	--	6.4

283724096160100 LINE 300 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977							
08..	0945	1.0	40000	8.2	10.5	1.26	8.7
08..	0947	10	40000	8.2	10.5	--	8.8
JUN							
27..	1130	1.0	29000	8.2	28.5	.38	6.0
27..	1132	5.0	31000	8.2	28.5	--	5.9
27..	1134	9.0	33000	8.2	28.0	--	5.6
JUN , 1978							
20..	0758	1.0	37000	8.1	29.0	.53	6.3
20..	0800	12	36000	8.1	28.5	--	6.3

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283816096170000 LINE 300 SITE 03

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-					
		LING	CIFIC		PH	DUCT-	CON-	PAR-	(SECCHI	SOLVED	
		DEPTH	CON-	ANCE	(MICRO-	ATURE	(DEG C)	ENCY	(M)	OXYGEN,	DIS-
		(FT)	MHOS)	(UNITS)	(MHOS)	(DEG C)	(DEG C)	(SECCHI	(M)	(MG/L)	SATUR-
FEB , 1977											
08...	0930	1.0	39000	8.2	10.5	1.42	--	8.6	8.6	94	
08...	0932	5.0	38000	8.2	10.5	--	--	8.6	8.6	94	
JUN											
27...	1120	1.0	26000	8.3	28.5	.30	--	6.0	6.0	87	
27...	1122	5.0	29000	8.2	28.5	--	--	6.0	6.0	87	
FEB , 1978											
14...	0643	1.0	40000	8.7	9.5	--	--	10.9	11.6		
14...	0645	5.0	40000	8.6	8.5	--	--	11.1	11.6		
14...	1145	1.0	38000	8.3	10.0	.84	--	13.6	123		
14...	1147	5.0	38000	8.3	10.0	--	--	11.1	121		
14...	1758	1.0	39000	8.7	10.0	.93	--	12.5	136		
14...	1800	5.0	39000	8.7	10.0	--	--	12.3	134		
15...	0645	1.0	38000	8.5	10.0	--	--	11.0	121		
15...	0647	5.0	38000	8.5	9.5	--	--	11.0	117		
JUN											
19...	1925	1.0	16000	7.8	30.0	.54	--	7.2	101		
19...	1927	7.0	16000	7.9	29.5	--	--	7.1	100		
20...	0808	1.0	36700	8.1	29.0	.58	--	6.3	96		
20...	0810	8.0	36800	8.1	29.0	--	--	6.4	97		

283702095583300 LINE 330 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,	DIS-					
		LING	CIFIC		PH	DUCT-	CON-	PAR-	(SECCHI	SOLVED	
		DEPTH	CON-	ANCE	(MICRO-	ATURE	(DEG C)	ENCY	(M)	OXYGEN,	DIS-
		(FT)	MHOS)	(UNITS)	(MHOS)	(DEG C)	(DEG C)	(SECCHI	(M)	(MG/L)	SATUR-
MAY , 1977											
25...	1250	1.0	4000	8.3	26.0	--	--	7.7	97		
25...	1252	5.0	8000	8.2	26.0	--	--	7.5	96		
25...	1254	10	12000	8.2	26.0	--	--	7.2	94		
25...	1535	1.0	6500	8.2	27.0	--	--	7.8	101		
25...	1537	5.0	7500	8.2	26.5	--	--	7.7	99		
25...	1539	10	9000	8.2	26.0	--	--	7.4	95		
25...	1745	1.0	4500	8.3	26.5	--	--	7.9	101		
25...	1747	5.0	7000	8.2	26.5	--	--	7.6	97		
25...	1749	10	9500	8.1	26.0	--	--	7.2	92		
25...	2100	1.0	5500	8.2	25.0	.33	--	7.5	94		
25...	2102	5.0	6000	8.2	25.0	--	--	7.5	94		
25...	2104	10	6500	8.2	25.0	--	--	7.5	94		
26...	0335	1.0	5000	8.2	24.5	--	--	7.3	91		
26...	0337	5.0	5500	8.2	24.5	--	--	7.2	90		
26...	0339	10	5500	8.2	24.5	--	--	7.2	90		
26...	0600	1.0	5500	8.2	24.0	--	--	7.0	86		
26...	0602	3.5	6000	8.2	24.0	--	--	6.9	85		
26...	0604	7.0	12000	8.2	24.0	--	--	6.6	84		
26...	0925	1.0	3500	8.2	25.0	--	--	7.6	95		
26...	0927	5.0	3500	8.2	25.0	--	--	7.6	95		
26...	0929	10	3500	8.2	25.0	--	--	7.6	95		
26...	1200	1.0	3000	8.2	25.5	--	--	7.8	98		
26...	1202	5.0	3500	8.2	25.0	--	--	7.6	95		
26...	1204	10	4000	8.2	25.0	--	--	7.5	94		
27...	0001	1.0	4000	8.2	25.0	--	--	7.1	89		
27...	0002	5.0	4500	8.2	25.0	--	--	7.1	89		
27...	0004	9.5	5000	8.2	25.0	--	--	7.1	89		
JUL											
27...	1600	1.0	35000	8.4	31.5	--	--	7.6	119		
27...	1602	5.0	42000	8.4	31.5	--	--	7.4	119		
27...	1604	9.0	42000	8.4	31.0	--	--	7.4	119		
27...	1915	1.0	39000	8.0	30.5	--	--	6.7	104		
27...	1917	5.0	43000	8.0	30.5	--	--	6.4	103		
27...	1919	9.0	43000	8.0	30.5	--	--	6.4	103		
27...	2200	1.0	23000	7.8	30.5	--	--	6.1	88		
27...	2202	5.0	42000	7.9	30.0	--	--	6.0	94		
27...	2204	9.5	43000	7.9	30.0	--	--	6.0	94		
28...	0100	1.0	25000	7.7	29.0	--	--	5.7	82		
28...	0102	5.0	25000	7.7	29.0	--	--	5.7	82		
28...	0104	11	35000	7.6	30.0	--	--	5.2	79		
28...	0430	1.0	55000	7.7	29.0	--	--	5.3	87		
28...	0432	6.0	55000	7.6	29.0	--	--	5.3	87		
28...	0434	12	55000	7.6	29.0	--	--	5.3	87		
28...	0700	1.0	55000	7.7	29.0	--	--	5.2	86		
28...	0702	6.0	55000	7.6	29.0	--	--	5.1	83		
28...	0704	12	55000	7.7	29.0	--	--	5.2	86		
28...	1030	1.0	55000	7.7	29.0	--	--	4.9	80		
28...	1032	6.0	55000	7.7	29.0	--	--	5.0	82		
28...	1034	11	55000	7.7	29.0	--	--	4.8	79		
28...	1315	1.0	44000	8.0	29.5	--	--	6.1	97		
28...	1317	5.0	51000	8.1	29.5	--	--	5.9	96		
28...	1319	10	51000	8.0	29.5	--	--	5.9	96		
28...	1555	1.0	40000	8.2	32.0	--	--	7.8	128		
28...	1557	5.0	42000	8.3	32.0	--	--	7.2	117		
28...	1559	10	42000	8.3	32.0	--	--	7.1	116		

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283608096011400 LINE 333 SITE 01

DATE	TIME	SAMP- LING	DUCT- ANCE	PH	TEMPER- ATURE, WATER	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
		DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(M)	(MG/L)
FEB , 1977							
08...	1110	1.0	18000	8.1	10.0	.21	9.9
08...	1112	3.0	17000	8.1	10.5	--	9.8
APR							
26...	1220	1.0	7200	8.2	22.0	.20	7.8
26...	1222	2.0	7200	8.2	22.0	--	7.8
26...	1224	3.0	28000	7.9	22.5	--	3.0
26...	1226	4.0	29000	7.9	22.5	--	2.7
27...	1400	1.0	20000	8.3	23.5	.30	9.3
27...	1402	4.0	28000	7.9	22.0	--	5.3
MAY							
03...	1000	1.0	26000	7.8	23.5	.20	6.3
03...	1002	2.5	26000	7.8	23.0	--	6.2
03...	1004	5.0	26000	7.8	23.0	--	6.1
11...	1210	1.0	19000	7.9	24.0	.30	6.7
11...	1212	4.0	30000	7.7	24.0	--	5.6
JUN							
27...	1255	1.0	39000	8.2	29.0	.28	5.9
27...	1257	4.0	39000	8.2	29.0	--	6.1
FEB , 1978							
14...	0545	1.0	30000	8.3	11.0	--	10.8
14...	0547	3.5	30000	8.3	11.0	--	10.8
14...	1117	1.0	23000	8.4	11.0	--	11.0
14...	1119	3.0	23000	8.5	11.0	--	10.9
14...	1922	1.0	24000	8.7	11.0	--	12.9
14...	1924	4.0	28000	8.6	11.0	--	12.7
15...	0533	1.0	25000	8.6	10.0	--	11.3
15...	0535	3.0	--	--	--	--	11.1
JUN							
20...	0925	1.0	39200	8.1	29.0	.47	6.2
20...	0927	3.0	40000	8.1	29.0	--	6.2

283700096013400 LINE 333 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	PH	TEMPER- ATURE, WATER	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
		DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(M)	(MG/L)
APR , 1977							
26...	1210	1.0	5500	8.3	21.0	.20	7.5
26...	1212	2.0	5500	8.2	21.0	--	7.9
26...	1214	4.0	30000	8.1	23.0	--	5.4
27...	1420	1.0	18000	8.6	23.0	.46	10.9
27...	1422	5.0	10000	8.6	23.5	--	10.9
MAY							
03...	0945	1.0	12000	7.9	24.0	.30	7.5
03...	0947	3.0	14000	7.9	24.0	--	7.0
03...	0949	6.0	18000	7.8	24.0	--	6.7
11...	1225	1.0	26000	8.0	24.0	.30	6.9
11...	1227	5.0	27000	7.9	24.0	--	6.0

283749096015500 LINE 333 SITE 03

DATE	TIME	SAMP- LING	DUCT- ANCE	PH	TEMPER- ATURE, WATER	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
		DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(M)	(MG/L)
APR , 1977							
26...	1200	1.0	10000	8.1	21.0	.20	7.5
26...	1202	3.0	12000	8.0	20.5	--	6.5
27...	1440	1.0	7500	8.1	23.5	.80	7.7
27...	1442	3.0	7500	8.1	23.5	--	7.7
MAY							
03...	0930	1.0	6000	7.7	24.0	.15	7.3
03...	0932	3.0	6000	7.2	24.0	--	7.0
11...	1235	1.0	26000	8.0	24.0	.36	6.6
11...	1237	5.0	29000	8.0	24.0	--	5.4

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283518096034400 LINE 340 SITE 01

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE				(MICRO-	
		(FT)	MHOS)	(UNITS)	(DEG C)	(SECCHI	(PER-	CENT
						DISK)	DIS-	SATUR-
						(M)	SOLVED	ATION)
APR , 1977								
26...	1410	1.0	14000	8.5	24.0	.25	8.1	104
26...	1412	3.0	30000	8.1	23.0	--	3.9	52
26...	1414	5.0	30000	8.1	23.0	--	3.8	51
27...	1215	1.0	24000	8.4	23.0	.91	8.2	108
27...	1217	5.0	30000	8.0	22.5	--	5.5	73
MAY								
03...	1100	1.0	33000	7.9	23.5	.56	6.7	92
03...	1102	2.5	33000	7.9	23.5	--	6.4	88
03...	1104	4.0	33000	7.9	23.0	--	5.7	79
03...	1106	5.0	34000	7.8	23.0	--	5.6	76

283617096041600 LINE 340 SITE 02

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE				(MICRO-	
		(FT)	MHOS)	(UNITS)	(DEG C)	DISCII	OXYGEN,	(PER-
						DISK)	DIS-	CENT
						(M)	SOLVED	SATUR-
							(MG/L)	ATION)
APR , 1977								
26...	1200	1.0	15000	8.7	23.0	.66	11.0	138
26...	1202	4.0	16000	8.6	23.0	--	10.0	126
26...	1204	5.0	30000	7.8	23.0	--	4.0	54
26...	1355	1.0	11000	8.5	23.0	.33	8.9	110
26...	1357	4.0	22000	8.4	22.5	--	7.7	99
26...	1359	6.0	30000	8.2	23.0	--	4.1	55
MAY								
03...	1050	1.0	24000	8.1	24.5	.58	6.8	90
03...	1052	4.5	26000	8.1	24.0	--	6.5	87
03...	1054	9.0	31000	7.9	23.5	--	5.7	78

283704096044200 LINE 340 SITE 03

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE				(MICRO-	
		(FT)	MHOS)	(UNITS)	(DEG C)	DISCII	OXYGEN,	(PER-
						DISK)	DIS-	CENT
						(M)	SOLVED	SATUR-
							(MG/L)	ATION)
APR , 1977								
26...	1345	1.0	11000	8.4	22.0	.41	8.4	102
26...	1347	4.0	11000	8.4	22.0	--	8.7	106
27...	1150	1.0	11000	8.5	23.0	.10	9.0	111
27...	1152	3.5	11000	8.4	22.5	--	8.8	108
MAY								
03...	1040	1.0	16000	8.1	24.5	.36	6.6	85
03...	1042	5.0	16000	8.1	24.5	--	6.4	83

283327096080000 LINE 345 SITE 01

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	DIS-
		LING	ANCE				(MICRO-	
		(FT)	MHOS)	(UNITS)	(DEG C)	DISCII	OXYGEN,	(PER-
						DISK)	DIS-	CENT
						(M)	SOLVED	SATUR-
							(MG/L)	ATION)
APR , 1977								
26...	1250	1.0	26000	8.5	23.0	.76	8.0	105
26...	1252	4.0	30000	8.3	23.0	--	6.8	90
26...	1254	9.0	33000	8.2	22.0	--	5.2	71
27...	1230	1.0	28000	8.4	23.0	1.07	7.9	104
27...	1232	4.0	28000	8.4	23.0	--	7.8	102
27...	1234	6.0	30000	8.4	22.5	--	7.5	100
27...	1236	8.0	30000	8.3	22.5	--	6.4	85
27...	1238	9.0	32000	8.1	23.0	--	3.4	46
MAY								
03...	1115	1.0	36000	7.9	23.5	.53	6.2	86
03...	1117	5.0	36000	7.9	23.0	--	5.8	81
03...	1119	9.0	36700	7.9	23.0	--	5.9	82
JUN								
27...	1315	1.0	38000	8.1	29.0	.39	6.0	92
27...	1317	5.0	38000	8.1	29.0	--	6.0	92
JUN , 1978								
20...	0900	1.0	42000	8.1	29.0	.64	6.2	95
20...	0902	8.0	43000	8.1	29.0	--	6.1	95

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283445096084200 LINE 345 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI WATER DISK)	OXYGEN, DIS- SOLVED (PER- CENT DIS- SOLVED (MG/L))	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
APR , 1977										
26...	1305	1.0	28000	8.6	23.0	1.27	8.5	112		
26...	1307	4.0	28000	8.6	23.0	--	8.5	112		
26...	1309	10	33000	8.3	23.0	--	6.1	83		
27...	1245	1.0	26000	8.6	23.5	.91	8.5	113		
27...	1247	4.0	26000	8.6	23.5	--	8.5	113		
27...	1249	8.0	26000	8.6	23.5	--	8.2	110		
27...	1251	10	31000	8.2	23.5	--	4.2	58		
MAY										
03...	1130	1.0	31000	8.1	24.0	.69	6.8	93		
03...	1132	6.0	34000	8.0	23.5	--	6.2	86		
03...	1134	11	34000	8.0	23.5	--	6.8	80		
JUN										
27...	1235	1.0	38000	8.1	29.0	.44	5.7	88		
27...	1237	7.0	38000	8.1	29.0	--	5.6	86		
FEB , 1978										
14...	0654	1.0	29000	8.3	9.5	--	10.4	106		
14...	0656	5.0	30000	8.3	9.5	--	10.4	106		
14...	0658	8.0	33000	8.3	9.5	--	10.2	106		
14...	1154	1.0	29500	8.4	10.5	.90	10.4	108		
14...	1156	5.0	30000	8.4	10.5	--	10.4	108		
14...	1158	8.0	33000	8.4	10.5	--	10.2	108		
14...	1839	1.5	36000	8.4	10.5	--	10.1	110		
14...	1841	5.0	36500	8.4	10.5	--	10.1	110		
14...	1843	10	36500	8.3	10.0	--	10.2	108		
15...	0615	1.5	36000	8.4	10.0	--	10.2	108		
15...	0617	5.0	36000	8.4	10.0	--	10.1	107		
15...	0619	8.5	36000	8.4	10.0	--	10.1	107		
JUN										
20...	0945	1.0	43000	8.1	29.5	.50	6.1	96		
20...	0947	7.0	43000	8.1	29.5	--	6.0	95		

283557096092100 LINE 345 SITE 03

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI WATER DISK)	OXYGEN, DIS- SOLVED (PER- CENT DIS- SOLVED (MG/L))	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977										
08...	1130	1.0	37000	8.2	10.5	.50	9.2	101		
08...	1132	4.0	34000	8.2	11.5	--	9.4	103		
APR										
26...	1315	1.0	24000	8.7	23.0	1.22	9.6	126		
26...	1317	6.0	24000	8.7	22.5	--	9.8	127		
27...	1300	1.0	25000	8.6	23.5	.46	8.7	114		
27...	1302	4.0	25000	8.6	23.5	--	8.6	113		
27...	1304	6.5	25000	8.6	23.5	--	8.5	112		
MAY										
03...	1140	1.0	22000	8.2	24.5	.46	6.8	90		
03...	1142	3.0	28000	8.0	24.0	--	5.8	78		
03...	1144	6.0	29000	8.0	24.0	--	5.5	74		
JUN										
27...	1220	1.0	37000	8.2	28.5	.24	5.7	87		
27...	1222	6.0	37000	8.2	28.5	--	5.7	87		
JUN , 1978										
20...	0956	1.0	37000	8.1	29.0	.40	6.2	96		
20...	0957	6.0	41000	8.1	29.0	--	6.2	95		

283145096113700 LINE 350 SITE 01

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI WATER DISK)	OXYGEN, DIS- SOLVED (PER- CENT DIS- SOLVED (MG/L))	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977										
08...	1155	1.0	37000	8.1	11.5	.20	9.1	101		
08...	1157	4.0	37000	8.1	11.5	--	9.3	103		
JUN										
27...	1325	1.0	38000	8.1	29.5	.41	5.6	87		
27...	1327	4.0	38000	8.1	29.0	--	5.6	87		
27...	1329	8.0	38000	8.1	29.0	--	5.6	87		
JUN , 1978										
20...	0838	1.0	43000	8.1	29.0	.78	6.1	95		
20...	0840	10	44000	8.1	29.0	--	6.1	95		

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283315096123200 LINE 350 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1030	1.0	39000	8.2	10.5	.63	8.8	96
08...	1032	10	39000	8.1	11.0	--	8.4	93
08...	1034	17	39000	8.2	11.0	--	8.2	92
JUN								
27...	1205	1.0	37000	8.2	29.0	.32	5.7	86
27...	1207	4.0	37000	8.2	28.5	--	5.7	86
27...	1209	8.0	37000	8.2	28.5	--	5.7	86
27...	1211	16	37000	8.2	28.5	--	5.7	86
JUN , 1978								
20...	1018	1.0	40000	8.2	29.5	.46	6.2	96
20...	1020	11	43000	8.1	29.5	--	5.9	93

283353096125600 LINE 350 SITE 03

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1015	1.0	37000	8.2	11.0	.39	8.6	94
08...	1017	7.0	37000	8.2	11.0	--	8.5	93
JUN								
27...	1156	1.0	37000	8.2	29.0	.38	6.0	91
27...	1157	6.0	35000	8.2	29.0	--	5.9	88
JUN , 1978								
20...	1024	1.0	43000	8.1	29.5	--	6.0	95
20...	1026	5.0	46000	8.1	29.5	--	5.7	92

282928096144600 LINE 363 SITE 01

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1215	1.0	38000	8.1	11.5	.42	9.2	103
08...	1217	10	38000	8.0	11.5	--	9.2	103
JUN								
27...	1350	1.0	37000	8.1	29.0	.58	6.1	93
27...	1352	4.0	37000	8.1	29.0	--	6.0	92
27...	1354	8.0	37000	8.1	29.0	--	5.7	88
FEB , 1978								
14...	0734	1.0	34000	8.2	8.0	--	9.7	100
14...	0736	5.0	35000	8.2	8.5	--	9.7	99
14...	0738	7.5	38000	8.2	8.5	--	9.7	101
14...	1234	1.5	31500	8.2	10.0	.50	10.0	105
14...	1236	5.0	32500	8.2	10.0	--	10.0	104
14...	1238	9.5	33500	8.2	10.0	--	9.8	103
14...	1809	1.0	36000	8.2	10.0	--	9.7	103
14...	1811	5.0	36000	8.2	10.0	--	9.7	103
14...	1813	9.0	36000	8.2	10.0	--	9.7	103
15...	0659	1.0	31000	8.2	9.5	--	9.7	100
15...	0701	5.0	32000	8.2	9.5	--	9.6	99
15...	0703	9.5	33000	8.2	10.0	--	9.6	101
JUN								
19...	1938	1.0	44000	8.3	29.5	--	6.1	97
19...	1940	8.0	45000	8.2	29.0	--	5.9	93
20...	0824	1.0	44000	8.1	30.0	.94	6.1	96
20...	0826	10	44000	8.1	29.0	--	6.1	96

283015096154300 LINE 363 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (00003) (00095)	TEMPER- ATURE, WATER (00400)	OXYGEN, DIS- SOLVED (00010)	OXYGEN, DIS- SOLVED (00300)	OXYGEN, DIS- SOLVED (00301)
FEB , 1978								
14...	1254	1.5	31000	8.2	9.5	9.9	102	
14...	1256	5.0	32000	8.2	10.0	10.0	104	
14...	1258	9.5	37000	8.2	10.0	9.7	104	

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283135096170500 LINE 363 SITE 03

DATE	TIME	SAMP-	DUCT-	LING	PH	TEMPER-	PAR-	TRANS-		OXYGEN,	
								DEPTH	(UNITS)	ATURE,	DIS-
		LING	MHOS)			WATER	ENCY	(M)	(SECCHI	DIS-	SOLVED
									DIS-	SOLVED	(PER-
									SOLVED		DIS-
FEB , 1977											
08..	1230	1.0	41000	8.0	11.0	.79		9.5		107	
08..	1232	9.0	41000	8.0	11.0	--		9.5		107	
JUN											
27..	1400	1.0	33000	8.1	29.5	.44		6.2		93	
27..	1402	4.0	33000	8.1	29.5	--		6.2		93	
27..	1404	8.0	33000	8.1	29.5	--		6.0		91	
FEB , 1978											
14..	0718	1.5	34000	8.2	9.5	--		9.7		101	
14..	0720	8.0	36000	8.2	9.0	--		9.6		100	
14..	1749	1.5	34000	8.2	10.0	--		9.9		105	
14..	1751	5.0	35000	8.2	10.0	--		9.8		104	
14..	1753	9.5	36000	8.2	10.0	--		9.7		103	
15..	0724	1.5	40000	8.2	10.0	--		9.4		102	
15..	0726	5.0	36000	8.2	9.5	--		9.5		100	
15..	0728	9.0	38500	8.2	9.5	--		9.4		100	
JUN											
19..	1924	1.0	41000	8.2	30.0	--		6.1		97	
19..	1926	9.0	41000	8.2	29.5	--		5.6		87	
20..	0805	1.0	42000	8.2	29.0	.54		6.4		99	
20..	0806	8.0	44000	8.2	29.0	--		6.6		103	

283432096194600 LINE 363 SITE 05

DATE	TIME	SAMP-	DUCT-	LING	PH	TEMPER-	PAR-	TRANS-		OXYGEN,	
								DEPTH	(UNITS)	(DEG C)	DIS-
		LING	MHOS)			WATER	ENCY	(M)	(SECCHI	DIS-	SOLVED
									DIS-		(PER-
									SOLVED		DIS-
FEB , 1977											
08..	1255	1.0	41000	8.0	11.0	.49		9.3		105	
08..	1257	10	41000	8.0	11.0	--		9.5		107	
JUN											
27..	1415	1.0	32000	8.1	29.5	.37		6.3		93	
27..	1417	5.0	32000	8.1	29.5	--		6.0		89	
27..	1419	10	32000	8.1	29.5	--		5.9		88	
JUN , 1978											
20..	0835	1.0	39300	8.1	29.5	.56		6.3		97	
20..	0837	13	39500	8.1	29.5	--		6.2		96	

283611096211900 LINE 363 SITE 06

DATE	TIME	SAMP-	DUCT-	LING	PH	TEMPER-	PAR-	TRANS-		OXYGEN,	
								DEPTH	(UNITS)	(DEG C)	DIS-
		LING	MHOS)			WATER	ENCY	(M)	(SECCHI	DIS-	SOLVED
									DIS-		(PER-
									SOLVED		DIS-
FEB , 1977											
08..	1305	1.0	41000	8.9	11.0	.43		9.0		101	
08..	1307	7.0	41000	8.9	11.5	--		9.0		102	
JUN											
27..	1435	1.0	28000	8.2	29.0	.40		6.9		100	
27..	1437	4.0	29000	8.2	29.0	--		6.4		95	
27..	1439	8.0	29000	8.2	29.0	--		6.4		94	
FEB , 1978											
14..	0700	1.0	41000	8.5	9.0	--		10.0		108	
14..	0702	11	42000	8.5	8.5	--		10.2		109	
14..	1205	1.0	39000	8.1	10.0	.72		10.8		117	
14..	1207	9.0	41000	7.5	10.0	--		10.0		110	
14..	1748	1.0	38000	8.4	10.0	.76		11.1		121	
14..	1750	9.0	40000	8.1	10.0	--		10.3		112	
15..	0705	1.0	40000	8.4	9.5	.75		10.8		115	
15..	0707	8.0	40000	8.4	9.5	--		10.9		116	
JUN											
20..	0845	1.0	36000	8.1	29.5	.51		6.3		97	
20..	0847	9.0	37000	8.0	29.5	--		6.2		96	

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

282820096185100 LINE 375 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1445	1.0	42000	8.1	11.5	.43	9.5	108
08...	1447	5.0	44000	8.0	10.5	--	9.5	107
08...	1449	12	44000	8.0	11.0	--	9.2	106
JUN								
28...	1025	1.0	52000	7.9	28.0	--	5.7	92
28...	1027	6.0	54000	7.8	27.5	--	5.2	83
28...	1029	12	50000	7.8	27.5	--	5.2	83
JUN , 1978								
20...	1100	1.0	44000	8.3	30.0	.80	6.1	97
20...	1102	5.0	44000	8.2	30.0	--	6.1	97
20...	1104	13	49000	8.2	30.0	--	5.8	95

282943096204500 LINE 375 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1430	1.0	42000	8.0	11.5	.33	9.2	105
08...	1432	11	42000	8.0	11.5	--	9.1	104
JUN								
28...	1005	1.0	34000	8.0	28.0	.82	6.4	94
28...	1007	5.0	38000	7.9	28.0	--	5.9	90
28...	1009	10	43000	7.8	27.5	--	5.2	79
FEB , 1978								
16...	0624	1.5	42000	8.4	9.0	--	9.3	100
16...	0626	5.0	42000	8.4	9.0	--	9.4	101
16...	0628	11	42000	8.4	9.0	--	9.4	101
16...	1235	1.5	42000	8.4	11.0	--	9.3	105
16...	1237	5.0	40000	8.3	11.0	--	9.3	105
16...	1239	12	42000	8.4	11.5	--	9.3	106
16...	1754	1.5	38500	8.2	9.8	--	9.5	103
16...	1756	5.0	39000	8.1	9.5	--	9.5	101
16...	1758	11	39000	8.1	9.8	--	9.3	101
17...	0611	1.5	41000	8.3	9.5	--	9.5	101
17...	0613	5.0	41000	8.3	9.5	--	9.5	101
17...	0615	11	41000	8.3	9.5	--	9.5	101
JUN								
20...	1124	1.0	44100	8.2	30.0	--	6.1	97
20...	1126	11	45800	8.2	30.0	--	5.9	95

283233096244100 LINE 375 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1410	1.0	41000	8.0	11.0	.43	9.2	104
08...	1412	11	39000	8.0	11.0	--	9.3	104
JUN								
28...	0955	1.0	29000	8.0	28.0	.59	6.1	88
28...	0957	5.0	29000	8.0	28.0	--	6.0	87
28...	0959	10	29000	8.0	28.0	--	5.9	86
28...	1001	15	29000	8.0	28.0	--	5.8	85
JUN , 1978								
20...	1140	1.0	44100	8.1	30.0	1.00	6.1	97
20...	1142	11	44000	8.1	30.0	--	6.0	95

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

283430096272200 LINE 375 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	CON- PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
08..	1325	1.0	39000	8.0	11.5	.34	9.1	102	
08..	1327	7.0	39000	8.0	11.5	--	9.1	102	
JUN									
27..	1505	1.0	29000	8.2	28.5	--	6.2	90	
27..	1507	7.0	28000	8.1	28.5	--	6.4	92	
FEB , 1978									
16..	0659	1.0	39000	8.4	9.0	--	9.5	100	
16..	0701	5.0	39000	8.5	9.0	--	9.3	98	
16..	0703	8.0	40000	8.4	9.0	--	9.3	98	
16..	1134	1.5	38500	8.2	11.0	--	9.4	105	
16..	1136	5.0	38500	8.4	11.5	--	9.4	106	
16..	1138	8.0	38500	8.4	12.0	--	9.5	108	
16..	1830	1.5	39000	8.3	9.5	--	9.9	105	
16..	1832	5.0	38000	8.2	10.0	--	9.9	107	
17..	0650	1.5	38000	8.4	9.5	--	9.6	102	
17..	0652	5.0	38500	8.4	9.5	--	9.6	102	
17..	0654	8.5	38500	8.4	9.5	--	9.5	101	
JUN									
20..	1918	1.0	38000	8.0	30.5	--	6.1	95	
20..	1920	9.0	39000	8.1	30.5	--	6.1	96	
21..	0735	1.0	39000	8.3	29.5	.35	6.3	97	
21..	0737	8.0	40000	8.3	29.5	--	6.2	96	

282516096230000 LINE 382 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	CON- PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
08..	1545	1.0	46000	7.9	10.5	.33	9.5	108	
08..	1547	10	46000	7.9	10.5	--	9.6	109	
08..	1549	15	46000	7.9	10.5	--	9.5	108	
JUN									
28..	1135	1.0	55000	7.9	28.0	.57	5.6	90	
28..	1137	5.0	55000	7.9	28.0	--	5.6	90	
28..	1139	10	55000	7.9	28.0	--	5.3	86	
28..	1141	19	54000	7.8	28.0	--	5.1	82	
JUN , 1978									
21..	0940	1.0	44000	8.2	30.0	1.35	6.3	100	
21..	0942	25	45000	8.2	30.0	--	6.1	99	

282516096192300 LINE 397 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS)	CON- PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
08..	1505	1.0	46000	8.0	10.5	.43	9.5	107	
08..	1507	10	46000	8.0	10.5	--	9.2	105	
08..	1509	20	46000	8.0	10.5	--	9.2	105	
08..	1511	30	46000	8.0	10.0	--	9.4	106	
08..	1513	47	46000	8.0	10.0	--	9.4	105	
JUN , 1978									
21..	0900	1.0	43000	8.3	29.5	1.60	6.2	99	
21..	0902	20	43000	8.3	29.5	--	6.2	99	
21..	0904	42	44000	8.3	29.5	--	6.1	97	

Table 6A.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Field Determinations--Continued

282330096174000 LINE 903 SITE 49

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-	
		DUCT-	CON-	PAR-	SOLVED	SOLVED	
SAMP-	LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-
DEPTH	(MICRO-	MHOS)	(UNITS)	WATER (DEG C)	(SECCHI WATER DISK)	DIS-	CENT
	(FT)				(M)	(MG/L)	SATUR-
JUN , 1977							
28...	1050	1.0	54000	7.9	28.0	1.15	5.6
28...	1052	5.0	57000	7.9	27.5	--	5.2
28...	1054	10	57000	7.9	27.0	--	5.1
28...	1056	15	57000	7.9	27.0	--	4.8
28...	1058	25	57000	7.8	26.5	--	4.5
28...	1100	35	57000	7.8	26.0	--	4.1
JUN , 1978							
21...	0848	2.0	44000	8.3	29.5	1.90	6.2
21...	0850	20	46000	8.3	29.0	--	6.1
21...	0852	33	46000	8.3	29.5	--	6.0

Table 6B.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

285003096352400 LINE 017 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09..	1130	1.0	1.1	.36	.00	.36	.03	.50	.53	.89	3.9	.030
09..	1132	10	.9	.37	.00	.37	.04	.47	.51	.88	3.9	.080
JUN												
27..	1455	1.0	1.4	.38	.01	.39	.09	.76	.85	1.2	5.5	.140
27..	1457	8.5	1.3	.38	.01	.39	.09	.48	.57	.96	4.2	.140
JUN , 1978												
21..	0957	1.0	2.8	.00	.01	.00	.03	.70	.73	.73	3.2	.090
21..	0959	10	2.6	.00	.01	.00	.03	.61	.64	.64	2.8	.090

285248096344400 LINE 020 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
SEP , 1978												
12..	1335	3.0	4.2	--	--	--	--	--	--	--	--	--
12..	1700	3.0	4.1	.17	.09	.26	.14	2.4	2.5	2.8	12	.250
13..	0945	3.0	2.9	.19	.02	.21	.17	1.9	2.1	2.3	10	.220
13..	1630	3.0	2.3	.18	.01	.19	.08	1.0	1.1	1.3	5.7	.220
19..	0955	--	3.6	.01	.01	.02	.05	1.1	1.1	1.1	5.0	.340

285223096343100 LINE 022 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09..	1115	1.0	1.8	.19	.01	.20	.04	.83	.87	1.1	4.7	.100
09..	1117	8.0	1.7	.17	.01	.18	.05	.81	.86	1.0	4.6	.100
JUN												
27..	1436	1.0	1.9	.01	.00	.01	.02	.66	.68	.69	3.1	.120
27..	1437	7.0	1.8	.00	.01	.01	.03	.51	.54	.55	2.4	.110
JUN , 1978												
21..	0935	1.0	3.7	.07	.01	.08	.03	.88	.91	.99	4.4	.170
21..	0937	5.0	2.4	.08	.01	.09	.03	3.6	3.6	3.7	16	.170

284921096342100 LINE 041 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
SEP , 1978												
12..	1238	--	4.2	.24	.01	.25	.18	3.0	3.2	3.5	15	.320
12..	1622	--	4.9	.23	.01	.24	.18	1.6	1.8	2.0	9.0	.540
12..	1900	--	5.0	.22	.01	.23	.18	2.3	2.5	2.7	12	.290
12..	2315	--	--	.20	.01	.21	.14	1.9	2.0	2.2	9.8	.300
13..	1052	--	--	.13	.01	.14	.14	1.6	1.7	1.8	8.1	.310
13..	1328	--	--	.07	.01	.08	.13	1.2	1.3	1.4	6.1	.250
14..	1240	--	--	.07	.01	.08	.09	1.8	1.9	2.0	8.8	.190
14..	1430	--	2.8	.07	.01	.08	.08	1.0	1.1	1.2	5.2	.180
14..	1625	--	2.2	.07	.01	.08	.09	.91	1.0	1.1	4.8	.180
14..	1824	--	2.3	.06	.01	.07	.07	.80	.87	.94	4.2	.180
14..	2032	--	2.3	.06	.01	.07	.07	1.5	1.6	1.7	7.4	.220
14..	2230	--	2.5	.06	.02	.08	.08	.92	1.0	1.1	4.8	.190
15..	0755	--	2.3	.03	.01	.04	.06	1.0	1.1	1.1	5.0	.180
15..	0945	--	2.2	--	--	--	--	--	--	--	--	--
15..	0954	--	--	.03	.01	.04	.05	1.3	1.3	1.3	5.9	.150
15..	1145	--	2.2	.02	.01	.03	.05	.77	.82	.85	3.8	.150
15..	1350	--	2.1	.02	.01	.03	.05	.75	.80	.83	3.7	.150
15..	1545	--	2.0	.02	.01	.03	.04	.73	.77	.80	3.5	.130
15..	1749	--	2.4	.03	.01	.04	.06	1.0	1.1	1.1	5.0	.140
15..	1945	--	2.6	.02	.01	.03	.05	.79	.84	.87	3.9	.140
19..	1410	--	4.8	.03	.01	.04	.06	1.3	1.4	1.4	6.4	.320

Table 6B.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

284036096361200 LINE 085 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1045	1.0	.05	.01	.06	.02	.60	.62	.68	3.0	.060
JUN											
28...	0905	1.0	.29	.02	.31	.06	.94	1.0	1.3	5.8	.170
JUN , 1978											
21...	0849	1.0	.00	.01	.01	.03	.89	.92	.93	4.1	.050

284200096374500 LINE 085 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977											
28...	0920	1.0	.23	.02	.25	.08	.80	.88	1.1	5.0	.170
FEB , 1978											
16...	1234	1.0	.30	.02	.32	.07	.92	.99	1.3	5.8	.100
17...	0735	1.0	.19	.03	.22	.10	.89	.99	1.2	5.4	.090
JUN											
21...	0815	1.0	.00	.01	.01	.01	.80	.81	.82	3.6	.050

284235096384900 LINE 085 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1030	1.0	.00	.01	.01	.01	.69	.70	.71	3.1	.060
JUN , 1978											
21...	0828	1.0	.01	.00	.01	.01	.71	.72	.73	3.2	.040

283912096354400 LINE 090 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978												
16...	1204	1.0	--	.18	.02	.20	.07	.64	.71	.91	4.0	.080
16...	1206	10	--	.05	.01	.06	.01	.50	.51	.57	2.5	.060
17...	0538	1.0	4.2	.12	.02	.14	.06	.60	.66	.80	3.5	.070
17...	0540	9.0	3.2	.04	.01	.05	.03	.63	.66	.71	3.1	.070
JUN												
21...	0800	1.0	2.0	.00	.01	.01	.01	.87	.88	.89	3.9	.050
21...	0802	9.0	2.0	.00	.01	.01	.01	.74	.75	.76	3.4	.060

283716096310400 LINE 143 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
16...	1124	1.0	.00	.01	.01	.00	.50	.50	.51	2.3-	.050
17...	0654	1.0	.00	.01	.01	.01	.45	.46	.47	2.1	.050
JUN											
21...	0725	1.0	.00	.01	.01	.01	.46	.47	.48	2.1	.040

Table 68.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

283802096330200 LINE 145 SITE 02

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	GEN,	GEN,	GEN,	GEN,	AMMONIA +	GEN,	GEN,	PHORUS,
		DEPTH	TOTAL	TOTAL	NO ₂ +NO ₃	TOTAL	ORGANIC	TOTAL	TOTAL	TOTAL
		(FT)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1977										
09..	1000	1.0	.00	.01	.01	.01	.36	.37	.38	1.7
JUN										.050
28..	1025	1.0	.02	.00	.02	.04	.79	.83	.85	3.8
JUN , 1978										.080
21..	1100	1.0	.00	.01	.01	.01	.50	.51	.52	2.3
										.040

283522096332500 LINE 150 SITE 04

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	DEMAND,	GEN,	GEN,	GEN,	AMMONIA +	GEN,	GEN,	PHORUS,
		DEPTH	BIOCHEM	UNINHIB	TOTAL	NO ₂ +NO ₃	TOTAL	ORGANIC	TOTAL	TOTAL
		(FT)	(MG/L)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1978										
16...	1145	1.0	3.9	.17	.02	.19	.08	.81	.89	1.1
16...	1149	38	2.3	.03	.01	.04	.01	.44	.45	.49
17...	0628	1.0	3.8	.10	.01	.11	.04	.71	.75	.86
17...	0632	35	2.2	.04	.01	.05	.04	.45	.49	.54
JUN										.050
21...	0742	1.0	1.7	.00	.01	.01	.01	.58	.59	.60
21...	0746	39	2.0	.00	.01	.01	.04	1.5	1.5	1.5
										.160

283337096305000 LINE 190 SITE 04

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	GEN,	GEN,	GEN,	AMMONIA +	GEN,	GEN,	PHORUS,	
		DEPTH	TOTAL	TOTAL	NO ₂ +NO ₃	AMMONIA	ORGANIC	TOTAL	TOTAL	TOTAL
		(FT)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1977										
09..	0920	1.0	.00	.01	.01	.04	.26	.30	.31	1.4
09..	0926	36	.00	.01	.01	.11	.27	.38	.39	1.7
JUN										.000
27...	1510	1.0	.00	.01	.01	.03	.58	.61	.62	2.7
27...	1524	32	.02	.04	.06	.10	.32	.42	.48	2.1
JUN , 1978										.050
21...	0725	1.0	.01	.00	.01	.01	.51	.52	.53	2.3
21...	0729	37	.00	.01	.01	.01	.51	.52	.53	2.3
										.040

28301B096275500 LINE 200 SITE 05

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	GEN,	GEN,	GEN,	AMMONIA +	GEN,	GEN,	PHORUS,	
		DEPTH	TOTAL	TOTAL	NO ₂ +NO ₃	AMMONIA	ORGANIC	TOTAL	TOTAL	TOTAL
		(FT)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1978										
16...	1157	1.0	.05	.02	.07	.01	.83	.84	.91	4.0
17...	0517	1.5	.03	.01	.04	.01	.86	.87	.91	4.0
JUN										.060
21...	0858	1.0	.01	.00	.01	.01	.42	.43	.44	1.9
										.030

284153096240000 LINE 235 SITE 02

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	DEMAND,	GEN,	GEN,	GEN,	AMMONIA +	GEN,	GEN,	PHORUS,
		DEPTH	BIOCHEM	UNINHIB	TOTAL	NO ₂ +NO ₃	AMMONIA	ORGANIC	TOTAL	TOTAL
		(FT)	(MG/L)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1977										
07...	1315	1.0	1.7	.00	.01	.01	.01	.39	.40	.41
JUN										.060
27...	1245	1.0	2.7	.00	.01	.00	.03	.81	.84	.84
JUN , 1978										.090
20...	0900	1.0	2.6	.02	.01	.03	.03	.84	.87	.90
										.040

Table 6B.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

284246096112800 LINE 264 SITE 02

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB.	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L) AS NO ₃)
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
FEB , 1977												
08...	0900	1.0	.8	.01	.00	.01	.06	.29	.35	.36	1.6	.010
08...	0902	4.0	--	.00	.01	.01	.04	.17	.21	.22	1.0	.050
JUN												
27...	1140	1.0	3.3	.03	.02	.05	.06	1.0	1.1	1.1	5.1	.060
27...	1142	4.5	--	.02	.01	.03	.06	.94	1.0	1.0	4.6	.070
FEB , 1978												
14...	0650	1.0	2.0	2.5	.05	2.5	.11	1.5	1.6	4.1	18	.170
14...	1108	1.0	--	1.9	.05	1.9	.11	.99	1.1	3.0	13	.150
15...	0550	1.0	--	2.1	.05	2.1	.13	1.2	1.3	3.4	15	.160
JUN												
20...	0720	1.0	--	.01	.01	.02	.04	2.0	2.0	2.0	8.9	.050
20...	0722	5.0	--	.00	.01	.01	.03	.86	.89	.90	4.0	.060

283914096140600 LINE 284 SITE 01

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L) AS NO ₃)	
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)	
FEB , 1978												
14...	0620	1.0	.12	.01	.13	.02	1.1	1.1	1.2	5.4	.090	
14...	1130	1.0	.17	.02	.19	.03	1.2	1.2	1.4	6.2	.120	
15...	0628	1.0	.08	.01	.09	.01	.81	.82	.91	4.0	.070	
JUN												
20...	0738	1.0	.01	.01	.02	.00	.76	.76	.78	3.5	.050	

283816096170000 LINE 300 SITE 03

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB.	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L) AS NO ₃)
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
FEB , 1977												
08...	0930	1.0	--	.01	.00	.01	.06	.23	.29	.30	1.3	.050
JUN												
27...	1120	1.0	--	.00	.01	.01	.03	.48	.51	.52	2.3	.070
FEB , 1978												
14...	1145	1.0	3.4	.03	.01	.04	.01	.64	.65	.69	3.1	.050
14...	1147	5.0	2.8	.01	.01	.02	.01	.60	.61	.63	2.8	.050
15...	0645	1.0	3.4	.00	.01	.01	.00	.54	.54	.55	2.4	.050
15...	0647	5.0	3.4	.03	.01	.04	.00	.60	.60	.64	2.8	.050
JUN												
20...	0808	1.0	1.5	.02	.00	.02	.00	.53	.53	.55	2.4	.020
20...	0810	8.0	1.5	.01	.01	.02	.00	.54	.54	.56	2.5	.020

Table 68.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

283608096011400 LINE 333 SITE 01

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
FEB , 1977												
08...	1110	1.0	--	.27	.02	.29	.04	.63	.67	.96	4.2	.130
APR												
26...	1220	1.0	1.8	.45	.02	.47	.07	.76	.83	1.3	5.8	.090
26...	1226	4.0	2.6	.10	.02	.12	.24	.76	1.0	1.1	5.0	.120
27...	1400	1.0	3.5	.20	.02	.22	.06	.79	.85	1.1	4.7	.080
27...	1402	4.0	2.0	.12	.04	.16	.30	.58	.88	1.0	4.6	.160
MAY												
03...	1000	1.0	2.5	.02	.03	.05	.12	.49	.61	.66	2.9	.080
03...	1004	5.0	2.1	.00	.02	.02	.13	.36	.49	.51	2.3	.070
11...	1210	1.0	--	.92	.00	.92	.04	--	--	--	--	.090
11...	1212	4.0	--	.16	.00	.16	.06	6.4	6.5	6.7	29	.150
JUN												
27...	1255	1.0	--	.00	.01	.01	.04	.22	.26	.26	1.2	.080
FEB , 1978												
14...	1117	1.0	2.2	.22	.02	.24	.01	.96	.97	1.2	5.4	.110
14...	1119	3.0	2.7	.20	.02	.22	.04	.64	.68	.90	4.0	.110
15...	0533	1.0	2.8	.03	.01	.04	.01	.74	.75	.79	3.5	.090
15...	0535	3.0	--	.03	.01	.04	.00	.68	.68	.72	3.2	.100
JUN												
20...	0925	1.0	1.6	.00	.01	.01	.00	.61	.61	.62	2.7	.040

283749096015500 LINE 333 SITE 03

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
APR , 1977												
26...	1200	1.0	1.3	.35	.03	.38	.14	.71	.85	1.2	5.4	.080
27...	1440	1.0	1.4	.40	.04	.44	.12	.74	.86	1.3	5.8	.130
MAY												
03...	0930	1.0	1.4	.31	.02	.33	.07	.47	.54	.87	3.9	.090
11...	1235	1.0	--	.10	.00	.10	.04	.50	.54	.64	2.8	.070

283518096034400 LINE 340 SITE 01

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
APR , 1977												
26...	1410	1.0	2.4	.23	.02	.25	.07	.59	.66	.91	4.0	.060
26...	1414	5.0	2.8	.04	.03	.07	.27	.25	.52	.59	2.6	.110
27...	1215	1.0	--	.05	.01	.06	.10	.57	.67	.73	3.2	.050

283704096044200 LINE 340 SITE 03

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃ TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN, ORGANIC TOTAL	NITRO- GEN, AM- MONIA + ORGANIC TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS P)
			(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)
APR , 1977												
27...	1150	1.0	--	.17	.02	.19	.13	.87	1.0	1.2	5.3	.130
MAY												
03...	1040	1.0	2.0	--	--	--	--	--	--	--	--	--
03...	1042	5.0	1.6	.00	.01	.01	.14	.37	.51	.52	2.3	.060

Table 6B.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

283327096080000 LINE 345 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977												
26...		1250	1.0	3.1	.00	.01	.01	.12	.46	.58	.59	2.6
27...		1230	1.0	2.6	.01	.00	.01	.11	.33	.44	.45	2.0
27...		1238	9.0	4.1	.00	.01	.01	.20	.40	.60	.61	2.7
MAY												
03...		1115	1.0	1.4	.01	.01	.02	.01	.34	.35	.37	1.6
03...		1119	9.0	1.4	.01	.02	.01	.06	.37	.43	.44	.080

283445096084200 LINE 345 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978												
14...		1154	1.0	--	.00	.01	.01	.02	.39	.41	.42	1.9
14...		1158	8.0	2.3	.00	.01	.01	.00	.72	.72	.73	.180
15...		0615	1.5	--	.00	.01	.01	.01	.45	.45	.47	2.1
15...		0619	8.5	--	.00	.01	.01	.01	.79	.80	.81	.050
JUN												
20...		0945	1.0	--	.01	.01	.02	.00	.67	.67	.69	3.1
20...		0947	7.0	--	.01	.01	.02	.00	.51	.51	.53	2.3

283557096092100 LINE 345 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
08...		1130	1.0	--	.00	.01	.01	.04	.28	.32	.33	1.5
APR	26...	1315	1.0	2.2	.00	.01	.01	.07	.39	.46	.47	2.1
MAY	03...	1140	1.0	2.0	.01	.01	.02	.03	.52	.55	.57	2.5
JUN , 1978	20...	0955	1.0	--	.11	.01	.12	.00	.57	.57	.69	3.1

283353096125600 LINE 350 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977												
08...		1015	1.0	.00	.01	.01	.06	.32	.38	.39	1.7	.070
08...		1017	7.0	.00	.00	.00	.06	.30	.36	.36	1.6	.070
JUN	27...	1155	1.0	.00	.01	.01	.23	.30	.53	.54	2.4	.050
27...		1157	6.0	.01	.02	.01	.04	.30	.34	.35	1.5	.060
JUN , 1978	20...	1024	1.0	.01	.01	.02	.00	.67	.67	.69	3.1	.030
	20...	1026	5.0	.02	.01	.03	.00	2.1	2.1	2.1	9.4	.040

282928096144600 LINE 363 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1978												
14...		1234	1.5	.01	.01	.02	.00	.48	.48	.50	2.2	.080
15...		0659	1.0	.00	.01	.01	.00	.40	.40	.41	1.8	.060
JUN	20...	0824	1.0	.01	.01	.02	.00	.36	.36	.38	1.7	.020

Table 6B.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

283015096154300 LINE 363 SITE 02

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
14..	1254	1.5	.00	.01	.01	.00	.45	.45	.46	2.0	.070
14..	1258	9.5	.00	.01	.01	.00	.66	.66	.67	3.0	.130

283135096170500 LINE 363 SITE 03

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
15..	0724	1.5	.00	.01	.01	.00	.51	.51	.52	2.3	.070
15..	0728	9.0	.00	.01	.01	.00	.47	.47	.48	2.1	.070
JUN											
20..	0805	1.0	.01	.01	.02	.00	.49	.49	.51	2.3	.030
20..	0806	8.0	.00	.01	.01	.07	.32	.39	.40	1.8	.030

283432096194600 LINE 363 SITE 05

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
08..	1255	1.0	1.3	.00	.01	.01	.05	.22	.27	.28	1.2	.060
08..	1257	10	1.3	.00	.01	.01	.07	.26	.33	.34	1.5	.070
JUN												
27..	1415	1.0	1.1	.00	.01	.01	.03	.26	.29	.30	1.3	.060
27..	1419	10	1.0	.00	.01	.01	.04	.24	.28	.28	1.2	.080
JUN , 1978												
20..	0835	1.0	--	.01	.01	.02	.07	.35	.42	.44	1.9	.030
20..	0837	13	1.5	.01	.01	.02	.00	.61	.61	.63	2.8	.060

283611096211900 LINE 363 SITE 06

DATE	TIME	DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
14..	1205	1.0	.05	.01	.06	.01	.53	.54	.60	2.7	.050
14..	1207	9.0	.01	.00	.01	.02	.46	.48	.49	2.2	.070
15..	0705	1.0	.01	.00	.01	.01	.49	.50	.51	2.3	.050
15..	0707	8.0	.00	.01	.01	.01	.54	.55	.56	2.5	.050

282943096204500 LINE 375 SITE 02

DATE	TIME	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
08..	1430	1.0	--	.00	.01	.01	.07	.24	.31	.32	1.4	.080
08..	1432	11	--	.01	.00	.01	.09	.36	.45	.46	2.0	.090
JUN												
28..	1005	1.0	--	.00	.01	.00	.04	.15	.19	.19	.80	.050
28..	1009	10	--	.00	.01	.01	.04	.14	.18	.19	.80	.050
FEB , 1978												
16..	1235	1.5	1.0	.08	.00	.08	.03	.35	.38	.46	2.0	.070
16..	1239	12	1.3	.09	.00	.09	.04	.44	.48	.57	2.5	.090
17..	0611	1.5	1.3	.06	.00	.06	.03	.39	.42	.48	2.1	.070
JUN												
20..	1124	1.0	1.2	.01	.01	.02	.00	.30	.30	.32	1.4	.020
20..	1126	11	1.2	.00	.01	.01	.03	.29	.32	.33	1.5	.020

Guadalupe Estuary

The Guadalupe estuary, which has an area of about 210 square miles (540 km²), consists of the tidal parts of the Guadalupe River, Mission Lake, Guadalupe Bay, Hynes Bay, San Antonio Bay, Espiritu Santo Bay, Mesquite Bay, Victoria Channel, and part of the Intracoastal Waterway (Figure 8). At mean low water, the Guadalupe River is about 10 feet (3.0 m) deep; Mission Lake, Guadalupe Bay, and Hynes Bay are less than 3 feet (1.0 m) deep; San Antonio Bay is less than 6 feet (1.8 m) deep; Espiritu Santo Bay is about 8 feet (2.4 m) deep; Mesquite Bay is about 4 feet (1.2 m) deep; Victoria Channel is more than 8 feet (2.4 m) deep; and the Intracoastal Waterway is about 15 feet (4.6 m) deep.

Water-quality data (Table 7) were collected during February and June 1977 and February and June 1978.

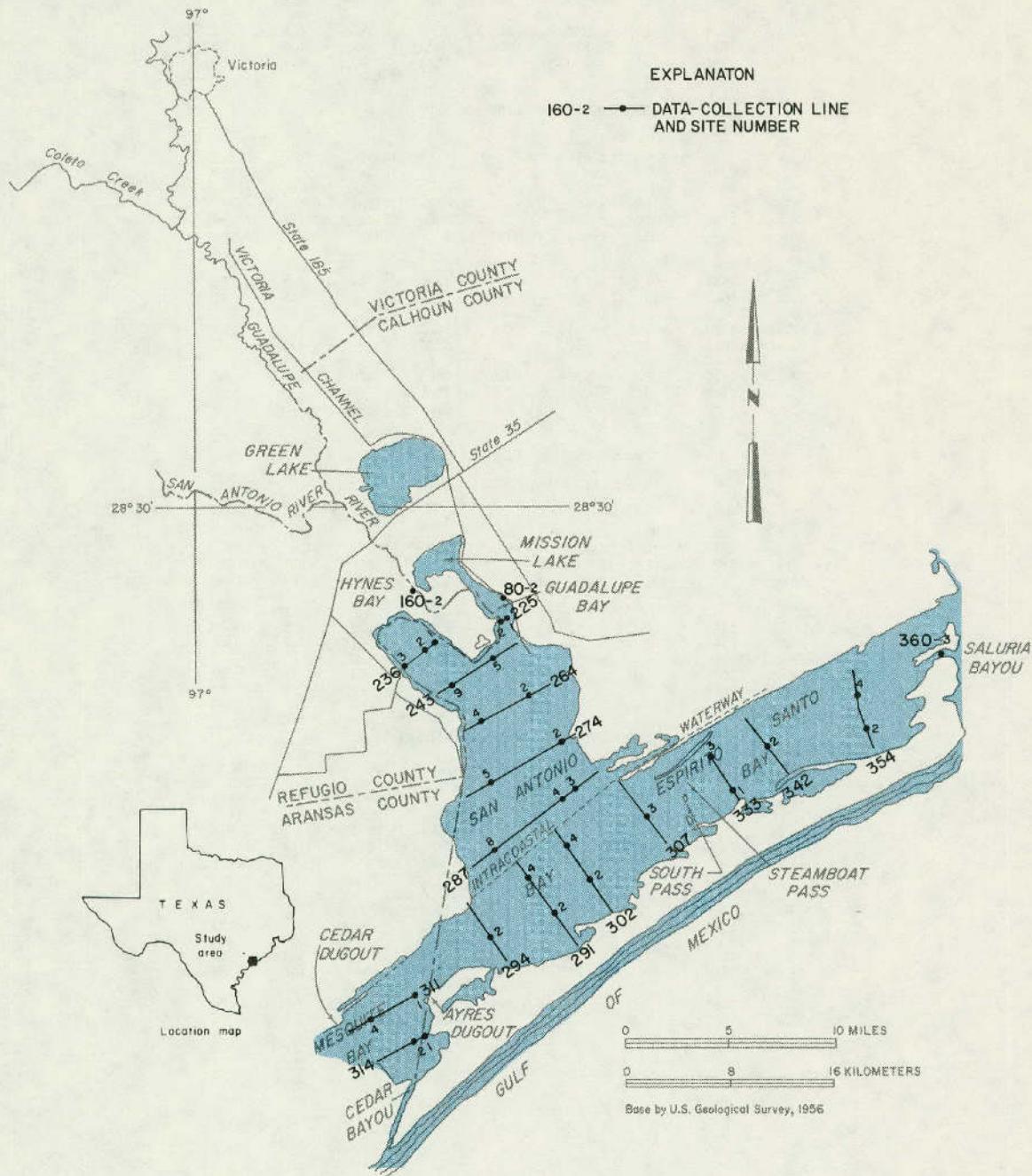


Figure 8.—Data-Collection Sites in the Guadalupe Estuary

Table 7A.--Quality of water in the Guadalupe estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

282644096455400 LINE 080 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		DUCT-	CIFIC	PAR-	ENCY	OXYGEN,	DIS-	
LING	ANCE	PH	TEMPER-	(SECCHI	DIS-	SOLVED		
DEPTH	(MICRO-	(UNITS)	ATURE	DISK)	SOLVED	(PER-		
(FT)	MHOS)		(DEG C)	(M)	(MG/L)	CENT		
FEB , 1977							SATUR-	
09...	1510	1.0	1400	8.2	11.0	--	ATION)	
09...	1512	10	2600	8.1	11.5	--	9.8	92
JUN								
28...	1645	1.0	560	8.5	29.0	.17	9.0	87
28...	1647	11	630	8.3	29.0	--	6.3	83
JUN , 1978								
22...	1234	1.0	2400	8.0	30.0	.15	6.6	92
22...	1236	7.0	2700	8.0	30.0	--	6.6	88
22...	1238	14	2700	7.9	30.0	--	6.7	89

282648096493700 LINE 160 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		DUCT-	CIFIC	PAR-	ENCY	OXYGEN,	DIS-	
LING	ANCE	PH	TEMPER-	(SECCHI	DIS-	SOLVED		
DEPTH	(MICRO-	(UNITS)	ATURE	DISK)	SOLVED	(PER-		
(FT)	MHOS)		(DEG C)	(M)	(MG/L)	CENT		
FEB , 1977							SATUR-	
09...	1545	1.0	800	7.9	12.0	--	ATION)	
09...	1547	10	800	7.9	12.0	--	9.3	89
JUN								
28...	1520	1.0	650	8.1	30.0	.12	9.5	91
28...	1522	14	560	8.1	30.0	--	4.9	65
JUN , 1978								
22...	1126	1.0	734	7.9	30.5	.20	6.5	87
22...	1128	7.5	734	7.9	30.5	--	6.6	88
22...	1130	15	3410	8.1	31.0	--	6.5	89

282553096451900 LINE 225 SITE 01

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		DUCT-	CIFIC	PAR-	ENCY	OXYGEN,	DIS-	
LING	ANCE	PH	TEMPER-	(SECCHI	DIS-	SOLVED		
DEPTH	(MICRO-	(UNITS)	ATURE	DISK)	SOLVED	(PER-		
(FT)	MHOS)		(DEG C)	(M)	(MG/L)	CENT		
JUN , 1977							SATUR-	
28...	1345	1.0	420	8.5	29.5	.19	ATION)	
28...	1347	3.0	480	8.5	29.5	--	6.8	89
JUN , 1978								
22...	1038	1.0	640	8.4	29.0	.18	7.1	93
22...	1040	3.5	640	8.4	29.0	--	7.1	93

282542096453400 LINE 225 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		DUCT-	CIFIC	PAR-	ENCY	OXYGEN,	DIS-	
LING	ANCE	PH	TEMPER-	(SECCHI	DIS-	SOLVED		
DEPTH	(MICRO-	(UNITS)	ATURE	DISK)	SOLVED	(PER-		
(FT)	MHOS)		(DEG C)	(M)	(MG/L)	CENT		
FEB , 1977							SATUR-	
09...	1500	1.0	800	8.0	11.0	--	ATION)	
09...	1502	4.0	800	8.0	11.0	--	9.8	92
JUN								
28...	1340	1.0	690	8.4	29.5	.18	10.0	93
28...	1342	3.5	680	8.4	29.5	--	6.7	88
JUN , 1978								
22...	1031	1.0	690	8.4	29.0	.18	6.8	89
22...	1033	4.0	700	8.4	29.0	--	7.2	95

Table 7A.--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Field Determinations--Continued

282423096493400 LINE 236 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PAR-	ENCY	OXYGEN,	
		DEPTH	ANCE	(MICRO-	(UNITS)	(DEG C)	(SECCHI	DIS-
		(FT)	MHOS)				DISK)	SOLVED
JUN , 1977								(PER-
28..	1305	1.0	600	8.8	29.0	.12	7.8	CENT
28..	1307	3.0	630	8.7	29.5	--	7.2	SATUR-
JUN , 1978								ATION)
22..	1014	1.0	7000	7.9	29.0	--	7.0	93
22..	1016	4.0	7000	7.7	28.5	--	6.5	87

282404096452300 LINE 243 SITE 05

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PAR-	ENCY	OXYGEN,	
		DEPTH	ANCE	(MICRO-	(UNITS)	(DEG C)	(SECCHI	DIS-
		(FT)	MHOS)				DISK)	SOLVED
FEB , 1977								(PER-
09..	1445	1.0	400	8.2	11.5	--	10.1	CENT
09..	1447	4.0	400	8.2	11.5	--	10.4	SATUR-
JUN								ATION)
28..	1325	1.0	720	8.5	29.0	.17	7.1	93
28..	1327	3.5	680	8.5	29.0	--	7.0	92
FEB , 1978								
22..	0634	1.0	1100	8.5	7.5	--	10.9	95
22..	0636	3.0	10000	8.4	5.5	--	10.6	90
22..	1205	1.0	1100	8.6	10.5	--	10.7	100
22..	1207	3.0	21000	8.7	10.0	--	9.7	97
22..	1830	1.0	7000	8.8	12.0	--	11.4	112
22..	1832	3.0	7200	8.7	11.5	--	11.9	115
23..	0608	1.0	800	8.3	10.5	--	10.4	96
23..	0610	3.0	900	8.3	9.0	--	10.3	93
JUN								
21..	1904	1.0	750	8.3	30.0	.12	7.4	99
21..	1906	4.0	760	8.3	30.0	--	7.4	99
22..	0730	1.0	583	8.5	28.5	.12	7.2	94
22..	0732	4.0	583	8.5	28.5	--	7.2	94

282254096474100 LINE 243 SITE 09

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PAR-	ENCY	OXYGEN,	
		DEPTH	ANCE	(MICRO-	(UNITS)	(DEG C)	(SECCHI	DIS-
		(FT)	MHOS)				DISK)	SOLVED
JUN , 1977								(PER-
28..	1255	1.0	670	8.7	28.5	.15	7.4	CENT
28..	1257	4.5	700	8.7	28.5	--	7.3	SATUR-
JUN , 1978								ATION)
22..	1004	1.0	8000	8.2	29.0	.42	6.6	89
22..	1006	4.5	8000	8.2	29.0	--	6.6	89

282256096442600 LINE 264 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PAR-	ENCY	OXYGEN,	
		DEPTH	ANCE	(MICRO-	(UNITS)	(DEG C)	(SECCHI	DIS-
		(FT)	MHOS)				DISK)	SOLVED
JUN , 1977								(PER-
28..	1210	1.0	1700	8.7	28.0	.12	7.2	CENT
28..	1212	4.5	1700	8.7	28.5	--	7.3	SATUR-
JUN , 1978								ATION)
22..	0947	1.0	16000	8.2	29.0	.55	6.7	93
22..	0949	5.0	16000	8.2	29.0	--	6.7	93

Table 7A.--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Field Determinations--Continued

281833096421900 LINE 287 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
28..	1425	1.0	4790	8.5	29.5	.13	7.4	97
28..	1427	4.0	5000	8.5	29.5	--	7.4	97
JUN , 1978								
22..	0850	1.0	28000	8.0	29.5	.58	6.1	88
22..	0852	4.0	28000	8.1	29.0	--	6.3	91

281801096431000 LINE 287 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09..	1050	1.0	10000	8.3	11.5	.15	10.8	106
09..	1052	4.0	10000	8.3	11.5	--	10.7	105

281604096461300 LINE 287 SITE 08

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09..	1110	1.0	15000	8.2	11.0	.28	10.5	105
09..	1112	6.0	16000	8.2	11.0	--	10.6	106
JUN								
28..	1445	1.0	4600	8.4	29.5	.13	8.0	107
28..	1447	4.0	5300	8.4	29.0	--	7.7	103
JUN , 1978								
22..	0908	1.0	22000	8.1	29.0	.44	6.5	93
22..	0910	7.0	22900	8.0	29.0	--	6.6	95

281327096431100 LINE 291 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09..	1130	1.0	14000	8.4	11.0	.27	10.8	107
09..	1132	6.0	14000	8.4	11.0	--	10.9	108
JUN								
28..	1500	1.0	8000	8.7	30.0	--	9.8	135
28..	1502	4.0	12000	8.7	30.0	--	9.4	131

281453096441800 LINE 291 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09..	1120	1.0	16000	8.3	11.0	.48	10.5	106
09..	1122	6.0	16000	8.3	11.0	--	10.6	106
JUN								
28..	1445	1.0	14000	8.3	29.0	.15	10.0	137
28..	1447	4.0	13000	8.3	29.0	--	9.4	129
JUN , 1978								
21..	1204	1.0	27000	8.0	30.0	.38	6.2	91
21..	1206	6.0	32000	8.1	30.5	--	5.9	89

Table 7A--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Field Determinations--Continued

281305096455500 LINE 294 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1140	1.0	16000	8.4	11.0	.35	9.8	97
09...	1142	6.0	15000	8.4	11.0	--	10.1	100
JUN								
28...	1510	1.0	14000	8.5	29.5	.14	8.1	112
28...	1512	4.0	14000	8.4	29.5	--	7.2	100
FEB , 1978								
22...	0615	1.0	34000	8.7	8.5	--	10.2	104
22...	0617	5.0	34000	8.7	8.5	--	10.2	104
22...	1145	1.0	32000	8.4	9.5	--	10.1	104
22...	1146	4.0	34000	8.3	9.0	--	9.9	102
22...	1825	1.0	34000	8.6	11.5	--	10.0	109
22...	1827	4.0	34000	8.7	11.5	--	9.8	108
23...	0635	1.0	34000	8.7	9.5	--	10.0	104
23...	0637	5.0	34000	8.7	9.5	--	9.9	103
JUN , 1978								
21...	1215	1.0	31000	8.1	30.0	.47	6.1	92
21...	1217	6.0	31000	8.1	30.5	--	6.1	92

281438096413500 LINE 302 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1010	1.0	27000	8.2	11.0	.41	9.9	103
09...	1012	5.0	31000	8.1	11.0	--	9.7	103
JUN								
28...	1410	1.0	3800	8.7	29.5	.13	7.3	97
28...	1412	4.0	3200	8.7	29.5	--	7.0	93

281605096424200 LINE 302 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1025	1.0	12000	8.3	11.0	.30	10.8	106
09...	1027	5.0	17000	8.2	11.0	--	10.2	102
JUN								
28...	1420	1.0	2300	8.5	29.5	.13	7.8	104
28...	1422	4.0	3400	8.5	29.5	--	7.8	104
JUN , 1978								
21...	1146	1.0	34000	8.3	30.0	.38	6.1	92
21...	1148	6.0	34000	8.3	30.5	--	5.9	91

281715096384500 LINE 307 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	0955	1.0	35000	8.1	11.0	.65	9.3	101
09...	0957	6.0	35000	8.1	11.0	--	9.4	102
JUN								
28...	1400	1.0	1900	8.5	29.5	.10	7.6	101
28...	1402	4.0	2800	8.5	29.5	--	7.5	100
FEB , 1978								
22...	0650	1.0	36000	8.3	8.5	--	10.0	103
22...	0652	4.0	37000	8.3	8.0	--	9.9	101
22...	1105	1.0	35000	8.1	8.5	--	9.9	101
22...	1106	4.0	37000	8.1	8.5	--	9.8	101
22...	1755	1.0	31000	8.3	11.5	--	10.0	108
22...	1757	3.0	33000	8.2	11.5	--	9.6	106
23...	0728	1.0	38000	8.5	10.0	--	10.1	110
23...	0730	5.0	38000	8.4	9.5	--	10.1	107
JUN								
21...	1134	1.0	39000	8.3	30.0	.65	6.4	100
21...	1136	6.0	39100	8.2	30.0	--	6.3	99

Table 7A--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Field Determinations--Continued

281001096500000 LINE 311 SITE 01

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PH	TEMPER-
		ANCE	(MICRO-	ATURE,	ENCY	ENCY	OXYGEN,	(PER-
		MMOS)	(UNITS)	WATER,	(SECCHI	(SECCHI	DIS-	CENT
				(DEG C)	DISK)	DISK)	SOLVED	SATUR-
					(M)	(M)	(MG/L)	ATION)
FEB , 1977								
09...	1200	1.0	15000	8.5	11.5	.27	11.0	110
09...	1202	6.0	15000	8.5	11.5	--	11.1	111
JUN								
29...	1110	1.0	23000	8.4	28.5	.15	6.7	95
29...	1112	3.0	21000	8.4	28.5	--	6.6	94
JUN , 1978								
21...	1230	1.0	39000	8.1	30.0	.40	6.0	93
21...	1232	4.0	39000	8.0	31.0	--	5.8	92

280923096514100 LINE 311 SITE 04

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PH	TEMPER-
		ANCE	(MICRO-	ATURE,	ENCY	ENCY	OXYGEN,	(PER-
		MMOS)	(UNITS)	WATER,	(SECCHI	(SECCHI	DIS-	CENT
				(DEG C)	DISK)	DISK)	SOLVED	SATUR-
					(M)	(M)	(MG/L)	ATION)
FEB , 1977								
09...	1255	1.0	15000	8.5	11.5	.26	11.1	111
09...	1257	4.0	15000	8.5	11.5	--	11.2	112
JUN								
29...	1100	1.0	20000	8.4	29.0	.18	6.7	94
29...	1102	3.0	20000	8.4	29.0	--	6.5	92
FEB , 1978								
22...	0535	1.0	29000	8.3	8.0	--	9.4	92
22...	0537	3.0	32000	8.3	8.0	--	9.0	90
22...	1225	1.0	29000	8.3	10.5	--	9.8	102
22...	1227	4.0	30000	8.3	10.5	--	10.0	104
22...	1900	1.0	32000	8.5	11.5	--	9.7	104
22...	1902	4.0	33000	8.5	11.5	--	9.3	102
23...	0530	1.0	34000	8.3	10.5	--	9.2	98
23...	0532	3.0	34000	8.3	10.5	--	9.2	98
JUN								
21...	1258	1.0	35000	8.1	30.0	.45	6.2	95
21...	1300	4.0	36000	8.1	30.5	--	5.9	92

280822096492800 LINE 314 SITE 01

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PH	TEMPER-
		ANCE	(MICRO-	ATURE,	ENCY	ENCY	OXYGEN,	(PER-
		MMOS)	(UNITS)	WATER,	(SECCHI	(SECCHI	DIS-	CENT
				(DEG C)	DISK)	DISK)	SOLVED	SATUR-
					(M)	(M)	(MG/L)	ATION)
JUN , 1978								
21...	1248	1.0	41000	8.3	30.0	.60	6.0	96
21...	1250	4.0	43000	8.3	30.0	--	6.0	96

280810096495900 LINE 314 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-	OXYGEN,			
		LING	CIFIC			DUCT-	PH	TEMPER-
		ANCE	(MICRO-	ATURE,	ENCY	ENCY	OXYGEN,	(PER-
		MMOS)	(UNITS)	WATER,	(SECCHI	(SECCHI	DIS-	CENT
				(DEG C)	DISK)	DISK)	SOLVED	SATUR-
					(M)	(M)	(MG/L)	ATION)
FEB , 1977								
09...	1245	1.0	13000	8.4	11.5	.23	11.0	109
09...	1247	4.0	14000	8.4	11.5	--	10.9	109
JUN								
29...	1120	1.0	23000	8.4	29.5	.36	6.8	97

Table 7A--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Field Determinations--Continued

281834096345300 LINE 333 SITE 01

DATE	TIME	SAMP-LING DEPTH (FT)	SPECIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
28...	1335	1.0	2600	8.6	29.0	.10	8.4	111
28...	1337	5.0	2600	8.6	29.0	--	8.2	108
JUN , 1978								
21...	1120	1.0	41000	8.0	29.5	.64	5.9	92
21...	1122	7.0	41000	8.0	30.0	--	5.9	93

281937096354600 LINE 333 SITE 03

DATE	TIME	SAMP-LING DEPTH (FT)	SPECIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
28...	1345	1.0	3000	8.6	29.5	.10	7.5	100
28...	1347	5.0	2700	8.6	29.5	--	7.3	97

282021096331500 LINE 342 SITE 02

DATE	TIME	SAMP-LING DEPTH (FT)	SPECIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	0935	1.0	44000	8.3	11.0	.82	9.3	106
09...	0937	7.0	44000	8.3	11.0	--	9.4	107
JUN								
28...	1320	1.0	2800	8.6	29.0	.10	8.0	105
28...	1322	6.0	4000	8.6	29.0	--	7.8	103
JUN , 1978								
21...	1107	1.0	45000	8.1	30.0	.60	5.9	95
21...	1109	7.0	45000	8.1	30.5	--	5.7	93

282106096281600 LINE 354 SITE 02

DATE	TIME	SAMP-LING DEPTH (FT)	SPECIFIC DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	0915	1.0	47000	8.2	11.0	1.08	9.4	108
09...	0917	5.0	47000	8.2	11.0	--	9.4	108
JUN								
28...	1305	1.0	11000	8.4	29.5	.50	6.9	95
28...	1307	4.0	15000	8.4	29.5	--	6.8	95
JUN , 1978								
21...	1048	1.0	44000	8.1	29.5	--	5.9	93
21...	1050	6.5	44000	8.1	29.5	--	5.8	92

282246096284900 LINE 354 SITE 04

DATE	TIME	SAMP-LING DEPTH (FT)	SPECIFIC DUCT- ANCE (MICRO- MHOS)	PH (00003) (00095)	TEMPER- ATURE (00400) (00010)	TRANS- PAR- ENCY (00078) (00010)	OXYGEN, DIS- SOLVED (00300) (00301)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	0900	1.0	47000	8.2	10.5	.97	9.7	110
09...	0902	6.0	47000	8.2	10.5	--	9.7	110
JUN								
28...	1250	1.0	13000	8.4	29.5	.47	7.4	101
28...	1252	3.0	11000	8.4	29.5	--	7.4	101
28...	1254	4.0	29000	8.1	29.0	--	4.8	71
28...	1256	5.0	35000	7.9	29.0	--	3.4	50
JUN , 1978								
21...	1030	1.0	45000	8.1	30.0	.58	5.9	95
21...	1032	7.0	45000	8.1	30.0	--	5.9	95

Table 7A.--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Field Determinations--Continued

282400096243500 LINE 360 SITE 03

DATE	TIME	SAMP-	CIFIC	TRANS-	OXYGEN,	(PER-		
		LING	DUCT-	PAR-	ENCY			
		CON-	CON-	ENCY	OXYGEN,	CENT		
		(MICRO-	(UNITS)	(DEG C)	(SECCHI	SOLVED		
		MHOS)			DISK)	(MG/L)		
				(M)		SATUR-		
						ATION)		
FEB , 1977								
08..	1530	1.0	46000	7.9	11.0	.38	9.4	108
08..	1532	10	46000	7.9	11.0	--	9.6	110
08..	1534	23	46000	7.9	10.5	--	9.5	107
JUN								
28..	1125	1.0	54000	7.9	28.5	.27	5.9	97
28..	1127	5.0	55000	7.9	29.0	--	5.9	97
28..	1129	10	55000	7.9	28.5	--	5.8	95
28..	1131	20	54000	7.9	28.5	--	5.6	92
JUN , 1978								
21..	0930	1.0	45000	8.1	30.0	.76	6.2	100
21..	0932	10	44000	8.1	30.0	--	6.3	100
21..	0934	25	45000	8.1	30.0	--	6.1	99

Table 7B.--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

282021096331500 LINE 342 SITE 02

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	GEN, NITRATE	GEN, NITRITE	NO ₂ +NO ₃	AMMONIA	GEN, ORGANIC	GEN, MONIA + ORGANIC	GEN, TOTAL	PHORUS, TOTAL
		DEPTH (FT)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
FEB , 1977										
09...	0935	1.0	.00	.00	.00	.06	.24	.30	.30	.050
09...	0937	7.0	.00	.01	.01	.07	.17	.24	.25	.060
JUN										
28...	1320	1.0	.00	.01	.00	.04	.78	.82	.82	.170
28...	1322	6.0	.00	.01	.00	.04	.90	.94	.94	.180
JUN , 1978										
21...	1107	1.0	.01	.02	.03	.00	.49	.49	.52	.030
21...	1109	7.0	.01	.01	.02	.00	.49	.49	.51	.030

282400096243500 LINE 360 SITE 03

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	GEN, NITRATE	GEN, NITRITE	NO ₂ +NO ₃	AMMONIA	GEN, ORGANIC	MONIA + ORGANIC	GEN, TOTAL	PHORUS, TOTAL
		DEPTH (FT)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)
JUN , 1978										
21...	0930	1.0	.01	.01	.02	.00	.33	.33	.35	.010
21...	0934	25	.01	.02	.03	.00	.47	.47	.50	.010

Table 7C.--Quality of water in the Guadalupe estuary, water years 1977-78--Continued
Chemical Analyses--Continued

281604096461300 LINE 287 SITE 08

TIME	DATE	SPE- CIFIC CON- DUCT- ANCE	HARD- NESS, NONCAR- BONATE (MG/L) AS CACO3)	CALCIUM DIS- SOLVED (MG/L) AS CA)	MAGNE- SIMUM, DIS- SOLVED (MG/L) AS MG)	SODIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)				
		DEPTH (FT)	(MICRO- MHOS)	(MG/L) AS CACO3)	(MG/L) AS CACO3)	(MG/L) AS CA)	(MG/L) AS MG)	(MG/L) AS NA)	RATIO	(MG/L) AS K)		
FEB , 1977												
09...	1110	1.0	15000	1800	1600	160	340	2800	76	29	120	
JUN , 1978	22...	0908	1.0	22000	2600	2400	190	510	4000	76	34	170
<hr/>												
BICAR- BONATE (MG/L) AS HCO3)	CAR- BONATE (MG/L) AS AS CO3)	ALKA- LINITY CACO3)	CARBON DIOXIDE AS CO2)	SULFATE DIS- SOLVED AS SO4)	CHLO- RIDE, DIS- SOLVED AS CL)	FLUO- RIDE, DIS- SOLVED AS F)	SILICA, DIS- SOLVED AS SI02)	SOLIDs, SUM OF CONTEN- TUENTS, (MGL) AS SOLVED (MG/L) AS AC-FT)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)			
FEB , 1977												
09...	202	0	166	--	740	5100	.4	6.2	9370	12.7		
JUN , 1978	22...	180	0	148	2.3	1100	7300	.6	8.3	13400	18.2	

281715096384500 LINE 307 SITE 03

TIME	DATE	SPE- CIFIC CON- DUCT- ANCE	HARD- NESS, NONCAR- BONATE (MG/L) AS CACO3)	CALCIUM DIS- SOLVED (MG/L) AS CA)	MAGNE- SIMUM, DIS- SOLVED (MG/L) AS MG)	SODIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)				
		DEPTH (FT)	(MICRO- MHOS)	(MG/L) AS CACO3)	(MG/L) AS CACO3)	(MG/L) AS CA)	(MG/L) AS MG)	(MG/L) AS NA)	RATIO	(MG/L) AS K)		
FEB , 1978												
JUN	23...	0728	1.0	38000	3900	3800	280	780	7000	78	49	320
JUN	21...	1134	1.0	39000	4600	4500	280	940	7400	76	48	300
<hr/>												
BICAR- BONATE (MG/L) AS HCO3)	CAR- BONATE (MG/L) AS AS CO3)	ALKA- LINITY CACO3)	CARBON DIOXIDE AS CO2)	SULFATE DIS- SOLVED AS SO4)	CHLO- RIDE, DIS- SOLVED AS CL)	FLUO- RIDE, DIS- SOLVED AS F)	SILICA, DIS- SOLVED AS SI02)	SOLIDs, SUM OF CONTEN- TUENTS, (MGL) AS SOLVED (MG/L) AS AC-FT)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)			
FEB , 1978												
JUN	23...	160	0	131	.8	1700	13000	.8	.1	23200	31.6	
JUN	21...	140	0	115	1.1	1900	14000	.8	4.2	24900	33.9	

282021096331500 LINE 342 SITE 02

TIME	DATE	SPE- CIFIC CON- DUCT- ANCE	HARD- NESS, NONCAR- BONATE (MG/L) AS CACO3)	CALCIUM DIS- SOLVED (MG/L) AS CA)	MAGNE- SIMUM, DIS- SOLVED (MG/L) AS MG)	SODIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM AD- SORP- TION RATIO			
		DEPTH (FT)	(MICRO- MHOS)	(MG/L) AS CACO3)	(MG/L) AS CACO3)	(MG/L) AS CA)	(MG/L) AS MG)	(MG/L) AS NA)	RATIO	SODIUM AD- SORP- TION RATIO	
FEB , 1977											
09...	0935	1.0	44000	5400	5300	360	1100	8500	76	50	
<hr/>											
POTAS- SIUM, DIS- SOLVED (MG/L) AS K)	BICAR- BONATE (MG/L) AS HCO3)	CAR- BONATE (MG/L) AS AS CO3)	ALKA- LINITY CACO3)	SULFATE DIS- SOLVED AS SO4)	CHLO- RIDE, DIS- SOLVED AS CL)	FLUO- RIDE, DIS- SOLVED AS F)	SILICA, DIS- SOLVED AS SI02)	SOLIDs, SUM OF CONTEN- TUENTS, (MGL) AS SOLVED (MG/L) AS AC-FT)	SOLIDs, DIS- SOLVED (TONS PER AC-FT)		
FEB , 1977											
09...	350	150	0	123	2300	15000	.6	.7	27700	37.7	

Mission-Aransas Estuary

The Mission-Aransas estuary, which has an area of about 160 square miles (415 km²), consists of the tidal parts of Mission River, Aransas River, Copano Creek and other tributaries, Mission Bay, Copano Bay, Aransas Bay, St. Charles Bay, Carlos Bay, part of Redfish Bay, part of the Intracoastal Waterway, Lydia Ann Channel, and Aransas Pass (Figure 9). Water depth at mean low water is less than 2 feet (0.6 m) in Mission Bay; less than 8 feet (2.4 m) in Copano Bay; less than 13 feet (4.0 m) in Aransas Bay; less than 5 feet (1.5 m) in St. Charles Bay; 4 feet (1.2 m) or less in Carlos and Redfish Bays; about 15 feet (4.6 m) in the Intracoastal Waterway; about 20 feet (6.1 m) in the Lydia Ann Channel; and more than 40 feet (12.2 m) in Aransas Pass.

Water-quality data (Table 8) were collected during February and June 1977 and January and June 1978.

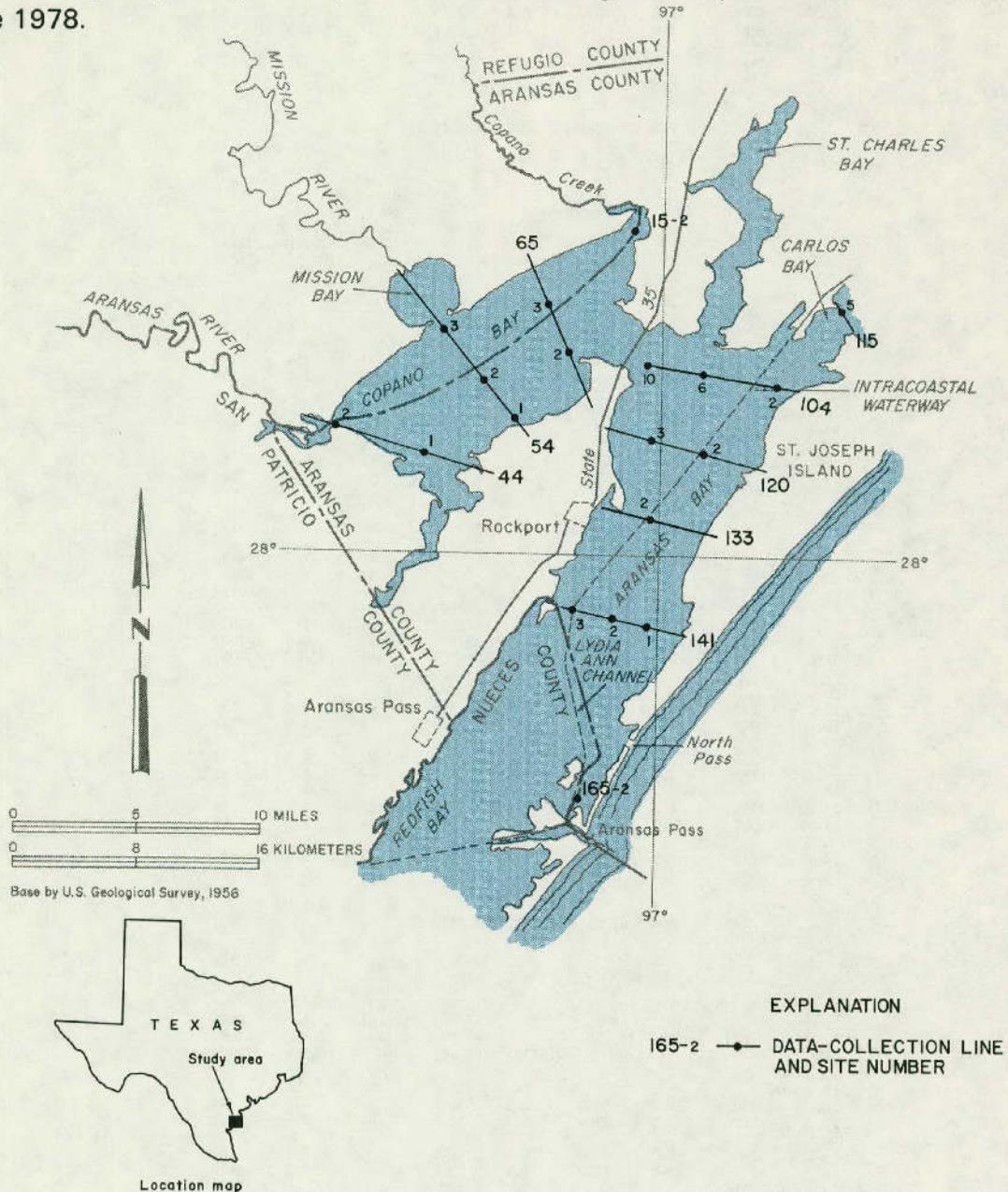


Figure 9.—Data-Collection Sites in the Mission-Aransas Estuary

Table 8A.--Quality of water in the Mission-Aransas estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

281131097010500 LINE 015 SITE 02

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
10...	1050	1.0	9000	8.4	1.2	--	9.8	97	
10...	1052	5.0	9000	8.4	12.0	--	9.8	97	
JUN									
29...	1055	1.0	6800	8.4	28.5	.25	6.5	87	
29...	1057	5.0	6800	8.4	29.0	--	6.6	88	
JAN , 1978									
17...	1438	1.0	30000	--	11.0	1.52	9.6	101	
17...	1440	5.0	30000	--	11.0	--	10.1	107	

280331097092500 LINE 044 SITE 01

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
10...	1000	1.0	8000	8.3	11.6	--	9.3	92	
10...	1002	7.0	8000	8.2	11.5	--	9.4	92	
JUN									
29...	1240	1.0	6800	8.5	29.0	.41	7.4	99	
29...	1242	7.5	6800	8.5	29.0	--	7.4	99	
JAN , 1978									
17...	1302	1.0	26000	--	10.5	.40	9.5	98	
17...	1304	7.0	26000	--	10.5	--	9.7	100	
JUN									
14...	0827	1.0	26000	8.3	30.0	--	5.5	81	
14...	0829	5.0	28000	8.2	30.0	--	5.8	85	

280431097130300 LINE 044 SITE 02

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
10...	0940	1.0	6000	8.3	11.5	--	9.8	95	
10...	0942	4.0	6000	8.2	11.5	--	9.3	91	
JUN									
29...	1225	1.0	7000	8.6	29.0	.22	6.9	92	
29...	1227	4.5	6900	8.5	29.0	--	6.8	91	
JAN , 1978									
17...	1315	1.0	26000	--	10.5	.19	9.5	98	
17...	1317	4.0	27000	--	10.0	--	9.7	99	
JUN									
14...	0838	1.0	20000	8.2	31.5	--	5.6	81	
14...	0840	4.0	21000	8.2	31.5	--	5.1	74	

280452097054800 LINE 054 SITE 01

DATE	TIME	SAMP- LING (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB , 1977									
10...	1010	1.0	9400	8.3	11.5	--	9.6	94	
10...	1012	7.0	9000	8.3	11.5	--	9.5	93	
JUN									
29...	1300	1.0	7400	8.5	28.5	.40	7.5	100	
29...	1302	7.5	7300	8.4	29.0	--	7.5	100	
JAN , 1978									
17...	1232	1.0	30000	--	10.0	.26	9.2	96	
17...	1234	7.0	29000	--	10.5	--	9.4	98	
JUN									
14...	0814	1.0	29300	8.1	30.0	--	6.0	89	
14...	0816	5.0	30000	8.1	30.0	--	6.0	89	

Table 8A.--Quality of water in the Mission-Aransas estuary, water years 1977-78--Continued
Field Determinations--Continued

280426096593500 LINE 120 SITE 02

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED		
							(M)	OXYGEN, (PER- CENT (MG/L))	SATUR- ATION
FEB , 1977									
09..	1415	1.0	16000	8.3	11.5	--	10.7	108	
09..	1417	8.0	17000	8.2	11.0	--	9.8	98	
JUN									
29..	0920	1.0	24000	8.4	28.5	.49	6.5	93	
29..	0922	4.0	24000	8.4	28.5	--	6.5	93	
29..	0924	8.0	24000	8.4	28.5	--	6.5	93	
JAN , 1978									
17..	1329	1.0	34000	8.2	11.0	.55	9.5	104	
17..	1331	5.0	34000	8.2	11.0	--	9.5	104	
17..	1333	7.0	34000	8.2	10.5	--	9.7	103	
JUN									
14..	1045	1.0	31000	8.2	30.0	1.28	6.4	97	
14..	1047	8.0	33000	8.2	30.0	--	5.5	84	

280458097004800 LINE 120 SITE 03

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED		
							(M)	OXYGEN, (PER- CENT (MG/L))	SATUR- ATION
FEB , 1977									
09..	1400	1.0	14000	8.3	11.5	.46	10.8	108	
09..	1402	8.0	16000	8.2	11.5	--	9.4	95	
JUN									
29..	0930	1.0	16000	8.4	28.5	.63	7.1	99	
29..	0932	4.0	16000	8.4	28.5	--	7.1	99	
29..	0934	8.0	17000	8.4	28.5	--	6.9	96	
JAN , 1978									
17..	1339	1.0	31000	8.0	11.0	.79	9.9	106	
17..	1341	5.0	31000	8.1	11.0	--	10.0	107	
17..	1343	8.0	32000	8.1	11.5	--	10.9	117	
JUN									
14..	1050	1.0	30000	8.3	30.5	1.06	6.5	97	
14..	1052	8.0	33000	8.2	30.5	--	5.3	81	

280132097002200 LINE 133 SITE 02

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED		
							(M)	OXYGEN, (PER- CENT (MG/L))	SATUR- ATION
FEB , 1977									
09..	1425	1.0	17000	8.3	11.5	.46	10.6	107	
09..	1427	5.0	17000	8.3	11.5	--	10.4	105	
09..	1429	13	31000	8.1	11.5	--	8.8	94	
JUN									
29..	0910	1.0	24000	8.4	28.5	.87	6.7	96	
29..	0912	5.0	24000	8.4	28.5	--	6.7	96	
29..	0914	10	26000	8.4	28.5	--	6.5	94	
JAN , 1978									
17..	1400	1.0	34000	8.2	11.0	.53	9.6	105	
17..	1402	5.0	34000	8.2	11.0	--	9.6	105	
17..	1404	10	34000	8.2	12.0	--	9.6	106	
17..	1406	17	40000	8.1	11.0	--	8.7	96	
JUN									
14..	0916	1.0	25000	8.1	30.0	.64	6.5	95	
14..	0918	7.0	27000	8.2	30.0	--	6.3	92	
14..	0920	14	29000	8.0	30.0	--	4.6	68	

Table 8A.--Quality of water in the Mission-Aransas estuary, water years 1977-78--Continued
Field Determinations--Continued

275723097001300 LINE 141 SITE 01

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOES)	TRAN- SPAR- ENCY (SECCHI DISK)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1445	1.0	20000	8.3	11.5	.58	10.4	106
09...	1447	8.0	20000	8.3	11.5	--	10.3	105
JUN								
29...	1215	1.0	29000	8.4	29.5	.72	6.8	100
29...	1217	4.0	35000	8.4	29.0	--	6.5	97
29...	1219	8.0	29000	8.2	28.5	--	4.9	71
JAN , 1978								
17...	1419	1.0	34000	8.1	12.0	.56	9.4	103
17...	1421	5.0	34000	8.2	12.0	--	9.4	103
17...	1423	9.0	34000	8.2	11.5	--	9.3	102
JUN								
14...	1025	1.0	35000	8.3	29.5	.86	5.6	86
14...	1027	6.0	36000	8.2	29.5	--	5.2	80

275750097015400 LINE 141 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOES)	TRAN- SPAR- ENCY (SECCHI DISK)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1455	1.0	21000	8.3	11.0	--	10.3	105
09...	1457	9.0	24000	8.3	11.0	--	10.2	106
JUN								
29...	1225	1.0	29000	8.4	29.0	.65	6.7	99
29...	1227	5.0	31000	8.4	29.0	--	6.4	95
29...	1229	9.0	31000	8.3	29.0	--	5.0	74
JAN , 1978								
17...	1429	1.0	34000	8.2	11.5	.51	9.6	106
17...	1431	5.0	34000	8.2	11.5	--	9.5	105
17...	1433	9.0	38000	8.1	11.0	--	9.3	103
JUN								
14...	1015	1.0	35000	8.3	29.5	1.16	6.2	93
14...	1017	5.0	35000	8.2	29.5	--	6.1	92
14...	1019	10	36000	8.2	29.5	--	5.8	84

275815097031800 LINE 141 SITE 03

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOES)	TRAN- SPAR- ENCY (SECCHI DISK)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1510	1.0	19000	8.4	11.5	--	10.4	107
09...	1512	5.0	19000	8.4	11.5	--	10.2	104
09...	1514	13	33000	8.1	11.0	--	9.3	101
10...	0810	1.0	21000	8.3	11.5	.82	9.5	98
10...	0812	5.0	21000	8.3	11.5	--	9.4	97
10...	0814	13	37000	8.0	11.0	--	8.7	95
JUN								
29...	1310	1.0	39000	8.3	29.5	1.10	6.8	105
29...	1312	6.0	47000	8.3	29.0	--	6.5	103
29...	1314	12	43000	8.1	27.5	--	5.8	88
JAN , 1978								
17...	1444	1.0	39000	8.1	12.5	.73	9.5	109
17...	1446	5.0	40000	8.1	12.5	--	9.4	108
17...	1448	11	40000	8.1	12.0	--	9.4	107
JUN								
14...	0935	1.0	29000	8.1	30.5	.75	6.2	92
14...	0937	6.0	32000	8.2	30.0	--	5.9	89
14...	0939	12	34000	8.2	30.5	--	5.8	89

Table 8A--Quality of water in the Mission-Aransas estuary, water years 1977-78--Continued
Field Determinations--Continued

275232097025000 LINE 165 SITE 02

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	(SECCHI	OXYGEN,	OXYGEN,
		LING	ANCE		ATURE,		(DEG C)	ENCY
		DEPTH (FT)	(MICRO- MHQS)	(UNITS)	WATER	DISK)	(M)	SOLVED (PER-
								CENT
								SATUR-
								ATION)
FEB , 1977								
10...	0835	1.0	28000	8.3	11.5	.93	9.3	98
10...	0837	10	41000	8.1	11.0	--	8.7	98
10...	0839	20	42000	8.1	11.0	--	8.7	98
JUN								
29...	1245	1.0	55000	8.0	25.5	74	5.8	90
29...	1247	5.0	55000	8.0	25.5	--	5.8	90
29...	1249	10	55000	8.0	25.5	--	5.7	89
29...	1251	17	50000	8.0	25.5	--	5.7	88
30...	0840	1.0	54000	8.0	24.5	.72	5.8	89
30...	0842	9.0	54000	8.0	24.5	--	5.9	91
30...	0844	18	54000	8.0	24.5	--	6.3	98
JAN , 1978								
17...	1507	1.0	39000	8.1	12.0	.63	9.5	108
17...	1509	5.0	39000	8.1	12.0	--	9.3	106
17...	1511	10	40000	8.1	12.0	--	9.1	104
17...	1513	15	40000	8.1	12.0	--	9.1	104
17...	1515	19	41000	8.2	12.0	--	9.0	103
JUN								
14...	0955	1.0	36000	8.1	30.0	1.21	5.8	89
14...	0957	9.0	36000	8.1	30.0	--	5.4	83
14...	0959	18	42000	8.1	29.5	--	4.5	71

Table 8B.--Quality of water in the Mission-Aransas estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

280458097004800 LINE 120 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
JUN 09...	1400	1.0	.01	.00	.01	.00	.88	.88	.89	3.9	.130
JUN 29...	0930	1.0	.00	.00	.00	.00	.70	.70	.70	3.1	.070
JAN , 1978											
JUN 17...	1339	1.0	.02	.00	.02	.02	.47	.49	.51	2.3	.060
JUN 14...	1050	1.0	.00	.01	.01	.01	.60	.61	.62	2.7	.100

275750097015400 LINE 141 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
JUN 09...	1455	1.0	.00	.00	.00	.01	.64	.65	.65	2.9	.070
JUN 29...	1226	1.0	.00	.01	.00	.01	.64	.65	.65	2.9	.070
JAN , 1978											
JUN 17...	1429	1.0	.01	.00	.01	.00	.53	.53	.54	2.4	.070
JUN 17...	1433	9.0	.00	.01	.01	.01	.46	.47	.48	2.1	.060
JUN 14...	1015	1.0	.00	.01	.01	.03	.51	.54	.55	2.4	.060

275232097025000 LINE 165 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
JUN 10...	0835	1.0	.00	.00	.00	.01	.44	.45	.45	2.0	.060
JUN 29...	1245	1.0	.00	.01	.01	.01	.60	.61	.62	2.7	.020
JAN , 1978											
JUN 17...	1507	1.0	.00	.01	.01	.01	.61	.62	.63	2.8	.050
JUN 14...	0955	1.0	.01	.01	.02	.03	.72	.75	.77	3.4	.070

Table 8C.--Quality of water in the Mission-Aransas estuary, water years 1977-78
Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

280452097054800 LINE 054 SITE 01

DATE	TIME	DEPTH (FT)	SAMP- LING TIME (MICRO- MHOS)	SPE- CIFIC CON- DUCT- ANCE (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	AO- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
JUN 10...	1010	1.0	9400	990	890	84	190	1700	77	23	75
JUN 29...	1300	1.0	7400	820	670	81	150	1400	77	21	59
JAN , 1978											
JUN 17...	1232	1.0	30000	3500	3400	240	710	5600	78	41	.5
JUN 14...	0814	1.0	29300	3500	3400	240	710	5700	77	42	220
BICAR- BONATE (MG/L AS HCO3)											
ALKA- LINITY (MG/L AS CACO3)											
CAR- BONATE (MG/L AS CACO3)											
CARBON DIOXIDE (MG/L AS CO2)											
CHLO- RIDE, DIS- SOLVED (MG/L AS SO4)											
FLUO- RIDE, DIS- SOLVED (MG/L AS F)											
SILICA, DIS- SOLVED (MG/L AS SiO2)											
SOLIDs, SUM OF TENTS, (TONS AC-FT)											
FEB , 1977											
JUN 10...	124	0	102	--	410	2800	.3	7.7	5330	7.25	
JUN 29...	180	--	148	--	340	2500	.4	14	4630	6.30	
JAN , 1978											
JUN 17...	160	0	131	--	1600	10000	.7	5.7	18200	24.8	
JUN 14...	150	0	123	1.9	1500	11000	.7	10	19500	26.5	

Nueces Estuary

The Nueces estuary, which has an area of about 200 square miles (520 km²), consists of the tidal parts of the Nueces River and other tributaries, Nueces Bay, Tule Lake Channel, Corpus Christi Bay, part of Redfish Bay, Corpus Christi Ship Channel, and Aransas Pass, and part of the Intracoastal Waterway (Figure 10). Water depth at mean low water is less than 13 feet (4.0 m) in Corpus Christi Bay; less than 3 feet (1.0 m) in Nueces Bay; more than 40 feet (12.2 m) in Aransas Pass, Corpus Christi Ship Channel, and Tule Lake Channel; and about 15 feet (4.6 m) in the Intracoastal Waterway. A part of Redfish Bay is about 10 feet (3.0 m) deep, but about one-fourth of it is only 1 foot (0.3 m) deep at mean low water.

Water-quality data (Table 9) were collected during February and June 1977 and February, June, August, and September 1978.

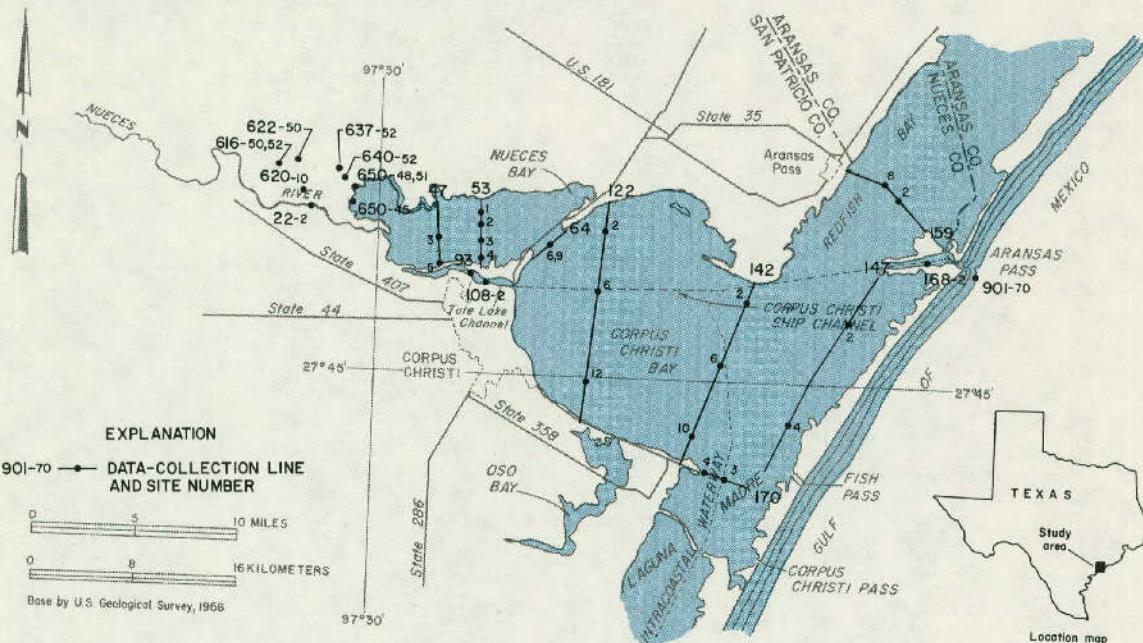


Figure 10.—Data-Collection Sites in the Nueces Estuary

Table 9A.--Quality of water in the Nueces estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

275138097331900 LINE 022 SITE 02

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE		ATURE,	ENCY	PAR-	DIS-
		(MICRO-	(MICRO-	(UNITS)	(DEG C)	(SECCHI	OXYGEN,	
		MHOS)	MHOS)			DISK)	(PER-	
		(FT)	(FT)			(M)	CENT	
JUN , 1977								
30...	1130	1.0	1000	8.7	29.0	.37	7.5	99
30...	1132	8.5	1000	8.7	29.0	--	7.4	97

275056097270500 LINE 047 SITE 03

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	OXYGEN,	OXYGEN,	
		LING	ANCE		ATURE,		DIS-	DIS-
		(MICRO-	(MICRO-	(UNITS)	WATER	SOLVED	SOLVED	
		MHOS)	MHOS)		(DEG C)	(MG/L)	(PER-	
		(FT)	(FT)				CENT	
FEB , 1977								
10...	1345	1.0	7000	8.3	12.5	10.3	102	
10...	1347	3.0	13000	8.4	12.5	10.9	110	
JUN , 1978								
13...	1220	1.0	10000	8.6	30.5	6.8	95	

275143097252900 LINE 053 SITE 01

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	OXYGEN,	OXYGEN,	
		LING	ANCE		ATURE,		DIS-	DIS-
		(MICRO-	(MICRO-	(UNITS)	WATER	SOLVED	SOLVED	
		MHOS)	MHOS)		(DEG C)	(MG/L)	(PER-	
		(FT)	(FT)				CENT	
JUN , 1978								
13...	1252	1.0	25000	8.5	30.5	7.7	113	
13...	1254	4.0	37000	8.3	30.5	6.1	95	

275125097252800 LINE 053 SITE 02

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE		ATURE,		PAR-	DIS-
		(MICRO-	(MICRO-	(UNITS)	(SECCHI	OXYGEN,		
		MHOS)	MHOS)		DISK)	(PER-		
		(FT)	(FT)		(M)	CENT		
FEB , 1977								
10...	1415	1.0	19000	8.5	12.5	--	9.8	102
10...	1417	4.0	24000	8.4	12.0	--	9.2	97
JUN								
30...	0955	1.0	27000	8.3	27.5	.17	6.1	87
30...	0957	3.0	27000	8.3	28.0	--	6.1	87
JUN , 1978								
13...	1248	1.0	22300	8.5	31.0	--	7.7	114
13...	1250	3.0	35000	8.5	30.0	--	6.6	100

275056097252600 LINE 053 SITE 03

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	OXYGEN,	OXYGEN,	
		LING	ANCE		ATURE,		DIS-	DIS-
		(MICRO-	(MICRO-	(UNITS)	WATER	SOLVED	SOLVED	
		MHOS)	MHOS)		(DEG C)	(MG/L)	(PER-	
		(FT)	(FT)				CENT	
JUN , 1978								
13...	1245	1.0	22000	8.5	31.0	7.6	112	
13...	1247	4.0	42000	8.5	31.5	5.0	81	

Table 9A.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Field Determinations--Continued

275027097252300 LINE 053 SITE 04

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (MG/L)
							OXYGEN, DIS- SOLVED (PER- CENT)	SATUR- ATION
FEB , 1977								
10...	1410	1.0	22000	8.4	13.5	--	9.1	98
10...	1412	4.0	26000	8.2	14.0	--	8.3	92
JUN								
30...	0950	1.0	15000	8.4	27.5	.20	6.5	88
30...	0952	4.0	15000	8.4	28.5	--	6.2	84
JUN , 1978								
13...	1242	1.0	19000	8.6	31.0	--	7.7	112
13...	1243	3.0	44000	8.4	34.0	--	5.2	89

275043097220000 LINE 064 SITE 06

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (MG/L)
							OXYGEN, DIS- SOLVED (PER- CENT)	SATUR- ATION
JUN , 1978								
13...	1146	1.0	44000	8.3	30.0	5.7	91	
13...	1148	16	46000	8.3	29.5	5.2	84	

275017097223200 LINE 064 SITE 09

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (MG/L)
							OXYGEN, DIS- SOLVED (PER- CENT)	SATUR- ATION
FEB , 1978								
24...	1035	1.0	50000	8.1	12.5	9.2	112	
24...	1037	22	49000	8.1	12.5	9.3	112	
JUN								
13...	1151	1.0	44000	8.2	30.0	5.4	85	
13...	1153	12	45000	8.2	30.0	5.2	84	

274849097245600 LINE 108 SITE 02

DATE	TIME	SAMP- LING (FT)	DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT)	OXYGEN, DIS- SOLVED (PER- CENT)
							OXYGEN, DIS- SOLVED (PER- CENT)	SATUR- ATION
FEB , 1977								
10...	1440	1.0	34000	8.2	12.0	--	8.2	90
10...	1442	10	34000	8.2	12.0	--	7.5	83
10...	1444	25	37000	8.2	12.0	--	6.7	75
10...	1445	36	40000	8.1	11.0	--	6.2	69
JUN								
30...	0905	1.0	40000	8.3	28.5	.66	5.6	84
30...	0907	10	40000	8.2	28.0	--	5.4	82
30...	0909	20	41000	8.2	26.5	--	4.7	70
30...	0911	39	48000	7.9	25.5	--	3.3	50
FEB , 1978								
24...	0955	1.0	47000	7.9	11.0	--	8.1	93
24...	0957	20	49000	7.7	11.5	--	7.7	91
24...	0959	37	49000	7.7	11.0	--	7.9	92
JUN								
13...	1135	1.0	48000	8.4	30.0	--	5.9	96
13...	1137	20	48600	8.4	29.5	--	4.3	70
13...	1139	40	48600	8.2	29.0	--	2.2	36

Table 9A.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Field Determinations--Continued

275105097193100 LINE 122 SITE 02

DATE	TIME	SPE-			TRANS-	OXYGEN,	DIS-	
		CIFIC	CON-	TEMPER-				
SAMP-	DUCT-	ATURE,	(SECCHI	OXYGEN,	SOLVED	(PER-		
LING	ANCE	WATER	DISK)	(MG/L)	SATUR-	CENT		
DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(M)				
FEB , 1977								
10...	1400	1.0	37000	8.3	12.0	.80	9.8	110
10...	1402	10	37000	8.3	12.0	--	9.2	104
JUN								
30...	1225	1.0	37000	8.2	28.5	.35	6.1	92
30...	1227	5.0	37000	8.2	28.5	--	6.1	92
30...	1229	10	38000	8.2	28.5	--	6.1	92
FEB , 1978								
24...	0855	1.0	50000	7.4	11.5	--	9.4	111
24...	0857	9.0	50000	7.9	11.5	--	9.4	111
JUN								
13...	1055	1.0	47000	8.3	29.5	--	6.0	97
13...	1057	8.0	47000	8.4	29.0	--	5.1	82

274838097201700 LINE 122 SITE 06

DATE	TIME	SPE-			TRANS-	OXYGEN,	DIS-	
		CIFIC	CON-	TEMPER-				
SAMP-	DUCT-	ATURE,	(SECCHI	OXYGEN,	SOLVED	(PER-		
LING	ANCE	WATER	DISK)	(MG/L)	SATUR-	CENT		
DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(M)				
JUN , 1977								
30...	1205	1.0	43000	8.1	28.5	.44	6.1	95
30...	1207	5.0	44000	8.1	28.5	--	6.1	95
30...	1209	10	50000	8.1	28.0	--	5.6	91
30...	1211	20	54000	7.9	26.0	--	4.2	66
30...	1213	30	54000	7.9	25.5	--	4.1	64
30...	1215	44	54000	7.7	25.5	--	.7	11
FEB , 1978								
24...	0912	1.0	49000	7.1	11.0	1.30	9.5	110
24...	0914	24	50000	8.1	10.5	--	9.4	109
24...	0916	47	50000	8.0	10.5	--	9.1	106
JUN								
13...	1109	1.0	42000	8.2	29.5	--	6.5	101
13...	1111	12	47000	8.3	29.0	--	5.6	89
13...	1113	24	49000	8.3	29.0	--	4.0	64
13...	1115	48	40000	7.3	27.5	--	.1	1

274543097211100 LINE 122 SITE 12

DATE	TIME	SPE-			TRANS-	OXYGEN,	DIS-	
		CIFIC	CON-	TEMPER-				
SAMP-	DUCT-	ATURE,	(SECCHI	OXYGEN,	SOLVED	(PER-		
LING	ANCE	WATER	DISK)	(MG/L)	SATUR-	CENT		
DEPTH (FT)	(MICRO- MHOS)	(UNITS)	(DEG C)	(M)				
FEB , 1977								
10...	1325	1.0	35000	8.3	12.5	.89	10.0	112
10...	1327	5.0	35000	8.3	12.0	--	9.9	109
10...	1329	12	36000	8.2	11.5	--	8.7	97
JUN								
30...	1145	1.0	47000	8.1	28.5	.63	5.9	94
30...	1147	6.0	47000	8.1	28.5	--	5.9	94
30...	1149	12	45000	8.1	28.5	--	5.7	91
FEB , 1978								
24...	0928	1.0	47000	8.2	11.0	1.53	9.6	110
24...	0930	7.0	48000	8.2	11.0	--	10.0	116
JUN								
13...	1117	1.0	46000	8.3	30.0	--	6.2	100
13...	1119	10	46000	8.3	29.0	--	4.9	78

Table 9A.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Field Determinations--Continued

274820097125900 LINE 142 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)
FEB , 1977									
10..	1300		1.0	37000	8.3	12.0	.88	9.6	108
10..	1302		5.0	37000	8.3	12.0	--	9.2	104
10..	1304		12	37000	8.2	11.5	--	8.7	96
FEB , 1978									
24..	1105		1.0	42000	8.5	12.0	--	9.2	106
24..	1107		11	46000	8.4	12.5	--	8.8	105
JUN									
13..	1110		1.0	24000	8.1	29.5	.51	6.1	88
13..	1111		6.0	24000	8.1	29.5	--	6.1	88
13..	1112		12	24000	8.0	29.5	--	5.0	72

274548097141000 LINE 142 SITE 06

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)
FEB , 1977									
10..	1245		1.0	37000	8.3	12.0	.83	9.6	108
10..	1247		10	37000	8.3	11.5	--	9.2	102
10..	1249		13	37000	8.2	11.5	--	9.0	100
FEB , 1978									
24..	1053		1.0	46000	8.5	12.5	--	8.8	105
24..	1055		11	46000	8.4	12.0	--	8.8	104
JUN									
13..	1411		1.0	38000	8.4	30.0	.51	6.4	100
13..	1413		6.5	40000	8.4	29.5	--	6.5	100
13..	1415		13	45000	8.3	30.0	--	5.1	51

274315097152000 LINE 142 SITE 10

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)
FEB , 1977									
10..	1230		1.0	37000	8.3	12.5	1.03	9.8	111
10..	1232		5.0	37000	8.3	12.0	--	9.9	111
10..	1234		13	37000	8.2	11.5	--	9.2	102
JUN									
30..	1120		1.0	47000	8.2	29.0	.64	5.8	92
30..	1122		6.0	47000	8.2	29.5	--	5.6	91
30..	1124		12	47000	8.2	29.5	--	5.5	89
FEB , 1978									
24..	1040		1.0	42000	8.4	12.5	--	8.9	103
24..	1042		5.0	42000	8.4	13.0	--	8.8	104
24..	1044		11	42000	8.4	15.5	--	8.2	101
JUN									
13..	1402		1.0	38000	8.4	30.6	.63	6.7	105
13..	1404		7.0	41000	8.4	30.0	--	6.6	105
13..	1406		14	49000	8.4	30.0	--	4.4	72

274720097092600 LINE 147 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT) (MG/L)
FEB , 1977									
10..	1040		1.0	40000	8.2	12.0	1.12	9.1	104
10..	1042		9.0	40000	8.2	12.0	--	8.9	101
JUN									
30..	1000		1.0	45000	8.2	28.5	.60	5.8	92
30..	1002		4.0	47000	8.1	28.5	--	5.8	92
30..	1004		8.0	49000	8.1	28.0	--	5.0	79
FEB , 1978									
24..	0922		1.0	45000	8.4	12.5	--	8.6	103
24..	0924		7.0	46000	8.4	13.0	--	8.3	100
JUN									
13..	1255		1.0	41000	8.2	29.5	.44	5.7	89
13..	1257		4.5	42000	8.2	29.5	--	5.6	87
13..	1259		9.0	42000	8.2	29.5	--	5.6	87

Table 9A.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Field Determinations--Continued

274336097111700 LINE 147 SITE 04

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- CENTRATION (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
FEB , 1977										
10...	1100		1.0	37000	8.3	12.0	1.00	9.4	106	
10...	1102		5.0	37000	8.3	12.0	--	9.2	103	
10...	1104		12	37000	8.2	12.0	--	9.2	103	
JUN										
30...	1020		1.0	47000	8.2	28.5	.67	5.6	90	
30...	1022		5.0	45000	8.2	28.5	--	5.6	90	
30...	1024		10	45000	8.2	28.5	--	5.6	88	
FEB , 1978										
24...	0940		1.0	45000	8.5	11.0	--	8.9	103	
24...	0942		10	45000	8.4	11.5	--	8.8	102	
JUN										
13...	1315		1.0	43000	8.3	29.5	.63	6.3	100	
13...	1317		6.0	43000	8.3	29.0	--	6.3	99	
13...	1319		12	52000	8.2	29.5	--	2.1	34	

275257097060000 LINE 159 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- CENTRATION (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
FEB , 1977										
10...	0945		1.0	32000	8.2	12.0	.98	9.1	99	
10...	0947		10	35000	8.2	11.5	--	8.8	96	
10...	0949		17	42000	8.1	11.5	--	8.3	94	

275326097063300 LINE 159 SITE 08

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- CENTRATION (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
JUN , 1977										
30...	1415		1.0	50000	8.3	29.5	.47	6.3	103	
30...	1417		6.0	54000	8.0	27.5	--	5.9	95	
30...	1419		12	54000	8.0	27.5	--	6.4	104	
FEB , 1978										
24...	0800		1.0	40000	8.6	12.0	--	9.0	102	
24...	0802		5.0	40000	8.6	12.0	--	9.0	102	
24...	0804		13	41000	8.6	12.0	--	8.9	102	
JUN										
13...	1142		1.0	34000	8.3	29.5	.79	5.2	79	
13...	1144		7.5	34000	8.3	30.0	--	5.1	77	
13...	1146		15	35000	8.3	30.0	--	5.0	76	

275023097045500 LINE 168 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	DEPTH (FT)	SPE- CIFIC CON- CENTRATION (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
FEB , 1977										
10...	1015		1.0	39000	8.2	12.0	.61	9.1	104	
10...	1017		10	42000	8.2	11.5	--	8.9	101	
10...	1019		20	47000	8.2	11.5	--	8.8	102	
10...	1021		30	47000	8.1	11.4	--	8.8	102	
10...	1023		49	47000	8.1	11.5	--	8.8	102	
JUN										
30...	0940		1.0	55000	8.0	25.0	1.10	5.9	90	
30...	0942		10	55000	8.0	24.5	--	5.7	88	
30...	0944		20	55000	8.0	24.5	--	5.8	89	
30...	0946		30	54000	8.0	24.5	--	5.7	88	
30...	0948		46	54000	8.0	25.0	--	5.7	88	
FEB , 1978										
24...	0850		1.0	45000	8.5	11.5	--	8.6	100	
24...	0852		25	46000	8.4	11.5	--	8.6	100	
24...	0854		49	46000	8.4	11.5	--	8.6	100	
JUN										
13...	1236		1.0	40000	8.1	28.5	1.15	5.5	83	
13...	1238		25	41000	8.0	27.5	--	4.6	69	
13...	1240		50	42000	8.0	27.5	--	3.9	59	

Table 9A.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Field Determinations--Continued

274108097133200 LINE 170 SITE 03

		SPE- CIFIC CON- DUCT- LING	TEMPER- ATURE, WATER (MICRO- MHO)	PAR- ENCY (SECCHI DISK)	OXYGEN, (PER- CENT SOLVED (MG/L))	OXYGEN, DIS- SOLVED SATUR- ATION)
DATE	TIME	DEPTH (FT)	(UNITS)	(DEG C)	(M)	
FEB , 1977						
01...	1810	1.0	39000	8.2	9.0	.57
01...	1812	6.0	39000	8.2	9.0	--
01...	1814	13	39000	8.2	9.0	--
JUN						
22...	1420	1.0	50000	8.3	29.0	.77
22...	1422	5.0	52000	8.3	29.0	--
22...	1424	10	52000	8.3	29.0	--
22...	1426	13	52000	8.2	28.5	--
MAR , 1978						
01...	1405	1.0	48000	8.4	15.5	--
01...	1407	8.0	48000	8.4	15.5	--
01...	1409	16	48000	8.4	17.0	--

274935097013500 LINE 901 SITE 70

		SPE- CIFIC CON- DUCT- LING	TEMPER- ATURE, WATER (MICRO- MHO)	PAR- ENCY (SECCHI DISK)	OXYGEN, (PER- CENT SOLVED (MG/L))	OXYGEN, DIS- SOLVED SATUR- ATION)
DATE	TIME	DEPTH (FT)	(UNITS)	(DEG C)	(M)	
JUN , 1977						
30...	0900	1.0	57000	8.0	26.0	.82
30...	0902	25	57000	8.0	24.5	--
30...	0904	51	54000	8.0	25.5	--
FEB , 1978						
24...	0830	1.0	47000	8.5	11.5	--
24...	0832	10	48000	8.4	11.5	--
24...	0834	25	49000	8.4	12.0	--
24...	0836	50	49000	8.4	12.0	--
JUN						
13...	1210	1.0	29500	8.2	29.0	1.95
13...	1212	26	31000	8.1	28.0	--
13...	1214	52	32000	7.9	25.5	--

Table 9B.--Quality of water in the Rueses estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

274543097211100 LINE 122 SITE 12

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMO ₂ TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
10..	1325	1.0	.00	.00	.00	.01	.58	.59	.59	2.6	.090
10..	1329	12	.00	.00	.00	.01	.47	.48	.48	2.1	.080
JUN											
30..	1145	1.0	.00	.01	.01	.07	.47	.54	.55	2.4	.060
30..	1149	12	.00	.01	.01	.08	.56	.64	.65	2.9	.080
FEB , 1978											
24..	0928	1.0	.00	.01	.01	.00	.38	.38	.39	1.7	.040
24..	0930	7.0	.00	.01	.01	.00	.40	.40	.41	1.8	.040
JUN											
13..	1117	1.0	.00	.01	.01	.01	.80	.81	.82	3.5	.080
13..	1119	10	.00	.01	.01	.04	.85	.89	.90	4.0	.080

274548097141000 LINE 142 SITE 06

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMO ₂ TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
10..	1245	1.0	.00	.00	.00	.01	.51	.52	.52	2.3	.060
10..	1249	13	.00	.00	.00	.01	.48	.49	.49	2.2	.080
FEB , 1978											
24..	1053	1.0	.00	.01	.01	.00	.43	.43	.44	1.9	.030
24..	1055	11	.03	.01	.04	.01	.37	.38	.42	1.9	.050
JUN											
13..	1411	1.0	.00	.01	.01	.04	.87	.91	.92	4.1	.060
13..	1415	13	.00	.01	.01	.04	1.4	1.4	1.4	6.2	.080

274335097111700 LINE 147 SITE 04

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMO ₂ TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
10..	1100	1.0	.00	.00	.00	.01	.44	.45	.45	2.0	.060
JUN											
30..	1020	1.0	.00	.01	.00	.04	.49	.53	.53	2.3	.050
FEB , 1978											
24..	0940	1.0	.00	.01	.01	.01	.40	.41	.42	1.9	.040
JUN											
13..	1316	1.0	.00	.01	.01	.03	.77	.80	.81	3.6	.060

275257097060000 LINE 159 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMO ₂ TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
10..	0945	1.0	.30	.50	.30	.02	.40	.42	.72	3.2	.060

275326097063300 LINE 159 SITE 08

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMO ₂ TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977											
30..	1415	1.0	.00	.01	.00	.05	.37	.42	.42	1.9	.050
FEB , 1978											
24..	0800	1.0	.00	.01	.01	.00	.54	.54	.55	2.4	.060
JUN											
13..	1142	1.0	.00	.01	.01	.01	.99	1.0	1.0	4.5	.040

Table 9B---Quality of water in the Nueces estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

275023097045500 LINE 168 SITE 02

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-		
		LING	GEN,	GEN,	GEN,	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	PHOS-
		DEPTH	NITRATE	NITRITE	NO ₂ +NO ₃	TOTAL	ORGANIC	ORGANIC	TOTAL	TOTAL	TOTAL
(FT)		(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
			AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)
FEB , 1977											
10...	1015	1.0	.00	.00	.00	.01	.30	.31	.31	1.4	.080
JUN											
30...	0940	1.0	.00	.01	.00	.05	--	.01	.01	.00	.030
FEB , 1978											
24...	0850	1.0	.00	.01	.01	.01	.42	.43	.44	1.9	.040
JUN											
13...	1236	1.0	.01	.01	.02	.03	.37	.40	.42	1.9	.030

275310097345200 LINE 616 SITE 50

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-			
		LING	DEMAND,	GEN,	GEN,	GEN,	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	PHOS-
		DEPTH	BIOCHEM	UNINHIB	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
(FT)			(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
				AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)
AUG , 1978												
05...	1410	1.0	6.8	.01	.00	.01	.07	2.2	2.3	2.3	10	.110

275314097344900 LINE 616 SITE 52

DATE	TIME	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-			
		GEN,	GEN,	GEN,	GEN,	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	PHOS-	
		NITRATE	NITRATE	NO ₂ +NO ₃	TOTAL	AMMONIA	ORGANIC	ORGANIC	TOTAL	TOTAL	TOTAL	
		(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	
		AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)	
SEP , 1978												
07...	1245	.00	.01	.01	.03	.73	.76	.77	3.4	.120		

275201097333200 LINE 620 SITE 10

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-			
		LING	DEMAND,	GEN,	GEN,	GEN,	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	PHOS-
		DEPTH	BIOCHEM	UNINHIB	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
(FT)			(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
				AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)
AUG , 1978												
05...	1530	1.0	7.9	.01	.01	.02	.12	2.4	2.5	2.5	11	.210
SEP												
07...	1400	1.0	--	.03	.02	.05	.08	1.7	1.8	1.9	.8.2	.210

275326097335300 LINE 622 SITE 50

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-			
		LING	DEMAND,	GEN,	GEN,	GEN,	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	PHOS-
		DEPTH	BIOCHEM	UNINHIB	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
(FT)			(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
				AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)
AUG , 1978												
05...	1400	1.0	8.0	.01	.01	.02	.10	1.9	2.0	2.0	8.9	.130

275312097315500 LINE 637 SITE 52

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-			
		LING	DEMAND,	GEN,	GEN,	GEN,	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	PHOS-
		DEPTH	BIOCHEM	UNINHIB	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
(FT)			(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
				AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)
SEP , 1978												
07...	1145	.01	.01	.02	.03	3.5	3.5	3.5	16	.390		

Table 9B.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

275221097315000 LINE 640 SITE 52

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-		PHOS-		
		LING	GEN,	GEN,	NO ₂ +NO ₃	AMMONIA	ORGANIC	MONIA +	GEN,		GEN,	TOTAL
		DEPTH	TOTAL	(MG/L)	(MG/L)	(MG/L)	(MG/L)	ORGANIC	TOTAL	(MG/L)		
		(FT)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS P)		
AUG , 1978	05...	1335	1.0	.02	.00	.02	.16	2.3	2.5	2.5	11	.220

275200097311000 LINE 650 SITE 45

DATE	TIME	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-		PHOS-	
		GEN,	GEN,	GEN,	GEN,	GEN,	MONIA +	GEN,	GEN,		TOTAL
		MITRATE	NITRITE	NO ₂ +NO ₃	AMMONIA	ORGANIC	ORGANIC	TOTAL	TOTAL	(MG/L)	
		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	(MG/L)	(MG/L)	(AS P)	
		(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(AS N)	(MG/L)	(AS P)	
JUN , 1978	16...	1205	.00	.01	.01	.01	1.2	1.2	1.2	5.4	.110

275214097310800 LINE 650 SITE 48

DATE	TIME	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-		PHOS-	
		GEN,	GEN,	GEN,	GEN,	GEN,	MONIA +	GEN,	GEN,		TOTAL
		MITRATE	NITRITE	NO ₂ +NO ₃	AMMONIA	ORGANIC	ORGANIC	TOTAL	TOTAL	(MG/L)	
		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	(MG/L)	(MG/L)	(AS P)	
		(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(AS N)	(MG/L)	(AS P)	
SEP , 1978	07...	1115	.05	.01	.06	.02	1.7	1.7	1.8	7.8	.240

275219097300300 LINE 650 SITE 51

DATE	TIME	SAMP-	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	
		LING	DEMAND,	GEN,	GEN,	NO ₂ +NO ₃	AMMONIA	GEN,	MONIA +	GEN,	GEN,	TOTAL	(MG/L)
		BIOCHEM	UNINHIB	NITRATE	NITRITE	TOTAL	AMMONIA	ORGANIC	ORGANIC	TOTAL	(MG/L)	(AS P)	
		DEPTH	5 DAY	TOTAL	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(AS N)	(AS P)	
		(FT)	(MG/L)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(MG/L)	(AS N)	(AS P)	
AUG , 1978	05...	1315	1.0	8.0	.01	.01	.02	.16	3.1	3.3	3.3	15	.310

274935097013500 LINE 901 SITE 70

DATE	TIME	SAMP-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-
		LING	GEN,	GEN,	NO ₂ +NO ₃	AMMONIA	ORGANIC	MONIA +	GEN,	GEN,	TOTAL	TOTAL
		DEPTH	TOTAL	(MG/L)	(MG/L)	(MG/L)	TOTAL	(MG/L)	(MG/L)	(MG/L)	(AS N)	
		(FT)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS N)	(AS P)	
JUN , 1977	30...	0900	1.0	.00	.01	.01	.01	.08	.09	.10	.40	.020
JUN , 1977	30...	0904	51	.00	.01	.01	.02	.32	.34	.35	1.5	.000
JUN , 1978	24...	0830	1.0	.00	.01	.01	.01	.37	.38	.39	1.7	.050
JUN , 1978	24...	0836	50	.01	.01	.02	.01	.32	.33	.35	1.6	.090
JUN	13...	1210	1.0	.01	.01	.02	.01	.32	.33	.35	1.6	.020
JUN	13...	1214	52	.06	.03	.09	.04	.34	.38	.47	2.1	.030

Table 9C.--Quality of water in the Nueces estuary, water years 1977-78
Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

275125097252800 LINE 053 SITE 02

		SPE- CIFIC CON- DUCT- ANCE	HARD- NESS	CALCIUM	MAGNE- SIUM,	SODIUM,	SODIUM	POTAS- SIUM,				
DATE	TIME	DEPTH (MICRO- MHO)	NONCAR- BONATE (MG/L AS CACO ₃)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS MG)	DIS- SOLVED (MG/L AS NA)	AD- SORP- TION RATIO	DIS- SOLVED (MG/L AS K)				
FEB , 1977												
JUN	10...	1415	1.0	19000	2300	2200	240	410	3400	75	31	160
JUN	30...	0955	1.0	27000	2900	2800	270	560	170	--	1.4	--
JUN , 1978	13...	1248	1.0	22300	2500	2400	210	490	3800	75	33	160

		BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS Caco ₃)	ALKA- LINITY (MG/L AS Caco ₃)	CARBON DIOXIDE (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTI- TUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE	TIME										
FEB , 1977											
JUN	10...	154	0	126	--	860	6200	.4	7.6	11400	15.5
JUN	30...	160	0	131	--	1400	8600	2.4	7.0	16000	21.8
JUN , 1978	13...	130	0	107	.7	930	7100	.5	9.7	12800	17.4

274548097141000 LINE 142 SITE 06

		SPE- CIFIC CON- DUCT- ANCE	HARD- NESS	CALCIUM	MAGNE- SIUM,	SODIUM,	SODIUM	POTAS- SIUM,				
DATE	TIME	DEPTH (FT)	NONCAR- BONATE (MG/L AS CACO ₃)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS MG)	DIS- SOLVED (MG/L AS NA)	AD- SORP- TION RATIO	DIS- SOLVED (MG/L AS K)				
FEB , 1977												
FEB , 1978	10...	1245	1.0	37000	4400	4300	310	890	7000	76	46	300
JUN	24...	1053	1.0	46000	5000	4900	350	1000	9500	79	59	370
JUN	13...	1411	1.0	38000	5800	5700	350	1200	11000	79	63	430

		BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS Caco ₃)	ALKA- LINITY (MG/L AS Caco ₃)	CARBON DIOXIDE (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTI- TUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE	TIME										
FEB , 1977											
FEB , 1978	10...	148	0	121	--	1600	13000	.6	1.7	23200	31.6
FEB , 1978	24...	160	0	131	.8	2300	17000	1.0	.1	30600	41.6
JUN	13...	170	0	139	1.1	2800	20000	1.0	5.2	35900	48.8

275310097345200 LINE 616 SITE 50

		SPE- CIFIC CON- DUCT- ANCE	HARD- NESS	CALCIUM	MAGNE- SIUM,	SODIUM,	SODIUM	POTAS- SIUM,				
DATE	TIME	DEPTH (FT)	NONCAR- BONATE (MG/L AS CACO ₃)	DIS- SOLVED (MG/L AS CACO ₃)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS MG)	AD- SORP- TION RATIO	DIS- SOLVED (MG/L AS K)				
AUG , 1978												
OCT	05...	1410	1.0	34700	3100	3000	170	640	6400	81	50	
AUG , 1978												
OCT	05...	190	61	0	50	1800	11000	.2	2.1	20200	27.5	
POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS Caco ₃)	ALKA- LINITY (MG/L AS Caco ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTI- TUENTS, (TONS AC-FT)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)			

Table 9C.--Quality of water in the Nueces estuary, water years 1977-78--Continued
Chemical Analyses--Continued

275314097344900 LINE 616 SITE 52											
DATE	TIME	HARDNESS (MG/L AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO			
SEP , 1978 07...	1245	300	280	56	39	510	78	13			
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)			
DATE											
SEP , 1978 07...	17	24	0	20	120	.1	5.7				
275201097333200 LINE 620 SITE 10											
DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO		
AUG , 1978 05...	1530	1.0	54800	5800	5600	490	1100	11000	79	63	
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT)	
DATE											
AUG , 1978 05...	360	160	0	131	2800	19000	.5	12	34800	47.3	
275221097315000 LINE 640 SITE 52											
DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO		
AUG , 1978 05...	1335	1.0	56900	7100	7000	520	1400	11000	76	57	
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT)	
DATE											
AUG , 1978 05...	360	70	0	57	3200	21000	.5	.9	37500	51.0	
275214097310800 LINE 650 SITE 48											
DATE	TIME	HARD- NESS (MG/L AS CACO ₃)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO ₃)	CALCIUM (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO			
SEP , 1978 07...	1115	2800	2600	280	500	4400	76	36			
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)			
DATE											
SEP , 1978 07...	160	160	0	131	1300	.5	16				

Laguna Madre Estuary

The Laguna Madre estuary, which has an area of about 640 square miles (1,660 km²), consists of the tidal parts of Arroyo Colorado and other tributaries, upper Laguna Madre, Baffin Bay, lower Laguna Madre, Brownsville Ship Channel, part of the Intracoastal Waterway, Port Mansfield Entrance Channel, and Brazos Santiago Pass (Figure 11). At mean low water, upper and lower Laguna Madre and Baffin Bay are generally less than 4 feet (1.2 m) deep, but in a few areas are as much as 10 feet (3.0 m) deep. The Intracoastal Waterway, Port Mansfield Entrance Channel, and Arroyo Colorado are about 15 feet (4.6 m) deep; and the Brownsville Ship Channel is about 40 feet (12.2 m) deep.

Water-quality data (Table 10) were collected in January, February, and June 1977 and February, March, and June 1978.

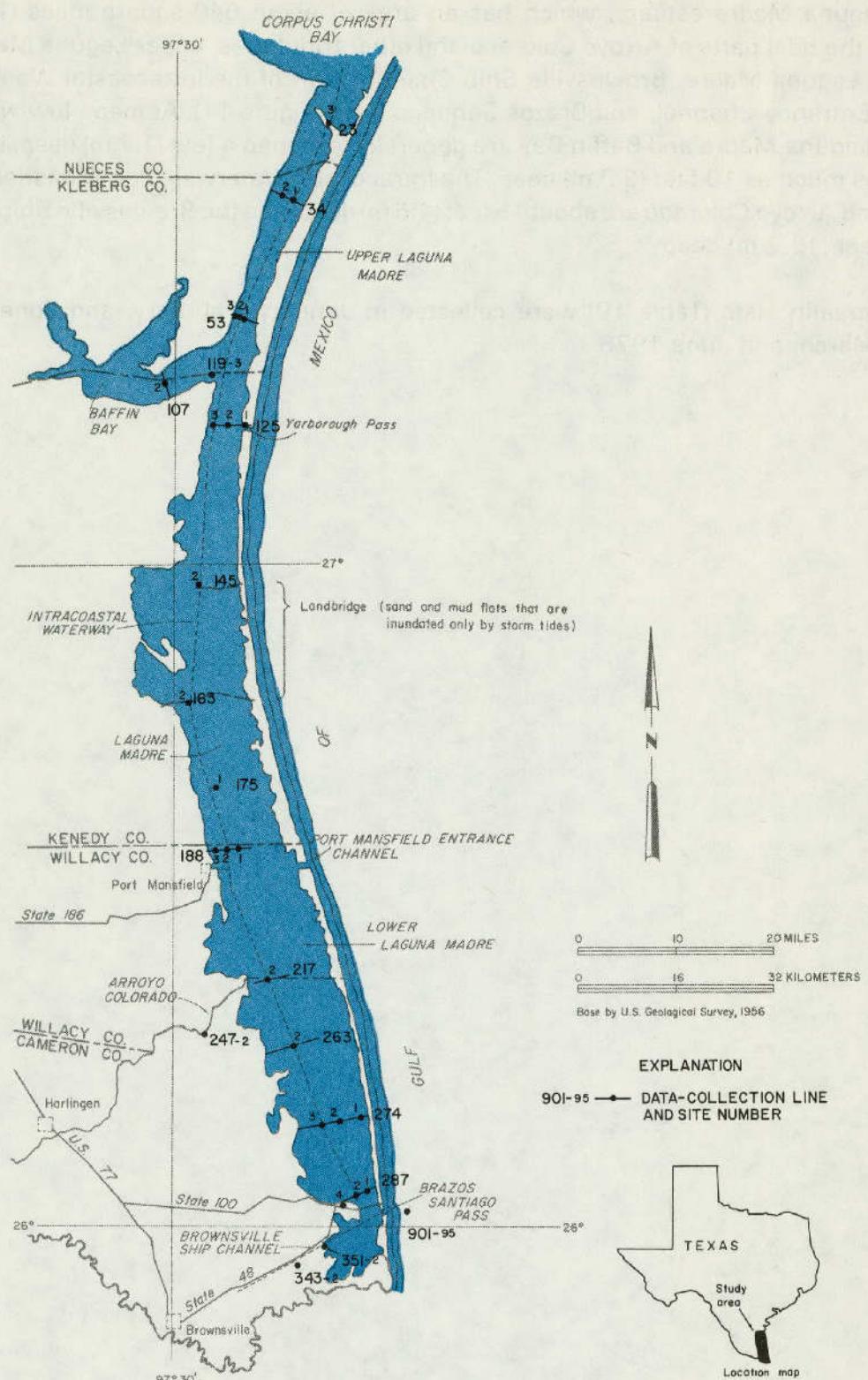


Figure 11
Data-Collection Sites in the Laguna Madre Estuary

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78
Field Determinations

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; DEG C = degrees Celsius; M = meters;
MG/L = milligrams per liter)

273811097142100 LINE 023 SITE 03

DATE	TIME	SAMP-	CIFIC	TRANS-			OXYGEN,	DIS-
		LING	DUCT-	COM-	PAR-	ENCY	OXYGEN,	SOLVED
		DEPTH	ANCE	PH	TEMPER-	(SECCHI)	DIS-	(PER-
		(FT)	(MICRO-	(UNITS)	ATURE,	(DEG C)	(M)	CENT
			MHOS)		WATER			
FEB , 1977								
01...	1755	1.0	38000	8.3	8.0	.81	10.2	105
01...	1757	8.0	37000	8.2	8.0	--	9.7	99
01...	1759	16	37000	8.2	8.0	--	10.0	102
10...	1125	1.0	37000	8.2	13.0	.96	8.3	95
10...	1127	5.0	37000	8.2	13.0	--	8.4	97
10...	1129	10	37000	8.2	12.5	--	8.5	98
10...	1131	17	37000	8.2	12.5	--	8.7	99
JUN								
22...	1330	1.0	54000	8.3	29.5	.93	4.4	74
22...	1332	5.0	54000	8.3	29.0	--	4.3	70
22...	1334	15	54000	8.2	28.5	--	3.4	56
22...	1336	25	54000	8.2	28.5	--	2.5	40
30...	1050	1.0	55000	8.1	29.5	1.25	4.2	70
30...	1052	5.0	55000	8.1	29.5	--	4.1	68
30...	1054	10	55000	8.2	29.0	--	4.0	66
30...	1056	15	55000	8.1	29.0	--	3.7	61
30...	1058	21	54000	8.1	29.0	--	2.9	47
FEB , 1978								
24...	1015	1.0	47000	8.4	14.0	--	8.2	100
24...	1017	13	48000	8.3	13.5	--	8.1	99
MAR								
01...	1345	1.0	48000	8.4	16.0	--	7.8	101
01...	1347	12	48000	8.4	16.5	--	7.8	101
01...	1349	25	48000	8.4	18.0	--	7.6	101
JUN								
13...	1340	1.0	49000	8.3	29.0	.39	4.4	71
13...	1342	7.5	50000	8.3	29.0	--	4.2	67
13...	1344	15	50000	8.3	29.5	--	4.1	67
27...	1644	1.0	67000	8.3	30.5	.64	6.9	124
27...	1646	15	67000	8.5	30.0	--	6.2	108
27...	1648	24	67000	8.5	28.5	--	4.4	77

273132097174800 LINE 034 SITE 01

DATE	TIME	SAMP-	CIFIC	TRANS-			OXYGEN,	DIS-
		LING	DUCT-	COM-	PAR-	ENCY	OXYGEN;	SOLVED
		DEPTH	ANCE	PH	TEMPER-	(SECCHI)	DIS-	(PER-
		(FT)	(MICRO-	(UNITS)	ATURE,	(DEG C)	(M)	CENT
			MHOS)		WATER			
FEB , 1977								
01...	1700	1.0	36000	8.1	8.0	--	9.5	97
01...	1702	5.0	36000	8.1	8.0	--	9.4	96
01...	1704	10	34000	8.1	7.0	--	9.3	92
JUN								
22...	1300	1.0	55000	8.2	29.0	1.02	4.7	76
22...	1302	5.0	55000	8.2	28.5	--	4.5	74
22...	1304	13	55000	8.2	28.5	--	4.3	70

273203097185100 LINE 034 SITE 02

DATE	TIME	SAMP-	CIFIC	TRANS-			OXYGEN,	DIS-
		LING	DUCT-	COM-	PAR-	ENCY	OXYGEN;	SOLVED
		DEPTH	ANCE	PH	TEMPER-	(SECCHI)	DIS-	(PER-
		(FT)	(MICRO-	(UNITS)	ATURE,	(DEG C)	(M)	CENT
			MHOS)		WATER			
MAR , 1978								
01...	1250	1.0	49000	8.4	17.5	--	7.6	100
01...	1252	6.0	51000	8.3	17.5	--	7.2	96
01...	1254	12	53000	8.4	18.5	--	7.1	99
JUN								
27...	1614	1.0	66300	7.9	32.0	.55	5.3	96
27...	1616	3.0	66000	7.9	31.0	--	5.3	95

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Field Determinations--Continued

272104097222800 LINE 053 SITE 01

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PH	TEMPER-	ENCY	DIS-
		ANCE	(MICRO-	WATER,	(SECCHI	OXYGEN,	SOLVED	
			MHOS)	(DEG C)	DISK)	(MG/L)	(PER-	
			(UNITS)		(M)		CENT	
JUN , 1977								
22..	1220	1.0	52000	8.3	29.0	.58	5.3	85
22..	1222	3.5	51000	8.3	29.0	--	5.2	84
MAR , 1978								
01..	1154	1.0	55000	8.5	18.5	--	7.4	103
01..	1156	4.0	56000	8.5	18.5	--	7.2	101
JUN								
27..	1534	1.0	62000	7.8	30.0	.62	5.5	95
27..	1536	4.0	62300	7.8	30.0	--	5.5	95

272116097230200 LINE 053 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PH	TEMPER-	ENCY	DIS-
		ANCE	(MICRO-	WATER,	(SECCHI	OXYGEN,	SOLVED	
			MHOS)	(DEG C)	DISK)	(MG/L)	(PER-	
			(UNITS)		(M)		CENT	
FEB , 1977								
01..	1615	1.0	34000	8.1	8.0	.62	9.6	97
01..	1617	6.0	34000	8.1	8.0	--	9.9	100
01..	1619	13	33000	8.1	8.0	--	9.8	99
JUN								
22..	1205	1.0	51000	8.5	29.0	.80	5.3	86
22..	1207	5.0	52000	8.3	29.0	--	4.7	76
22..	1209	10	52000	8.3	28.5	--	3.9	62
MAR , 1978								
01..	1154	1.0	55000	8.5	19.0	--	7.3	101
01..	1200	8.0	56000	8.5	18.5	--	7.2	101
01..	1205	16	55000	8.4	18.5	--	7.0	97

271543097301900 LINE 107 SITE 02

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PH	TEMPER-	PAR-	DIS-
		ANCE	(MICRO-	WATER,	ENCY	OXYGEN,	SOLVED	
			MHOS)	(DEG C)	(SECCHI	(MG/L)	(PER-	
			(UNITS)		DISK)		CENT	
FEB , 1977								
01..	1530	1.0	24000	8.3	9.0	.19	9.5	93
01..	1532	7.0	24000	8.3	9.0	--	9.7	96
JUN								
22..	1130	1.0	35000	8.4	28.5	.78	5.9	88
22..	1132	6.0	35000	8.4	28.5	--	5.7	85
MAR , 1978								
01..	1113	1.0	58000	8.5	18.5	--	7.3	103
01..	1115	6.0	57000	8.6	18.5	--	7.3	102

271630097251900 LINE 119 SITE 03

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,	
		LING	CIFIC	DUCT-	PH	TEMPER-	PAR-	DIS-
		ANCE	(MICRO-	WATER,	ENCY	OXYGEN,	SOLVED	
			MHOS)	(DEG C)	(SECCHI	(MG/L)	(PER-	
			(UNITS)		DISK)		CENT	
JUN , 1978								
27..	1510	1.0	62300	7.8	30.0	.57	5.5	95
27..	1512	6.0	62300	7.8	30.0	--	5.5	95

271213097231100 LINE 125 SITE 01

DATE	TIME	SAMP-	SPE-	TRANS-			OXYGEN,
		LING	CIFIC	DUCT-	PH	TEMPER-	PAR-
		ANCE	(MICRO-	WATER,	ENCY	OXYGEN,	SOLVED
			MHOS)	(DEG C)	(SECCHI	(MG/L)	(PER-
			(UNITS)		DISK)		CENT
MAR , 1978							
01..	1017	1.0	54000	8.4	18.0	7.0	96
01..	1019	7.0	55000	8.4	18.0	7.0	96

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Field Determinations--Continued

271211097243300 LINE 125 SITE 02

DATE	TIME	DEPTH (FT)	SAMP-	CPLIC	TRAN-	OXYGEN,	DIS-		
			LING	DUCT-		CON-		PAR-	SOLVED
			(MICRO-	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-
			MHOS)		(UNITS)	ATURE,	(SECCHI	DIS-	CENT
						WATER	DISK)	SOLVED	SATUR-
						(DEG C)	(M)	(MG/L)	ATION)
JUN , 1977									
22..	1050	1.0	54000		8.4	28.0	.60	5.3	86
22..	1052	6.0	54000		8.4	28.0	--	5.4	87
JUN , 1978									
27..	1444	1.0	60300		8.0	30.0	.36	5.9	101
27..	1446	6.0	60200		8.1	30.0	--	5.8	100

271213097253500 LINE 125 SITE 03

DATE	TIME	DEPTH (FT)	SAMP-	CPLIC	TRAN-	OXYGEN,	DIS-		
			LING	DUCT-		CON-		PAR-	SOLVED
			(MICRO-	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-
			MHOS)		(UNITS)	ATURE,	(SECCHI	DIS-	CENT
						WATER	DISK)	SOLVED	SATUR-
						(DEG C)	(M)	(MG/L)	ATION)
FEB , 1977									
01..	1445	1.0	31000		8.4	9.5	--	8.8	91
01..	1447	7.0	30000		8.4	9.5	--	8.9	91
01..	1449	14	30000		8.3	9.5	--	8.8	90
JUN									
22..	1100	1.0	54000		8.4	28.0	.72	5.1	82
22..	1102	5.0	54000		8.4	28.0	--	5.1	82
22..	1104	12	54000		8.3	28.5	--	4.4	73
MAR , 1978									
01..	1032	1.0	55000		8.6	18.5	--	7.3	101
01..	1034	8.0	56000		8.6	18.0	--	7.0	98
01..	1036	17	56000		8.5	18.0	--	6.9	96

265857097270200 LINE 145 SITE 02

DATE	TIME	DEPTH (FT)	SAMP-	CPLIC	TRAN-	OXYGEN,	DIS-		
			LING	DUCT-		CON-		PAR-	SOLVED
			(MICRO-	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-
			MHOS)		(UNITS)	ATURE,	(SECCHI	DIS-	CENT
						WATER	DISK)	SOLVED	SATUR-
						(DEG C)	(M)	(MG/L)	ATION)
FEB , 1977									
01..	1355	1.0	30000		8.2	8.5	.25	9.0	90
01..	1357	10	30000		8.2	8.5	--	9.0	90
01..	1359	19	30000		8.2	8.5	--	8.9	89
JUN									
22..	1000	1.0	50000		8.3	27.5	1.00	5.7	91
22..	1002	5.0	50000		8.3	27.5	--	5.7	91
22..	1003	15	50000		8.3	27.5	--	5.7	91
MAR , 1978									
01..	0916	1.0	58000		8.4	19.5	--	7.0	101
01..	0917	8.0	58000		8.4	19.5	--	7.0	101
01..	0918	17	58000		8.4	18.0	--	6.9	98

264822097281400 LINE 163 SITE 02

DATE	TIME	DEPTH (FT)	SAMP-	CPLIC	TRAN-	OXYGEN,	DIS-		
			LING	DUCT-		CON-		PAR-	SOLVED
			(MICRO-	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-
			MHOS)		(UNITS)	ATURE,	(SECCHI	DIS-	CENT
						WATER	DISK)	SOLVED	SATUR-
						(DEG C)	(M)	(MG/L)	ATION)
FEB , 1977									
01..	1315	1.0	32000		8.2	9.0	.18	8.7	88
01..	1317	7.0	32000		8.2	9.0	--	8.7	88
01..	1319	14	31000		8.3	9.0	--	8.7	88
MAR , 1978									
01..	0830	1.0	57000		8.5	20.0	--	6.7	98
01..	0832	7.0	57000		8.4	20.0	--	6.8	99
01..	0834	15	57000		8.4	19.0	--	6.9	98
JUN									
27..	1349	1.0	56000		8.1	29.5	.67	6.0	100
27..	1351	17	55500		8.0	30.0	--	5.9	100

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Field Determinations--Continued

264136097245100 LINE 175 SITE 01

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE		ATURE,	PAR-	DIS-	SOLVED
		DEPTH	(MICRO-	WATER	ENCY	OXYGEN,	(PER-	
		(FT)	MHOS)	(DEG C)	(SECCHI	DIS-	CENT	
					DISK)	SOLVED	SATUR-	
					(M)	(MG/L)	ATION)	
JUN , 1978								
27...	1320	1.0	55000	8.0	29.5	.67	6.0	100
27...	1322	5.0	55000	8.0	29.5	--	5.9	99

263613097220100 LINE 188 SITE 01

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE		ATURE,	PAR-	DIS-	SOLVED
		DEPTH	(MICRO-	WATER	ENCY	OXYGEN,	(PER-	
		(FT)	MHOS)	(DEG C)	(SECCHI	DIS-	CENT	
					DISK)	SOLVED	SATUR-	
					(M)	(MG/L)	ATION)	
FEB , 1977								
01...	1230	1.0	37000	8.3	10.0	.36	8.6	92
01...	1232	4.0	36000	8.3	10.0	--	8.5	91
JUN								
21...	1700	1.0	50000	8.5	28.5	.63	6.0	96
21...	1702	2.5	50000	8.5	28.0	--	6.0	96
MAR , 1978								
01...	0742	1.0	57000	8.6	18.5	--	9.3	100
01...	0744	3.0	56000	8.6	19.0	--	7.3	102

263532097242800 LINE 188 SITE 02

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE		ATURE,	PAR-	DIS-	SOLVED
		DEPTH	(MICRO-	WATER	ENCY	OXYGEN,	(PER-	
		(FT)	MHOS)	(DEG C)	(SECCHI	DIS-	CENT	
					DISK)	SOLVED	SATUR-	
					(M)	(MG/L)	ATION)	
FEB , 1977								
01...	1220	1.0	38000	8.3	9.5	.35	8.5	90
01...	1222	5.0	38000	8.2	9.5	--	8.6	91
01...	1224	10	37000	8.2	10.0	--	8.6	92
JUN								
21...	1650	1.0	50000	8.5	28.5	.73	6.0	97
21...	1652	5.0	50000	8.5	28.0	--	6.0	97
21...	1654	11	50000	8.5	28.0	--	6.1	99
22...	0835	1.0	50000	8.3	27.5	--	5.4	86
22...	0837	5.0	50000	8.3	27.5	--	5.4	86
22...	0839	11	50000	8.3	27.5	--	5.5	87
MAR , 1978								
01...	0732	1.0	55000	8.6	19.0	--	7.4	103
01...	0734	6.0	56000	8.6	19.0	--	7.3	103
01...	0736	11	56000	8.6	19.0	--	7.2	101

263516097252300 LINE 188 SITE 03

DATE	TIME	SAMP-	DUCT-	PH	TEMPER-	TRANS-	OXYGEN,	
		LING	ANCE		ATURE,	PAR-	DIS-	SOLVED
		DEPTH	(MICRO-	WATER	ENCY	OXYGEN,	(PER-	
		(FT)	MHOS)	(DEG C)	(SECCHI	DIS-	CENT	
					DISK)	SOLVED	SATUR-	
					(M)	(MG/L)	ATION)	
FEB , 1977								
01...	1210	1.0	37000	8.3	9.5	--	8.7	92
01...	1212	5.0	35000	8.4	9.5	--	8.6	90
JUN								
21...	1640	1.0	50000	8.5	28.5	.67	6.1	99
21...	1642	6.0	50000	8.4	28.0	--	5.6	91
MAR , 1978								
01...	0716	1.0	52000	8.6	19.5	--	7.3	101
01...	0718	2.0	52000	8.6	19.5	--	7.3	101
JUN								
27...	1252	1.0	57900	8.0	29.5	.48	5.9	100
27...	1254	5.0	57900	8.0	31.0	--	5.5	97

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Field Determinations--Continued

262423097204400 LINE 217 SITE 02

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-			
		SAMP-	DUCT-		CON-		PAR-	SOLVED	
	(FT)	LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-	
			(MICRO-	(UNITS)	ATURE,	(SECCHI	DIS-	CENT	
			MHOS)		WATER	DISK)	SOLVED	(MG/L)	
					(DEG C)	(M)		SATUR-	
								ATION)	
FEB , 1977									
01...	1030	1.0	39000	8.3	8.0	.42	9.2	95	
01...	1032	5.0	40000	8.3	8.0	--	8.8	90	
01...	1034	10	40000	8.4	8.0	--	8.8	90	
01...	1036	15	37000	8.4	8.0	--	8.8	90	
JUN									
21...	1520	1.0	48000	8.5	28.0	.40	6.0	95	
21...	1522	5.0	50000	8.4	28.0	--	5.7	92	
21...	1524	15	58000	8.4	28.5	--	4.5	75	
FEB , 1978									
28...	1600	1.0	50000	8.4	21.0	--	7.2	103	
28...	1602	6.0	50000	8.3	20.5	--	6.9	98	
28...	1604	13	48000	8.3	21.5	--	7.0	100	
JUN									
27...	1108	1.0	53000	8.3	29.0	.58	6.1	100	
27...	1110	13	59300	8.3	29.0	--	5.8	99	

261929097264500 LINE 247 SITE 02

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-			
		SAMP-	DUCT-		CON-		PAR-	SOLVED	
		LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-	
			(MICRO-	(UNITS)	ATURE,	(SECCHI	DIS-	CENT	
			MHOS)		WATER	DISK)	SOLVED	(MG/L)	
					(DEG C)	(M)		SATUR-	
								ATION)	
FEB , 1977									
01...	.0945	1.0	18000	8.1	11.0	1.22	7.0	70	
01...	0947	5.0	24000	8.1	11.0	--	6.4	66	
01...	0949	8.0	21000	8.1	12.0	--	4.3	45	
01...	0951	10	28000	8.2	12.0	--	5.1	54	
JUN									
21...	1425	1.0	18000	8.8	29.0	.51	9.3	129	
21...	1427	4.0	34000	8.2	29.0	--	1.0	14	
21...	1429	5.0	26000	8.4	29.5	--	4.0	59	
21...	1431	10	58000	8.2	28.0	--	.5	8	
FEB , 1978									
28...	1500	1.0	22000	6.8	16.5	--	7.4	85	
28...	1502	7.0	41000	8.2	16.0	--	6.7	83	
28...	1504	15	51000	8.2	17.0	--	5.9	79	
JUN									
27...	1035	1.0	16200	8.7	30.0	.51	7.1	100	
27...	1040	7.5	22000	8.5	30.0	--	6.3	92	
27...	1045	11	51000	8.5	30.0	--	5.5	92	
27...	1047	15	60800	8.3	29.5	--	5.0	87	

261922097182800 LINE 263 SITE 02

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-			
		SAMP-	DUCT-		CON-		PAR-	SOLVED	
		LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-	
			(MICRO-	(UNITS)	ATURE,	(SECCHI	DIS-	CENT	
			MHOS)		WATER	DISK)	SOLVED	(MG/L)	
					(DEG C)	(M)		SATUR-	
								ATION)	
FEB , 1977									
01...	0855	1.0	38000	8.3	8.0	.44	8.9	91	
01...	0857	7.0	38000	8.3	7.5	--	9.0	92	
01...	0859	14	36000	8.3	8.0	--	9.1	93	
JUN									
21...	1340	1.0	58000	8.3	28.0	.25	5.1	85	
21...	1342	5.0	58000	8.3	28.0	--	5.1	85	
21...	1344	13	58000	8.3	28.0	--	5.1	85	
FEB , 1978									
29...	1404	1.0	52000	8.3	21.0	--	6.8	98	
28...	1406	6.0	52000	8.3	21.0	--	6.9	99	
28...	1408	13	51000	8.3	21.5	--	6.9	99	

261256097121800 LINE 274 SITE 01

DATE	TIME	SPE-	CIFIC	TRANS-	OXYGEN,	DIS-			
		SAMP-	DUCT-		CON-		PAR-	SOLVED	
		LING	ANCE	PH	TEMPER-	ENCY	OXYGEN,	(PER-	
			(MICRO-	(UNITS)	ATURE,	(SECCHI	DIS-	CENT	
			MHOS)		WATER	DISK)	SOLVED	(MG/L)	
					(DEG C)	(M)		SATUR-	
								ATION)	
JUN , 1978									
27...	0950	1.0	53900	8.6	28.5	.91	5.8	95	
27...	0952	3.0	53900	8.6	28.5	--	5.9	97	

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Field Determinations--Continued

261226097135700 LINE 274 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
01...	0820	1.5	32000	8.3	8.0	.15	9.4	94
JUN								
21...	1305	1.0	58000	8.2	27.5	.16	5.2	86
21...	1307	3.0	58000	8.2	27.5	--	5.2	86
FEB , 1978								
28...	1327	1.0	49000	8.6	20.5	--	7.3	103
28...	1329	3.0	50000	8.6	21.0	--	7.2	103

261153097153400 LINE 274 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
01...	0810	1.0	34000	8.3	9.0	.53	9.2	95
01...	0812	5.0	38000	8.3	9.0	--	9.0	95
01...	0814	9.0	35000	8.2	10.0	--	8.5	89
JUN								
21...	1255	1.0	57000	8.2	27.5	.16	5.3	87
21...	1257	5.0	57000	8.2	27.5	--	5.3	87
21...	1259	10	58000	8.2	27.5	--	5.4	88
FEB , 1978								
28...	1307	1.0	50000	8.5	21.0	--	7.5	107
28...	1309	6.0	49000	8.5	20.5	--	7.4	105
28...	1311	12	50000	8.4	20.0	--	7.2	101

260553097111200 LINE 287 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
01...	0745	1.0	36000	8.2	9.0	.15	8.7	91
01...	0747	3.0	36000	8.2	9.0	--	9.2	96
JUN								
21...	1230	1.0	57000	8.4	27.0	.57	5.7	92
21...	1232	2.5	58000	8.4	27.0	--	5.3	87
FEB , 1978								
28...	1222	1.0	52000	8.3	17.0	--	8.9	118
28...	1224	3.0	52000	8.3	18.5	--	8.8	120

260526097121000 LINE 287 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
01...	0735	1.0	39000	8.2	9.0	.22	8.7	91
01...	0737	5.0	39000	8.2	9.0	--	9.2	96
01...	0739	11	39000	8.2	9.0	--	9.2	96
FEB , 1978								
20...	0900	1.0	51000	9.0	15.0	--	8.1	104
28...	0902	8.0	51000	9.0	15.0	--	8.1	104
28...	0904	13	51000	9.0	16.5	--	8.0	105

Table 10A.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Field Determinations--Continued

260439097131000 LINE 287 SITE 04

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, (DEG C)	PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
FEB , 1977								
01...	0720	1.0	36000	8.2	8.5	.14	9.3	96
01...	0722	6.0	37000	8.1	8.5	--	9.2	95
JUN								
21...	1000	1.0	53000	8.3	28.0	.35	4.9	79
21...	1002	6.5	50000	8.2	28.0	--	5.0	81
FEB , 1978								
28...	0846	1.0	49000	8.9	16.5	--	8.1	105
28...	0848	9.0	49000	8.8	17.0	--	7.8	102

255952097172400 LINE 343 SITE 02

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, (DEG C)	PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
JAN , 1977								
31...	1520	1.0	44000	8.4	10.5	.71	8.4	94
31...	1522	5.0	44000	8.4	11.0	--	8.1	93
31...	1524	20	45000	8.4	12.5	--	7.5	89
31...	1526	36	49000	8.4	12.0	--	7.5	89
JUN								
21...	0945	2.0	51000	8.3	28.0	.79	5.4	87
21...	0947	5.0	52000	8.3	28.0	--	4.7	76
21...	0949	10	55000	8.2	27.5	--	3.8	62
21...	0951	20	56000	8.2	25.5	--	4.2	66
21...	0952	31	55000	8.2	25.0	--	4.7	72
FEB , 1978								
28...	0946	1.0	46000	9.2	14.0	--	8.4	103
28...	0948	21	51000	9.0	14.0	--	8.1	101
28...	0950	39	53000	8.9	14.5	--	7.7	99

260106097151000 LINE 351 SITE 02

DATE	TIME	SAMP- LING	PH	TEMPER- ATURE, (DEG C)	PAR- ENCY (SECCHI DISK)	TRANS-
JUN , 1978						
27...	0905	1.0	8.6	29.0	.74	
27...	0906	18	8.6	29.0	--	
27...	0908	36	8.5	29.0	--	

260357097081000 LINE 901 SITE 95

DATE	TIME	SAMP- LING	DUCT- ANCE	PH (MICRO- MHOS)	TEMPER- ATURE, (DEG C)	PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977							
21...	1040	5.0	58000	8.3	24.5	5.6	88
21...	1042	20	58000	8.3	24.5	5.8	90
21...	1044	40	58000	8.3	23.5	5.9	90
21...	1046	60	58000	8.2	23.5	5.9	90
FEB , 1978							
28...	1130	1.0	51000	8.3	14.5	9.0	114
28...	1132	10	51000	8.3	15.0	8.0	103
28...	1134	30	50000	8.2	15.0	7.7	99
28...	1136	58	53000	8.2	15.5	7.1	94

Table 10B.--Quality of water in the Laguna Madre estuary, water years 1977-78
Nutrient Analyses

(FT = feet; MG/L = milligrams per liter)

273811097142100 LINE 023 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
01...	1755	1.0	.01	.00	.01	.05	.33	.38	.39	1.7	.060
01...	1759	16	.01	.00	.01	.06	.48	.54	.55	2.4	.070
10...	1125	1.0	.00	.00	.00	.02	.41	.43	.43	1.9	.060
10...	1131	17	.00	.00	.00	.02	.43	.45	.45	2.0	.060
JUN											
22...	1330	1.0	.00	.01	.00	.05	.90	.95	.95	4.2	.030
22...	1336	25	.00	.01	.00	.09	1.1	1.2	1.2	5.3	.050
30...	1050	1.0	.00	--	.00	.01	.54	.55	.55	2.4	.040
30...	1058	21	.00	.01	.01	.06	.36	.42	.43	1.9	.030
FEB , 1978											
24...	1015	1.0	.00	.01	.01	.02	.61	.63	.64	2.8	.050
24...	1017	13	.00	.01	.01	.01	.52	.53	.54	2.4	.050
MAR											
01...	1345	1.0	.00	.01	.01	.01	.47	.48	.49	2.2	.050
01...	1349	25	.03	.01	.04	.02	.41	.43	.47	2.1	.050
JUN											
13...	1340	1.0	.01	.01	.02	.03	1.6	1.6	1.6	7.2	.040
13...	1344	15	.00	.01	.01	.03	2.3	2.3	2.3	10	.040
27...	1644	1.0	.01	.01	.02	.03	1.8	1.8	1.8	8.1	.020

273203097186100 LINE 034 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN, 1978												
27...	1614	1.0	--	.01	.01	.02	.03	1.5	1.5	1.5	6.7	.050
27...	1616	3.0	6.0	--	--	--	--	--	--	--	--	--

272104097222800 LINE 053 SITE D1

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977												
22...	1220	1.0	1.9	.00	.01	.00	.05	1.2	1.3	1.3	5.8	.060
MAR , 1978												
01...	1154	1.0	5.5	.00	.01	.01	.01	.99	1.0	1.0	4.5	.120
JUN												
27...	1534	1.0	3.9	.01	.01	.02	.03	1.4	1.4	1.4	6.3	.020
27...	1536	4.0	2.4	.01	.01	.02	.03	1.4	1.4	1.4	6.3	.020

272116097230200 LINE 053 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
01...	1615	1.0	.01	.00	.01	.08	.63	.71	.72	3.2	.080
JUN											
22...	1205	1.0	.00	.01	.01	.05	.93	.98	.99	4.4	.070
22...	1209	10	.00	.01	.00	.07	2.2	2.3	2.3	10	.040

Table 10B.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

271543097301900 LINE 107 SITE 02												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977												
01...	1530	1.0	.01	.00	.01	.07	1.0	1.1	1.1	4.9	.010	
JUN												
22...	1130	1.0	.00	.01	.00	.03	1.3	1.3	1.3	5.8	.080	
MAR , 1978												
01...	1113	1.0	.00	.01	.01	.01	.88	.89	.90	4.0	.090	
271630097251900 LINE 119 SITE 03												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
JUN , 1978												
27...	1510	1.0	.01	.01	.02	.01	1.3	1.3	1.3	5.8	.050	
27...	1512	6.0	.01	.01	.02	.01	1.6	1.6	1.6	7.2	.060	
271211097243300 LINE 125 SITE 02												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
JUN , 1978												
27...	1444	1.0	.00	.01	.01	.03	1.1	1.1	1.1	4.9	.040	
27...	1446	5.0	.01	.01	.02	.07	1.1	1.2	1.2	5.4	.050	
271213097253500 LINE 125 SITE 03												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977												
01...	1445	1.0	.00	.01	.01	.04	.95	.99	1.0	4.4	.080	
01...	1449	14	.01	.00	.01	.04	.86	.90	.91	4.0	.080	
JUN												
22...	1100	1.0	.00	.01	.00	.03	.79	.82	.82	3.6	.050	
22...	1104	12	.00	.01	.00	.01	.87	.88	.88	3.9	.030	
MAR , 1978												
01...	1032	1.0	.00	.01	.01	.05	.84	.89	.90	4.0	.060	
01...	1036	17	.00	.01	.01	.38	1.1	1.5	1.5	6.7	.080	
265857097270200 LINE 145 SITE 02												
DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977												
01...	1355	1.0	.01	.00	.01	.05	1.0	1.1	1.1	4.9	.080	
JUN												
22...	1000	1.0	.00	.01	.00	.03	.27	.30	.30	1.3	.040	
MAR , 1978												
01...	0916	1.0	.00	.01	.01	.02	.93	.95	.96	4.3	.060	

Table 10B.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

264822D97281400 LINE 163 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1978											
27...	1349	1.0	.01	.01	.02	.03	.81	.84	.86	3.8	.020
27...	1351	17	.00	.01	.01	.03	.79	.82	.83	3.7	.030

264136097246100 LINE 175 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1978											
27...	1320	1.0	.00	.01	.01	.01	.70	.71	.72	3.2	.040
27...	1322	5.0	.00	.01	.01	.01	.74	.75	.76	3.4	.040

263532097242000 LINE 188 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
01...	1220	1.0	.01	.00	.01	.06	.69	.75	.76	3.4	.080
JUN											
21...	1650	1.0	.00	.01	.00	.03	.85	.88	.88	3.9	.070
MAR , 1978											
01...	0732	1.0	.00	.01	.01	.01	1.3	1.3	1.3	5.8	.060

263516097252300 LINE 188 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1978											
27...	1252	1.0	.01	.01	.02	.03	.51	.54	.56	2.5	.040
27...	1254	5.0	.01	.01	.02	.03	.56	.59	.61	2.7	.040

262423097204400 LINE 217 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO ₃)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
01...	1030	1.0	--	.09	.01	.10	.06	.63	.69	.79	3.5	.070
JUN												
21...	1520	1.0	--	.23	.03	.26	.05	1.1	1.2	1.5	6.5	.090
21...	1524	15	--	.16	.03	.19	.14	2.3	2.4	2.6	11	.770
FEB , 1978												
28...	1600	1.0	--	.00	.01	.01	.02	.96	.98	.99	4.4	.120
JUN												
27...	1108	1.0	1.5	.00	.01	.01	.01	.51	.52	.53	2.3	.030
27...	1110	13	.7	--	--	--	--	--	--	--	--	--

Table 10B.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

261929097264500 LINE 247 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS NO ₃)
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
FEB , 1977													
01...	0945	1.0	3.6	1.3	.20	1.5	.51	.79	1.3	2.8	12	4.4	.320
01...	0951	10	4.2	.51	.07	.58	.47	.00	.42	1.0	4.4	.200	
JUN													
21...	1425	1.0	8.2	.50	.05	.55	.04	3.4	3.4	3.9	17	.200	
21...	1431	10	1.4	.05	.02	.32	.88	1.2	1.3	5.6	.160		
FEB , 1978													
28...	1500	1.0	8.4	.55	.12	.67	.33	2.5	2.8	3.5	15	.520	
28...	1504	15	4.6	.05	.02	.07	.31	2.6	2.9	3.0	13	.220	
JUN													
27...	1035	1.0	5.8	.00	.01	.01	.07	1.5	1.6	1.6	7.1	.150	
27...	1047	15	2.4	.01	.01	.02	.23	.87	1.1	1.1	5.0	.080	

261256097121800 LINE 274 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS NO ₃)	
			(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS %)	(MG/L) AS P)	
JUN , 1978													
27...	0950	1.0	.01	.01	.02	.00	.59	.59	.61	2.7	.020		

261153097153400 LINE 274 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS NO ₃)
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
FEB , 1977													
01...	0810	1.0	--	.18	.02	.20	.12	.07	.19	.39	1.7	.090	
JUN													
21...	1255	1.0	--	.01	.01	.02	.02	.18	.20	.22	1.0	.080	
21...	1259	10	--	.00	.01	.01	.07	1.1	1.2	1.2	5.4	.110	
FEB , 1978													
28...	1307	1.0	4.2	.00	.01	.01	.01	.69	.70	.71	3.1	.080	

255952097172400 LINE 343 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE TOTAL	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL (MG/L AS NO ₃)
			(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS P)
JAN , 1977													
31...	1520	1.0	1.0	.03	.00	.03	.15	.31	.46	.49	2.2	.120	
31...	1526	36	1.0	.01	.00	.01	.21	.03	.24	.25	1.1	.060	
JUN													
21...	0945	2.0	1.0	.00	.01	.00	.01	.59	.60	.60	2.7	.080	
21...	0952	31	.6	.00	.01	.01	.04	.18	.22	.23	1.0	.060	
FEB , 1978													
28...	0946	1.0	3.4	.09	.02	.11	.04	.78	.82	.93	4.1	.060	

Table 10B.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Nutrient Analyses--Continued

260106097151000 LINE 361 SITE 02

DATE	TIME	SAMP- LING	DEPTH (FT)	OXYGEN DEMAND, BIOCHEM UNINHIB	NITRO- GEN, NITRATE	NITRO- GEN, NITRITE	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL
				5 DAY	(MG/L) AS N)	(MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)
JUN , 1978													
27...	0905		1.0	.8	.01	.01	.02	.00	.25	.25	.27	1.2	.020
27...	0908		36	--	.01	.01	.02	.01	.28	.29	.31	1.44	.050

260357097081000 LINE 901 SITE 95

DATE	TIME	SAMP- LING	DEPTH (FT)	NITRO- GEN, NITRATE	NITRO- GEN, NITRITE	NITRO- GEN, NO ₂ +NO ₃	NITRO- GEN, AMMONIA	NITRO- GEN, ORGANIC	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL	
				TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	TOTAL (MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)	(MG/L) AS N)
JUN , 1977													
21...	1040		5.0	.00	.01	.00	.01	.43	.44	.44	1.9	.040	
21...	1046		60	.00	.01	.00	.01	.00	.00	.00	.00	.000	
FEB , 1978													
28...	1130		1.0	.00	.01	.01	.01	.13	.14	.15	.66	.030	
28...	1136		58	.01	.01	.02	.01	.16	.17	.19	.84	.030	

Table 10C.--Quality of water in the Laguna Madre estuary, water years 1977-78
Chemical Analyses

(FT = feet; MICROMHOS = micromhos per centimeter at 25° Celsius; MG/L = milligrams per liter; AC-FT = acre-feet)

272104097222800 LINE 063 SITE 01												
DATE	TIME	DEPTH (FT)	SAMP- LING TIME (MICRO- MHOS)	SPEC- IFIC CON- DUCT- ANCE		HARD- NESS, NONCAR- BONATE	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED	
				(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	
JUN , 1977												
22...	1220	1.0	52000	6600	6400	480	1300	12000	79	65	380	
MAR , 1978												
01...	1154	1.0	55000	6500	6400	470	1300	11000	77	59	460	
BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	SILICA, DIS- SOLVED	SOLIDIS, SUM OF CONSTITUENTS, (MG/L AS S102)	SOLIDIS, SUM OF CONSTITUENTS, (TONS PER AC-FT)			
JUN , 1977												
22...	169	0	139	--	2900	20000	1.5	8.6	37200	50.6		
MAR , 1978												
01...	200	0	164	1.0	2700	20000	1.2	2.5	36000	49.0		
272116097230200 LINE 063 SITE 02												
DATE	TIME	DEPTH (FT)	SAMP- LING TIME (MICRO- MHOS)	SPEC- IFIC CON- DUCT- ANCE		HARD- NESS, NONCAR- BONATE	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
				(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	
FEB , 1977												
01...	1615	1.0	34000	4000	800	300	800	7000	78	48		
POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	SILICA, DIS- SOLVED	SOLIDIS, SUM OF CONSTITUENTS, (MG/L AS S102)	SOLIDIS, SUM OF CONSTITUENTS, (TONS PER AC-FT)		
FEB , 1977												
01...	280	178	0	146	1600	12000	1.1	1.2	22100	30.1		
271630097251900 LINE 119 SITE 03												
DATE	TIME	DEPTH (FT)	SAMP- LING TIME (MICRO- MHOS)	SPEC- IFIC CON- DUCT- ANCE		HARD- NESS, NONCAR- BONATE	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED	
				(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	(MG/L AS CACO3)	
JUN , 1978												
27...	1510	1.0	62300	7100	7000	370	1500	13000	79	67	510	
BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	SILICA, DIS- SOLVED	SOLIDIS, SUM OF CONSTITUENTS, (MG/L AS S102)	SOLIDIS, SUM OF CONSTITUENTS, (TONS PER AC-FT)			
JUN , 1978												
27...	170	0	139	4.3	3400	23000	1.2	6.0	41900	57.0		

Table 10C.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Chemical Analyses--Continued

271213097253500 LINE 125 SITE 03

DATE	TIME	DEPTH (FT)	SAMP- LING TIME	CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	CALCIUM (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)		
FEB , 1977													
JUN 01...		1445		1.0	31000	3600	3400	280	700	6500	78	47	250
JUN 22...		1100		1.0	54000	6500	6400	470	1300	11000	77	59	390
MAR , 1978		1032		1.0	55000	6900	6700	450	1400	11000	76	58	460

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDIS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PCR AC-FT)	
FEB , 1977										
JUN 01...	164	0	135	--	1500	11000	1.0	.3	20300	27.6
JUN 22...	160	0	131	--	2700	20000	3.8	8.0	36000	49.0
MAR , 1978	200	0	164	.8	2800	20000	1.1	1.0	36200	49.2

263532097242800 LINE 188 SITE 02

DATE	TIME	DEPTH (FT)	SAMP- LING TIME	CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	CALCIUM (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
JUN 01...	1220	1.0	38000	4500	4400	340	890	8000	78	52	300
JUN 21...	1660	1.0	50000	6000	5900	440	1200	9800	77	55	360
MAR , 1978	0732	1.0	55000	5700	5600	450	1100	11000	79	64	450

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDIS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PCR AC-FT)	
FEB , 1977										
JUN 01...	168	0	138	--	1600	14000	1.2	.1	25200	34.3
JUN 21...	170	0	139	.9	2500	17000	1.5	8.9	31400	42.7
MAR , 1978	190	0	156	.8	2800	20000	1.2	2.0	35900	48.8

263516097252300 LINE 188 SITE 03

DATE	TIME	DEPTH (FT)	SAMP- LING TIME	CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	CALCIUM (MG/L AS CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUN , 1978											
27...	1252	1.0	57900	7900	7800	350	1700	9300	71	46	470

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDIS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PCR AC-FT)	
JUN , 1978										
27...	140	0	115	2.2	3100	18000	1.3	4.0	33000	44.9

Table 10C.--Quality of water in the Laguna Madre estuary, water years 1977-78--Continued
Chemical Analyses--Continued

261929097264500 LINE 247 SITE 02

DATE	TIME	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE	HARD- NESS, (MG/L MICRO- MOS)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM SULFATE (MG/L CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS MG)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUN , 1978											
27...	1035	1.0	16200	2100	2000	250	370	2700	72	25	97

DATE	TIME	DEPTH (FT)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CACO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE (MG/L AS CO2)	SULFATE (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS AC-FT)
JUN , 1978											
27...	190	0	156	.6	1300	4800	.9	14	9630	13.1	

261153097153400 LINE 274 SITE 03

DATE	TIME	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE	HARD- NESS, (MG/L MICRO- MOS)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM SULFATE (MG/L CACO3)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS MG)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
FEB , 1977											
01...	0810	1.0	34000	4100	4000	360	780	7000	77	48	
JUN	21...	1255	1.0	57000	6500	6300	440	1300	11000	77	60

DATE	TIME	DEPTH (FT)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CACO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS AC-FT)
FEB , 1977											
01...	260	185	0	152	1900	12000	1.2	2.5	22400	30.5	
JUN	21...	410	150	0	123	2700	20000	3.6	3.9	35900	48.8

SELECTED HYDROLOGIC RECORDS

Climatological Records

The climate of the region has a significant influence on the quality of the water in the estuaries. The types of climatological data available for an area about 60 miles (95 km) wide along the Texas Coast are shown in Figure 12.

Tabulations of daily precipitation, air temperature, and other data are published monthly; monthly summaries are published annually by the National Oceanic and Atmospheric Administration in the series titled "Climatological Data-Texas." For the period 1931-60, monthly and annual data are summarized in two publications by the National Weather Service (formerly U.S. Weather Bureau, 1958, 1965).

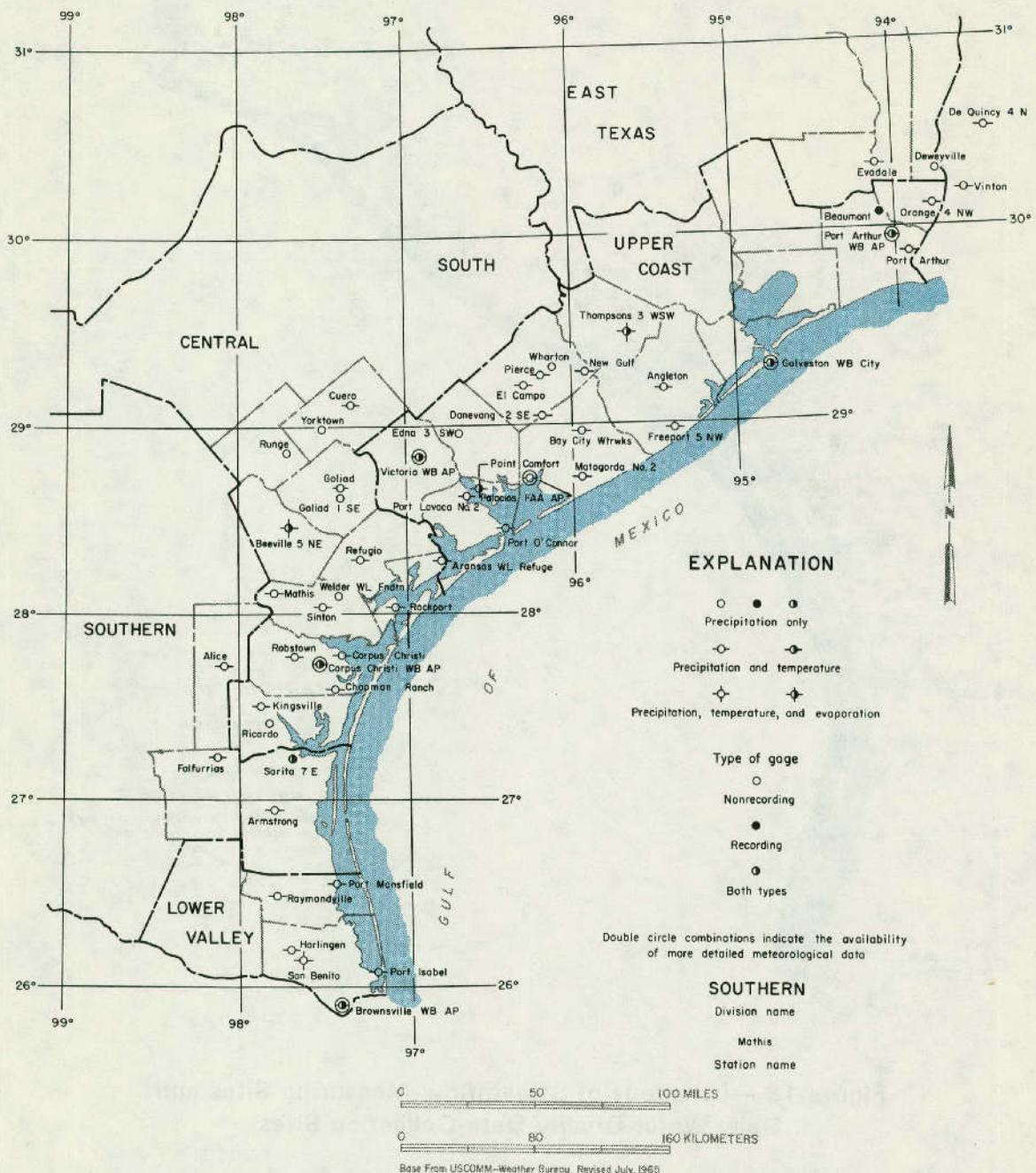


Figure 12.—Locations of Selected Climatological Stations

Streamflow and Water-Quality Records

Streams along the Texas Coast flow across the flat coastal plain and are incised below sea level; therefore, changes in water stage within the bays are often reflected for many miles up the tributary streams. Consequently, the farthest downstream sites at which continuous streamflow data can be obtained are located many miles upstream from the principal estuarine embayments. The locations¹ of the sites at which continuous streamflow and daily water-quality data are available are shown in Figure 13.

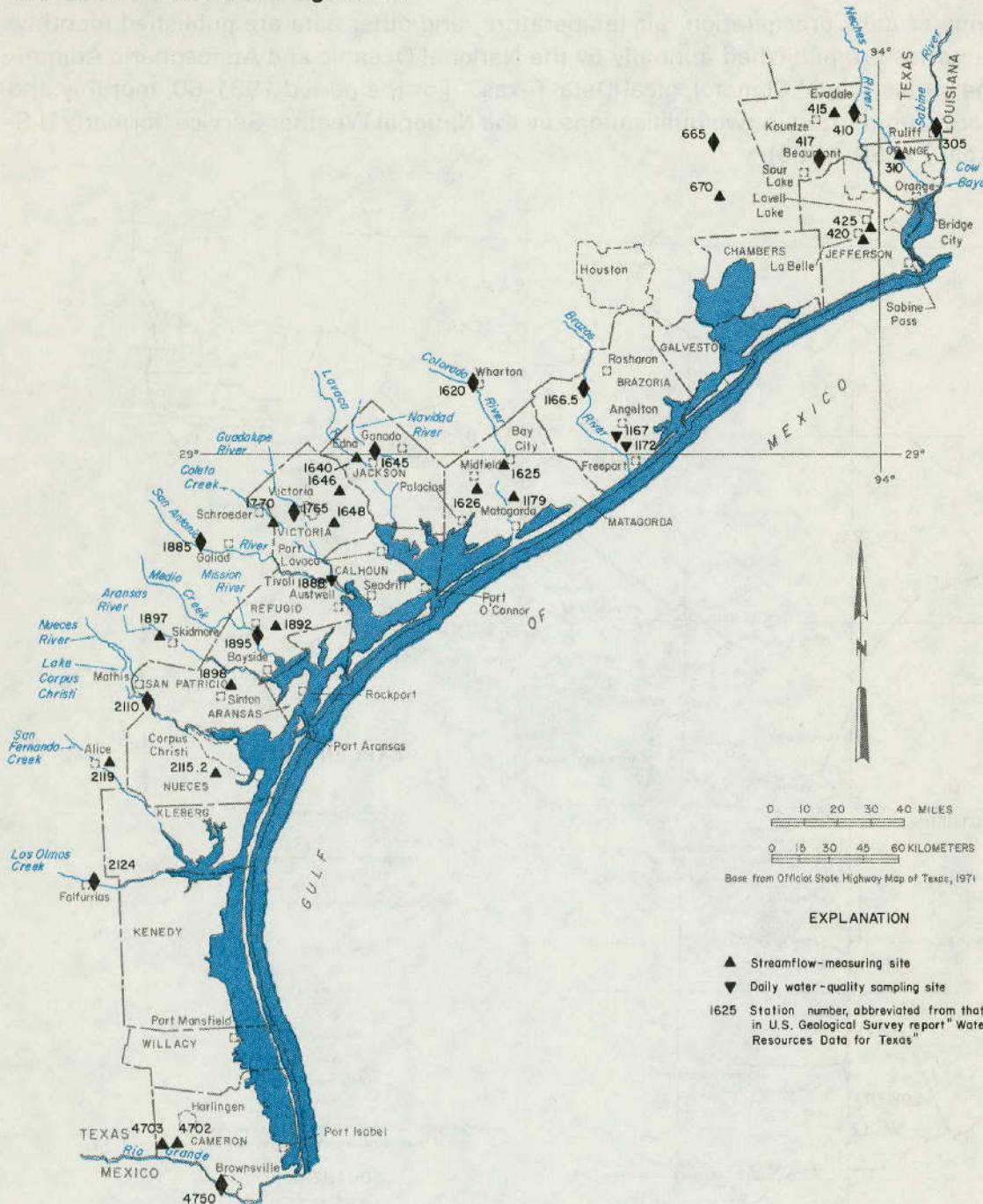


Figure 13.—Locations of Streamflow-Measuring Sites and Daily Water-Quality Data-Collection Sites

¹Station numbers greater than 300 are abbreviated from the Geological Survey numbering system. For example, the two station numbers 08041500 and 08162650 in abbreviated form become 415 and 1626.5.

The streamflow data for these sites represent runoff reaching the coastal area, but do not describe all of the flow from streams that enter the estuaries. Intervening drainage, diversion for irrigation, return flows, and evapotranspiration may influence streamflow between the measuring sites and the estuaries.

Analyses of water collected daily at streamflow-measuring sites show the effects of geology and cultural development on runoff from the drainage basins. At times, however, return flows from irrigation, evapotranspiration, and lack of significant runoff from areas upstream result in altered water quality between the data-collection site and the estuary.

The drainage areas from which unmeasured runoff enters the estuaries range from less than 100 square miles (260 km^2) to more than 10,000 square miles ($25,900 \text{ km}^2$). Periodic measurements indicate that during some seasons, unmeasured runoff that reaches the estuaries exceeds measured flow from the major tributaries.

To completely describe the quality and quantity of runoff from the entire area between continuous streamflow-measuring stations and the estuaries is not feasible; however, representative data are collected periodically at the sites shown in Figure 14. Both continuous- and periodic-streamflow data and chemical-quality data are published by the U.S. Geological Survey (1978-79).

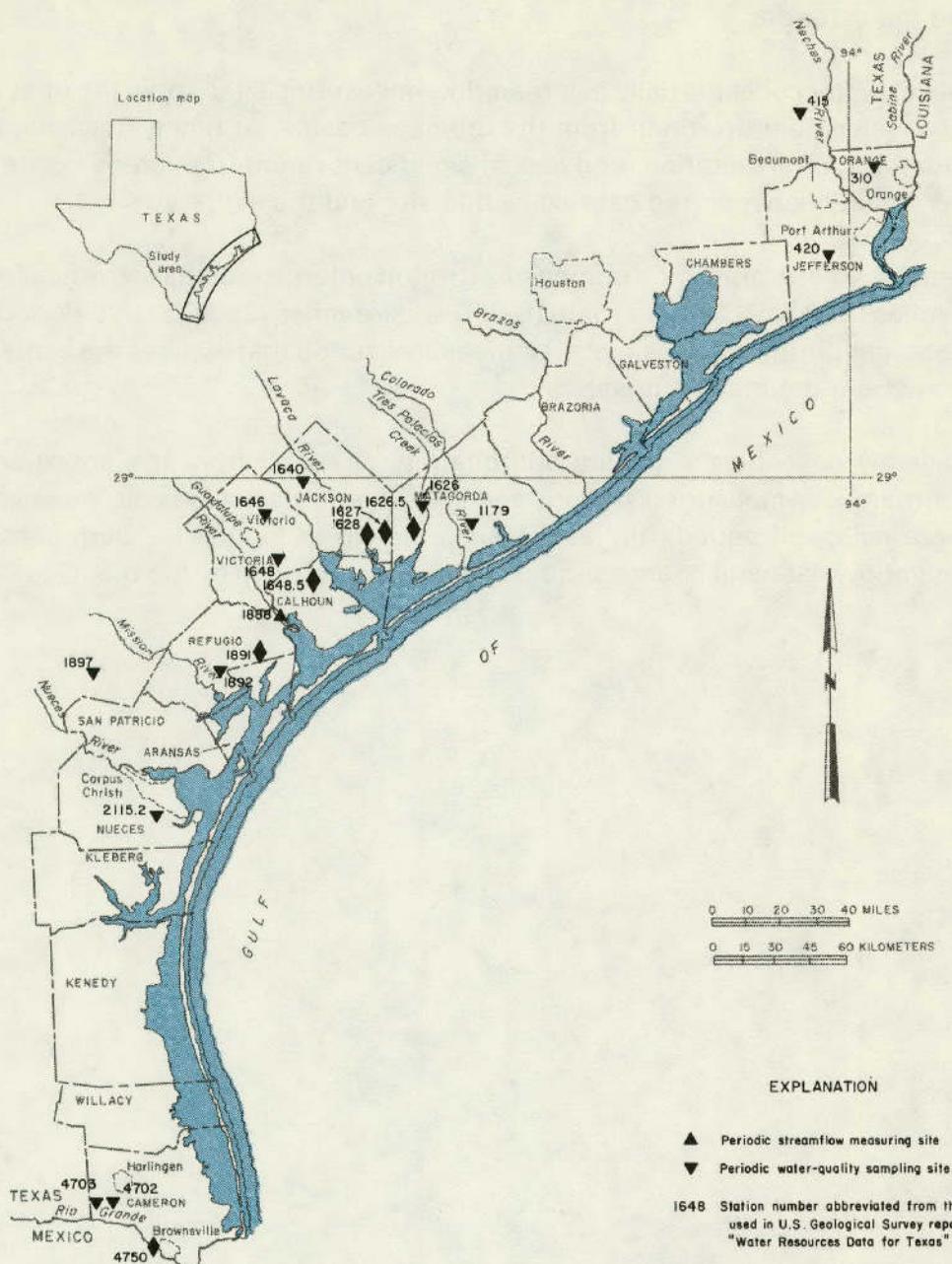


Figure 14
Location of Selected Water-Quality and Streamflow Data-Collection Sites

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