

## Brazos Estuary

The Brazos estuary, which has an area of about 3 square miles (8 km<sup>2</sup>) 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.

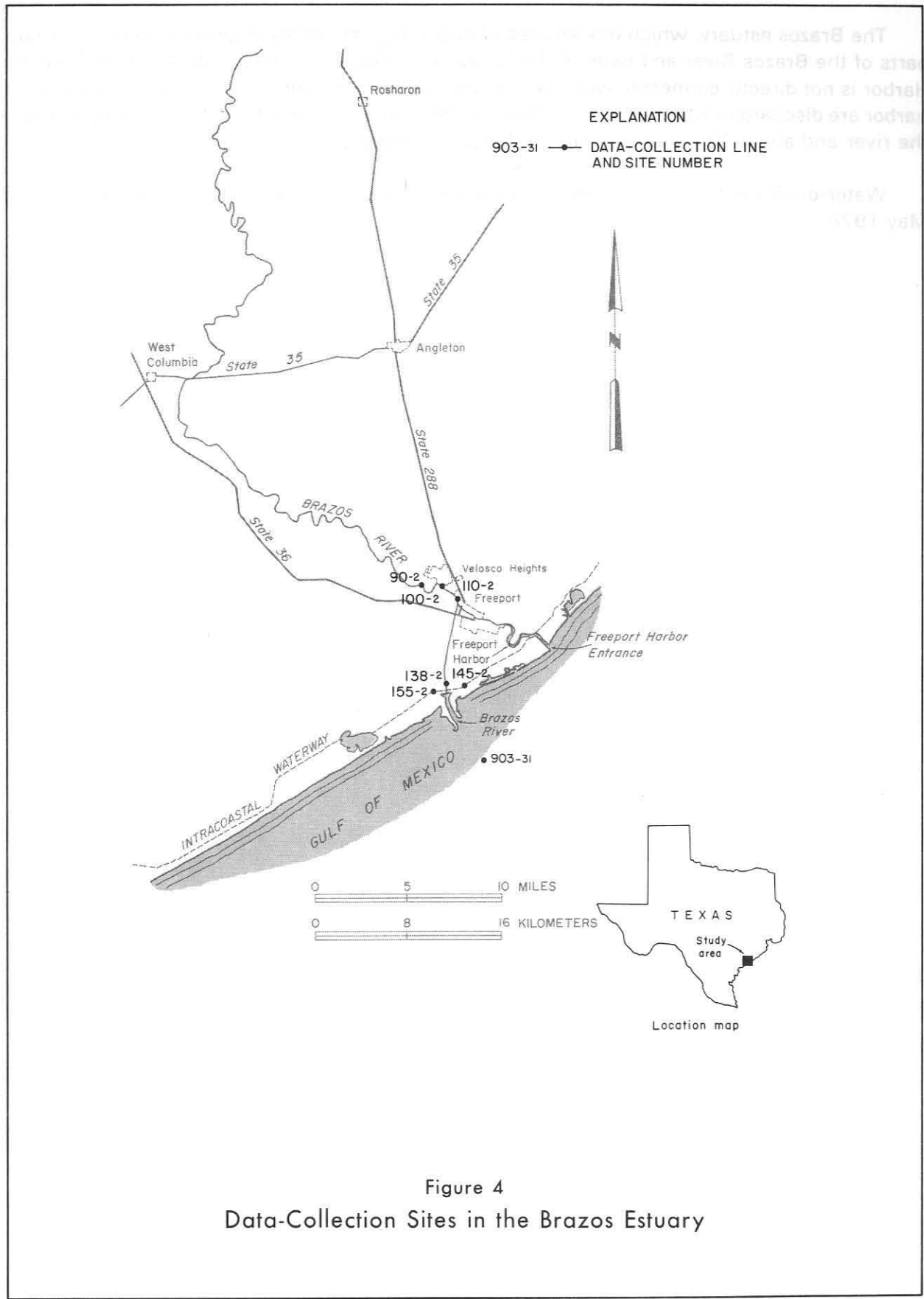


Table 3A.--Quality of water in the Brazos estuary, water years 1977-78  
Field Determinations

(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

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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	45000	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

285851095232600 LINE 100 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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

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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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)	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1145	1.0	1.4	.11	.00	.11	.03	.88	.91	1.0	4.5	.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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
FEB , 1977										
09...	1230	1.0	687	190	68	61	9.9	58	39	1.8
JUN										
29...	1140	1.0	2000	370	190	77	43	370	68	8.4
FEB , 1978										
01...	1345	1.0	2330	280	190	45	40	360	73	9.4
MAY										
30...	1155	1.0	34800	3500	3400	250	710	6700	79	49

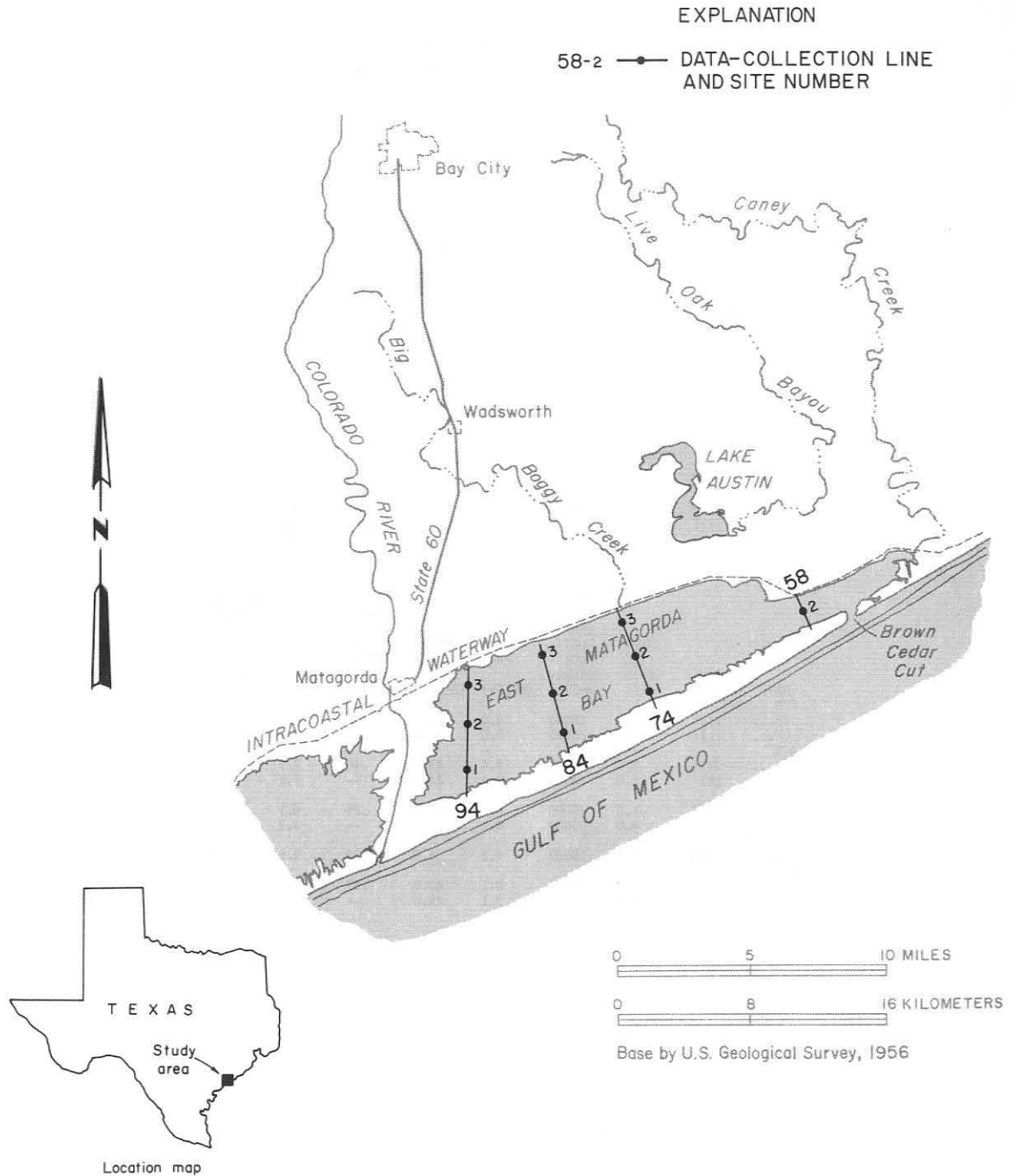
  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977										
09...	4.3	152	0	125	59	89	.2	9.2	365	.50
JUN										
29...	14	220	0	180	120	620	.3	9.1	1360	1.85
FEB , 1978										
01...	15	110	0	90	99	610	.1	8.5	1230	1.67
MAY										
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 km<sup>2</sup>), 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	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 (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	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 (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	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 (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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1145	1.0	22000	8.2	11.5	1.07	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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1225	1.0	22000	7.9	11.5	.32	10.3	107
08...	1227	4.5	22000	7.9	11.5	--	10.4	108
APR								
26...	1720	1.0	13000	8.5	23.3	.66	9.9	124
26...	1722	3.0	13000	8.5	23.5	--	10.1	127
26...	1724	4.0	14000	8.5	23.5	--	9.8	124
26...	1726	4.5	19100	8.1	23.0	--	5.0	64
27...	0930	1.0	14000	8.3	21.5	.66	8.4	102
27...	0932	4.5	20000	8.3	22.0	--	7.5	95
27...	1700	1.0	16000	8.3	24.0	.30	8.8	112
27...	1702	5.0	16000	8.3	24.0	--	8.4	107
28...	0935	1.0	24000	8.3	21.0	.71	6.9	87
28...	0937	4.0	24000	8.3	21.0	--	6.8	86
MAY								
03...	1320	1.0	24000	8.1	25.0	.66	6.8	91
03...	1322	4.0	26000	8.0	24.0	--	6.2	84
11...	1320	1.0	19000	8.1	24.0	.13	6.9	90
11...	1322	4.0	19000	8.1	24.0	--	6.8	88
JUN								
28...	1000	1.0	24000	8.2	28.0	.38	6.4	90
28...	1002	4.0	24000	8.2	28.5	--	6.2	88
FEB , 1978								
01...	1025	1.0	30000	8.1	7.5	.48	9.7	95
MAY								
31...	1313	1.0	32000	8.0	29.5	.65	6.7	100
31...	1315	4.5	32000	8.0	29.5	--	6.7	100

284000095545700 LINE 094 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1215	1.0	21000	8.2	11.0	.80	10.7	109
08...	1217	4.0	21000	8.1	11.0	--	10.7	109
APR								
26...	1710	1.0	14000	8.5	24.0	.41	9.2	118
26...	1712	4.0	18000	8.2	23.0	--	6.6	83
27...	0920	1.0	11000	8.3	22.0	.30	7.7	94
27...	0922	3.5	19000	8.2	22.0	--	6.2	78
27...	1650	1.0	16000	8.3	24.5	.10	8.2	106
27...	1652	4.0	16000	8.3	24.5	--	8.2	106
28...	0945	1.0	15000	8.4	21.5	.20	7.1	86
28...	0947	4.0	15000	8.3	21.5	--	7.1	86
MAY								
11...	1330	1.0	17000	8.2	24.5	.13	6.5	84
11...	1332	4.0	17000	8.2	24.5	--	6.4	83
JUN								
28...	1010	1.0	24000	8.2	28.0	.24	6.4	90
28...	1012	4.0	24000	8.2	28.5	--	6.1	87
FEB , 1978								
01...	1020	1.0	30000	8.1	7.5	.37	9.9	96
MAY								
31...	1303	1.0	31000	8.1	29.0	.48	6.9	101
31...	1305	4.0	32000	8.1	29.0	--	6.8	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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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

284123095490200 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	.070
31...	1243	4.0	--	--	--	--	--	--	--	--	--	--

283852095545100 LINE 094 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977												
26...	1720	1.0	2.5	.07	.03	.10	.05	.58	.63	.73	3.2	.070
26...	1726	4.5	1.3	.12	.01	.13	.10	.46	.56	.69	3.1	.090
27...	0930	1.0	1.0	.09	.01	.10	.01	.58	.59	.69	3.1	.030
27...	0932	4.5	1.1	.00	.01	.01	.05	.60	.65	.66	2.9	.050
MAY												
03...	1320	1.0	.8	.01	.01	.02	.00	.38	.38	.40	1.8	.050
03...	1322	4.0	--	.00	.01	.01	.01	.39	.40	.41	1.8	.070
11...	1320	1.0	--	.04	.00	.04	.01	1.6	1.6	1.6	7.3	.110
11...	1322	4.0	--	.04	.00	.04	.02	.69	.71	.75	3.3	.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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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

284115095550400 LINE 094 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977												
26...	1740	1.0	2.4	.01	.01	.02	.02	.62	.64	.66	2.9	.040
27...	0910	1.0	1.9	.09	.01	.10	.06	.77	.83	.93	4.1	.050
MAY												
03...	1335	1.0	.9	.00	.01	.00	.00	.37	.37	.37	1.6	.050
11...	1340	1.0	--	.04	.00	.04	.02	.98	1.0	1.0	4.6	.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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
FEB , 1977	08...	1245	1.0	21000	2400	2300	180	470	3900	77	35
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977	08...	170	136	0	112	990	7100	.4	2.6	12900	17.5

284208095525600 LINE 084 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUN , 1977	28...	1030	1.0	15000	1500	1300	130	--	2700	--	--
FEB , 1978	01...	1055	1.0	31000	3600	3500	220	730	5700	76	42
MAY	31...	1241	1.0	36300	4500	4400	270	930	7300	76	47
DATE	TIME	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN , 1977	28...	190	0	156	--	620	4700	.4	8.2	8640	11.8
FEB , 1978	01...	160	0	131	--	1500	10000	.8	3.8	18500	25.2
MAY	31...	170	0	139	2.2	1700	13000	.7	4.4	23600	32.1

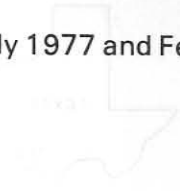
283852095545100 LINE 094 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
APR , 1977	26...	1720	1.0	13000	1300	1200	511	250	2200	66	20
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
APR , 1977	26...	85	150	0	123	540	3800	.5	6.5	7470	10.2

## Colorado Estuary

The Colorado estuary, which has an area of about 2 square miles (5 km<sup>2</sup>), 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.



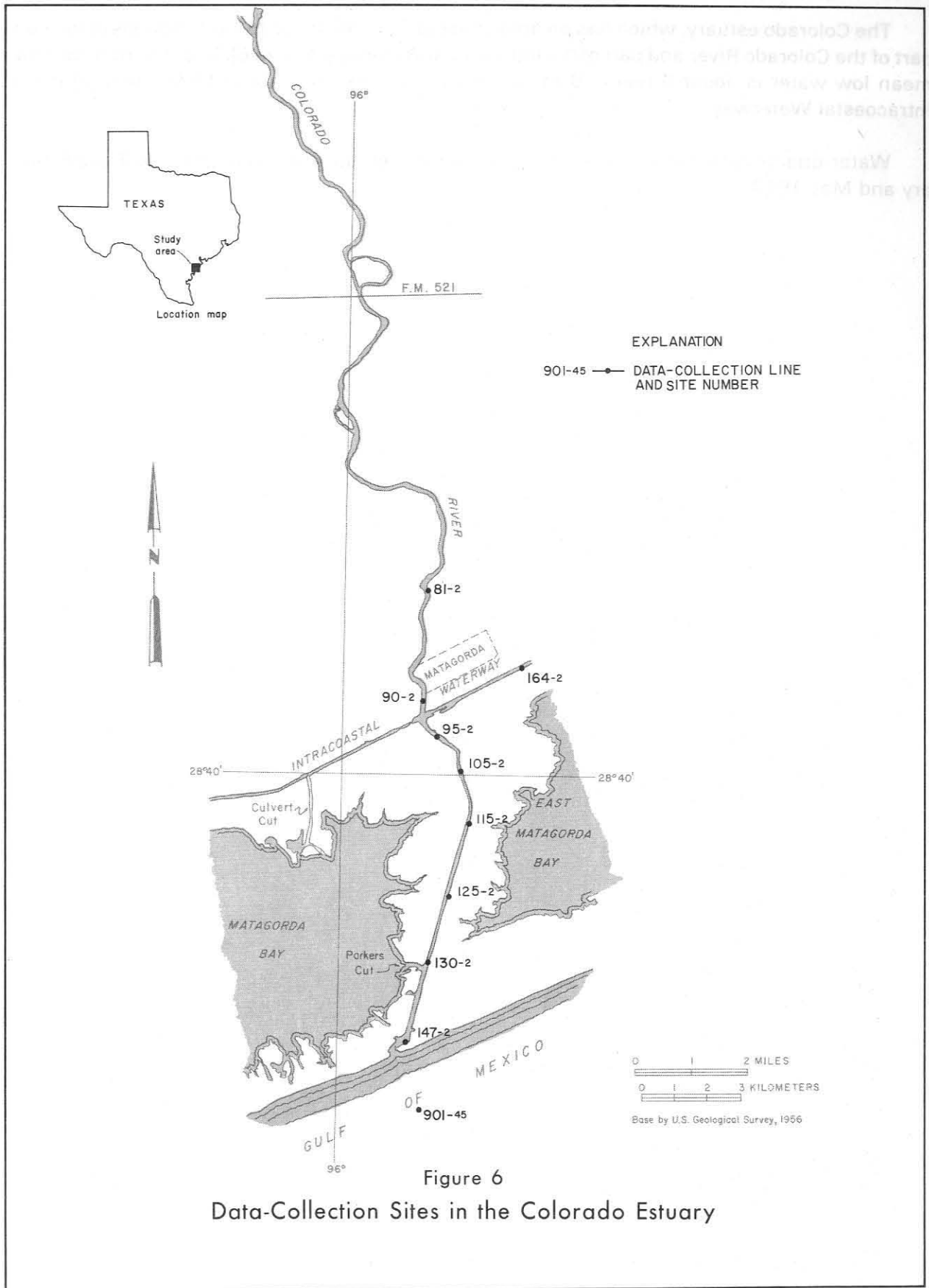




Table 5A.--Quality of water in the Colorado estuary, water years 1977-78  
Field Determinations

(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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (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	550	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	26.5	--	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 CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY , 1977								
03...	1500	1.0	1500	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 DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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	26.0	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
28...	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	5.5	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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	29800	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

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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
07...	1215	1.0	5000	8.1	11.5	.16	9.9	96
07...	1217	7.0	7000	8.1	11.5	--	9.7	94
MAY								
25...	1200	1.0	7000	8.3	27.0	--	7.6	99
25...	1202	5.0	35000	8.3	26.0	--	6.6	95
25...	1204	11	36000	8.2	26.0	--	6.5	94
25...	1800	1.0	5000	8.2	25.5	--	8.0	101
25...	1802	5.0	7500	8.1	25.5	--	7.8	99
25...	1804	11	14000	8.1	25.5	--	7.5	98
25...	2100	1.0	5000	7.8	25.0	--	7.7	96
25...	2102	11	5500	7.8	25.0	--	7.6	95
26...	0001	1.0	5500	8.2	25.0	--	7.4	92
26...	0002	11	5500	8.5	25.0	--	7.5	94
26...	0300	1.0	6000	8.2	25.0	--	7.1	89
26...	0302	10	5500	8.4	25.0	--	7.4	92
26...	0600	1.0	4500	8.2	25.0	--	7.1	89
26...	0602	10	4500	8.4	25.0	--	7.5	94
26...	0900	1.0	5200	8.2	25.0	--	7.5	94
26...	0902	5.0	5500	8.3	25.0	--	7.5	94
26...	0904	11	28000	8.2	25.5	--	6.9	95
26...	1200	1.0	5300	8.4	26.5	--	7.6	97
26...	1202	11	34000	8.4	26.5	--	6.5	94
26...	1500	1.0	6000	8.3	26.0	--	7.9	101
26...	1502	5.0	10000	8.3	25.5	--	7.6	97
26...	1503	11	35000	8.2	26.0	--	6.6	94
JUL								
27...	1625	1.0	27000	8.3	31.0	--	7.8	116
27...	1627	5.0	27000	8.2	31.0	--	7.3	109
27...	1629	10	48000	8.3	30.5	--	6.2	101
27...	2225	1.0	21000	7.7	30.5	--	6.1	88
27...	2227	5.0	30000	7.7	30.5	--	5.6	84
27...	2229	9.5	40000	7.7	30.5	--	5.1	81
28...	0115	1.0	55000	7.6	30.0	--	5.4	90
28...	0117	5.0	55000	7.7	30.0	--	5.4	90
28...	0119	9.0	55000	7.7	30.0	--	5.5	92
28...	0400	1.0	55000	7.7	29.5	--	5.4	90
28...	0402	5.0	55000	7.7	29.5	--	5.3	88
28...	0406	10	55000	7.7	29.0	--	5.2	85
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...	0720	1.0	55000	7.7	29.0	--	4.8	79
28...	0722	5.0	55000	7.7	29.0	--	5.1	84
28...	0724	10	55000	7.7	29.0	--	5.2	85
28...	1000	1.0	55000	7.5	29.0	--	4.9	80
28...	1002	5.0	55000	7.6	29.0	--	5.1	83
28...	1004	10	55000	7.6	29.0	--	5.0	82
28...	1300	1.0	55000	7.9	30.5	.54	5.3	89
28...	1302	5.0	56000	7.9	30.0	--	5.1	87
28...	1304	10	55000	7.9	30.0	--	4.9	81
28...	1615	1.0	35000	8.2	31.5	--	7.7	120
28...	1617	5.0	47000	8.2	31.0	--	6.4	105
28...	1619	10	52000	8.1	30.5	--	5.3	88

284149095563300 LINE 164 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
07...	1425	1.0	20000	8.3	12.0	.71	9.6	99
07...	1427	5.0	20000	8.2	12.0	--	9.5	98
07...	1429	16	20000	8.0	12.0	--	9.6	99
JUN								
28...	1045	1.0	22000	8.0	29.0	.56	6.4	92
28...	1047	6.0	24000	8.0	28.5	--	7.1	101
28...	1049	13	26000	8.0	28.5	--	5.9	86
FEB , 1978								
02...	0950	1.0	21000	8.2	7.5	.76	10.4	98
02...	0952	18	27000	8.2	7.5	--	9.5	91
MAY								
31...	1430	1.0	30000	8.0	30.0	.38	6.9	103
31...	1432	10	30000	8.0	29.0	--	6.2	91
31...	1434	19	32000	8.0	28.5	--	5.7	83

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- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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 5B.--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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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

283706095582500 LINE 130 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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)

284255095583500 LINE 081 SITE 02

DATE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	HARD-NESS (MG/L AS CAC03)	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	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	3.7
MAY											
11...	1420	1.0	650	220	40	54	20	30	23	.9	3.4
JUN											
28...	1115	1.0	1000	230	48	52	24	84	44	2.4	5.2
FEB , 1978											
02...	0920	1.0	14000	1500	1300	130	280	2200	75	25	90
MAY											
31...	1452	1.0	13300	1500	1300	130	280	2300	76	26	96

DATE	BICAR-BONATE (MG/L AS HC03)	CAR-BONATE (MG/L AS C03)	ALKA-LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS-SOLVED (MG/L AS C02)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
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 (MG/L AS CAC03)	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
MAY , 1977										
11...	1129	21	36000	4000	3900	270	810	6900	78	47
DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HC03)	CAR-BONATE (MG/L AS C03)	ALKA-LINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
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 km<sup>2</sup>), 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
SEP , 1978							
12...	1206	1.0	264	7.7	25.5	4.4	55
12...	1208	20	240	7.8	25.5	4.3	54
12...	1233	--	--	--	25.5	--	--
12...	1238	--	331	--	--	--	--
12...	1530	1.0	220	7.8	25.5	5.1	64
12...	1532	20	310	7.8	26.0	5.0	62
12...	1622	--	252	--	--	--	--
12...	1810	1.0	220	7.7	25.5	5.2	65
12...	1812	20	270	7.7	25.5	5.1	64
12...	1900	--	290	--	--	--	--
12...	2240	1.0	200	7.6	25.5	5.1	64
12...	2242	20	220	7.6	25.5	4.8	60
12...	2315	--	248	--	--	--	--
13...	1020	1.0	170	6.1	26.0	5.0	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	5.8	72
14...	1430	--	160	--	--	--	--
14...	1615	--	--	--	26.0	--	--
14...	1618	1.0	130	7.1	25.5	5.6	70
14...	1822	1.0	150	7.4	25.5	5.7	71
14...	1824	--	155	--	26.0	--	--
14...	2030	1.0	150	7.4	25.5	5.8	72
14...	2228	1.0	150	7.1	25.0	5.8	72
14...	2230	--	150	--	26.0	--	--
15...	0715	1.0	140	7.7	25.0	6.9	85
15...	0745	--	--	--	25.0	--	--
15...	0755	--	135	--	--	--	--
15...	0952	1.0	120	7.5	25.5	6.8	85
15...	0954	--	--	--	25.0	--	--
15...	1143	1.0	120	7.2	26.0	6.8	85
15...	1348	1.0	120	7.7	25.5	6.9	86
15...	1350	--	--	--	22.5	--	--
15...	1542	1.0	110	7.8	25.5	7.0	88
15...	1545	--	113	--	26.0	--	--
15...	1747	1.0	110	7.6	25.5	7.0	88
15...	1749	--	--	--	26.0	--	--
15...	1940	1.0	110	7.6	25.5	6.8	85
15...	1945	--	--	--	26.0	--	--
19...	1330	1.0	250	7.4	30.0	7.2	96
19...	1335	19	250	7.4	29.5	7.2	95
19...	1358	--	--	--	26.0	--	--

284516096343400 LINE 065 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
27...	1410	1.0	800	8.7	29.0	.35	7.2	95
27...	1412	13	860	8.7	29.0	--	6.8	89
JUN , 1978								
21...	1020	1.0	5000	8.0	30.0	.41	6.6	89
21...	1022	7.5	12000	7.6	30.0	--	5.9	81
21...	1024	15	12000	7.6	30.0	--	6.0	84

284035096351200 LINE 085 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1045	1.0	12000	8.3	11.0	--	9.5	93
09...	1047	5.0	25000	8.2	11.0	--	8.5	88
JUN								
28...	0905	1.0	1800	8.4	27.5	.10	6.8	87
28...	0907	4.5	1800	8.4	27.5	--	6.7	86
JUN , 1978								
21...	0849	1.0	19000	8.0	29.0	.53	6.3	88
21...	0851	4.0	19000	8.0	28.5	--	6.4	88

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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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...	1206	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	25400	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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
28...	0845	1.0	3800	8.6	27.5	.18	6.6	86
28...	0847	3.5	3800	8.6	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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	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								
28...	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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1978								
16...	0623	1.0	27000	8.6	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 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 (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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1350	1.0	41000	8.0	11.5	--	9.6	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 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 (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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	0900	1.0	35000	8.1	10.5	.62	8.4	92
08...	0902	4.0	36000	8.0	10.5	--	8.6	94
JUN								
27...	1140	1.0	10000	8.9	28.0	.26	7.3	97
27...	1142	4.5	10000	8.9	28.5	--	7.3	97
FEB , 1978								
14...	0547	3.5	11000	8.0	9.0	--	9.9	93
14...	0550	1.0	11000	8.0	9.5	--	9.7	92
14...	1108	1.0	19000	8.5	10.5	.21	10.7	107
14...	1110	3.5	21000	8.4	10.5	--	10.7	108
14...	1830	1.0	24000	8.8	11.0	--	13.6	140
14...	1832	4.0	31000	8.8	10.5	--	12.8	135
15...	0550	1.0	13000	8.2	9.5	--	10.5	99
15...	0552	3.5	16000	8.2	8.5	--	10.5	99
JUN								
19...	2008	1.0	23000	7.9	30.0	.44	6.4	93
19...	2010	4.0	29000	7.8	29.0	--	6.4	93
20...	0720	1.0	25400	8.2	29.5	.61	6.6	96
20...	0722	5.0	31400	8.0	29.0	--	6.3	92

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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1978								
14...	0620	1.0	37000	8.6	10.0	--	10.2	108
14...	0622	3.0	37000	8.6	9.0	--	10.3	107
14...	1130	1.0	35000	8.4	10.5	.13	10.4	111
14...	1132	4.0	35000	8.5	10.5	--	10.6	113
14...	1813	1.0	35000	8.8	10.5	.44	12.1	133
14...	1815	4.0	36000	8.8	10.5	--	12.1	131
15...	0628	1.0	36000	8.5	10.0	--	11.4	121
15...	0630	4.0	36000	8.5	9.5	--	11.5	121
JUN								
19...	1955	1.0	34000	7.7	29.5	.37	6.2	93
19...	1957	4.0	34000	7.8	29.0	--	6.4	96
20...	0738	1.0	34000	8.1	28.0	.34	6.4	94
20...	0740	4.5	34000	8.1	28.5	--	6.4	96

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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	0955	1.0	41000	8.2	10.5	1.65	8.5	94
08...	0957	6.0	41000	8.2	10.5	--	8.7	96
JUN								
27...	1140	1.0	33000	8.2	28.5	.15	5.8	87
27...	1142	5.0	33000	8.2	28.5	--	5.7	86
JUN , 1978								
20...	0752	1.0	37000	8.1	28.5	.48	6.4	97
20...	0754	11	35000	8.0	28.5	--	6.4	95

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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	0945	1.0	40000	8.2	10.5	1.26	8.7	95
08...	0947	10	40000	8.2	10.5	--	8.8	96
JUN								
27...	1130	1.0	29000	8.2	28.5	.38	6.0	87
27...	1132	5.0	31000	8.2	28.5	--	5.9	87
27...	1134	9.0	33000	8.2	28.0	--	5.6	82
JUN , 1978								
20...	0758	1.0	37000	8.1	29.0	.53	6.3	96
20...	0800	12	36000	8.1	28.5	--	6.3	96

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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	0930	1.0	39000	8.2	10.5	1.42	8.6	94
08...	0932	5.0	38000	8.2	10.5	--	8.6	94
JUN								
27...	1120	1.0	26000	8.3	28.5	.30	6.0	87
27...	1122	5.0	29000	8.2	28.5	--	6.0	87
FEB , 1978								
14...	0643	1.0	40000	8.7	9.5	--	10.9	116
14...	0645	5.0	40000	8.6	8.5	--	11.1	116
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
08...	1110	1.0	18000	8.1	10.0	.21	9.9	96
08...	1112	3.0	17000	8.1	10.5	--	9.8	97
APR								
26...	1220	1.0	7200	8.2	22.0	.20	7.8	93
26...	1222	2.0	7200	8.2	22.0	--	7.8	93
26...	1224	3.0	28000	7.9	22.5	--	3.0	40
26...	1226	4.0	29000	7.9	22.5	--	2.7	36
27...	1400	1.0	20000	8.3	23.5	.30	9.3	119
27...	1402	4.0	28000	7.9	22.0	--	5.3	68
MAY								
03...	1000	1.0	26000	7.8	23.5	.20	6.3	83
03...	1002	2.5	26000	7.8	23.0	--	6.2	82
03...	1004	5.0	26000	7.8	23.0	--	6.1	80
11...	1210	1.0	19000	7.9	24.0	.30	6.7	105
11...	1212	4.0	30000	7.7	24.0	--	5.6	104
JUN								
27...	1255	1.0	39000	8.2	29.0	.28	5.9	91
27...	1257	4.0	39000	8.2	29.0	--	6.1	93
FEB , 1978								
14...	0545	1.0	30000	8.3	11.0	--	10.8	114
14...	0547	3.5	30000	8.3	11.0	--	10.8	114
14...	1117	1.0	23000	8.4	11.0	--	11.0	112
14...	1119	3.0	23000	8.5	11.0	--	10.9	111
14...	1922	1.0	24000	8.7	11.0	--	12.9	133
14...	1924	4.0	28000	8.6	11.0	--	12.7	133
15...	0533	1.0	25000	8.6	10.0	--	11.3	114
15...	0535	3.0	--	--	--	--	11.1	112
JUN								
20...	0925	1.0	39200	8.1	29.0	.47	6.2	96
20...	0927	3.0	40000	8.1	29.0	--	6.2	96

283700096013400 LINE 333 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
APR , 1977								
26...	1210	1.0	5500	8.3	21.0	.20	7.5	89
26...	1212	2.0	5500	8.2	21.0	--	7.9	93
26...	1214	4.0	30000	8.1	23.0	--	5.4	72
27...	1420	1.0	10000	8.6	23.0	.46	10.9	135
27...	1422	5.0	10000	8.6	23.5	--	10.9	135
MAY								
03...	0945	1.0	12000	7.9	24.0	.30	7.5	95
03...	0947	3.0	14000	7.9	24.0	--	7.0	90
03...	0949	6.0	18000	7.8	24.0	--	6.7	86
11...	1225	1.0	26000	8.0	24.0	.30	6.9	94
11...	1227	5.0	27000	7.9	24.0	--	6.0	82

283749096015500 LINE 333 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
APR , 1977								
26...	1200	1.0	10000	8.1	21.0	.20	7.5	90
26...	1202	3.0	12000	8.0	20.5	--	6.5	77
27...	1440	1.0	7500	8.1	23.5	.80	7.7	94
27...	1442	3.0	7500	8.1	23.5	--	7.7	94
MAY								
03...	0930	1.0	6000	7.7	24.0	.15	7.3	90
03...	0932	3.0	6000	7.2	24.0	--	7.0	87
11...	1235	1.0	26000	8.0	24.0	.36	6.6	106
11...	1237	5.0	29000	8.0	24.0	--	5.4	73

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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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	6.0	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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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	--	7.6	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 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 (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	--	5.8	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 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 (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...	0955	1.0	37000	8.1	29.0	.40	6.2	96
20...	0957	5.0	41000	8.1	29.0	--	6.2	95

283145096113700 LINE 350 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) (M)	OXYGEN, 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 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 (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 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 (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...	1155	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 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 (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 DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
		(00003)	(00095)	(00400)	(00010)	(00300)	(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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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) (M)	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	105
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) (M)	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) (M)	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 CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	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 CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	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 CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
28...	1050	1.0	54000	7.9	28.0	1.15	5.6	91
28...	1052	5.0	57000	7.9	27.5	--	5.2	85
28...	1054	10	57000	7.9	27.0	--	5.1	82
28...	1056	15	57000	7.9	27.0	--	4.8	77
28...	1058	25	57000	7.8	26.5	--	4.5	73
28...	1100	35	57000	7.8	26.0	--	4.1	65
JUN , 1978								
21...	0848	2.0	44000	8.3	29.5	1.90	6.2	99
21...	0850	20	46000	8.3	29.0	--	6.1	96
21...	0852	33	46000	8.3	29.5	--	6.0	97

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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...	1435	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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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

284035096351200 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1000	1.0	.00	.01	.01	.01	.36	.37	.38	1.7	.050
JUN											
28...	1025	1.0	.02	.00	.02	.04	.79	.83	.85	3.8	.080
JUN , 1978											
21...	1100	1.0	.00	.01	.01	.01	.50	.51	.52	2.3	.040

283522096332500 LINE 150 SITE 04

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978												
16...	1145	1.0	3.9	.17	.02	.19	.08	.81	.89	1.1	4.8	.070
16...	1149	38	2.3	.03	.01	.04	.01	.44	.45	.49	2.2	.050
17...	0628	1.0	3.8	.10	.01	.11	.04	.71	.75	.86	3.8	.060
17...	0632	35	2.2	.04	.01	.05	.04	.45	.49	.54	2.4	.050
JUN												
21...	0742	1.0	1.7	.00	.01	.01	.01	.58	.59	.60	2.7	.030
21...	0746	39	2.0	.00	.01	.01	.04	1.5	1.5	1.5	6.7	.160

283337096305000 LINE 190 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	0920	1.0	.00	.01	.01	.04	.26	.30	.31	1.4	.050
09...	0926	36	.00	.01	.01	.11	.27	.38	.39	1.7	.000
JUN											
27...	1510	1.0	.00	.01	.01	.03	.58	.61	.62	2.7	.050
27...	1524	32	.02	.04	.06	.10	.32	.42	.48	2.1	.050
JUN , 1978											
21...	0725	1.0	.01	.00	.01	.01	.51	.52	.53	2.3	.040
21...	0729	37	.00	.01	.01	.01	.51	.52	.53	2.3	.040

283018096275500 LINE 200 SITE 05

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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
16...	1157	1.0	.05	.02	.07	.01	.83	.84	.91	4.0	.060
17...	0517	1.5	.03	.01	.04	.01	.86	.87	.91	4.0	.060
JUN											
21...	0858	1.0	.01	.00	.01	.01	.42	.43	.44	1.9	.030

284153096240000 LINE 235 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
07...	1315	1.0	1.7	.00	.01	.01	.01	.39	.40	.41	1.8	.060
JUN												
27...	1245	1.0	2.7	.00	.01	.00	.03	.81	.84	.84	3.7	.090
JUN , 1978												
20...	0900	1.0	2.6	.02	.01	.03	.03	.84	.87	.90	4.0	.040

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

284246096112800 LINE 264 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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...	0550	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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 6B.--Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78--Continued  
Nutrient Analyses--Continued

283608096011400 LINE 333 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR , 1977												
26...	1250	1.0	3.1	.00	.01	.01	.12	.46	.58	.59	2.6	.040
27...	1230	1.0	2.6	.01	.00	.01	.11	.33	.44	.45	2.0	.040
27...	1238	9.0	4.1	.00	.01	.01	.20	.40	.60	.61	2.7	.070
MAY												
03...	1115	1.0	1.4	.01	.01	.02	.01	.34	.35	.37	1.6	.070
03...	1119	9.0	1.4	.01	.02	.01	.06	.37	.43	.44	1.9	.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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978												
14...	1154	1.0	--	.00	.01	.01	.02	.39	.41	.42	1.9	.050
14...	1158	8.0	2.3	.00	.01	.01	.00	.72	.72	.73	3.2	.180
15...	0615	1.5	--	.00	.01	.01	.01	.45	.46	.47	2.1	.050
15...	0619	8.5	--	.00	.01	.01	.01	.79	.80	.81	3.6	.050
JUN												
20...	0945	1.0	--	.01	.01	.02	.00	.67	.67	.69	3.1	.030
20...	0947	7.0	--	.01	.01	.02	.00	.51	.51	.53	2.3	.020

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
08...	1130	1.0	--	.00	.01	.01	.04	.28	.32	.33	1.5	.060
APR												
26...	1315	1.0	2.2	.00	.01	.01	.07	.39	.46	.47	2.1	.030
MAY												
03...	1140	1.0	2.0	.01	.01	.02	.03	.52	.55	.57	2.5	.070
JUN , 1978												
20...	0955	1.0	--	.11	.01	.12	.00	.57	.57	.69	3.1	.040

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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

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

283430096272200 LINE 375 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
16...	1134	1.5	.03	.01	.04	.01	.60	.61	.65	2.9	.050
16...	1138	8.0	.01	.00	.01	.00	.50	.50	.51	2.3	.070
17...	0640	8.5	.01	.00	.01	.01	.58	.59	.60	2.7	.080
17...	0650	1.5	.00	.01	.01	.01	.64	.65	.66	2.9	.070
JUN											
21...	0735	1.0	.00	.01	.01	.07	.35	.42	.43	1.9	.030
21...	0737	8.0	.01	.01	.02	.00	.61	.61	.63	2.8	.040

282516096230000 LINE 382 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
08...	1545	1.0	.00	.01	.01	.08	.20	.28	.29	1.3	.100
08...	1549	15	.00	.01	.01	.13	.32	.45	.46	2.0	.120
JUN											
28...	1135	1.0	.00	.01	.01	.03	--	.00	.01	.00	.030
28...	1141	19	.00	.01	.01	.06	.08	.14	.15	.70	.050
JUN , 1978											
21...	0940	1.0	.00	.01	.01	.03	.32	.35	.36	1.6	.010
21...	0942	25	.00	.02	.02	.00	.79	.79	.81	3.6	.010

282516096192300 LINE 397 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
08...	1505	1.0	.00	.01	.01	.13	.45	.58	.59	2.6	.100
08...	1513	47	.00	.01	.01	.09	.46	.55	.56	2.5	.130
JUN , 1978											
21...	0900	1.0	.01	.01	.02	.00	.35	.35	.37	1.6	.010
21...	0904	42	.01	.01	.02	.00	.33	.33	.35	1.5	.010

282400096243500 LINE 400 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
08...	1530	1.0	.00	.00	.00	.08	.33	.41	.41	1.8	.100
08...	1534	23	.00	.01	.01	.08	.44	.52	.53	2.3	.100
JUN											
28...	1125	1.0	--	.01	.00	.04	.11	.15	.15	.70	.040
28...	1131	20	.00	.01	.01	.05	.17	.22	.23	1.0	.060

282330096174000 LINE 903 SITE 49

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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977											
28...	1050	1.0	.00	.01	.01	.03	.23	.26	.27	1.2	.030
28...	1100	35	.02	.02	.04	.04	.00	.04	.08	.40	.040
JUN , 1978											
21...	0848	2.0	.00	.01	.01	.00	.32	.32	.33	1.5	.000
21...	0852	33	.02	.01	.03	.00	.28	.28	.31	1.4	.010

Table 6C---Quality of water in the Lavaca-Tres Palacios estuary, water years 1977-78  
Chemical Analyses

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

285003096352400 LINE 017 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
FEB , 1977										
09...	1130	1.0	400	120	7	41	4.1	25	30	1.0

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977											
09...	3.8	137	0	112	12	31	.2	11	196	.27	

285248096344400 LINE 020 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
SEP , 1978											
12..	1700	3.0	231	69	0	22	3.3	22	38	1.2	4.5
13..	1700	--	--	69	0	22	3.3	22	39	1.2	4.5
19..	0955	--	230	77	0	23	4.7	14	27	.7	5.1

DATE	TIME	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
SEP , 1978											
12	88	0	72	5.6	10	26	.2	18	149	.20	
13...	88	0	72	--	10	26	.2	18	149	.20	
19...	96	0	79	--	9.2	18	.2	28	150	.20	

285223096343100 LINE 022 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUN , 1977											
27...	1435	1.0	600	170	0	55	7.3	42	35	1.4	3.0
JUN , 1978											
21...	0935	1.0	591	180	0	59	7.6	63	43	2.1	4.9

DATE	TIME	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN , 1977											
27...	220	0	180	--	15	61	.2	22	314	.43	
JUN , 1978											
21...	220	0	180	2.2	17	74	.3	15	349	.47	

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

284921096342100 LINE 041 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
SEP , 1978										
12...	1238	--	331	99	1	33	4.1	28	37	1.2
12...	1622	--	252	85	3	28	3.7	25	37	1.2
12...	1900	--	290	92	2	31	3.6	23	34	1.0
12...	2315	--	248	77	0	26	3.0	17	31	.8
14...	1430	--	160	51	0	17	2.0	8.2	24	.5
14...	1824	--	155	50	0	17	1.9	7.8	24	.5
14...	2230	--	150	49	0	16	2.1	9.2	27	.6
15...	0755	--	135	49	0	16	2.1	7.1	23	.4
15...	1545	--	113	42	0	14	1.7	5.8	22	.4

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS 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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
SEP , 1978										
12...	4.6	120	0	98	12	34	.2	19	194	.26
12...	4.5	100	0	82	11	30	.2	17	169	.23
12...	4.5	110	0	90	10	27	.2	14	168	.23
12...	4.3	96	0	79	8.7	22	.2	13	142	.19
14...	3.6	64	0	52	5.7	13	.1	11	92	.13
14...	3.6	64	0	52	5.3	12	.1	12	91	.12
14...	3.7	64	0	52	7.0	14	.1	12	96	.13
15...	3.3	60	0	49	5.8	9.9	.1	19	93	.13
15...	3.0	52	0	43	3.7	7.5	.1	11	72	.10

284200096374500 LINE 085 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1978											
17...	0735	1.0	21000	2200	2100	150	450	3700	77	34	150
JUN											
21...	0815	1.0	19100	2100	2000	150	410	3300	76	32	140

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE 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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1978										
17...	100	0	82	.2	890	6600	.5	.3	12000	16.3
JUN										
21...	130	0	107	2.1	770	5900	.5	8.3	10700	14.6

284153096240000 LINE 235 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
07...	1315	1.0	24000	2800	2700	200	560	4300	76	35	180
JUN											
27...	1245	1.0	11000	1100	1000	92	220	1800	76	23	74
JUN , 1978											
20...	0900	1.0	27100	3100	2900	200	620	5000	77	39	200

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

284153096240000 LINE 235 SITE 02--Continued

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977 07...	137	0	112	--	1200	8000	.5	3.3	14500	19.7
JUN 27...	130	0	107	--	450	3500	.5	6.3	6210	8.45
JUN , 1978 20...	140	0	115	1.4	1300	9600	1.8	4.4	17000	23.1

284246096112800 LINE 264 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1978 14...	0550	1.0	11000	1100	1100	91	220	1800	76	23	73
14...	1108	1.0	19000	2000	1900	140	410	3300	77	32	130
15...	0550	1.0	13000	1400	1300	100	270	2200	76	26	90
JUN 20...	0722	5.0	31400	2500	2400	180	490	4500	78	39	190

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1978 14...	100	0	82	1.6	520	3100	.4	7.8	5860	7.97
14...	110	0	90	.6	700	6100	.5	4.7	10800	14.7
15...	100	0	82	1.0	610	3900	.4	6.4	7230	9.83
JUN 20...	130	0	107	2.1	--	8500	.8	4.0	--	--

283608096011400 LINE 333 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977 08...	1110	1.0	18000	2100	2000	170	410	3300	76	31	140
APR 26...	1220	1.0	7200	780	660	80	140	1200	76	19	46
JUN 27...	1255	1.0	39000	4300	4200	300	860	7900	79	52	260
JUN , 1978 20...	0925	1.0	39200	4700	4600	280	980	7500	76	47	300

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977 08...	154	0	126	--	840	6000	.4	5.0	10900	14.8
APR 26...	143	0	117	--	300	2100	.4	7.9	3950	5.37
JUN 27...	160	0	131	--	2000	14000	1.3	2.6	25400	34.5
JUN , 1978 20...	150	0	123	1.9	2000	14000	.8	6.0	25100	34.1

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

283432096194600 LINE 363 SITE 05

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
08...	1255	1.0	41000	4700	4600	320	950	8000	77	51	340
JUN											
27...	1415	1.0	32000	3800	3600	260	760	5400	74	38	230
JUN , 1978											
20...	0835	1.0	39300	4500	4400	280	930	7600	77	49	300

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977										
08...	143	0	117	--	1900	15000	.6	.7	26600	36.2
JUN										
27...	160	0	131	--	1500	10000	1.1	2.7	18200	24.8
JUN , 1978										
20...	140	0	115	1.8	1900	14000	.8	2.0	25100	34.1

282943096204500 LINE 375 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1978											
16...	1235	1.5	42000	4500	4400	310	900	8500	79	55	390

DATE	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CAC03) (00410)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
FEB , 1978										
16...	140	0	115	.9	2200	15000	1.0	.3	27400	37.3

283233096244100 LINE 375 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUN , 1978											
20...	1140	1.0	44100	5300	5200	300	1100	8500	76	51	350

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN , 1978										
20...	140	0	115	1.8	2200	16000	1.0	2.0	28500	38.8

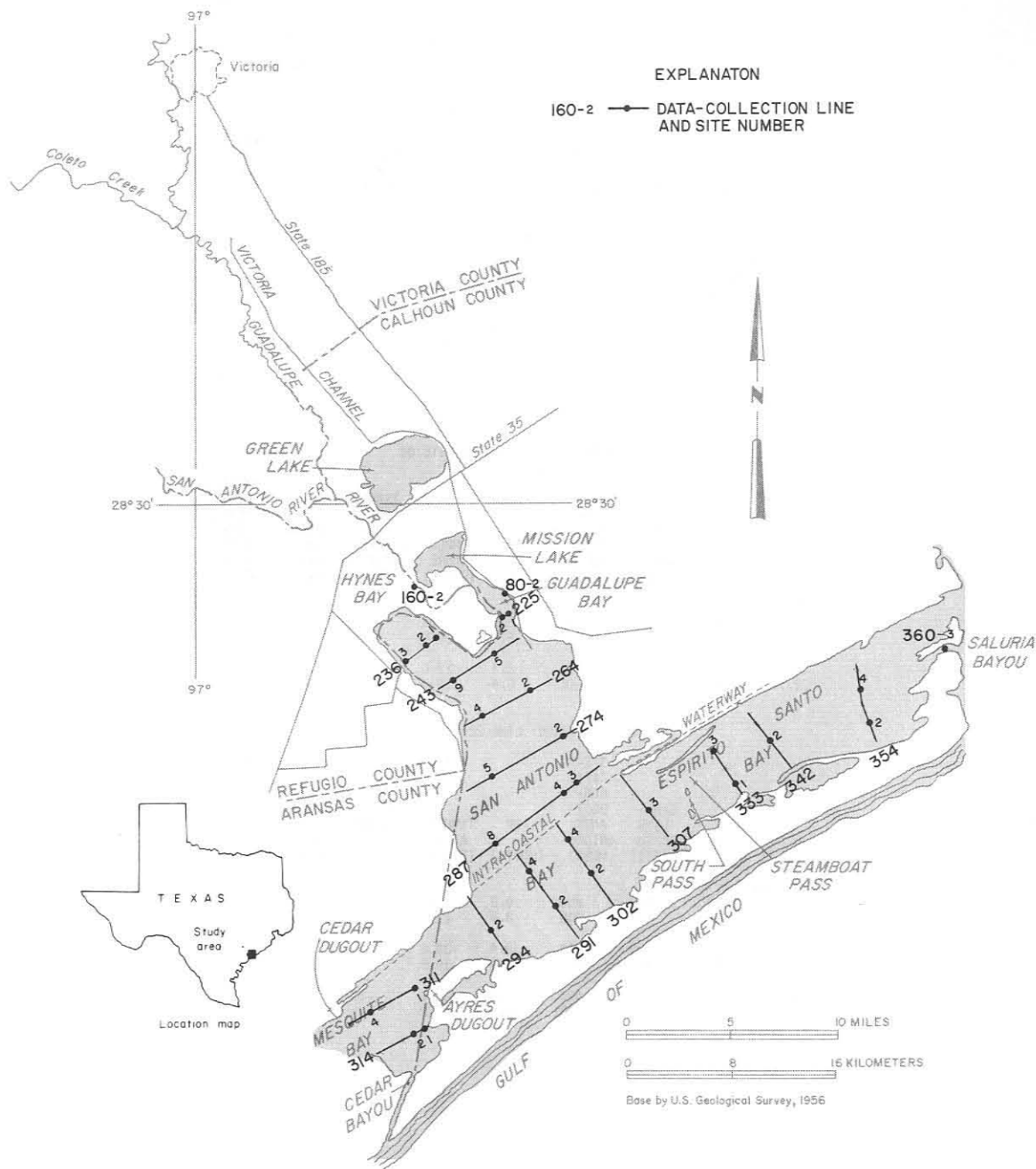




## Guadalupe Estuary

The Guadalupe estuary, which has an area of about 210 square miles (540 km<sup>2</sup>), 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- 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)
FEB , 1977								
09...	1510	1.0	1400	8.2	11.0	--	9.8	92
09...	1512	10	2600	8.1	11.5	--	9.0	87
JUN								
28...	1645	1.0	560	8.5	29.0	.17	6.3	83
28...	1647	11	630	8.3	29.0	--	4.6	61
JUN , 1978								
22...	1234	1.0	2400	8.0	30.0	.15	6.9	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- 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)
FEB , 1977								
09...	1545	1.0	800	7.9	12.0	--	9.3	89
09...	1547	10	800	7.9	12.0	--	9.5	91
JUN								
28...	1520	1.0	650	8.1	30.0	.12	4.9	65
28...	1522	14	560	8.1	30.0	--	4.5	60
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- 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)
JUN , 1977								
28...	1345	1.0	420	8.5	29.5	.19	6.8	89
28...	1347	3.0	480	8.5	29.5	--	6.7	88
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- 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)
FEB , 1977								
09...	1500	1.0	800	8.0	11.0	--	9.8	92
09...	1502	4.0	800	8.0	11.0	--	10.0	93
JUN								
28...	1340	1.0	690	8.4	29.5	--	6.7	88
28...	1342	3.5	680	8.4	29.5	--	6.8	89
JUN , 1978								
22...	1031	1.0	690	8.4	29.0	.18	7.2	95
22...	1033	4.0	700	8.4	29.0	--	7.0	92

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- 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)
JUN , 1977								
28...	1305	1.0	600	8.8	29.0	.12	7.8	103
28...	1307	3.0	630	8.7	29.5	--	7.2	95
JUN , 1978								
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- 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)
FEB , 1977								
09...	1445	1.0	400	8.2	11.5	--	10.1	95
09...	1447	4.0	400	8.2	11.5	--	10.4	98
JUN								
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- 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)
JUN , 1977								
28...	1255	1.0	670	8.7	28.5	.15	7.4	96
28...	1257	4.5	700	8.7	28.5	--	7.3	95
JUN , 1978								
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- 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)
JUN , 1977								
28...	1210	1.0	1700	8.7	28.0	.12	7.2	94
28...	1212	4.5	1700	8.7	28.5	--	7.3	95
JUN , 1978								
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

282157096461700 LINE 264 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1410	1.0	1100	8.2	12.0	--	10.0	96
09...	1412	5.0	1100	8.2	11.0	--	9.9	93
JUN								
28...	1245	1.0	2000	8.6	28.5	.12	7.3	95
28...	1247	4.5	1900	8.6	28.5	--	7.2	94
FEB , 1978								
22...	0650	1.0	22000	8.8	7.5	--	10.8	102
22...	0652	4.0	24000	8.7	8.0	--	10.7	103
22...	1150	1.0	21000	9.1	9.5	.52	14.2	141
22...	1152	4.0	23000	9.0	8.5	--	14.9	143
22...	1814	1.0	23000	9.2	10.5	--	14.8	150
22...	1816	4.0	23000	9.2	10.5	--	15.6	157
23...	0630	1.0	25000	9.0	9.5	--	13.3	133
23...	0632	4.0	25000	8.9	9.5	--	13.2	132
JUN								
21...	1923	1.0	12000	8.3	30.5	.83	7.3	101
21...	1925	5.0	12000	8.3	30.0	--	7.3	101
22...	0745	1.0	10000	8.3	28.5	.45	6.8	91
22...	0747	4.0	10000	8.3	28.5	--	6.7	90

282029096431300 LINE 274 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)
JUN , 1977								
28...	1820	1.0	2100	8.7	28.5	.14	7.0	91
28...	1222	3.5	2000	8.7	29.0	--	7.0	92
FEB , 1978								
22...	0725	1.0	30000	8.8	8.0	--	12.1	118
22...	0727	4.0	32000	8.3	8.0	--	10.8	108
22...	1105	1.0	29000	8.9	9.5	.59	13.9	142
22...	1106	3.0	30000	8.8	9.0	--	14.1	143
22...	1748	1.0	29000	9.1	13.0	--	14.5	159
22...	1750	2.0	29000	9.0	13.0	--	14.5	159
23...	0704	1.0	31000	8.9	9.5	--	12.2	126
23...	0706	3.0	30000	8.9	9.5	--	12.5	128
JUN								
21...	2000	1.0	26000	8.1	29.5	.45	6.6	97
21...	2002	3.0	27000	8.1	28.5	--	6.5	94
22...	0820	1.0	27000	8.1	28.5	.41	6.5	92
22...	0822	3.0	26000	8.1	28.5	--	6.5	92

281923096460100 LINE 274 SITE 05

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)
FEB , 1977								
09...	1425	1.0	900	8.2	11.0	--	9.8	92
09...	1427	3.0	900	8.2	11.5	--	9.9	94
JUN								
28...	1235	1.0	1700	8.6	28.5	.16	7.5	97
28...	1237	4.5	1800	8.6	28.5	--	7.4	96
FEB , 1978								
22...	0705	1.0	30000	8.9	8.0	--	11.4	111
22...	0707	6.0	32000	8.9	7.5	--	11.1	110
22...	1130	1.0	23000	8.8	9.5	.28	12.7	126
22...	1132	7.0	30000	8.4	9.0	--	10.8	109
22...	1800	1.0	28000	9.1	10.0	--	12.0	123
22...	1802	6.5	28000	9.0	10.5	--	13.7	141
23...	0648	1.0	29000	8.9	9.5	--	12.2	124
23...	0650	6.0	29000	8.9	9.5	--	12.4	126
JUN								
21...	1937	1.0	17000	8.1	30.5	.59	6.9	99
21...	1939	5.0	17000	8.1	30.0	--	7.0	99
22...	0804	1.0	16000	8.1	29.0	.37	6.3	88
22...	0806	6.0	16000	8.1	29.0	--	6.5	91

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) (M)	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) (M)	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) (M)	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) (M)	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) (M)	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	105
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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1140	1.0	15000	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) (M)	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) (M)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	0955	1.0	35000	8.1	11.0	.66	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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1255	1.0	15000	8.5	11.5	.25	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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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)	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)
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)	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)
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)	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)
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)	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)
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) (00003)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
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- 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)
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  
Nutrient Analyses

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

282644096455400 LINE 080 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1510	1.0	1.9	.20	.01	.21	.01	.64	.65	.86	3.8	.700
09...	1512	10	1.8	.10	.00	.10	.07	.80	.87	.97	4.3	.100
JUN												
28...	1645	1.0	2.9	.23	.05	.28	.07	.68	.75	1.0	4.6	.130
28...	1647	11	3.0	.21	.19	.40	.36	1.0	1.4	1.8	8.0	.140
JUN , 1978												
22...	1234	1.0	3.0	.23	.05	.28	.03	.93	.96	1.2	5.5	.240
22...	1238	14	2.4	.23	.05	.28	.03	.97	1.0	1.3	5.7	.250

282648096493700 LINE 160 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977												
28...	1520	1.0	1.6	1.8	.01	1.8	.05	.72	.77	2.6	11	.240
28...	1522	14	1.5	1.8	.01	1.8	.03	.66	.69	2.5	11	.270
JUN , 1978												
22...	1126	1.0	1.8	1.7	.02	1.7	.03	1.3	1.3	3.0	13	.460
22...	1130	15	1.6	1.7	.02	1.7	.03	.97	1.0	2.7	12	.460

282404096452300 LINE 243 SITE 05

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1445	1.0	--	.08	.00	.08	.00	.59	.59	.67	3.0	.060
09...	1447	4.0	--	.32	.00	.32	.00	.74	.74	1.1	4.7	.060
JUN												
28...	1325	1.0	--	1.7	.01	1.7	.01	.35	.36	2.1	9.1	.290
28...	1327	3.5	--	1.7	.01	1.7	.02	.34	.36	2.1	9.1	.330
FEB , 1978												
22...	1205	1.0	1.3	2.2	.07	2.3	.13	.63	.76	3.1	14	.400
22...	1207	3.0	4.3	.79	.03	.82	.16	.66	.82	1.6	7.3	.270
23...	0608	1.0	1.5	2.3	.04	2.3	.09	.49	.58	2.9	13	.390
23...	0610	3.0	--	2.3	.03	2.3	1.6	.56	.65	3.0	13	.440
JUN												
22...	0730	1.0	2.5	.46	.01	.47	.03	.73	.76	1.2	5.4	.310
22...	0732	4.0	--	.43	.01	.44	.00	.77	.77	1.2	5.4	.300

282157096461700 LINE 264 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1410	1.0	.03	.00	.03	.01	1.5	1.5	1.5	6.8	.240
09...	1412	5.0	.10	.00	.10	.01	.68	.69	.79	3.5	.130
JUN											
28...	1245	1.0	.18	.01	.19	.02	.47	.49	.68	3.0	.200
28...	1247	4.5	.18	.01	.19	.02	.37	.39	.58	2.6	.190
FEB , 1978											
22...	1150	1.0	.01	.01	.02	.04	.86	.90	.92	4.1	.130
22...	1152	4.0	.03	.01	.04	.05	1.3	1.3	1.3	5.9	.180
23...	0630	1.0	.00	.01	.01	.00	1.4	1.4	1.4	6.2	.190
23...	0632	4.0	.00	.01	.01	.00	1.4	1.4	1.4	6.2	.200
JUN											
22...	0745	1.0	.00	.01	.01	.00	.67	.67	.68	3.0	.190
22...	0747	4.0	.04	.01	.05	.00	.82	.82	.87	3.9	.190

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

282029096431300 LINE 274 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1978												
22...	1105	1.0	.00	.01	.01	.00	1.9	1.9	1.9	8.5	.090	
22...	1106	3.0	.00	.01	.01	.00	.65	.65	.66	2.9	.100	
23...	0704	1.0	.00	.01	.01	.00	.64	.64	.65	2.9	.090	
23...	0706	3.0	.00	.01	.01	.00	.55	.55	.56	2.5	.090	
JUN												
22...	0820	1.0	.02	.01	.03	.03	.60	.63	.66	2.9	.110	
22...	0822	3.0	.01	.01	.02	.00	.59	.59	.61	2.7	.110	
281923096460100 LINE 274 SITE 05												
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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1978												
22...	1130	1.0	.00	.01	.01	.00	.75	.75	.76	3.4	.110	
22...	1132	7.0	.00	.01	.01	.00	.83	.83	.84	3.7	.140	
23...	0648	1.0	.00	.01	.01	.00	.82	.82	.83	3.7	.110	
23...	0650	6.0	.00	.01	.01	.00	.73	.73	.74	3.3	.100	
JUN												
22...	0804	1.0	.02	.01	.03	.00	.68	.68	.71	3.1	.150	
22...	0806	6.0	.00	.01	.01	.01	.55	.56	.57	2.5	.150	
281833096421900 LINE 287 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
JUN , 1977												
28...	1425	1.0	.24	.01	.25	.06	.59	.65	.90	4.0	.190	
28...	1427	4.0	.22	.02	.24	.10	.65	.75	.99	4.4	.200	
JUN , 1978												
22...	0850	1.0	.00	.01	.01	.01	.62	.63	.64	2.8	.120	
22...	0852	4.0	.01	.01	.02	.01	.54	.55	.57	2.5	.110	
281801096431000 LINE 287 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
FEB , 1977												
09...	1050	1.0	.21	.00	.21	.00	1.0	1.0	1.2	5.4	.200	
09...	1052	4.0	.22	.00	.22	.00	1.1	1.1	1.3	5.8	.210	
281604096461300 LINE 287 SITE 08												
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1110	1.0	2.2	.13	.00	.13	.01	.80	.81	.94	4.2	.150
09...	1112	6.0	2.2	.13	.00	.13	.01	.97	.98	1.1	4.9	.170
JUN												
28...	1445	1.0	1.5	.13	.01	.14	.02	.59	.61	.75	3.3	.140
28...	1447	4.0	1.5	.12	.01	.13	.03	.61	.64	.77	3.4	.160
JUN , 1978												
22...	0908	1.0	2.0	.00	.01	.01	.01	.53	.54	.55	2.4	.130
22...	0910	7.0	1.8	.00	.01	.01	.03	.50	.53	.54	2.4	.130

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

281305096455500 LINE 294 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1140	1.0	.01	.00	.01	.03	.87	.90	.91	4.0	.120
09...	1142	6.0	.01	.00	.01	.01	.86	.87	.88	3.9	.130
JUN											
28...	1510	1.0	.00	.01	.00	.02	.44	.46	.46	2.0	.110
28...	1512	4.0	.00	.01	.00	.04	.70	.74	.74	3.3	.150
FEB , 1978											
22...	1145	1.0	.00	.01	.01	.00	.60	.60	.61	2.7	.060
22...	1146	4.0	.00	.01	.01	.00	1.2	1.2	1.2	5.4	.070
23...	0635	1.0	.00	.01	.01	.00	.44	.44	.45	2.0	.060
23...	0637	5.0	.00	.01	.01	.00	.45	.45	.46	2.0	.060
JUN , 1978											
21...	1213	6.0	.01	.02	.03	.00	.61	.61	.64	2.8	.090
21...	1215	1.0	.01	.01	.02	.00	.60	.60	.62	2.7	.080
21...	1217	6.0	.01	.02	.03	.00	.61	.61	.64	2.8	.090

281715096384500 LINE 307 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN DEMAND, BIOCHEM 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	0955	1.0	--	.00	.00	.00	.03	.37	.40	.40	1.8	.070
09...	0957	6.0	--	.00	.00	.00	.03	.38	.41	.41	1.8	.060
JUN												
28...	1400	1.0	--	.11	.01	.12	.04	.85	.89	1.0	4.5	.200
28...	1402	4.0	--	.12	.01	.13	.04	1.1	1.1	1.2	5.4	.240
FEB , 1978												
22...	1105	1.0	--	.00	.01	.01	.00	.44	.44	.45	2.0	.050
22...	1106	4.0	--	.00	.01	.01	.00	.35	.35	.36	1.6	.040
23...	0728	1.0	2.8	.00	.01	.01	.00	.38	.38	.39	1.7	.050
23...	0730	5.0	2.4	.00	.01	.01	.00	.42	.42	.43	1.9	.060
JUN												
21...	1134	1.0	1.6	.00	.01	.01	.00	.63	.63	.64	2.8	.050
21...	1136	6.0	1.9	.01	.01	.02	.00	1.2	1.2	1.2	5.4	.070

280923096514100 LINE 311 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1255	1.0	.00	.00	.00	.01	.99	1.0	1.0	4.4	.130
JUN											
29...	1100	1.0	.00	.01	.00	.04	.51	.55	.55	2.4	.110
FEB , 1978											
22...	1225	1.0	.00	.01	.01	.00	.42	.42	.43	1.9	.060
22...	1227	4.0	.00	.01	.01	.01	.69	.70	.71	3.1	.160
23...	0530	1.0	.00	.01	.01	.00	.78	.78	.79	3.5	.090
23...	0532	3.0	.00	.01	.01	.01	.68	.69	.70	3.1	.090
JUN											
21...	1258	1.0	.00	.01	.01	.00	.80	.80	.81	3.6	.060
21...	1300	4.0	.01	.01	.02	.00	.79	.79	.81	3.6	.080

280810096495900 LINE 314 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	1245	1.0	.00	.00	.00	.02	1.1	1.1	1.1	4.9	.140
JUN											
29...	1120	1.0	.00	.01	.00	.04	.55	.59	.59	2.6	.100

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- 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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
09...	0935	1.0	.00	.00	.00	.06	.24	.30	.30	1.3	.050
09...	0937	7.0	.00	.01	.01	.07	.17	.24	.25	1.1	.060
JUN											
28...	1320	1.0	.00	.01	.00	.04	.78	.82	.82	3.6	.170
28...	1322	6.0	.00	.01	.00	.04	.90	.94	.94	4.2	.180
JUN , 1978											
21...	1107	1.0	.01	.02	.03	.00	.49	.49	.52	2.3	.030
21...	1109	7.0	.01	.01	.02	.00	.49	.49	.51	2.3	.030
282400096243500 LINE 360 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1978											
21...	0930	1.0	.01	.01	.02	.00	.33	.33	.35	1.5	.010
21...	0934	25	.01	.02	.03	.00	.47	.47	.50	2.2	.010

Table 7C.--Quality of water in the Guadalupe 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)

282648096493700 LINE 160 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
JUN , 1977										
28...	1520	1.0	650	260	39	77	16	49	29	1.3
JUN , 1978										
22...	1126	1.0	734	220	24	62	16	68	39	2.0

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	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, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN , 1977											
28...	3.9	270	0	221	57	73	.2	1.3	423	.58	
JUN , 1978											
22...	6.0	240	0	197	54	74	.3	9.9	409	.56	

282404096452300 LINE 243 SITE 05

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1978											
22...	1205	1.0	1100	290	91	79	22	110	45	2.8	6.3
23...	0608	1.0	800	270	61	77	18	68	35	1.8	4.9
JUN											
22...	0730	1.0	583	170	13	51	10	43	35	1.4	5.9

DATE	TIME	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	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, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1978											
22...	240	0	197	1.0	64	180	.3	11	591	.80	
23...	250	0	205	2.0	57	110	.3	21	479	.65	
JUN											
22...	190	0	156	1.0	37	61	2.5	10	314	.43	

281833096421900 LINE 287 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
JUN , 1977										
28...	1425	1.0	4790	540	390	71	89	700	72	13

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	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, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN , 1977											
28...	34	180	0	148	210	1600	1.6	11	2610	3.55	

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

281604096461300 LINE 287 SITE 08

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (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

DATE	TIME	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1978											
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

DATE	TIME	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1978											
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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
FEB , 1977										
09...	0935	1.0	44000	5400	5300	360	1100	8500	76	50

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	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 km<sup>2</sup>), 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.

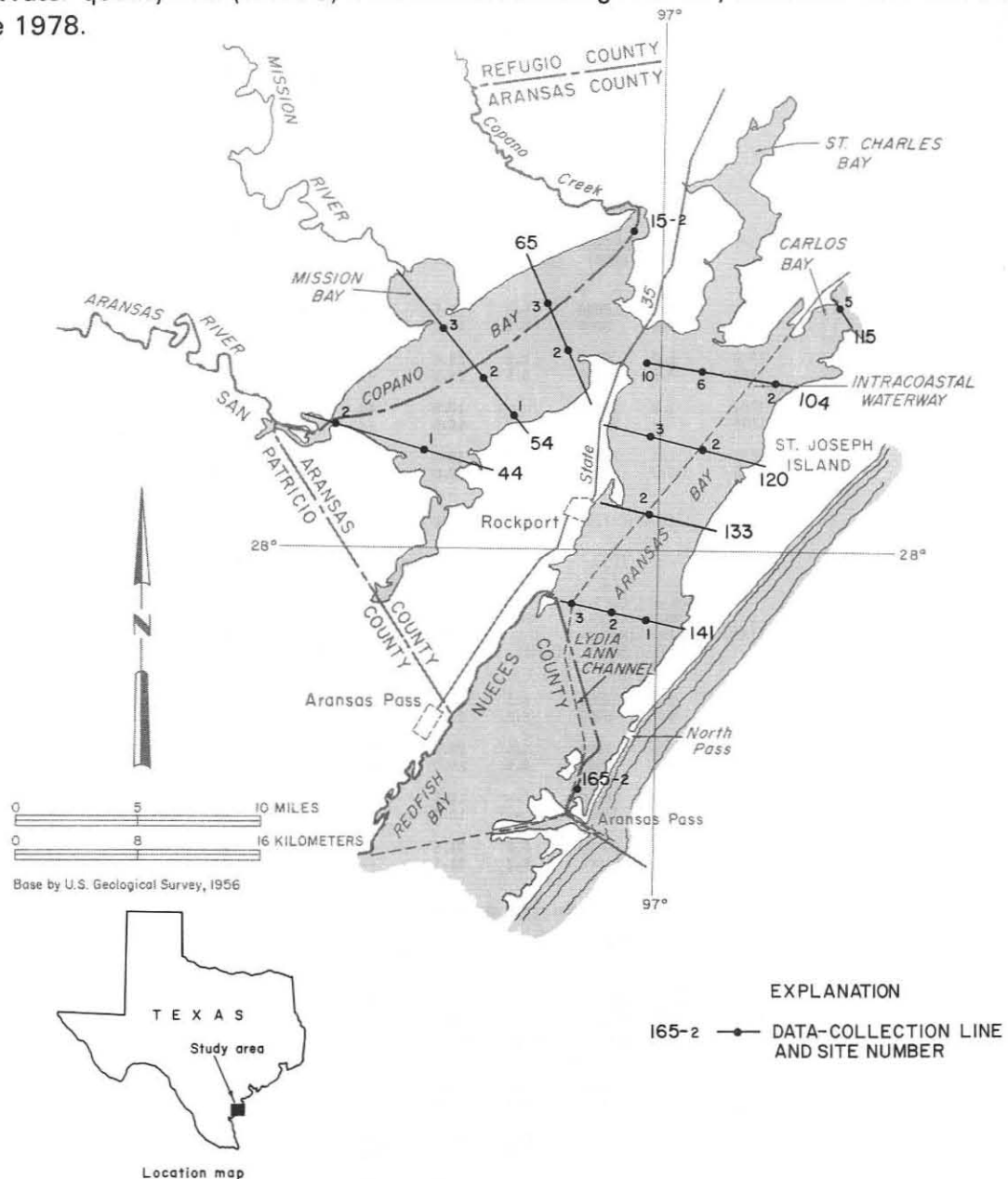


Figure 9.—Data-Collection Sites in the Mission-Aransas Estuary

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 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 (MG/L)	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 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 (MG/L)	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 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 (MG/L)	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 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 (MG/L)	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

280612097070400 LINE 054 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
10...	1020	1.0	6000	8.2	11.5	--	9.7	94
10...	1022	7.0	8000	8.1	11.5	--	8.9	88
JUN								
29...	1150	1.0	6100	8.4	28.5	.20	7.1	95
29...	1152	7.5	6100	8.4	28.5	--	6.8	91
JAN , 1978								
17...	1355	1.0	28000	--	10.5	.36	9.5	98
17...	1357	7.0	28000	--	10.0	--	9.7	99
JUN								
14...	0850	1.0	25000	8.2	29.5	--	6.0	87
14...	0852	6.0	26000	8.1	29.5	--	6.0	88

280754097084000 LINE 054 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
29...	1200	1.0	4800	8.4	28.5	.15	6.6	88
29...	1202	6.0	5100	8.4	28.5	--	6.5	87
JAN , 1978								
17...	1345	1.0	28000	--	10.5	.56	9.9	102
17...	1347	6.0	29000	--	10.5	--	10.0	104
JUN								
14...	0857	1.0	23000	8.1	30.5	--	5.4	79
14...	0859	4.0	25000	8.1	30.5	--	5.2	76

280727097032700 LINE 065 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
10...	1120	1.0	14000	8.3	12.0	--	9.4	95
10...	1122	7.0	13000	8.4	11.9	--	9.2	92
JUN								
29...	1320	1.0	8600	8.4	28.5	.39	7.1	95
29...	1322	9.0	8600	8.4	29.0	--	7.0	95
JAN , 1978								
17...	1218	1.0	30000	--	10.5	.26	9.1	94
17...	1220	7.0	30000	--	10.0	--	9.4	97
JUN								
14...	0920	1.0	29000	8.1	30.0	--	5.7	85
14...	0922	8.0	31000	8.0	30.0	--	5.1	77

280847097034700 LINE 065 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
10...	1110	1.0	9000	8.3	12.0	--	9.8	97
10...	1112	7.0	9000	8.3	12.0	--	9.7	96
JUN								
29...	1115	1.0	9400	8.3	28.0	.20	7.0	94
29...	1117	7.0	9400	8.3	29.0	--	6.9	93
JAN , 1978								
17...	1418	1.0	30000	--	10.5	.47	9.6	100
17...	1420	7.0	31000	--	10.5	--	9.5	100
JUN								
14...	0908	1.0	28000	8.1	30.0	--	6.1	89
14...	0910	5.0	31000	8.1	30.0	--	4.2	64

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

280608096551700 LINE 104 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1320	1.0	12000	8.4	11.0	.20	11.1	108
09...	1322	3.0	12000	8.4	11.0	--	11.1	108
JUN								
29...	1040	1.0	17000	8.5	29.0	.39	7.0	97
29...	1042	4.0	17000	8.5	29.0	--	6.9	96
JAN , 1978								
17...	1242	1.0	34000	8.0	10.5	.87	9.7	104
17...	1244	4.0	34000	8.1	10.5	--	9.7	104
JUN								
14...	0830	1.0	40000	8.0	30.5	.37	6.1	95
14...	0832	5.0	40000	8.0	30.5	--	6.1	95

280633096581200 LINE 104 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1345	1.0	12000	8.4	11.5	.30	11.0	109
09...	1347	6.0	12000	8.4	11.5	--	10.8	107
JUN								
29...	1030	1.0	15000	8.4	28.5	.11	7.3	100
29...	1032	5.0	14000	8.4	28.5	--	7.1	97
JAN , 1978								
17...	1232	1.0	30000	8.2	11.0	.86	10.2	107
17...	1234	6.0	31000	8.2	11.0	--	10.1	107
JUN								
14...	0818	1.0	37000	8.2	30.0	.81	5.9	91
14...	0820	6.0	40000	8.2	29.5	--	5.4	83

280653097003300 LINE 104 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1355	1.0	14000	8.3	11.5	.35	10.8	108
09...	1357	7.0	14000	8.3	11.5	--	10.6	106
JUN								
29...	0945	1.0	13000	8.3	28.5	.29	7.0	95
29...	0947	4.0	13000	8.3	28.5	--	7.0	95
29...	0949	7.0	13000	8.3	28.5	--	7.0	95
JAN , 1978								
17...	1224	1.0	29000	8.0	11.5	.74	9.6	102
17...	1226	5.0	29000	8.1	11.5	--	9.7	103
17...	1228	7.0	28000	8.1	11.5	--	9.8	103
JUN								
14...	0806	1.0	24000	8.2	32.0	.70	6.1	88
14...	0808	5.0	23000	8.2	29.5	--	6.1	87
14...	0810	9.0	25000	8.2	29.5	--	6.0	87

280755096533100 LINE 115 SITE 05

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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
09...	1310	1.0	14000	8.4	11.5	.12	10.8	108
09...	1312	3.0	14000	8.4	11.5	--	10.9	109
JUN								
29...	1050	1.0	19000	8.3	28.5	.22	6.7	94
29...	1052	3.0	19000	8.3	28.6	--	6.6	92
JAN , 1978								
17...	1250	1.0	33000	8.1	11.5	.58	9.4	104
17...	1300	3.0	33000	8.0	10.1	--	9.4	104
JUN								
14...	0845	1.0	38100	8.1	30.5	.38	5.8	91
14...	0847	3.0	39000	8.1	30.0	--	5.8	91

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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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 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 (MG/L)	OXYGEN, DIS- SOLVED (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 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 (MG/L)	OXYGEN, DIS- SOLVED (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	--	5.5	84

275815097031800 LINE 141 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (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- 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 (MG/L)	OXYGEN, DIS- 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  
Nutrient Analyses

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

280452097054800 LINE 054 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
10...	1010	1.0	1.9	.00	.00	.00	.01	.58	.59	.59	2.6	.060
JUN												
29...	1300	1.0	1.7	.00	.00	.01	.02	.51	.53	.54	2.4	.090
JAN , 1978												
17...	1232	1.0	1.6	.00	.01	.01	.00	.63	.63	.64	2.8	.070
JUN												
14...	0814	1.0	1.7	.05	.01	.06	.03	.65	.68	.74	3.3	.060

280847097034700 LINE 065 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
10...	1110	1.0	.00	.00	.00	.00	.67	.67	.67	3.0	.050
JUN											
29...	1115	1.0	.08	.01	.09	.01	1.1	1.1	1.2	5.3	.130
JAN , 1978											
17...	1418	1.0	.01	.00	.01	.00	.50	.50	.51	2.3	.060
JUN											
14...	0908	1.0	.00	.01	.01	.01	.59	.60	.61	2.7	.050

280608096551700 LINE 104 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1320	1.0	--	.01	.00	.01	.02	1.1	1.1	1.1	4.9	.140
JUN												
29...	1040	1.0	--	.01	.00	.01	.01	.60	.61	.62	2.7	.090
JAN , 1978												
17...	1242	1.0	1.2	.02	.00	.02	.01	.34	.35	.37	1.6	.050
JUN												
14...	0830	1.0	--	.00	.01	.01	.03	.83	.86	.87	3.9	.140

280755096533100 LINE 115 SITE 05

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
09...	1310	1.0	3.5	.00	.00	.00	.01	1.4	1.4	1.4	6.2	.150
JUN												
29...	1050	1.0	1.7	.03	.01	.04	.03	.45	.48	.52	2.3	.100
JAN , 1978												
17...	1258	1.0	--	.01	.00	.01	.01	.44	.45	.46	2.0	.070
JUN												
14...	0845	1.0	2.7	.00	.01	.01	.03	1.5	1.5	1.5	6.7	.260



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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
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											
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FER , 1977											
09...	1455	1.0	.00	.00	.00	.01	.64	.65	.65	2.9	.070
JUN											
29...	1225	1.0	.00	.01	.00	.01	.64	.65	.65	2.9	.070
JAN , 1978											
17...	1429	1.0	.01	.00	.01	.00	.53	.53	.54	2.4	.070
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
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											
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	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
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											
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

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 SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED PER AC-FT)
FEB , 1977										
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										
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 km<sup>2</sup>), 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.

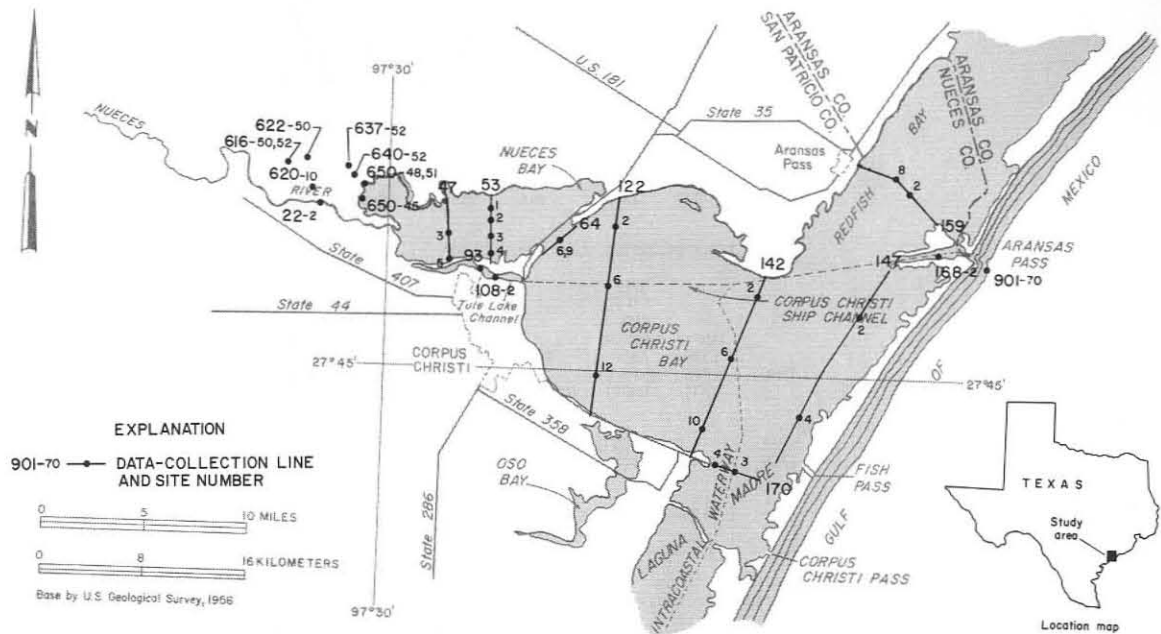


Figure 10.—Data-Collection Sites in the Nueces Estuary

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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
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- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
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 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 (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 DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	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 DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	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 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 (MG/L)	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 Mueces estuary, water years 1977-78--Continued  
Field Determinations--Continued

275105097193100 LINE 122 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 Huesces 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	--	3.1	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	30.5	.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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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

274335097111700 LINE 147 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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

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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB , 1977								
01...	1810	1.0	39000	8.2	9.0	.57	9.4	99
01...	1812	6.0	39000	8.2	9.0	--	9.5	100
01...	1814	13	39000	8.2	9.0	--	9.6	101
JUN								
22...	1420	1.0	50000	8.3	29.0	.77	5.1	82
22...	1422	5.0	52000	8.3	29.0	--	5.2	84
22...	1424	10	52000	8.3	29.0	--	5.1	82
22...	1426	13	52000	8.2	28.5	--	3.4	55
MAR , 1978								
01...	1405	1.0	48000	8.4	15.5	--	7.9	101
01...	1407	8.0	48000	8.4	15.5	--	7.9	101
01...	1409	16	48000	8.4	17.0	--	7.6	100

274935097013500 LINE 901 SITE 70

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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN , 1977								
30...	0900	1.0	57000	8.0	26.0	.82	6.1	96
30...	0902	25	57000	8.0	24.5	--	5.9	91
30...	0904	51	54000	8.0	25.5	--	5.5	86
FEB , 1978								
24...	0830	1.0	47000	8.5	11.5	--	8.6	100
24...	0832	10	48000	8.4	11.5	--	8.3	98
24...	0834	25	49000	8.4	12.0	--	8.4	100
24...	0836	50	49000	8.4	12.0	--	8.4	100
JUN								
13...	1210	1.0	29500	8.2	29.0	1.95	5.7	84
13...	1212	26	31000	8.1	28.0	--	4.8	71
13...	1214	52	32000	7.9	25.5	--	4.9	69

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

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

275056097270500 LINE 047 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1978											
13...	1220	1.0	.00	.01	.01	.01	1.3	1.3	1.3	5.8	.100

275125097252800 LINE 053 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
10...	1415	1.0	3.9	.00	.00	.00	.01	.67	.68	.68	3.0	.100
JUN												
30...	0955	1.0	2.0	.00	.02	.00	.06	.94	1.0	1.0	4.4	.170
JUN , 1978												
13...	1248	1.0	3.9	.00	.01	.01	.01	.99	1.0	1.0	4.5	.060

275017097223200 LINE 064 SITE 09

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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1978											
24...	1035	1.0	.00	.01	.01	.01	.47	.48	.49	2.2	.060
24...	1037	22	.01	.01	.02	.01	.57	.58	.60	2.7	.060

274849097245600 LINE 108 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
10...	1440	1.0	4.0	.02	.00	.02	.09	.65	.74	.76	3.4	.140
10...	1445	36	2.6	.01	.00	.01	.06	.74	.80	.81	3.6	.210
JUN												
30...	0905	1.0	1.7	.02	.05	.07	.11	.33	.44	.51	2.3	.080
30...	0911	39	--	.01	.06	.07	.12	.17	.29	.36	1.6	.060
FEB , 1978												
24...	0955	1.0	--	.10	.06	.16	.48	.92	1.4	1.6	6.9	.270
24...	0959	37	--	.22	.20	.42	.40	.70	1.1	1.5	6.7	.150
JUN												
13...	1135	1.0	--	.02	.01	.03	.05	.84	.89	.92	4.1	.090
13...	1139	40	--	.01	.01	.02	.38	.56	.94	.96	4.3	.090

275105097193100 LINE 122 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977											
10...	1400	1.0	.00	.00	.00	.01	.27	.28	.28	1.2	.070
10...	1402	10	.00	.00	.00	.01	.48	.49	.49	2.2	.070
JUN											
30...	1225	1.0	.00	.01	.00	.04	.49	.53	.53	2.3	.060
30...	1229	10	.00	.01	.01	.04	.39	.43	.44	1.9	.060
FEB , 1978											
24...	0855	1.0	.00	.01	.01	.00	.54	.54	.55	2.4	.050
24...	0857	9.0	.00	.01	.01	.00	.52	.52	.53	2.3	.050
JUN											
13...	1055	1.0	.00	.01	.01	.03	.93	.96	.97	4.3	.050
13...	1057	8.0	.00	.01	.01	.03	.97	1.0	1.0	4.5	.110

Table 9B.--Quality of water in the Nueces 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	3.6	.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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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...	1315	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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
SEP , 1978											
07...	1245		.00	.01	.01	.03	.73	.76	.77	3.4	.120

275201097333200 LINE 620 SITE 10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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	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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1978											
16...	1205		.00	.01	.01	.01	1.2	1.2	1.2	5.4	.110

275214097310800 LINE 650 SITE 48

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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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- 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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUN , 1977											
30...	0900	1.0	.00	.01	.01	.01	.08	.09	.10	.40	.020
30...	0904	51	.00	.01	.01	.02	.32	.34	.35	1.5	.000
FEB , 1978											
24...	0830	1.0	.00	.01	.01	.01	.37	.38	.39	1.7	.050
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
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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
10...	1415	1.0	19000	2300	2200	240	410	3400	75	31	160
JUN											
30...	0955	1.0	27000	2900	2800	270	550	170	--	1.4	--
JUN , 1978											
13...	1248	1.0	22300	2500	2400	210	490	3800	75	33	160

DATE	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977										
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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
10...	1245	1.0	37000	4400	4300	310	890	7000	76	46	300
FEB , 1978											
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

DATE	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB , 1977										
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

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
AUG , 1978										
05...	1410	1.0	34700	3100	3000	170	640	6400	81	50

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
AUG , 1978										
05...	190	61	0	50	1800	11000	.2	2.1	20200	27.5

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

275314097344900 LINE 616 SITE 52											
DATE	TIME	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO			
SEP , 1978											
07...	1245	300	280	56	39	510	78	13			
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)			
SEP , 1978											
07...	17		24	0	20	120	.1	5.7			
275201097333200 LINE 620 SITE 10											
DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
AUG , 1978											
05...	1530	1.0	54800	5800	5600	490	1100	11000	79	63	
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
AUG , 1978											
05...	360	160	0	131	2800	19000	.5	12	34800	47.3	
275221097315000 LINE 640 SITE 52											
DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
AUG , 1978											
05...	1335	1.0	56900	7100	7000	520	1400	11000	76	57	
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
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 CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO			
SEP , 1978											
07...	1115	2800	2600	280	500	4400	76	36			
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)			
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 km<sup>2</sup>), 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.

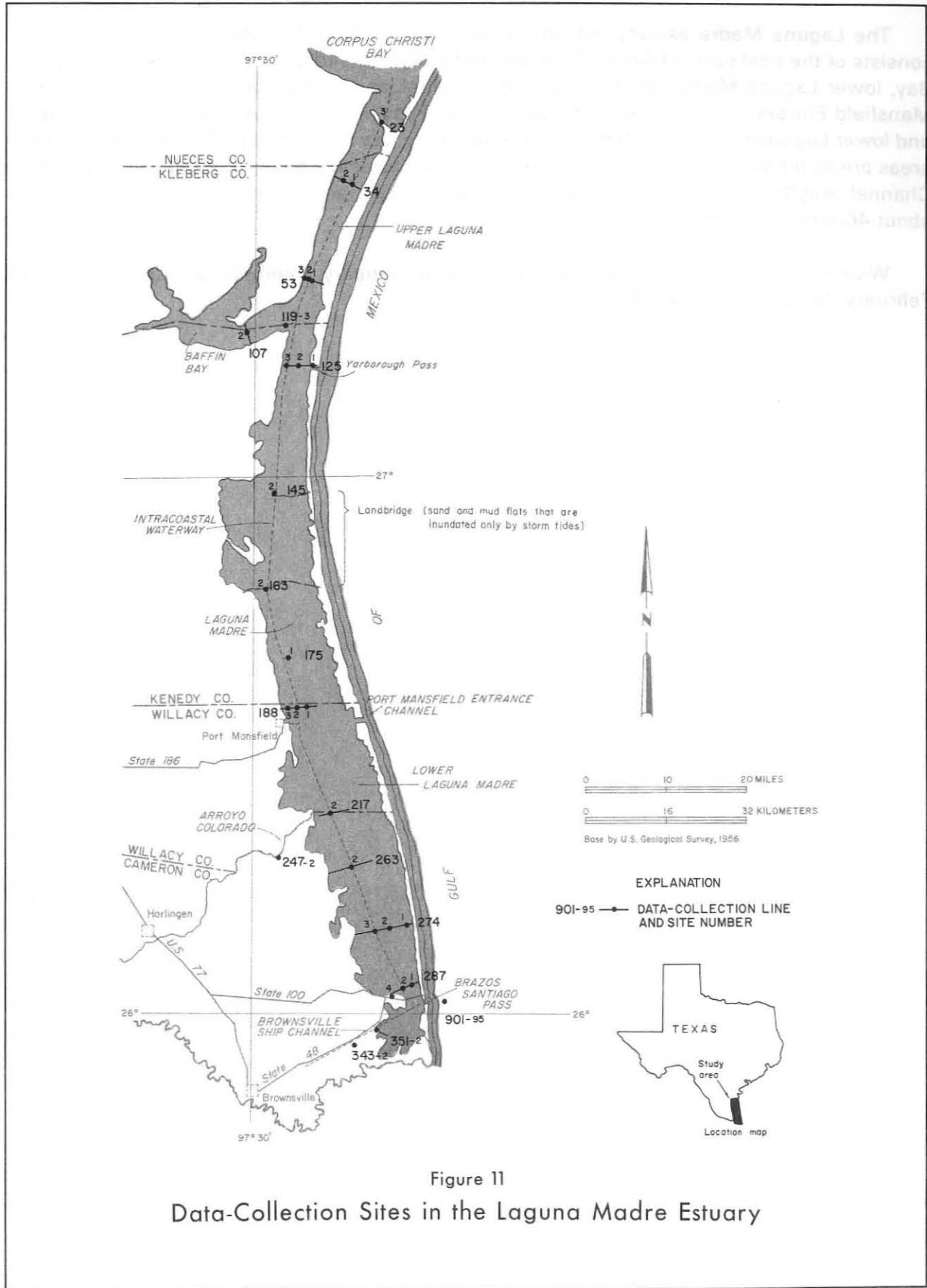


Figure 11  
Data-Collection Sites in the Laguna Madre Estuary

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- 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 SATUR- ATION)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	--	8.6	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- 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 SATUR- ATION)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 SATUR- ATION)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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	5.0	60200	8.1	30.0	--	5.8	100

271213097253500 LINE 125 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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- 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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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								
28...	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	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 (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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) (M)	OXYGEN, DIS- SOLVED (MG/L)	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								
28...	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 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 (MG/L)	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 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 (MG/L)	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	55000	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 DEPTH (FT)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)
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 DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	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 (MG/L AS N)	NITRO- GEN, NITRITE (MG/L AS N)	NITRO- GEN, NO2+NO3 (MG/L AS N)	NITRO- GEN, AMMONIA (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
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	
273203097185100 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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

264822097281400 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
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	
264136097245100 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
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	
263532097242800 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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
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, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
FEB , 1977												
01...	0945	1.0	3.6	1.3	.20	1.5	.51	.79	1.3	2.8	12	.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	.07	.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 (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 5 DAY (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 TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
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 351 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	OXYGEN	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	
			DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	GEN, NITRATE TOTAL (MG/L AS N)	GEN, NITRITE TOTAL (MG/L AS N)	GEN, NO2+NO3 TOTAL (MG/L AS N)	GEN, AMMONIA TOTAL (MG/L AS N)	GEN, ORGANIC TOTAL (MG/L AS N)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS NO3)	PHORUS, TOTAL (MG/L AS P)
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-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	
			GEN, NITRATE TOTAL (MG/L AS N)	GEN, NITRITE TOTAL (MG/L AS N)	GEN, NO2+NO3 TOTAL (MG/L AS N)	GEN, AMMONIA TOTAL (MG/L AS N)	GEN, ORGANIC TOTAL (MG/L AS N)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS NO3)	PHORUS, TOTAL (MG/L AS P)
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 053 SITE 01

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	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 PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
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

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	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 SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (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 053 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	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 PERCENT	SODIUM AD- SORP- TION RATIO
FEB , 1977										
01...	1615	1.0	34000	4000	800	300	800	7000	78	48

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (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	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	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 PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUN , 1978											
27...	1510	1.0	62300	7100	7000	370	1500	13000	79	67	510

DATE	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	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 SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (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	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
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											
01...	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED PER AC-FT)
FEB , 1977										
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										
01...	200	0	164	.8	2800	20000	1.1	1.0	36200	49.2

263532097242800 LINE 188 SITE 02

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
FEB , 1977											
01...	1220	1.0	38000	4500	4400	340	890	8000	78	52	300
JUN											
21...	1650	1.0	50000	6000	5900	440	1200	9800	77	55	360
MAR , 1978											
01...	0732	1.0	55000	5700	5500	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED PER AC-FT)
FEB , 1977										
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										
01...	190	0	156	.8	2800	20000	1.2	2.0	35900	48.8

263516097252300 LINE 188 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM 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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED PER 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	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM 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	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 SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN , 1978											
27...	190	0	156	.6	1300	4800	.9	14	9630	13.1	

261153097153400 LINE 274 SITE 03

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM 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	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER 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).

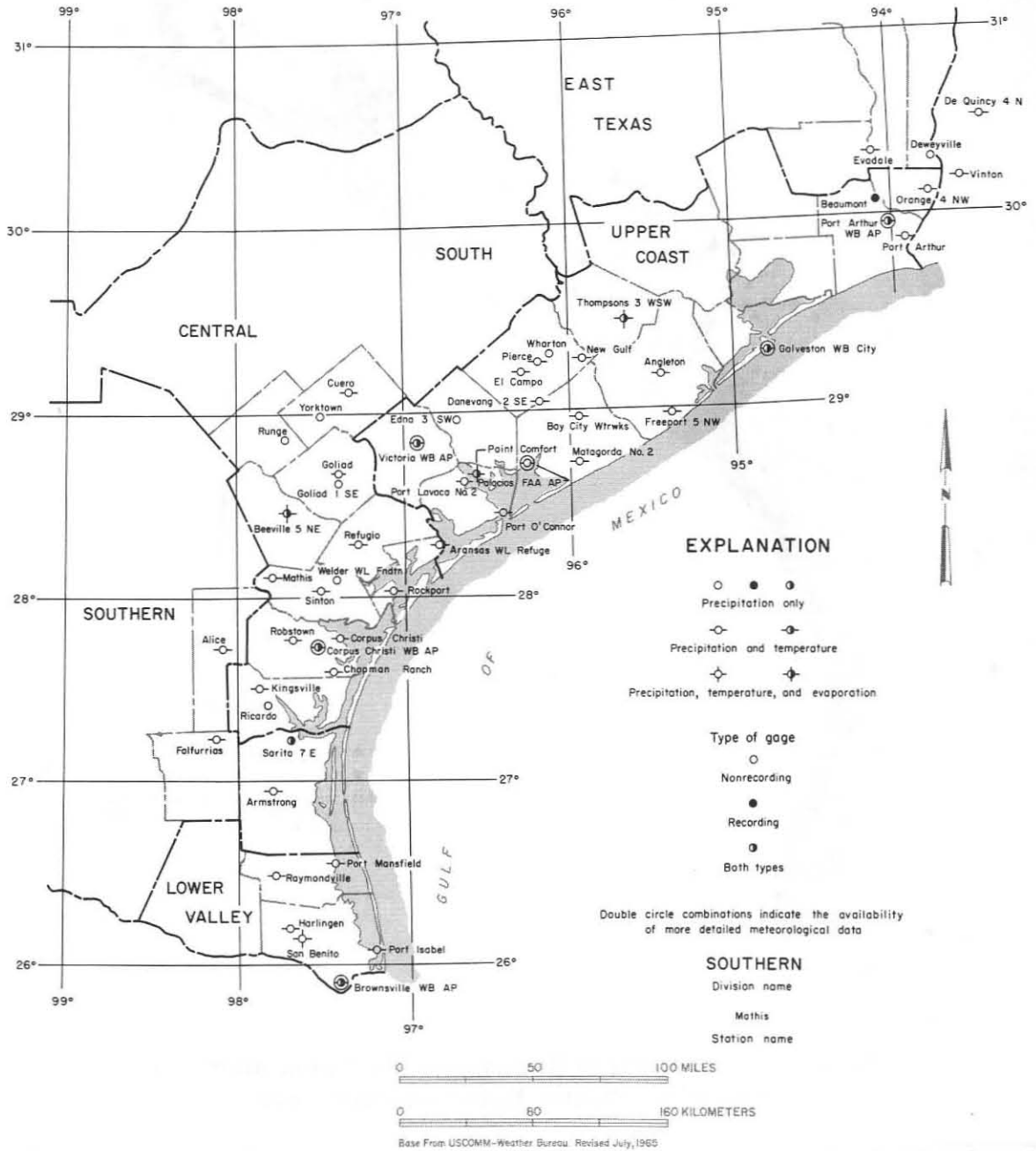
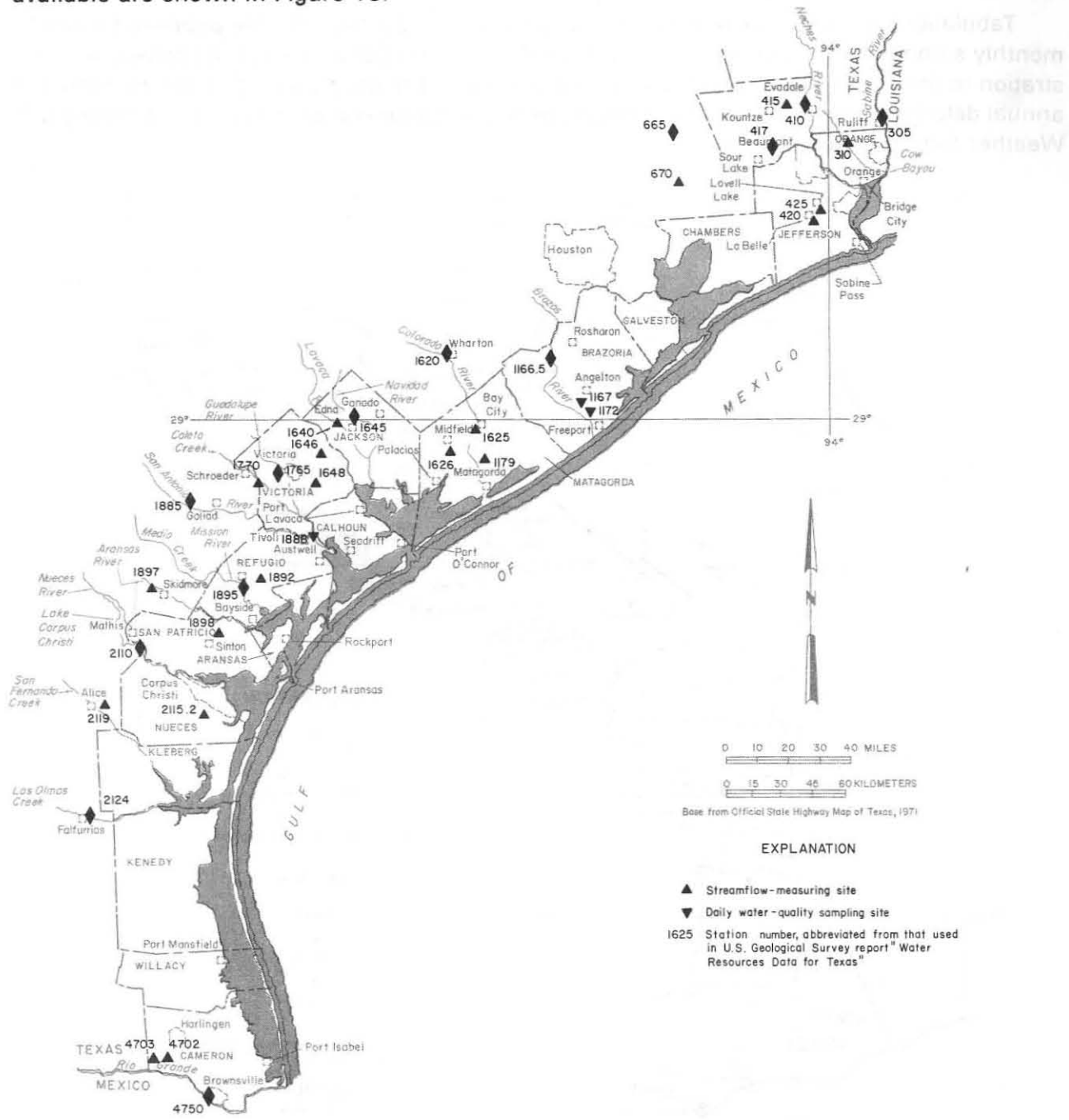


Figure 12.—Locations of Selected Climatological Stations

## 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 locations<sup>1</sup> 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**

<sup>1</sup>Station 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<sup>2</sup>) to more than 10,000 square miles (25,900 km<sup>2</sup>). 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).

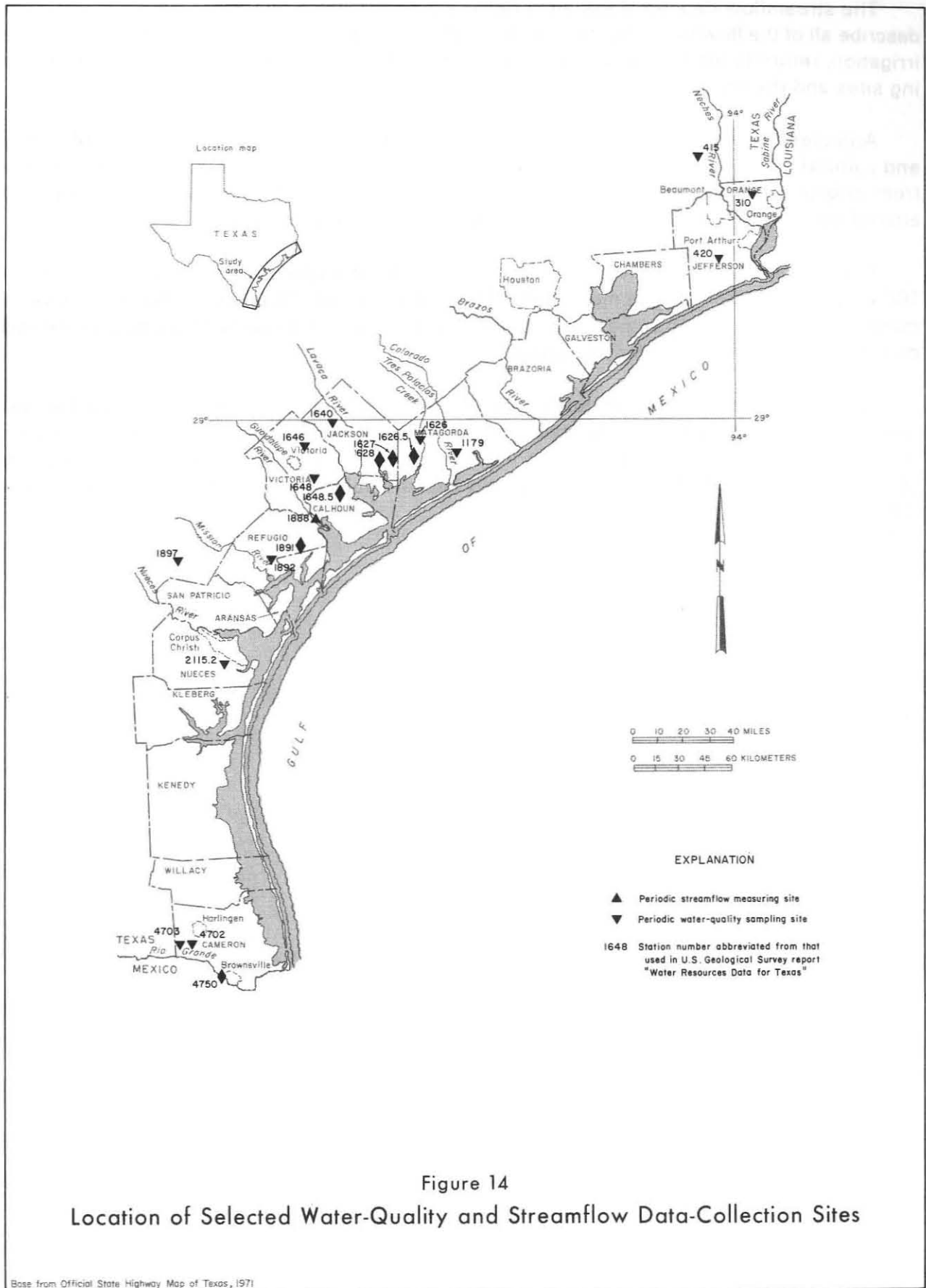


Figure 14  
 Location of Selected Water-Quality and Streamflow Data-Collection Sites

Base from Official State Highway Map of Texas, 1971

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