LAKE OKEECHOBEE WATER QUALITY MONITORING PROGRAM

ANNUAL REPORT

YEAR FOUR

OCTOBER 1986 - SEPTEMBER 1987

In Partial Fulfillment of Specific Condition

(VI E) of Florida Department of

Environmental Regulation Permit

No. 50-0679349

South Florida Water Management District

August 1988

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EXECUTIVE SUMMARY

This annual report on the Lake Okeechobee water quality monitoring program covers the period of October 1, 1986 to September 30, 1987. This is the fourth year of the South Florida Water Management District's (SFWMD)'s Operating Permit issued by the Florida Department of Environmental Regulation for water control structures discharging to the lake. Included are: (1) water quality summaries for the lake, its inflows and outflows, and pump discharges to the Water Conservation Areas; (2) phosphorus and nitrogen inputs from each major lake tributary; (3) an update on the lake's trophic state; and (4) results of pesticide monitoring at water control structures in the Everglades Agricultural Area.

Average water quality values in Lake Okeechobee for the year 1986-87 were within historical ranges. Total phosphorus rose from the previous year to 0.095 mg P/L. This is the highest mean value since 1984. The mean total nitrogen concentration also increased to 1.84 mg N/L. The mean chlorophyll a concentration (24.5 mg/m^3), an indicator of phytoplankton biomass, remained near the historical average. These nutrient and chlorophyll levels are indicative of a eutrophic condition. The lake experienced blue-green algal blooms during the year, but none reached the magnitude of the bloom that impacted the lake in the summer of 1986. Anabaena circinalis was a dominant species again in the spring of 1987.

Lake inflows in 1986-87 were generally below the 1973-79 base period averages, as they have been throughout the Operating Permit period. Total phosphorus and nitrogen loadings from those inflows identified in the Permit were 68 and 78 percent below the target phosphorus and nitrogen loading rates, respectively. Individually, all inflows met their target loads except S-133, which slightly exceeded its five-year target nitrogen load. The Interim Action Plan (IAP) kept nutrient inputs from the Everglades Agricultural Area (EAA) well below target levels. The IAP, however, resulted in greater discharges to the Water Conservation Areas. Loadings from S-191 were 49 percent below the phosphorus target and 37 percent under the target for nitrogen. The S-154 basin, which is another watershed impacted by dairy and cattle operations, contributed a significant amount of phosphorus for its size. No target loads are established for this basin by the Permit, but the basin greatly exceeds the target loading rate set by the SFWMD.

Preliminary trend analysis indicates that phosphorus concentrations in the Taylor Creek/Nubbin Slough basin are declining. Best Management Practices were implemented in 98 percent of the basin's defined critical acreage by the end of 1987. The annual flow-weighted phosphorus concentration at S-191 was 0.667 mg/L, which meets the three year target concentration of 0.67 mg/L. The flow-weighted nitrogen concentration was 2.19 mg/L, which is slightly greater than the target of 1.72 mg/L.

Phosphorus concentrations in the Lower Kissimmee River (C-38) basin continue to be higher than in the 1970's. The flow-weighted phosphorus concentration for 1986-87 was 0.260 mg/L, which is lower than in the previous year, but still twice the base-period average.

S-154 has the highest phosphorus concentrations of any inflow. The 1986-87 flow-weighted concentration was 0.895 mg/L.

Over the first four years of the Operating Permit, which were relatively dry years, annual nutrient loading from most inflows averaged less than the target loads specified in the Permit. For phosphorus, these included the S-2, S-4, Harney Pond Canal, Lower Kissimmee River, Taylor Creek/Nubbin Slough, and Fisheating Creek basins. Those inflows that were more than 10 percent above their targets included S-3 and S-133. Most inflows also met their target nitrogen loads over the four year period, except for S-2, S-3, S-127, and S-133.

Pesticide monitoring was conducted at six SFWMD EAA pump stations in January, April, May, and July, 1987. No detectable residues were found in either the water or sediment in January. In April, atrazine residues were detected in water samples at three sites. Atrazine was detected in the water again at all six sites in May and at two sites in July. The highest atrazine value measured was not high enough to cause a toxic effect in fish or invertebrates, or an adverse health effect in humans. The compounds 2,4-D, ametryne, and DDE were found in some of the sediment samples collected in July. This is the first time that 2,4-D and ametryne have been detected in sediment samples at these stations. The DDE could be relic residue from the past use of DDT, since DDT has been banned since 1974. No water quality or health standards exist for agricultural chemical residues in the sediment.

A separate investigation of the rodenticide zinc phosphide was conducted in January 1987 at the same pump stations to determine if detectable quantities were still present in water samples after the period of application to sugarcane fields. Small quantities were detected at all six sites. No State of Florida standards or U. S. EPA guidelines exist for this compound.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
LAKE OKEECHOBEE WATER QUALITY MONITORING PROGRAM
YEAR FOUR - OCTOBER 1986 - SEPTEMBER 1987
INTRODUCTION

Lake Okeechobee is a shallow, eutrophic lake that is impacted by agricultural runoff. As part of its management of this lake, the South Florida Water Management District (SFWMD) has been monitoring the water quality of Lake Okeechobee and its inflows and outflows since 1973. The first seven years of study (April 1973 - March 1980) were summarized in SFWMD Technical Publication No. 81-2 (Federico et al. 1981) and are referred to here as the 1973-79 base period.

In response to recommendations of the 1981 report, nutrient loading allocations were assigned to each watershed within the Okeechobee basin on the basis of drainage area (SFWMD 1982). In September 1983, the Florida Department of Environmental Regulation issued a five-year Operating Permit to the SFWMD for the operation of its inflow structures around Lake Okeechobee. Specific Condition (V) of this Operating Permit establishes nutrient loading targets for each major watershed (Tables 5a, 5b, and 5c). Overall, these targets call for a 24 percent reduction in the average phosphorus load and 39 percent reduction in average nitrogen load relative to the 1973-79 base period. To ensure that nutrient reductions are uniformly achieved, the target loads for each inflow cannot be exceeded by more than 10 percent when the Permit expires in September 1988. Further limitations on nutrient loads were set for those basins (S-2, S-3, and S-191) that were deemed critical to the SFWMD's nutrient control strategy. S-2 and S-3 are required to achieve their loading targets in three, rather than five, years. Likewise, S-191 is restricted to three-year target loads of 139 tons of phosphorus and 388 tons of nitrogen, and maximum concentration limits of 0.67 mg P/L and 1.72 mg N/L.

These target levels were designed to substantially reduce the loads from those basins with the highest nutrient runoff rates, while setting interim goals for the five-year duration of the Permit. Thus, the S-2 and S-3 basins were required to meet the SFWMD's loading allocations for nitrogen and phosphorus, whereas the Taylor Creek/Nubbin Slough and Lower Kissimmee River basins are required to reduce their nutrient inputs to the lake, but these reductions are not as stringent as the maximum allowable loads established by the SFWMD. The Permit does not require nutrient loading reductions from the other sub-basins.

This report provides an update on the effectiveness of the SFWMD's management actions to reduce tributary nutrient loads to the target levels. The report covers the period of October 1, 1986, to September 30, 1987. Active nutrient control options have been implemented in the S-2 and S-3 basins by using the Interim Action Plan (IAP), and in the Taylor Creek/Nubbin Slough basin by encouraging and supporting agricultural Best Management Practices (BMPs) (Table 1). Similar BMP programs are beginning to be implemented in the Lower Kissimmee River basin, including the S-154 sub-basin. The water quality management strategy in lower-priority basins during these first four years consisted of regulatory control of new drainage systems to improve the quality of water being delivered off site. This form of regulatory control is effective only when land use intensifies and new drainage systems are needed. With the exception of the BMP programs on the north side of the lake, there has been no retrofitting of existing drainage systems for the purpose of improving water quality.

In addition to the current activities, the Governor's Lake Okeechobee Technical Advisory Council (LOTAC II) has recommended the management options listed below to improve the water quality of the lake's inflows (LOTAC 1988). The SFWMD has taken the lead role in evaluating many of these options.

TABLE 1. SUMMARY OF WATER QUALITY MANAGEMENT STRATEGY FOR LAKE OKEECHOBEE INFLOW STRUCTURES

Structure	Management Strategy
S-2	Interim Action Plan (July 1979)
S-3	Interim Action Plan (July 1979)
S-4	Regulatory Control of New Drainage Systems
S-191	Best Management Practices (1981)
S-65E	Best Management Practices (1988)
S-154	Best Management Practices (1988)
S-84	Regulatory Control of New Drainage Systems
S-71	Regulatory Control of New Drainage Systems
S-72	Regulatory Control of New Drainage Systems
S-127	Regulatory Control of New Drainage Systems
S-129	Regulatory Control of New Drainage Systems
S-131	Regulatory Control of New Drainage Systems
S-133	Regulatory Control of New Drainage Systems
S-135	Regulatory Control of New Drainage Systems

Everglades Agricultural Area

1. Refine the IAP to further reduce phosphorus loadings to the lake and Water Conservation Areas (WCAs), and identify a nutrient removal site to protect WCAs 1 and 2.
2. Control point source phosphorus loading from municipalities.
3. Study and implement BMPs, if they are found acceptable.
4. Evaluate the Holey Land for nutrient removal capabilities and consequent ecological effects.
5. Investigate the feasibility of flow-way construction for nutrient assimilation.
6. Study aquatic and wetland plant management systems.
7. Accelerate the planning and design of the L-8 water supply augmentation project.

Taylor Creek/Nubbin Slough and Lower Kissimmee River Basins

1. Accelerate BMP implementation where appropriate, provide additional funding, continue BMP monitoring, and develop a demonstration program for dairy waste management education.
2. Continue the aquifer storage and recovery demonstration program and plan full implementation if the demonstration is successful.
3. Determine the magnitude of adverse environmental effects resulting from the proposed diversion of Taylor Creek/Nubbin Slough runoff to the Indian River.

S-4/Caloosahatchee Basin

Model the downstream effects of the proposed S-4 diversion to Caloosahatchee River, determine the potential use of Lake Hicpochee for phosphorus retention, and examine the routing of Industrial Canal water to Lake Hicpochee.

MATERIALS AND METHODS

Lake Okeechobee

Eight stations were monitored in the limnetic zone of Lake Okeechobee along with 17 inflow/outflow structures and Fisheating Creek (Figure 1). The frequency of monitoring and the parameters measured are shown in Table 2. Water quality in the lake was measured monthly. Sampling of inflows and outflows around the lake was conducted every two to four weeks, depending on discharge. Sampling and analytical procedures have been described by Federico et al. (1981).

Water Conservation Areas

Water quality and discharge data from three pump stations (S-6, S-7, and S-8) discharging into the WCAs from the Everglades Agricultural Area (EAA) are also included in this report.

Taylor Creek/ Nubbin Slough

Water quality from 22 stations in the Taylor Creek/ Nubbin Slough basin was sampled at two to four week intervals for the parameters listed in Table 2.

Nutrient Loadings

Calculated nutrient loading rates for the major lake inflows are compared to target loading rates later in this report. Target loads deal only with portions of the lake basin identified as "controllable sources" by the SFWMD's Lake Okeechobee Water Quality Management Plan (SFWMD 1982). Consequently, inputs from the Upper Kissimmee and the Lake Istokpoga basins are not included in the target loads for S-65E, S-71, S-72, and S-84. In Tables 5a, 5b, and 5c (see Results and Discussion section), the discharge and nutrient loads from the outflow of Lake Kissimmee (S-65)

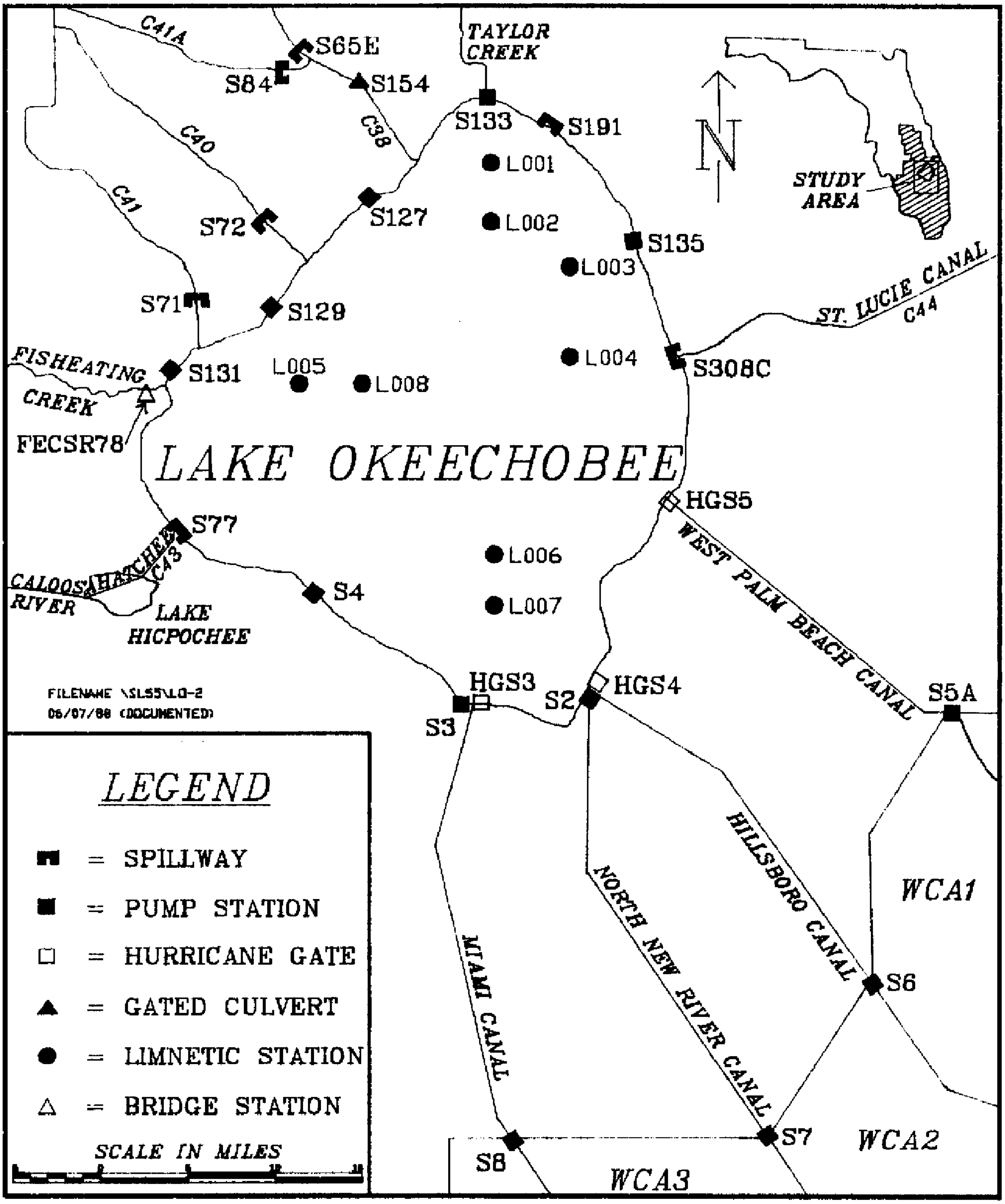


Fig. 1. Lake Okeechobee Operation Permit Sampling Stations

TABLE 2. WATER QUALITY PARAMETERS

Sampling Frequency			
Lake Limnetic Water Quality Stations	Lake Okeechobee Inflows/ Outflows and WCA Inflows	Taylor Creek/ Nubbin Slough Basin	Parameter
Monthly	2 - 4 Weeks	Not Sampled	Temperature
Monthly	2 - 4 Weeks	Not Sampled	Dissolved Oxygen
Monthly	2 - 4 Weeks	2 - 4 Weeks	Specific Conductance
Monthly	2 - 4 Weeks	2 - 4 Weeks	pH
Monthly	2 - 4 Weeks	2 - 4 Weeks	Turbidity
Monthly	2 - 4 Weeks	2 - 4 Weeks	Color
Monthly	2 - 4 Weeks	2 - 4 Weeks	Nitrite
Monthly	2 - 4 Weeks	2 - 4 Weeks	Nitrate
Monthly	2 - 4 Weeks	2 - 4 Weeks	Ammonia
Monthly	2 - 4 Weeks	2 - 4 Weeks	Total Nitrogen
Monthly	2 - 4 Weeks	2 - 4 Weeks	Total Kjeldahl Nitrogen
Monthly	2 - 4 Weeks	2 - 4 Weeks	Ortho Phosphorus
Monthly	2 - 4 Weeks	2 - 4 Weeks	Total Phosphorus
Monthly	2 - 4 Weeks	Not Sampled	Total Suspended Solids
Monthly	2 - 4 Weeks	Not Sampled	Alkalinity
Monthly	2 - 4 Weeks	Not Sampled	Chloride
Monthly	Not Sampled	Not Sampled	Chlorophyll a
Quarterly	Quarterly	Not Sampled	Total Iron

were subtracted from those at S-65E to obtain values for the Lower Kissimmee basin. Likewise, the discharge and loads from the Lake Istokpoga outflow (S-68) were subtracted from the values at S-71, S-72, and S-84. The discharge from S-68 was divided among S-71, S-72, and S-84 in proportion to the amount of water that these three structures discharged into Lake Okeechobee.

Pesticide Monitoring

The SFWMD routinely monitors pesticides and herbicides quarterly at six pump stations (S-2, S-3, S-4, S-6, S-7, and S-8) that discharge from the EAA. During 1987, both water and sediment samples were taken on January 27 and July 21. Water samples were also collected on April 14, 1987. The water samples were surface grab samples and the sediment samples were collected with a petite Ponar dredge. The compounds monitored, along with their detection limits, are listed in Appendix C.

On January 14 and 27, 1987, samples were collected at the six pump stations to monitor for the presence of zinc phosphide, the active ingredient in a rodenticide used to control cotton rats in sugarcane. The objective was to determine if detectable quantities of zinc phosphide were still present in the water during a typical application season.

A follow-up sampling trip was also conducted on May 28, 1987, at the six pump stations to monitor for the presence of atrazine, since it had been detected in some water samples collected in April. Atrazine is the active ingredient in a herbicide used on sugarcane.

All sample bottles for pesticide monitoring were teflon or aluminum foil-capped glass and were supplied by the contract laboratory (Everglades Laboratories, Inc. of West Palm Beach, Certification No. 86109, for zinc phosphide; Environmental Science and Engineering, Inc. of Gainesville, Certification No. T82067, for sediment analysis; and University of Miami, Certification No. 76290, for water analysis). All samples were placed on ice and shipped to the lab within 48 hours of collection. Analyses were performed in accordance with U.S. EPA, American Standard Testing Methods, APHA Standard Methods, or other approved methods.

RESULTS AND DISCUSSION

Water Quality Data Summary

Table 3 summarizes the water quality at each station in Lake Okeechobee and the lake average for the year. Water quality did not vary substantially between stations and measurements were generally within the range of values reported in previous years.

Although the lake phosphorus concentration doubled from 1973 to 1984, it declined in the next two years. The 1985-86 average total phosphorus concentration was 0.063 mg/L. This is the lowest mean concentration since 1977 (Figure 2). No definitive reason can be given for this trend, but the decline coincides with two years of relatively low phosphorus inputs and lower lake stage. The same pattern was observed during the 1980-81 drought. In 1986-87, average total phosphorus rose again to 0.095 mg/L, which is the highest value since 1984.

The mean total nitrogen concentration in 1986-87 (1.84 mg/L) was also higher than in 1985-86 (Figure 2).

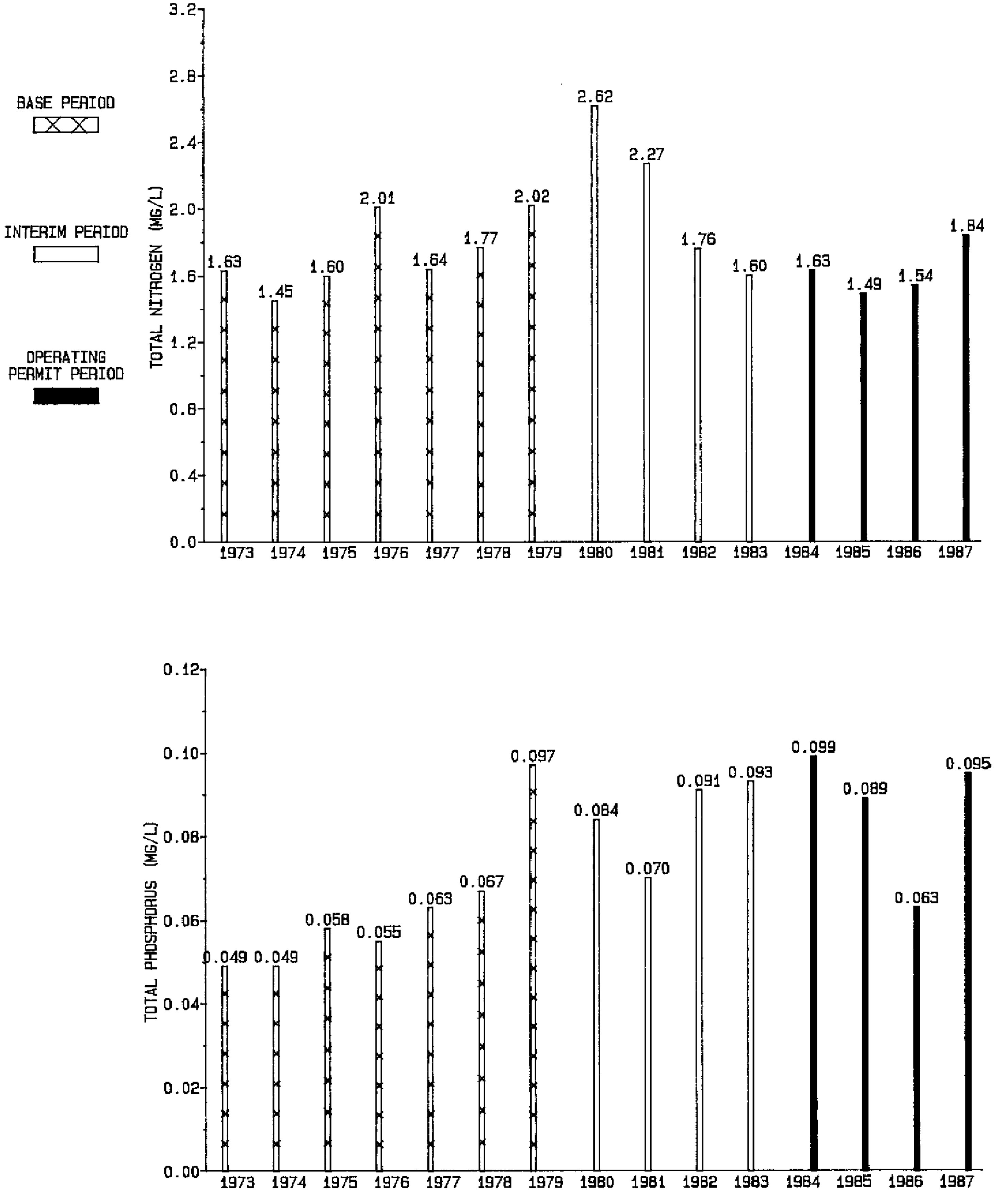
The average annual chlorophyll a concentration, a measure of phytoplankton biomass, was 24.5 mg/m^3. This is similar to other yearly values for the period of record. The massive algal bloom that appeared in the summer of 1986 did not re-occur in 1987, although the same blue-green species, Anabaena circinalis, was present in bloom proportions in May and June. The data gathered from the eight limnetic stations discussed here are not sufficient to fully document these algal blooms, since the most dense areas of the blooms tend to form closer to shore. The SFWMD monitors 35 additional sites in the near-shore and littoral zones where the densest blooms are usually found. These sites have been sampled since late 1986 and the results will be presented in a separate report when enough data have been collected to determine seasonal trends.

TABLE 3. LAKE OKEECHOBEE AVERAGE WATER QUALITY DATA
OCTOBER 1986 - SEPTEMBER 1987

Station	Temperature (Celsius)	Dissolved Oxygen (mg/L)	Specific Conductance (micromhos/cm)	pH	Turbidity (NTU)	Color (PTU)	Total Suspended Solids (mg/L)	NO_2-N (mg/L)	NO_3-N (mg/L)
L001	24.9	8.3	565	8.2	16.9	38	12	0.005	0.064
L002	25.1	8.7	573	8.2	15.9	36	12	0.005	0.070
L003	25.3	8.4	593	8.0	24.7	35	18	0.004	0.175
L004	25.3	8.3	591	8.0	32.9	33	19	0.005	0.143
L005	25.7	9.0	596	8.4	13.1	31	10	0.004	0.081
L006	25.4	8.1	602	8.1	28.4	31	12	0.004	0.202
L007	25.3	8.5	606	8.1	16.4	33	8	0.004	0.181
L008	25.4	8.6	604	8.1	29.3	41	16	0.005	0.147
Lakewide Average	25.3	8.5	591	8.1	22.2	35	13	0.005	0.133

Station	NH_4-N (mg/L)	Total N (mg/L)	Ortho-P (mg/L)	Total P (mg/L)	Total Alk. (mg/L $CaCO_3$)	Chloride (mg/L)	Total Iron (mg/L)	Chlorophyll a (mg/m^3)	Secchi Depth (meters)
L001	0.01	1.85	0.017	0.087	107.5	80.8	0.35	31.7	0.55
L002	0.01	1.83	0.016	0.084	108.9	81.3	0.33	34.3	0.49
L003	0.02	1.91	0.033	0.111	114.7	82.9	0.96	24.4	0.35
L004	0.01	1.86	0.030	0.115	112.0	84.0	1.32	20.5	0.34
L005	0.10	1.74	0.016	0.061	109.2	83.8	0.39	25.7	0.69
L006	0.02	1.80	0.043	0.108	115.6	85.3	0.77	15.8	0.44
L007	0.02	1.85	0.036	0.088	113.6	87.7	0.53	21.2	0.75
L008	0.01	1.90	0.030	0.103	115.5	85.4	0.88	22.7	0.45
Lakewide Average	0.03	1.84	0.028	0.095	112.1	83.9	0.69	24.5	0.51

FIGURE 2. MEAN ANNUAL LAKE OKEECHOBEE TOTAL N AND TOTAL P CONCENTRATIONS



Lake inflow and outflow water quality data are shown in Table 4. Water quality data for major pump stations (S-6, S-7, and S-8) that discharge into the WCAs from the EAA are also included in this table.

Water quality data for stations in the Taylor Creek/ Nubbin Slough basin are listed in Appendix A. These data will also be summarized in a separate report (1987 Annual Report, Rural Clean Waters Program, Taylor Creek/ Nubbin Slough) that will be completed by the end of 1988.

Discharges, Nutrient Loads, and Flow-Weighted Nutrient Concentrations

Table 5a compares discharges from Lake Okeechobee and the WCA inflows during the first four years of the permit period to the 1973-1979 base period. Inflows have been mostly below the 1973-79 base period averages during the permit period, especially in the last three years. The total discharge from controllable-source basins in the latest year was almost 80 percent below the 1973-79 annual average inflow. Individually, nearly all inflows were below average. The IAP was in effect all year, so S-2 and S-3 inputs were greatly reduced. In fact, S-2 pumped only one day during the year and S-3 was completely inactive. (Appendix B summarizes the backpumping activity at S-2 and the criteria used to determine whether or not to pump). However, discharges from S-6, S-7, and S-8 were larger due to the diversion of EAA runoff to the WCAs.

The 1986-87 phosphorus and nitrogen loads from controllable sources were 68 and 78 percent below the Operating Permit's target loads, respectively (Tables 5b and 5c). Taylor Creek/Nubbin Slough, the Lower Kissimmee River, the Harney Pond Canal (S-71), and Fisheating Creek were the major nutrient contributors. The target loads were met at all inflows except S-133, which slightly exceeded its five-year target nitrogen load. The EAA pump stations (S-2, S-3, and S-4) were more

TABLE 4. MEAN WATER QUALITY DATA FOR LAKE OKEECHOBEE TRIBUTARIES AND WATER CONSERVATION AREAS INFLOWS AND OUTFLOWS OCTOBER 1986 - SEPTEMBER 1987

Station	Temperature (Celsius)	Dissolved Oxygen (mg/L)	Specific Conductance (micromhos/cm)	pH	Turbidity (NTU)	Color (PTU)	Total Suspended Solids (mg/L)	NO_2-N (mg/L)
Lake Inflows								
S-2	24.3	4.7	1,265	7.5	5.5	106	5	0.087
S-3	24.8	4.9	938	7.5	9.8	53	16	0.029
S-4	24.8	5.2	746	7.4	2.9	98	4	0.033
S-127	25.1	5.8	869	7.4	2.9	128	3	0.014
S-129	25.2	6.2	711	7.6	3.2	93	3	0.008
S-131	25.3	5.8	726	7.8	2.8	97	3	0.010
S-133	26.5	8.3	652	7.8	4.3	67	6	0.027
S-135	26.1	7.9	733	8.1	4.1	65	5	0.008
S-71	25.4	5.1	288	6.8	2.5	157	3	0.015
S-72	25.6	4.5	330	6.7	2.3	152	2	0.015
S-84	25.6	6.5	350	7.0	1.5	102	1	0.007
S-65E	25.5	6.0	197	7.0	2.8	103	3	0.012
S-154	26.7	4.1	515	6.8	3.2	180	2	0.012
S-191	25.6	4.2	523	7.0	2.5	192	2	0.043
Fisheating Cr.	25.9	5.6	188	6.4	1.9	235	1	0.014
Lake Outflows								
HGS-3	27.1	5.8	674	8.1	13.1	40	14	0.007
HGS-4	26.1	6.5	643	8.1	9.7	36	10	0.020
HGS-5	25.1	6.3	634	7.7	20.3	40	14	0.007
S-77	24.9	5.6	499	7.3	2.9	84	3	0.007
S-308C	25.7	8.5	592	8.2	30.9	36	37	0.004
WCA Inflows								
S-6	25.0	2.7	1,109	7.4	6.1	130	7	0.029
S-7	23.3	3.7	1,069	7.4	3.7	94	1	0.029
S-8	24.2	3.6	749	7.2	4.2	100	1	0.031

TABLE 4 (CONTINUED). MEAN WATER QUALITY DATA FOR LAKE OKEECHOBEE TRIBUTARIES AND WATER CONSERVATION AREAS INFLOWS AND OUTFLOWS
OCTOBER 1986 - SEPTEMBER 1987

Station	NO_3-N (mg/L)	NH_4-N (mg/L)	Total N (mg/L)	Ortho-P (mg/L)	Total P (mg/L)	Total Alkalinity (mg/L $CaCO_3$)	Chloride (mg/L)	Total Iron (mg/L)
Lake Inflows								
S-2	0.624	0.46	3.74	0.060	0.119	262.3	152.1	0.11
S-3	0.158	0.40	2.76	0.012	0.097	187.0	137.5	0.12
S-4	0.102	0.42	2.30	0.152	0.204	182.5	90.9	0.19
S-127	0.115	0.08	2.30	0.205	0.280	125.9	149.6	0.15
S-129	0.017	0.03	2.11	0.042	0.103	152.0	92.5	0.14
S-131	0.050	0.02	1.82	0.031	0.085	153.8	109.1	0.15
S-133	0.279	0.05	2.23	0.080	0.160	136.7	93.5	0.09
S-135	0.056	0.02	1.92	0.020	0.074	170.4	104.0	0.15
S-71	0.706	0.08	2.39	0.143	0.190	28.2	31.9	0.72
S-72	0.135	0.07	1.89	0.148	0.202	42.3	33.8	0.63
S-84	0.113	0.02	1.43	0.026	0.049	24.1	51.4	0.36
S-65E	0.055	0.05	1.62	0.065	0.108	37.6	25.5	0.34
S-154	0.022	0.03	2.05	0.648	0.740	43.3	107.5	0.68
S-191	0.308	0.12	2.19	0.627	0.694	64.7	97.5	0.54
Fisheating Cr.	0.006	0.03	1.74	0.063	0.098	20.4	36.0	0.40
Lake Outflows								
HGS-3	0.015	0.09	1.99	0.008	0.062	132.7	102.2	0.19
HGS-4	0.010	0.08	2.38	0.010	0.065	124.4	90.4	0.13
HGS-5	0.181	0.08	1.99	0.051	0.122	118.5	87.8	0.39
S-77	0.009	0.04	1.64	0.025	0.065	100.0	69.5	0.09
S-308C	0.148	0.05	2.52	0.033	0.151	109.8	83.5	0.59
WCA Inflows								
S-6	1.065	0.10	3.84	0.031	0.076	304.9	171.0	0.19
S-7	0.635	0.10	3.10	0.032	0.065	271.8	142.7	0.12
S-8	0.507	0.15	2.62	0.037	0.081	231.0	83.3	0.32

TABLE 5A. DISCHARGE COMPARISONS FOR LAKE OKEECHOBEE AND THE WATER CONSERVATION AREAS

Structure or Basin	Discharge (ac-ft/yr) Average 1973-79	1983-84	1984-85	1985-86	1986-87	Average 1983-87
S-2	195,880	51,047	164,863	11,648	868	57,107
S-3	55,733	23,171	145,422	6,153	0	43,687
S-4	34,887	74,580	4,036	11,669	4,169	23,614
S-127	10,886	33,685	1,769	9,006	11,052	13,878
S-129	11,169	14,682	1,964	1,009	6,674	6,082
S-131	5,277	5,607	960	1,751	1,614	2,483
S-133	15,680	50,384	7,652	5,528	13,428	19,248
S-135	17,432	32,947	7,476	14,479	11,328	16,558
S-71*	81,408	67,760	14,935	66,274	29,900	44,717
S-72*	17,432	6,727	49	9,068	1,200	4,261
S-84*	68,442	61,586	12,452	22,504	0	24,136
S-65E**	589,326	244,275	82,826	128,440	97,194	138,184
S-154	--	25,785	12,202	31,689	12,899	20,644
S-191	153,586	108,073	71,304	100,272	54,673	83,581
Fisheating Cr.	203,449	230,128	67,184	101,211	70,416	117,235
TOTAL***	1,460,587	1,004,652	582,892	489,012	302,516	594,768
S-6	140,966	161,437	89,802	279,829	111,881	156,789
S-7	134,819	326,829	185,987	286,269	112,466	209,274
S-8	263,967	492,227	265,511	488,786	160,786	334,255

* DISCHARGES FOR S-71, S-72, AND S-84 DO NOT INCLUDE INPUTS FROM LAKE ISTOKPOGA THROUGH S-68.

** DISCHARGES FROM S-65E DO NOT INCLUDE INPUTS FROM THE UPPER KISSIMMEE BASIN THROUGH S-65.

*** THE TOTAL LAKE OKEECHOBEE INFLOW DOES NOT INCLUDE INPUTS FROM THE LAKE ISTOKPOGA AND UPPER KISSIMMEE BASINS, THE S-154 BASIN, DIRECT PRECIPITATION, AND OTHER MINOR BASINS IN ORDER TO BE CONSISTENT WITH THE TARGET LOADING RATES IN TABLES 5B AND 5C.

TABLE 5B. PHOSPHORUS LOAD COMPARISONS FOR LAKE OKEECHOBEE

			Total Phosphorus Load (tons/yr)				
Structure or Basin	Average 1973-79	Target	1983-84	1984-85	1985-86	1986-87	Average 1983-87
S-2	35	[18]	18.6	45.1	3.6	0.2	16.9
S-3	7	[7]	11.8	37.3	2.1	0.0	12.8
S-4	15	15	58.1	2.1	2.8	1.2	16.1
S-127	7	7	15.3	0.4	2.9	4.8	5.9
S-129	3	3	2.3	0.3	0.1	1.4	1.0
S-131	1	1	0.6	0.1	0.2	0.2	0.3
S-133	7	7	26.7	2.3	1.9	3.4	8.6
S-135	4	4	3.9	1.0	1.3	1.0	1.8
S-71*	47	47	33.5	12.0	36.5	18.0	25.0
S-72*	8	11	3.7	0.1	6.0	1.0	2.7
S-84*	6	13	8.2	0.3	5.0	0.0	3.4
S-65E**	108	86	111.5	27.5	104.3	34.4	69.4
S-154	--	--	33.4	10.1	50.0	15.7	27.3
S-191	189	98 (139)	146.2	88.5	115.7	49.6	100.0
Fisheating Cr.	65	65	82.9	32.6	32.6	8.8	39.2
TOTAL***	502	382	523.3	249.6	315.0	124.0	303.0

* PHOSPHORUS LOADS FOR S-71, S-72, AND S-84 DO NOT INCLUDE INPUTS FROM LAKE ISTOKPOGA THROUGH S-68.

** PHOSPHORUS LOADS FROM S-65E DO NOT INCLUDE INPUTS FROM THE UPPER KISSIMMEE BASIN THROUGH S-65.

*** THE TOTAL LAKE OKEECHOBEE PHOSPHORUS LOAD DOES NOT INCLUDE INPUTS FROM THE LAKE ISTOKPOGA AND UPPER KISSIMMEE BASINS, THE S-154 BASIN, DIRECT PRECIPITATION, AND OTHER MINOR BASINS IN ORDER TO PROVIDE A COMPARISON WITH THE TARGET LOADING RATE.

[ ] TARGET LOADS FOR S-2 AND S-3 TO BE MET IN THE THIRD YEAR OF THE PERMIT.

( ) TARGET LOAD FOR S-191 TO BE MET IN THE THIRD YEAR OF THE PERMIT.

TABLE 5C. NITROGEN LOAD COMPARISONS FOR LAKE OKEECHOBEE

Structure or Basin	Total Nitrogen Load (tons/yr) Average 1973-79	Target	1983-84	1984-85	1985-86	1986-87	Average 1983-87
S-2	1,548	[156]	485.6	1,243.9	114.3	6.8	462.6
S-3	373	[95]	255.3	852.3	59.5	0.0	291.8
S-4	142	142	275.4	22.8	33.0	15.5	86.7
S-127	34	34	100.5	5.3	25.1	32.0	40.7
S-129	33	33	30.8	4.5	3.1	19.1	14.4
S-131	13	13	12.2	1.8	4.6	4.5	5.8
S-133	41	41	144.8	18.4	14.4	52.1	57.4
S-135	51	51	74.5	20.3	36.9	29.3	40.3
S-71*	323	323	238.9	105.4	326.2	193.0	215.9
S-72*	86	132	24.7	0.1	51.9	5.5	20.6
S-84*	110	258	132.1	34.0	103.7	0.0	67.5
S-65E**	997	838	295.1	33.4	432.5	13.0	193.5
S-154	--	--	--	--	92.6	39.2	65.9
S-191	479	258 (388)	283.6	209.1	279.4	163.0	233.8
Fisheating Cr.	575	575	432.0	151.4	257.4	103.6	236.1
TOTAL***	4,805	2,949	2,785.5	2,702.7	1,742.0	637.4	1,966.9

* NITROGEN LOADS FOR S-71, S-72, AND S-84 DO NOT INCLUDE INPUTS FROM LAKE ISTOKPOGA THROUGH S-68.

** NITROGEN LOADS FROM S-65E DO NOT INCLUDE INPUTS FROM THE UPPER KISSIMMEE BASIN THROUGH S-65.

*** THE TOTAL LAKE OKEECHOBEE NITROGEN LOAD DOES NOT INCLUDE INPUTS FROM THE LAKE ISTOKPOGA AND UPPER KISSIMMEE BASINS, THE S-154 BASIN, DIRECT PRECIPITATION, AND OTHER MINOR BASINS IN ORDER TO PROVIDE A COMPARISON WITH THE TARGET LOADING RATE.

[ ] TARGET LOADS FOR S-2 AND S-3 TO BE MET IN THE THIRD YEAR OF THE PERMIT.

( ) TARGET LOAD FOR S-191 TO BE MET IN THE THIRD YEAR OF THE PERMIT than 90 percent below their target loads and S-191 was 49 and 37 percent below its target phosphorus and nitrogen loads, respectively.

No target loads are designated for the S-154 basin by the Operating Permit, but the basin does contribute a significant amount (5 percent) of the total lake phosphorus loading even though its drainage area is relatively small. The SFWMD's phosphorus allocation for this basin is 4 tons per year. This allocation has been greatly exceeded in the four years since reliable discharge data has become available. Phosphorus input was 15.7 tons in 1986-87.

Table 6 summarizes the flow-weighted nutrient concentrations for selected inflows. The average phosphorus concentration from all inflows combined was 0.301 mg/L in 1986-87, which is slightly more than the base period average.

In the Lower Kissimmee River (C-38) basin, phosphorus concentrations at S-65E are usually higher than at the outlet from Lake Kissimmee at S-65. Agricultural activity in the C-38 basin (especially in Pools D and E) contributes to progressively higher phosphorus levels downstream in the canal (Federico 1982). Flow-weighted concentrations for the C-38 basin are calculated after subtracting the phosphorus load from S-65. In 1985-86, the concentration was nearly 0.6 mg/L, which is over four times the base period average for this basin. This was due to high concentrations at S-65E in July and August of that year. These concentrations have since returned to the normal range. However, the flow-weighted values for the C-38 basin have been higher than the base period average throughout 1983-87, which suggests a trend toward increasing phosphorus contributions from agricultural operations in the basin. The 1986-87 concentration was 0.260 mg/L.

The flow-weighted phosphorus concentration for Taylor Creek/Nubbin Slough at S-191 has been declining over the last four years. A preliminary trend analysis has also indicated a downward trend in phosphorus levels since 1978 (SFWMD 1988a).

TABLE 6. COMPARISON OF FLOW-WEIGHTED CONCENTRATIONS

Structure or Basin	Average 1973-79	1983-84	1984-85	1985-86	1986-87	Average 1983-87
Total Phosphorus (mg/L)						
S-2	0.132	0.268	0.201	0.227	0.139	0.218
S-3	0.095	0.374	0.188	0.251	--	0.215
S-4	0.314	0.573	0.388	0.176	0.212	0.501
S-65E (Without S-65 Input)	0.135	0.336	0.244	0.597	0.260	0.369
S-191*	0.906	0.995	0.913	0.848	0.667	0.880
S-71 (Without S-68 Input)	0.425	0.364	0.591	0.405	0.443	0.411
Fisheating Creek	0.235	0.265	0.357	0.237	0.092	0.246
S-154	--	0.953	0.609	1.160	0.895	0.972
Average for Total Lake Inflow from all Controllable - Source Basins (Except S-154)	0.253	0.383	0.315	0.515	0.301	0.375
Total Nitrogen (mg/L)						
S-2	5.82	7.00	5.55	7.22	5.73	5.96
S-3	4.92	8.10	4.31	7.11	--	4.91
S-4	2.56	2.72	4.16	2.08	2.73	2.70
S-65E (Minus S-65 Input)	1.24	0.89	0.30	2.48	0.10	1.03
S-191*	2.29	1.93	2.16	2.05	2.19	2.06
S-71 (Minus S-68 Input)	2.92	2.59	5.19	3.62	4.75	3.55
Fisheating Creek	2.08	1.38	1.66	1.87	1.08	1.48
S-154	--	--	--	2.15	2.23	2.35
Average for Total Lake Inflow from all Controllable - Source Basins (Except S-154)	2.42	2.04	3.41	2.59	1.55	2.43

* TARGET CONCENTRATIONS FOR S-191 ARE 0.67 MG P/L AND 1.72 MG N/L BY THE THIRD YEAR OF THE OPERATING PERMIT

The implementation of BMP's in the Taylor Creek/Nubbin Slough basin was most intense in 1986. By the end of 1986, BMP's were installed on 78 percent of the critical acreage in the basin. Because BMP implementation has not been completed until recently, S-191 did not meet its concentrations of 0.67 mg P/L and 1.72 mg N/L by the third year of the Operating Permit as scheduled. By the end of 1987, however, BMP's were in place on 98 percent of the critical acreage and the S-191 flow-weighted phosphorus concentration (0.667 mg/L) did meet the target level. The 1986-87 nitrogen concentration of 2.19 mg/L was still above the target, but is not considered to be excessively high.

The calculated flow-weighted phosphorus and nitrogen concentrations for the Harney Pond Canal were relatively high (0.443 mg P/L and 4.75 mg N/L), but were within the range of the historical record. Outflow from Lake Istokpoga acts to dilute phosphorus runoff from this basin, so actual concentrations measured at S-71 are usually not as high as these flow-weighted values.

Although not a major source of flow, the S-154 basin was one of the major phosphorus contributors in 1986-87. Its flow-weighted phosphorus concentration was the highest of all the inflows (0.895 mg/L).

Flow-weighted nutrient values at S-2 were less than those of the previous year. At S-4, they were about the same as the year before. Determining the significance of trends from these data is difficult because these pump stations all discharged very low volumes during 1986-87 (Table 5). No flow-weighted concentrations are given for S-3 because this station did not pump during the year.

Trends in flow-weighted concentrations for individual inflows must be regarded with caution, especially in years of low flow. This is because discharge events in low flow years are important to water quality, but are rare, and are less likely to be sampled adequately in such years. Therefore, only flow-weighted concentrations for the major inflows are reported in Table 6.

In summarizing the 1986-87 data, phosphorus and nitrogen loads to the lake were below the target loads due to low discharges, the IAP, and BMP implementation in the Taylor Creek/Nubbin Slough basin. The lower portion of the Kissimmee River has tended to exhibit higher phosphorus concentrations in recent years, and the S-154 and Harney Pond Canal basins are also areas of concern. In the fourth year following the issuance of the Operating Permit, the only inflow to exceed its target nutrient loads was S-133. However, annual loadings are strongly dependent on the amount of runoff and targets may be exceeded in years with greater discharge. For instance, preliminary data being collected in 1987-88 suggest that the target loads may be exceeded due to greater rainfall and runoff in the basin (SFWMD 1988b). Consequently, the targets are more appropriately viewed as long-term average goals.

Tables 5b and 5c list average nutrient loads for the first four years of the Operating Permit. During this relatively dry period, most lake inflows were no greater than 10 percent above their target loads for phosphorus. These included the S-2, S-4, Harney Pond Canal, Lower Kissimmee River, Taylor Creek/Nubbin Slough, and Fisheating Creek basins. The exceptions were S-3 (83% above target) and S-133 (23% above target). Most inflows also met their target loading rates for nitrogen, except for S-2 (197% above), S-3 (207% above), S-127 (20% above), and S-133 (40% above). If the SFWMD had not suspended the IAP during the summer of 1985 for water supply backpumping, the average S-2 and S-3 loads for these four years would have been nearly 50 percent less (15.6 tons phosphorus and 384.1 tons nitrogen). Even though there are no target loading rates for S-154 under the present Operating Permit, the SFWMD has calculated a maximum allowable phosphorus loading rate for this basin of 4 tons per year. S-154's average phosphorus loading rate of 27.3 tons per year was almost six times greater than its allowable rate.

Lake Okeechobee Trophic Status

Trophic state indices (TSI's) based on total phosphorus, total nitrogen, and chlorophyll a concentrations have been used to evaluate Lake Okeechobee's trophic status over the years. Federico et al. (1981) explained how these indices are derived from the water quality data. The indices range from 0 to 100, with 0 to 53 being classified as oligotrophic to mesotrophic, 53 to 70 being eutrophic, and above 70 being considered hypereutrophic. These indices provide a convenient way of classifying the lake and charting trends in trophic state, but are not precise indicators of a lake's actual trophic condition. It is also important to recognize that the categories cited rely heavily on data from northern temperate-zone lakes outside of Florida.

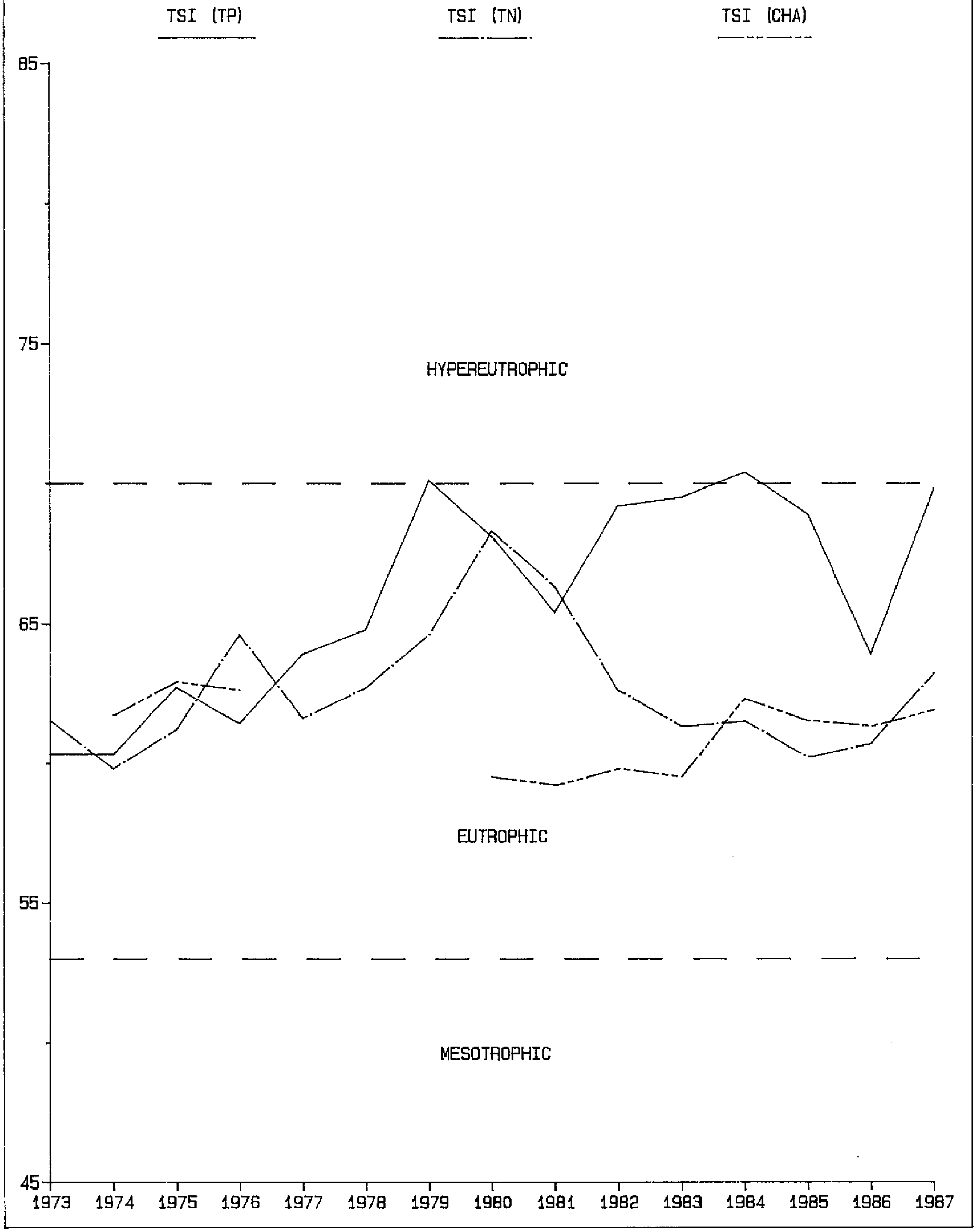
Over the period of record for water quality data, Lake Okeechobee has been classified as eutrophic (Figure 3). In recent years though, the TSI based on phosphorus levels (but no other TSI) indicates that the lake borders on the hypereutrophic classification. This TSI moved back to the middle of the eutrophic range in 1985-86 and up again in 1986-87. The chlorophyll TSI, meanwhile, remained in the mid-eutrophic range. Phytoplankton biomass (as indicated by the chlorophyll TSI) did not follow the increase in total phosphorus.

Pesticides

Routine Pesticide Monitoring

Sixty-seven compounds were analyzed from samples collected on January 27, 1987, and 65 compounds were analyzed from samples collected on April 14 (Appendix C). No detectable levels of pesticide or herbicide residues were found in the January samples, but the herbicide atrazine was found in the surface water at S-4 (3.5 ppb), S-6 (4.0 ppb) and S-7 (8.9 ppb) in April. None of the six pump stations were active at the time of the April sampling. The minimum detection limit

FIGURE 3: ANNUAL TROPHIC STATE INDICES FOR LAKE OKEECHOBEE



for this compound was 0.1 ppb. This was the first time atrazine had been detected in the SFWMD's monitoring program.

Atrazine is a non-restricted use, selective herbicide that is registered for use on sugarcane, corn, and turf grasses. Application rates vary, with up to 4 pounds of the commercial product applied per acre. Atrazine is typically applied to sugarcane fields during the fall through spring. The positive field results are probably a reflection of sampling during a period of application. Also, roughly one inch of rain fell over the EAA about two weeks before the April sampling, potentially triggering a runoff event that could have contained some atrazine. The half-life of atrazine is very site-specific, but is approximately 10 days in the water and 45 days in the soil.

Atrazine is considered only slightly toxic. The LD_{50} for rats is 3,080 mg/kg body weight. (The term LD_{50} is a calculated lethal oral dose of an acutely-administered substance that is expected to cause death in 50 percent in a population of a test animal species). The LC_{50} (lethal concentration) for fish ranges from 6.3 to 78.0 ppm and the LC_{50} (48 hour) for freshwater invertebrates ranges from 0.72 to 6.7 ppm. The highest field result of 10.8 ppb is not high enough to cause a possible toxic effect on fish or invertebrates.

To calculate the maximum level of atrazine in drinking water at which adverse health effects would not be anticipated, an EPA-developed acceptable daily intake (ADI) value of 0.0375 mg/kg/day was used. This results in a maximum atrazine level of 1.3125 ppm (or 1312.5 ppb). This value is the maximum contaminant level in drinking water at which adverse health effects would not be anticipated in the average adult, based on a 70 kg body weight and the ingestion of two liters of water per day. This calculated value is over 100 times more than the highest value (8.9 ppb) detected. If this calculation is performed for a small child of 10 kg body weight who consumes one liter of water per day, the maximum contaminant level is 0.375 ppm (or 375 ppb). Again, this value is about 35 times more than the field results and, therefore, the measured levels of atrazine do not indicate a possible adverse health problem. No State of Florida surface water or drinking water quality standards, or EPA guidelines exist for atrazine.

Due to the detection of positive atrazine residues, additional water samples were taken on May 28. None of the pump stations were active at the time of sampling, but water was flowing out of Lake Okeechobee to the EAA at S-2 and S-3. Even though there was outflow from the lake, small amounts of atrazine were found in the canals downstream from these structures. Low levels of atrazine were found at the other four pump stations as well (Table 7). The concentrations reported for April and May are orders of magnitude below the levels that would be anticipated to cause adverse effects on fish, invertebrates, or humans.

TABLE 7. SURFACE WATER ATRAZINE RESIDUES - 1987[1]

	Date of Sampling		
Station	April 14	May 28	July 21
S-2	ND[2]	0.4	ND
S-3	ND	0.2	ND
S-4	3.54	0.3	ND
S-6	4.0	1.8	ND
S-7	8.9	0.2	2.91
S-8	ND	0.3	0.77
Detection Limit	0.1	0.2	0.1

[1]UNITS OF UG/L OR PPB
[2]ND - NOT DETECTED

On July 21, water and sediment samples were collected again and analyzed for 67 compounds (Appendix C). Atrazine was once again found in the surface water, but only at S-7 and S-8 (Table 7). At the time of sample collection, S-7 was pumping and S-8 was discharging through the gravity gate to the WCAs. One week before sampling, various amounts of rain (over one inch at S-7) fell over the EAA, potentially triggering a runoff event which could have contained atrazine. The levels found in the July sampling were not high enough to cause a possible toxic effect on fish, invertebrates, or humans.

Pesticide residues of 2,4-D, ametryne, and DDE were found in the July sediment samples (Table 8). This is the first time that 2,4-D and ametryne have been detected in sediment samples at these stations. Positive pesticide residues in the sediment give an indication of the previous presence of a compound in the water column. No State of Florida or EPA criteria or standards exist for pesticide residues in sediment.

TABLE 8. SEDIMENT PESTICIDE RESIDUE SUMMARY[1] - JULY 21, 1987

	Station			
Compound	S-2	S-3	S-4	S-6
2,4-D	ND[2]	ND	1,960	996
Ametryne	98.5	ND	135	194
PP'DDE	101	18.2	57.2	ND

[1]UNITS OF UG/KG OR PPB
[2]ND - NOT DETECTED

The non-restricted use, selective herbicide 2,4-D was detected at S-4 and S-6. This compound is registered for use on a variety of row crops, ornamentals, turf grasses, and noncrop areas as well as aquatic applications. It is considered moderately toxic (acute oral LD_{50} for rats of 375 mg/kg body weight). Reported half-lives in natural waters range from a few days to several months depending on factors such as temperature, pH, light intensity, herbicide formulation, and oxygen concentration. This compound degrades relatively quickly in the environment, with residue half-lives generally not exceeding several weeks in plants, soil, and water. It is rapidly eliminated by animals and is not bioaccumulated. This herbicide is used by the SFWMD to control water hyacinth and water lettuce. At the time of sampling, the SFWMD had not utilized 2,4-D for approximately one year in those canals where it was detected. Because of its short environmental half-life, the presence of 2,4-D indicates significant usage in the private sector.

Ametryne was found at S-2, S-4, and S-6. It is a non-restricted use selective terrestrial herbicide used on corn, sugarcane, grapefruit, and oranges. Technical (pure) ametryne is slightly toxic (acute oral LD_{50} for rats of 1750 mg/kg body weight). It also has a low LC_{50} toxicity for fish. Based on published adsorption partition coefficient values for this compound and similar compounds, ametryne would be moderately persistent in soils (half life between 20 and 100 days) and slightly to moderately mobile. During a runoff event, ametryne could be transported in appreciable proportion with both sediment and water.

The compound DDE was detected at S-2, S-3, and S-4. DDE is one of the degradation products of DDT and its presence at these sites could be a relic residue from the past use of DDT, since DDT has been banned since 1974. Previous samples from other SFWMD programs have randomly detected DDE in the sediment.

Follow-Up Monitoring for Zinc Phosphide

On September 23, 1986, the rodenticide zinc phosphide was found in water samples at five of the six sites (S-2, S-3, S-4, S-6, S-7, and S-8) sampled in the EAA (SFWMD 1988a). This was unexpected since it was thought that the compound degraded immediately when exposed to water.

A follow-up sampling event was conducted on January 14, 1987, at the same sites. None of the pump stations were active at the time of sampling. Of the six water samples collected, all had positive results (Table 9). The concentrations were similar to the September values.

TABLE 9. COMPARISON OF ZINC PHOSPHIDE LEVELS FROM SAMPLES COLLECTED ON THREE DATES IN 1986-87

	Sampling Date		
Station	9/23/86	1/14/87	1/26/87
S-2	0.006	0.004	<0.001
S-3	0.002	0.002	<0.001
S-4	<0.001	0.002	<0.001
S-6	0.005	0.005	<0.001
S-7	0.005	0.006	<0.001
S-8	0.003	0.002	<0.001

ALL VALUES ARE IN UNITS OF MG/L (OR PPM) PHOSPHINE

Twelve days later, on January 27, water samples for zinc phosphide analysis were collected again. This time, the concentrations were below the minimum detection limit of 0.001 mg/L.

Zinc phosphide is usually applied aerially to sugarcane from September to December. Because the application was assumed to have been completed by December, the presence of the compound in the pump station water samples in mid-January was not anticipated. However, the detected values were not very high and the compound was not detectable by the end of the month. Either zinc phosphide persisted in the water longer than expected or the compound was applied to the sugarcane fields immediately before the January 14 sampling event. In either case, the compound's presence in both the September and January samples was likely the result of separate applications of the pesticide before each sampling event.

The bioaccumulation potential of zinc phosphide is small, but the compound is acutely toxic. It is possible to calculate the level of zinc phosphide in drinking water at which adverse health effects would not be anticipated. Using an EPA-developed verified reference dose (this is comparable to an acceptable daily intake value) of 0.0004 mg/kg/day for aluminum phosphide, an outdoor fumigant for burrowing rodent control, a 0.014 ppm contaminant level was calculated. This value represents the maximum contaminant level in drinking water at which adverse health effects would not be anticipated in the average adult, based on a 70 kg body weight and the ingestion of 2 liters of water per day. This value is slightly greater than the concentrations measured on September 23 and January 14. However, if this calculation is performed for a small child of 10 kg body weight who consumes one liter of water per day, the maximum contaminant level is 0.004 mg/L. This value is similar to some of the field results and may represent a possible adverse health effect if a small child ingested this water on a routine basis. No State of Florida surface water quality standards or EPA guidelines exist for zinc phosphide.

At this time, there is no known literature that documents the degradation rate of zinc phosphide in water. The assumed rapid degradation rate is based on chemical reaction principles. The SFWMD staff is continuing to monitor for the presence of zinc phosphide and is maintaining contact with other agencies that are investigating the fate of this compound in the environment.

Copies of the original result sheets containing all the pesticide data described in this section can be found in Appendix D.

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APPENDIX A
1986-87 WATER QUALITY DATA FOR THE TAYLOR CREEK/ NUBBIN SLOUGH BASIN

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L

N.W. Taylor Creek at HWY 68

TCHW 01	10/07/86	11:00	0.206	0.306	0.06	0.96	4.60	309	6.88	0.91	0.006	0.01	0.045
TCHW 01	10/21/86	10:30	0.239	0.353	0.10	1.61	5.90	232	6.97	1.52	0.004	0.01	0.088
TCHW 01	11/04/86	10:20	0.636	0.699	0.30	4.84	5.80	138	6.04	4.83	0.021	0.29	
TCHW 01	11/18/86	10:40	0.444	0.504	0.10	1.62	4.90	171	6.95	1.55	0.014	0.03	0.056
TCHW 01	12/02/86	11:20	0.179	0.282	0.14	1.11	4.40	244	7.12	1.04	0.010	0.07	0.063
TCHW 01	01/06/87	11:30	0.539	0.687	0.05	1.90	7.20	103	6.78	1.87	0.021	0.01	0.014
TCHW 01	01/20/87	11:18	0.481	0.553	0.12	1.90	3.10	170	6.78	1.80	0.010	0.02	0.086
TCHW 01	02/03/87	11:15	0.176	0.260	0.06	1.42	4.00	236	6.88	1.38	0.008	0.02	0.029
TCHW 01	02/17/87	11:00	0.195	0.282	0.03	1.59	2.40	264	6.79	1.57	0.005	0.01	0.012
TCHW 01	03/03/87	10:40	0.230	0.322	0.02	1.08	4.20	254	6.69	1.07	0.004	0.01	0.004
TCHW 01	03/17/87	09:25	0.312	0.375	0.04	1.11	1.60	212	7.21	1.09	0.009	0.02	0.012
TCHW 01	03/31/87	10:05	0.652	0.812	0.13	2.33	3.10	104	7.02	2.27	0.029	0.07	0.029
TCHW 01	04/14/87	10:53	0.399	0.453	0.03	1.46	1.50	267	6.72	1.44	0.009	0.01	0.012
TCHW 01	04/28/87	10:25	0.251	0.314	0.01	0.69	3.50	381	6.87	0.69	0.004	0.01	0.004
TCHW 01	05/12/87	10:33	0.267	0.320	0.02	1.11	3.50	315	6.78	1.11	0.004	0.01	0.004
TCHW 01	05/26/87	10:05	0.239	0.284	0.01	1.04	2.40	308	6.86	1.04	0.004	0.01	0.004
TCHW 01	06/09/87	10:35	0.178	0.231	0.01	1.04	2.90	380	6.83	1.04	0.004	0.01	0.004
TCHW 01	06/23/87	10:16	0.245	0.392	0.03	1.23	5.90	254	6.74	1.22	0.004	0.02	0.004
TCHW 01	07/07/87	10:19	0.765	0.892	0.09	5.47	6.70	156	7.05	5.41	0.028	0.03	0.032
TCHW 01	07/21/87	10:09	0.729	0.889	0.06	13.50	10.70	114	7.14	13.46	0.026	0.02	0.018
TCHW 01	08/04/87	09:48	0.906	0.970	0.13	5.08	5.20	129	7.16	5.00	0.022	0.05	0.061
TCHW 01	08/18/87	10:51	0.961	1.063	0.21	1.72	9.00	171	6.98	1.53	0.017	0.02	0.173
TCHW 01	09/01/87	10:26	0.354	0.445	0.07	0.52	4.70	317	7.12	0.50	0.005	0.05	0.015
TCHW 01	09/15/87	11:05	0.409	0.558	0.08	1.07	7.70	203	7.12	1.02	0.014	0.03	0.035
TCHW 01	09/29/87	10:45	0.255	0.335	0.04	2.05	8.60	248	6.70	2.03	0.015	0.02	0.005

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Little Bimini at Potter Road													
TCHW 02	10/07/86	10:55	0.625	0.671	3.17	4.87	1.80	409	6.74	1.78	0.060	0.08	3.032
TCHW 02	10/21/86	10:25	0.613	0.652	3.22	5.21	1.80	415	6.69	2.05	0.068	0.06	3.088
TCHW 02	11/04/86	10:10	2.320	2.730	0.87	4.47	3.40	290	6.88	3.61	0.106	0.01	0.754
TCHW 02	11/18/86	10:30	1.566	1.486	1.73	3.95	5.00	302	6.91	2.36	0.076	0.14	1.517
TCHW 02	12/02/86	11:10	0.674	0.684	3.14	4.94	2.00	412	7.00	2.00	0.092	0.20	2.848
TCHW 02	01/06/87	11:20	1.655	1.761	0.89	2.97	4.10	212	6.73	2.21	0.080	0.13	0.683
TCHW 02	01/20/87	11:10	0.873	0.910	2.36	4.04	1.30	311	6.71	1.72	0.031	0.04	2.286
TCHW 02	02/03/87	11:05	0.478	0.562	2.38	3.98	5.30	372	6.73	1.65	0.010	0.05	2.323
TCHW 02	02/17/87	10:50	0.474	0.540	1.90	3.40	1.50	360	6.66	1.53	0.016	0.02	1.859
TCHW 02	03/03/87	10:00	0.453	0.497	2.14	3.57	3.00	363	5.65	1.45	0.019	0.02	2.099
TCHW 02	03/17/87	09:35	0.512	0.580	1.78	3.22	0.90	335	7.14	1.47	0.014	0.03	1.737
TCHW 02	03/31/87	10:00	1.194	1.390	0.80	2.66	2.50	196	6.96	2.01	0.069	0.15	0.585
TCHW 02	04/14/87	10:47	0.475	0.525	1.72	2.80	1.30	362	6.60	1.13	0.012	0.05	1.656
TCHW 02	04/28/87	10:20	0.395	0.430	0.98	2.00	2.30	355	6.68	1.05	0.008	0.03	0.945
TCHW 02	05/12/87	11:43	0.409	0.432	4.04	5.11	2.00	443	6.97	3.69	0.114	2.62	1.302
TCHW 02	05/26/87	10:00	0.590	0.626	1.27	2.69	2.30	364	6.91	1.44	0.012	0.02	1.240
TCHW 02	06/09/87	10:28	0.507	0.545	0.51	1.96	1.40	378	6.67	1.48	0.012	0.03	0.464
TCHW 02	06/23/87	10:09	0.396	0.463	0.37	1.80	1.80	315	6.48	1.48	0.007	0.05	0.310
TCHW 02	07/07/87	09:32	0.510	0.549	1.26	2.92	3.00	420	6.93	1.67	0.019	0.01	1.234
TCHW 02	07/21/87	10:03	0.707	0.817	1.47	3.12	3.30	343	7.17	1.66	0.016	0.01	1.447
TCHW 02	08/04/87	11:12	0.312	0.400	1.43	3.22	1.60	389	7.09	1.80	0.009	0.01	1.406
TCHW 02	08/18/87	10:45	0.441	0.505	0.43	2.47	2.80	329	6.82	2.08	0.009	0.04	0.385
TCHW 02	09/01/87	10:16	0.568	0.640	0.19	1.32	5.00	282	7.17	1.31	0.004	0.18	0.004
TCHW 02	09/15/87	12:20	0.353	0.472	0.22	1.85	2.80	398	7.33	1.66	0.012	0.03	0.180
TCHW 02	09/29/87	10:20	0.268	0.353	1.30	2.82	2.20	419	6.59	1.56	0.021	0.04	1.239

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Otter Creek at S-138													
TCHW 03	10/07/8609:55		0.551	0.682	2.66	7.32	3.50	601	6.83	6.75	0.151	2.09	0.424
TCHW 03	10/21/8609:30		0.352	0.457	5.32	6.66	4.20	601	6.62	5.16	0.355	3.82	1.141
TCHW 03	11/04/8609:20		1.531	1.549	2.45	4.73	2.70	449	6.76	4.39	0.119	2.11	0.217
TCHW 03	11/18/8609:30		1.604	1.494	2.62	4.62	4.80	513	6.73	3.90	0.158	1.90	0.566
TCHW 03	12/02/8610:05		0.535	0.612	4.06	5.91	4.10	570	6.72	4.37	0.146	2.52	1.393
TCHW 03	01/06/8710:30		1.411	1.511	0.52	2.78	4.80	266	6.91	2.49	0.037	0.23	0.251
TCHW 03	01/20/8710:20		1.054	1.167	2.96	4.57	3.60	457	6.61	2.95	0.153	1.34	1.468
TCHW 03	02/03/8710:15		0.566	0.630	2.78	5.00	4.20	546	6.70	2.51	0.107	0.29	2.387
TCHW 03	02/17/87	10:00	0.300	0.392	1.95	3.79	2.40	477	6.56	2.04	0.065	0.20	1.687
TCHW 03	03/03/87	09:30	0.376	0.440	2.05	3.74	4.40	471	5.54	1.87	0.074	0.18	1.792
TCHW 03	03/17/87	10:00	0.517	0.611	1.81	3.39	1.60	463	6.91	2.10	0.164	0.52	1.125
TCHW 03	03/31/87	09:15	0.597	0.785	0.48	2.40	4.10	308	7.19	2.13	0.058	0.21	0.212
TCHW 03	04/14/87	09:59	0.350	0.413	0.39	1.93	2.00	472	7.10	1.56	0.009	0.02	0.364
TCHW 03	04/28/87	09:30	0.304	0.443	0.04	1.46	5.40	416	7.60	1.44	0.006	0.02	0.010
TCHW 03	05/12/87	09:58	0.605	0.675	0.09	1.54	2.40	366	6.81	1.50	0.008	0.05	0.030
TCHW 03	05/26/87	09:20	0.592	0.911	0.11	1.47	9.00	311	7.21	1.46	0.011	0.10	
TCHW 03	06/09/87	09:26	0.330	0.626	0.06	1.12	14.50	278	7.21	1.12	0.004	0.06	0.004
TCHW 03	06/23/87	09:31	0.601	0.711	0.08	1.16	10.70	228	6.39	1.16	0.005	0.08	0.004
TCHW 03	07/07/87	09:30	0.442	0.483	0.03	1.51	2.00	285	6.72	1.51	0.004	0.03	0.004
TCHW 03	07/21/87	09:21	0.400	0.507	0.01	1.22	4.90	214	6.76	1.22	0.007	0.01	0.004
TCHW 03	08/04/87	09:33	0.390	0.417	0.02	1.09	1.60	222	6.81	1.08	0.004	0.01	0.004
TCHW 03	08/18/87	09:49	0.298	0.452	0.04	1.04	7.30	210	7.12	1.03	0.005	0.03	0.004
TCHW 03	09/01/87	09:30	0.407	0.586	0.03	0.63	9.40	200	7.33	0.62	0.004	0.02	0.004
TCHW 03	09/15/87	10:05	0.323	0.516	0.01	1.03	6.10	267	6.86	1.03	0.006	0.01	0.004
TCHW 03	09/29/87	09:25	0.814	0.880	0.04	1.35	7.70	271	6.54	1.34	0.012	0.03	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Otter Creek at S-13 and Potter Road													
TCHW 06	10/07/86	10:40	0.528	0.665	2.41	3.73	4.80	390	6.48	2.02	0.156	0.70	1.554
TCHW 06	10/21/86	10:10	0.337	0.502	1.84	3.74	10.10	400	6.49	1.97	0.043	0.07	1.725
TCHW 06	11/04/86	10:00	1.475	1.548	1.93	4.58	4.40	380	6.85	3.29	0.256	0.64	1.030
TCHW 06	11/18/86	10:10	1.338	1.450	2.04	4.48	10.00	422	6.47	2.60	0.111	0.16	1.767
TCHW 06	12/02/86	10:55	0.472	0.600	1.96	3.28	8.00	383	7.03	1.44	0.045	0.12	1.792
TCHW 06	01/06/87	11:10	1.319	1.410	0.57	2.42	5.20	233	6.56	1.97	0.050	0.12	0.399
TCHW 06	01/20/87	10:58	0.804	0.862	1.83	3.58	2.80	345	6.57	1.77	0.009	0.02	1.796
TCHW 06	02/03/87	10:50	0.430	0.521	1.51	2.83	4.70	396	6.49	1.34	0.009	0.02	1.482
TCHW 06	02/17/87	10:40	0.354	0.452	0.78	2.70	2.80	332	6.43	1.94	0.006	0.02	0.752
TCHW 06	03/03/87	10:15	0.339	0.403	0.68	1.96	2.50	328	5.58	1.29	0.004	0.01	0.669
TCHW 06	03/17/87	09:50	0.457	0.534	0.82	2.45	1.50	357	7.12	1.66	0.005	0.03	0.785
TCHW 06	03/31/87	09:45	0.960	1.116	0.53	2.49	3.60	267	6.93	1.99	0.028	0.03	0.473
TCHW 06	04/14/87	10:34	0.273	0.319	0.08	0.99	1.90	326	6.43	0.92	0.004	0.01	0.068
TCHW 06	04/28/87	10:05	0.187	0.221	0.02	0.83	1.40	275	6.53	0.82	0.004	0.01	0.004
TCHE 06	05/12/87	12:26	0.657	0.672	0.02	1.45	2.00	251	6.93	1.44	0.005	0.01	0.007
TCHW 06	05/26/87	09:55	0.390	0.634	0.01	1.34	3.10	243	6.81	1.34	0.009	0.01	0.004
TCHW 06	06/09/87	10:19	0.372	0.420	0.01	1.03	3.30	245	6.45	1.03	0.004	0.01	0.004
TCHW 06	06/23/87	09:53	0.338	0.387	0.01	1.34	3.20	219	6.16	1.34	0.004	0.01	0.004
TCHW 06	07/07/87	09:45	0.621	0.894	0.01	1.58	9.30	258	6.53	1.58	0.006	0.01	0.004
TCHW 06	07/21/87	09:41	0.309	0.472	0.01	1.09	3.90	215	6.86	1.09	0.004	0.01	0.004
TCHW 06	08/04/87	11:23	0.283	0.322	0.06	1.05	4.00	219	6.95	1.04	0.004	0.05	0.009
TCHW 06	08/18/87	10:32	0.356	0.393	0.02	1.13	4.60	204	6.44	1.12	0.004	0.01	0.004
TCHW 06	09/01/87	10:06	0.347	0.464	0.03	1.95	8.20	205	7.12	1.95	0.004	0.03	0.004
TCHW 06	09/15/87	12:30	0.379	0.526	0.01	2.86	12.20	208	7.05	2.86	0.009	0.01	0.004
TCHW 06	09/29/87	10:05	0.441	1.453	0.03	1.63	23.00	239	6.43	1.62	0.011	0.02	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Taylor Creek at S-2													
TCHW 18	10/07/86	11:45	0.263	0.381	0.83	2.12	4.60	308	7.03	1.37	0.004	0.08	0.744
TCHW 18	10/21/86	11:15	0.352	0.439	1.24	2.95	3.90	322	7.09	1.74	0.004	0.03	1.211
TCHW 18	11/04/86	11:00	1.040	1.106	0.03	6.06	6.20	170	7.12	6.04	0.020	0.01	0.004
TCHW 18	11/18/86	11:15	0.851	0.854	0.31	2.09	5.00	243	6.98	1.88	0.035	0.11	0.170
TCHW 18	12/02/86	12:00	0.374	0.441	1.34	2.55	4.20	345	7.19	1.38	0.023	0.17	1.146
TCHW 18	01/06/87	12:10	0.632	0.767	1.66	1.91	8.50	116	6.71	1.88	0.017	1.63	0.015
TCHW 18	01/20/87	11:55	0.426	0.504	0.51	1.89	2.70	205	6.76	1.53	0.013	0.15	0.348
TCHW 18	02/03/87	11:55	0.165	0.236	0.27	2.85	3.50	303	6.97	2.70	0.008	0.12	0.140
TCHW 18	02/17/87	11:40	0.071	0.122	0.02	1.28	6.00	879	7.03	1.27	0.004	0.01	0.008
TCHW 18	03/03/87	11:15	0.066	0.102	0.02	0.76	4.30	1054	7.12	0.75	0.004	0.01	0.004
TCHW 18	03/31/87	10:40	0.975	1.171	0.12	2.57	3.70	137	6.91	2.52	0.033	0.07	0.020
TCHW 18	04/14/87	11:28	0.282	0.348	0.70	1.78	2.90	605	6.81	1.09	0.011	0.01	0.684
TCHW 18	04/28/87	11:00	0.255	0.297	0.15	1.20	3.70	388	7.71	1.06	0.005	0.01	0.131
TCHW 18	05/12/87	11:04	0.452	0.473	0.53	1.99	2.80	309	6.97	1.57	0.023	0.11	0.396
TCHW 18	05/26/87	10:40	0.353	0.391	0.13	7.27	3.50	307	7.14	7.14	0.004	0.01	0.121
TCHW 18	06/09/87	11:10	0.084	0.116	0.01	0.96	2.70	832	7.23	0.96	0.004	0.01	0.004
TCHW 18	06/23/87	10:47	0.234	0.271	0.02	1.13	1.90	260	7.00	1.12	0.005	0.01	0.004
TCHW 18	07/07/87	10:53	0.600	0.698	0.18	2.36	4.10	217	7.03	2.21	0.022	0.03	0.130
TCHW 18	07/21/87	10:44	0.573	0.807	0.21	0.71	21.00	158	7.14	0.59	0.036	0.09	0.084
TCHW 18	08/04/87	10:32	0.843	0.915	0.09	3.37	6.70	126	7.12	3.29	0.025	0.01	0.057
TCHW 18	08/18/87	11:31	0.518	0.607	0.22	1.69	12.20	181	7.05	1.53	0.017	0.05	0.148
TCHW 18	09/01/87	11:05	0.198	0.240	0.02	3.23	1.70	299	7.26	3.22	0.004	0.01	0.004
TCHW 18	09/15/87	11:38	0.339	0.390	0.03	0.91	2.50	308	7.26	0.90	0.004	0.02	0.005
TCHW 18	09/29/87	14:30	0.242	0.269	0.02	1.24	2.40	272	6.86	1.23	0.011	0.01	0.004

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
East Otter Creek at Potter Road													
TCHW 19	10/07/86	10:35	0.034	0.063	0.06	0.81	2.60	105	6.43	0.79	0.004	0.04	0.018
TCHW 19	10/21/86	10:00	0.011	0.037	0.05	1.83	2.40	105	6.54	1.81	0.004	0.03	0.013
TCHW 19	11/04/86	09:55	0.106	0.173	0.07	1.81	1.60	155	6.74	1.80	0.012	0.06	0.004
TCHW 19	11/18/86	10:00	0.102	0.162	0.05	1.56	2.40	147	6.31	1.55	0.010	0.04	0.004
TCHW 19	12/02/86	10:45	0.028	0.066	0.10	1.37	2.50	140	7.46	1.36	0.004	0.09	0.010
TCHW 19	01/06/87	11:05	0.312	0.484	0.06	2.50	3.50	98	6.27	2.48	0.014	0.04	0.010
TCHW 19	01/20/87	10:53	0.059	0.111	0.06	1.07	2.10	101	6.57	1.02	0.004	0.01	0.045
TCHW 19	02/03/87	10:45	0.019	0.097	0.02	1.40	5.90	110	6.36	1.39	0.005	0.01	0.007
TCHW 19	02/17/87	10:30	0.026	0.072	0.04	1.24	1.30	110	5.84	1.23	0.004	0.03	0.005
TCHW 19	03/03/87	10:20	0.020	0.066	0.01	0.88	1.80	104	6.55	0.88	0.004	0.01	0.004
TCHW 19	03/17/87	09:55	0.049	0.078	0.02	0.83	0.60	109	7.18	0.82	0.004	0.01	0.005
TCHW 19	03/31/87	09:40	0.308	0.393	0.03	1.50	2.00	155	7.02	1.48	0.013	0.01	0.009
TCHW 19	04/14/87	10:29	0.041	0.086	0.01	0.50	1.80	109	5.68	0.50	0.004	0.01	0.004
TCHW 19	04/28/87	10:00	0.035	0.077	0.02	1.03	1.90	116	6.47	1.02	0.004	0.01	0.004
TCHW 19	05/12/87	12:32	1.154	1.242	0.06	10.38	6.70	151	6.90	10.37	0.010	0.05	0.004
TCHW 19	05/26/87	09:50	0.065	0.114	0.01	0.88	1.50	109	7.00	0.88	0.004	0.01	0.004
TCHW 19	06/09/87	10:13	0.072	0.132	0.01	1.05	6.50	117	6.60	1.05	0.004	0.01	0.004
TCHW 19	06/23/87	09:53	0.027	0.045	0.01	0.96	1.00	86	4.91	0.96	0.004	0.01	0.004
TCHW 19	07/07/87	09:41	0.043	0.055	0.01	1.35	1.20	185	5.90	1.35	0.004	0.01	0.004
TCHW 19	07/21/87	09:36	0.136	0.181	0.01	1.39	4.20	135	6.70	1.39	0.008	0.01	0.004
TCHW 19	08/04/87	11:30	0.047	0.073	0.01	0.83	1.00	122	6.31	0.83	0.004	0.01	0.004
TCHW 19	08/18/87	10:26	0.534	1.466	0.04	4.71	18.90	168	6.33	4.68	0.010	0.01	0.017
TCHW 19	09/01/87	10:00	0.095	0.326	0.19	1.58	8.10	132	7.45	1.56	0.008	0.18	0.007
TCHW 19	09/15/87	12:40	0.055	0.101	0.01	0.93	2.70	106	6.93	0.93	0.004	0.01	0.004
TCHW 19	09/29/87	10:00	0.067	0.418	0.05	2.70	13.80	117	6.57	2.69	0.004	0.03	0.011

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
East Otter Creek at Dark Hammock Road													
TCHW 20	10/07/86	10:30	0.203	0.288	0.38	1.94	7.40	102	6.86	1.83	0.016	0.27	0.098
TCHW 20	11/04/86	09:50	0.137	0.217	0.03	1.83	2.00	145	6.97	1.81	0.015	0.01	0.004
TCHW 20	11/18/86	09:55	0.106	0.167	0.07	1.57	2.60	87	6.38	1.55	0.014	0.05	0.006
TCHW 20	12/02/86	10:35	0.116	0.146	0.20	1.44	5.90	102	6.72	1.39	0.015	0.15	0.032
TCHW 20	01/06/87	11:00	0.151	0.331	0.03	2.04	2.10	97	6.34	2.02	0.014	0.01	0.006
TCHW 20	01/20/87	10:45	0.084	0.146	0.04	1.60	3.00	68	6.85	1.57	0.010	0.01	0.018
TCHW 20	02/03/87	10:40	0.063	0.121	0.04	1.75	5.10	88	6.86	1.73	0.012	0.02	0.004
TCHW 20	02/17/87	10:25	0.099	0.180	0.02	1.56	3.50	91	6.47	1.55	0.008	0.01	0.004
TCHW 20	03/03/87	10:25	0.055	0.104	0.04	1.28	4.40	109	6.57	1.26	0.008	0.02	0.012
TCHW 20	03/17/87	10:15	0.059	0.103	0.04	1.11	1.20	81	7.25	1.09	0.012	0.02	0.004
TCHW 20	03/31/87	09:35	0.160	0.228	0.09	1.68	1.50	134	7.14	1.65	0.023	0.06	0.007
TCHW 20	04/14/87	10:24	0.065	0.121	0.03	1.41	3.80	105	7.19	1.39	0.014	0.01	0.005
TCHW 20	05/12/87	12:36	0.163	0.215	0.03	5.09	3.40	110	6.91	5.08	0.014	0.02	0.004
TCHW 20	07/21/87	09:31	0.160	0.259	0.02	3.95	9.50	92	6.83	3.94	0.019	0.01	
TCHW 20	08/04/87	11:34	0.021	0.056	0.52	1.20	7.70	253	6.49	1.19	0.004	0.51	0.004

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Wilson Rocks Runoff to Otter Creek													
TCHW 23	10/07/8610:05		1.072	1.108	5.79	7.25	2.50	361	6.97	6.92	0.158	5.46	0.171
TCHW 23	10/21/8609:40		0.729	0.789	3.26	5.97	3.20	354	6.78	5.38	0.219	2.67	0.371
TCHW 23	11/04/8609:30		2.480	2.790	3.05	6.57	2.50	320	7.00	6.44	0.068	2.92	0.061
TCHW 23	11/18/8609:40		1.499	1.414	2.26	4.80	2.60	289	6.37	3.99	0.180	1.45	0.630
TCHW 23	12/02/8610:15		0.629	0.678	2.27	4.60	3.90	324	6.79	3.20	0.101	0.87	1.302
TCHW 23	01/06/8710:40		2.267	4.110	2.12	4.95	2.60	271	6.81	3.76	0.117	0.93	1.077
TCHW 23	01/20/8710:30		0.825	0.904	0.64	2.85	1.60	264	6.79	2.11	0.014	0.10	0.725
TCHW 23	02/03/8710:25		0.486	0.547	1.23	4.35	3.10	311	6.86	3.22	0.014	0.10	1.118
TCHW 23	02/17/87	10:15	0.495	0.588	0.33	2.56	1.20	313	6.71	2.31	0.012	0.09	0.233
TCHW 23	03/03/87	09:40	0.427	0.506	0.16	2.05	2.30	295	5.78	1.96	0.013	0.07	0.079
TCHW 23	03/31/87	09:25	1.529	1.755	1.36	4.55	3.50	221	7.23	4.26	0.082	1.07	0.205
TCHW 23	04/14/87	10:14	0.539	0.617	0.10	1.96	1.50	293	7.23	1.91	0.015	0.05	0.036
TCHW 23	04/28/87	09:40	0.402	0.656	0.12	3.76	15.40	286	7.72	3.73	0.014	0.07	0.034
TCHW 23	05/12/87	10:11	1.100	1.172	0.54	3.41	3.70	266	6.97	3.35	0.031	0.48	0.025
TCHW 23	05/26/87	09:30	0.424	0.520	0.15	3.82	5.20	262	7.33	3.74	0.031	0.11	0.048
TCHW 23	06/09/87	09:42	0.463	0.629	0.12	2.27	11.60	293	7.16	2.22	0.013	0.07	0.040
TCHW 23	07/07/87	09:11	0.890	0.950	1.27	4.42	3.90	332	6.77	4.26	0.083	1.11	0.076
TCHW 23	08/18/87	10:09	0.667	0.733	0.57	2.77	4.40	251	7.25	2.48	0.040	0.28	0.249
TCHW 23	09/15/87	10:40	0.618	0.760	0.36	2.40	2.40	401	7.00	2.21	0.026	0.17	0.165

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
McArthur #1 Runoff to Otter Creek													
TCHW 25	11/04/86	09:00	7.230	7.270	3.95	8.87	2.70	946	7.10	8.83	0.030	3.91	0.006
TCHW 25	11/18/86	09:05	5.840	5.370	4.50	5.91	3.30	703	6.91	5.86	0.029	4.45	0.024
TCHW 25	12/02/86	09:25	2.330	2.454	6.58	9.64	2.10	928	7.35	9.12	0.231	6.06	0.284
TCHW 25	01/06/87	10:00	5.149	5.671	1.11	4.30	3.00	490	7.61	4.11	0.088	0.92	0.098
TCHW 25	01/20/87	10:00	2.584	2.909	6.45	5.35	2.50	708	6.69	5.06	0.089	6.16	0.201
TCHW 25	02/03/87	09:50	2.210	2.360	0.79	3.85	2.20	1036	6.99	3.15	0.050	0.09	0.646
TCHW 25	02/17/87	09:35	2.159	2.630	1.66	4.35	2.20	1062	7.34	3.94	0.110	1.25	0.297
TCHW 25	03/03/87	09:00	2.404	2.700	0.35	2.80	3.50	1060	6.26	2.66	0.036	0.21	0.109
TCHW 25	03/17/87	09:00	5.735	6.510	0.41	5.08	0.90	1157	7.39	4.89	0.054	0.22	0.133
TCHW 25	03/31/87	08:55	6.240	6.360	3.23	7.24	1.10	887	7.25	7.13	0.052	3.12	0.056
TCHW 25	05/12/87	09:29	8.726	10.145	1.24	14.71	8.00	651	7.31	14.66	0.036	1.19	0.011
TCHW 25	09/29/87	09:10	0.025	0.157	0.11	1.41	23.00	122	7.32	1.40	0.007	0.10	0.005

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L

Utter Creek and McArthur Farms

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
TCHW 26	10/07/8609:35		0.287	0.413	2.02	10.83	3.00	784	7.16	10.75	0.048	1.94	0.034
TCHW 26	10/21/8609:10		0.208	0.274	7.73	9.08	1.70	674	6.95	8.86	0.067	7.51	0.157
TCHW 26	11/04/8609:05		1.301	1.299	3.00	5.60	3.20	485	6.91	5.57	0.019	2.97	0.015
TCHW 26	11/18/8609:10		1.692	1.530	4.00	5.59	2.70	598	6.83	5.41	0.046	3.82	0.137
TCHW 26	12/02/8609:30		0.707	0.721	6.63	8.41	3.00	709	7.20	8.11	0.028	6.33	0.271
TCHW 26	01/06/8710:05		1.785	2.286	0.42	2.53	2.50	306	7.17	2.33	0.030	0.22	0.167
TCHW 26	01/20/8710:10		1.226	1.322	5.04	5.65	2.20	531	6.79	5.46	0.036	4.85	0.153
TCHW 26	02/03/8709:55		0.662	0.714	5.00	6.92	3.00	632	6.90	6.15	0.073	4.23	0.698
TCHW 26	02/17/87	09:40	0.460	0.574	4.72	5.93	2.60	522	7.14	5.43	0.038	4.22	0.457
TCHW 26	03/03/87	09:05	0.408	0.489	7.09	8.08	3.00	580	5.97	7.84	0.017	6.85	0.221
TCHW 26	03/17/87	09:05	0.490	0.580	4.19	6.00	1.30	547	7.37	5.81	0.027	4.00	0.159
TCHW 26	03/31/87	09:00	1.074	1.330	1.15	2.41	2.10	295	7.40	2.35	0.014	1.09	0.045
TCHW 26	04/14/87	09:42	0.288	0.338	3.85	5.32	1.40	610	7.14	4.76	0.056	3.29	0.505
TCHW 26	04/28/87	09:10	0.261	0.330	2.32	3.77	2.40	678	7.68	3.63	0.016	2.18	0.126
TCHW 26	05/12/87	09:34	0.696	0.863	0.63	8.75	14.90	227	7.34	8.73	0.009	0.61	0.013
TCHW 26	05/26/87	09:10	0.287	0.498	0.44	1.69	9.10	218	7.37	1.68	0.004	0.43	0.004
TCHW 26	06/09/87	09:11	0.174	0.514	0.02	2.19	8.20	330	7.61	2.18	0.005	0.01	0.006
TCHW 26	07/07/87	08:44	0.329	0.403	0.25	1.73	10.50	216	6.30	1.72	0.008	0.24	0.004
TCHW 26	07/21/87	09:06	0.213	0.328	0.02	1.34	6.10	232	6.62	1.34	0.004	0.02	0.004
TCHW 26	08/04/87	09:16	0.175	0.208	0.11	1.23	3.10	181	6.59	1.22	0.004	0.10	0.008
TCHW 26	08/18/87	09:21	0.187	0.245	0.11	1.30	3.00	209	7.35	1.29	0.004	0.10	0.004
TCHW 26	09/15/87	09:40	0.294	0.401	0.16	1.94	18.50	154	7.49	1.93	0.012	0.15	0.004
TCHW 26	09/29/87	09:05	0.221	0.296	0.12	1.43	8.00	169	7.50	1.41	0.017	0.10	0.004

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
McArthur Farms Hayfield Runoff to Otter Creek													
TCHW 27	10/07/86	09:40	0.028	0.203	0.16	1.69	19.00	106	6.66	1.68	0.005	0.15	0.006
TCHW 27	10/21/86	09:15	0.011	0.035	0.01	1.07	2.50	107	6.44	1.07	0.004	0.01	0.004
TCHW 27	11/04/86	09:10	0.166	0.264	0.06	1.71	4.30	166	6.91	1.70	0.012	0.05	
TCHW 27	11/18/86	09:15	0.046	0.196	0.02	1.16	4.00	122	6.70	1.16	0.004	0.02	0.004
TCHW 27	12/02/86	09:35	0.031	0.060	0.08	0.93	1.90	108	6.88	0.92	0.005	0.07	0.007
TCHW 27	01/06/87	10:10	0.132	0.411	0.13	2.31	2.60	109	7.07	2.25	0.008	0.07	0.055
TCHW 27	01/20/87	10:12	0.022	0.075	0.02	1.05	4.40	96	6.74	1.04	0.004	0.01	0.006
TCHW 27	02/03/87	10:00	0.020	0.047	0.03	1.53	3.30	108	6.76	1.52	0.004	0.02	0.004
TCHW 27	02/17/87	09:45	0.030	0.097	0.04	1.18	2.40	103	6.60	1.16	0.004	0.02	0.017
TCHW 27	03/03/87	09:10	0.024	0.131	0.01	0.90	5.00	107	5.80	0.90	0.004	0.01	0.004
TCHW 27	03/17/87	09:10	0.020	0.041	0.02	0.71	1.20	114	7.32	0.71	0.004	0.02	0.004
TCHW 27	03/31/87	09:05	0.116	0.167	0.70	1.78	1.30	144	7.35	1.67	0.013	0.59	0.098
TCHW 27	05/12/87	09:45	0.080	0.253	0.04	2.02	23.00	113	7.02	2.00	0.012	0.02	0.005
TCHW 27	07/07/87	08:48	0.088	0.294	0.16	5.51	47.00	155	6.27	5.49	0.017	0.14	0.005
TCHW 27	08/18/87	09:29	0.009	0.041	0.03	0.98	6.80	182	7.28	0.97	0.004	0.02	0.009
TCHW 27	09/15/87	09:50	0.073	0.604	0.05	8.56	98.00	121	6.95	8.54	0.024	0.03	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Williamson Main													
ARS 07	10/08/86	09:40	0.166	0.238	0.14	1.26	3.10	1237	7.10	1.20	0.009	0.08	0.053
ARS 07	10/21/86	12:50	0.103	0.169	0.07	1.12	2.10	1320	7.19	1.06	0.004	0.01	0.056
ARS 07	11/04/86	12:25	0.131	0.189	0.05	1.77	2.50	459	6.74	1.73	0.015	0.01	0.029
ARS 07	11/18/86	12:45	0.108	0.172	0.11	1.94	4.50	607	6.85	1.86	0.013	0.03	0.065
ARS 07	12/03/86	10:35	0.125	0.165	0.13	1.25	6.10	935	7.00	1.17	0.009	0.05	0.068
ARS 07	01/07/87	10:20	0.119	0.180	0.09	1.79	4.70	372	6.57	1.75	0.013	0.05	0.031
ARS 07	01/20/87	12:50	0.127	0.170	0.27	1.29	1.50	792	7.39	1.25	0.009	0.23	0.028
ARS 07	02/03/87	13:20	0.052	0.083	0.25	1.63	2.30	1037	7.57	1.60	0.009	0.22	0.023
ARS 07	02/17/87	13:15	0.053	0.075	0.03	0.99	1.20	1025	7.12	0.97	0.004	0.01	0.016
ARS 07	03/03/87	12:50	0.101	0.154	0.02	1.28	4.00	1254	7.34	1.27	0.004	0.01	0.004
ARS 07	03/17/87	10:50	0.106	0.133	0.08	1.31	2.20	819	6.95	1.28	0.007	0.05	0.020
ARS 07	03/31/87	08:45	0.163	0.225	0.10	1.68	2.30	299	7.18	1.63	0.017	0.05	0.031
ARS 07	04/14/87	13:23	0.162	0.215	0.12	1.48	2.00	1080	7.10	1.45	0.011	0.09	0.018
ARS 07	04/28/87	09:38	0.110	0.182	0.02	1.49	4.50	1390	7.39	1.48	0.005	0.01	0.005
ARS 07	05/12/87	12:48	0.068	0.115	0.02	1.97	2.40	1390	7.51	1.96	0.004	0.01	0.004
ARS 07	05/26/87	08:26	0.056	0.102	0.05	1.20	1.90	1218	6.65	1.20	0.007	0.05	
ARS 07	06/09/87	09:03	0.025	0.060	0.02	1.18	1.10	1410	7.81	1.17	0.004	0.01	0.004
ARS 07	06/23/87	08:30	0.036	0.074	0.01	1.24	1.90	1620	7.10	1.24	0.004	0.01	0.004
ARS 07	07/07/87	08:05	0.120	0.165	0.11	1.39	2.70	1006	7.78	1.39	0.005	0.11	
ARS 07	07/21/87	10:05	0.244	0.337	0.07	1.38	3.40	530	7.31	1.37	0.011	0.06	
ARS 07	08/04/87	08:15	0.106	0.152	0.02	1.24	2.20	731	7.12	1.23	0.010	0.01	
ARS 07	08/18/87	10:53	0.054	0.084	0.14	1.25	1.30	1119	7.40	1.24	0.004	0.13	
ARS 07	09/01/87	08:35	0.093	0.146	0.24	1.10	4.10	2870	7.37	1.08	0.010	0.22	
ARS 07	09/15/87	10:10	0.047	0.071	0.02	1.19	1.90	1660	6.93	1.18	0.007	0.01	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Williamson East Lateral													
ARS 08	10/08/86	09:55	0.176	0.246	0.02	1.47	2.60	1266	7.12	1.46	0.009	0.01	0.005
ARS 08	10/21/86	12:55	0.047	0.079	0.01	1.63	1.30	4000	7.14	1.63	0.005	0.01	0.004
ARS 08	11/04/86	12:30	0.393	0.476	0.06	1.71	1.10	524	5.90	1.68	0.019	0.03	0.013
ARS 08	11/18/86	12:55	0.385	0.449	0.32	2.24	3.60	1069	6.91	2.12	0.026	0.20	0.095
ARS 08	12/03/86	10:40	0.222	0.262	0.16	1.34	2.70	2000	7.12	1.25	0.021	0.07	0.068
ARS 08	01/07/87	10:30	0.437	0.531	0.21	2.23	4.80	651	6.59	2.12	0.026	0.10	0.087
ARS 08	01/20/87	12:55	0.267	0.193	0.04	1.88	1.00	1500	7.29	1.85	0.004	0.01	0.023
ARS 08	02/03/87	13:30	0.096	0.131	0.02	1.88	2.00	1610	7.56	1.87	0.012	0.01	0.004
ARS 08	02/17/87	13:20	0.060	0.085	0.02	0.82	1.40	2670	7.36	0.81	0.004	0.01	0.008
ARS 08	03/03/87	12:40	0.162	0.211	0.02	1.45	3.80		7.21	1.44	0.004	0.01	0.004
ARS 08	03/17/87	10:30	0.248	0.289	0.05	1.59	1.40	873	6.91	1.56	0.011	0.02	0.015
ARS 08	03/31/87	08:23	0.374	0.434	0.34	2.25	3.90	714	7.00	2.10	0.022	0.19	0.127
ARS 08	04/14/87	13:16	0.331	0.407	0.02	1.51	1.60	1227	6.91	1.50	0.012	0.01	
ARS 08	04/28/87	09:45	0.129	0.176	0.01	1.21	4.70	4300	7.13	1.21	0.004	0.01	0.004
ARS 08	05/12/87	12:53	0.034	0.091	0.07	1.23	2.20	4310	7.39	1.22	0.007	0.07	
ARS 08	05/26/87	08:33	0.031	0.108	0.01	1.33	1.80	4800	7.02	1.33	0.004	0.01	0.004
ARS 08	06/09/87	09:11	0.018	0.053	0.01	1.43	1.30	6370	7.57	1.43	0.004	0.01	0.004
ARS 08	06/23/87	08:35	0.017	0.049	0.01	1.36	2.20	5420	7.12	1.36	0.004	0.01	0.004
ARS 08	07/07/87	08:25	0.500	0.542	0.58	2.42	4.70	3460	7.35	2.42	0.009	0.58	
ARS 08	07/21/87	10:10	0.516	0.692	0.13	2.08	6.50	1620	7.26	2.07	0.015	0.12	
ARS 08	08/04/87	08:20	0.082	0.139	0.08	1.51	3.00	3640	7.56	1.49	0.011	0.07	
ARS 08	08/18/87	10:02	0.039	0.087	0.01	1.24	1.30	3190	7.28	1.24	0.004	0.01	
ARS 08	09/01/87	08:40	0.025	0.050	0.10	0.59	1.10	3540	7.42	0.51	0.006	0.02	
ARS 08	09/15/87	10:15	0.040	0.163	0.02	1.73	6.60	3520	7.21	1.72	0.006	0.01	
ARS 08	09/29/87	08:45	0.047	0.081	0.03	1.33	3.20		7.00	1.32	0.014	0.02	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Williamson Main Below Boys School													
ARS 09	10/08/86	10:15	0.222	0.257	0.29	1.28	2.50	1096	7.10	1.17	0.014	0.18	0.093
ARS 09	10/21/86	13:15	0.107	0.169	0.16	1.75	3.00	1970	7.22	1.66	0.005	0.07	0.084
ARS 09	11/04/86	12:50	0.198	0.257	0.11	2.91	3.10	514	6.16	2.85	0.014	0.04	0.051
ARS 09	11/18/86	13:10	0.198	0.263	0.23	2.03	3.70	704	7.02	1.88	0.020	0.08	0.130
ARS 09	12/03/86	11:00	0.172	0.192	0.22	1.19	5.50	1320	7.19	1.04	0.008	0.07	0.145
ARS 09	01/07/87	10:45	0.176	0.256	0.12	1.77	4.20	429	6.76	1.70	0.016	0.05	0.058
ARS 09	01/20/87	13:20	0.158	0.216	0.21	2.43	2.20	732	7.34	2.32	0.012	0.10	0.097
ARS 09	02/03/87	13:45	0.103	0.131	0.13	1.40	2.50	1154	7.49	1.33	0.004	0.06	0.064
ARS 09	02/17/87	13:40	0.086	0.112	0.05	1.01	2.00	1640	7.40	0.97	0.007	0.01	0.035
ARS 09	03/03/87	13:05	0.119	0.160	0.06	1.14	2.30	1188	7.26	1.10	0.004	0.02	0.039
ARS 09	03/17/87	11:05	0.204	0.250	0.13	1.45	2.00	742	6.97	1.38	0.008	0.06	0.064
ARS 09	03/31/87	09:00	0.202	0.256	0.12	2.16	2.30	391	7.11	2.08	0.019	0.04	0.065
ARS 09	04/14/87	13:39	0.199	0.256	0.20	1.05	1.90	887	7.09	0.99	0.014	0.14	0.042
ARS 09	04/28/87	10:04	0.123	0.147	0.06	1.16	1.70	1470	7.35	1.14	0.005	0.04	0.015
ARS 09	05/12/87	13:09	0.122	0.196	0.10	1.58	2.10	1720	7.48	1.57	0.004	0.09	0.004
ARS 09	05/26/87	08:51	0.114	0.145	0.05	0.76	1.50	1530	7.37	0.76	0.004	0.05	0.004
ARS 09	06/09/87	10:02	0.134	0.176	0.03	1.08	1.00	1780	7.67	1.07	0.004	0.02	0.004
ARS 09	06/23/87	08:35	0.146	0.161	0.04	1.06	1.20	5650	7.16	1.06	0.004	0.04	0.004
ARS 09	07/07/87	08:45	0.615	0.673	0.37	1.82	4.30	2370	7.30	1.82	0.007	0.36	
ARS 09	07/21/87	09:50	0.338	0.437	0.17	1.79	3.20	1720	7.31	1.77	0.015	0.15	
ARS 09	08/04/87	08:35	0.233	0.263	0.19	1.40	2.50	2090	7.42	1.40	0.004	0.19	
ARS 09	08/18/87	11:11	0.059	0.107	0.01	1.40	1.80	2310	7.39	1.40	0.004	0.01	
ARS 09	09/01/87	09:05	0.086	0.149	0.04	0.65	2.00	2850	7.44	0.64	0.004	0.03	
ARS 09	09/15/87	10:30	0.091	0.154	0.02	1.26	4.20	1850	7.37	1.25	0.013	0.01	
ARS 09	09/29/87	09:15	0.073	0.133	0.06	1.33	5.30	1610	6.79	1.31	0.014	0.04	

Taylor Creek at Cemetary Road

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
ARS 11	10/08/86	11:00	0.411	0.510	0.63	1.73	1.60	555	7.16	1.29	0.015	0.18	0.430
ARS 11	10/21/86	14:05	0.475	0.545	0.45	2.03	2.90	612	7.22	1.59	0.012	0.01	0.432
ARS 11	11/04/86	13:30	1.245	1.261	0.37	2.39	3.20	306	6.66	2.04	0.039	0.02	0.307
ARS 11	11/18/86	13:55	0.774	0.838	0.49	2.59	5.30	399	7.09	2.14	0.020	0.04	0.426
ARS 11	12/03/86	11:40	0.313	0.386	0.36	1.49	3.20	713	7.55	1.15	0.011	0.02	0.326
ARS 11	01/07/87	11:30	0.622	0.763	0.27	2.64	6.70	252	6.90	2.42	0.026	0.05	0.192
ARS 11	01/20/87	14:00	0.450	0.480	0.67	2.33	1.60	412	6.66	1.70	0.014	0.04	0.615
ARS 11	02/03/87	14:35	0.219	0.282	0.64	2.07	2.60	700	7.46	1.49	0.008	0.06	0.575
ARS 11	02/17/87	14:20	0.216	0.276	0.40	1.68	1.60	801	7.40	1.29	0.007	0.01	0.383
ARS 11	03/03/87	13:50	0.310	0.394	0.23	1.44	2.30	765	7.34	1.22	0.008	0.01	0.209
ARS 11	03/17/87	11:45	0.523	0.605	0.34	1.83	3.90	403	7.10	1.56	0.013	0.07	0.255
ARS 11	03/31/87	09:43	0.626	0.736	0.24	2.20	2.50	258	7.11	2.05	0.026	0.09	0.120
ARS 11	04/14/87	14:20	0.354	0.453	0.08	1.54	1.50	441	7.28	1.47	0.015	0.01	0.055
ARS 11	04/28/87	10:44	0.324	0.387	0.01	0.83	3.80	658	7.48	0.83	0.008	0.01	
ARS 11	05/12/87	14:01	0.347	0.379	0.08	1.23	1.90	611	7.60	1.22	0.005	0.07	0.004
ARS 11	05/26/87	09:43	0.469	0.577	0.02	1.40	1.80	494	7.37	1.39	0.004	0.01	0.004
ARS 11	06/09/87	10:46	0.395	0.429	0.01	1.90	5.20	739	7.69	1.90	0.004	0.01	0.004
ARS 11	06/23/87	09:30	0.405	0.460	0.02	1.47	2.00	593	7.37	1.46	0.004	0.02	0.004
ARS 11	07/07/87	09:30	0.391	0.435	0.11	2.73	1.60	853	7.75	2.73	0.006	0.10	
ARS 11	07/21/87	09:35	0.482	0.573	0.16	1.79	3.70	895	7.30	1.73	0.021	0.10	
ARS 11	08/04/87	09:25	0.724	0.893	0.03	1.92	3.00	443	7.19	1.91	0.015	0.02	
ARS 11	08/18/87	12:00	0.467	0.511	0.02	1.67	2.80	1088	7.33	1.66	0.010	0.01	
ARS 11	09/01/87	10:05	0.658	0.726	0.03	1.26	5.10	848	7.44	1.25	0.011	0.02	
ARS 11	09/15/87	11:11	0.939	1.118	0.26	3.03	26.00	1111	7.05	3.01	0.013	0.24	
ARS 11	09/29/87	09:55	0.175	0.240	0.02	1.69	1.60	1190	7.02	1.68	0.008	0.01	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Taylor Creek at Well Line B													
ARS 12	10/08/86	10:40	0.503	0.635	1.11	3.09	4.10	371	7.17	2.02	0.028	0.04	1.042
ARS 12	10/21/86	13:40	0.443	0.525	1.10	2.60	6.20	343	7.44	1.51	0.004	0.01	1.086
ARS 12	11/04/86	13:10	1.555	1.556	0.40	2.69	6.00	239	6.62	2.29	0.054	0.01	0.341
ARS 12	11/18/86	13:35	0.926	0.946	0.92	2.91	5.30	415	7.15	2.03	0.032	0.04	0.851
ARS 12	12/03/86	11:20	0.400	0.587	1.15	2.87	12.00	384	7.26	1.73	0.013	0.01	1.124
ARS 12	01/07/87	11:05	0.907	1.037	0.35	2.45	7.00	178	6.93	2.15	0.037	0.05	0.260
ARS 12	01/20/87	13:40	0.605	0.661	1.03	3.43	4.70	267	6.64	2.44	0.019	0.04	0.971
ARS 12	02/03/87	14:15	0.344	0.415	1.07	2.88	5.10	378	7.66	1.84	0.008	0.03	1.031
ARS 12	02/17/87	14:00	0.260	0.339	0.90	1.92	3.70	390	7.57	1.04	0.009	0.02	0.867
ARS 12	03/03/87	13:30	0.513	0.587	0.58	2.28	3.40		7.48	1.76	0.016	0.07	0.499
ARS 12	03/17/87	11:30	0.496	0.588	0.64	2.29	3.70	308	7.15	1.70	0.013	0.05	0.581
ARS 12	03/31/87	09:23	0.923	1.055	0.29	2.08	3.30	157	7.23	1.90	0.034	0.11	0.147
ARS 12	04/14/87	14:01	0.369	0.453	0.32	1.47	1.90	362	7.33	1.19	0.013	0.04	0.266
ARS 12	04/28/87	10:22	0.351	0.425	0.01	1.80	3.20	447	7.56	1.80	0.005	0.01	0.004
ARS 12	05/12/87	13:33	0.338	0.387	0.03	1.15	3.20	308	7.84	1.13	0.010	0.01	0.005
ARS 12	05/26/87	09:12	0.500	0.586	0.02	1.38	3.50	399	7.37	1.37	0.008	0.01	
ARS 12	06/09/87	10:27	0.410	0.481	0.01	1.47	3.60	441	7.86	1.47	0.004	0.01	0.004
ARS 12	06/23/87	09:10	0.312	0.369	0.01	1.24	2.30	392	7.37	1.24	0.004	0.01	0.004
ARS 12	07/07/87	09:05	0.451	0.516	0.07	2.54	2.70	347	7.28	2.50	0.024	0.03	
ARS 12	07/21/87	10:35	0.677	0.897	0.13	2.32	11.30	198	7.59	2.20	0.025	0.01	
ARS 12	08/04/87	09:00	0.724	0.654	0.09	1.81	8.80	157	7.32	1.77	0.023	0.05	
ARS 12	08/18/87	11:34	0.607	1.075	0.02	2.33	7.70	195	7.60	2.32	0.012	0.01	
ARS 12	09/01/87	09:30	0.358	0.491	0.01	1.06	4.40	285	7.66	1.06	0.006	0.01	
ARS 12	09/15/87	10:53	0.247	0.512	1.14	2.51	11.20	273	7.44	2.50	0.009	1.13	
ARS 12	09/29/87	09:35	0.216	0.388	0.03	1.39	2.40	485	7.02	1.38	0.007	0.02	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Mosquito Creek at HWY 710													
ARS 13	10/08/86	09:20	1.239	1.236	3.85	5.19	4.70	515	6.76	2.57	0.134	1.23	2.491
ARS 13	10/20/86	13:50	0.982	0.983	4.99	6.27	2.70	661	6.85	3.27	0.141	1.99	2.857
ARS 13	11/04/86	09:04	0.855	0.891	2.81	4.15	3.10	638	6.35	1.84	0.004	0.50	2.305
ARS 13	11/17/86	14:30	1.071	1.034	2.08	4.38	5.50	664	6.42	2.55	0.095	0.25	1.739
ARS 13	12/03/86	09:05	1.586	1.698	3.96	5.81	5.70	990	6.86	3.27	0.109	1.42	2.430
ARS 13	01/07/87	14:05	1.074	1.191	1.02	3.37	2.80	546	6.71	2.36	0.038	0.01	0.975
ARS 13	01/21/87	10:35	1.156	1.220	2.71	4.27	3.30	651	6.78	1.78	0.080	0.22	2.410
ARS 13	02/04/87	09:30	1.009	1.037	3.14	5.12	4.50	960	6.88	2.02	0.020	0.04	3.078
ARS 13	02/18/87	13:30	1.137	1.264	2.60	4.17	2.70	1020	6.90	1.66	0.056	0.09	2.458
ARS 13	03/04/87	09:00	1.472	1.590	5.39	7.59	5.20	981	7.00	3.36	0.263	1.16	3.965
ARS 13	03/17/87	14:10	1.027	1.214	2.30	4.17	2.20	677	7.18	1.91	0.030	0.04	2.233
ARS 13	03/31/87	10:04	0.936	1.036	0.72	2.38	2.00	679	7.00	1.84	0.020	0.18	0.519
ARS 13	04/14/87	11:50	0.471	0.548	0.49	1.75	2.50	885	6.91	1.29	0.009	0.03	0.448
ARS 13	04/28/87	09:15	0.388	0.407	0.38	1.44	3.30	1620	6.92	1.08	0.004	0.02	0.354
ARS 13	05/12/87	10:05	0.589	0.611	0.30	1.55	2.20		1.92	1.28	0.004	0.03	0.264
ARS 13	05/26/87	10:32	0.649	0.655	0.31	1.60	1.80	1010	7.28	1.30	0.005	0.01	0.299
ARS 13	06/09/87	12:19	0.578	0.591	0.28	1.98	2.60	1860	7.36	1.73	0.007	0.03	0.241
ARS 13	06/23/87	11:00	0.845	0.857	0.50	1.80	1.80	566	6.97	1.41	0.007	0.11	0.385
ARS 13	07/07/87	11:10	1.064	1.113	0.71	2.55	2.70	1045	7.00	1.88	0.057	0.04	
ARS 13	07/21/87	09:10	0.770	0.846	0.64	1.93	3.60	966	7.17	1.32	0.016	0.03	
ARS 13	08/04/87	09:45	0.883	0.920	0.65	2.23	1.10	1119	7.41	1.59	0.009	0.01	
ARS 13	08/18/87	09:20	0.720	0.733	0.23	1.39	0.90	1690	7.19	1.22	0.006	0.06	
ARS 13	09/01/87	10:15	0.800	0.831	0.24	1.14	1.60	1700	7.42	0.99	0.010	0.09	
ARS 13	09/15/87	09:46	0.609	0.675	0.23	1.37	1.60	1380	6.67	1.36	0.004	0.22	
ARS 13	09/29/87	11:20	0.474	0.506	0.28	1.53	1.90	1097	7.00	1.33	0.009	0.08	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OP04 MG P/L	TP04 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Nubbin Slough at HWY 710													
ARS 14	10/08/86	09:10	2.096	2.186	2.63	8.47	9.30	403	6.57	7.91	0.053	2.07	0.507
ARS 14	10/20/86	13:40	1.417	1.619	2.32	5.11	12.40	228	6.85	4.82	0.044	2.03	0.245
ARS 14	11/04/86	08:50	1.282	1.511	1.12	5.61	14.70	325	6.07	5.42	0.042	0.93	0.147
ARS 14	11/17/86	14:20	0.828	0.972	0.90	3.74	12.20	195	6.28	3.46	0.051	0.62	0.229
ARS 14	12/03/86	08:55	2.255	3.530	5.05	12.03	37.00	459	6.55	11.10	0.200	4.12	0.727
ARS 14	01/07/87	13:35	1.061	1.272	1.34	4.14	10.00	223	6.74	3.87	0.060	1.07	0.212
ARS 14	01/21/87	10:25	1.680	2.408	3.95	8.67	34.00	299	6.78	7.50	0.207	2.78	0.959
ARS 14	02/04/87	09:20	1.163	1.298	3.66	5.19	8.90	366	6.85	2.79	0.170	1.26	2.234
ARS 14	02/18/87	13:20	1.178	1.490	3.31	5.45	32.00	366	6.86	4.20	0.120	2.06	1.127
ARS 14	03/04/87	08:50	1.258	1.515	3.78	6.40	19.10		7.02	4.86	0.142	2.24	1.396
ARS 14	03/17/87	13:45	1.086	1.517	2.40	4.08	7.00	340	6.61	2.90	0.116	1.22	1.061
ARS 14	03/31/87	10:35	1.605	2.220	3.08	5.64	18.00	288	7.56	5.03	0.104	2.47	0.502
ARS 14	04/14/87	11:07	0.545	0.971	1.76	3.25	51.00	402	6.43	2.16	0.055	0.67	1.033
ARS 14	04/28/87	08:36	0.672	0.852	1.08	2.61	13.20	354	7.39	2.24	0.026	0.71	0.340
ARS 14	05/12/87	09:25	0.530	0.750	1.21	2.79	11.10	224	7.12	2.74	0.015	1.16	0.036
ARS 14	05/26/87	10:40	0.644	0.771	1.15	2.85	4.60	227	7.53	2.76	0.022	1.06	0.068
ARS 14	06/09/87	11:50	0.347	0.413	0.54	1.94	3.10	215	7.31	1.86	0.011	0.46	0.066
ARS 14	06/23/87	10:35	0.398	0.460	1.13	2.35	2.50	531	6.98	2.30	0.018	1.08	0.034
ARS 14	07/07/87	10:35	0.448	0.826	0.50	6.21	115.00	316	6.69	6.13	0.015	0.42	0.064
ARS 14	07/21/87	08:40	0.515	0.645	0.40	1.39	6.10	306	7.05	1.27	0.012	0.28	0.111
ARS 14	08/04/87	10:20	0.422	0.469	0.29	1.50	3.10	369	6.95	1.46	0.009	0.25	0.030
ARS 14	08/18/87	09:03	0.360	0.496	0.14	1.79	5.70	403	7.21	1.76	0.006	0.11	0.023
ARS 14	09/01/87	10:25	0.018	0.248	0.16	1.39	40.00	113	7.54	1.36	0.006	0.12	0.029
ARS 14	09/15/87	09:18	0.645	0.739	0.29	1.65	1.50	513	7.19	1.63	0.013	0.27	0.009
ARS 14	09/29/87	10:55	0.701	0.891	0.29	2.41	2.20	545	7.23	2.37	0.040	0.25	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Mosquito Creek at HWY 70													
ARS 15	10/08/86	08:20	1.196	1.304	2.61	6.76	5.40	561	6.41	6.22	0.069	2.07	0.471
ARS 15	10/20/86	13:10	0.827	1.154	6.45	9.62	21.00	694	7.00	8.74	0.095	5.57	0.784
ARS 15	11/04/86	08:00	0.771	0.885	0.33	8.35	5.90	660	6.95	8.24	0.033	0.22	0.073
ARS 15	11/17/86	13:35	1.183	1.273	4.75	6.20	7.50	713	6.98	5.34	0.099	3.89	0.762
ARS 15	12/03/86	08:05	1.651	1.671	0.74	33.79	7.00	1026	7.14	33.06	0.072	0.01	0.658
ARS 15	01/07/87	13:15	1.082	1.265	2.35	4.28	5.00	518	6.74	3.46	0.151	1.53	0.674
ARS 15	01/21/87	09:45	1.017	1.154	6.81	5.44	4.10	690	6.67	4.50	0.096	5.87	0.848
ARS 15	02/04/87	08:35	1.007	1.082	4.04	5.55	3.80	990	6.97	4.16	0.132	2.65	1.262
ARS 15	02/18/87	12:40	1.330	1.528	3.19	5.09	3.90	978	7.09	3.96	0.148	2.06	0.982
ARS 15	03/04/87	08:25	1.348	1.600	6.00	7.94	6.00		7.07	6.81	0.135	4.87	0.995
ARS 15	03/17/87	13:10	1.289	1.649	3.83	4.57	4.80	657	6.97	3.28	0.126	2.54	1.161
ARS 15	03/31/87	11:25	0.753	0.917	0.93	2.56	3.30	512	6.42	2.08	0.061	0.45	0.416
ARS 15	04/14/87	10:15	0.401	0.481	0.66	1.47	2.50	860	7.10	0.98	0.033	0.17	0.459
ARS 15	04/28/87	08:01	0.250	0.345	0.44	1.64	9.50	1610	7.48	1.25	0.010	0.05	0.383
ARS 15	05/12/87	08:30	0.472	0.475	0.48	1.63	1.30	1480	7.26	1.56	0.011	0.41	0.060
ARS 15	05/26/87	11:36	0.477	0.523	0.39	1.73	1.40	802	7.28	1.54	0.026	0.20	0.167
ARS 15	06/09/87	11:20	0.419	0.440	0.45	1.68	2.00	1760	7.52	1.55	0.016	0.32	0.112
ARS 15	07/07/87	09:55	0.806	0.842	1.07	4.38	3.40	999	6.86	4.32	0.037	1.01	
ARS 15	07/21/87	07:55	0.663	0.719	1.09	2.44	3.80	598	7.05	2.24	0.050	0.89	
ARS 15	08/18/87	08:21	0.492	0.490	0.94	1.73	1.30	1490	6.63	1.34	0.027	0.55	
ARS 15	09/01/87	11:30	1.305	1.320	1.91	2.85	1.80	1860	7.14	2.00	0.072	1.06	
ARS 15	09/15/87	08:43	0.427	0.500	0.79	1.87	0.50	1440	7.00	1.45	0.046	0.37	
ARS 15	09/29/87	10:20	0.387	0.422	0.47	1.64	2.00	1053	7.11	1.22	0.018	0.05	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Nubbin Slough at Berman Road													
ARS 17	10/08/86	08:40	0.187	0.302	0.34	1.60	7.70	56	6.14	1.58	0.019	0.32	0.006
ARS 17	10/20/86	13:20	0.554	0.655	0.09	2.51	12.50	74	6.52	2.48	0.004	0.06	0.023
ARS 17	11/04/86	08:20	0.405	0.407	0.02	6.07	3.10	76	6.01	6.06	0.011	0.01	
ARS 17	11/17/86	13:45	0.895	1.445	0.62	14.15	49.00	122	6.64	14.05	0.025	0.52	0.074
ARS 17	12/03/86	08:20	0.239	0.462	0.33	0.76	37.00	85	6.45	0.74	0.010	0.31	0.011
ARS 17	01/07/87	13:30	0.615	0.770	0.08	2.36	28.00	95	6.76	2.34	0.017	0.06	0.005
ARS 17	01/21/87	10:00	0.217	0.288	0.03	2.28	9.80	53	6.85	2.26	0.008	0.01	0.014
ARS 17	02/04/87	08:50	0.100	0.138	0.03	1.78	4.80	60	6.81	1.77	0.006	0.02	0.006
ARS 17	02/18/87	12:50	0.234	0.307	0.11	1.72	9.00	73	6.60	1.68	0.011	0.07	0.031
ARS 17	03/04/87	08:30	0.119	0.157	0.02	1.13	4.00	61	6.85	1.12	0.004	0.01	0.004
ARS 17	07/21/87	08:10	0.132	0.282	0.02	0.78	4.90	52	5.99	0.77	0.007	0.01	
ARS 17	08/04/87	10:55	0.597	0.626	1.10	2.15	1.60	928	7.14	1.89	0.032	0.84	

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
Henry Creek at HWY 710													
ARS 39	10/08/86	09:00	1.352	1.366	1.32	2.76	1.40	394	6.90	2.70	0.027	1.26	0.037
ARS 39	10/20/86	13:35	1.990	1.946	2.26	3.86	2.10	793	6.88	3.65	0.068	2.05	0.140
ARS 39	11/04/86	08:45	1.340	1.394	0.06	3.67	3.10	597	6.61	3.62	0.017	0.01	0.037
ARS 39	11/17/86	14:10	1.498	1.402	0.01	3.19	2.00	528	7.07	3.19	0.004	0.01	0.004
ARS 39	12/03/86	08:45	1.793	1.871	1.54	2.92	2.40	419	6.90	2.50	0.048	1.12	0.373
ARS 39	01/07/87	13:50	1.194	1.278	1.75	3.81	3.10	946	6.57	3.21	0.102	1.15	0.501
ARS 39	01/21/87	10:15	1.756	1.896	2.03	3.79	2.00	449	6.66	3.13	0.055	1.37	0.606
ARS 39	02/04/87	09:10	1.606	1.664	1.80	3.45	1.60	540	6.88	2.31	0.054	0.66	1.088
ARS 39	02/18/87	13:10	2.203	2.610	1.91	3.29	1.20	531	6.88	2.09	0.075	0.71	1.121
ARS 39	03/04/87	08:45	2.833	3.160	1.74	4.01	3.00	579	7.24	3.23	0.060	0.96	0.721
ARS 39	03/17/87	13:40	1.254	1.391	0.56	2.45	1.00	547	6.54	2.07	0.026	0.18	0.350
ARS 39	03/31/87	10:47	2.990	3.130	3.05	4.83	2.60	943	7.33	4.52	0.057	2.74	0.253
ARS 39	04/14/87	10:50	0.996	1.175	0.34	2.35	2.10	486	5.84	2.33	0.018	0.32	
ARS 39	04/28/87	08:26	0.927	1.012	0.06	1.46	2.10	476	7.48	1.44	0.016	0.04	0.007
ARS 39	05/12/87	09:15	0.686	0.726	0.03	1.79	1.40	405	7.12	1.78	0.011	0.02	0.004
ARS 39	05/26/87	11:09	4.745	4.585	2.04	4.19	1.80	751	7.26	4.18	0.015	2.03	
ARS 39	06/09/87	11:40	2.270	2.285	0.42	2.70	14.50	665	7.48	2.69	0.013	0.41	
ARS 39	06/23/87	10:30	5.010	5.100	3.71	4.99	2.60	789	7.19	4.98	0.013	3.70	0.004
ARS 39	07/07/87	10:30	5.100	5.560	0.10	7.17	3.60	824	7.37	7.08	0.077	0.01	
ARS 39	07/21/87	08:30	2.975	3.560	2.43	4.40	12.20	588	7.45	4.32	0.055	2.35	
ARS 39	08/04/87	10:30	2.513	3.060	1.39	3.31	3.80	578	7.39	3.29	0.014	1.37	
ARS 39	08/18/87	08:55	2.190	2.400	0.39	2.61	2.50	510	7.28	2.59	0.010	0.37	
ARS 39	09/29/87	10:45	3.540	3.905	3.76	8.90	7.00	699	7.18	8.87	0.020	3.73	

Lettuce Creek at HWY 710

STATION NUMBER	DATE MO/DA/YR	TIME HR/MN	OPO4 MG P/L	TPO4 MG P/L	NOX+NH4 MG N/L	TOTAL N MG N/L	TURB NTU	LAB COND UMHOS/CM	LAB pH UNITS	TKN MG N/L	NO2 MG N/L	NH4 MG N/L	NO3 MG N/L
ARS 40	10/08/86	08:55	0.296	0.404	0.28	1.73	5.60	276	6.31	1.56	0.044	0.11	0.129
ARS 40	10/20/86	13:30	0.315	0.399	0.08	1.71	5.70	121	6.80	1.65	0.018	0.02	0.038
ARS 40	11/04/86	08:35	0.305	0.368	0.08	5.89	3.60	213	6.54	5.87	0.012	0.06	0.004
ARS 40	11/17/86	14:05	0.326	0.381	0.32	2.17	4.80	203	6.64	1.90	0.026	0.05	0.240
ARS 40	12/03/86	08:40	0.210	0.353	0.18	1.67	12.80	210	6.43	1.57	0.015	0.08	0.087
ARS 40	01/07/87	13:45	0.248	0.331	0.44	2.41	2.20	224	6.62	2.12	0.048	0.15	0.238
ARS 40	01/21/87	10:10	0.278	0.325	0.14	1.80	2.90	194	6.61	1.69	0.013	0.03	0.099
ARS 40	02/04/87	09:00	0.155	0.215	0.15	2.21	6.70	299	6.71	2.13	0.014	0.07	0.066
ARS 40	02/18/87	13:05	0.121	0.217	0.10	1.45	4.90	249	6.28	1.39	0.013	0.04	0.045
ARS 40	03/04/87	08:35	0.144	0.220	0.08	1.38	5.00	611	7.15	1.34	0.008	0.04	0.028
ARS 40	03/17/87	13:30	0.172	0.223	0.12	1.89	1.60	300	6.68	1.66	0.014	0.09	0.012
							2.50	313	7.47	1.89	0.019	0.01	0.035
ARS 40	04/28/87	08:25	0.093	0.124	0.04	1.30	3.40	519	7.53	1.27	0.009	0.01	0.016
ARS 40	05/12/87	09:05	0.053	0.121	0.07	1.34	3.30	386	7.41	1.31	0.005	0.04	0.028
ARS 40	05/26/87	11:15	0.051	0.103	0.05	1.59	3.30	419	7.28	1.57	0.011	0.03	0.012
ARS 40	06/09/87	11:34	0.032	0.051	0.04	1.36	1.90	487	7.60	1.34	0.008	0.02	0.012
ARS 40	06/23/87	10:25	0.037	0.059	0.05	1.33	1.30	424	7.03	1.30	0.006	0.02	0.023

APPENDIX B
INTERIM ACTION PLAN POINTS SUMMARY AND FLOOD CONTROL BACKPUMPING SUMMARY

INTERIM ACTION PLAN POINTS SUMMARY, MARCH 7, 1987

POINT FACTOR CATEGORIES	S-2 (HILLSBORO/NNRC) STATUS	POINTS
Current canal level	> 13′	6
Change in level	< .25′/hr.	1
Pump notification	> 100K GPM	4
Rainfall, last 2 hours	< 1″	1
Rainfall, last 2-48 hours	< 4″	1
Raining now	no	0
Rainfall predicted, next 6 hours	1 - 2″	2
Time of Day	1500	2
Day of Week	Saturday	1
Total Points		18

FLOOD CONTROL BACKPUMPING SUMMARY

DATE	S-2 (HILLSBORO/NNRC) VOLUME (ACRE/FT.)	S-2 (HILLSBORO/NNRC) POINTS	S-3 (MIAMI CANAL) VOLUME (ACRE/FT.)	S-3 (MIAMI CANAL) POINTS
3/7/87	868	18		
Total	868			

APPENDIX C
PESTICIDES ANALYZED IN 1986-87 AND THEIR DETECTION LIMITS

TABLE C-1. PESTICIDES ANALYZED IN SURFACE WATER AND SEDIMENT SAMPLES COLLECTED ON JANUARY 27, 1987

Compound	Sediment	Surface Water	Compound	Sediment	Surface Water
2,4-D	5.71 - 1,140[1]	2.0[2]	Kelthane/ Dicofol	6.5 - 4,200	0.012
Dichlorprop	5.65 - 1,130	0.8	BHC, Gamma/ Lindane	6.51 - 253	0.001
2,4,5-T	5.76 - 1,150	0.6	Malathion	64.8 - 429	0.06
2,4,5-TP/Silvex	5.65 - 225	0.4	Methamidophos	130 - 860	0.20
Alachlor	25 - 27	0.02	Methomyl	260 - 2,000	20.0
Aldicarb	0.27 - 2.0	2.0	Methoxychlor	6.51 - 4,220	0.02
Aldrin	1.30 - 84.4	0.002	Methyl Bromide	1.7 - 11	NA
Ametryne	64.8 - 429	10.0	Methyl Parathion	65 - 430	0.06
Atrazine	130 - 858	0.10	Metolachlor	14 - 15	0.02
Benomyl	NA[3]	20.0	Metribuzin	65 - 430	0.004
BHC, Alpha	1.30 - 253	0.002	Mevinphos	64.8 - 429	0.10
BHC, Beta	1.30 - 84.4	0.004	Azodrin/ Monocrotophos	259 - 1,720	1.0
BHC, Delta	1.30 - 169	0.003	Oxamyl	270 - 2,000	2.0
Bromacil	65 - 430	0.02	Paraquat	3,200-39,000	3.0
Carbaryl/ Sevin	280 - 2,100	NA	Parathion	64.8 - 429	0.06
Carbofuran	250 - 1,900	10.0	PCB 1016	70.6 - 4,570	0.065
Chlordane	7.73 - 501	0.01	PCB 1221	71 - 4,600	0.065
Chloropicrin	0.016 - 0.109	NA	PCB 1232	71 - 4,600	0.065
Chlorpyrifos	64.8 - 429	0.06	PCB 1242	71 - 4,600	0.065
Chlorothalonil	4.6 - 5.0	0.004	PCB 1248	61 - 4,000	0.065
Diazinon	64.8 - 422	0.06	PCB 1254	61 - 4,000	0.065
Dieldrin	1.30 - 84.4	0.003	PCB 1260	61 - 4,000	0.065
Endosulfan, Alpha	1.30 - 84.4	0.007	Perthane	51 - 56	0.02
Endosulfan, Beta	1.30 - 84.4	0.008	Phorate	64.8 - 429	0.03
Endosulfan Sulfate	1.30 - 84.4	0.017	DDD, PP'	1.30 - 84.4	0.008
Endrin	2.86 - 84.4	0.007	DDE, PP'	1.30 - 84.4	0.004
Endrin Aldehyde	1.30 - 84.4	0.018	DDT, PP'	2.86 - 84.4	0.01
Ethion	65 - 430	0.10	Prometryne	65 - 430	10.0
Fonofos/ Dyfonate	65 - 430	0.10	Simazine	65 - 430	0.10
Ethoprop	64.8 - 429	0.10	Toxaphene	153 - 9,910	0.05
Glyphosate	NA	100.0	Trifluralin	5.5 - 6.0	0.01
Guthion	65 - 430	1.0	Trithion/ Carbophenothion	25 - 27	0.10
Heptachlor Epoxide	1.30 - 84.4	0.003	Zinc Phosphide	NA	1.0
Heptachlor	1.30 - 84.4	0.002			

[1] RANGE OF MINIMUM DETECTION LIMIT IN UG/KG - DRY WEIGHT OR PPB
[2] MINIMUM DETECTION LIMIT IN UG/L OR PPB
[3] PARAMETER NOT ANALYZED DUE TO LACK OF SUITABLE ANALYTICAL METHOD

TABLE C-2. PESTICIDE ANALYZED IN SURFACE WATER SAMPLES COLLECTED ON APRIL 14, 1987

Compound	Detection Limit (ppb)	Compound	Detection Limit (ppb)
2,4-D	2.0	Kelthane/ Dicofol	0.012
Dichlorprop	0.8	BHC, Gamma/ Lindane	0.001
2,4,5-T	0.6	Malathion	0.06
2,4,5-TP/ Silvex	0.4	Methamidophos	0.20
Alachlor	0.02	Methomyl	20.0
Aldicarb	2.0	Methoxychlor	0.02
Aldrin	0.002	Methyl Bromide	1.0
Ametryne	10.0	Methyl Parathion	0.06
Atrazine	0.10	Metolachlor	0.02
Benomyl	20.0	Metribuzin	0.004
BHC, Alpha	0.002	Mevinphos	0.10
BHC, Beta	0.004	Azodrin/ Monocrotophos	1.0
BHC, Delta	0.003	Oxamyl	2.0
Bromacil	0.02	Paraquat	3.0
Carbofuran	10.0	Parathion	0.06
Chlordane	0.01	PCB 1016	0.065
Chloropicrin	1.0	PCB 1221	0.065
Chlorpyrifos	0.06	PCB 1232	0.065
Chlorothalonil	0.004	PCB 1242	0.065
Diazinon	0.06	PCB 1248	0.065
Dieldrin	0.003	PCB 1254	0.065
Endosulfan, Alpha	0.007	PCB 1260	0.065
Endosulfan, Beta	0.008	Perthane	0.02
Endosulfan Sulfate	0.017	Phorate	0.03
Endrin	0.007	DDD, PP'	0.008
Endrin Aldehyde	0.018	DDE, PP'	0.004
Ethion	0.10	DDT, PP'	0.01
Fonofos/ Dyfonate	0.10	Prometryne	10.0
Ethoprop	0.10	Simazine	0.10
Glyphosate	100.0	Toxaphene	0.05
Guthion	1.0	Trifluralin	0.01
Heptachlor Epoxide	0.003	Trithion/ Carbophenothion	0.10
Heptachlor	0.002		

TABLE C-3. PESTICIDES ANALYZED IN SURFACE WATER AND SEDIMENT SAMPLES COLLECTED ON JULY 21, 1987

Compound	Sediment	Surface Water	Compound	Sediment	Surface Water
2,4-D	79.1 - 384[1]	2.0[2]	Kelthane/ Dicofol	34 - 330	0.012
Dichlorprop/ 2,4-DP	68 - 361	0.8	BHC, Gamma/ Lindane	6.85 - 66.0	0.001
2,4,5-T	66.7 - 354	0.6	Malathion	13.7 - 132	0.06
2,4,5-TP/ Silvex	68.0 - 361	0.4	Methamidophos	270 - 1,400	0.20
Alachlor	88 - 850	0.02	Methomyl	200 - 1,000	20.0
Aldicarb	0.06 - 0.30	2.0	Methoxychlor	6.85 - 66.0	0.02
Aldrin	6.85 - 66.0	0.002	Methyl Bromide	50 - 300	1.0
Ametryne	13.7 - 132	10.0	Methyl Parathion	14 - 130	0.06
Atrazine	13.7 - 132	0.10	Metolachlor	68 - 660	0.02
Benomyl	NA[3]	20.0	Metribuzin	14 - 130	0.004
BHC, Alpha	6.85 - 66.0	0.002	Mevinphos	29.2 - 290	0.10
BHC, Beta	6.85 - 66.0	0.004	Azodrin/ Monocrotophos	274 - 2,640	1.0
BHC, Delta	6.85 - 66.0	0.003	Oxamyl	110 - 560	2.0
Bromacil	14 - 530	0.02	Paraquat	2,200 - 16,000	3.0
Carbaryl/ Sevin	60 - 320	NA	Parathion	13.7 - 132	0.06
Carbofuran	100 - 530	10.0	PCB 1016	171 - 1,650	0.065
Chlordane	6.85 - 66.0	0.01	PCB 1221	170 - 1,700	0.065
Chloropicrin	0.332 - 2.03	1.0	PCB 1232	170 - 1,700	0.065
Chlorpyrifos	13.7 - 132	0.06	PCB 1242	170 - 1,700	0.065
Chlorothalonil	65 - 630	0.004	PCB 1248	170 - 1,700	0.065
Diazinon	13.7 - 132	0.06	PCB 1254	170 - 1,700	0.065
Dieldrin	6.85 - 66.0	0.003	PCB 1260	170 - 1,700	0.065
Endosulfan, Alpha	6.85 - 66.0	0.007	Perthane	68 - 660	0.02
Endosulfan, Beta	6.85 - 66.0	0.008	Phorate	13.7 - 132	0.03
Endosulfan Sulfate	6.85 - 66.0	0.017	DDD, PP'	6.85 - 66.0	0.008
Endrin	6.85 - 66.0	0.007	DDE, PP'	6.85 - 66.0	0.004
Endrin Aldehyde	6.85 - 66.0	0.018	DDT, PP'	6.85 - 66.0	0.01
Ethion	14 - 130	0.10	Prometryne	14 - 130	10.0
Fonofos/ Dyfonate	14 - 130	0.06	Simazine	14 - 130	0.10
Ethoprop	13.7 - 132	0.06	Toxaphene	698 - 6,730	0.05
Glyphosate	NA	100.0	Trifluralin	79 - 760	0.01
Guthion	17.5 - 264	1.0	Trithion/ Carbophenothion	68 - 660	0.10
Heptachlor Epoxide	6.85 - 66.0	0.003	Zinc Phosphide	NA	1.0
Heptachlor	6.85 - 66.0	0.002			

[1]RANGE OF MINIMUM DETECTION LIMIT IN UG/KG - DRY WEIGHT OR PPB
[2]MINIMUM DETECTION LIMIT IN UG/L OR PPB
[3]PARAMETER NOT ANALYZED DUE TO LACK OF SUITABLE ANALYTICAL METHOD

APPENDIX D
PESTICIDE DATA

ZINC PHOSPHIDE DATA
JANUARY 14, 1987

EVERGLADES LABORATORIES, INC. 1602 CLARE AVENUE • WEST PALM BEACH, FL 33401 • 305/833-4200

1-19-87

Received
JAN 20 1987
Water Quality Division

REPORT TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P O BOX V
WEST PALM BEACH, FL 33402

SUBJECT: ANALYSIS OF WATER SAMPLES FOR ZINC PHOSPHIDE

THE FOLLOWING SAMPLES WERE PROVIDED BY SFWMD. ANALYSIS FOR ZINC PHOSPHIDE WAS DONE BY HYDROLYSIS AND INJECTION OF HEAD SPACE INTO A GAS CHROMATOGRAPH EQUIPPED WITH A FLAME PHOTOMETRIC DETECTOR. RESULTS ARE REPORTED AS mg/L PHOSPHINE, SINCE QUANTITATION IS BASED ON PHOSPHINE STANDARDS.

#	#	DATE TIME RECD	PHOSPHINE mg/L
25318	1 CWI	1-15-87 1000	<0.001
25319	2 S6	1-14-87 1550	0.005
25320	3 S7	1-14-87 1550	0.006
25321	4 S7 TRP	1-14-87 1550	0.003
25322	5 S8	1-14-87 1550	0.002
25323	6 S8 dup	1-14-87 1550	0.003
25324	7 S4	1-14-87 1550	0.002
25325	8 S3	1-14-87 1550	0.002
25326	9 S3 dup	1-14-87 1550	0.002
25327	10 SBWI	1-14-87 1550	<0.001
25328	11 SBTW	1-14-87 1550	<0.001
25329	12 S2	1-14-87 1550	0.004
25330	13 DI	1-14-87 1550	<0.001

B MARTIN Ph.D.

SFW187

APPENDIX D
PESTICIDE DATA

FIRST QUARTER DATA
JANUARY 27, 1987

EVERGLADES LABORATORIES, INC. 1602 CLARE AVENUE • WEST PALM BEACH, FL 33401 • 305/833-4200

02-20-87

R 7/3/87

REPORT TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P O BOX V
WEST PALM BEACH, FL 33402

SUBJECT: ANALYSIS OF WATER SAMPLES FOR ZINC PHOSPHIDE
DATE TIME COLLECTED: 01-27-87 0900-1420
DATE RECEIVED: 01-29-87 1130

THE FOLLOWING SAMPLES WERE PROVIDED BY SFWMD. ANALYSIS FOR ZINC PHOSPHIDE WAS DONE BY HYDROLYSIS AND INJECTION OF HEAD SPACE INTO A GAS CHROMATOGRAPH EQUIPPED WITH A FLAME PHOTOMETRIC DETECTOR. RESULTS ARE REPORTED AS mg/L PHOSPHINE, SINCE QUANTITATION IS BASED ON PHOSPHINE STANDARDS.

SAMPLE#	LOCATION	PHOSPHINE mg/L
25753	S2	<0.001
25754	S3	<0.001
25755	S4	<0.001
25756	S235	<0.001
25757	FECSR78	<0.001
25758	S65E	<0.001
25759	S191	<0.001
25760	S6	<0.001
25761	S7	<0.001
25762	S8	<0.001
25763	L25I	<0.001
25764	S9	<0.001
25765	S31	<0.001

B Martin

B MARTIN Ph.D.

LAB ID 86122

Sample Number	1 52	2 53	3 34	5235	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Extracted	1/29	1/29	1/29	1/29	1/29	1/29	2/2	2/2
Date Completed	2/20	2/20	2/22	2/22	2/23	2/24	2/23	2/24
Alachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Aldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Atrazine	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, alpha	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, beta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, delta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bromacil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hept. Epox.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kelthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lindane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metolachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methoxychlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metribuzin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlordane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorothalonil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dieldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan I	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan II	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan Sulfate	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin Aldehyde	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1016	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1221	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1232	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1242	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1248	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1254	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1260	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Perthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDD	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Simazine	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toxaphene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trifluralin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Extracted	2/2	2/2	2/2	2/3	2/3	2/3	2/3	2/3
Date Completed	2/24	2/24	2/24	2/24	2/24	2/24	2/24	2/25
Alachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Aldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Atrazine	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, alpha	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, beta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, delta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bromacil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hept. Epox.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kelthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lindane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metolachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methoxychlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metribuzin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlordane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorothalonil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dieldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan I	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan II	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan Sulfate	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin Aldehyde	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1016	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1221	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1232	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1242	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1248	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1254	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1260	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Perthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDD	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Simazine	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toxaphene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trifluralin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	1	2	3	4	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Extracted	1/29	1/29	1/29	1/29	1/29	1/29	2/2	2/2
Date completed	2/9	2/9	2/9	2/9	2/9	2/9	2/9	2/9
Compounds								
Chlorpyrifos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diazinon	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethoprop	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Fonofos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Guthion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Malathion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methamidophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Parathion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mevinphos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Monocrotophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Parathion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Phorate	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trithion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	1	2	3	4	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Extracted	1/29	1/29	1/29	1/29	1/29	1/29	2/2	2/2
Date Completed	2/25	2/25	2/25	2/25	2/25	2/25	2/25	2/25
Compounds								
Oxamyl (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methomyl (20)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benomyl (20)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbofuran (10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	9	10	11	12	13	14	15	16
Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Extracted	2/2	2/2	2/2	2/3	2/3	2/3	2/3	2/3
Date completed	2/9	2/9	2/9	2/9	2/9	2/11	2/11	2/11
Compounds								
Chlorpyrifos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diazinon	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethoprop	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Fonofos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Guthion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Malathion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methamidophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Parathion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mevinphos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Monocrotophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Parathion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Phorate	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trithion	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	9	10	11	12	13	14	15	16
Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Extracted	2/2	2/2	2/2	2/3	2/3	2/3	2/3	2/3
Date Completed	2/25	2/25	2/25	2/25	2/25	2/25	2/25	2/25
Compounds								
Oxamyl (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methomyl (20)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benomyl (20)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbofuran (10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	1	2	3	4	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Extracted	2/25	2/25	2/25	2/25	2/25	2/25	2/25	2/25
Date Completed	2/27	2/27	2/26	2/26	2/26	2/26	2/26	2/26
Compound								
Aldicarb (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	1	2	3	4	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Extracted	1/30	1/30	1/30	1/30	2/2	2/2	2/2	2/9
Date Completed	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Compound								
Paraquat (3.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	1	2	3	4	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Completed	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Glyphosate (100)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	1	2	3	4	5	6	7	8
Date Sampled	1/26	1/26	1/26	1/26	1/26	1/26	1/26	1/27
Date Extracted	1/29	1/29	1/29	1/29	1/29	1/29	2/2	2/2
Date Completed	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Compounds								
2,4-D (2.0)	N.D	N.D	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4-DP (0.8)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-T (0.6)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-TP (0.4)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	9	10	11	12	13	14	15	16
Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Extracted	2/25	2/25	2/25	2/25	2/25	2/25	2/25	2/25
Date Completed	2/27	2/27	2/27	2/27	2/27	2/27	2/26	2/26
Compound								
Aldicarb (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	9	10	11	12	13	14	15	16
Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Extracted	2/2	2/3	2/3	2/3	2/5	2/5	2/4	2/6
Date Completed	3/12	3/12	3/12	3/12	3/12	3/12	3/12	3/12
Compound								
Paraquat (3.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	9	10	11	12	13	14	15	16
Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Completed	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Glyphosate (100)	N.D	N.D	N.D	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	9	10	11	12	13	14	15	16
Date Sampled	1/27	1/27	1/27	1/27	1/27	1/27	1/28	1/28
Date Extracted	2/2	2/2	2/2	2/3	2/3	2/3	2/3	2/3
Date Completed	3/5	3/5	3/5	3/5	3/5	3/5	3/5	3/5
Compounds								
2,4-D (2.0)	N.D	N.D	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4-DP (0.8)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-T (0.6)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-TP (0.4)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

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PROJECT NUMBER 87426 0000
FIELD GROUP SFA21

PROJECT NAME SO.FL.WATER MGMT.DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

RAMETERS	UNITS	STORET #	METHOD	S2 SFA21 1	S3 SFA21 2	S4 SFA21 3	S235 SFA21 4	FECSR78 SFA21 5	S65E SFA21 6	S191 SFA21 7	S6 SFA21 8	S7 SFA21 9	S8 SFA21 10	L281 SFA21 11	L281 SFA21 12	S9 SFA21 13	S31 SFA21 14	S12C SFA21 15
				SAMPLE ID/#														
TE				01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/28/87
E				09:05	09:30	10:20	11:00	11:35	13:20	14:15	09:00	10:05	11:20	12:20	12:20	13:50	14:20	10:00
-D	UG/KG-DRY	39731	EC	<1140	<292	<1020	<206	<167	<193	<190	<849	<341	<212	<138	<5.71	<8.71	<526	<956
CHLOROPROP	UG/KG-DRY	38452	EC	<1130	<289	<1010	<203	<165	<191	<188	<168	<67.4	<41.9	<27.3	<5.65	<43.1	<104	<189
4,5-T	UG/KG-DRY	39741	EC	<1150	<295	<1030	<208	<168	<194	<192	<419	<168	<105	<68.2	<5.76	<8.79	<260	<472
4,5-TP/SILVEX	UG/KG-DRY	39761	EC	<225	<57.7	<202	<40.7	<32.9	<38.1	<37.6	<168	<67.4	<41.9	<27.3	<5.65	<43.1	<104	<189
ACHLOR	UG/KG	81407	EC	<25	<25	<25	<25	<27	<26	<25	<27	<26	<27	<27	<27	<27	<27	<27
DICARB	UG/G-DRY	97093	LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
DRIN	UG/KG-DRY	39333	EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
ETRYNE	UG/KG-DRY	78505	NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
RAZINE	UG/KG-DRY	39631	NP	<844	<217	<814	<154	<130	<149	<144	<698	<286	<200	<133	<130	<178	<470	<858
NOMYL	UG/KG	38708	LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
C,A	UG/KG-DRY	39076	EC	<253	<65.1	<244	<46.3	<38.9	<44.7	<43.3	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
C,B	UG/KG-DRY	34257	EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
C,D	UG/KG-DRY	34262	EC	<169	<43.4	<163	<30.9	<25.9	<29.8	<28.9	<34.9	<14.3	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
OMACIL	UG/KG	97303	NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
RBARYL (SEVIN)	UG/KG	81818	LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
RBOFURAN	UG/KG	81406	LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
LORDANE	UG/KG-DRY	39351	EC	<501	<129	<483	<91.6	<77.0	<88.5	<85.7	<41.5	<17.0	<11.9	<7.87	<7.73	<10.6	<27.9	<51.0
LOROPICRIN	UG/KG	97304	EC	<0.109	<0.030	<0.108	<0.021	<0.016	<0.019	<0.020	<0.089	<0.038	<0.025	<0.017	<0.017	<0.023	<0.059	<0.111
LORPYRIFOS	UG/KG-DRY	97064	NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
LOROTHALONIL	UG/KG	97305	EC	<4.6	<4.7	<4.7	<4.6	<4.9	<4.8	<4.7	<5.0	<4.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

PROJECT NUMBER 87426 0000
FIELD GROUP SFA21

PROJECT NAME SO.FL.WATER MGMT.DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

AMETERS / UNITS	STORET # / METHOD	S2 SFA21 1	S3 SFA21 2	S4 SFA21 3	S235 SFA21 4	FECSR78 SFA21 5	S65E SFA21 6	S191 SFA21 7	S6 SFA21 8	S7 SFA21 9	S8 SFA21 10	L281 SFA21 11	L281 SFA21 12	S9 SFA21 13	S31 SFA21 14	S12C SFA21 15
		SAMPLE ID/#														
E		01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/28/87
E		09:05	09:30	10:20	11:00	11:35	13:20	14:15	09:00	10:05	11:20	12:20	12:20	13:50	14:20	10:00
ZINON UG/KG-DRY	39571 NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
LDRIN UG/KG-DRY	39383 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
OSULFAN_A UG/KG-DRY	34364 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
OSULFAN_B UG/KG-DRY	34359 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
OSULFAN SULFATE UG/KG-DRY	34354 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<34.9	<14.3	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
RIN UG/KG-DRY	39393 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<10.0	<6.63	<6.51	<8.92	<23.5	<42.9
RIN ALDEHYDE UG/KG-DRY	34369 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
ION UG/KG	39399 NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
OFOS (DYFONATE) UG/KG	82544 NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
OPROP UG/KG-DRY	97067 NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
HION UG/KG-DRY	39581 NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
TACHLOR EPOXIDE UG/KG-DRY	39423 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
TACHLOR UG/KG-DRY	39413 EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
THANE (DICOFOL) UG/KG	97306 EC	<4200	<1100	<4100	<770	<650	<750	<720	<35	<14	<10	<6.6	<6.5	<8.9	<24	<43
,G(LINDANE) UG/KG-DRY	39783 EC	<253	<65.1	<244	<46.3	<38.9	<44.7	<43.3	<34.9	<14.3	<10.0	<6.63	<6.51	<8.92	<23.5	<42.9
ATHION UG/KG-DRY	39531 NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
HAMIDOPHOS UG/KG	97310 NP	<840	<220	<810	<150	<130	<150	<140	<700	<290	<200	<130	<130	<180	<470	<860
HOMYL UG/KG	82572 LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
HOXYCHLOR,SED UG/KG-DRY	39481 EC	<4220	<1080	<4070	<771	<648	<745	<721	<34.9	<14.3	<10.0	<6.63	<6.51	<8.92	<23.5	<42.9
HYL BROMIDE UG/KG-DRY	34416 EC	<11	<3.0	<11	<2.0	<1.6	<1.9	<2.0	<8.9	<3.8	<2.5	<1.7	<1.7	<2.3	<5.9	<11

PROJECT NUMBER 87426 0000 PROJECT NAME SO.FL.WATER MGMT.DIST.
FIELD GROUP SFA21 PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

RAMETERS	UNITS	STORET #	METHOD	S2 SFA21 1	S3 SFA21 2	S4 SFA21 3	S235 SFA21 4	FECSR78 SFA21 5	S65E SFA21 6	S191 SFA21 7	S6 SFA21 8	S7 SFA21 9	S8 SFA21 10	L281 SFA21 11	L281 SFA21 12	S9 SFA21 13	S31 SFA21 14	S12C SFA21 15
TE				01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/28/87
ME				09:05	09:30	10:20	11:00	11:35	13:20	14:15	09:00	10:05	11:20	12:20	12:20	13:50	14:20	10:00
THYL PARATHION	UG/KG	97311	NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
TOLACHLOR	UG/KG	38923	EC	<14	<14	<14	<14	<15	<15	<14	<15	<15	<15	<15	<15	<15	<15	<15
TRIBUZIN	UG/KG	81409	NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
VINPHOS	UG/KG-DRY	97068	NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
ODRIN (MONOCHROTOP S)	UG/KG-DRY	81889	NP	<1690	<434	<1630	<309	<259	<298	<289	<1400	<571	<400	<265	<260	<357	<941	<1720
AMYL	UG/KG	38868	LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
RAQUAT	UG/KG	82415	LC	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL	IL
RATHION	UG/KG-DRY	39541	NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
B 1016	UG/KG-DRY	39514	EC	<4570	<1180	<4410	<836	<702	<808	<782	<378	<155	<108	<71.8	<70.6	<96.7	<255	<465
B-1221	UG/KG-DRY	39491	EC	<4600	<1200	<4400	<840	<700	<810	<780	<380	<150	<110	<72	<71	<97	<250	<460
B-1232	UG/KG-DRY	39495	EC	<4600	<1200	<4400	<840	<700	<810	<780	<380	<150	<110	<72	<71	<97	<250	<460
B-1242	UG/KG-DRY	39499	EC	<4600	<1200	<4400	<840	<700	<810	<780	<380	<150	<110	<72	<71	<97	<250	<460
B-1248	UG/KG-DRY	39503	EC	<4000	<1000	<3800	<720	<610	<700	<680	<330	<130	<93	<62	<61	<83	<220	<400
B-1254	UG/KG-DRY	39507	EC	<4000	<1000	<3800	<720	<610	<700	<680	<330	<130	<93	<62	<61	<83	<220	<400
B-1260	UG/KG-DRY	39511	EC	<4000	<1000	<3800	<720	<610	<700	<680	<330	<130	<93	<62	<61	<83	<220	<400
RTHANE	UG/KG	81886	EC	<51	<52	<52	<51	<55	<54	<52	<56	<54	<55	<55	<55	<55	<55	<56
ORATE	UG/KG-DRY	81412	NP	<422	<108	<407	<77.1	<64.8	<74.5	<72.1	<349	<143	<100	<66.3	<65.1	<89.2	<235	<429
D,PP'	UG/KG-DRY	39311	EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
E,PP'	UG/KG-DRY	39321	EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<2.00	<1.33	<1.30	<1.78	<4.70	<8.58
T,PP'	UG/KG-DRY	39301	EC	<84.4	<21.7	<81.4	<15.4	<13.0	<14.9	<14.4	<6.98	<2.86	<10.0	<6.63	<6.51	<8.92	<23.5	<42.9

PROJECT NUMBER 87426 0000
FIELD GROUP SFA21

PROJECT NAME SO.FL.WATER MGMT.DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

		SAMPLE ID/#														
METERS / UNITS	STORET # / METHOD	S2 SFA21 1	S3 SFA21 2	S4 SFA21 3	S235 SFA21 4	FECSR78 SFA21 5	S65E SFA21 6	S191 SFA21 7	S6 SFA21 8	S7 SFA21 9	S8 SFA21 10	L281 SFA21 11	L281 SFA21 12	S9 SFA21 13	S31 SFA21 14	S12C SFA21 15
		01/26/87 09:05	01/26/87 09:30	01/26/87 10:20	01/26/87 11:00	01/26/87 11:35	01/26/87 13:20	01/26/87 14:15	01/27/87 09:00	01/27/87 10:05	01/27/87 11:20	01/27/87 12:20	01/27/87 12:20	01/27/87 13:50	01/27/87 14:20	01/28/87 10:00
ETRYNE UG/KG	78688 NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
AZINE UG/KG	39046 NP	<420	<110	<410	<77	<65	<75	<72	<350	<140	<100	<66	<65	<89	<240	<430
APHENE UG/KG-DRY	39403 EC	<9910	<2550	<9550	<1810	<1520	<1750	<1690	<819	<335	<235	<156	<153	<209	<552	<1010
FLURALIN UG/KG	81618 EC	<5.5	<5.6	<5.6	<5.5	<5.9	<5.8	<5.6	<6.0	<5.9	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0
THION (CARB'PH'TH) UG/KG	39787 EC	<25	<25	<25	<25	<27	<26	<25	<27	<26	<27	<27	<27	<27	<27	<27
STURE %WET WT	70320 1	89.1	57.0	88.4	40.8	24.1	35.0	35.1	85.6	65.6	50.3	24.7	23.5	44.1	78.8	88.3

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PROJECT NUMBER 87426 0000
FIELD GROUP SFA21
' SFLC

PROJECT NAME SO.FL.WATER MGMT.DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

ARAMETERS	UNITS	STORET # METHOD	S2 SFA21 1	S3 SFA21 2	S4 SFA21 3	S235 SFA21 4	FECSR78 SFA21 5	S65E SFA21 6	S191 SFA21 7	S6 SFA21 8	S7 SFA21 9	S8 SFA21 10	L281 SFA21 11	L281 SFA21 12	S9 SFA21 13	S31 SFA21 14	S12C SFA21 15
ATE			01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/26/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/27/87	01/28/87
IME			09:05	09:30	10:20	11:00	11:35	13:20	14:15	09:00	10:05	11:20	12:20	12:20	13:50	14:20	10:00
LDICARB	UG/G-DRY	97093 LC	<2.0	<0.49	<1.8	<0.37	<0.28	<0.57	<0.32	<1.5	NA	<0.42	<0.30	<0.27	<0.39	<0.51	<1.9
ENOMYL	UG/KG	38708 LC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARBARYL (SEVIN)	UG/KG	81818 LC	<2100	<510	<1900	<390	<290	<600	<340	<1600	NA	<440	<310	<280	<420	<540	<2000
ARBOFURAN	UG/KG	81406 LC	<1900	<460	<1700	<350	<260	<540	<300	<1400	NA	<400	<280	<250	<370	<490	<1800
ETHOMYL	UG/KG	82572 LC	<2000	<480	<1800	<370	<280	<560	<310	<1500	NA	<410	<290	<260	<390	<510	<1900
XAMYL	UG/KG	38868 LC	<2000	<480	<1800	<370	<280	<570	<320	<1500	NA	<420	<300	<270	<390	<510	<1900
ARAQUAT	UG/KG	82415 LC	<39000	<5600	<29000	<3200	<3600	<5300	<4000	<19000	<11000	<7200	<4000	<4100	<5500	<11000	<27000

APPENDIX D
PESTICIDE DATA

SECOND QUARTER DATA
APRIL 14, 1987

	52	53	54	5235	PEC 5816	565E	5197	5197
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/17
Date Completed	4/23	4/23	4/23	4/23	4/23	4/23	4/27	4/27
Alachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Aldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Atrazine	N.D.	N.D.	3.5	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, alpha	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, beta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, delta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bromacil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hept. Epox.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kelthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lindane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metolachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methoxychlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metribuzin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlordane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorothalonil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dieldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan I	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan II	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan Sulfate	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin Aldehyde	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1016	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1221	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1232	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1242	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1248	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1254	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1260	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Perthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDD	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Simazine	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toxaphene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
[illegible]	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Not pumping

Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/17	4/17	4/20	4/20	4/20	4/20	4/20	4/20
Date Completed	4/27	4/27	4/27	4/27	4/27	4/27	4/27	4/27
Alachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Aldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Atrazine	10.8	4.0	8.9	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, alpha	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, beta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, delta	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bromacil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hept. Epox.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kelthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lindane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metolachlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methoxychlor	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metribuzin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlordane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorothalonil	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dieldrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan I	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan II	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan Sulfate	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin Aldehyde	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1016	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1221	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1232	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1242	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1248	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1254	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1260	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Perthane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDD	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Simazine	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toxaphene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trifluralin	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

all not pumping

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/22	4/22	4/23	4/23	4/23	4/23	4/23	4/23
Date Completed	5/28	5/18	5/18	5/18	5/18	5/18	5/18	5/18
Compound								
Aldicarb (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/20	4/20	4/20	4/20	4/21	4/21	4/21	4/21
Date Completed	4/24	4/24	4/24	4/24	4/24	4/24	4/24	4/24
Compound								
Paraquat (3.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Completed	4/21	4/21	4/21	4/21	4/21	4/21	4/21	4/21
Glyphosate (100)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/17
Date Completed	4/24	4/24	4/24	4/24	4/24	4/24	4/24	4/24
Compounds								
2,4-D (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4-DP (0.8)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-T (0.6)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-TP (0.4)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/24	4/24	4/24	4/27	4/27	4/27	4/27	4/27
Date Completed	5/19	5/19	5/19	5/20	5/20	5/19	5/19	5/19
Compound								
Aldicarb (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/21	4/22	4/22	4/22	4/22	4/22	4/23	4/23
Date Completed	5/4	5/4	5/4	5/4	5/4	5/4	5/4	5/4
Compound								
Paraquat (3.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Completed	4/21	4/21	4/21	4/21	4/21	4/21	4/21	4/21
Glyphosate (100	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/17	4/17	4/20	4/20	4/20	4/20	4/20	4/20
Date Completed	4/24	4/24	4/24	4/24	4/24	4/27	4/27	4/27
Compounds								
2,4-D (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4-DP (0.8)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-T (0.6)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-TP (0.4)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/17
Date Completed	4/23	4/23	4/23	4/23	4/23	4/23	4/27	4/27
Compounds								
Ametryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prometryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/17	4/17	4/20	4/20	4/20	4/20	4/20	4/20
Date Completed	4/27	4/27	4/27	4/27	4/27	4/27	4/27	4/27
Compounds								
Ametryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prometryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	39	40	41	42	43	44	45	BLK
Date Sampled	4/15	4/15	4/15	4/15	4/15	4/15	4/15	N/A
Date Extracted	4/21	4/21	4/21	4/21	4/21	4/21	4/21	4/16
Date Completed	4/27	4/28	4/28	4/28	4/28	4/28	4/28	4/23
Compounds								
Ametryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prometryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/17
Date completed	4/22	4/22	4/22	4/22	4/22	4/22	4/22	4/23
Compounds								
Chlorpyrifos(.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diazinon (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethoprop (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Fonofos (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Guthion (1.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Malathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(.20) Methamidophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mevinphos (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(1.0) Monocrotophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Phorate (.03)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trithion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	23	24	25	26	27	28	29	30
Date Sampled	4/13	4/13	4/13	4/13	4/13	4/13	4/13	4/13
Date Extracted	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/17
Date Completed	5/1	5/13	5/13	5/13	5/13	5/13	5/13	5/13
Compounds								
Oxamyl (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbofuran(10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/17	4/17	4/20	4/20	4/20	4/20	4/20	4/20
Date completed	4/23	4/23	4/23	4/23	4/23	4/23	4/24	4/24
Compounds								
Chlorpyrifos(.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diazinon (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethoprop (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Fonofos (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Guthion (1.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Malathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(.20) Methamidophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mevinphos (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(1.0) Monocrotophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Phorate (.03)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trithion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	31	32	33	34	35	36	37	38
Date Sampled	4/14	4/14	4/14	4/14	4/14	4/14	4/15	4/15
Date Extracted	4/17	4/17	4/20	4/20	4/20	4/20	4/20	4/20
Date Completed	5/1	5/13	5/1	5/13	5/13	5/1	5/1	5/13
Compounds								
Oxamyl (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbofuran(10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Received
MAY 26 1987
Water Quality Division

#506-M87-0421
UM Account #563742

UNIVERSITY OF MIAMI SCHOOL OF MEDICINE
DIVISION OF CHEMICAL EPIDEMIOLOGY

SFWM ID #	Date Sampled	Date Analyzed	Methylene Bromide	Chloro-picrin
			MDL 1ppb	MDL 1ppb
023	4/13/87	4/17/87	ND	ND
024	4/13/87	4/17/87	ND	ND
025	4/13/87	4/17/87	ND	ND
026	4/13/87	4/20/87	ND	ND
027	4/13/87	4/22/87	ND	ND
028	4/13/87	4/22/87	ND	ND
029	4/13/87	4/22/87	ND	ND
030	4/13/87	4/22/87	ND	ND
031	4/14/87	4/22/87	ND	ND
032	4/14/87	4/22/87	ND	ND
033	4/14/87	4/23/87	ND	ND
034	4/14/87	4/23/87	ND	ND
035	4/14/87	4/24/87	ND	ND
036	4/14/87	4/24/87	ND	ND
037	4/15/87	4/24/87	ND	ND
038	4/15/87	4/27/87	ND	ND
039	4/15/87	4/27/87	ND	ND
040	4/15/87	4/27/87	ND	ND
041	4/15/87	4/27/87	ND	ND
042	4/15/87	4/27/87	ND	ND
043	4/15/87	4/27/87	ND	ND
044	4/15/87	4/28/87	ND	ND
045	4/15/87	4/28/87	ND	ND
BLANK		4/28/87	ND	ND

Notes:
BDL BELOW DETECTABLES LIMITS ALL RESULTS IN ppb (parts per billion)
ND NOT DETECTABLE

UNIVERSITY OF
Miami
SCHOOL OF MEDICINE

Received
JUN - 8 1987
Water Quality Division

506-M87-0421
UM Account #563742

UNIVERSITY OF MIAMI SCHOOL OF MEDICINE
DIVISION OF CHEMICAL EPIDEMIOLOGY

Sample No.	46	47	48	49	50	51	52	53	Blank
Date Received	5/29	5/29	5/29	5/29	5/29	5/29	5/29	5/29	N/A
Date Extacted	5/29	5/29	5/29	5/29	6/1	6/1	6/1	6/1	6/1
Date Completed	6/1	6/1	6/1	6/1	6/1	6/1	6/1	6/2	6/2
Atrazine (0.2 ppb)*	0.4*	1.8	0.2*	0.3*	0.2*	0.3*	0.2*	0.4*	N.D.

*At or near the limit of detection of the method (equivalent to a peak height of 10% full scale deflection). The results were determined using the nitrogen-phosphorus detector which is selective for nitrogen and phosphorus containing compounds, but not as sensitive as electron capture (ECD).

Department of Epidemiology
and Public Health

Chemistry / Toxicology Division
12500 S.W. 152 St., Bldg. B.
Miami Florida 33177

WHO / PAHO Collaborating Center
for Human Pesticide Epidemiology

APPENDIX D
PESTICIDE DATA

THIRD QUARTER DATA
JULY 21, 1987

EVERGLADES LABORATORIES, INC. 1602 CLARE AVENUE • WEST PALM BEACH, FL 33401 • 305/833-4200

DATE: 09-30-87

REPORT TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P O BOX V
WEST PALM BEACH, FL 33402

SUBJECT: ANALYSIS OF WATER SAMPLES FOR ZINC PHOSPHIDE
DATE TIME COLLECTED: 07-20-87 0905-1032
DATE RECEIVED: 07-20-87 1620

THE FOLLOWING SAMPLES WERE PROVIDED BY SFWMD. ANALYSIS FOR ZINC PHOSPHIDE WAS DONE BY HYDROLYSIS AND INJECTION OF HEAD SPACE INTO A GAS CHROMATOGRAPH EQUIPPED WITH A FLAME PHOTOMETRIC DETECTOR. RESULTS ARE REPORTED AS mg/L PHOSPHINE, SINCE QUANTITATION IS BASED ON PHOSPHINE STANDARDS.

SAMPLE#	LOCATION	PHOSPHINE mg/L
28466	#46 S2	<0.001
28467	#47 S3	<0.001
28468	#48 S4	<0.001
28469	#49 S4 dup	<0.001

B MARTIN Ph.D.

LAB ID 86122,86109,E86048

EVERGLADES LABORATORIES, INC. 1602 CLARE AVENUE • WEST PALM BEACH, FL 33401 • 305/833-4200

DATE: 09-30-87

REPORT TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P O BOX V
WEST PALM BEACH, FL 33402

SUBJECT: ANALYSIS OF WATER SAMPLES FOR ZINC PHOSPHIDE
DATE TIME COLLECTED: 07-21-87 0820-1410
DATE RECEIVED: 07-23-87 0815

THE FOLLOWING SAMPLES WERE PROVIDED BY SFWMD. ANALYSIS FOR ZINC PHOSPHIDE WAS DONE BY HYDROLYSIS AND INJECTION OF HEAD SPACE INTO A GAS CHROMATOGRAPH EQUIPPED WITH A FLAME PHOTOMETRIC DETECTOR. RESULTS ARE REPORTED AS mg/L PHOSPHINE, SINCE QUANTITATION IS BASED ON PHOSPHINE STANDARDS.

SAMPLE#	LOCATION	PHOSPHINE mg/L
28511	#54 S5A	<0.001
28512	#55 S6	<0.001
28513	#56 S7	<0.001
28514	#57 S8	<0.001
28515	#58 L3 OWER	<0.001
28516	#59 S-3	<0.001

B MARTIN Ph.D.

LAB ID 86122,86109,E86048

3rd Qrt FY 8587
water

#506-M87-0421
UM Account #563742

R 9/20/87

UNIVERSITY OF MIAMI SCHOOL OF MEDICINE
DIVISION OF CHEMICAL EPIDEMIOLOGY

SFWM ID #	Date Sampled	Date Analyzed	Methylene Bromide	Chloro-picrin
046	7/20/87	7/28/87	ND	ND
047	7/20/87	7/28/87	ND	ND
048	7/20/87	7/28/87	ND	ND
049	7/20/87	7/28/87	ND	ND
050	7/20/87	7/29/87	ND	ND
051	7/20/87	7/29/87	ND	ND
052	7/20/87	7/29/87	ND	ND
053	7/20/87	7/29/87	ND	ND
054	7/21/87	7/29/87	ND	ND
055	7/21/87	7/30/87	ND	ND
056	7/21/87	7/30/87	ND	ND
057	7/21/87	7/30/87	ND	ND
058	7/21/87	7/31/87	ND	ND
059	7/21/87	7/31/87	ND	ND
060	7/21/87	8/3/87	ND	ND
061	7/22/87	8/3/87	ND	ND
062	7/22/87	8/3/87	ND	ND
063	7/22/87	8/4/87	ND	ND
064	7/22/87	8/4/87	ND	ND
065	7/22/87	8/4/87	ND	ND
066	7/22/87	8/4/87	ND	ND
067	7/22/87	8/5/87	ND	ND
068	7/22/87	8/5/87	ND	ND
069	7/22/87	8/5/87	ND	ND

Notes:
BDL BELOW DETECTABLES LIMITS   ALL RESULTS IN ppb (parts per billion)
ND NOT DETECTABLE

Received
SEP 18 1987
Water Quality Division

Sample Number	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	7/24	7/24	7/24	7/23	7/23	7/23	7/23	7/23
Date Completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Alachlor (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Aldrin (.002)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Atrazine (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, alpha (.002)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, beta (.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, delta (.003)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bromacil (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hept. Epox. (.003)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptachlor (.002)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kelthane (.012)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lindane (.001)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metolachlor (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methoxychlor (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metribuzin (0.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlordane (.01)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorothalonil (.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dieldrin (.003)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan I (.007)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan II (.008)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan Sulfate (.017)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin (.007)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin Aldehyde (.018)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1016 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1221 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1232 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1242 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1248 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1254 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1260 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Perthane (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDD (.008)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDE (.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDT (.01)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Simazine (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toxaphene (.05)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/22	7/22
Date Extracted	7/24	7/24	7/28	7/28	7/29	7/29	7/29	7/29
Date Completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Alachlor (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Aldrin (.002)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Atrazine (.10)	N.D.	N.D.	2.91	0.77	N.D.	N.D.	N.D.	N.D.
BHC, alpha (.002)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, beta (.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BHC, delta (.003)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bromacil (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hept. Epox. (.003)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptachlor (.002)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kelthane (.012)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lindane (.001)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metolachlor (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methoxychlor (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Metribuzin (0.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlordane (.01)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorothalonil (.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dieldrin (.003)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan I (.007)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan II (.008)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endosulfan Sulfate (.017)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin (.007)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Endrin Aldehyde (.018)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1016 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1221 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1232 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1242 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1248 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1254 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PCB 1260 (.065)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Perthane (.02)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDD (.008)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDE (.004)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
P,P'-DDT (.01)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Simazine (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toxaphene (.05)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	7/24	7/24	7/24	7/23	7/23	7/23	7/23	7/23
Date completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Compounds								
Chlorpyrifos(.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diazinon (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethoprop (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Fonofos (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Guthion (1.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Malathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(.20) Methamidophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mevinphos (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(1.0) Monocrotophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Phorate (.03)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trithion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	7/24	7/24	7/24	7/23	7/23	7/23	7/23	7/23
Date Completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Compounds								
Oxamyl (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbofuran(10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/22	7/22
Date Extracted	7/24	7/24	7/28	7/28	7/28	7/28	7/29	7/29
Date completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Compounds								
Chlorpyrifos(.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diazinon (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethoprop (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Fonofos (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Guthion (1.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Malathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(.20) Methamidophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mevinphos (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(1.0) Monocrotophos	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Parathion (.06)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Phorate (.03)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trithion (.10)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/22	7/22
Date Extracted	7/24	7/24	7/28	7/28	7/29	7/29	7/29	7/29
Date Completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Compounds								
Oxamyl (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benomyl (20.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbofuran(10.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	8/7	8/7	8/7	8/7	8/7	8/7	8/10	8/6
Date Completed	8/18	8/18	8/18	8/18	8/18	8/18	8/18	8/18
Compound								
Aldicarb (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	7/28	7/28	7/28	7/28	7/28	7/28	7/28	7/28
Date Completed	8/3	8/3	8/3	8/3	8/3	8/3	8/3	8/3
Compound								
Paraquat (3.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Completed	7/27	7/27	7/27	7/27	7/27	7/27	7/27	7/27
Glyphosate (100	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	7/24	7/24	7/24	7/23	7/23	7/23	7/23	7/23
Date Completed	8/12	8/12	8/12	8/12	8/12	8/12	8/12	8/12
Compounds								
2,4-D (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4-DP (0.8)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-T (0.6)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-TP (0.4)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/21	7/22
Date Extracted	8/6	8/6	8/6	8/6	8/6	8/6	8/10	8/10
Date Completed	8/18	8/18	8/18	8/18	8/27	8/27	8/27	8/27
Compound								
Aldicarb (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/21	7/22
Date Extracted	7/29	7/29	7/29	7/29	7/29	7/30	7/30	7/30
Date Completed	8/3	8/3	8/3	8/3	8/3	8/3	8/4	8/4
Compound								
Paraquat (3.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/21	7/22
Date Completed	7/28	7/28	7/28	7/28	7/28	7/28	7/28	7/29
Glyphosate (100)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/21	7/22
Date Extracted	7/24	7/24	7/28	7/28	7/29	7/29	7/29	7/29
Date Completed	8/13	8/13	8/13	8/13	8/13	8/13	8/13	8/13
Compounds								
2,4-D (2.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4-DP (0.8)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-T (0.6)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2,4,5-TP (0.4)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	46	47	48	49	50	51	52	53
Date Sampled	7/20	7/20	7/20	7/20	7/20	7/20	7/20	7/20
Date Extracted	7/24	7/24	7/24	7/23	7/23	7/23	7/23	7/23
Date Completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Compounds								
Ametryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prometryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	54	55	56	57	58	59	60	61
Date Sampled	7/21	7/21	7/21	7/21	7/21	7/21	7/22	7/22
Date Extracted	7/24	7/24	7/28	7/28	7/29	7/29	7/29	7/29
Date Completed	8/6	8/6	8/6	8/6	8/6	8/6	8/6	8/6
Compounds								
Ametryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prometryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Number	62	63	64	65	66	67	68	69
Date Sampled	7/22	7/22	7/22	7/22	7/22	7/22	7/22	7/22
Date Extracted	7/31	7/31	7/31	7/31	8/3	8/3	8/3	8/3
Date Completed	8/6	8/6	8/6	8/6	8/6	8/7	8/7	8/7
Compounds								
Ametryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prometryn (10.0)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

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PROJECT NUMBER 87426 0000
FIELD GROUP SFA

PROJECT NAME SO. FL. WATER MGMT. DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

AMETERS	UNITS	STORET #	METHOD	47/S3 SFA 1	48/S4 SFA 2	49/S4 SFA 3	50/S23551/FECSR78 SFA 4	SFA 5	52/565E SFA 6	SAMPLE ID/# 53/S191 SFA 7	61/S31 SFA 8	46/S2 SFA 9	54/S5A SFA 10	55/S6 SFA 11	56/S7 SFA 12	57/S8 SFA 13	58/L30WBR SFA 14	59/S190 SFA 15
E E				07/20/87 09:35	07/20/87 10:25	07/20/87 10:32	07/20/87 11:05	07/20/87 12:30	07/20/87 13:40	07/20/87 14:25	07/21/87 15:50	07/20/87 09:05	07/21/87 08:20	07/21/87 09:25	07/21/87 10:30	07/21/87 11:40	07/21/87 13:20	07/21/87 14:10
-D	UG/KG-DRY	39731	EC	<97.5	2100	1820	<79.1	<80.0	<81.3	763	<310	<339	<155	996	<115	<128	259	<120
HLOROPROP	UG/KG-DRY	38452	EC	<83.7	<361	<323	<68.0	<68.7	<69.9	<159	<266	<291	<133	<292	<98.4	<110	<80.0	<103
,5-T	UG/KG-DRY	39741	EC	<82.2	<354	<317	<66.7	<67.4	<68.6	<156	<261	<286	<131	<287	<96.6	<108	<78.6	<101
,5-TP/SILVEX	UG/KG-DRY	39761	EC	<83.7	<361	<323	<68.0	<68.7	<69.9	<159	<266	<291	<133	<292	<98.4	<110	<80.0	<103
CHLOR	UG/KG	81407	EC	<110	<460	<420	<88	<89	<90	<210	<670	<380	<340	<750	<260	<280	<200	<260
ICARB	UG/G-DRY	97093	LC	<0.07	<0.30	<0.27	<0.06	<0.06	<0.06	<0.13	<0.22	<0.24	<0.11	<0.24	<0.08	<0.09	<0.07	<0.09
RIN	UG/KG-DRY	39333	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
TRYNE	UG/KG-DRY	78505	NP	<16.9	138	131	<13.7	<13.8	<14.0	<32.2	<105	98.5	<52.5	194	<39.9	<43.8	<31.2	<40.7
AZINE	UG/KG-DRY	39631	NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7
,A	UG/KG-DRY	39076	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
,B	UG/KG-DRY	34257	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
,D	UG/KG-DRY	34262	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
OMACIL	UG/KG	97303	NP	<17	<72	<66	<14	<14	<14	<32	<420	<59	<210	<470	<160	<180	<120	<160
RBARYL (SEVIN)	UG/KG	81818	LC	<73	<320	<290	<60	<60	<61	<140	<230	<260	<120	<260	<87	<96	<70	<90
RBOFURAN	UG/KG	81406	LC	<120	<530	<480	<100	<100	<100	<230	<390	<430	<200	<430	<150	<160	<120	<150
LORDANE	UG/KG-DRY	39351	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
LOROPICRIN	UG/KG	97304	EC	<0.395	<2.03	<1.31	<0.332	<0.377	<0.374	<0.760	<1.41	<1.48	<0.630	<1.50	<0.565	<0.519	<0.385	<0.506
LORPYRIFOS	UG/KG-DRY	97064	NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7
LOROTHALONIL	UG/KG	97305	EC	<80	<340	<310	<65	<66	<67	<150	<500	<280	<250	<560	<190	<210	<150	<190
AZINON	UG/KG-DRY	39571	NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7

PROJECT NUMBER 87426 0000
FIELD GROUP SFA

PROJECT NAME SO. FL. WATER MGMT. DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

METERS / UNITS	STORET # / METHOD	47/S3 SFA 1 07/20/87 09:35	48/S4 SFA 2 07/20/87 10:25	49/S4 SFA 3 07/20/87 10:32	50/S2355I/FECSR78 SFA 4 07/20/87 11:05	SFA 5 07/20/87 12:30	52/565E SFA 6 07/20/87 13:40	53/S191 SFA 7 07/20/87 14:25	61/S31 SFA 8 07/21/87 15:50	46/S2 SFA 9 07/20/87 09:05	54/S5A SFA 10 07/21/87 08:20	55/S6 SFA 11 07/21/87 09:25	56/S7 SFA 12 07/21/87 10:30	57/S8 SFA 13 07/21/87 11:40	58/L30WBR SFA 14 07/21/87 13:20	59/S190 SFA 15 07/21/87 14:10
DRIN UG/KG-DRY	39383 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
SULFAN,A UG/KG-DRY	34364 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
SULFAN,B UG/KG-DRY	34359 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
SULFAN SULFATE UG/KG-DRY	34354 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
IN UG/KG-DRY	39393 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
IN ALDEHYDE UG/KG-DRY	34369 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
ON UG/KG	39399 NP	<17	<72	<66	<14	<14	<14	<32	<100	<59	<53	<120	<40	<44	<31	<41
FOS (DYFONATE) UG/KG	82544 NP	<17	<72	<66	<14	<14	<14	<32	<100	<59	<53	<120	<40	<44	<31	<41
PROP UG/KG-DRY	97067 NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7
ION UG/KG-DRY	39581 NP	<21.5	<92.3	<83.9	<17.5	<17.6	<17.9	<41.0	<209	<74.9	<105	<234	<79.8	<87.5	<62.3	<81.4
TACHLOR EPOXIDE UG/KG-DRY	39423 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
TACHLOR UG/KG-DRY	39413 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
THANE (DICOFOL) UG/KG	97306 EC	<42	<180	<160	<34	<35	<35	<80	<260	<150	<130	<290	<100	<110	<78	<100
.G(LINDANE) UG/KG-DRY	39783 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
ATHION UG/KG-DRY	39531 NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7
HAMIDOPHOS UG/KG	97310 NP	<340	<1400	<1300	<270	<280	<280	<640	1100	<1200	<530	<1200	<400	<440	<310	<410
HOMYL UG/KG	82572 LC	<230	<1000	<910	<190	<190	<200	<450	<740	<820	<370	<820	<280	<310	<220	<290
HOXYCHLOR,SED UG/KG-DRY	39481 EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
HYL BROMIDE UG/KG-DRY	34416 EC	<59	<300	<200	<50	<57	<56	<110	<210	<220	<95	<220	<85	<78	<58	<76
HYL PARATHION UG/KG-DRY	97311 NP	<17	<72	<66	<14	<14	<14	<32	<100	<59	<53	<120	<40	<44	<31	<41

PROJECT NUMBER 87426 0000
FIELD GROUP SFA

PROJECT NAME SO. FL. WATER MGMT. DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

AMETERS	UNITS	STORET #	METHOD	47/S3 SFA 1	48/S4 SFA 2	49/S4 SFA 3	50/S23551/FECSR78 SFA 4	SFA 5	52/565E SFA 6	SAMPLE ID/# 53/S191 SFA 7	61/S31 SFA 8	46/S2 SFA 9	54/S5A SFA 10	55/S6 SFA 11	56/S7 SFA 12	57/S8 SFA 13	58/L30WBR SFA 14	59/S190 SFA 15
E				07/20/87	07/20/87	07/20/87	07/20/87	07/20/87	07/20/87	07/20/87	07/21/87	07/20/87	07/21/87	07/21/87	07/21/87	07/21/87	07/21/87	07/21/87
E				09:35	10:25	10:32	11:05	12:30	13:40	14:25	15:50	09:05	08:20	09:25	10:30	11:40	13:20	14:10
OLACHLOR	UG/KG	38923	EC	<84	<360	<330	<68	<69	<70	<160	<520	<290	<260	<580	<200	<220	<160	<200
RIBUZIN	UG/KG	81409	NP	<17	<72	<66	<14	<14	<14	<32	<100	<59	<53	<120	<40	<44	<31	<41
INPHOS	UG/KG-DRY	97068	NP	<67.5	<290	<263	<54.8	<55.3	<56.2	<129	<105	<235	<52.5	<117	<39.9	<43.8	<31.2	<40.7
DRIN (MONOCHROTOP)	UG/KG-DRY	81889	NP	<337	<1450	<1320	<274	<277	<281	<643	<2090	<1170	<1050	<2340	<798	<875	<623	<814
MYL	UG/KG	38868	LC	<130	<560	<510	<110	<110	<110	<250	<420	<460	<210	<460	<160	<170	<130	<160
AQUAT	UG/KG	82415	LC	<3800	<16000	<2400	<2300	<2300	<2400	<2300	<2200	<2400	<2400	<2400	<2300	<2400	<2400	<2400
ATHION	UG/KG-DRY	39541	NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7
1016	UG/KG-DRY	39514	EC	<211	<905	<822	<171	<173	<176	<402	<1310	<734	<656	<1460	<499	<547	<390	<509
-1221	UG/KG-DRY	39491	EC	<210	<910	<820	<170	<170	<180	<400	<1300	<730	<660	<1500	<500	<550	<390	<510
-1232	UG/KG-DRY	39495	EC	<210	<910	<820	<170	<170	<180	<400	<1300	<730	<660	<1500	<500	<550	<390	<510
-1242	UG/KG-DRY	39499	EC	<210	<910	<820	<170	<170	<180	<400	<1300	<730	<660	<1500	<500	<550	<390	<510
-1248	UG/KG-DRY	39503	EC	<210	<910	<820	<170	<170	<180	<400	<1300	<730	<660	<1500	<500	<550	<390	<510
-1254	UG/KG-DRY	39507	EC	<210	<910	<820	<170	<170	<180	<400	<1300	<730	<660	<1500	<500	<550	<390	<510
-1260	UG/KG-DRY	39511	EC	<210	<910	<820	<170	<170	<180	<400	<1300	<730	<660	<1500	<500	<550	<390	<510
THANE	UG/KG	81886	EC	<84	<360	<330	<68	<69	<70	<160	<520	<290	<260	<580	<200	<220	<160	<200
RATE	UG/KG-DRY	81412	NP	<16.9	<72.4	<65.8	<13.7	<13.8	<14.0	<32.2	<105	<58.7	<52.5	<117	<39.9	<43.8	<31.2	<40.7
,PP'	UG/KG-DRY	39311	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
,PP'	UG/KG-DRY	39321	EC	18.2	60.8	53.6	<6.85	<6.92	<7.02	<16.1	<52.3	101	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
,PP'	UG/KG-DRY	39301	EC	<8.43	<36.2	<32.9	<6.85	<6.92	<7.02	<16.1	<52.3	<29.4	<26.3	<58.5	<20.0	<21.9	<15.6	<20.3
OMETRYNE	UG/KG	78688	NP	<17	<72	<66	<14	<14	<14	<32	<100	<59	<53	<120	<40	<44	<31	<41

PROJECT NUMBER 87426 0000
FIELD GROUP SFA

PROJECT NAME SO. FL. WATER MGMT. DIST.
PROJECT MANAGER J.J. VONDRICK
LAB COORDINATOR JOE VONDRICK

		SAMPLE ID/#														
AMETERS UNITS	STORET # METHOD	47/S3 SFA 1	48/S4 SFA 2	49/S4 SFA 3	50/S23551/FECSR78 SFA 4	SFA 5	52/565E SFA 6	53/S191 SFA 7	61/S31 SFA 8	46/S2 SFA 9	54/S5A SFA 10	55/S6 SFA 11	56/S7 SFA 12	57/S8 SFA 13	58/L30WBR SFA 14	59/S190 SFA 15
E E		07/20/87 09:35	07/20/87 10:25	07/20/87 10:32	07/20/87 11:05	07/20/87 12:30	07/20/87 13:40	07/20/87 14:25	07/21/87 15:50	07/20/87 09:05	07/21/87 08:20	07/21/87 09:25	07/21/87 10:30	07/21/87 11:40	07/21/87 13:20	07/21/87 14:10
AZINE UG/KG	39046 NP	<17	<72	<66	<14	<14	<14	<32	<100	<59	<53	<120	<40	<44	<31	<41
APHENE UG/KG-DRY	39403 EC	<860	<3690	<3360	<698	<705	<717	<1640	<5330	<2990	<2680	<5960	<2040	<2230	<1590	<2070
FLURALIN UG/KG	81618 EC	<97	<420	<380	<79	<80	<81	<180	<600	<340	<300	<670	<230	<250	<180	<230
THION (CARB'PH'TH) UG/KG	39787 EC	<84	<360	<330	<68	<69	<70	<160	<520	<290	<260	<580	<200	<220	<160	<200
STURE %WET WT	70320 1	40.7	86.2	84.8	27.1	27.7	29.0	68.9	81.3	83.0	62.8	83.0	49.9	54.8	37.7	51.8

PROJECT NUMBER 87426 0000
FIELD GROUP SFA

PROJECT NAME SO. FL. WATER MGMT. DIST.
PROJECT MANAGER J.J. VONDRICK
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SAMPLE ID/#

RAMETERS	UNITS	STORET # METHOD	47/S3 SFA 1	48/S4 SFA 2	49/S4 SFA 3	50/S23551/FECSR78 SFA 4	SFA 5	52/S65E SFA 6	53/S191 SFA 7
TE ME			07/20/87 09:35	07/20/87 10:25	07/20/87 10:32	07/20/87 11:05	07/20/87 12:30	07/20/87 13:40	07/20/87 14:25
MAZINE	UG/KG	39046 NP	<17	<72	<66	<14	<14	<14	<32
OXAPHENE	UG/KG-DRY	39403 EC	<860	<3690	<3360	<698	<705	<717	<1640
RIFLURALIN	UG/KG	81618 EC	<97	<420	<380	<79	<80	<81	<180
RITHION (CARB'PH'TH ON)	UG/KG	39787 EC	<84	<360	<330	<68	<69	<70	<160
OISTURE	%WET WT	70320 1	40.7	86.2	84.8	27.1	27.7	29.0	68.9

RAMETERS	61/S31 SFA 8	46/S2 SFA 9	54/S5A SFA 10	55/S6 SFA 11	56/S7 SFA 12	57/S8 SFA 13	58/L30WBR SFA 14	59/S190 SFA 15
TE ME	07/21/87 15:50	07/20/87 09:05	07/21/87 08:20	07/21/87 09:25	07/21/87 10:30	07/21/87 11:40	07/21/87 13:20	07/21/87 14:10
MAZINE	<100	<59	<53	<120	<40	<44	<31	<41
OXAPHENE	<5330	<2990	<2680	<5960	<2040	<2230	<1590	<2070
RIFLURALIN	<600	<340	<300	<670	<230	<250	<180	<230
RITHION (CARB'PH'TH ON)	<520	<290	<260	<580	<200	<220	<160	<200
OISTURE	81.3	83.0	62.8	83.0	49.9	54.8	37.7	51.8