Pesticide Monitoring Network
1997-1998

Bob Tolford

GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
GEORGIA GEOLOGIC SURVEY

Atlanta
1998

PROJECT REPORT 36

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INTRODUCTION

To satisfy the requirements of their Pesticide Management Plan, the Georgia Department of Agriculture (DOA) requested the Georgia Geologic Survey Branch (GGS) of the Georgia Environmental Protection Division (EPD), to assist in designing a ground-water monitoring network for the agricultural region of southwest Georgia. The original plan called for the installation of a network of shallow monitor wells in those counties having the highest concentration of agricultural activity (primarily row-crop farming). However, the United States Geological Survey (USGS) was already in the process of installing monitor wells in the Apalachicola-Chattahoochee-Flint River Basin (ACF) as part of the National Water Quality Assessment Program (NAWQA). Rather than duplicate efforts, the DOA, EPD, and the USGS entered into a cooperative agreement in 1993. The agreement called for EPD to sample the USGS wells, turn the samples over to DOA for analysis using EPA-approved Gas Chromatography (GC) methods, and all parties to share the results. EPD planned to sample the USGS wells for one year, then produce a report for the well owners and a project report suitable for publication. The first published report (GGS Project Report 22) included data from selected ACF wells generated during the time period September 1993 through July 1994.

During the latter part of 1994, the USGS installed 23 new wells in the Upper Suwannee River Basin (USRB). The USGS contacted EPD about the new wells and plans were made to include them in the next round of sampling by the Pesticide Monitoring Network (PMN). As with the ACF wells, the owners had to give EPD permission to enter their property and sample the wells in the USRB. In August 1995 sampling continued in the ACF basin on a quarterly basis, while the USRB wells were sampled as frequently as time allowed. The DOA added a new method to the laboratory procedures for the second round of sampling, bringing the total number of analytical methods to five, with more than 200 compounds detectable by the combination of the methods. This sampling schedule continued from August 1995 through September 1998.

In early 1998, in addition to the monitoring wells, 10 private drinking water wells were sampled (see Figure 1). The private wells are located throughout the PMN study area but are more concentrated in Sumter and Miller counties to reflect the concentration of the monitoring well network in those areas. The private wells were selected based on their proximity to existing PMN

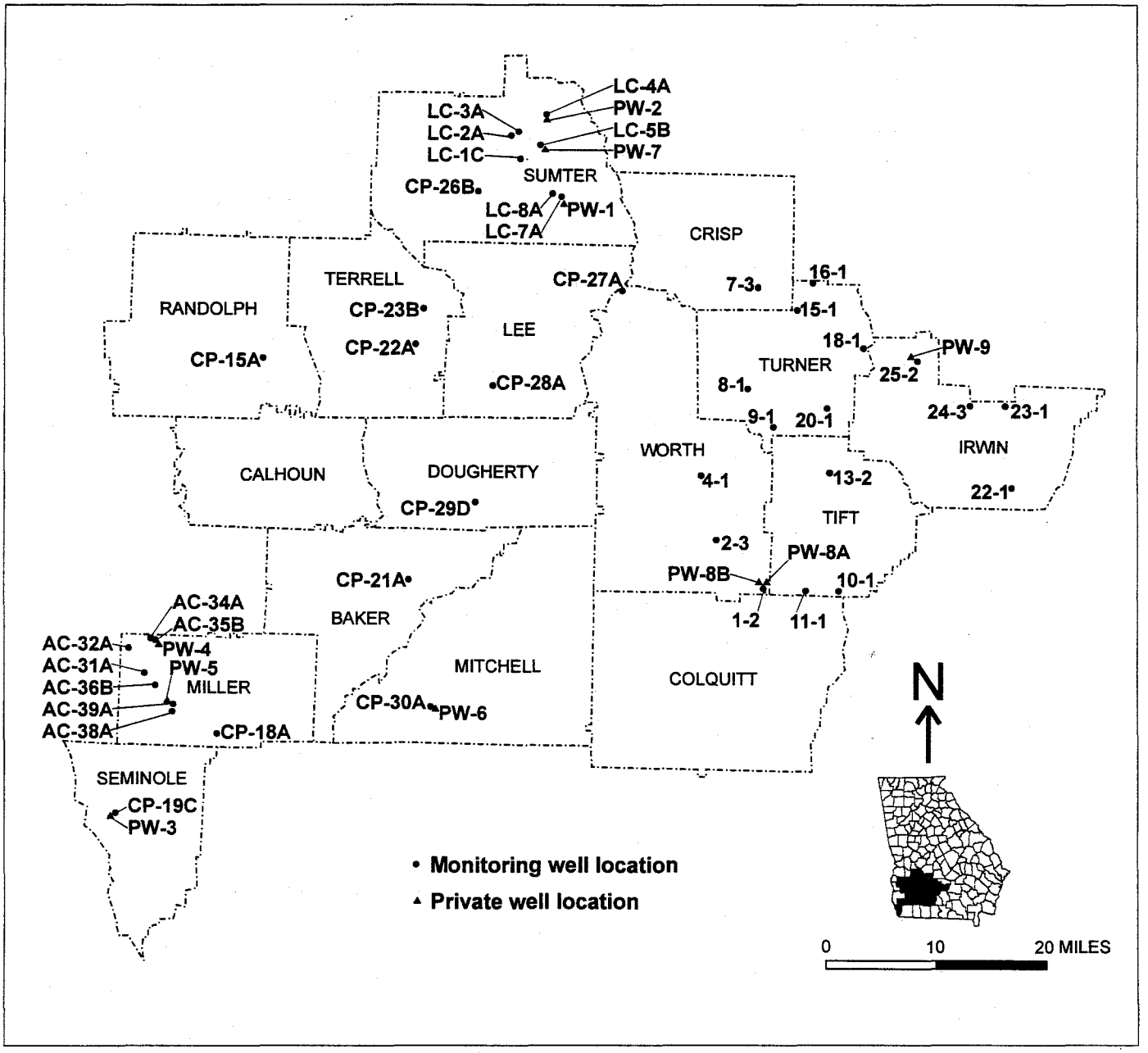

Figure 1. 1997-1998 Pesticide Monitoring Network Study Area.

monitoring wells. Most of these wells were sampled only once, while two (PW-3 and PW-4) were sampled twice.

As with the previous three years, sampling of wells during 1997-1998 continued in the ACF basin on a quarterly basis, while the USRB wells were sampled as frequently as time allowed.

WELL LOCATION AND CONSTRUCTION

The USGS installed 36 wells in the ACF and 23 wells in the USRB. EPD attempted to obtain the consent of the landowners to access and sample the wells in both basins. Permission was obtained to sample 24 wells in the ACF and 17 in the USRB. Figure 1 provides the well locations. In 1995, five wells (LC-2A, CP-15A, CP-24A, AC-36B, and 9-1) were deleted from the Network due to inaccessibility or very slow recovery. Another well (AC-39A) was deleted in 1996 (due to the fact that it was demolished) at the landowner's request to make room for a center-pivot irrigation system. In March 1998 one more well (GAFL 23-1) was deleted from the PMN at the request of the property caretaker. Some wells were sampled less frequently than others due to problems in gaining access to the well such as: bad weather, muddy fields, damage potential to crops, and locked gates. During the 1997-1998 sampling period, EPD collected samples from 19 monitoring wells in the ACF Basin and 14 wells in the USRB.

Where possible, wells were drilled in or near recharge areas, in close proximity to fields that had been continuously cultivated for the preceding 10 or more years. All of the wells were constructed with PVC casings and screens and drilled to a short distance below the water table with 6-inch hollow-stem augers. The annular space around the ten-foot screened interval in each well was backfilled with a filter pack of clean sand and capped with a bentonite plug. The annulus above the bentonite plug was backfilled with either bags of sand or native materials and capped with three feet of cement grout. The casings extend one-half foot to three feet above the ground surface and are covered by locking steel boxes set in 18-inch wide concrete aprons. The wells were developed with an air bladder pump until they produced clear water. A list of monitor well construction data is found in Appendix A.

SAMPLING EQUIPMENT AND PROCEDURES

Purging and sampling procedures used for the PMN were developed from *Recommended Procedures for Collection of Selected Ground Water Data from Wells* (1992 Lapham et.al.) and the *Manual for Groundwater Monitoring* (EPD task force on Ground Water Monitoring 1988). A teflon bailer was used to purge and sample the wells. Field parameters (temperature, pH, specific conductance, and dissolved oxygen) were measured/screened in the field. A YSI ® Model 3500 Water Quality Monitoring System meter was used to measure temperature and specific conductance. Dissolved oxygen was screened using a Chemetrics ® test kit which includes model R-7512 self-filling ampoules; pH was screened using EM Quant ® test strips. (Note: Manufacturers, trade names, or brand names of equipment or supplies mentioned in this report does not constitute endorsement by the Geologic Survey.)

Prior to collecting the sample, the volume of water in the monitoring well was calculated. After three well volumes of water was purged, the sample was collected. EPD collected two types of samples from each well. Four one-liter samples were collected in amber glass bottles; two of the bottles were preserved with a hydrochloric acid solution while in the field, the other two remained unpreserved. A 60-ml sample was collected in a 125-ml opaque, Teflon® bottle and preserved with 1.8 ml of monochloroacetic acid (by the laboratory prior to shipment to the field). The four one-liter samples are used to analyze for organophosphate pesticides, organochlorine pesticides, and phenoxy acid herbicides. The one 60-ml sample is used for the analysis of carbamate pesticides. The sample bottles are individually labeled, bagged, and placed in coolers filled with ice for preservation during transportation to the DOA Pesticide Residue Laboratory in Atlanta. Samples are hand delivered to the lab by EPD employees using an EPA-approved chain of custody form.

DECONTAMINATION AND QUALITY ASSURANCE / QUALITY CONTROL

To prevent potential cross-contamination, the sampling equipment was cleaned prior to and between each sampling episode. The bailer is decontaminated in the field using a three-step process: the equipment is cleaned in a Liquinox® and tap-water solution, thoroughly rinsed in tap-water,

followed by additional rinsing in de-ionized water. All sampling equipment is handled with latex gloves. Equipment blanks (de-ionized water) are taken periodically to determine if the decontamination process is effective. Other forms of Quality Control (QC) used are spiked samples and replicate samples. The DOA laboratory runs additional QC standards before, during, and after each sample run. The results of the QC tests indicate that the methods in use at the Pesticide Residue Laboratory are consistently capable of detecting pesticides at or near their listed detection limit and the decontamination methods used in the field are effective.

LABORATORY ANALYSIS

The Department of Agriculture Pesticide Residue Laboratory uses EPA methods 507 (nitrogen and phosphorous containing pesticides), 508.1 (organochlorine pesticides), 515.2 (phenoxy acid herbicides), and 531.1 (urea derivative and carbamate pesticides). In addition the laboratory utilizes a fifth analysis, Method 4, for other pesticides. These methods have detection limits for pesticide compounds that are below the maximum contaminant levels (MCL's) established by EPA for safe drinking water. Method 531.1 and Method 4 use high-pressure liquid chromatography (HPLC) to determine the concentration of constituents. The other methods rely on gas chromatography (GC) for compound identification. For more information concerning the specific analytes detectable by each method and their respective detection limits, refer to the laboratory report sheets included in Appendix B.

RESULTS

Results for the wells in the ACF and USR basins, as well as the private wells, continue to indicate no pesticide detections above EPA established MCL's. Quality control samples spiked with various pesticides show that the DOA laboratory's procedures are capable of detecting pesticide concentrations that are near the MCLs established for the compounds.

Field measurements of parameters taken just prior to sampling are tabulated in Appendix C. This table includes data from September 1993 through October 1998 for all of the wells ever sampled by the PMN, whether or not they are currently part of the Network.

INTERPRETIVE CONCLUSIONS

The results of sampling in the study area (ACF and USR basins) indicate that Best Management Practices for Pesticides currently being employed do not appear to result in the pollution of Georgia's ground water by pesticides. If EPA's risk-based MCL's are appropriate indicators of contamination, then underground sources of drinking water do not currently appear to be in danger of pollution by current farming practices. This interpretation is consistent with previous surveys of pesticides in ground water conducted in Georgia. The lack of detections can possibly be attributed to the rapid dilution and degradation of pesticides due to the low amount of organic material in the soils of the Coastal Plain, the high soil and air temperatures that naturally occur during the peak times for pesticide application, and the abundant rainfall that the study area receives each year (average yearly rainfall is about 59 inches).

REFERENCES:

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Appendix A

Monitor Well Identification and Construction

Wells in Apalachicola-Chattahoochee-Flint River Basin used between 9/93 and 9/98.

Well ID	County	Pad	Backfill	Bentonite Plug	Filter Pack	Screened Interval	Total Depth
LC-1C	Sumter	0 - 2.5	2.5 - 31.3	31.3 - 33.5	33.5- ≈ 41	35 - 45	45.0
LC-2A	Sumter	0 - 3.0	3.0 - 62	62 - 64	64 - 74.7	64.7 - 74.7	74.7
LC-3A	Sumter	0 - 3.0	3.0 - 61	61 - 63	63 - 73.4	63.4 - 73.4	73.4
LC-5B	Sumter	0 - 3. 0	3.0 - 20.2	20.2 - 22.7	22.7 - 27.0	22.4 - 32.4	32.4
LC-7A	Sumter	0 - 2.2	2.2 - 33.5	33.5 - 36.9	36.9 - 48.7	38.7 - 48.7	48.7
LC-8A	Sumter	0 - 1.3	1.3 - 38	38 - 40	40 - 51.7	41.7 - 51.7	51.7
CP-15A	Randolph	0 - 2.2	2.2 - 15.1	15.1 - 17.0	17.0 - 28.6	27.6 - 28.6	28.6
CP-18A	Miller	0 - 1.3	1.3 - 49	49 - 51	51 - 68.8	58.8 - 68.8	68.8
CP-19C	Seminole	0 - 1.3	1.3 - 31.7	31.7 - 33	33 - 54.3	44.3 - 54.3	54.3
CP-21A	Baker	0 - 2.5	2.5 - 37	37 - 39	39 - 48.8	38.8 - 48.8	48.8
CP-22A	Terrell	0 - 2.3	2.3 - 22	22 - 24	24 - 33.8	23.8 - 33.8	33.8
CP-23B	Terrell	0 - 2.0	2.0 - 26.7	26.7 - 32.8	32.8 - 44.2	32.2 - 44.2	44.2
CP-26B	Sumter	0 - 2.0	2.0 - 11.8	11.8 - 15	15 - 28.5	18.5 - 28.5	28.5
CP-27A	Worth	0 - 2.0	2.0 - 10.9	10.9 - 15	15 - 31.2	21.2 - 31.2	31.2
CP-28A	Lee	0 - 1.6	1.6 - 21.2	21.2 - 31.6	31.6 - 43.7	33.7 - 43.7	43.7
CP-29D	Dougherty	0 - 2.0	2.0 - 21	21 - 22	22 - 35.6	25.6 - 35.6	35.6
CP-30A	Mitchell	0 - 2.0	2.0 - 25.5	25.5 - 31.0	31.0 - 47.5	37.5 - 47.5	47.5
AC-31A	Miller	0 - 2.7	2.7 - 24.0	24.0 - 28.9	28.9 - 39.2	29.2 - 39.2	39.2
AC-32A	Miller	0 - 3.3	3.3 - 24.5	24.5 - 29.7	29.7 - 38.3	28.3 - 38.3	38.3
AC-34A	Miller	0 - 3.3	3.3 - 27	27 - 29	29 - 37.5	27.5 - 37.5	37.5
AC-35B	Miller	0 - 2.5	2.5 - 56	56 - 58	58 - 69.3	59.3 - 69.3	69.3
AC-36B	Miller	0 - 2.5	2.5 - 50	50 - 52	52 - 65	55 - 65	65
AC-38A	Miller	0 - 1.7	1.7 - 47	47 - 49	49 - 61	51 - 61	61
AC-39A	Miller	0 - 3.0	3.0 - 31	31 - 33	33 - 57.4	47.4 - 57.4	57.4

All measurements are in feet.

Wells in the Upper Suwannee River Basin used between 8/95 and 10/98.

Well ID	County	Pad	Backfill	Bentonite Plug	Filter Pack	Screened Interval	Total Depth
1-2	Worth	0 - 3	——	3 - 5	5 - 17	7 - 17	17
2-3	Worth	0 - 2.5	2.5 - 11	11 - 14	14 - 24	14 - 24	24
4-1	Worth	0 - 2.5	2.5 - 11	11 - 13	13 - 23	13 - 23	23
7-3	Crisp	0 - 2	2 - 4	4 - 6	6 - 20	5 - 15	20
8-1	Turner	0 - 2	2 - 6	6 - 8	8 - 20	10 - 20	20
9-1	Turner	0 - 2.5	2.5 - 24	24 - 27.7	27.7 - 60	35 - 65	65
10-1	Tift	0 - 2	2 - 9	9 - 10	10 - 22	12 - 22	22
11-1	Tift	0 - 2	2 - 15	15 - 17	17 - 31	21 - 31	31
13-2	Tift	0 - 2	2 - 5	5 - 7	7 - 19	9 - 19	19
15-1	Turner	0 - 2	2 - 16	16 - 18	18 - 51	26 - 46	51
16-1	Turner	0 - 2	2 - 11	11 - 13	13 - 30	20 - 30	30.4
18-1	Turner	0 - 2	2 - 5	5 - 7	7 - 20	5 - 15	20
20-1	Turner	0 - 2	2 - 24	24 - 25	25 - 45	30 - 40	45
22-1	Irwin	0 - 2.5	2.5 - 18	18 - 20	20 - 40	25 - 35	35
23-1*	Irwin	0 - 1	1 - 10	10 - 12	12 - 27	17 - 27	27
24-1	Irwin	0 - 2.5	2.5 - 15	15 - 17	17 - 37	27 - 37	37
25-2	Irwin	0 - 2.5	2.5 - 12	12 - 14	14 - 25	15 - 25	25

All measurements are in feet

* Abandoned on March 4, 1998.

Appendix B

Laboratory Report Sheets / Analytical Parameters

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Thomas T. Irvin
Commissioner

Pesticide Residue Laboratory Report for Pesticide Analysis

Well Name _____

Sampling Date _____ Time _____

Collected by _____ _____

GDA Lab Number _____ Was sample filtered before analysis? Yes or No

Date Analyzed _____ Volume analyzed (in ml) _____

EPA Method 507 (Screen 1)

Analyte (Trade Name)	Storet #	Limits (ppb)	Level (ppb)	Analyte (Trade Name)	Storet #	Limits (ppb)	Level (ppb)
Alachlor (Lasso)	77825	(m) 2.0		*Merphos	38496	1.0	
Ametryn (Evik)	38401	0.3		Methyl paraoxon	30009	1.0	
Atraton	38414	0.2		Metolachlor (Dual)	38923	1.0	
Atrazine (Actrex)	39033	m (3.0)		Metribuzin (Sencor)	81408	1.13	
Bromacil (Hyvar)	82198	0.6		(Mevinphos)	39610	1.0	
Butachlor (Machete)	77860	0.5		Molinate (Ordram)	49562	1.0	
Butylate (Sutan)	81410	0.4		Napropamide (Devinol)	79195	0.1	
Carboxin (Vitavax)	70978	1.0		Norflurazon (Zorial)	78064	0.1	
Chlorpropham (ChlorolPC)	82322	0.5		Pebulate (Tillam)	79192	0.5	
Cycloate (RoNeet)	04031	1.0		Prometon (Pramitol)	39056	1.0	
*Diazinon (Spectacide)	39750	1.0		Prometryn (Caparol)	04036	1.0	
Dichlorvos (DDVP)	38775	1.0		*Pronamide (Kerb)	39080	0.5	
Diphenamid (Dymid)	30255	1.0		Propazine (Millogard)	38535	1.0	
*Disulfoton (Di-Syston)	39010	1.0		Simazine (Princep)	39055	1.0	
*Disulfoton sulfone	81031	1.0		Simetryn	39054	1.0	
*Disulfoton sulfoxide	81888	1.0		Stirofos	38877	1.0	
EPTC (Eptam)	81894	0.5		Tebuthluron (Spike)	45607	0.1	
Ethoprop (Prophos)	81758	0.5		Terbacil (Sinbar)	38883	0.2	
Fenamiphos (Nemacur)	38929	1.0		*Terbufos	82088	1.0	
Fenarimol	04101	1.0		Terbutryn (Igram)	38888	1.0	
Fluridone (Sonar)		1.0		Triademefon	38893	0.2	
Hexazinone (Velpar)	30264	1.0		Tricyclazole	38903	0.6	
MGK 264	4098	1.0		Vernolate (Vernam)	82200	1.0	

Limits: (m) is a Primary Maximum Contaminant Level for drinking water; * is qualitative results only;
Samples are collected in one liter amber glass bottles with no preservation added in the field.

_____
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Thomas T.
Commissior

Pesticide Residue Laboratory Report for Pesticide Analysis

Well Name _____

Sampling Date _____ Time _____

Collected by _____ _____

GDA Lab Number _____ Was sample filtered before analysis? Yes or N

Date Analyzed _____ Volume analyzed (in ml) _____

EPA Method 508.1 (Screen 2)

Analyte (Trade Name)	Storet #	Limits (ppb)	Level (ppb)	Analyte (Trade Name)	Storet #	Limits (ppb)	Lev
4,4-DDD (Rothane)		1		Heptachlor	39410	(m) 0.4	
4,4-DDE		1		Heptachlor epoxide	39420	(m) 0.2	
4,4-DDT		1		Hexachlorbenzene	39700	1.0	
Alachlor (Lasso)	77825	(m) 2.00		Hexachlorocyclopentadiene		100	
Aldrin	39330	1		Methoxychlor (Mariate)	39480	(m) 40	
Atrazine (Aatrex)	38414	3.00(m)		Metolachlor (Dual)	38923	1.0	
*Chlorobenzilate	39460	1		Metribuzine (Sencor)	81408	1.13	
Chloroneb	38423	1		Propchlor (Ramrod)	38533	1	
Chlorothanlonil (Bravo)		1		Simazine (Princep)	39055	1.0	
Cyanazine	81757	40		Trifluralin	81284	1	
DCPA (Dacthal)	39770	0.01		alpha-HCH		0.2	
Dieldrin	39380	1		beta-HCH		0.2	
Endosulfan I (Thiodan)	34361	1		delta-HCH		0.2	
Endosulfan II	34356	1		gamma-HCH (Lindane)	39782	(m) 2.0	
Endosulfan sulfate	82623	1		alpha-chlordane (Belt)	39348	(m) 2.0	
Endrin (Rid-a-Bird)	39390	(m) 2.0		gamma-chlordane	39810	(m) 2.0	
Endrin aldehyde	82622	1		cis-Permethrin (Ambush)		0.1	
Etridiazole (Terrazole)	38793	1		trans-Permethrin	82420	0.1	

Limits: (m) is a Primary Maximum Contaminant Level for drinking water. * is qualitative results only.
Samples are collected in one liter amber glass bottles with 4 mL of 6N HCl added prior to sampling as preservation.

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Pesticide Residue Laboratory Report for Pesticide Analysis

Well Name _____

Sampling Date _____ Time _____

Collected by _____ _____

GDA Lab Number _____ Was sample filtered before analysis? Yes or No

Date Analyzed _____ Volume analyzed (in ml) _____

EPA Method 515.2 (Screen 3)

Analyte (Trade Name)	Storet #	Limits (ppb)	Level (ppb)	Analyte (Trade Name)	Storet #	Limits (ppb)	Level (ppb)
2, 4-D (Demise)	39730	(m) 70		DCPA (Dacthal)	39770	0.01	
2, 4-DB (Butoxone)	38746	1.9		Dicamba (Banvel)	38442	0.2	
2, 4, 5-TP (Silvex)	39760	(m) 50		Dicamba, 5-hydroxy-		1	
2, 4, 5-T		0.11		Dichloroprop	38451	1.0	
3, 5 Dichlorobenzoic Acid		1.0		Dinoseb (DNBP)	38779	0.1	
Acifluoren (Blazer)		1.0		Pentachlorophenol (PCP)		(m) 1	
Bentazon (Basagran)	38711	1.9		Picloram	39720	(m) 500	

Limits: (m) is a Primary Maximum Contaminant Level for drinking water; * is qualitative results only.
Samples are collected in one liter amber glass bottles with 1 mL of 1:1 HCl:H_2O added prior to sampling.

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Pesticide Residue Laboratory Report for Pesticide Analysis

Well Name _____

Sampling Date _____ Time _____

Collected by _____ _____

GDA Lab Number _____ Was sample filtered before analysis? Yes or No

Date Analyzed _____ Volume analyzed (in ml) _____

Method 4

Analyte (Trade Name)	Storet #	Limits (ppm)	Level (ppm)	Analyte (Trade Name)	Storet #	Limits (ppm)	Le
Atrazine, de-ethylated	75981	0.04		Linuron	38477	0.006	
Barban	38418	1.04		Metribuzin DA	81408	0.007	
Carbofuran, phenol-3-keto-	81450	0.01		Metribuzin DADK	81408	0.007	
Carbofuran, phenol	81450	1.5		Metribuzin DK	81408	0.044	
Cyanazine	81757	0.04		Neburon	38521	0.096	
Diuron	39650	0.03		Pronamide metabolites	39080	0.04	
Fenamiphos sulfone		0.012		Propanil		0.007	
Fenamiphos sulfoxide		0.19		Propham		0.11	
Fluometuron	38810	0.19		Swep	38554	0.02	

Samples are collected in one liter amber glass bottles with no preservation added in the field.

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Pesticide Residue Laboratory Report for Pesticide Analysis

Well Name _____

Sampling Date _____ Time _____

Collected by _____ _____

GDA Lab Number _____ Was sample filtered before analysis? Yes or No

Date Analyzed _____ Volume analyzed (in ml) _____

EPA Method 531.1(Screen 5)

Analyte (Trade Name)	Storet #	Limits (ppb)	Level (ppb)
Aldicarb (Temik)	39053	1.0	
Aldicarb sulfone	04257	2.0	
Aldicarb sulfoxide	04260	2.0	
Aprocarb (Baygon)		1.0	
Carbaryl (Sevin)	77700	2.0	
Carbofuran (Furadan)	81450	2.0	
3- Hydroxycarbofuran	82584	2.0	
Methiocarb (Mesurol)	38500	4.0	
Methomyl (Lannate)	39051	1.0	
Oxyamyl (Vydate)	38866	2.0	

Samples are collected in 60 mL FEP with 1.8 mL of buffer solution added as a preservative.

_____
Sudhir G. Kapadia
Analyst

Appendix C

Tabulation of Field Parameters

(wells arranged by county)

Baker County: CP-21A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/19/93	x	5.96	25.0	x	25.7
1/5/94	8.59	4.80	20.5	.200	24.9
4/4/94	7.06	5.50	21.6	262	16.1
5/3/94	9.49	4.40	21.7	x	11.8
6/21/94	7.44	6.0	22.0	x	18.4
9/12/95	7.65	4.3	23.9	0.210	29.15
5/2/96	7.55	4.9	24.7	0.234	18.9
9/17/96	7.4	x	21.3	0.238	31.6
2/12/97	7.5	6	21	0.25	22
7/2/97	7	6	21	0.23	24.2
11/5/97	7	6	22	.226	30.9
3/11/98	6	6	19	.225	8.15
5/20/98	6	6	21	.229	14.9
9/23/98	6	6	22	.272	23.4

Crisp County: 7-3

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
4/4/96	4.79	8.7	16.4	0.159	3.9
6/18/96	3.95	7.9	20.3	0.171	8.7
6/30/96	4.5	x	x	x	16.4
12/30/96	4.5	x	x	x	14.2
4/22/97	4.5	7	21	0.172	4
7/16/97	5	8	23	0.167	13.2
12/3/97	5	8	19	0.170	3.8
4/21/98	5	8	18	.146	5.55
10/1/98	5	8	22	.135	10.8

Dougherty County: CP-29D

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/13/93	x	11.6	17.3	x	18.8
11/16/93	7.77	x	20.0	x	17.4
2/1/94	x	7.9	18.8	x	12.5
4/4/94	7.9	8.4	19.1	0.202	11.3
5/3/94	6.86	8.2	19.3	x	9.8
6/20/94	6.27	8.6	19.4	x	14.1
8/10/95	7.3	5.8	20.9	.213	12.2
1/25/96	6.96	5.4	17.1	0.213	20.1
2/29/96	7.08	6.1	19.6	0.201	15.2
5/8/96	7.61	6.8	18.5	0.209	13.9
9/19/96	7.04	6.7	18.8	0.207	19.9
10/22/96	7.6	7.7	19.6	.206	17.8
2/12/97	6	7	20	0.21	12.3
4/30/97	6	7	19	x	12.1
9/4/97	7	7	22	.203	20.5
12/30/97	7	7	18	.209	7.8
4/2/98	7	7	19	.214	5.05
8/27/98	7	7	22	.200	13.55

Irwin County: 22-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/28/95	5.66	x	23.0	0.032	9.0
4/23/96	5.52	4.3	23.8	0.030	4.5
6/25/96	4.49	5.7	19.4	0.023	5.6
3/20/97	5.5	5	20	0.032	5.1
8/20/97	5	5	22	0.028	6.4
5/6/98	5	5	19	.035	4.35

Irwin County: 23-1 (abandoned on 3/4/98)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/27/95	4.72	x	21.3	0.047	18.2
4/2/96	4.73	8.4	19.6	0.047	9.6
6/25/96	3.95	8.0	20.1	0.060	12.2
3/20/97	4.5	8	x	0.051	10
8/6/97	5	8	22	0.052	16
1/22/98	x	x	x	x	10.35
3/4/98	5	8	20	.053	10.6

Irwin County: 24-3

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/1/95	4.84	9.9	20.9	0.071	21.6
4/2/96	5.51	6.8	22.2	0.111	8.4
12/31/96	4.75	x	x	x	13.5
5/1/97	5	7	20	x	11
8/6/97	5	8	22	.095	16
8/13/98	5	8	22	.089	11.3

Irwin County: 25-2

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
1/16/96	5.20	3.4	20.4	0.048	12.0
4/24/96	5.14	5.6	19.2	0.057	8.6
12/31/96	5	x	x	x	7.2
5/7/97	5	6	20	0.077	8.4
7/24/97	5	6	22	0.069	12.4
11/14/97	5	x	x	x	4.15
4/9/98	5	6	18.5	.082	5.65
7/29/98	5	6	21	.080	3.80

Irwin County: PW-9

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
4/9/98	*	*	20.2	0.182

Lee County: CP-28A (Deleted 1996)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/12/93	7.42	9.2	17.7	x	18.2
11/16/93	9.24	x	21.8	x	13.9
1/12/94	x	6.7	19.6	0.300	13.7
4/27/94	6.75	6.2	21.9	x	13.5
6/14/94	6.81	5.6	21.3	x	14.6
8/10/95	7.01	5.3	23.3	0.374	16.5
3/14/96	7.24	5.3	21.0	0.370	14.2
4/30/96	7.32	6.0	21.9	0.392	17.0
10/10/96	7.03	6.1	20.3	.380	18.2

Miller County: CP-18A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
12/15/93	9.12	8.1	19.9	x	30.8
4/5/94	7.59	7.6	20.9	x	27.1
5/4/94	x	9	20.9	x	19.9
10/10/95	7.72	6.4	22.6	0.233	34.9
2/6/96	7.77	6.8	21.7	0.247	26.3
3/12/96	7.75	6.2	21.1	0.250	23.3
6/4/96	7.54	7.2	20.7	0.193	31.3
9/18/96	7.37	7.2	21.2	0.253	30.8
10/30/96	7.57	7.5	22.2	1.91	29.4
1/23/97	7.5	7	20.4	0.238	25.9
5/14/97	7	8	22	0.234	29.7
10/8/97	6	8	22	0.230	33.7
2/18/98	7	6	21.5	.262	23.95
5/13/98	7	6	21	0.270	32.2
9/16/98	7	6	22	0.272	29.7

Miller County: AC-31A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
12/1/93	5.19	x	18.3	x	15.2
2/7/96	5.78	5.2	22.7	0.040	3.1
3/12/96	5.96	5.9	22.2	0.056	2.35
5/29/96	5.12	6.2	20.7	0.053	6.45
2/19/97	5	x	21	0.045	19.2
5/28/97	5	6	21	0.04	13.7
10/8/97	5	6	22	0.042	19.45
2/18/98	5	6	22	0.061	2.7
5/13/98	5	6	21	0.068	7.95
9/10/98	5	6	21	0.060	6.7

Miller County: AC-32A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
12/13/95	6.31	4.5	20.3	0.053	33.7
2/20/96	6.21	5.8	19.8	0.059	4.85
5/29/96	5.55	6.1	20.2	0.068	6.2
2/26/97	5.5	x	20	0.074	5.7
10/1/97	6	7	22	0.061	10.7
2/25/98	6	7	21	0.060	3.95
5/20/98	5	7	21	0.067	8.45
9/10/98	5	7	21.5	0.068	2.15

Miller County: AC-34A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
12/1/93	7.48	x	18.3	x	22.2
1/5/94	7.52	8.5	19.3	x	14.1
3/2/94	7.81	10.1	19.2	x	8.1
4/19/94	x	7.3	21.2	x	0.4
9/27/95	7.61	x	22.1	0.178	26.3
2/6/96	7.75	6.0	20.7	0.202	8.0
3/5/96	7.58	6.1	21.3	0.170	4.9
5/13/96	7.58	8.0	21.3	0.158	5.7
10/16/96	7.63	7.6	21.1	0.206	5.3
2/19/97	7.5	x	20	0.207	6.75
5/21/97	7	8	21	0.21	9
10/15/97	6	8	22	0.210	22.25
2/25/98	6	8	20	0.211	3.25
5/13/98	6	8	21	0.219	14.75
9/10/98	6	8	20	0.213	8.0

Miller County: AC-35B

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/28/93	7.75	8.4	19.1	x	42.3
12/7/93	8.88	x	18.4	x	37.8
2/24/94	7.47	6.5	19.5	x	21.4
4/19/94	6.88	6.2	21.1	x	12.0
9/13/95	7.44	5.0	22.3	0.278	38.8
2/7/96	7.41	5.7	20.6	0.238	24.4
3/5/96	7.52	5.2	21.2	0.214	18.8
5/13/96	7.46	6.2	21.3	0.208	18.5
2/26/97	7.5	x	19	0.224	22.25
5/21/97	7	6.0	21	0.22	25.95
10/15/97	7	7	22	0.214	36.2
4/2/98	7	7	20	0.216	11.7
8/27/98	7	7	22	0.213	37.7

Miller County: AC-36B (Deleted 1995)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
12/15/93	x	6.4	19.6	0.200	34.9

Miller County: AC-38A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/20/93	7.57	8.6	21.7	x	37.7
12/8/93	7.65	7.3	19.8	x	36.4
5/10/94	x	x	x	x	22.2
10/30/95	7.42	7.2	21.6	0.238	38.3
10/16/96	7.45	6.4	21.8	0.186	28.2
2/27/97	7.5	x	20	0.205	25.1
7/1/97	7	7	21	0.2	42.1
10/29/97	6	7	22	0.205	39.35
4/2/98	6	7	21	0.204	22.1
8/27/98	6	7	22	0.201	41.1

Miller County: AC-39A (Deleted 1996)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/19/93	6.15	x	22.6	x	33.6
12/8/93	7.75	4.8	20.2	x	32.2
2/23/94	6.93	4.8	20.4	x	19.9
4/20/94	x	5.9	21.6	x	16.5
10/30/95	7.42	7.2	21.6	0.238	38.3

Miller County: PW-4

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
2/4/98	5	5	13	0.261

Miller County: PW-5

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
2/4/98	6	7	18.3	0.264

Mitchell County: CP-30A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/18/93	x	8.7	22.5	x	33.1
12/2/93	7.83	x	19.4	x	34.6
2/22/94	7.26	6.8	20.3	x	35.6
4/5/94	7.50	7.6	20.6	0.225	35.0
5/4/94	x	9.8	21.0	x	24.1
9/12/95	7.47	5.4	26.0	0.218	33.3
2/8/96	7.47	6.4	20.3	0.200	36.4
2/29/96	7.45	6.2	19.7	0.242	35.2
5/6/96	7.44	7.0	20.8	0.247	29.2
9/10/96	7.47	x	20.9	0.240	35.98
10/22/96	7.54	6.9	20.5	0.243	35.45
2/20/97	7	x	20.0	0.24	24.5
11/5/97	7	6	21.5	0.248	38.25
5/20/98	6	6	21	0.255	24.0
9/23/98	5	6	22	0.253	36.0

Mitchell County: PW-6

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
2/12/98	6	7	20.4	0.224

Randolph County: CP-15A (Deleted 1995)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/13/93	x	11.5	19.1	x	20.9
12/2/93	5.56	x	19.3	x	22.2

Seminole County: CP-19C

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/28/93	7.70	8.9	20.3	x	44.5
4/20/94	x	5.8	22.9	x	25.9
9/27/95	7.55	x	21.4	0.255	43.2
2/15/96	7.41	6.0	20.6	0.286	42.8
6/4/96	7.53	5.2	21.2	0.283	39.9
1/22/97	7.5	5.9	20.2	x	40
5/14/97	7	7	21.5	0.279	31
10/22/97	7	6	22	0.347	42.6
3/18/98	6	5	20.2	0.298	15.3
9/16/98	6	6	22	0.347	42.6

Seminole County PW-3

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
1/27/98	5.5	0.279	20	0.279

Sumter County: LC-1C

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/2/93	x	9.5	17.1	x	14.7
12/8/93	8.19	7.0	18.2	x	7.1
2/2/94	x	7.5	18.0	x	1.3
8/16/95	7.41	4.4	21.8	0.192	12.4
8/29/95	6.93	4.5	21.5	0.225	18.5
10/15/96	7.57	5.9	20.4	0.217	4.5
1/15/97	7	x	17	0.183	0.8
4/3/97	7	7	19	0.226	3.8
4/7/98	7	7	19	0.227	3.3
8/26/98	7	7	22	0.221	1.6

Sumter County: LC-2A (Deleted 1995)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
9/29/93	7.11	x	x	x	59.6

Sumter County: LC-3A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/6/93	6.35	8.3	22.6	x	66.6
11/1/93	6.25	10.6	17.1	x	64.9
1/6/94	6.65	7.4	19.1	x	65.1
3/14/94	6.11	7.7	19.1	x	64.2
9/14/95	6.30	6.8	20.2	0.143	67.6
3/4/96	6.57	7.3	19.1	0.107	64.2
10/9/96	6.55	6.4	19.6	0.146	65.2
1/15/97	6.75	x	17	0.145	65.9
5/29/97	7	6	21	0.139	66.4
9/24/97	6	6	21	0.115	67.15
2/5/98	5	6	17.5	0.139	66.4
5/14/98	5	6	20	0.145	64.65
9/15/98	5	6	21.5	0.124	64.65

Sumter County: LC-5B

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/6/93	5.52	8.3	22.9	0.030	17.9
11/1/93	4.69	11.33	17	0.030	12.4
1/11/94	x	7.9	19.3	0.020	7.9
3/29/94	4.52	7.0	19.3	0.060	3.0
4/27/94	4.59	7.4	20.2	0.082	8.6
6/13/94	4.12	6.3	20.9	0.071	11.3
8/16/95	5.42	6.8	22.8	0.055	11.0
8/29/95	5.16	6.2	21.5	0.050	19.7
1/29/96	5.65	6.5	20.7	0.062	5.4
2/27/96	5.42	6.1	21.3	0.064	26.4
5/1/96	5.64	6.9	20.8	0.055	6.0
8/27/96	4.46	7.2	19.1	0.054	17.0
10/9/96	4.87	6.5	19	0.051	19.4
1/30/97	5	6.2	20.8	0.065	4.7
5/22/97	5	7	20	0.070	10.2
9/17/97	5	7	19	0.061	19.9
3/3/98	5	7	20.2	0.060	3.65
6/3/98	6	5	21	0.064	6.4
9/22/98	5	7	22	0.060	9.9

Sumter County: LC-7A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/11/93	x	4.7	18.6	x	24.8
11/3/93	7.32	4.8	18.3	x	16.7
2/22/94	7.70	3.7	18.6	x	5.4
3/15/94	7.73	2.5	20.8	x	4.5
4/11/94	x	x	x	x	5.6
5/9/94	7.19	x	x	x	7.2
6/21/94	7.09	2.6	20.3	x	6.7
8/30/95	7.54	3.7	23.3	0.219	20.2
1/23/96	7.43	3.4	20.0	0.225	10.1
5/6/96	7.54	3.3	22.5	0.232	7.1
8/26/96	7.15	5.5	22.0	0.224	18.8
10/28/96	7.54	3.6	21.4	0.229	19.65
5/8/97	7	5	19	0.234	9.3
6/18/98	6	4	21	0.239	11.8

Sumter County: LC-8A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
9/30/93	7.43	x	x	x	38.2
11/2/93	7.81	9.6	17.2	x	29.6
1/6/94	7.69	6.8	18.3	x	15.2
3/15/94	7.42	6.2	20.4	x	11.9
4/11/94	7.99	7.1	19.8	0.203	15.4
5/9/94	7.38	x	x	x	15.1
10/30/95	7.51	5.7	20.4	0.217	28.0
1/23/96	7.79	6.0	20.4	0.216	17.4
5/16/96	7.75	7.0	21.6	0.210	17.5
8/26/96	7.06	8.6	21.7	0.133	29.8
10/29/96	7.61	6.2	22.1	0.209	28.35
1/23/97	7.5	6	20.1	0.211	18.8
7/2/97	7	7	22	0.204	31.4
4/13/98	6	7	19	0.226	15.9

Sumter County: CP-26B

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/30/93	4.4	9.2	19.3	x	4.2
1/12/94	x	6.2	19.8	x	3.3
4/27/94	4.33	5.1	22.2	x	7.6
6/13/94	3.26	4.5	22.2	x	3.25
9/25/95	4.67	x	20.2	0.068	13.85
1/30/96	4.62	6.1	20.0	0.065	4.65
3/4/96	4.81	5.4	19.3	0.078	8.15
5/15/96	5.55	7.3	22.8	0.094	6.0
9/9/96	4.51	x	20.1	0.072	10.2
10/10/96	4.55	5.9	19.5	0.082	8.4
1/29/97	4.5	6	20	0.065	5
4/3/97	6	6	19	0.073	5.75
9/24/97	6	5	21	0.079	12.25
6/3/98	6	5	21	0.084	6.5

Sumter County: PW-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
1/15/98	6	7	16.3	0.295

Sumter County PW-2

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
1/15/98	6	6	18.7	0.084

Sumter County PW-7

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
2/19/98	6	2	19.1	0.271

Terrell County: CP-22A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/27/93	5.38	10.5	21.7	x	16
10/12/95	5.75	6.5	19.5	0.026	17.5
2/14/96	5.77	7.2	19.5	0.034	5.5
5/22/96	5.92	7.0	25.7	0.044	4.0
9/11/96	6.02	x	20	0.035	14.2
10/23/96	6.06	6.4	19.7	0.038	11.3
2/27/97	6	x	19	0.045	4.75
5/15/97	6	7	20.5	0.043	9.5
10/23/97	6	7	22	0.041	14.75

Terrell County: CP-23B

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/13/93	x	9.34	20.0	x	32.2
12/13/95	5.23	5.7	19.1	0.020	28.2
2/14/96	5.64	7.2	19.4	0.023	23.1
3/13/96	5.68	5.4	19.4	0.026	21.8
5/23/96	5.45	7.1	20.2	0.024	25.6
9/12/96	5.99	x	20.3	0.029	33.2
10/24/96	5.99	7.0	19.8	0.029	33.4
1/30/97	6	7	20	0.03	27.2
4/3/97	6	7	20	0.028	25.6
10/16/97	6	7	22	0.036	35.65
3/5/98	6	7	19	0.030	23.65
6/18/98	6	7	21	0.031	46.4

Tift County: 10-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
1/9/96	4.56	x	18.6	0.230	5.9
4/17/96	4.91	8.2	16.9	0.181	3.5
6/13/96	4.17	7.9	18.5	0.183	5.2
9/25/96	4.44	6.8	21.6	0.216	10.8
3/12/97	5	7	20	0.205	4.2
7/9/97	5	7	22	0.151	5.5
1/21/98	5	7	20	0.149	3.0
5/6/98	5	7	19	0.152	4.75

Tift County: 11-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
1/9/96	4.84	x	19.4	0.108	2.6
4/9/96	5.36	5.4	21.8	0.121	1.8
6/17/96	4.15	6.8	19.0	0.119	3.2
3/12/97	4.5	6	19	0.104	2.2
7/23/97	5	6	23	0.112	7.9
1/21/98	5	6	20	0.109	2.15
4/14/98	5	6	19	0.103	3.15
6/4/98	5	6	21	0.105	6.9
9/30/98	5	6	22	0.119	0.4

Tift County: 13-2

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
1/17/96	4.54	6.6	18.4	0.161	4.8
3/26/96	4.64	6.5	16.9	0.163	0.8
6/17/96	3.88	6.1	20.6	0.187	4.5
9/25/96	4.22	5.3	23.6	0.153	3.8
11/4/96	4.59	6.3	23.4	0.133	3.8
3/20/97	4.5	7	18	0.17	1
8/21/97	5	6	23	0.188	3.3
12/31/97	7	7	18	0.209	0.55
4/15/98	5	5	18	0.174	1.55
8/12/98	5	6	22.5	0.178	4.3

Turner County: 8-1 (Deleted 1997)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
2/22/96	4.68	7.2	18.5	0.051	9.2
4/8/96	4.03	6.6	18.0	0.063	6.1
6/12/96	3.95	7.3	19.3	0.063	9.6
3/4/97	4.5	7	21	0.082	6.3

Turner County: 9-1 (Deleted 1996)

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
2/22/96	5.14	2.7	20.3	0.053	11.15

Turner County: 15-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
1/10/96	5.43	5.7	19.8	0.043	14.2
4/24/96	5.15	6.2	22.4	0.026	13.8
6/18/96	4.61	7.6	20.3	0.045	15.2
3/26/97	5	6	21	0.045	12.3

Turner County: 16-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
4/3/96	4.64	8.9	19.4	0.154	9.1
6/12/96	3.86	8.2	19.6	0.154	14.3
12/30/96	4.5	x	x	x	12.1
4/23/97	4.5	8	20	0.162	14.2
8/14/97	5	8	22	0.182	18.2
11/14/97	5	x	x	x	4.0
4/22/98	5	7	19	0.193	9.5
7/29/98	5	7	21	0.195	16.75

Turner County: 18-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
2/21/96	3.80	8.5	14.1	0.142	2.5
4/8/96	5.13	4.9	19.2	0.186	0.9
6/26/96	3.86	6.2	22.2	0.197	4.3
3/27/97	5	7	19	0.178	2.3
8/27/97	5	6	22	0.182	7.6
12/3/97	5	6	19	0.184	0.8
4/22/98	5	6	19	0.201	18.3
7/29/98	5	6	20	0.202	5.55

Turner County: 20-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/18/95	4.74	6.4	20.4	0.082	23.3
3/27/97	5	7	20	0.075	17.8
7/10/97	5	7	22	0.095	20.3
1/8/98	5	7	20	0.079	17.55
4/23/98	5	7	19	0.108	17.8
8/12/98	5	7	21	0.101	21.3

Worth County: CP-27A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/11/93	x	9.5	20.3	x	10.9
11/3/93	7.53	9.3	20.4	x	7.4
2/22/94	7.00	8.8	19.7	x	5.5
4/28/94	6.29	7.8	20.3	x	4.5
6/14/94	6.67	6.8	20.4	x	7.3
8/30/95	7.18	6.8	24.3	0.210	12.0
1/30/96	7.11	6.7	21.4	0.202	7.6
2/27/96	6.99	6.8	22.2	0.207	7.3
5/6/96	6.57	6.8	23.3	0.201	7.5
9/4/96	7.3	6.6	21.3	0.173	10.3
9/18/96	6.56	6.2	21.1	0.178	10.4
10/29/96	7.2	6.9	22.8	0.220	9.0
2/12/97	7	x	x	x	9.5
10/30/97	6	7	21	0.235	9.5
5/21/98	5.5	4	21	0.222	7.55

Worth County: 1-2

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
10/16/95	5.91	1.6	23.6	0.070	10.4
3/25/96	4.91	8.4	16.0	0.120	2.7
6/5/96	3.93	7.4	22.0	0.127	4.8
3/4/97	5	8	18	0.122	2.5
7/9/97	5	7	22	0.123	6
11/24/97	5	7	21	0.121	2.5
2/12/98	7	7	19	0.123	2.5
4/29/98	7	7	19	0.127	5.5
7/30/98	7	7	22	0.128	6.75
10/1/98	7	7	21	0.123	2.05

Worth County: 2-3

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/29/95	5.34	x	21.3	0.101	9.6
4/22/96	5.32	7.1	18.4	0.111	8.5
9/24/96	5.5	6	20	0.118	13
3/19/97	5.5	6	20	0.118	11.8
11/24/97	5.5	6	22	0.120	9.05
4/14/98	6	6	18.5	0.129	9.8
9/24/98	6	6	22	0.133	9.8

Worth County: 4-1

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)	Depth to ground water
11/29/95	4.52	x	21.6	0.128	12.5
3/25/96	4.67	7.9	16.8	0.122	5.4
6/5/96	3.94	7.0	19.8	0.166	5.8
9/24/96	4.3	6.4	22.7	0.156	12.4
3/4/97	4.5	7	19	0.155	3.4
8/7/97	5	7	22	0.162	8.2
1/28/98	5	7	18	0.161	2.2
5/6/98	4	5	19	0.183	8.95

Worth County: PW-8A

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
2/25/98	6	2	22.3	0.218

Worth County: PW-8B

Date Sampled	pH (std. units)	Dissolved Oxygen (ppm)	Temp. °C	Specific Conductance (μS)
5/7/98	6	2	23.3	0.282

Note: An "x" indicates the parameter was not measured due to equipment failure.

Quantity: 50
Cost: $81.00