Domestic Well Water Testing Project 2000

Lora Overacre

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ENVIRONMENTAL PROTECTION DIVISION
GEORGIA GEOLOGIC SURVEY

Atlanta
2001

PROJECT REPORT 42

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Atlanta
2001

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INTRODUCTION

The Pesticide Monitoring Network (PMN) is a joint project between the Georgia Department of Agriculture (GDA) and the Georgia Environmental Protection Division (EPD). The project was initiated in September of 1993 to sample National Ambient Water Quality Assessment (NAWQA) monitoring wells, installed by the U.S. Geological Survey (USGS), in the Apalachicola-Chattahoochee-Flint River Basins for the purpose of providing baseline data to the GDA and EPD for the State Pesticide Management Plan. Past, present, and future well sampling provides information on the susceptibility of the aquifer(s) to non-point source pollution from agricultural practice, and permits evaluation of the impact of normal use and handling of pesticides on ground water at or near the site of application.

From 1993 through 1999, EPD sampled NAWQA monitoring wells in southwest Georgia. In addition to these monitoring wells, a small number of private drinking water wells and shallow irrigation wells within the Dougherty Plain were added to the PMN in 1998 and 1999, respectively. In April of 1999, EPD discontinued sampling the monitoring and private wells and concentrated only on irrigation wells. Irrigation well sampling concluded in April 2000, and results through August 1999 are available in PMN 1998-1999 Project Report 40. Remaining irrigation well sampling results will be reported in PMN 1999-2000 Project Report 43.

In May 2000, with the approval of GDA, EPD began sampling private drinking water wells, and the project was re-named the "Domestic Well Water Testing Project." For sampling purposes, the state was divided into five regions as shown in Figure 1. For the first few months, sampling efforts were concentrated in the 15-county Dougherty Plain area of the Southwest Georgia region (Figure 1). As of December 2000, EPD had initiated sampling in both the Southwest and Southeast Georgia regions. In approximately four to five years EPD anticipates collecting well water samples statewide, with the exception of 13 coastal counties that draw water from the confined Floridan Aquifer (Figure 1). The planned sampling density is one water sample from each 10 square mile section of each county. The results of this project will be used by EPD as part of its long term monitoring of ground-water quality and by GDA for the continued development and implementation of the State Pesticide Management Plan.

SCOPE OF WORK

WELL SELECTION

In February and March of 2000, EPD published an article in the GDA Market Bulletin and in Southwest Georgia local papers to solicit volunteers for the Domestic Well Water Testing Project. The article requested well owners in Southwest Georgia that were interested in having their well water tested for atrazine, alachlor, metolachlor, and simazine send a written request to the Georgia Geologic Survey. The article was subsequently revised to solicit volunteers statewide, and was reprinted in the June, July, November and December 2000 Market Bulletins (Appendix A).

When a response from a well owner is received by EPD, applicable information is entered into a computer database. A unique identification number is assigned to the well owner, and the owner's location is plotted on a Department of Transportation county map. After the residence/wells are plotted, a 10 square mile grid is laid over the county map and, wherever possible, one well for every grid block is selected for sampling. The goal for samples per county EPD is trying to achieve for the project and the responses received through December 31, 2000 are presented in Appendix B. EPD will attempt to identify and sample one well within each 10 square mile section of each county, but it is possible that some portions of some counties will go un-sampled.

FIELD PROCEDURES

After a well has been volunteered and selected, an EPD representative contacts the well owner by telephone prior to visiting the site to schedule the sampling event. When visiting a domestic well site, EPD sampling personnel wear visible identification with a photograph. All sampling is performed outside, and the well owner's home is not entered. At each well site, the spigot closest to the well is used for sampling. Water temperature, conductivity and pH are measured with a Hanna HI 991310 multi-meter, and the sample is collected when the pH and temperature remain constant for three consecutive readings. Time and corresponding pH, conductivity, and temperature measurements, as well as the latitude and longitude coordinates determined by a Trimble

GeoExplorer II GPS receiver, are recorded for each well on a field data sheet (Appendix C).

For every well visited, a ground water sample is collected in a 150 milliliter (ml) high-density polyethylene (HDPE) bottle for EPD immunoassay analysis (See Laboratory Methods). When a subsequent re-sampling is required, to confirm an apparent detection of a pesticide, additional samples (one 125ml opaque Teflon bottle and three 1 liter amber glass bottles) are collected for GDA laboratory analysis. All sample bottles are tagged and labeled with the well identification number, time, date, and test method. The samples are individually packaged in zip lock bags and stored in a cooler with ice until transfer to the GDA sample- receiving refrigerator or to the EPD refrigerator. A chain of custody form (Appendix D) is completed for each GDA sample, and provided to the sample-receiving coordinator with the samples.

PRESERVATION

In addition to keeping the samples cold prior to performing the tests, some samples require chemical preservation as described in Table 1. The sampling staff adds the preservatives in at the well site according to the laboratory's established protocols.

Table 1

Sample Preservation

TEST METHOD	CONTAINER	SAMPLE VOLUME	PRESERVATION (in addition to cooling)	HOLDING TIME
RaPID Assay®	150ml HPDE	150ml	None	14 days
NPS* method 4	One liter glass amber bottle	One liter	None	28 days
EPA method 507 and method 508	One liter glass amber bottle	One liter (combined)	80mg sodium thiosulfate added to bottle prior to sampling	Method 507: 14 days Method 508: 7 days
EPA method 531.1	125ml opaque Teflon	60 ml	1.8ml monochloroacetic acid buffer and 5mg sodium sulfite added before sampling	28 days
EPA method 555	One liter glass amber bottle	One liter	Add 45mg sodium sulfite before sampling; after sampling add 1:1 HCl:reagent water to produce a pH of 2	14 days

*NPS= National Pesticide Survey

LABORATORY METHODS

After sample collection, all samples are refrigerated, and are analyzed within the specified holding time. EPD uses the RaPID Assay® immunoassay technique as an initial indicatior of the presence of pesticides alachlor, atrazine, simazine, and metolachlor. Four tests are completed for each immunoassay sample since each immunoassay test is specific for only one pesticide. To simplify sample management, part of each EPD sample is poured in to a 30ml amber glass bottle labeled with the sample date and well identification number prior to running the immunoassay tests. Water samples for each immunoassay pesticide test are obtained from this bottle. The remainder of the sample in the 150ml field collection bottle is kept refrigerated as a reserve, and is disposed of after all immunoassay tests for the sample are completed.

Detailed instructions for the RaPID Assay® test method are provided with each kit (Appendix E). A programmed OHMICRON® RPA-1 spectrophotometer reads 0.1, 1 and 5 parts per billion (ppb) standards supplied with each kit, and internally generates an absorbance vs. concentration curve. The absorbance and concentration have an inverse linear relationship such that a sample with high absorbance has low concentration. The absorbance of each sample is read with the spectrophotometer. The machine then plots the absorbance on the internally calculated curve to determine the sample's corresponding concentration in parts per billion (ppb). The spectrophotometer prints out a numbered list of samples with their absorbency and resulting concentration for each test. Each sample concentration greater than 0.1ppb is read twice with the spectrophotometer to confirm the initial reading. The immunoassay test method is sensitive to certain pesticides other than the one for which the test kit is designed. Because of the possibility of false-positive test results, the detections indicated by immunoassay are confirmed by re-sampling the well involved and providing the sample to the GDA laboratory for independent analysis. The immunoassay quantification limits and minimum method detection limits vary with each pesticide, but in all cases are significantly lower than the Georgia drinking water maximum contaminant levels (Table 2).

Table 2

Testing Limits of Immunoassay Pesticide Screening Method

PESTICIDE	MCL	MDL	LOQ(min)	LOQ (max)
Alachlor	2ppb	0.05 ppb	0.1ppb	5ppb
Atrazine	3ppb	0.046ppb	0.1ppb	5ppb
Metolachlor	Not determined	0.05ppb	0.1ppb	5ppb
Simazine	4ppb	0.03ppb	0.1ppb	3ppb

MCL=Maximum contaminant level
MDL= Method detection limits
LOQ=Limit of quantitation

Samples provided to GDA are analyzed in accordance with EPA methods 531.1 (urea derivative and carbamate pesticides), 555 (phenoxy acid herbicides), 507 (nitrogen- and phosphorous- containing pesticides), 508 (organochlorine pesticides) and National Pesticides Survey (NPS) method 4 (additional pesticides). EPA method 531.1 and NPS method 4 use high-pressure liquid chromatography to quantify concentrations of the analytes. Methods 555, 507, and 508 use gas chromatography to identify compounds and quantify concentrations. EPA method 507 is used to confirm any concentrations of alachlor, atrazine, metolachlor, or simazine in the samples. The method detection limits and limits of quantitation for EPA method 507 are significantly below the Georgia drinking water maximum contaminant levels (Table 3).

Table 3

Testing Limits of EPA Method 507

PESTICIDE	MCL	MDL	LOQ
Alachlor	2ppb	0.14 ppb	0.14ppb
Atrazine	3ppb	0.015ppb	0.1ppb
Metolachlor	Not determined	0.19ppb	0.19ppb
Simazine	4ppb	0.014ppb	0.1ppb

MCL=Maximum contaminant level
MDL= Method detection limits
LOQ=Limit of quantitation

EPA method 507 includes analysis for 42 pesticides and related chemicals in addition to the four pesticides evaluated in this project. EPA methods 508, 531.1, and 555 and NPS method 4 identify 71 additional pesticides and chemicals. The additional pesticides and chemicals analyzed by GDA are listed on example GDA analysis reports presented in Appendix F. As of December 31, 2000, none of the additional pesticides or related chemicals had been detected.

QUALITY CONTROL

There are internal EPD as well as external department quality control procedures. Internally at EPD, all immunoassay tests are performed in strict accordance with the manufacturer's instructions. The spectrophotometer serves as a quality control in that it will not process results of the immunoassay test if the correlation coefficient of the kit standards is below 0.99. In addition, the EPD analyst must assure that the coefficient of variation (%CV) must be less than 6% between the duplicate standards, and that the kit control sample falls within 20% of the concentration printed on the control bottle provided with each immunoassay kit. For each test run, the spectrophotometer prompts the analyst for a "blank" of wash solution to insure the machine is working properly. All immunoassay samples are analyzed within the EPA recommended 14-day holding time typically used for pesticides; otherwise, the well is re-sampled.

When an immunoassay test indicates the possible presence of any of the four pesticides, the well is re-sampled. Duplicate samples are collected and analyzed by EPD using the immunoassay method, and by the GDA laboratory using EPA method 507. The GDA laboratory analyses are conducted to verify pesticide detections indicated by the immunoassay test, thereby serving as a quality control.

For the GDA, one duplicate sample is taken for every eight samples collected. A field reagent blank (FRB) is prepared and analyzed alongside the collected samples for each of the GDA test methods. The FRB is a laboratory prepared blank of de-ionized water that is exposed to the same field conditions, preservatives, and refrigeration as all the samples collected in a specific field sampling trip (up to eight well locations).

All sample analyses are logged in a sample results notebook, and entered into a computerized spreadsheet.

RE-SAMPLE PROTOCOL AND REPORTING STATUS

With all immunoassay tests, there is a difference between the minimum limit at which the tests can detect a certain pesticide, and the concentration at which the pesticide can be accurately quantified (the limit of quantification or LOQ). For example, the spectrophotometer printout will list a concentration of alachlor as low as 0.05ppb (the MDL for alachlor). However, the immunoassay test kit manufacturer states that the spectrophotometer cannot accurately quantify alachlor at concentrations less than 0.1ppb (the LOQ for alachlor). For any given analysis for alachlor, if the concentration falls between 0.05 and 0.1ppb, neither the immunoassay test nor the EPA method 507 can definitely confirm the results. Therefore, for these results, EPD notifies the well owner that there is a possible trace of a pesticide. No further sampling is conducted since the concentration cannot be accurately quantified. In the case of a pesticide concentration above the immunoassay LOQ but below the method 507 MDL (alachlor and metolachlor only), EPD informs the well owner of a trace of the particular pesticide. No further sampling is conducted because the immunoassay method can not be validated by method 507.

When an immunoassay screening indicates a concentration greater than or equal to the EPA method 507 MDL for atrazine, alachlor, metolachlor, and/or simazine, re-sampling is conducted. A re-sampling event includes collecting the full array of GDA bottles, a second EPD sample for immunoassay re-testing, and completing a data sheet that includes more information about the condition of the well and land use of the area immediately surrounding the well (Appendix G).

In the vast majority of instances, no pesticides are detected and the well does not need to be re-sampled; the well owner is notified of the sampling results within 60 days of the initial visit. When an EPD representative must revisit the well for re-sampling, the well

owner is notified of the well's status after the immunoassay tests and the EPA method 507 tests have been completed.

If EPA method 507 confirms the presence of a particular pesticide below the drinking water MCL, the local county extension agent is informed as well as Dr. Mark Risse of the University of Georgia's Home/Farm *A* Syst program. The well owner is informed of the test results, and is advised to call the county agent and Dr. Risse for further consultation. At the well owner's request, a representative of the Home/Farm *A* Syst program will conduct a more thorough investigation of the well and the area surrounding the well to try to identify the possible source of the pesticide and to suggest corrective actions a well owner might take.

If EPA method 507 indicates a concentration of a pesticide greater than the drinking water MCL, EPD immediately calls the well owner and suggests the water not be used for drinking purposes. The owner is advised to call the local county extension agent and Dr. Risse. Subsequently, a letter with a copy of the results is mailed to the owner. EPD rules regulating drinking water quality apply to public water supplies and not to domestic wells.

RESULTS

EPD has sampled a total of 418 domestic wells (May 2000 through December 2000) as part of the Domestic Well Water Testing Project. Immunoassay tests were performed on all 418 wells. Sixty-nine wells (~17%) were scheduled for re-sampling due to immunoassay results greater than or equal to GDA limit of quantitation. Prior to December 31, 2000, 40 of the 69 wells were re-sampled; with the remaining wells to be sampled in early 2001.

As part of the re-sampling procedure, samples were obtained for GDA analysis and for a repeat immunoassay test. In addition to the aforementioned 40 re-samples submitted to the GDA, 33 wells were randomly selected at the time of the initial visit for GDA analysis (in addition to the standard immunoassay analysis). Of the 73 total samples (40 re-samples plus 33 random samples) analyzed by the GDA, only 4 (5.5%) confirmed pesticide detections. Two of the well samples had alachlor concentrations

higher than the MCL. One well sample had a confirmed alachlor concentration below the MCL. One well sample had a metolachlor concentration of 2.09ppb, however there is no MCL for this pesticide. All well owners are notified of the test results. All test results through December 31, 2000 are presented in Appendix H.

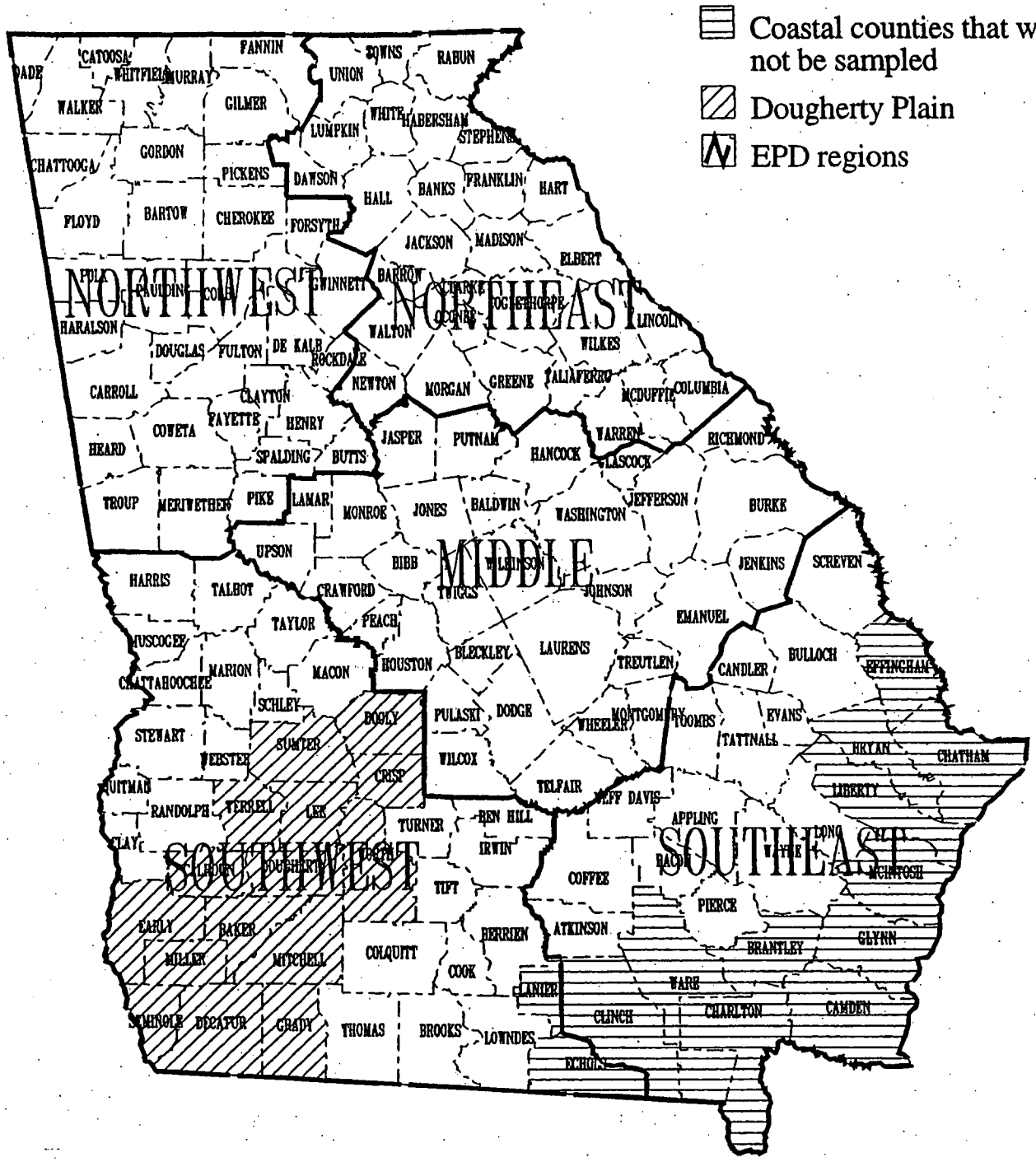


Figure 1: Sampling Regions

APPENDIX A: Market Bulletin Article

Free Well-Water Testing for Pesticides

VOLUNTEERS NEEDED STATEWIDE

The Georgia Geologic Survey has begun a statewide groundwater quality survey in cooperation with the Georgia Department of Agriculture. The Survey is currently sampling private wells in Southwest Georgia. Homeowners residing in all counties except the coastal counties of Effingham, Chatham, Bryan, Liberty, McIntosh, Glynn, Camden, Brantley, Charlton, Ware, Clinch, Echols and Lanier, which draw drinking water from a confined aquifer are eligible to have their drinking-water tested free of charge.

Samples will be collected from shallow domestic drinking water wells and analyzed for the commonly used pesticides alachlor, atrazine, metolachlor, and simazine. There has been little evidence suggesting that the normal application and use of these pesticides are harmful to ground water in Georgia, and the testing is expected to confirm this. In the case of any detection of pesticides, the Geologic Survey will revisit and resample the well to confirm the analysis. The UGA Cooperative Extension Service has agreed to conduct an on-site environmental assessment, if requested by a well owner. The well owner will receive notification of the results of the analysis within thirty days of sample collection.

Water samples will be collected during daytime hours, Monday through Friday. The test requires a Geologic Survey representative to have access to an outside spigot, run the water for approximately 15-20 minutes, and collect a water sample. It is not necessary for the well owner to be present for the sampling event.

Only a limited number of wells can be sampled, approximately 40 per county. Interested well owners should mail a written request for water analysis to: Free Well-Water Testing for Pesticides, Georgia Geologic Survey, 19 Martin Luther King, Jr. Drive, Room 400, Atlanta, GA 30334. Please respond as soon as possible and include the following information: your name, address, telephone number, county, well depth, and brief directions to your home. Selected participants will be notified prior to testing. If you have any questions, please call Lora Overacre or Sue Grunwald at 404-656-3214.

APPENDIX B: Goal and Received Responses

Project: "Domestic Water Well Testing"
Description: Number of Responses (R) Received Per County as of December 28, 2000

	R	G		R	G		R	G		R	G
Appling	11	51	Dade	0	17	Jefferson	15	53	Richmond	11	32
Atkinson	6	34	Dawson	7	21	Jenkins	4	35	Rockdale	11	13
Bacon	18	29	Decatur	46	60	Johnson	5	30	Schley	8	17
Baker	15	34	Dekalb	8	27	Jones	11	39	Screven	11	65
Baldwin	9	26	Dodge	12	50	Lamar	17	19	Seminole	13	24
Banks	5	23	Dooly	24	39	Lanier	9	19	Spalding	23	20
Barrow	16	16	Dougherty	26	33	Laurens	18	81	Stephens	2	18
Bartow	17	46	Douglas	15	20	Lee	31	36	Stewart	10	46
Ben Hill	13	25	Early	33	51	Liberty	0	52	Sumter	49	49
Berrien	23	45	Echols	0	40	Lincoln	2	21	Talbot	13	39
Bibb	9	25	Effingham	0	48	Long	3	40	Taliaferro	3	20
Bleckley	4	22	Elbert	14	37	Lowndes	21	50	Tattnall	7	48
Brantley	0	44	Emanuel	7	69	Lumpkin	8	28	Taylor	13	38
Brooks	24	49	Evans	3	19	Macon	11	40	Telfair	10	44
Bryan	0	44	Fannin	13	39	Madison	15	28	Terrell	11	34
Bulloch	17	68	Fayette	37	20	Marion	6	37	Thomas	15	55
Burke	15	83	Floyd	12	51	McDuffie	16	26	Tift	16	27
Butts	8	19	Forsyth	14	23	McIntosh	1	43	Toombs	8	37
Calhoun	11	28	Franklin	10	26	Meriwethe	16	50	Towns	1	17
Camden	0	63	Fulton	33	53	Miller	21	28	Treutlen	3	20
Candler	3	25	Gilmer	20	43	Mitchell	40	51	Troup	15	41
Carroll	21	50	Glascock	4	14	Monroe	6	40	Turner	8	29
Catoosa	3	16	Glynn	1	42	Montgome	3	25	Twiggs	11	36
Charlton	1	78	Gordon	19	36	Morgan	10	35	Union	4	32
Chatham	2	44	Grady	18	46	Murray	7	34	Upson	11	33
Chattahoo	0	25	Greene	5	39	Muscogee	7	22	Walker	4	45
Chattooga	8	31	Gwinnett	13	43	Newton	20	28	Walton	30	33
Cherokee	15	42	Habersha	7	28	Oconee	11	19	Ware	1	90
Clarke	6	12	Hall	13	39	Oglethorp	7	44	Warren	4	29
Clay	7	20	Hancock	2	47	Paulding	16	31	Washingto	7	68
Clayton	5	14	Haralson	3	28	Peach	21	15	Wayne	11	65
Clinch	2	81	Harris	16	46	Pickens	9	23	Webster	7	21
Cobb	17	34	Hart	13	23	Pierce	8	34	Wheeler	0	30
Coffee	23	60	Heard	3	30	Pike	13	22	White	9	24
Colquitt	26	55	Henry	39	32	Polk	5	31	Whitfield	6	29
Columbia	14	29	Houston	8	38	Pulaski	12	25	Wilcox	7	38
Cook	14	23	Irwin	22	36	Putnam	11	34	Wilkes	4	47
Coweta	19	44	Jackson	26	34	Quitman	4	15	Wilkinson	5	45
Crawford	13	33	Jasper	9	37	Rabun	3	37	Worth	28	57
Crisp	28	27	Jeff Davis	5	33	Randolph	15	43	Totals >	1876	5792
									NET Total	1859	5104

Numbers in "Goal (G)" columns represent the number of wells desired for each county. The goal value is based upon the assumption that one well per ten square miles of county land area will be sampled.

NET Total = Total – Coastal Counties R = Responses G = Goal

APPENDIX C: Field Data Sheet

FREE WELL WATER TESTING FOR PESTICIDES:
FIELD DATA SHEET

WELL ID _____

COUNTY _____

WELL OWNER _____

DATE _____

MEASUREMENTS BY _____

LATITUDE _____

LONGITUDE _____

Spigot location: _____

TIME	pH (std. units)	SPEC. COND. (mS)	TEMP. (degrees C)

The acidity (pH) of water is measured on a scale of 0 to 14. Values of pH less than 7.0 denote acidity and values greater than 7.0 indicate alkalinity. Corrosiveness of water generally increases with decreasing pH. However, excessively alkaline waters may also attack metals. A pH range between 6.0 and 8.5 generally is considered acceptable.

Specific conductivity is a measure of the ability of water to transmit an electric current an indirect measurement of the total dissolved solids content of the water. Water with a negligible total dissolved solids concentration will have a low specific conductivity. The specific conductivity of potable water normally ranges from 0.05 to 1.5mS.

Typical ambient temperatures of ground water used for drinking water supply in southern Georgia range from 18°C to 22°C.

APPENDIX D: Chain of Custody Form

Georgia Department of Agriculture
Atlanta Laboratory Building
19 Martin Luther King, Jr. Dr. SW
Atlanta, Georgia 30034

Thomas T. Irvin
Commissioner

Ground Water Sample Collection Report

Chain of Custody Record

Project _____

Well Name _____ Well ID _____

Sample Description (check one): Raw _____ Treated _____ Well _____ Stream _____ Spring _____
Other _____(describe) _____

Sampling Time _____ (24 hr) Sampling Date _____ (mm/dd/yy)

Collector Name _____ Agency _____

Field pH _____ (Std. Units)

Screen Requested (check all applicable):
EPA Mtd 507____EPA Mtd 508____EPA Mtd 531.1____EPA Mtd 555____NPS Mtd 4_____

Collection containers:
EPA Method 507 and 508-1000 ml (approx.) collected as one sample in one 1-liter amber glass bottle;
EPA Method 531.1-60 ml collected in one 125-ml Teflon bottle;
EPA Method 555-1000 ml (approx.) collected in one 1-liter amber glass bottle;
NPS Method 4-1000 ml (approx.) collected in one 1-liter amber glass bottle.

Sample additives:
EPA methods 507-508 . . . . **prior** to sampling, add 80 mg of sodium thiosulfate to container
EPA method 531.1. . . . . **prior** to sampling, add 5.0 mg of sodium thiosulfate plus1.8 ml of monochloroacetic acid buffer to container for each 60 ml of sample collected;
EPA method 555. . . . . **prior** to sampling, add 45 mg of sodium sulfite to container; after sampling add 1:1 HCl:reagent water to each sample to produce pH 2
NPS method 4. . . . . no additives

Transfer Section:
Condition of samples (i.e., broken bottle, leakers) _____
Comments: _____

Laboratory Section:
Date received: ___/___/___ Time: _____ (circle) a.m./p.m. Sample Custodian _____

Laboratory Numbers:		
	EPA Method 507	GW-_____-_____
	EPA Method 508	GW-_____-_____
	EPA Method 531.1	GW-_____-_____
	EPA Method 555	GW-_____-_____
	NPS Method 4	GW-_____-_____

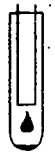
Comments: _____

ATRAZINE FLOWCHART

1

Remove upper rack from magnetic base.

Label test tubes for Standards, Control, and Samples.



Tube #	Content
1, 2	Diluent/Zero Standard, 0 ppb
3, 4	Standard 1 .1 ppb
5, 6	Standard 2 1 ppb
7, 8	Standard 3 5 ppb
9	Control
10	Sample 1
11	Sample 2

Add 200 µL of either Standards, Control or Samples to the **bottom** of each test tube by inserting the pipet tip all the way into the tube without touching the sides or the bottom of the tube.

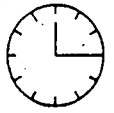
2

Add 250 µLof Atrazine Enzyme Conjugate down the inside wall of each tube by aiming the pipet tip 1/4" to 1/2" below the tube rim without touching the rim or tube wall with the pipet tip; deliver liquid gently.

3

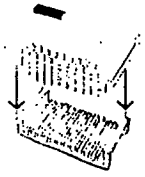
Add 500 µL of **thoroughly** mixed Atrazine Antibody Coupled Magnetic Particles down the inside wall of each tube by using the technique described in Box 2. *Vortex* for 1 to 2 seconds (at low speed to minimize foaming).

4



Incubate 15 minutes at room temperature (15°-30°C).

5

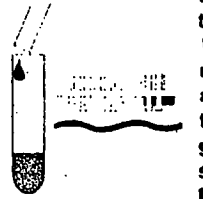


Combine the upper rack with the magnetic base; **press all tubes into base;** allow 2 minutes for the particles to separate.

6

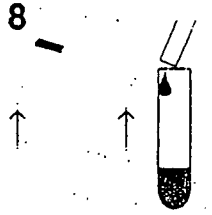
Do not separate upper rack from lower base. Using a smooth motion, *invert* the combined rack assembly over a sink and pour out the tube contents; keep inverted and gently blot the test tube rims on several layers of paper toweling.

7



Add 1 mL of Washing Solution down the inside wall of each tube by using the technique described in Box 2. *Wait 2 minutes.* Using a smooth motion, invert the combined rack assembly over a sink and pour out the tube contents: keep inverted and **gently** blot the test tube rims on several layers of paper toweling. **Repeat this step.**

8



Lift the upper rack (with its tubes) off the magnetic base; *add* 500 µLof Color Reagent down the inside wall of each tube by using the technique described in Box 2. *Vortex* for 1 to 2 seconds (at low speed to minimize foaming).

9

Incubate for 20 minutes at room temperature (15°- 30° C). During this period, add 1 mL of Washing Solution into a clean tube for use as an instrument blank in Step 10.

10

Add 500 µL of Stopping Solution down the inside wall of each tube by using the technique described in Box 2. (For 100 test kits see the package insert for Stopping Solution preparation.) **Safety Caution:** This solution is 2M sulfuric acid. *Read* results at 450 nm within 15 minutes after adding the Stopping Solution.

For Ordering or Technical Assistance Contact:
Ohmicron Environmental Diagnostics, Inc.

Atrazine Rapid Assay Kit Part # A00002 30 Tests
A00071 100 Tests

APPENDIX F: Example GDA Analysis Reports

Department of Agriculture
Chemical Laboratories Division – Ground Water Laboratory
Agriculture Building, Room 610
Atlanta, Georgia 30334
Phone: (404) 656-3716
Fax: (404) 463-6670

Thomas T. Irvin
Commissioner

Report of Analysis

Date Received: 01/26/01

Well Name/Well ID: Fox/321-04

Laboratory Number: GW-01-0395

Date Extracted: 01/30/01

Extraction Method: EPA Method 555 Analytical Sample Size (mL): 150

Final Extract Concentration (g sample/mL): 150

Injection Volume (µL): 100

Analyte	Storet #	MDL (ppb)	Concentration (ppb)	Analyte	Storet #	MDL (ppb)	Concentration (ppb)
2, 4-D	39730	1.3	ND	Dicamba, 5-hydroxy-		2.2	ND
2, 4-DB	38746	1.9	ND	Dichlorprop	38451	1.7	ND
2, 4, 5-TP	39760	1.8	ND	Dinoseb	38779	1.5	ND
2, 4, 5-T		1.3	ND	MCPA		0.8	ND
3, 5 Dichlorobenzoic Acid		2.1	ND	MCPP		1.7	ND
Acifluorfen		1.7	ND	4-Nitrophenol		1.2	ND
Bentazon	38711	4.6	ND	Pentachlorophenol		1.6	ND
Chloramben		3.1	ND	Picloram	39720	0.5	ND
Dicamba	38442	2.1	ND				

ND = None Detected

RML/MPL
Analysts

2-7-01
Date Reported

Tunde Nuga
Laboratory Manager

Department of Agriculture
Chemical Laboratories Division – Ground Water Laboratory
Agriculture Building, Room 610
Atlanta, Georgia 30334
Phone: (404) 656-3716
Fax: (404) 463-6670

Tommas T. Irvin
Commissioner

Report of Analysis

Date Received: 01/26/01

Well Name/Well ID: Fox/321-04

Laboratory Number: GW-01-0396

Date Extracted: 01/31/01

Extraction Method: NPS Method #4

Analytical Sample Size (mL): 964

Final Extract Concentration (g sample/mL): 193

Injection Volume (µL): 50

Analyte	Storet #	MDL (ppb)	Concentration (ppb)	Analyte	Storet #	MDL (ppb)	Concentration (ppb)
Atrazine, dealkylated	75981	0.25	ND	Metribuzin DA	81408	0.21	ND
Barban	38418	0.50	ND	Metribuzin DADK	81408	2.5	ND
Carbofuran, phenol	81450	1.8	ND	Metribuzin DK	81408	0.10	ND
Cyanazine	81757	0.58	ND	Neburon	38521	0.15	ND
Diuron	39650	0.070	ND	Pronamide metabolites	39080	0.81	ND
Fenamiphos sulfone		5.7	ND	Propanil		0.067	ND
Fenamiphos sulfoxide		1.0	ND	Propham		0.75	ND
Fluometuron	38810	0.10	ND	Swep	38554	0.75	ND
3-ketocarbofuran phenol		0.25	ND				
Linuron	38477	0.25	ND				

ND = None Detected

RMC/mpc
Analysts

2-7-01
Date Reported

Tunde Nuga
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Thomas T. Irvin
Commissioner

Report of Analysis

Date Received: 01/26/01

Well Name/Well ID: Fox/321-04

Laboratory Number: GW-01-0393

Date Extracted: 01/29/01

Extraction Method: **EPA Method 508** Analytical Sample Size (mL): 959

Final Extract Concentration (g sample/mL): 192

Injection Volume (µL): 3

Analyte	Storet #	MDL (ppb)	Concentration (ppb)	Analyte	Storet #	MDL (ppb)	Concentration (ppb)
4,4-DDD		0.0044	ND	Heptachlor	39410	0.0015	ND
4,4-DDE		0.0025	ND	Heptachlor epoxide	39420	0.0059	ND
4,4-DDT		0.039	ND	Hexachlorobenzene	39700	0.0077	ND
Aldrin	39330	0.014	ND	Methoxychlor	39480	0.022	ND
Chlorobenzilate	39460	2.2	ND	Propachlor	38533	0.25	ND
Chloroneb	38423	0.25	ND	Trifluralin	81284	0.0026	ND
Chlorothalonil		0.011	ND	alpha-HCH		0.0053	ND
DCPA	39770	0.0032	ND	beta-HCH		0.0036	ND
Dieldrin	39380	0.011	ND	delta-HCH		0.0020	ND
Endosulfan I	34361	0.0092	ND	gamma-HCH	39782	0.0060	ND
Endosulfan II	34356	0.024	ND	alpha-chlordane	39348	0.0041	ND
Endosulfan sulfate	82623	0.0024	ND	gamma-chlordane	39810	0.0016	ND
Endrin	39390	0.0062	ND	cis-Permethrin		0.25	ND
Endrin aldehyde	82622	0.011	ND	trans-Permethrin	82420	0.18	ND
Etridiazole	38793	0.013	ND				

ND = None Detected

RML/MPL
Analysts

2-7-01
Date Reported

Tunde Nuga
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Thomas T. Irvin
Commissioner

Report of Analysis

Date Received: 01/26/01

Well Name/Well ID: Fox/321-04

Laboratory Number: GW-01-0394

Date Extracted: 01/29/01

Extraction Method: **EPA Method 531.1** Analytical Sample Size (mL): 50

Final Extract Concentration (g sample/mL): 1

Injection Volume (µL): 400

Analyte	Storet #	MDL (ppb)	Concentration (ppb)
Aldicarb	39053	0.22	ND
Aldicarb sulfone	04257	1.0	ND
Aldicarb sulfoxide	04260	0.59	ND
Aprocarb		1.0	ND
Carbaryl	77700	1.3	ND
Carbofuran	81450	0.52	ND
3- Hydroxycarbofuran	82584	1.9	ND
Methiocarb	38500	1.9	ND
Methomyl	39051	0.29	ND
Oxamyl	38866	0.86	ND

ND = None Detected

RM/mpc
Analysts

2-7-01
Date Reported

Tunde Nuga
Laboratory Manager

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Thomas T. Irvin
Commissioner

Report of Analysis

Date Received: 01/26/01

Well Name/Well ID: Fox/321-04

Laboratory Number: GW-01-0392

Date Extracted: 01/29/01

Extraction Method: EPA Method 507 Analytical Sample Size (mL): 959

Final Extract Concentration (g sample/mL): 192

Injection Volume (µL): 3

Analyte	Storet #	MDL (ppb)	Concentration (ppb)	Analyte	Storet #	MDL (ppb)	Concentration (ppb)
Alachlor	77825	0.14	ND	Merphos	38496	0.040	ND
Ametryn	38401	0.20	ND	Methyl paraoxon	30009	0.30	ND
Atraton	38414	0.17	ND	Metolachlor	38923	0.19	ND
Atrazine	39033	0.015	ND	Metribuzin	81408	0.029	ND
Bromacil	82198	0.69	ND	Mevinphos	39610	0.87	ND
Butachlor	77860	0.12	ND	Molinate	49562	0.061	ND
Butylate	81410	0.033	ND	Napropamide	79195	0.069	ND
Carboxin	70978	0.18	ND	Norflurazon	78064	0.098	ND
Chlorpropham	82322	0.20	ND	Pebulate	79192	0.022	ND
Cycloate	04031	0.022	ND	Prometon	39056	0.041	ND
Diazinon	39750	0.13	ND	Prometryn	04036	0.024	ND
Dichlorvos (DDVP)	38775	0.28	ND	Pronamide	39080	0.28	ND
Diphenamid	30255	0.082	ND	Propazine	38535	0.014	ND
Disulfoton	39010	0.029	ND	Simazine	39055	0.014	ND
Disulfoton sulfone	81031	0.63	ND	Simetryn	39054	0.035	ND
Disulfoton sulfoxide	81888	0.082	ND	Stirofos	38877	0.18	ND
EPTC	81894	0.080	ND	Tebuthiuron	45607	0.58	ND
Ethoprop	81758	0.021	ND	Terbacil	38883	0.56	ND
Fenamiphos	38929	0.12	ND	Terbufos	82088	0.054	ND
Fenarimol	04101	0.20	ND	Terbutryn	38888	0.031	ND
Fluridone		2.8	ND	Triademefon	38893	0.093	ND
Hexazinone	30264	0.15	ND	Tricyclazole	38903	0.21	ND
MGK 264	4098	0.19	ND	Vernolate	82200	0.055	ND

ND = None Detected

RML/MRL
Analysts

2-7-01
Date Reported

Tunde Nuga
Laboratory Manager

APPENDIX G: Re-sample Data Sheet

DOMESTIC WELL WATER TESTING FOR PESTICIDES
RE-SAMPLE DATA

WELL ID #: _____ DATE: _____

COUNTY: _____ OBSERVER: _____

WELL OWNER: _____

ADDRESS: _____

_____

				RE-SAMPLE LABORATORY RESULTS			
TIME	DEPTH	pH	TEMP (C)	Alachlor (ppb)	Atrazine (ppb)	Metola-chlor (ppb)	Simazine (ppb)

COMMENTS: _____

_____

WELL HEAD CONDITION AND LAND USE INVENTORY

LOCATION OF SPIGOT	DIST. FROM WELL

CONDITION OF WELL:

	PRESENT	DAMAGED	ABSENT	Comments
Cement Pad				
Well House				

LANDSCAPE SURROUNDING WELL:

						Comments
	Grass		Ditch		Cultivated Field	
	Dirt		Stream		Garden	
	Trees		Pond			

LAND USE WITHIN 50 METERS OF WELL:

						Comments
	Pesticide Mix/Stg.		Crop Farming		V. Parking	
	Waste Disposal		Animal Enclosures			
	Machinery		Irrigation			
	Debris		Industry			

APPENDIX H: Results Charts

Legend for results charts

SYMBOL	DEFINED
AL	Alachlor
AT	Atrazine
ME	Metolachlor
SI	Simazine
nd, #.##nd	Any results with an "nd" indicates a "non-detect"
no	When "no" appears in the results column, it denotes that specific test was not performed on that sample

All concentrations are in parts per billion.

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY AL	AT	ME	BI	507	531.1	508	555	4
Appling	001-02	314403.73	822058.12	18	12/15/00	nd	nd	nd	nd					
Appling	001-03	314735.74	822852.61		12/15/00	nd	0.00nd	0.02nd	nd					
Appling	001-04	313301.24	821025.80	23	12/15/00	nd	0.00nd	0.02nd	nd					
Appling	001-05	314831.14	822648.50		12/21/00	0.03nd	0.04nd	0.08	nd					
Appling	001-06	315320.47	822443.70		12/15/00	0.00nd	0.02nd	0.01nd	0.01nd					
Appling	001-07	314329.00	823044.88	30	12/21/00	0.05nd	0.04nd	0.06	nd					
Appling	001-08	314736.90	821746.17	568	12/15/00	nd	0.02nd	0.01nd	nd					
Appling	001-09	313752.82	821607.72	30	11/30/00	0.00nd	0.16	0.03nd	0.03nd					
Appling	001-10	312840.33	820851.22		11/30/00	nd	0.00nd	nd	nd					
Bacon	005-01	313352.71	822555.20	20	10/27/00	0.00nd	nd	0.05nd	0.01nd					
Bacon	005-02	312824.57	822652.99	40	10/27/00	0.00nd	nd	0.06	nd					
Bacon	005-03	313019.10	823027.38	30	10/27/00	nd	nd	0.05	nd					
Bacon	005-04	312941.32	821919.50	32	10/19/00	3.18	nd	0.11	0.01nd	AL:1.5	0	0	0	0
Bacon	005-08	313111.90	822625.67	24	10/27/00	0.00nd	nd	nd	nd					
Bacon	005-11A	313349.61	823041.58	100	11/29/00	2.75	nd	1.67	nd	AL: 6.2	0	0	0	0
Bacon	005-11B	313349.35	823041.63	480	12/15/00	nd	no	no	no	0	no	0	no	no
Bacon	005-12	312911.72	822032.46		10/19/00	0.01nd	nd	nd	nd					
Bacon	005-13	312653.92	822314.37	700	10/27/00	nd	nd	nd	nd					
Bacon	005-15	313920.04	822721.14	35	12/20/00	0.01nd	0.02nd	0.02nd	nd					
Bacon	005-16	313121.14	822656.94	22	12/21/00	nd	0.06	nd	nd					
Bacon	005-18	313635.46	823450.80		11/29/00	nd	0.04nd	nd	nd					
Baker	007-02	312346.00	842711.00	40-80	8/2/00	0.00nd	nd	nd	nd					
Baker	007-03	312124.77	842902.05		11/1/00	0.01nd	0.06	0.14	nd					
Baker	007-04	311627.06	842514.95	100	8/2/00	0.00nd	0.04nd	0.00nd	nd					
Baker	007-05	312557.00	843000.00	110	8/2/00	nd	nd	0.00nd	nd					
Baker	007-06	311309.35	843059.31		8/2/00	0.00nd	0.04nd	0.01nd	nd					
Baker	007-08	311827.06	842419.08	22	8/29/00	nd	0.08	nd	nd					
Baker	007-09	312258.71	843240.57	<100	8/2/00	0.00nd	0.04nd	0.02nd	0.00nd					
Baker	007-10	312221.00	842008.00		8/2/00	0.00	0.00	0.00	0.00					
Baker	007-11A	312432.88	843629.88	150	8/29/00	nd	0.04nd	nd	nd					
Baker	007-11B	312432.88	843629.88	36	8/29/00	0.04nd	0.03nd	nd	nd					
Baker	007-12	312307.97	843715.31		8/21/00	1.05	0.19	1.95	0.04	0.00	0.00	0.00	0.00	0.00
Baker	007-15	311828.94	843600.02	100	8/29/00	nd	0.02nd	0.01nd	nd					
Baker	007-16	312109.65	841519.94		11/1/00	nd	0.02nd	0.01nd	nd					
Baker	007-17	312336.80	841245.42		11/1/00	0.01nd	0.02nd	0.12	nd					
Baker	007-19	312413.17	841658.97	100	11/1/00	0.07	0.10	nd	nd					
Baker	007-20	312156.49	842346.41		11/1/00	0.06	0.19	nd	nd					
Baker	007-22	311703.03	843341.30		11/1/00	0.00nd	0.07	0.01nd	nd					
Ben Hill	017-01	314048.25	831046.24	400	10/11/00	nd	nd	nd	nd					
Ben Hill	017-02	314641.11	831237.74	>130	10/11/00	nd	nd	0.01nd	nd					
Ben Hill	017-03	314348.40	831152.14	345	10/11/00	0.00nd	nd	0.01nd	nd					
Ben Hill	017-04	314245.32	830746.44	300	10/11/00	0.00nd	nd	0.02nd	nd					
Ben Hill	017-07	314427.64	831928.74	325	10/11/00	nd	nd	nd	nd					
Ben Hill	017-09	314631.02	832011.92	200	10/11/00	0.00nd	nd	0.02nd	nd					
Berrien	019-01	310345.14	831601.43		9/28/00	0.05	0.01nd	0.13	nd					
Berrien	019-02	311631.92	831042.77	227	9/28/00	0.00nd	nd	0.04nd	0.00nd					
Berrien	019-03	312626.30	831208.48		9/28/00	0.01nd	nd	nd	nd					
Berrien	019-04	312609.07	830948.12		9/28/00	0.01nd	0.00nd	nd	nd					
Berrien	019-06	311326.57	831422.04	270	9/28/00	0.06	0.00nd	nd	nd					
Berrien	019-07A	311459.36	831609.07		9/28/00	0.01nd	nd	nd	nd					
Berrien	019-07B	311500.34	831607.40		9/28/00	0.01nd	nd	nd	0.01nd					
Berrien	019-09A	311553.25	831255.50	56	9/28/00	0.00nd	0.00nd	nd	0.00nd					
Berrien	019-09B	311550.62	831255.55	54	9/28/00	0.00nd	nd	nd	0.00nd					
Berrien	019-12	312722.93	831833.73	160	9/28/00	0.00nd	0.00nd	nd	nd					
Berrien	019-13	311950.52	831855.80		10/20/00	0.00nd	nd	nd	nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY				507	531.1	508	555	4
						AL	AT	ME	SI					
Berrien	019-14	312713.12	832021.66	150	11/1/00	0.02nd	0.14	0.01nd	nd					
Berrien	019-15	312812.49	831105.40	250	11/1/00	0.01nd	0.12	0.03nd	nd					
Berrien	019-16	310510.06	831219.47	>100	11/1/00	0.04nd	0.04nd	0.03nd	nd					
Berrien	019-18	312006.88	830848.29		11/1/00	0.02nd	0.15	nd	nd					
Berrien	019-19	311618.80	830705.57		11/1/00	nd	nd	nd	0.08					
Brooks	027-01	305138.32	833449.31		9/21/00	0.02nd	nd	0.05nd	nd					
Brooks	027-02	304530.44	833203.50		9/21/00	0.01nd	nd	0.03nd	nd					
Brooks	027-03	305517.55	833429.13	210	9/21/00	0.03nd	nd	0.00nd	nd					
Brooks	027-04	305720.09	833431.66		9/21/00	0.09	nd	0.01nd	nd					
Brooks	027-05	304826.95	834131.53	180	9/21/00	0.01nd	nd	nd	0.00nd					
Brooks	027-06	305332.22	834104.91	<100	9/21/00	0.03nd	nd	0.01nd	nd					
Brooks	027-07	305535.38	834226.08		9/21/00	0.05nd	nd	0.02nd	nd					
Brooks	027-08	304531.52	833821.00	365-375	9/21/00	0.02nd	nd	0.01nd	nd					
Brooks	027-09	304256.69	833218.41		9/21/00	0.02nd	nd	nd	nd					
Brooks	027-10	305948.50	833247.58	325	12/6/00	nd	0.08	0.07	nd					
Brooks	027-11	305817.74	832821.13	155	12/6/00	0.00nd	0.09	nd	nd					
Brooks	027-13	304821.64	833035.26	180	12/19/00	0.02nd	nd	0.02nd	N/A	0.00	0.00	0.00	0.00	0.00
Brooks	027-14	305442.62	833211.88		12/18/00	0.09	0.01nd	0.04nd	N/A	0.00	0.00	0.00	0.00	0.00
Brooks	027-15	304849.70	833518.74	180-240	12/18/00	0.00nd	0.01nd	0.00nd	N/A	0.00	0.00	0.00	0.00	0.00
Brooks	027-17	304755.67	832833.10	275	12/19/00	0.03nd	0.03nd	0.05nd	N/A	0.00	0.00	0.00	0.00	0.00
Brooks	027-18	303850.09	832429.80		12/7/00	nd	0.02nd	0.02nd	nd					
Brooks	027-20	304026.40	833213.54		12/19/00	0.00nd	0.00nd	nd	N/A	0.00	0.00	0.00	0.00	0.00
Calhoun	037-01	313311.00	843634.60	<100	7/13/00	0.00nd	nd	0.01nd	nd					
Calhoun	037-03	312929.20	843130.60	285	7/7/00	0.00nd	0.00nd	nd	0.00nd	no	0.00	no	0.00	0.00
Calhoun	037-04	313526.80	844821.30	196	7/7/00	0.00nd	nd	nd	nd	no	0.00	no	0.00	0.00
Calhoun	037-06	312805.00	843607.40		7/13/00	nd	0.00nd	0.00nd	0.00nd					
Calhoun	037-08	313805.60	843356.50	120	7/13/00	nd	nd	nd	nd					
Calhoun	037-09	313302.10	844420.00		7/7/00	nd	nd	nd	nd	no	0.00	no	no	0.00
Clay	061-01	314449.88	850553.99	160	10/5/00	0.00nd	0.00nd	nd	nd					
Clay	061-02	314226.32	850529.64	>100	10/5/00	0.00nd	0.02nd	0.00nd	nd					
Clay	061-03	313949.11	850257.11		10/5/00	0.01nd	0.01nd	nd	nd					
Clay	061-04	314628.90	850648.65	150	10/5/00	0.01nd	nd	nd	nd					
Clay	061-05	314429.53	850327.87		10/5/00	0.01nd	0.00nd	nd	nd					
Clay	061-06	313249.77	845136.24		10/5/00	0.03nd	0.00nd	nd	0.00nd					
Coffee	069-01	313100.71	825300.61	69	10/30/00	0.00nd	nd	nd	nd					
Coffee	069-02	313454.97	825059.02	500	10/25/00	0.01nd	nd	1.77	nd					
Coffee	069-03	313327.13	825730.32	>100	10/30/00	nd	nd	nd	0.00nd					
Coffee	069-04	313301.81	830145.53	>100	11/13/00	nd	nd	nd	nd	0	0	0	0	0
Coffee	069-05A	313654.23	825722.11	600	11/13/00	nd	nd	nd	nd					
Coffee	069-05B	313654.13	825720.76	47	11/13/00	nd	nd	0.01nd	nd	0	0	0	0	0
Coffee	069-06	312754.17	824842.48	300	10/30/00	0.00nd	nd	0.01nd	nd					
Coffee	069-07	313349.11	830122.52	30-40	10/30/00	0.01nd	nd	0.02nd	nd					
Coffee	069-08	312622.55	830725.57		11/9/00	nd	0.03nd	0.01nd	nd					
Coffee	069-09	313049.47	830210.01		11/15/00	nd	0.03nd	0.00nd	nd					
Coffee	069-10	312500.54	825659.38		11/15/00	nd	0.02nd	0.02nd	0.00nd					
Coffee	069-11	313140.78	825759.13		11/15/00	nd	0.08	0.00nd	0.01nd					
Coffee	069-12	314150.88	825525.45		11/15/00	nd	0.05nd	0.03nd	nd					
Coffee	069-14	313842.60	824844.41		11/15/00	nd	0.06	nd	nd					
Coffee	069-15	313803.85	824130.82		11/14/00	nd	0.04nd	nd	nd					
Coffee	069-16	313407.45	824513.09		11/14/00	nd	0.06	0.01nd	0.01nd					
Coffee	069-17	312920.80	823834.01		11/14/00	nd	0.00nd	nd	nd					
Coffee	069-19	312228.57	824541.60		11/14/00	0.00nd	0.06	nd	nd					
Coffee	069-20	312659.61	825855.32		11/14/00	nd	0.06	0.04nd	nd					
Coffee	069-21	312824.03	830344.37		11/14/00	nd	0.04nd	nd	0.00nd					
Coffee	069-22	313014.34	824409.56		11/14/00	nd	0.03nd	nd	0.01nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY								
						AL	AT	MB	IB	307	851.1	308	154	4
Colquitt	071-01	310441.89	834914.25	320	10/11/00	0.00nd	nd	0.01nd	nd					
Colquitt	071-02	311458.59	834540.82		10/11/00	nd	nd	0.01nd	0.01nd					
Colquitt	071-03	310507.76	834209.58	48	10/12/00	0.00nd	nd	0.00nd	0.07					
Colquitt	071-04	311931.99	833623.86	140	10/12/00	nd	nd	0.01nd	nd					
Colquitt	071-05	310734.09	835521.04	420	10/12/00	0.05	nd	0.01nd	nd					
Colquitt	071-06	311216.23	834430.54	400	10/12/00	nd	nd	0.05nd	nd					
Colquitt	071-07	310624.91	835122.54	400	10/12/00	0.01nd	nd	0.05nd	nd					
Colquitt	071-08	310301.43	834727.44	>100	10/12/00	0.00nd	nd	0.02nd	nd					
Colquitt	071-09	310402.48	835217.47	480	10/11/00	0.01nd	nd	0.05nd	nd					
Colquitt	071-11	311747.11	835937.97	180	10/19/00	0.01nd	nd	0.00nd	nd					
Colquitt	071-12	311658.20	834256.29	300	10/13/00	0.00nd	nd	0.03nd	nd					
Colquitt	071-13	311816.36	834742.53	600	10/13/00	0.01nd	nd	0.02nd	0.01nd					
Colquitt	071-14	311905.42	835651.20		10/13/00	nd	nd	0.08	nd					
Colquitt	071-15	310238.26	834251.19	33	10/13/00	4.15	nd	0.05nd	nd					
Colquitt	071-16	311342.81	835731.18	49	10/13/00	0.00nd	nd	0.01nd	0.00nd					
Colquitt	071-18	311123.66	834012.18	225	12/18/00	0.05nd	0.02nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Colquitt	071-21	311725.59	833303.7	110	12/6/00	0.00nd	0.05	nd	nd					
Colquitt	071-24	310739.36	835012.73	>100	12/18/00	nd	0.01nd	0.03nd	nd	0.00	0.00	0.00	0.00	0.00
Cook	075-02	310853.55	832120.86	50	9/28/00	0.01nd	0.00nd	nd	nd					
Cook	075-04A	310405.78	832158.66	162	9/28/00	0.01nd	0.01nd	nd	nd					
Cook	075-04B	310415.77	832200.52	65	9/28/00	0.00nd	0.12	nd	0.00nd					
Cook	075-05	310640.43	832412.57		9/28/00	0.00nd	0.08	0.02nd	0.07					
Cook	075-06	310754.45	832937.51	300	9/27/00	0.00nd	nd	nd	nd					
Cook	075-07	310236.94	831946.85		9/28/00	0.01nd	0.00nd	nd	nd					
Cook	075-08	310424.78	832931.68	>100	10/19/00	0.00nd	nd	0.03nd	0.03nd					
Cook	075-10	310701.18	832718.10	60	9/27/00	0.00nd	0.00nd	0.01nd	nd					
Cook	075-12	310945.52	831915.84		9/28/00	nd	0.00nd	nd	nd					
Crisp	081-01	315502.70	835413.40	125	8/15/00	0.00nd	nd	nd	nd					
Crisp	081-02	315436.00	833717.20	200	6/1/00	nd	nd	nd	nd					
Crisp	081-03	320022.72	835140.47	80	9/21/00	0.1	nd	0.01nd	nd	0	0	0	0	0
Crisp	081-04	320029.30	833943.40	168	6/1/00	0.02nd	nd	nd	nd					
Crisp	081-06	315109.60	835637.20		6/1/00	0.01nd	nd	nd	nd					
Crisp	081-08	315407.37	835055.48		10/20/00	nd	nd	nd	nd					
Crisp	081-09	320114.20	835600.60		6/1/00	0.06	nd	nd	nd					
Crisp	081-11	315601.10	834217.30	>100	8/14/00	0.00nd	0.08	0.00nd	0.02nd					
Crisp	081-12	315408.42	834858.14	300	9/21/00	0.09	nd	0.01nd	nd	0	0	0	0	0
Crisp	081-17	315238.64	834846.56	250	10/20/00	0.00nd	nd	0.00nd	nd					
Crisp	081-18	315840.01	834154.82	150	10/20/00	0.01nd	nd	0.04nd	nd					
Crisp	081-20	315808.76	834204.26		10/20/00	nd	nd	0.07	nd					
Decatur	087-01	310258.82	843820.38	125	9/22/00	4.73	nd	0.26	nd	AL:3.65	0	0	0	0
Decatur	087-02	305845.26	843315.53		8/30/00	nd	0.03nd	nd	nd					
Decatur	087-03	310126.74	842855.85	100	8/30/00	0.06	0.04nd	0.00nd	nd					
Decatur	087-05	305624.68	843132.18	50-100	8/30/00	0.02nd	0.06	nd	nd					
Decatur	087-06	305818.31	843640.28	148	8/30/00	0.02nd	0.05nd	nd	nd					
Decatur	087-08	305123.30	842829.80	>100	8/21/00	nd	0.01nd	nd	nd					
Decatur	087-09	305702.91	842513.17	65	8/30/00	0.01nd	0.02nd	nd	nd					
Decatur	087-10	305533.30	843621.80	75-100	8/21/00	0.03nd	0.02nd	0.01nd	nd					
Decatur	087-11	305709.96	842820.90	105	8/30/00	0.01nd	0.00nd	0.03nd	nd					
Decatur	087-12	305009.40	843408.40	300-400	8/30/00	nd	0.01nd	nd	nd					
Decatur	087-13	305433.50	842440.30	460	8/21/00	nd	0.04nd	nd	nd					
Decatur	087-15	310220.28	843027.50	200	8/30/00	nd	0.01nd	nd	nd					
Decatur	087-16	305415.19	843104.80		8/21/00	0.04nd	0.03nd	nd	nd					
Decatur	087-19	305725.00	843405.80		8/30/00	nd	nd	nd	nd					
Decatur	087-20	304513.10	842916.50	800	8/21/00	nd	0.03nd	nd	nd					
Decatur	087-23	305232.20	843004.00	200	8/21/00	nd	0.04nd	0.02nd	nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY AL	IMMUNOASSAY AT	IMMUNOASSAY ME	IMMUNOASSAY BI	507	515.1	508	555	4
Decatur	087-24	304314.50	844737.60	320	8/21/00	nd	0.02nd	0.00nd	nd					
Decatur	087-25	305222.60	843626.40	80	8/30/00	nd	0.01nd	nd	nd					
Decatur	087-26	305052.00	844130.60	>100	8/21/00	nd	0.05	0.06	nd					
Decatur	087-27	305021.10	842517.80	210	8/21/00	nd	0.01nd	0.04nd	nd					
Decatur	087-30	304814.90	843857.50	400	8/21/00	nd	0.00nd	0.07	nd					
Decatur	087-31	305716.29	844240.39	<60	8/30/00	0.07	0.00nd	0.00nd	nd					
Decatur	087-32	304907.40	842417.60		8/21/00	0.02nd	0.01nd	nd	0.00nd					
Decatur	087-33	304819.00	844438.30		8/22/00	nd	0.04nd	nd	0.00nd					
Decatur	087-36	305209.56	844147.95	85	9/22/00	0.02nd	nd	nd	nd	0	0	0	0	0
Dooly	093-01	320822.30	834848.80	120-160	5/19/00	0.00nd	nd	nd	nd	0.00	0.00	0.00	no	no
Dooly	093-02	320813.45	835018.51		10/19/00	nd	nd	0.04nd	nd					
Dooly	093-06	321528.91	834617.52		10/19/00	0.02nd	nd	0.02nd	nd					
Dooly	093-07	321407.47	834506.71		10/19/00	nd	nd	0.05	nd					
Dooly	093-08	321321.20	834129.70	>100	5/19/00	nd	nd	nd	nd	no	0.00	0.00	no	no
Dooly	093-09	321741.30	834506.00	200-300	5/19/00	0.00nd	nd	nd	nd					
Dooly	093-10	320307.00	833713.80	240	5/19/00	0.00nd	nd	nd	nd	no	0.00	0.00	no	no
Dooly	093-12	320802.20	834330.10		8/15/00	0.03nd	0.02nd	nd	nd					
Dooly	093-14	320329.10	835723.70		5/18/00	nd	nd	nd	nd					
Dooly	093-16	320422.80	834715.70	125	8/15/00	0.00nd	0.08	nd	nd					
Dooly	093-17	320813.47	835018.52		10/19/00	0.00nd	nd	0.02nd	nd					
Dougherty	095-01	313255.40	840642.00		7/12/00	0.00nd	nd	nd	nd					
Dougherty	095-02	313128.40	841034.60	130	7/12/00	0.00nd	nd	nd	nd					
Dougherty	095-07	313007.40	841320.80	187	7/25/00	0.00nd	nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Dougherty	095-08	312911.70	840607.00	200-300	7/12/00	0.00nd	nd	nd	0.00nd					
Dougherty	095-09	313527.70	841431.50	125	7/25/00	nd	nd	nd	nd					
Dougherty	095-11	313432.50	842215.00	180	7/25/00	nd	nd	nd	nd					
Dougherty	095-14	313531.70	840439.10	<100	7/12/00	0.00nd	0.01nd	nd	0.00nd					
Dougherty	095-18	313720.50	841510.90		8/14/00	nd	0.06	nd	0.05					
Dougherty	095-21	312822.60	840018.20	165	7/12/00	nd	0.01nd	nd	0.00nd					
Early	099-01	312547.11	844243.39	80	9/21/00	0.07	0.33	2.35	nd	ME:2.09	0.00	0.00	0.00	0.00
Early	099-02	311831.20	845134.70	<100	6/29/00	nd	nd	nd	0.00nd					
Early	099-05	312504.30	844858.00	spring	7/25/00	0.00nd	nd	nd	nd					
Early	099-06	312626.80	845901.10	70-80	6/28/00	nd	nd	0.00nd	nd					
Early	099-07	311536.70	844826.00		6/28/00	nd	nd	0.00nd	nd					
Early	099-08	311730.10	850411.40	60	6/28/00	nd	nd	0.00nd	nd					
Early	099-09	312936.90	845229.50	65	6/28/00	nd	0.04nd	nd	0.00nd					
Early	099-10	310618.70	845756.90	<100	9/22/00	0.16	nd	0.03nd	nd	0.00	0.00	0.00	0.00	0.00
Early	099-11	311240.02	850116.40	255	11/2/00	0.01nd	0.23	0.04nd	nd					
Early	099-13	311335.30	845914.70	>100	6/28/00	nd	nd	nd	nd					
Early	099-14	312515.65	844313.20	200	11/2/00	0.04nd	0.02nd	nd	nd					
Early	099-16	312023.56	845030.79		11/2/00	1.29	0.19	0.09	nd					
Early	099-18	312902.77	845605.10	50	11/2/00	0.01nd	0.17	0.15	nd					
Early	099-23	312126.17	845728.33	80	11/2/00	0.02nd	0.08	0.05	nd					
Early	099-24	311811.70	845413.10	>100	7/25/00	0.00nd	nd	0.00nd	0.00nd					
Early	099-25	311622.80	845524.80	80	7/7/00	0.01nd	nd	nd	nd	no	0.00	no	0.00	0.00
Early	099-26	311923.25	845237.66		11/2/00	0.04nd	0.21	0.01nd	nd					
Early	099-27	312241.59	850005.31	225	11/2/00	0.01nd	0.12	0.07	nd					
Early	099-28	312051.50	844828.20		6/28/00	nd	nd	0.00nd	nd					
Early	099-29	312812.21	845334.52	80	11/2/00	0.04nd	0.13	0.04nd	nd					
Early	099-33A	312131.71	845803.75	140	11/2/00	0.05	nd	0.01nd	nd					
Early	099-33B	312131.71	845803.75	52	11/2/00	0.02nd	0.07	0.00nd	nd					
Harris	145-01	323848.99	844611.59		9/13/00	0.01nd	nd	nd	nd					
Harris	145-03	325201.51	844925.44	52	9/12/00	0.02nd	nd	0.03nd	nd					
Harris	145-04	325008.65	844347.93	54	9/12/00	0.01nd	nd	nd	nd					
Harris	145-05	324749.89	844446.6		9/12/00	0.01nd	nd	nd	nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY								
						AL	AT	ME	IR	807	851.1	908	548	4
Harris	145-06	323657.48	850415.2	250	9/13/00	0.00nd	nd	nd	nd					
Harris	145-07	324136.84	844955.29		9/13/00	0.00nd	nd	nd	nd					
Harris	145-08	323919.89	845741.65	250	9/13/00	0.00nd	nd	nd	nd					
Harris	145-10	324032.56	845856.82		9/12/00	0.00nd	nd	0.09	nd					
Harris	145-12	325049.28	850209.18	>100	9/12/00	0.00nd	0.00nd	0.09	nd					
Irwin	155-01	313414.84	832549.58	100	9/27/00	0.01nd	0.00nd	nd	0.00nd					
Irwin	155-02	313709.78	832321.15	200	9/27/00	0.01nd	0.01nd	nd	nd					
Irwin	155-03	313015.53	831328.47	500	9/27/00	0.01nd	0.01nd	nd	nd					
Irwin	155-04	313829.00	830703.47	380	9/27/00	0.01nd	0.02nd	nd	nd					
Irwin	155-05	313752.92	831514.13	>300	11/1/00	0.02nd	0.11	0.06	nd					
Irwin	155-06	313332.93	831300.35	300-400	11/1/00	0.05	nd	nd	nd					
Irwin	155-07	313423.6	831437.88	<100	11/1/00	0.14	0.11	0.01nd	nd					
Irwin	155-08	312931.14	831036.74		11/1/00	0.04nd	0.01nd	nd	nd					
Irwin	155-10	314306.19	832025.74		11/2/00	0.07	0.02nd	nd	nd					
Irwin	155-11	314527.84	832230.71		11/2/00	0.05	0.09	0.01nd	nd					
Irwin	155-13	314104.45	832436.78		11/9/00	nd	0.01nd	nd	0.02nd					
Irwin	155-14	313518.10	830905.01		11/9/00	nd	0.03nd	0.10	0.02nd					
Irwin	155-15	313255.18	830509.18		11/9/00	nd	0.03nd	0.01nd	nd					
Irwin	155-16	313507.61	830441.80		11/9/00	nd	0.03nd	nd	nd					
Irwin	155-18	313735.10	830910.50		11/9/00	0.01nd	0.01nd	nd	nd					
Irwin	155-19	313803.75	831226.11		11/9/00	nd	0.06	nd	0.00nd					
Lee	177-01	313738.40	840712.00		10/26/00	0.00nd	nd	0.05nd	nd					
Lee	177-02	314106.03	840829.80		10/26/00	0.00nd	0.03nd	0.02nd	nd	0.00	0.00	0.00	0.00	0.00
Lee	177-05	314615.80	841116.60	>100	6/20/00	nd	nd	nd	nd	0.00	no	0.00	0.00	0.00
Lee	177-06	313936.40	841147.00	125	6/6/00	0.03nd	nd	nd	nd	0.00	0.00	no	0.00	0.00
Lee	177-07	313943.90	840531.60	170	6/6/00	0.08	nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Lee	177-12	314612.30	841634.30	150	6/20/00	nd	nd	nd	nd					
Lee	177-17	314214.44	841639.96	60	10/26/00	0.03nd	nd	0.01nd	nd					
Lee	177-19	314553.26	841250.92	>100	10/26/00	0.00nd	0.08	0.00nd	nd	0.00	0.00	0.00	0.00	0.00
Lee	177-20	314027.80	841713.10		6/6/00	0.02nd	nd	0.03nd	nd	0.00	0.00	0.00	0.00	0.00
Lee	177-21	314404.50	841103.30	60	6/6/00	0.01nd	nd	0.03nd	nd					
Lee	177-23	314216.50	840843.68		10/26/00	nd	nd	nd	nd					
Lee	177-24	315102.40	840556.40		6/20/00	nd	0.06	0.01nd	nd					
Lee	177-27	315019.59	841234.13		10/26/00	0.02nd	0.04nd	0.03nd	nd	0.00	0.00	0.00	0.00	0.00
Lowndes	185-01	305002.26	831821.48		9/21/00	nd	nd	nd	nd					
Lowndes	185-02	304847.60	831340.79	20-30	9/20/00	0.01nd	nd	0.08	nd					
Lowndes	185-03	304257.93	831657.45	98	10/20/00	0.00nd	nd	0.01nd	nd	0.00	0.00	0.00	0.00	0.00
Lowndes	185-04	305632.67	830321.65		9/20/00	0.01nd	0.03nd	0.08	nd					
Lowndes	185-05	305543.71	832100.09	160	9/21/00	0.00nd	nd	nd	0.00nd					
Lowndes	185-07	304133.06	830807.79	50-60	9/20/00	0.02nd	nd	nd	nd					
Lowndes	185-08	310059.11	831726.58		9/20/00	0.01nd	0.02nd	nd	nd					
Lowndes	185-09	304427.32	832320.10	80-85	9/21/00	0.00nd	nd	0.03nd	nd					
Lowndes	185-10	304718.73	832447.19		9/21/00	0.01nd	nd	0.03nd	nd					
Lowndes	185-11	305619.37	831425.04	275	9/20/00	0.01nd	0.04nd	nd	nd					
Lowndes	185-13	304848.99	831358.22		9/21/00	0.03nd	nd	nd	nd					
Lowndes	185-14	305724.01	831941.23		9/20/00	0.02nd	nd	0.06	nd					
Lowndes	185-15A	305011.18	831247.51	60	9/20/00	0.02nd	nd	nd	nd					
Lowndes	185-15B	305011.92	831246.97	60	9/20/00	0.01nd	nd	0.03nd	nd					
Lowndes	185-17	305936.86	832056.63	150	9/20/00	0.01nd	nd	0.06	nd					
Lowndes	185-18	305612.80	830727.51		9/20/00	0.01nd	0.02nd	nd	nd					
Miller	201-02	311015.10	843305.00		8/22/00	0.06	0.09	0.00nd	0.00nd					
Miller	201-04	311534.90	844110.70	100	8/22/00	nd	0.06	nd	0.01nd					
Miller	201-05	310540.74	843802.10	>100	8/22/00	nd	nd	0.02nd	nd	0.00	0.00	0.00	0.00	0.00
Miller	201-06	311045.70	844400.70		8/22/00	nd	0.06	0.02nd	nd					
Miller	201-08H	311112.58	844104.34	175	11/8/00	nd	0.10	nd	0.00nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY AL	AT	ME	BI	507	531.1	508	515	4
Miller	201-08O	311112.58	844104.34	175	11/8/00	nd	0.94	0.00nd	0.00nd					
Miller	201-14	310755.10	844223.70		8/22/00	nd	0.03nd	nd	nd					
Miller	201-17	311208.40	844612.50	250	8/22/00	nd	0.03nd	nd	nd					
Mitchell	205-03	312139.06	840224.28		10/4/00	nd	0.00nd	nd	0.00nd	0.00	0.00	0.00	0.00	0.00
Mitchell	205-05	311138.01	842105.91		10/5/00	0.01nd	0.02nd	nd	0.00nd					
Mitchell	205-06	310935.01	841405.88		10/4/00	0.00nd	0.00nd	nd	nd					
Mitchell	205-07	310454.60	841118.05		10/4/00	0.01nd	0.00nd	nd	0.00nd					
Mitchell	205-08	310740.97	841448.73		10/4/00	0.00nd	0.01nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Mitchell	205-09	312039.25	841006.85	>100	11/8/00	0.00nd	0.04nd	0.01nd	0.01nd	0.00	0.00	0.00	0.00	0.00
Mitchell	205-10	310722.39	841549.26		11/8/00	0.00nd	0.15	nd	nd	0.00	0.00	0.00	0.00	0.00
Mitchell	205-11	311929.83	840112.82	183	10/4/00	0.00nd	0.00nd	nd	nd					
Mitchell	205-12	311749.76	840717.17	325	10/4/00	0.00nd	0.00nd	nd	nd					
Mitchell	205-13	311528.85	841555.62	210	10/5/00	0.03nd	0.02nd	nd	0.01nd					
Mitchell	205-14	312151.20	840842.46		10/4/00	nd	0.00nd	nd	0.00nd	0.00	0.00	0.00	0.00	0.00
Mitchell	205-15	310647.13	842331.13	120	10/5/00	0.03nd	0.00nd	nd	nd					
Mitchell	205-20	311201.45	841746.78		10/5/00	0.01nd	0.00nd	nd	nd					
Mitchell	205-21	312244.46	840159.31		10/4/00	0.00nd	0.00nd	nd	nd					
Mitchell	205-23	312151.20	840842.46		11/8/00	0.39	0.08	0.01nd	nd	0.00	0.00	0.00	0.00	0.00
Muscogee	215-03	323422.37	844939.47	>300	9/13/00	nd	nd	0.01nd	nd					
Muscogee	215-04	323244.29	844353.69	>100	9/12/00	nd	nd	nd	nd					
Muscogee	215-05	323309.92	844401.61	333	9/12/00	0.00nd	nd	0.01nd	nd					
Quitman	239-01	315132.21	850246.86		11/15/00	nd	0.02nd	0.01nd	0.08					
Quitman	239-02	315136.03	850400.62	500	11/15/00	nd	0.02nd	0.01nd	nd					
Quitman	239-03	315014.85	850452.41		11/15/00	nd	nd	0.03nd	nd					
Quitman	239-04	315010.66	845921.51		11/15/00	nd	0.01nd	0.02nd	nd					
Randolph	243-01	315103.10	844546.20	39	10/4/00	0.00nd	0.00nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Randolph	243-03	314607.56	845006.03	280	10/4/00	0.00nd	0.00nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Randolph	243-04	313724.30	845206.70		10/4/00	0.00nd	0.01nd	nd	nd					
Randolph	243-05	314304.90	845114.44		10/4/00	0.00nd	0.02nd	nd	nd					
Schley	249-01	321912.85	841619.64		10/4/00	0.00nd	0.01nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Schley	249-02	321104.10	841633.30	180	10/4/00	0.01nd	nd	nd	nd					
Schley	249-03	321448.63	841719.42	60	10/4/00	0.01nd	0.01nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Schley	249-03	321448.46	841719.41	155	10/4/00	0.00nd	0.00nd	nd	nd					
Schley	249-04	321905.28	842110.99	25	10/4/00	0.00nd	0.00nd	nd	nd					
Schley	249-06	321327.90	841705.80	70	10/4/00	0.03nd	nd	nd	nd					
Schley	249-07	321632.02	841310.15	128	10/4/00	0.00nd	0.00nd	nd	nd					
Stewart	259-01	320756.46	843858.16	170	11/16/00	nd	0.00nd	nd	nd					
Stewart	259-02	320847.19	850052.01	25	11/16/00	0.01nd	0.04nd	0.01nd	nd					
Stewart	259-03	315523.61	844216.72	216	11/16/00	nd	nd	nd	0.01nd					
Stewart	259-05	320327.93	844711.52		11/16/00	nd	0.01nd	nd	nd					
Stewart	259-06	315629.31	845244.01		11/16/00	nd	0.02nd	nd	0.00nd					
Stewart	259-07	315829.51	845018.81		11/16/00	nd	0.01nd	nd	0.01nd					
Stewart	259-08	315720.58	844817.33		11/16/00	nd	0.01nd	nd	nd					
Stewart	259-09	320419.48	845050.51		11/16/00	nd	0.05nd	nd	0.01nd					
Stewart	259-10	320749.72	844932.78		11/16/00	nd	0.08	nd	nd					
Stewart	259-11	320525.36	850228.48		11/16/00	0.00nd	0.01nd	nd	0.01nd					
Sumter	261-01	315857.50	841111.50	120	5/9/00	nd	0.01nd	nd	0.00nd					
Sumter	261-02	315538.80	841612.00	200	5/8/00	0.00nd	0.00nd	0.00nd	0.00nd	0.00	0.00	no	0.00	0.00
Sumter	261-04	320339.60	841913.20	300	5/8/00	0.00nd	0.00nd	nd	0.00nd	0.00	0.00	no	0.00	0.00
Sumter	261-06	320449.70	840517.97	150	10/19/00	0.02nd	nd	0.02nd	nd					
Sumter	261-08	320106.00	842629.20	156	5/8/00	0.00nd	0.00nd	0.00nd	0.01nd	no	0.00	no	0.00	no
Sumter	261-09	320219.92	841248.30		10/19/00	.00nd	nd	.00nd	nd					
Sumter	261-10	320538.70	841221.70		5/9/00	0.01nd	0.01nd	nd	0.00nd					
Sumter	261-12	315619.80	835636.60	<100	5/9/00	0.01nd	0.01nd	nd	0.00nd					
Sumter	261-14	320604.31	841121.18	280	10/19/00	0.00nd	nd	0.04nd	nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY AL	AT	ME	BI	507	531.1	508	548	4
Sumter	261-17	320630.60	840305.00	180	5/18/00	0.04nd	nd	nd	nd	0.00	no	0.00	no	no
Sumter	261-18	320629.80	842318.30	<100	5/8/00	nd	0.01nd	nd	0.00nd	0.00	no	0.00	no	no
Sumter	261-22	320613.19	841834.87	76	10/19/00	0.00nd	nd	0.01nd	0.00nd					
Sumter	261-23	320721.90	840800.00		8/14/00	0.01nd	0.07	0.01nd	0.02nd					
Sumter	261-24	320607.14	841521.30		10/20/00	0.00nd	nd	0.05	nd					
Sumter	261-26	320726.60	841502.20	125	8/15/00	nd	0.07	nd	nd					
Sumter	261-27	321005.28	840533.57		11/8/00	nd	0.04nd	nd	0.01	0.00	0.00	0.00	0.00	0.00
Sumter	261-28	320803.67	842053.23		10/19/00	0.03nd	nd	0.06	0.01nd					
Sumter	261-29	320123.21	841551.66	85	11/8/00	nd	0.08	0.01nd	0.01nd	0.00	0.00	0.00	0.00	0.00
Sumter	261-30	315928.57	840655.31	80	10/20/00	0.00nd	nd	0.10	nd	0.00	0.00	0.00	0.00	0.00
Sumter	261-31	315652.30	842113.70	90	8/14/00	0.00nd	0.05	0.01nd	nd					
Sumter	261-32	315629.70	840836.30	90-100	8/14/00	0.00nd	0.09	nd	nd					
Talbot	263-01	324243.89	842214.02		9/12/00	0.00nd	nd	0.01nd	nd					
Talbot	263-02	324606.64	843003.37		9/12/00	nd	nd	0.06	nd					
Talbot	263-06	324827.77	843003.65		9/12/00	0.02nd	nd	0.04nd	nd					
Talbot	263-07	323938.26	843605.61	40-50	9/12/00	0.01nd	nd	nd	nd					
Talbot	263-08	324951.94	843237.59	>400	9/12/00	0.01nd	nd	0.01nd	nd					
Talbot	263-09	323650.12	843255.49		9/12/00	0.00nd	nd	nd	nd					
Talbot	263-10	324320.7	843919.62	500	9/12/00	nd	nd	0.00nd	nd					
Talbot	263-12	324253.28	842146.75	255	9/12/00	0.00nd	nd	nd	nd					
Taylor	269-01	322943.70	841233.53	128	10/25/00	nd	0.18	0.00nd	nd					
Taylor	269-02	323044.57	842524.80	280	10/25/00	nd	0.48	nd	nd					
Taylor	269-03	322641.38	841911.63	180	10/25/00	nd	0.06	0.01nd	nd					
Taylor	269-04	323001.71	842511.79	210	10/25/00	nd	0.12	0.00nd	nd					
Taylor	269-05	322817.79	842145.53	150	10/25/00	nd	0.07	0.01nd	nd					
Taylor	269-06	322741.65	842144.78	220	10/25/00	nd	0.20	0.00nd	nd					
Taylor	269-09A	323024.55	840814.26	189	10/25/00	nd	0.09	0.00nd	nd					
Taylor	269-09B	322938.85	840838.13	200	10/25/00	0.03nd	0.05nd	0.00nd	nd					
Terrell	273-01	314932.70	843324.40	100	6/7/00	0.00nd	nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Terrell	273-02	314611.70	843131.29	80	11/29/00	nd	nd	nd	nd					
Terrell	273-03	314823.40	842831.70		6/21/00	nd	nd	nd	nd	no	0.00	no	0.00	0.00
Terrell	273-04	314158.90	842039.60		6/6/00	0.00nd	nd	nd	nd					
Terrell	273-05	314837.70	842210.40		6/20/00	nd	nd	nd	0.01nd					
Terrell	273-06	315126.40	842144.10	80	6/28/00	nd	nd	nd	nd	0.00	no	0.00	0.00	no
Terrell	273-07	314153.83	842633.27	30	11/8/00	0.00nd	0.01nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Terrell	273-08	313833.80	843157.40	150	6/21/00	nd	nd	nd	nd					
Terrell	273-09	315502.10	843243.30	100-200	6/21/00	nd	nd	nd	nd					
Terrell	273-10	314026.17	842122.56		11/29/00	0.01nd	0.08	nd	nd					
Terrell	273-12	314629.20	842452.22	100	11/29/00	0.09	0.03nd	nd	nd					
Terrell	273-13	315132.11	842317.82		11/28/00	nd	0.08	nd	nd					
Terrell	273-14	314805.46	841953.82		11/28/00	nd	0.03nd	nd	nd					
Terrell	273-16	315337.95	843047.94		11/28/00	nd	0.06	nd	nd					
Terrell	273-17	315041.19	842917.50		11/28/00	nd	0.09	nd	nd					
Terrell	273-18	314140.32	842820.32		11/29/00	nd	0.03nd	nd	nd					
Thomas	275-01	305735.41	835606.74	245	10/12/00	0.05nd	nd	0.02nd	nd					
Thomas	275-02	305611.83	840534.47	240	10/12/00	0.00nd	nd	0.03nd	0.01nd					
Thomas	275-03	305502.24	834741.93		10/12/00	0.01nd	nd	0.06	nd					
Thomas	275-04	305931.16	835335.63	285	10/12/00	nd	nd	0.04nd	nd					
Thomas	275-06	310012.91	840236.16		10/12/00	nd	nd	0.01nd	nd					
Thomas	275-08	305902.55	834748.76	280	10/12/00	0.00nd	nd	0.01nd	nd					
Thomas	275-10	305932.10	835234.82	275-325	10/12/00	nd	nd	0.04nd	nd					
Thomas	275-11	304843.47	835632.87	200	10/12/00	nd	nd	nd	nd					
Thomas	275-12	305451.90	835932.06	323	10/12/00	nd	nd	0.02nd	nd					
Thomas	275-12	305434.00	835823.26		10/12/00	0.00nd	nd	0.01nd	nd					
Tift	277-02	312801.83	833730.54	210	8/27/00	0.00nd	nd	nd	nd					

COUNTY	WELL ID	LATITUDE	LONGITUDE	WELL DEPTH (feet)	DATE OF SAMPLE	IMMUNOASSAY				507	531.1	508	556	4
						AL	AT	ME	BI					
Tift	277-03	312934.53	833106.63		9/27/00	nd	nd	nd	nd					
Tift	277-04	313002.29	832732.55		9/27/00	0.00nd	nd	nd	nd					
Tift	277-05	312742.01	833224.52	240	9/27/00	0.00nd	nd	nd	nd					
Turner	287-01	313633.67	833458.96	250	11/28/00	0.02nd	0.11	nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-02	314118.21	833542.04		11/28/00	0.19	0.20	0.06	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-03	314810.76	833147.44	180	10/24/00	nd	0.01nd	nd	nd					
Turner	287-04	314624.89	834129.46		11/28/00	nd	0.65	0.0nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-05	313921.21	833751.21	300	11/28/00	nd	0.06	0.03nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-06	313803.99	834001.67		11/29/00	nd	0.01nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-07	314256.47	833152.58	250	10/24/00	nd	0.09	nd	nd					
Turner	287-08	314257.35	833156.31		11/28/00	nd	0.02nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-09	314302.29	833203.18		11/28/00	nd	0.05nd	nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-10	313930.73	833355.45		11/29/00	nd	0.09	nd	nd	0.00	0.00	0.00	0.00	0.00
Turner	287-11	313916.72	834658.14		10/24/00	nd	0.07	0.01nd	0.03nd					
Worth	321-01	312111.51	835644.56		10/25/00	nd	nd	nd	nd					
Worth	321-02	314408.17	835904.38		10/25/00	0.00nd	0.03nd	nd	nd					
Worth	321-03	314644.04	835247.76		10/25/00	0.91	0.15	0.08	0.01nd					
Worth	321-04	312719.86	835929.76		10/25/00	0.02nd	0.04nd	0.23	nd					
Worth	321-05	313508.37	834358.93	280	10/25/00	nd	0.00nd	0.05	nd					
Worth	321-07	313641.58	835533.97		10/25/00	0.02nd	0.02nd	0.06	nd					
Worth	321-11	313509.35	835711.80		10/25/00	0.01nd	0.02nd	0.11	nd					
Worth	321-12	312239.86	834248.39		11/9/00	0.00nd	0.03nd	0.00nd	nd					
Worth	321-14	313127.18	833917.31	240	11/9/00	nd	0.16	nd	0.02nd					
Worth	321-15	314121.00	834923.98	235	10/25/00	0.00nd	nd	0.00nd	nd					
Worth	321-16	313047.45	835753.31		10/25/00	0.01nd	0.21	0.07	nd					
Worth	321-17	312657.86	834808.64		11/9/00	0.01nd	0.07	nd	nd					
Worth	321-19	312849.94	835300.73		10/25/00	0.00nd	nd	nd	nd					
Worth	321-20	313034.87	834541.15	24	11/9/00	nd	0.00nd	nd	nd					
Worth	321-25	312215.84	834508.12	600	11/9/00	nd	0.17	nd	0.01nd					
Worth	321-27	312401.32	835836.60		11/8/00	0.00nd	0.01nd	nd	nd					
Worth	321-29	313330.63	834705.45		11/9/00	nd	0.04nd	nd	nd					
Worth	321-30	313141.42	834202.82		11/8/00	nd	0.00nd	nd	0.02nd					
Worth	321-31	311352.88	842628.22		11/8/00	nd	0.01nd	nd	nd					

The Department of Natural Resources is an equal opportunity employer and offers all persons the opportunity to compete and participate in each area of DNR employment regardless of race, color, religion, national origin, age, handicap, or other non-merit factors.