

GROUND-WATER LEVELS IN ARKANSAS, SPRING 1989

U.S. GEOLOGICAL SURVEY

Open-File Report 90-121



Prepared in cooperation with the
ARKANSAS GEOLOGICAL COMMISSION

GROUND-WATER LEVELS IN ARKANSAS, SPRING 1989

By Paul W. Westerfield and Gerard J. Gonthier

U.S. GEOLOGICAL SURVEY

Open-File Report 90-121



Prepared in cooperation with the
ARKANSAS GEOLOGICAL COMMISSION

Little Rock, Arkansas

1990

DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
Water Resources Division
2301 Federal Office Building
Little Rock, Arkansas 72201

Arkansas Geological Commission
3815 West Roosevelt
Little Rock, Arkansas 72204

Copies of this report can be
purchased from:

U.S. Geological Survey
Books and Open-File Reports Section
Federal Center, Building 810
Box 25425
Denver, Colorado 80225

CONTENTS

	Page
Abstract.....	1
Introduction.....	2
Description of tables.....	10
Well-numbering system.....	11
Selected references.....	13

ILLUSTRATIONS

Figure 1. Map showing average water-level changes by county between 1984 and 1989 of wells completed in the aquifer in the Quaternary deposits.....	3
2. Map showing average water-level changes by county between 1984 and 1989 of wells completed in the aquifer in the Sparta and Memphis Sands.....	5
3. Water-level hydrographs for selected wells completed in the aquifer in the Quaternary deposits.....	6
4. Water-level hydrographs for selected wells completed in the aquifer in the Sparta and Memphis Sands.....	8
5. Diagram of well-numbering system.....	12

TABLES

Page

Tables 1-16. Measurements of water levels in 1989 in wells completed

in the aquifer in the:

1. Quaternary deposits.....	18
2. Cockfield Formation.....	31
3. Sparta Sand and Memphis Sand.....	35
4. Cane River Formation.....	50
5. Carrizo Sand.....	52
6. Wilcox Group, including the "1,400-foot" sand.....	53
7. Nacatoch Sand.....	56
8. Tokio Formation.....	58
9. Trinity Group.....	59
10. Atoka Formation.....	60
11. Jackfork Sandstone.....	61
12. Everton Formation.....	62
13. Cotter Dolomite.....	63
14. Roubidoux Formation.....	64
15. Gunter Sandstone member of the Gasconade Formation....	66
16. Potosi-Eminence Dolomite.....	69

CONVERSION FACTORS

For use of readers who prefer to use metric (International System) units, rather than the inch-pound units used in this report, the following conversion factors may be used:

<u>Multiply inch-pound unit</u>	<u>By</u>	<u>To obtain metric unit</u>
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Sea Level Datum of 1929."

GROUND-WATER LEVELS IN ARKANSAS, SPRING 1989

By Paul W. Westerfield and Gerard J. Gonthier

ABSTRACT

Ground-water level measurements were made in 527 wells in Arkansas in the spring of 1989. These data are listed in tables by aquifer and then by county. For each well, the altitude of the land surface, the date of measurement, the depth to the water surface, and the altitude of the water surface are reported. Also reported are the net changes in water levels between 1988 and 1989 and between 1984 and 1989. This report also contains maps showing the average water-level change, by county, between the years 1984 and 1989 for the aquifers in the Quaternary deposits and in the Sparta and Memphis Sands. Hydrographs are included for selected wells completed in the Quaternary deposits and in the Sparta and Memphis Sands.

The aquifers in the Quaternary deposits and in the Sparta and Memphis Sands are important in eastern and southern Arkansas for agricultural, municipal, and industrial use. Water-level data contained in this report showed an average decline of 1.86 feet in the aquifer in the Quaternary deposits, for the 27 most heavily irrigated counties of eastern Arkansas, and an average decline of 4.06 feet in the aquifer in the Sparta and Memphis Sands between the years 1984 and 1989.

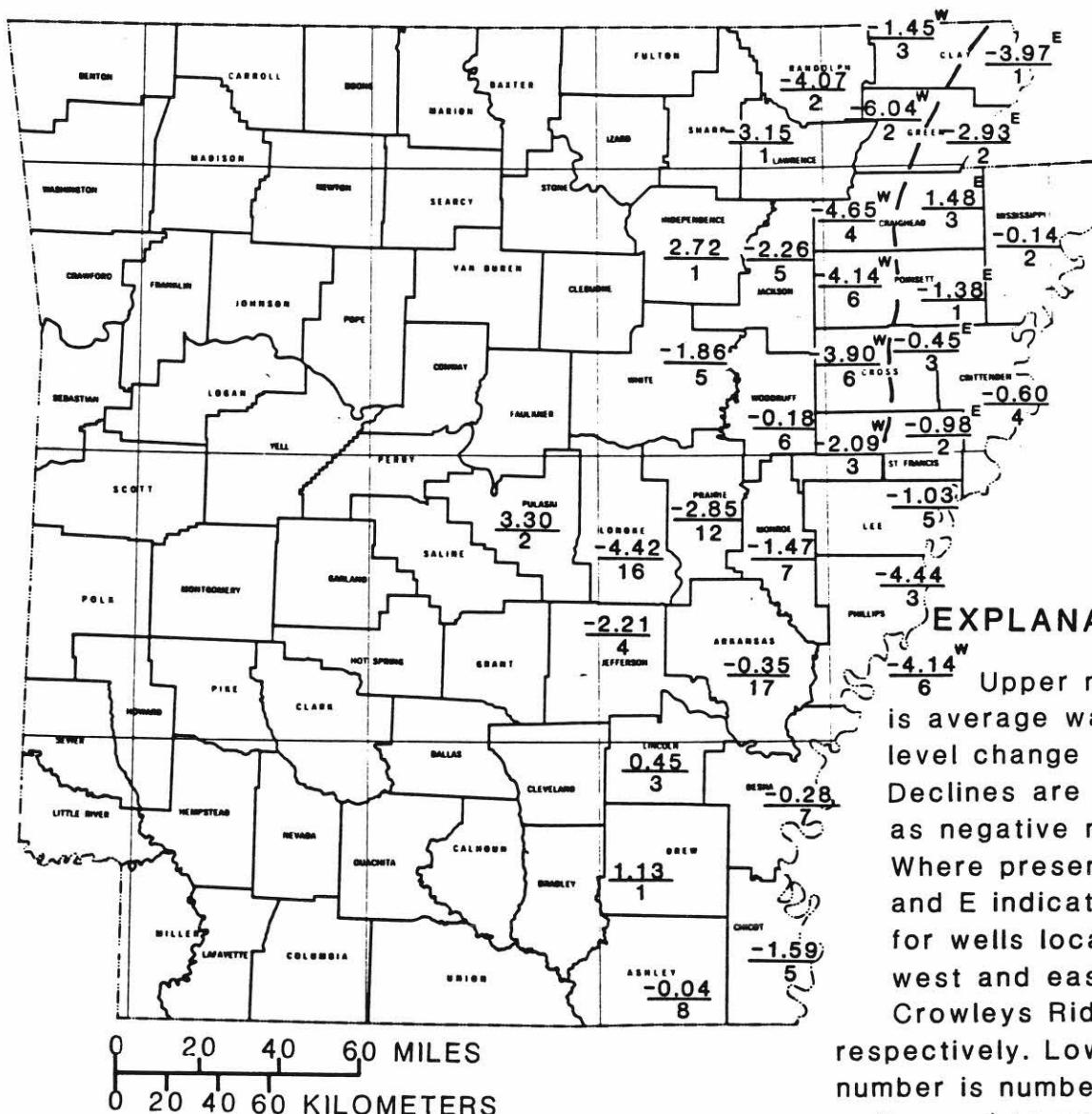
INTRODUCTION

This report contains records of water-level measurements from wells in Arkansas that compose the statewide observation-well network maintained by the U.S. Geological Survey in cooperation with the Arkansas Geological Commission. The observation-well network is designed to provide data for evaluation of the regional trend of water levels in each of the principal water-bearing formations or aquifers.

The water-level measurements made in the 527 wells listed in this report were made during March, April, and May 1989. These data are listed by county for each aquifer. For additional information on previously published water-level data and hydrologic properties of the aquifers, the reader is referred to the reports listed in the selected references section of this report.

The aquifers in the Quaternary deposits and in the Sparta and Memphis Sands are the most heavily used in Arkansas (Holland and Ludwig, 1981).

Water levels measured from 152 wells in the aquifer in the Quaternary deposits between 1984 and 1989 in the 27 most heavily irrigated counties had an average decline of 1.86 feet (fig. 1). The most significant declines occurred in Lonoke and Phillips Counties and west of Crowley's Ridge in Craighead, Cross, Greene, and Poinsett Counties. In general, declines were widespread with few counties showing an increase in water levels.



EXPLANATION

Upper number is average water-level change in feet. Declines are shown as negative numbers. Where present, W and E indicate data for wells located west and east of Crowley's Ridge, respectively. Lower number is number of wells used to calculate the average.

| Approximate location
| of Crowley's Ridge.

Figure 1.--Average water-level changes by county between 1984 and 1989 of wells completed in the aquifer in the Quaternary deposits.

North of about 35° latitude the Sparta Sand becomes the upper part of the Memphis Sand (Hosman and others, 1968). Water levels in the aquifer in the Sparta Sand are correlative with those in the aquifer in the Memphis Sand in Arkansas. Water levels measured in 189 wells completed in the aquifers in the Sparta and Memphis Sands of eastern and southern Arkansas declined an average of 4.06 feet between 1984 and 1989. Figure 2 shows the average ground-water level changes by county for the aquifers in the Sparta and Memphis Sands.

Hydrographs of wells show long-term trends in ground-water levels. Figures 3 and 4 are water-level hydrographs for selected wells completed in the aquifers in the Quaternary deposits and in the Sparta and Memphis Sands.

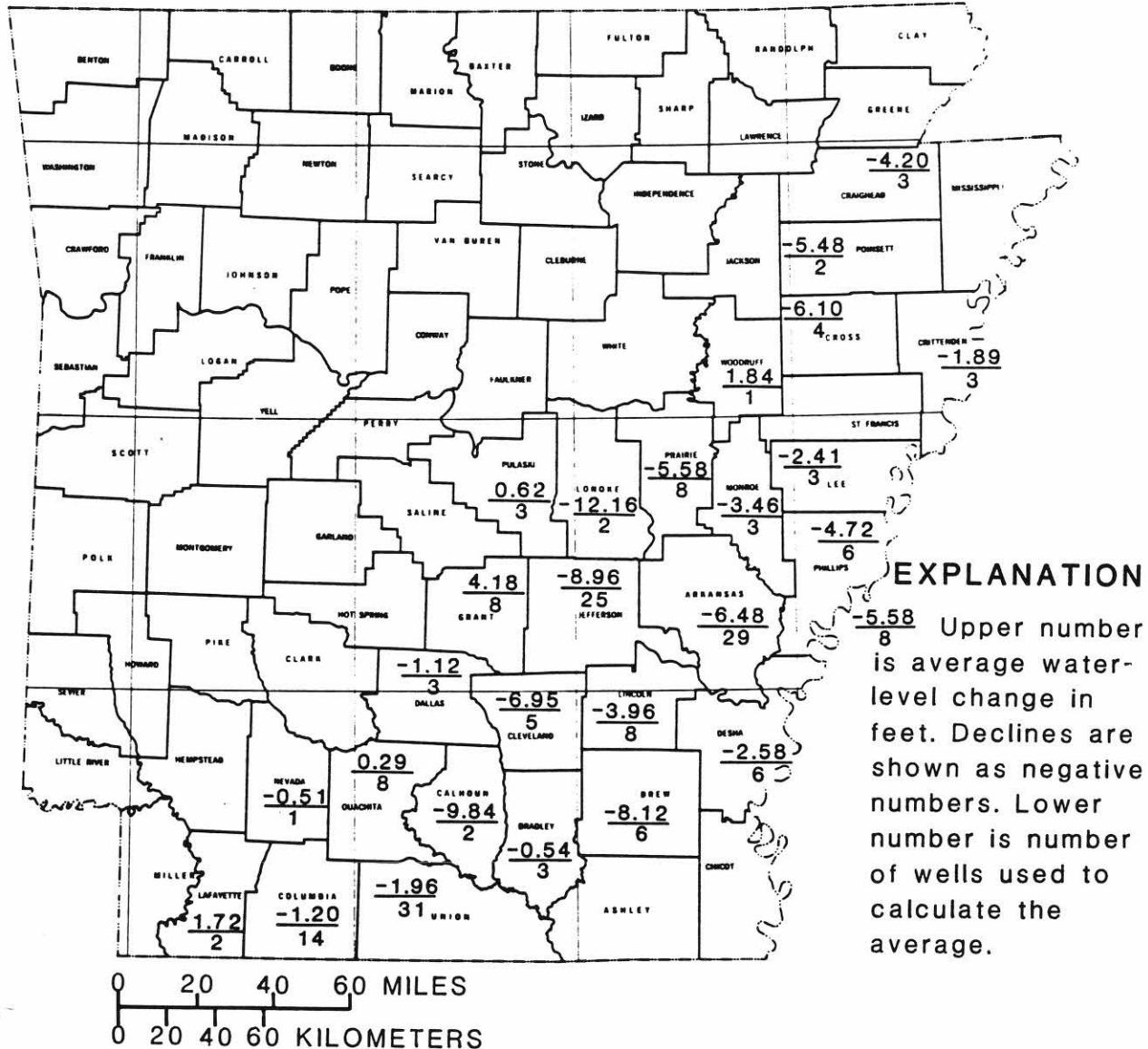


Figure 2.--Average water-level changes by county between 1984 and 1989 of wells completed in the Sparta and Memphis Sands.

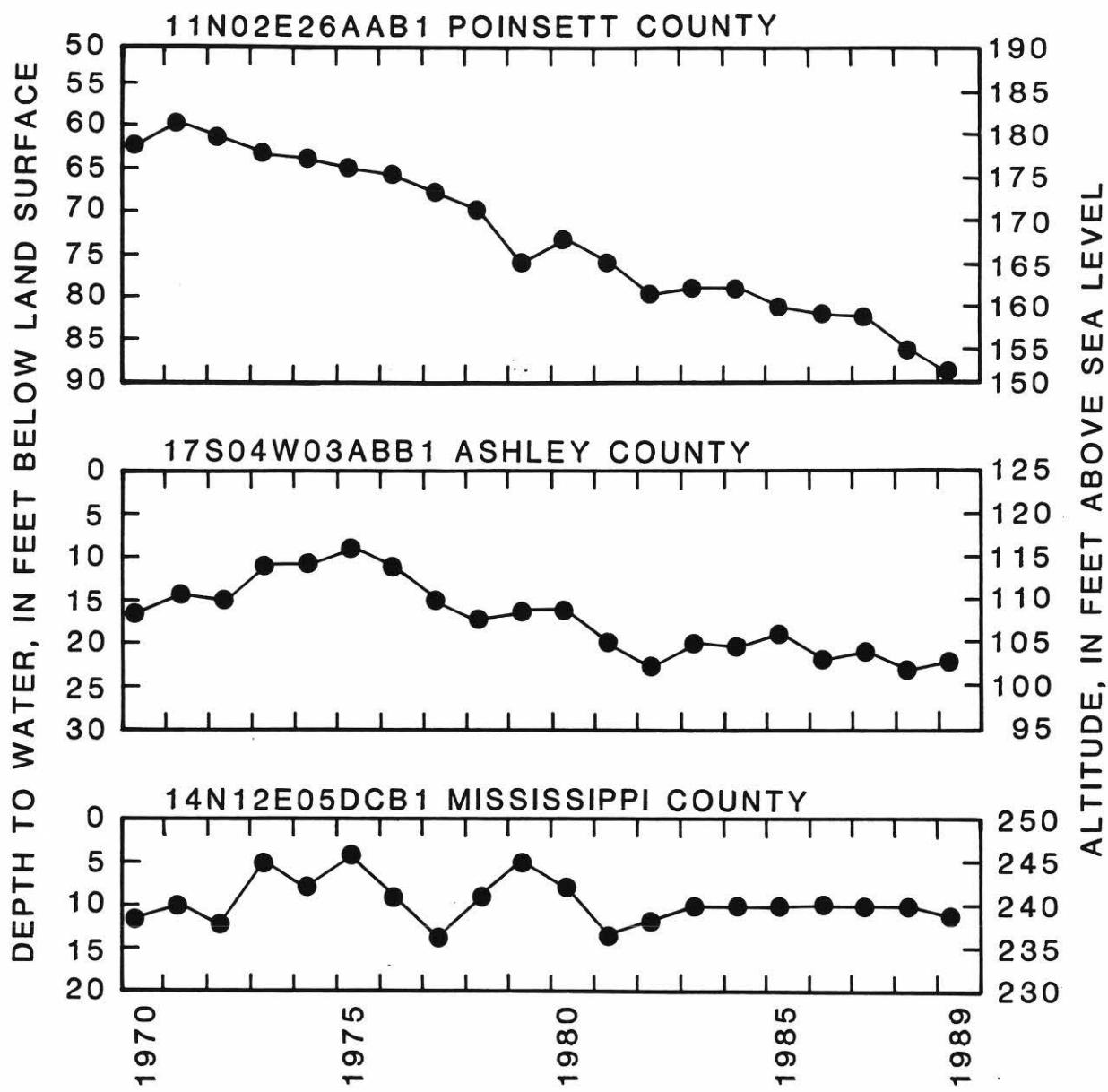


Figure 3 sheet 1 of 2.--Water-level hydrographs for selected wells completed in the aquifer in the Quaternary deposits.

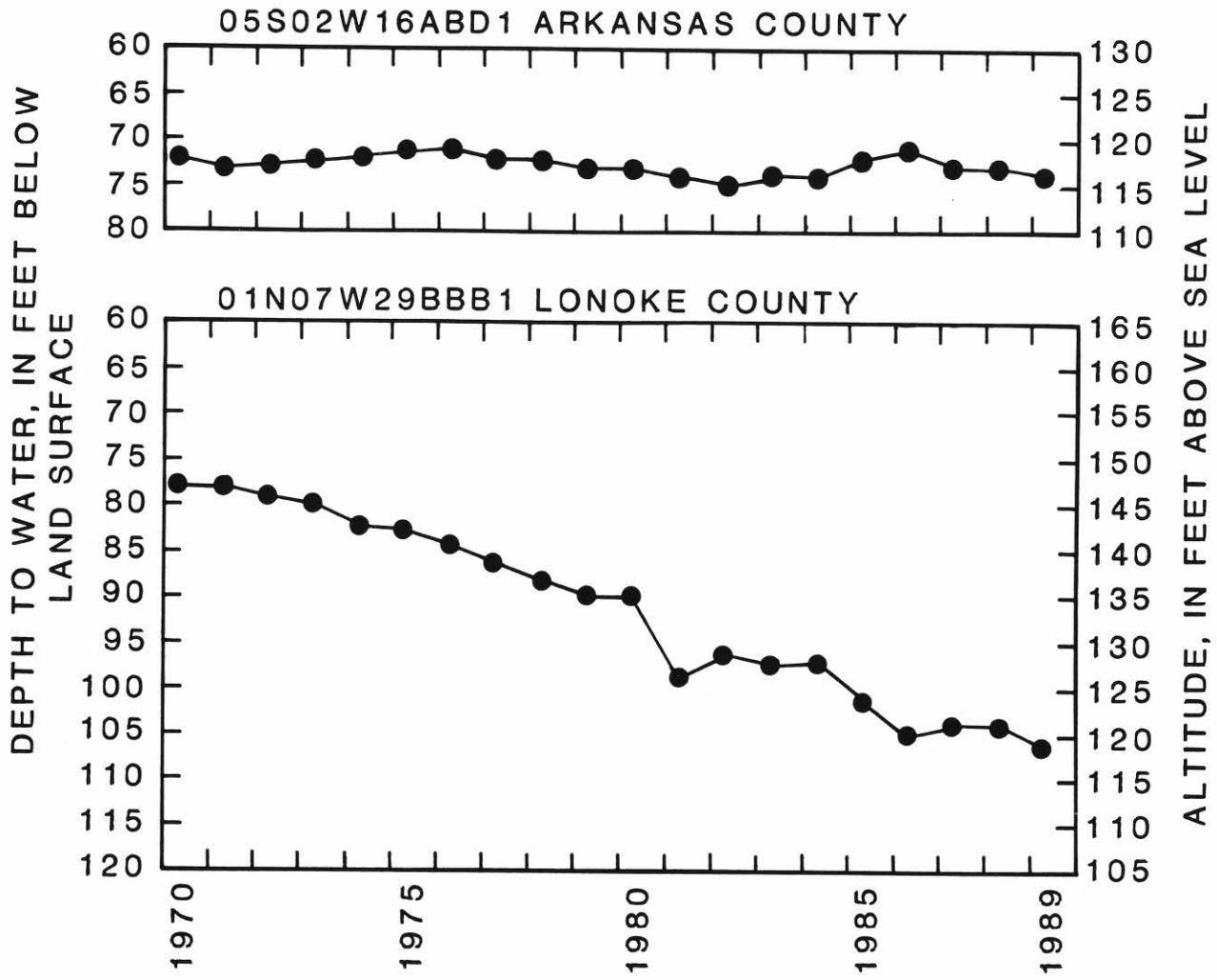


Figure 3 sheet 2 of 2.--Water-level hydrographs for selected wells completed in the aquifer in the Quaternary deposits.

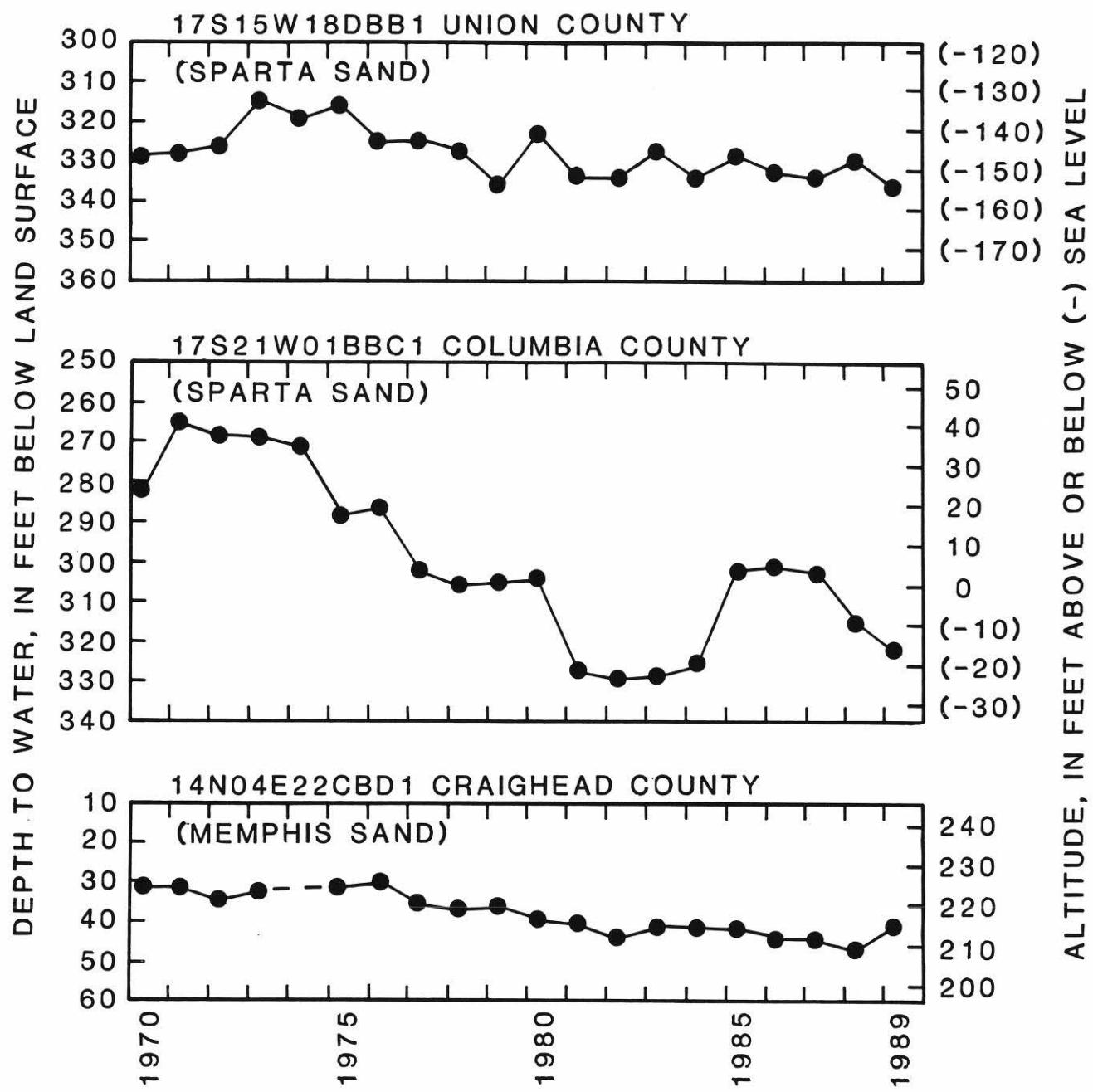


Figure 4 sheet 1 of 2.--Water-level hydrographs for selected wells completed in the aquifer in the Sparta and Memphis Sands.

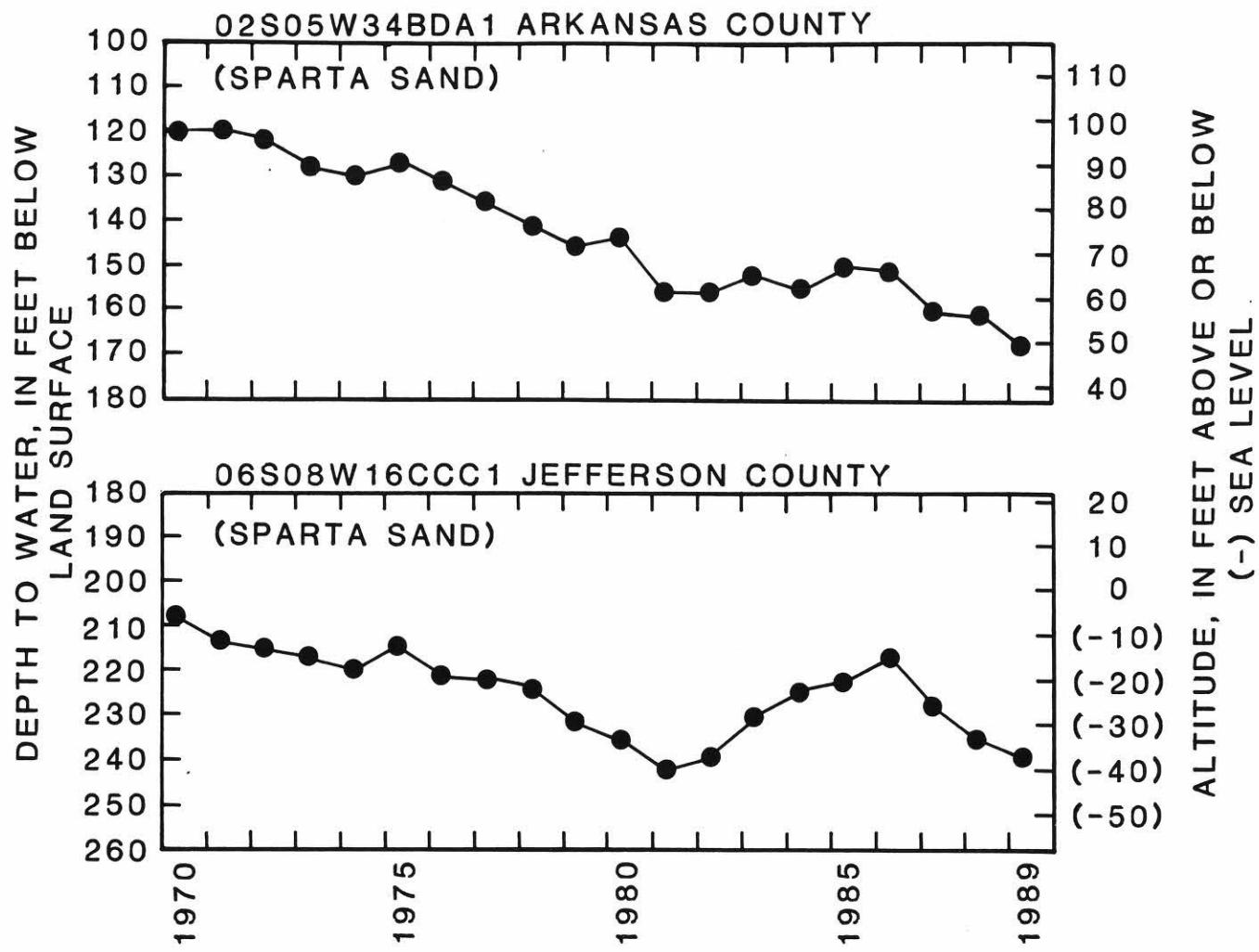


Figure 4 sheet 2 of 2.--Water-level hydrographs for selected wells completed in the aquifer in the Sparta and Memphis Sands.

DESCRIPTION OF TABLES

Headings in tables 1-16 are defined as follows:

Well number: Township, range, and section number designation of well.

Altitude of land surface: Altitude of the land surface at the well referenced to sea level.

Depth to water below land surface: Measured depth to water, in feet below land surface. A plus (+) preceding the depth-to-water value indicates the water level is above land surface.

Altitude of water level: Altitude of water level above or below (-) sea level, rounded to the nearest foot.

Net change in water level: Difference between 1988 and 1989 depth-to-water measurements and difference between 1984 and 1989 measurements. Symbol preceding number indicates a decline (-) or a rise (+) in water levels in the well.

Remarks: Where water-level data are not available for the 5-year interval, the time interval for the net-change value is indicated here.

WELL-NUMBERING SYSTEM

The well-numbering system used in this report is based upon the location of the wells according to the Federal land survey used in Arkansas. The component parts of a well number are the township number, the range number, the section number, and three letters which indicate, respectively, the quarter section, the quarter-quarter section, and the quarter-quarter-quarter section in which the well is located. The letters are assigned counterclockwise, beginning with "A" in the northeast quarter or quarter-quarter or quarter-quarter-quarter section in which the well is located. For example, well 01S03W04BBD16 (fig. 5) is located in Township 1 South, Range 3 West, and in the southeast quarter of the northwest quarter of the northwest quarter of section 4. This well is the 16th well in this quarter-quarter-quarter section of section 4 from which data were collected.

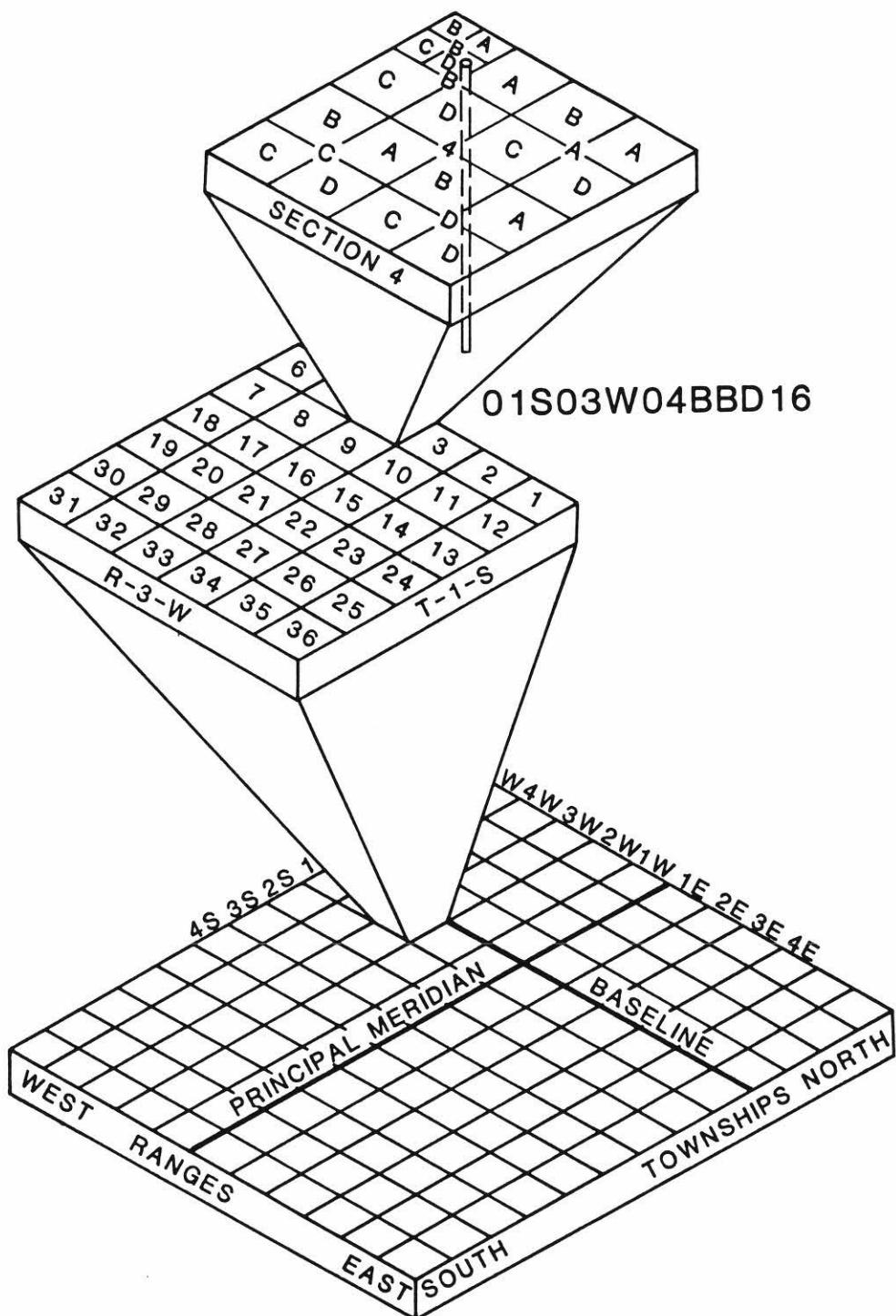


Figure 5.--Well-numbering system.

SELECTED REFERENCES

- Ackerman, D.J., 1987, Generalized potentiometric surface of the aquifer in the Cockfield Formation, southeastern Arkansas, spring 1980: U.S. Geological Survey Water-Resources Investigations Report 87-4212, 1 sheet.
- 1988, Generalized potentiometric surface of the Sparta-Memphis aquifer, eastern Arkansas, spring 1980: U.S. Geological Survey Water-Resources Investigations Report 87-4282, 1 sheet.
- Albin, D.R., Hines, M.S., and Stephens, J.W., 1967, Water resources of Jackson and Independence Counties, Arkansas: U.S. Geological Survey Water-Supply Paper 1839-G, 29 p.
- Baker, R.C., Hewitt, F.A., and Billingsley, G.A., 1948, Ground-water resources of the El Dorado area, Union County, Arkansas: Arkansas University Bureau of Research, Research Series 14, 39 p.
- Broom, M.E., and Lyford, F.P., 1981, Alluvial aquifer of the Cache and St. Francis River basins, northeastern Arkansas: U.S. Geological Survey Open-File Report 81-476, 48 p.
- Broom, M.E., and Reed, J.E., 1973, Hydrology of the Bayou Bartholomew alluvial aquifer-stream system, Arkansas: U.S. Geological Survey Open-File Report 73-34, 91 p.
- Bryant, C.T., Ludwig, A.H., and Morris, E.E., 1985, Ground water problems in Arkansas: U.S. Geological Survey Water-Resources Investigations Report 85-4010, 24 p.
- Caplan, W.M., 1957, Subsurface geology of northwestern Arkansas: Arkansas Geological and Conservation Commission Information Circular 19, 14 p.

Counts, H.B., Tait, D.B., Klein, Howard, and Billingsley, G.A., 1955, Ground-water resources in a part of southwestern Arkansas: Arkansas Geological and Conservation Commission Water Resources Circular 2, 35 p.

Edds, Joe, and Fitzpatrick, D.J., 1985, Maps showing altitude of the potentiometric surface and changes in water levels of the Sparta Sand and Memphis Sand aquifers in eastern Arkansas, spring 1984: U.S. Geological Survey Water-Resources Investigations Report 85-4223, 1 sheet.

----- 1986, Maps showing altitude of the potentiometric surface and changes in water levels in the aquifer in the Sparta and Memphis Sands in eastern Arkansas, spring 1985: U.S. Geological Survey Water-Resources Investigations Report 86-4084, 1 sheet.

----- 1989, Maps showing altitude of the potentiometric surface and changes in water levels in the Sparta-Memphis aquifer in eastern and southern Arkansas, spring 1986: U.S. Geological Survey Water-Resources Investigations Report 88-4042, 1 sheet.

Edds, Joe, and Remsing, L.M., 1985, Ground-water levels in Arkansas, spring 1986: U.S. Geological Survey Open-File Report 86-406W, 62 p.

Fitzpatrick, D.J., 1985, Occurrence of saltwater in the alluvial aquifer in the Boeuf-Tensas basin, Arkansas: U.S. Geological Survey Water-Resources Investigations Report 85-4029, 1 sheet.

Freiwald, D.A., and Grosz, G.D., 1988, Effects on ground-water levels in the alluvial aquifer in response to fluctuating pool stages in the lower Arkansas River, Arkansas: U.S. Geological Survey Water-Resources Investigations Report 87-4279, 22 p.

Freiwald, D.A., and Plafcan, Maria, 1987, Ground-water levels in Arkansas, spring 1987: U.S. Geological Survey Open-File Report 87-459, 66 p.

Halberg, H.N., 1977, Use of water in Arkansas, 1975: Arkansas Geological Commission Water Resources Summary Number 9, 28 p.

Halberg, H.N., and Reed, J.E., 1964, Ground-water resources of eastern Arkansas in the vicinity of U.S. Highway 70: U.S. Geological Survey Water-Supply Paper 1770-V, 38 p.

Hines, M.S., Plebuch, R.O., and Lamonds, A.G., 1972, Water resources of Clay, Greene, Craighead, and Poinsett Counties, Arkansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-377.

Holland, T.W., 1987, Use of water in Arkansas, 1985: Arkansas Geological Commission Water Resources Summary 16, 27 p.

Holland, T.W., and Hall, A.P., 1986, Water use in Arkansas, 1982: U.S. Geological Survey Water-Resources Investigations Report 85-4282, 1 sheet.

Holland, T.W., and Ludwig, A.H., 1981, Use of water in Arkansas, 1980: Arkansas Geological Commission Water Resources Summary Number 14, 30 p.

Hosman, R.L., Long, A.T., Lambert, T.W., and others, 1968, Tertiary aquifers in the Mississippi embayment, with a discussion of Quality of the water by H.G. Jeffery: U.S. Geological Survey Professional Paper 448-D, 29 p.

Lamonds, A.G., 1971, Hydrology of Horseshoe Lake, Arkansas: U.S. Geological Survey Open-File Report 71-177, 77 p.

Lamonds, A.G., Hines, M.S., and Plebuch, R.O., 1969, Water resources of Randolph and Lawrence Counties, Arkansas: U.S. Geological Survey Water-Supply Paper 1879-B, 45 p.

Ludwig, A.H., 1972, Water resources of Hempstead, Lafayette, Little River, Miller, and Nevada Counties, Arkansas: U.S. Geological Survey Water-Supply Paper 1998, 41 p.

Morris, E.E., 1988, Arkansas ground-water quality: U.S. Geological Survey Open-File Report 87-0714, 8 p.

- Morris, E.E., and Bush, W.V., 1986, Extent and source of saltwater intrusion into the alluvial aquifer near Brinkley, Arkansas, 1984: U.S. Geological Survey Water-Resources Investigations Report 85-4322, 123 p.
- Petersen, J.C., Broom, M.E., and Bush, W.V., 1985, Geohydrologic units of the Gulf Coastal Plain in Arkansas: U.S. Geological Survey Water-Resources Investigations Report 85-4116, 20 p.
- Plafcan, Maria, 1986, Ground-water levels in the alluvial aquifer in eastern Arkansas, 1985: U.S. Geological Survey Open-File Report 86-242, 29 p.
- 1986, Ground-water levels in the alluvial aquifer in eastern Arkansas, 1986: U.S. Geological Survey Open-File Report 87-545, 31 p.
- Plafcan, Maria, and Edds, Joe, 1986, Water level and saturated thickness maps of the alluvial aquifer in eastern Arkansas, 1984: U.S. Geological Survey Water-Resources Investigations Report 86-4014, 1 sheet.
- Plafcan, Maria, and Fugitt, D.T., 1987, Water-level maps of the alluvial aquifer in eastern Arkansas, 1985: U.S. Geological Survey Water-Resources Investigations Report 86-4178, 1 sheet.
- Plafcan, Maria, and Remsing, L.M., 1989, Water-level maps of the Mississippi River Valley alluvial aquifer in eastern Arkansas, 1986: U.S. Geological Survey Water-Resources Investigations Report 88-4067, 1 sheet.
- Plebuch, R.O., 1961, Fresh-water aquifers of Crittenden County, Arkansas: Arkansas Geological Commission Water Resources Circular 8, 65 p.
- Ryling, R.W., 1960, Nature and extent of ground-water supply of Mississippi County, Arkansas: Arkansas Geological Commission Water Resources Circular 7, 87 p.
- Sniegocki, R.T., 1964, Hydrogeology of a part of the Grand Prairie region, Arkansas: U.S. Geological Survey Water-Supply Paper 1615-B, 72 p.

Stephenson, L.W., and Crider, A.F., 1916, Geology and ground waters of north-eastern Arkansas: U.S. Geological Survey Water-Supply Paper 399, 315 p.

Westerfield, P.W., 1977, Well records, water-level measurements, logs of test holes, and chemical analyses of ground water in the Cache River alluvial aquifer-stream system, northeast Arkansas, 1946-76: U.S. Geological Survey Open-File Report 77-402, 166 p.

----- 1989, Ground-water levels in the alluvial aquifer in eastern Arkansas, 1987: U.S. Geological Survey Open-File Report 89-64, 32 p.

Westerfield, P.W., and Plafcan, Maria, 1988, Ground-water levels in Arkansas, spring 1988: U.S. Geological Survey Open-File Report 88-706, 72 p.

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
ARKANSAS COUNTY						
02S04W11DBB1	213	3-24	96.64	116	-1.08	-1.04
02S05W04BBB1	221	3-24	112.17	109	+5.77	+3.20
03S06W35ADD1	190	3-27	47.89	142	-0.43	-1.28
04S01W04ACD2	155	4-01	3.75	151	+2.14	+2.41
04S01W30AAA1	188	3-23	50.86	137	+1.34	+1.66
04S03W17ADD1	200	3-23	99.60	100	+4.55	-1.51
04S06W15DBB1	190	3-23	28.57	161	-0.25	-0.98
05S02W16ABD1	190	3-12	74.42	116	-1.05	-0.27
05S04W07CCC1	194	3-22	74.87	119	+1.62	+3.09
05S04W32BBA1	191	3-22	75.40	116	-2.42	-8.30
06S02W06BBA1	189	3-21	79.37	110	+5.33	-0.87
06S02W23DCD1	188	3-21	58.66	129	+1.69	-0.48
06S03W27AAA1	183	3-20	63.56	120	-0.51	+2.10
06S04W18CBB1	190	3-22	36.94	153	-0.55	-0.42
07S02W04BBB1	176	3-20	50.53	125	+7.49	-4.85
07S02W17BBA1	184	3-20	50.38	134	-1.26	-3.10
07S03W18CCD1	186	3-20	40.59	146	+15.82	+1.45
07S04W01DDD1	186	3-20	43.29	143	+3.70	+5.57

ASHLEY COUNTY

15S04W23DBD1	128	3-29	22.49	106	+3.76	+0.98
16S06W27BAB1	182	3-30	79.35	103	-0.32	+2.47
17S04W03ABB1	124	3-29	22.34	102	+0.45	-1.38
17S07W05CDD1	185	3-30	84.82	100	+29.11	+0.72
18S08W01AAB1	181	3-30	82.18	99	+8.37	-3.55

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				Date	1988-89	
ASHLEY COUNTY--Continued						
18S08W28DDD2	163	3-30	86.53	77	+0.49	+0.84 Georgia Pacific 9R recorder.
19S04W06BAB2	110	3-30	16.25	94	+0.88	-0.50
19S06W07BCC1	134	3-30	30.78	104	+2.66	+0.12
CHICOT COUNTY						
14S03W32DCB1	134	3-28	26.38	108	+0.67	-2.30
15S03W24AAA1	115	3-28	20.09	95	+0.09	+0.51
17S01E17CDA1	118	3-28	13.82	104	+1.57	-7.04
17S03W23BBB1	114	3-28	23.05	91	+0.93	-1.08
19S01W17BCC1	106	3-29	12.48	94	+0.31	+1.97
CLAY COUNTY						
19N04E19AAA1	282	4-28	24.48	258	-1.58	-2.20
20N05E34DBA1	285	4-28	16.08	269	+1.02	+0.76
20N08E24DDA1	276	4-28	9.47	267	-0.28	-3.97
21N06E31BBA1	289	4-28	5.16	284	+1.10	-2.91
CONWAY COUNTY						
05N17W05CDD1	326	4-18	33.39	293	-0.18	+0.64 1986-89.

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	

CONWAY COUNTY--Continued

06N15W31ADC2	280	4-18	10.81	269	-3.80	-1.93	1986-89.
06N15W33DCC1	278	4-18	5.49	273	-0.26	+1.25	1986-89.

CRAIGHEAD COUNTY

13N02E35DAA1	250	4-13	85.60	164	-2.14	-6.84	U.S. Geological Survey recorder.
13N03E09BAA1	267	4-13	83.86	183	-1.84	-4.44	
13N04E12ABB1	231	4-13	18.18	213	+0.87	-3.45	1985-89.
13N05E21BDD1	226	4-13	8.51	217	+0.59	+2.09	Bay public supply.
14N02E18BDD1	242	4-12	36.52	205	-0.74	-3.69	
14N07E26DAB1	227	4-13	2.90	224	+3.25	+2.14	
15N03E19ADA1	262	4-12	33.74	228	-1.08	-3.64	
15N06E20DDD1	234	4-13	5.03	229	+0.74	+0.22	

CRAWFORD COUNTY

08N31W10BDC1	401	4-18	14.82	386	+0.88	-10.46	1986-89.
--------------	-----	------	-------	-----	-------	--------	----------

CRITTENDEN COUNTY

05N07E28CBA1	201	4-04	14.97	186	+0.06	-1.16	
--------------	-----	------	-------	-----	-------	-------	--

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	

CRITTENDEN COUNTY--Continued

05N08E11CCD1	212	4-04	10.13	202	---	+2.27
07N07E31CCC1	207	4-05	23.63	183	-1.98	-3.91
07N09E05CDD1	214	4-05	6.78	207	+2.87	+0.41

CROSS COUNTY

06N04E01BBB1	205	4-04	31.02	174	+0.34	-0.27
07N01E05CDA1	217	3-27	56.35	161	-0.74	-3.20
07N01E11AAA1	217	3-27	58.83	158	-0.74	-3.43
07N03E05ADA1	254	3-27	97.41	157	-0.66	-4.81
07N05E01BCB1	212	4-04	33.13	179	-0.49	-2.18
08N03E09DAD1	258	3-28	97.83	160	+0.56	-3.33
09N01E33BBA1	225	3-29	62.25	163	+0.17	-3.51
09N03E17DDC1	248	3-29	89.25	159	-0.66	-5.10
09N05E32BDB1	210	4-04	23.69	186	+1.67	+1.10

DESHA COUNTY

09S03W17DCB1	155	3-27	23.68	131	-1.66	-0.48	U.S. Army Corps of Engineers.
09S04W06BBC1	161	3-27	23.32	138	-1.61	+3.56	
10S03W26DAC1	155	3-27	46.23	109	-0.84	-12.33	
10S04W02BAB1	160	3-27	24.40	136	+1.39	+4.42	
10S04W08BDD1	163	3-27	20.64	143	+1.83	+0.04	
11S02W31DCC1	145	3-27	31.10	114	+4.76	-0.07	

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	

DESHA COUNTY--Continued

11S03W31BBA1	148	3-27	16.69	131	+2.01	+2.91
--------------	-----	------	-------	-----	-------	-------

DREW COUNTY

11S04W35CCD1	154	3-27	19.58	135	+0.34	-0.30	1987-89.
13S04W33ABA1	140	3-27	16.18	124	-11.58	+1.13	

FAULKNER COUNTY

04N15W15ACA1	280	5-08	23.86	256	-2.71	-4.76	1987-89.
05N14W19DCC1	279	5-08	19.75	259	-2.91	-4.93	1987-89.

FRANKLIN COUNTY

08N26W04BDA1	365	4-18	25.30	341	-1.07	-2.19	1986-89.
--------------	-----	------	-------	-----	-------	-------	----------

GREENE COUNTY

16N06E03CCC1	258	4-14	34.90	223	+13.00	-5.99
17N03E02BDB1	266	4-27	17.79	248	+0.81	-9.41
17N04E30CDC1	265	4-27	24.08	241	-8.83	-2.68

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	

GREENE COUNTY--Continued

18N06E26CDD1	272	4-27	14.09	258	+0.91	+0.13
--------------	-----	------	-------	-----	-------	-------

INDEPENDENCE COUNTY

14N03W14CAB1	230	3-20	-.42	230	+1.94	+2.72
--------------	-----	------	------	-----	-------	-------

JACKSON COUNTY

09N01W22ADD1	215	3-22	44.19	171	+9.99	-0.79
09N02W32CBB1	220	3-22	22.98	197	+0.05	-1.48
12N02W25ABB2	234	3-21	23.67	210	-1.03	-3.67
13N01W20AAA1	242	3-21	25.67	216	+0.15	-3.35
14N01W09AAA1	251	3-20	27.52	223	-0.50	-2.02

JEFFERSON COUNTY

03S08W19CBA1	214	3-22	33.81	180	-1.49	-4.17
03S08W24BBC1	202	3-22	40.28	162	-2.13	-4.66
03S09W06DDA1	225	3-22	34.14	191	-1.77	-1.41
07S08W06BAA1	202	3-22	12.52	190	-1.05	+1.41

JOHNSON COUNTY

09N25W28DDB1	349	4-18	8.29	341	-5.26	-0.75 1986-89.
--------------	-----	------	------	-----	-------	-------------------

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
	1988-89	1984-89			
JOHNSON COUNTY--Continued					
09N25W32BBA1	356	4-18	13.57	343	-2.54 -0.77 1986-89.
LAFAYETTE COUNTY					
16S25W25CAC1	224	4-11	11.07	213	-1.32 +4.65
19S25W06ABD1	216	4-12	6.37	210	+0.88 +7.74
LAWRENCE COUNTY					
16N01E11DAC1	262	3-20	32.90	229	-1.58 -3.15
LEE COUNTY					
01N03E02BBC1	236	3-28	41.13	195	+0.62 +0.32
01N03E35BBA1	202	3-28	5.86	196	+0.16 -0.47
02N01E23BAA2	202	3-28	40.82	161	-1.15 -2.73
02N03E14CCC3	232	3-29	52.44	180	+3.88 -0.18 Marianna public supply 3.
03N02E29DAD1	205	3-28	33.27	172	-1.08 -2.10
LINCOLN COUNTY					
08S06W21BBC1	180	3-21	30.25	150	-1.60 -0.34

Table 1.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
LINCOLN COUNTY--Continued						
08S07W09BBD1	189	3-22	18.22	172	+8.15	+3.96
09S05W13CDB1	174	3-21	29.19	145	-0.06	-2.28
LITTLE RIVER COUNTY						
13S29W05ABC1	330	4-13	25.69	304	+0.05	-1.58
13S32W09CCC1	313	4-13	3.47	310	-0.42	-1.63
LOGAN COUNTY						
08N25W07DAA2	360	4-17	15.89	344	-3.61	-0.21 1986-89.
08N26W16BAA1	359	4-17	15.80	343	-7.60	-2.24 1986-89.
LONOKE COUNTY						
01N07W29BBB1	225	3-31	105.73	119	-1.98	-8.39
01N09W27CCA1	229	3-31	63.55	165	---	-8.92
02N07W22DDD1	223	4-11	107.98	115	-1.85	-5.93
02N08W04BBB1	243	4-11	100.95	142	+1.64	-2.26
02N08W30CAB1	245	3-09	114.16	131	+16.81	-5.01 State Fish Hatchery U.S. Geological Survey recorder.
02N09W02BCB1	255	4-11	103.41	152	-1.86	-5.61

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				Date	1988-89	

LONOKE COUNTY--Continued

02N09W17CCB1	253	4-11	75.70	178	-0.10	-2.00	Remington Arms Co., Inc.
02N10W23BCA1	242	4-11	36.00	206	-1.29	-1.33	
03N07W15DBC2	227	4-11	68.72	158	-0.14	-2.12	
03N07W31CDD2	243	4-11	106.28	137	-2.15	-9.16	
03N08W28BAB2	247	4-11	96.00	151	-1.60	-3.91	1985-89.
03N09W31CBC2	257	4-23	57.73	199	+4.96	+5.55	
04N08W15BCB2	225	4-23	26.34	199	-1.51	-4.11	
01S07W11ADD1	210	3-30	78.56	131	+4.47	+0.87	1985-89.
01S08W22CBB1	212	3-31	60.87	151	-2.19	-7.56	
01S10W01ACB1	236	3-30	37.47	199	-1.46	-3.98	
02S08W13BBB1	200	3-30	45.20	155	-1.15	-6.23	
02S09W12CCC1	221	3-30	47.37	174	-0.94	-3.74	

MILLER COUNTY

15S26W34AAA1	230	4-11	3.23	227	+2.35	+3.92
16S25W19AAA1	230	4-11	9.75	220	+1.05	+2.37
19S27W03DBB1	205	4-11	4.25	201	+1.77	+3.17

MISSISSIPPI COUNTY

14N08E12DAB1	235	4-05	4.65	230	+1.04	-0.81
14N12E05DCB1	250	4-26	9.28	241	+0.62	+0.53

MONROE COUNTY

01N01W21CDC1	181	3-22	26.21	155	-1.38	-3.62
--------------	-----	------	-------	-----	-------	-------

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
MONROE COUNTY--Continued						
01N04W33BBB2	218	3-23	90.11	128	-0.82	-0.65
02N02W20BCC1	188	3-22	32.84	155	-1.00	---
03N01W20ABA1	189	3-22	35.46	154	-1.46	-0.72
03N02W31ADC1	190	3-22	32.80	157	-0.02	-0.92
04N03W36BAC1	180	3-23	9.82	170	+0.67	+0.35
01S01W13CDD1	178	3-22	12.37	166	-0.69	-3.04
01S02W11BCC1	180	3-22	15.37	165	-0.95	-1.68
PHILLIPS COUNTY						
02S01E28CCB1	174	3-28	15.12	159	-0.96	-3.21
02S02E01ACD1	185	3-28	12.41	173	+1.34	-0.28
02S03E15ACD1	174	3-28	11.22	163	+0.83	-1.31
U.S. Geological Survey recorder.						
06S01E28AAA1	151	3-28	19.22	132	-4.25	-8.80
POINSETT COUNTY						
10N03E14DAA1	270	3-21	114.07	156	-0.05	+4.11
10N07E22AAC1	215	3-21	22.54	192	-1.17	-1.38
11N01E21CBC1	230	3-22	62.09	168	-3.91	-5.72
11N02E26AAB1	241	3-21	88.70	152	-2.43	-9.43
11N03E22DDD1	245	3-21	87.38	158	-3.04	-7.27
12N01E07CDA1	236	3-21	39.26	197	-2.45	-2.68

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
POINSETT COUNTY--Continued						
12N04E18CCC1	245	3-21	76.57	168	-4.61	-3.87
12N07E04BAA1	223	3-21	5.07	218	+4.34	+1.26 1985-89.
POPE COUNTY						
07N18W32DAA1	314	4-18	10.25	304	+0.17	+4.60 1986-89.
PRAIRIE COUNTY						
01N05W16AAA1	218	3-31	110.35	108	-6.57	-1.33
01N06W18CDD1	223	3-31	108.25	115	-1.10	-4.95
02N04W32CCB1	221	4-10	79.77	141	-1.62	-2.77
02N05W05BBB1	221	4-10	80.48	141	-0.90	-2.51
02N05W29DDB2	228	4-10	109.84	118	-1.40	-2.58
03N05W03DBB1	207	4-23	52.89	154	+0.12	-0.44
03N06W01BCB1	216	4-23	75.69	140	-0.84	-6.37
04N05W07CDC1	212	4-23	66.13	146	-1.19	-2.83
04N06W21BCC1	220	4-23	69.66	150	-2.81	-5.93
04N07W01CCC1	212	4-23	51.95	160	-1.52	-3.71
05N05W14DCD1	205	4-23	30.40	175	-0.10	+1.89
02S06W14BBA1	201	3-30	68.82	132	-1.06	-2.64
PULASKI COUNTY						
02N10W05BCC1	239	3-29	20.61	218	-0.42	+2.54 Jacksonville public supply 10.

Table 1.--Measurements of water levels in 1989 in wells completed in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
PULASKI COUNTY--Continued						
02N13W08CDD1	253	5-15	2.12	251	+0.62	-0.09 1986-89.
02S10W16CCA1	230	5-08	19.20	212	+2.81	+4.06
RANDOLPH COUNTY						
18N01E34AAC1	266	4-27	11.69	254	+1.20	+0.37
19N02E09DCA1	267	4-28	9.35	258	-2.17	-8.51
ST FRANCIS COUNTY						
04N02E03DDD3	210	3-27	34.95	175	-0.86	-2.94 Arkansas Power and Light Co.
04N05E22BBB1	200	4-03	25.68	174	+0.84	+0.61
06N01E33ACA2	211	3-27	50.88	160	-0.91	-4.02
06N02E15BDD1	214	3-27	46.33	168	-0.94	-3.36 1985-89.
06N02E24AAA1	232	3-27	56.06	176	---	+0.69
06N05E22ACC1	200	4-03	29.25	171	-0.86	-2.56
SEBASTIAN COUNTY						
08N30W14ADD2	384	4-17	10.03	374	-5.77	-2.72 1986-89.
WHITE COUNTY						
05N07W09AAA1	205	4-25	18.76	186	-0.62	-2.90

Table 1.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Quaternary deposits--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	

WHITE COUNTY--Continued

05N08W23DCB1	211	4-25	15.78	195	-1.04	-3.66	
06N06W34AAB1	213	3-24	50.42	163	---	---	New well.
06N07W17DCC1	217	4-25	18.38	199	-0.75	-1.20	
07N05W32BAB1	213	3-24	24.64	189	+1.16	+0.40	
07N07W31CBB1	233	4-25	5.58	227	-1.45	-1.95	

WOODRUFF COUNTY

05N01W16BCC1	211	3-22	54.28	157	-1.72	-1.71	
05N04W12DBA1	186	3-22	3.03	183	+1.00	+0.16	
06N01W06BAB1	202	3-27	23.51	178	-0.55	-1.92	
06N01W33ADB2	216	3-22	54.78	161	-0.36	-2.25	
07N02W17CBD1	197	3-08	6.37	191	+1.22	+2.85	
08N03W31AAD1	212	3-22	19.90	192	-0.54	+1.77	

YELL COUNTY

06N19W21DCD1	312	4-18	18.21	294	-2.27	+0.37	1986-89.
06N20W09CCC1	324	4-18	31.25	293	-2.92	+0.10	1986-89.
06N20W15DDD1	321	4-18	25.57	296	-2.87	+0.73	1986-89.

Table 2.--Measurements of water levels in 1989 in wells completed in the aquifer in the Cockfield Formation

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
ARKANSAS COUNTY						
08S02W04ACA1	165	3-20	89.67	75	-6.59	-18.01
ASHLEY COUNTY						
15S04W26CBC1	128	3-29	31.19	97	+1.03	-0.16
15S07W32CBA2	188	3-30	88.19	100	-1.39	+0.06
17S04W10BCD2	125	3-29	25.39	100	+2.23	+0.07
17S06W07ADA1	174	3-30	73.85	100	+3.42	-0.70
18S04W19DAA2	116	3-29	24.95	91	-3.25	-3.45
18S08W04BBC1	149	3-29	66.40	83	+9.01	+1.12
19S05W12CAC1	115	3-29	23.42	92	+1.56	+2.63
BRADLEY COUNTY						
14S09W04ADA1	148	3-31	49.33	99	+1.26	+9.74
14S10W31DBA1	193	3-28	87.94	105	-0.85	-2.41
15S12W11CAB1	155	3-28	18.73	136	+0.44	+2.84
16S10W11DCB1	152	3-28	52.15	100	-1.47	-1.09

Table 2.--Measurements of water levels in 1989 in wells completed in the aquifer in the Cockfield Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	
BRADLEY COUNTY--Continued					
16S11W11ACA1	141	3-28	24.60	116	+0.91 +6.64
CALHOUN COUNTY					
14S13W01AAA1	212	3-30	7.69	204	+0.09 -0.01
14S14W21ACB1	132	3-30	34.85	97	+0.12 -0.99
CHICOT COUNTY					
14S03W05BBA1	139	3-28	65.73	73	+0.42 -2.76 Dermott public supply.
15S03W21ABA1	122	3-28	24.85	97	+0.80 +2.12
16S02W04BAC1	125	3-28	35.98	89	+0.97 -3.64 Lake Village public supply 1.
18S02W25ABB3	135	3-29	40.05	95	--- +0.90 Eudora public supply 3.
18S03W14CCC1	98	3-29	10.57	87	-0.08 +0.61
CLEVELAND COUNTY					
08S11W02BCB1	245	4-03	132.62	112	+1.17 +0.08 Highway rest area.

Table 2.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Cockfield Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
CLEVELAND COUNTY--Continued						
08S13W03BAD1	215	4-03	64.37	151	+0.32	+0.35
11S11W23BBD1	275	4-03	40.06	235	+0.33	+0.60
DALLAS COUNTY						
10S15W18BCC1	328	4-30	75.44	253	-0.34	-6.71 1986-89.
DREW COUNTY						
13S05W35ABB1	170	3-27	83.50	87	-1.23	-2.87
14S07W26BAB1	230	3-28	116.26	114	-0.71	-0.18
LINCOLN COUNTY						
10S05W06CAC1	170	3-21	110.57	59	-2.04	-10.74
LONOKE COUNTY						
02S09W15BBB2	226	4-07	55.92	170	+2.65	+1.38 1986-89.
UNION COUNTY						
17S13W17DDC1	193	4-04	40.46	153	+0.58	+0.68

Table 2.--Measurements of water levels in 1989 in wells completed in the aquifer in the Cockfield Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
UNION COUNTY--Continued						
17S15W31DCA2	269	4-05	49.64	219	+0.46	+0.70
17S15W36BAD1	248	4-04	40.12	208	-0.36	+4.29 Columbia Chemical.
19S10W16CDB2	82	4-04	26.48	56	+0.20	-0.08

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
ARKANSAS COUNTY						
02S04W06CDB1	212	3-24	137.29	75	+1.88	-2.12
02S04W23DAA1	208	3-23	124.64	83	+2.85	+3.32
02S04W33BBB1	205	3-23	142.73	62	-3.98	-2.80
02S05W34BDA1	216	3-09	169.48	47	-8.77	-13.93
03S04W02CCB1	202	3-23	135.77	66	-2.61	-6.48
03S04W26CDA1	203	3-23	138.35	65	-4.50	-7.66
03S04W33BAA1	201	3-23	136.87	64	-1.69	-3.89
03S05W02AAB1	210	3-23	149.89	60	-1.15	+1.21
03S05W13BDC1	210	3-24	156.42	54	-5.74	-9.42
03S05W15CBB1	206	3-24	156.35	50	-5.15	-8.89
03S05W18CAB1	196	3-24	149.26	47	-5.41	-9.01
03S06W21ACC1	195	3-27	144.35	51	-6.05	-10.02
03S06W30BBD1	191	3-27	141.06	50	-5.92	-8.76
04S01W28BAA1	190	3-23	94.20	96	-2.08	-5.16
04S04W11BCC1	198	3-23	142.21	56	-6.41	-11.03
04S04W19CBB1	195	3-23	134.00	61	+3.25	+1.07
04S04W22DAA1	195	3-23	134.81	60	-0.23	-2.69
04S05W01BAA1	196	3-23	142.28	54	-0.18	-3.48
04S05W36DCC1	196	3-22	139.61	56	-5.11	-4.59
05S03W04ADB1	187	3-21	121.67	65	-1.78	-4.20
05S04W26ACA1	188	3-22	127.47	61	-6.14	-11.47
05S05W36DAA1	180	3-22	127.27	53	-4.85	-7.65
06S02W06ABB1	181	3-21	100.16	81	+1.13	-1.76

Table 3.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
ARKANSAS COUNTY--Continued						
06S02W22CDB1	186	3-21	98.46	88	-1.94	-11.90
07S02W28ABA1	181	3-20	94.62	86	-3.56	-6.34
07S03W06ABC1	185	3-20	118.56	66	-3.70	-10.74 Gillett public supply.
08S02W01CBA1	165	3-20	77.07	88	-4.17	-6.69 Lock and Dam 1.
08S03WT2299	175	3-20	100.92	74	-3.16	-13.32
08S03WT2307	176	3-20	99.20	77	-2.41	-5.15
08S03WT2404	168	3-20	90.89	77	-5.56	-11.07
ASHLEY COUNTY						
15S07W32CDD1	190	3-30	136.97	53	+0.27	-2.22 1985-89.
BRADLEY COUNTY						
13S09W06ACA1	208	3-28	141.47	67	-0.47	+3.93 Warren public supply.
13S11W17BCD1	250	3-30	179.20	71	+0.30	-2.38 Banks public supply.
16S12W21CAA1	100	3-28	63.04	37	+0.13	-3.16
CALHOUN COUNTY						
11S14W12CAC2	310	3-30	139.52	170	+3.18	+3.66 1987-89.

Table 3.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks	
				1988-89	1984-89		
CALHOUN COUNTY--Continued							
13S13W32CDA1	208	3-30	175.85	32	-0.05	-18.86	Hampton public supply.
14S13W12CCB1	205	3-30	156.00	49	+0.98	-0.83	Harrell public supply.
CLEVELAND COUNTY							
09S11W01DCA1	230	4-03	184.70	45	+0.52	-22.26	Rison public supply.
09S11W01DDA2	266	4-03	203.64	62	+1.53	-7.34	
10S09W23CDC1	220	4-03	150.45	70	-0.42	-3.46	Highway 15 water user.
10S12W12BDD1	220	4-03	105.25	115	+0.80	-0.02	Kingsland public supply.
11S11W16AAB1	303	4-03	196.26	107	-0.85	-1.64	New Edinburg public supply.
COLUMBIA COUNTY							
15S20W20CCB1	372	4-04	214.90	157	-0.30	-0.24	1986-89.
16S21W14CBB1	281	4-06	197.60	83	+10.68	+6.82	Waldo public supply.
16S21W15CBC1	285	4-06	193.22	92	+10.86	+1.89	
16S21W35CCD1	275	4-06	296.92	-22	-4.02	-30.23	Magnolia public supply 9.

Table 3.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
COLUMBIA COUNTY--Continued						
16S22W22CCD1	340	4-06	130.92	209	-2.96	-2.20 1986-89.
17S19W15ABD1	325	4-05	290.04	35	-0.44	-6.45 Village Corp.
17S19W30ABB1	248	4-06	214.48	34	-4.95	-5.92 Magnolia public supply 10.
17S20W15ABB1	350	4-05	355.10	-5	-11.90	-3.20 Carter Oil Co.
17S20W17CDA1	325	4-06	312.72	12	-3.68	-13.26 Magnolia public supply 8.
17S21W01BBC1	305	4-05	322.03	-17	-5.68	+3.68 Southern Arkansas University 3.
17S21W11DCC2	303	4-06	335.07	-32	-7.24	-10.17 Magnolia public supply 2.
18S19W17ACC1	288	4-05	247.07	41	+0.82	-4.76 Hiwan Oil & Gas Co.
18S20W06DDC1	300	4-05	288.85	11	+0.18	+3.52 Magnolia Country Club.
18S20W18ABD1	276	4-06	285.07	-9	-0.45	+11.23 Bromet Co.
19S20W09CAC1	332	4-05	231.20	101	+0.80	+30.94 Emerson public supply 2.
19S23W11CDA2	248	4-11	53.03	195	-1.87	-0.90
CRAIGHEAD COUNTY						
13N04E05DCC1	340	4-13	133.02	207	+2.48	-7.27
14N04E22CBD1	256	4-12	40.66	215	+4.98	+1.78
14N04E28DBD1	254	4-27	50.61	203	-3.11	-7.11
CRITTENDEN COUNTY						
05N08E11CCA2	211	4-04	23.38	188	+1.97	-2.69

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				Date	1988-89	
CRITTENDEN COUNTY--Continued						
06N07E01DAD2	209	4-04	20.93	188	-0.24	-2.20
07N09E14BAC1	217	4-05	30.88	186	+2.87	-0.77
CROSS COUNTY						
06N04E06ACA1	358	4-26	191.39	167	-8.19	-12.25 Village Creek State Park.
07N03E16CCC3	253	3-27	83.22	170	+1.53	-3.44 Wynne public supply 3.
07N05E04ADD1	209	4-04	25.11	184	---	+0.80 1986-89.
09N01E16CAC1	234	3-29	71.30	163	-0.25	-3.66 Hickory Ridge public supply.
09N03E22AAD1	278	3-29	110.61	167	-0.60	-5.07 Cherry Valley public supply 1.
DALLAS COUNTY						
08S16W27DDD1	272	3-30	31.07	241	+0.63	+0.27
09S13W35CCD1	200	3-31	62.77	137	-0.52	-1.35
09S17W36CAD1	250	3-30	19.27	231	+2.50	+2.07 1986-89.
10S13W34ACA2	272	4-06	143.11	129	-0.92	-2.28 Fordyce public supply.
DESHA COUNTY						
09S02W26AAC1	153	3-27	62.79	90	+0.48	-5.97 Watson public supply.

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
DESHA COUNTY--Continued						
09S04W08DDA1	163	3-27	82.79	80	+0.34	+7.73 1986-89.
09S04W28DDD1	165	3-27	86.85	78	-0.49	-3.90 Dumas public supply.
10S02W26CCC2	148	3-27	59.88	88	+1.57	-2.16 U.S. Fish and Wildlife Service.
11S02W03CCA1	139	3-27	59.98	79	+1.36	-9.51
12S01W32DCA1	136	3-28	44.68	91	+2.04	+2.98 Arkansas City public supply.
12S03W34DAD1	147	3-28	71.06	76	+6.18	+3.09 McGehee public supply 3.
DREW COUNTY						
11S04W25DAA1	148	3-27	72.97	75	-1.14	-4.36 Tollar public supply.
11S06W11DBC1	203	3-28	135.01	68	-1.61	-3.24
12S06W32DAD1	212	3-27	188.29	24	-16.16	-32.02 Former Prisoner of War Camp.
13S05W36ACB1	169	3-27	81.67	87	-0.10	-1.06 Collins public supply.
13S07W10BCA1	265	3-27	202.37	63	-4.40	-5.95
15S04W12DDA1	125	3-27	54.02	71	-0.85	-2.06
GRANT COUNTY						
03S13W12AAA1	361	3-27	126.28	235	-0.99	-1.34 1986-89.

Table 3.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
GRANT COUNTY--Continued						
03S14W20ADB1	320	3-29	23.64	296	+1.92	+3.26
03S14W35DCA1	320	3-28	67.79	252	+0.80	+0.70
04S14W14ADC1	310	3-29	72.89	237	+10.96	+8.18
05S13W03CDA4	281	3-28	103.32	178	-3.52	-0.65
05S13W03DBC1	260	3-28	81.25	179	-3.76	+2.68
05S14W06DCC1	293	3-28	83.66	209	+0.65	+3.82
05S15W05ABD1	232	3-28	1.70	230	+13.36	+15.96
06S11W05ACA1	280	3-28	185.59	94	-5.05	+0.25
06S15W26ACA1	280	3-28	62.50	218	-1.69	+3.94
JEFFERSON COUNTY						
03S08W19BBD1	215	3-22	151.80	63	-0.46	-6.16
03S10W17DBA1	217	3-21	102.42	115	-6.11	-10.80
03S10W32DAB1	226	5-09	118.12	108	---	-1.06
03S11W22ABC1	310	5-09	163.59	146	+12.66	-1.12
04S07W17BCC1	200	3-22	162.24	38	-4.64	-8.11
Leola public supply.						

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks	
				1988-89	1984-89		
JEFFERSON COUNTY--Continued							
04S10W22BDD1	244	3-22	182.50	62	-11.14	-10.28	Pine Bluff Arsenal 11.
04S10W29ADB1	267	3-22	201.46	66	-6.79	-15.11	Pine Bluff Arsenal 9.
04S11W14BAD1	400	3-22	299.33	101	-7.95	-5.54	Jefferson public supply 1.
05S08W29BDD1	195	3-27	235.26	-40	-1.30	+2.08	U.S. Army Corps of Engineers recreation area.
05S08W30ADB1	221	3-22	268.59	-48	+2.37	-4.36	Lock and Dam 4.
05S08W30CBA1	207	5-10	274.91	-67	-5.86	-21.55	International Paper Co. 7.
05S09W19BAA1	227	3-22	230.30	-3	-8.56	+9.93	Dierks Paper Co. 2.
05S09W19BAD1	219	3-22	254.65	-35	-2.42	-44.50	Dierks Paper Co. 1.
05S09W24DBD1	208	3-22	262.60	-54	-8.06	-18.61	International Paper Co. 10.
05S09W35AAB1	205	3-22	270.09	-65	-6.98	-14.89	International Paper Co. 5.
05S10W16DBD1	300	3-22	257.45	43	-9.28	-5.86	Whitehall Public supply 1.
06S06W20CAA1	193	3-27	151.70	42	-4.53	-7.04	Lock and Dam 3.
06S07W33DDD1	195	5-09	170.26	25	-3.66	-8.51	Linwood School.
06S08W10CAC1	202	3-22	243.82	-41	+0.13	-8.66	International Paper Co. 1.
06S08W16CCC1	202	3-22	238.95	-37	-3.52	-14.40	International Paper Co. 3.

Table 3.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
JEFFERSON COUNTY--Continued						
06S08W25ADC1	203	3-21	207.75	-4	-5.57	-9.91 International Paper Co. 2.
06S09W17CCA1	234	3-22	259.50	-25	-8.45	-12.31 General Water Works.
06S10W23ACD1	232	3-22	206.34	26	-4.94	-7.68 1986-89.
07S07W24BAB1	188	3-21	162.57	25	-10.87	-14.23 Tamo public supply.
07S09W35CCB1	270	3-21	223.77	46	+3.12	+4.56 Highway 15 public supply 1.
07S10W24CAC1	311	3-22	268.88	42	+0.30	+2.33 Highway 15 public supply 2.
LAFAYETTE COUNTY						
16S24W19DBC1	265	4-11	49.35	216	+0.17	+1.61
18S23W29ACC1	255	4-11	14.60	240	-0.15	+1.07 1986-89.
20S23W05ADB1	242	4-11	39.10	203	-0.79	+1.83
LEE COUNTY						
02N03E14CCC4	232	3-29	67.46	165	-0.41	-0.37 Marianna public supply 4.
03N03E28CDB1	207	3-29	50.59	156	-1.19	-6.69 Marianna public supply 5.
03N05E19ADA1	200	3-29	25.69	174	+1.03	-0.16

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks	
				Date	1988-89	1984-89	
LINCOLN COUNTY							
06S06W34DBA1	187	3-21	146.59	40	+0.96	-7.32	Huffs Island recreation area.
07S07W30CDC1	208	3-27	164.50	44	-0.73	-8.73	Tarry public supply.
08S05W03BAA2	180	3-21	125.25	55	-5.17	-9.90	Cummins Prison.
08S05W35ACC1	165	3-21	88.33	77	+6.91	+8.59	Gould public supply.
08S08W35DBB1	240	3-31	190.21	50	+3.86	-0.52	Yorktown public supply.
09S07W07DAD1	300	3-21	246.43	54	+0.68	-3.91	Star City public supply.
09S08W05CBD1	245	3-21	195.50	50	-5.68	-8.52	Mississippi River Fuel Corp.
10S05W05ADB1	171	3-21	103.00	68	-0.72	-1.38	
LONOKE COUNTY							
01N07W03BCC1	223	3-31	110.29	113	-1.81	-3.19	1986-89.
02N07W22DBA1	227	4-11	110.42	117	-2.01	-3.74	1987-89.
02N09W35BBC1	234	4-11	84.81	149	-8.01	-18.06	Anderson Fish Farm.
02S08W16BDA1	216	3-30	108.22	108	-2.42	-6.27	Coy public supply.
MONROE COUNTY							
01N03W14CCB1	172	3-23	58.87	113	-2.32	-6.88	Clarendon public supply.

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				Date	1988-89	
MONROE COUNTY--Continued						
03N02W12CBC1	186	4-26	28.99	157	---	-3.08 U.S. Geological Survey.
04N02W28DDD4	192	3-23	25.56	166	-0.18	-0.79 1985-89.
04N02W30BAC1	180	3-23	12.64	167	+0.08	-0.41 Brinkley Public Supply Well 8.
NEVADA COUNTY						
13S20W36DCC1	350	4-11	106.78	243	-0.16	-0.04 1986-89.
14S21W32DCD1	370	4-11	111.71	258	-0.39	-0.51
OUACHITA COUNTY						
11S17W36CCA1	133	3-29	3.62	129	+1.56	+2.58 1986-89.
12S16W12ADB1	159	3-29	24.37	135	-0.50	+1.05
12S18W19CDC1	235	3-24	38.56	196	+5.19	+5.38
14S17W02ABB1	120	4-06	96.92	23	+20.68	-4.38 International Paper Co. 1B.
14S17W05CAD1	157	3-29	36.01	121	-0.05	+0.47 Arkansas State Highway and Transportation Department.
14S19W29ABB1	280	3-29	84.44	196	-0.07	+1.43
15S16W23DAC1	170	3-29	121.98	48	+6.27	+5.20
15S17W20DDB1	195	3-29	125.68	69	+0.04	-2.23

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Feet	Altitude of water level (feet)	Net change in water level (feet)		Remarks
	Date	1988-89	1984-89			
OUACHITA COUNTY--Continued						
15S19W10DCC1	210	3-29	67.58	142	+0.50	-4.62 Stephens public supply.
PHILLIPS COUNTY						
01S02E32DDC1	211	3-28	71.30	140	-1.41	-5.33 Marvell public supply.
02S04E02DBA1	250	3-28	103.69	146	+4.88	-2.77 West Helena public supply 9.
02S05E16BCB1	190	3-28	41.29	149	+3.04	-0.97 Helena Cotton Oil Co.
02S05E29CCC1	179	3-28	43.16	136	-17.41	-9.39 Arcadian Corp.
03S03E30DAA1	172	3-28	35.90	136	-0.89	-3.31 Lakeview-Wabash public supply.
04S02E25CCC1	166	3-28	38.21	128	-2.23	-6.58 Elaine public supply.
POINSETT COUNTY						
10N01E15DBB1	232	3-21	73.34	159	+1.07	-3.41 Fisher public supply.
11N03E25ACC1	273	3-21	113.32	160	-0.15	-7.55 Harrisburg public supply 3.
PRAIRIE COUNTY						
01N05W19CDC1	212	3-31	127.46	85	-2.02	-7.36

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface	Altitude of water level feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
PRAIRIE COUNTY--Continued						
01N06W02ABB1	223	4-10	100.01	123	-0.52	-1.36
02N04W19ACB1	211	4-10	82.46	129	-2.57	-3.16
02N06W20BCB1	236	4-10	119.81	116	-1.18	-3.92
02N06W21DAD1	232	4-10	108.41	124	-1.44	-3.76
02N06W22BDD1	233	4-10	106.58	126	-1.26	+15.01 1985-89.
01S05W06BCB1	220	3-31	139.65	80	-5.60	-7.93
01S05W20ABB1	220	3-31	142.96	77	-3.06	-8.34
01S06W11DBD1	226	3-31	149.11	77	-5.32	-8.81
PULASKI COUNTY						
01N11W24ACD1	237	3-29	13.43	224	-2.28	-2.57 Willow Beach recreation area.
01N11W35BAC1	235	3-29	12.57	222	-0.36	-0.82 D. D. Terry West recreation area.
02S11W29AAA1	245	3-29	23.38	222	+3.91	+5.26 Hensley-Woodson public supply.
SALINE COUNTY						
03S14W05CCC1	315	3-29	6.16	309	+4.95	+12.21 1986-89.
UNION COUNTY						
16S14W15CAB1	94	4-12	137.91	-44	-4.41	-11.70 Calion public supply.

Table 3.--Measurements of water levels in 1989 in wells completed in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
UNION COUNTY--Continued						
16S15W20DAA1	190	4-03	272.52	-83	+0.84	+0.46 Norphlet public supply 2.
16S16W02ABC1	116	4-03	158.65	-43	+1.43	-0.61 Smackover public supply 5.
16S18W34ABC2	248	4-03	189.10	59	-0.47	-5.44 Mt. Holly public supply 2.
17S12W32BBC1	230	4-04	230.72	-1	---	-2.95 New London Water Association.
17S13W31BAC1	216	4-04	285.76	-70	+1.59	-5.99 Lawson-Urbana.
17S14W10DCC1	180	4-04	87.86	92	+0.31	+1.17
17S14W15ABA1	180	4-04	86.92	93	+0.44	+3.06
17S15W18DBB1	182	4-05	336.27	-153	-7.37	-1.94 Monsanto detector well 8A (recorder).
17S15W28DBA1	235	4-04	402.67	-168	+6.40	-7.46 El Dorado public supply 8.
17S15W29CDC1	220	4-12	387.93	-168	+27.57	+2.42
17S15W31DCA1	272	4-05	440.06	-168	+0.35	-7.02 TOSCO.
17S15W31DCA3	269	4-05	170.28	99	-2.31	-2.18 TOSCO.
17S16W24BDB1	205	4-12	367.88	-163	-1.03	-8.35 El Dorado public supply 17.
17S17W25DBA2	250	4-03	336.80	-87	-2.58	+5.53 Goodwin Airport.
17S17W30DCD1	280	4-03	303.10	-23	+2.82	-4.03 Marysville Water District Assocation.
18S11W09ABC1	135	4-04	83.14	52	-0.80	-3.14
18S12W33BBB1	112	4-04	118.43	-6	-0.83	+13.39 Strong public supply 3.
18S15W07BAC2	255	4-11	345.20	-90	-2.05	-6.02 K. Buchanan 2.

Table 3.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Sparta Sand and Memphis Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
UNION COUNTY--Continued						
18S15W08ABB1	205	4-11	350.95	-146	+0.74	+1.82 Gay Oil Co. (W.D. Frisby).
18S15W33ADA1	253	4-07	362.74	-110	-2.19	+13.30 Faircrest public supply.
18S15W35DAC1	201	4-07	284.64	-84	-0.20	-5.48 Faircrest Water User's Assoc.
18S16W12ACB1	303	4-11	450.33	-147	-23.78	-5.38 Parker Chapel 1.
18S16W28BBB1	225	4-07	318.55	-94	-1.45	-2.55 Newell-Wesson public supply.
18S17W18BBD1	270	4-04	313.12	-43	-7.62	-12.65 Shuler No. 3.
18S17W22BDD1	285	4-04	347.00	-62	-0.55	-5.50 U.S. Geological Survey recorder.
19S10W16CDB1	82	4-04	71.73	10	+1.71	+0.23 Felsenthal public supply 1.
19S11W25AAA1	135	4-04	132.00	3	+1.40	+3.73 Huttig public supply 2.
19S15W01CCA1	182	4-07	63.30	119	-0.22	+4.22
19S16W35DDC1	175	4-04	219.18	-44	+1.80	-7.38 Junction City public supply
19S18W14ADA1	260	4-04	174.35	86	-0.80	-4.30
WOODRUFF COUNTY						
05N02W31DCB3	193	3-22	12.22	181	+2.28	+1.84 Cotton Plant public supply.

Table 4.--Measurements of water levels in 1989 in wells completed in the aquifer in the Cane River Formation

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	1988-89	1984-89	Remarks	
COLUMBIA COUNTY								
16S21W16BCA2 320 4-06 109.74 210 +0.60 -1.61 Waldo public supply.								
DALLAS COUNTY								
09S17W28ADB1 172 3-30 118.84 53 -6.07 +15.85 Sparkman public supply.								
HEMPSTEAD COUNTY								
14S24W23AAA1 372 4-12 64.70 307 +0.49 +0.45								
LAFAYETTE COUNTY								
16S23W10DCA2	293	4-11	59.03	234	-0.03	+11.16	Arkansas Power and Light Co.	
19S25W13CDB2	255	4-12	105.59	149	+11.59	+5.27	Bradley public supply.	
MILLER COUNTY								
16S27W19AAA1	373	4-11	65.70	307	+0.47	+1.00		

Table 4.--Measurements of water levels in 1989 in wells completed in the aquifer in the Cane River Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
	1988-89	1984-89			

MILLER COUNTY--Continued

16S27W31BDC1	314	4-11	29.14	285	+0.15	-0.22
18S26W27BBA1	210	4-11	16.17	194	+0.13	+0.50

Table 5.--Measurements of water levels in 1989 in wells completed in the aquifer in the Carrizo Sand

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	
DALLAS COUNTY					
08S17W18CAA1	286	3-30	50.10	236	-1.35 -3.24
HOT SPRING COUNTY					
06S17W34ABB1	364	3-28	91.79	272	-1.07 +1.97 Texas Eastern.
JEFFERSON COUNTY					
05S08W19DCD1	205	3-22	27.44	178	-1.16 -3.77 International Paper Co.

Table 6.--Measurements of water levels in 1989 in wells completed in the aquifer in the Wilcox Group, including the "1,400-foot" sand

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks		
	280	4-28	13.70	266		1988-89	1984-89
CLAY COUNTY							
19N07E23DCC1	280	4-28	13.70	266	-1.30	+0.70	Rector old public supply 1.
CRAIGHEAD COUNTY							
13N07E14BBA2	221	4-14	16.41	205	-2.69	-0.85	Caraway public supply 2.
14N06E27ACB2	227	4-14	21.77	205	-1.50	-3.25	Lake City public supply 2.
14N07E17DCB1	232	4-13	23.26	209	-1.28	-2.24	Black Oak public supply.
CRITTENDEN COUNTY							
05N07E01ABB1	207	4-04	38.34	169	+0.49	-6.46	
05N07E29ACC1	200	4-04	32.92	167	+0.71	-4.22	
06N09E07CAC1	210	4-04	66.14	144	-0.69	-8.72	West Memphis public supply 5.
07N07E14CCC1	223	4-05	49.38	174	+0.21	-4.23	Crawfordsville public supply.
07N08E24CAB1	221	4-27	53.41	168	-0.52	-9.01	Marion public supply 1.
08N06E33CBD1	215	4-04	37.02	178	-0.95	-5.11	Earle public supply.

Table 6.--Measurements of water levels in 1989 in wells completed in the aquifer in the Wilcox Group, including the "1,400-foot" sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface	Altitude of water level feet (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
GREENE COUNTY						
17N04E36BCA1	505	4-27	158.37	347	-4.22	-8.93 Western Green County Water Association.
17N06E31DCB1	285	4-14	98.15	187	-4.15	-7.05 Paragould public supply 1.
LEE COUNTY						
01N04E09DCC1	204	3-29	33.38	171	-0.23	-4.68 U.S. Geological Survey.
LONOKE COUNTY						
03N09W17BCA1	296	4-23	11.15	285	-0.31	-7.99
04N09W28CCD1	325	4-23	53.48	272	-0.93	-2.13 E. M. Cherry.
MISSISSIPPI COUNTY						
10N08E17ADD1	225	4-26	31.91	193	-1.81	-3.21 Birdsong-Whitten Water Association.
11N09E33AAB1	237	4-06	40.42	197	-2.52	-2.62 Bassett public supply.
11N10E20ADA1	235	4-06	37.41	198	-3.41	-3.16 Wilson public supply.

Table 6.--Measurements of water levels in 1989 in wells completed in the aquifer in the Wilcox Group, including the "1,400-foot" sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
MISSISSIPPI COUNTY--Continued						
12N09E11DBB1	230	4-27	26.52	203	-0.22	-2.37 Keiser public supply.
12N11E17CDD1	245	4-06	42.43	203	+1.02	-0.03 Cargill Inc.
13N11E08DDA1	245	4-06	35.85	209	-0.75	-4.62 Luxora public supply 2.
14N11E20CCA1	240	4-05	27.17	213	-6.47	-2.75 Burdette public supply.
15N09E31ACD1	240	4-05	25.28	215	+1.12	-0.23 Manila public supply.
15N10E01ADD1	248	4-05	20.23	228	-3.94	-0.03 Gosnell public supply.
15N11E15BDC2	255	4-05	50.02	205	-5.57	-5.12 Blytheville public supply 4.
16N11E22CCC1	254	4-26	25.16	229	-1.44	-2.73 1985-89.
POINSETT COUNTY						
10N07E16CBB2	218	3-21	35.68	182	-7.78	-4.80 Tyronza public supply 3.
11N06E35CDA3	215	3-21	30.54	184	-4.92	-4.80 Marked Tree public supply 3.
11N07E03BDD1	216	3-21	13.02	203	+0.09	+12.08 Lepanto public supply 2.
12N05E13BBB1	222	3-21	28.60	193	+0.59	-4.30 Trumann public supply 1.
ST FRANCIS COUNTY						
04N06E21BAD2	201	4-03	31.18	170	-0.59	-4.91 Hughes public supply 2.

Table 7.--Measurements of water levels in 1989 in wells completed in the aquifer in the Nacatoch Sand

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
CLARK COUNTY						
08S19W09ACC1	177	4-10	-4.3	181	-0.20	-0.20 Flowing.
09S20W16DDC1	233	4-10	78.29	155	+1.03	-0.41 Arkla Chemical Corp.
09S20W32ACA1	220	4-10	35.66	184	-1.87	+0.97 Cave Lumber Co.
CLAY COUNTY						
19N04E01BDB1	280	4-28	10.12	270	+0.98	-3.36 1985-89.
19N07E23DBC1	290	4-28	43.02	247	-5.22	-11.22
20N08E10ABC1	340	4-28	71.99	268	+2.19	-8.50
20N08E28BDC1	286	4-28	26.94	259	-0.34	-12.52 Greenway public supply.
21N06E23DACP1	300	4-28	19.83	280	-2.43	-1.10 McDougal public supply.
21N09E18DBA1	295	4-28	13.81	281	-2.14	-7.15 St. Francis public supply.
HEMPSTEAD COUNTY						
13S24W04AAA1	361	4-12	164.69	196	-7.98	-0.91 1986-89.
13S25W35DDC1	373	4-11	160.80	212	+1.88	+16.64
MILLER COUNTY						
14S28W13CCB1	266	4-13	25.22	241	-0.98	+0.53

Table 7.--Measurements of water levels in 1989 in wells completed in the aquifer in the Nacatoch Sand--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	1988-89	1984-89	Remarks
							NEVADA COUNTY
11S22W08D4C2	306	4-10	39.99	266	+1.87	+77.01	Prescott public supply 4.
12S22W03CAA1	233	4-10	4.10	229	+3.68	+15.95	

Table 8.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Tokio Formation

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
HEMPSTEAD COUNTY						
09S23W33CDA1	270	4-10	-3.7	274	+0.20	+2.30 Flowing.
09S26W18CBB1	425	4-13	17.26	408	+2.07	-1.22
12S24W06CDC1	355	4-12	162.50	193	+6.36	+13.47 Hope public supply 5.
12S24W06DAD1	355	4-12	156.13	199	+15.10	+21.49 Hope public supply 2.
HOWARD COUNTY						
09S28W20DAC1	480	4-13	11.28	469	+0.30	-7.25
11S28W02CDA1	309	4-13	23.60	285	-1.75	-0.32
NEVADA COUNTY						
11S22W08DAC1	305	4-10	80.71	224	-0.70	+72.87 Prescott public supply 1.

Table 9.--Measurements of water levels in 1989 in wells completed in the aquifer in the Trinity Group

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
PIKE COUNTY						
08S25W17ABC1	360	4-13	3.27	357	+0.12	+0.43 Murfreesboro public supply.
SEVIER COUNTY						
08S31W26BAA1	475	4-13	4.92	470	-0.33	-2.07 Trinity Group.
09S30W23BDC4	432	4-13	77.24	355	+1.54	+0.57 Lockesburg public supply 4.
09S30W23BDD1	440	4-13	71.95	368	-6.38	+1.21

Table 10.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Atoka Formation

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
	1988-89	1984-89			
CLEBURNE COUNTY					
09N09W34DCC1	620	3-13	104.27	516 -39.31 +10.41	

Table 11.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Jackfork Sandstone

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
	1988-89	1984-89			

PIKE COUNTY

07S25W18BBB1	563	4-13	11.59	551	-0.73	+3.26	U.S. Army Corps of Engineers.
--------------	-----	------	-------	-----	-------	-------	----------------------------------

Table 12.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Everton Formation

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
				1988-89	1984-89
SHARP COUNTY					
15N05W06DDD1	645	3-13	89.71	555	+7.04 +22.13

Table 13.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Cotter Dolomite

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
	1988-89	1984-89			

IZARD COUNTY

18N09W15ACA1	820	3-13	101.34	719	+19.38	+34.50	Oxford public supply.
--------------	-----	------	--------	-----	--------	--------	-----------------------

Table 14.--Measurements of water levels in 1989 in wells completed in the aquifer in the Roubidoux Formation

Well number	Altitude of land surface (feet)	Depth to water below land surface	Altitude of water level (feet)	Net change in water level (feet)		Remarks
				1988-89	1984-89	
BENTON COUNTY						
19N28W11BAD1	1,260	4-19	180.66	1,079	+19.54	+10.73 U.S. Army Corps of Engineers.
19N29W18BBBB1	1,345	4-19	137.61	1,207	+52.57	+68.29
21N33W23ACA1	1,035	4-20	141.72	894	-4.62	-14.83 Sulphur Springs public supply.
CARROLL COUNTY						
19N23W04BAC1	1,350	5-11	257.79	1,092	-13.29	-12.79
21N26W17BCC1	1,010	5-11	97.39	913	-10.64	+45.68 Holiday Island public supply 1.
FULTON COUNTY						
20N09W18ACB1	860	3-13	102.06	758	-0.78	+9.02 Viola public supply.
IZARD COUNTY						
17N11W13BCB1	541	3-14	55.09	486	+10.59	+7.70 Calico Rock public supply.
MARION COUNTY						
19N15W20DBB1	630	3-15	97.52	532	-28.28	-8.61 Flippin public supply.

Table 14.--Measurements of water levels in 1989 in wells completed
in the aquifer in the Roubidoux Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
MARION COUNTY--Continued						
19N16W33CCB1	840	3-14	272.77	567	-9.85	+5.30 Yellville public supply.
RANDOLPH COUNTY						
20N02E06AAC1	485	3-13	200.07	285	-5.75	-51.48 Maynard public supply.
SHARP COUNTY						
19N04W15BAA1	590	3-13	15.54	574	-3.67	+10.82 Ozark Acres public supply 3.

Table 15.--Measurements of water levels in 1989 in wells completed in the aquifer in the Gunter Sandstone member of the Gasconade Formation

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	1988-89	1984-89	Remarks
BAXTER COUNTY							
19N13W16BAB1	740	3-15	70.78	669	+1.69	+19.52	Mountain Home public supply.
BENTON COUNTY							
18N30W12CCC1	1,310	4-19	316.63	993	-33.44	-31.99	Columbia Union Orchards 1.
19N29W07DAB1	1,220	4-19	144.52	1,075	-9.72	-10.91	Rogers public supply.
20N33W14DBC1	1,230	4-20	420.13	810	-18.13	+0.07	
BOONE COUNTY							
18N19W19BCD1	1,150	3-15	219.03	931	-26.17	+8.46	Bellefonte public supply.
18N19W33BBB1	1,300	3-21	473.29	827	+18.55	-36.28	Valley Springs Rural Water District.
CARROLL COUNTY							
20N26W16DCA1	1,199	5-11	124.25	1,075	+61.37	+15.43	Eureka Springs public supply.

Table 15.--Measurements of water levels in 1989 in wells completed in the aquifer in the Gunter Sandstone member of the Gasconade Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)	Remarks
	1988-89	1984-89			

CARROLL COUNTY--Continued

21N26W15BAA1	1,102	5-11	151.07	951	-4.22	-7.91	Holiday Island No. 2.
--------------	-------	------	--------	-----	-------	-------	--------------------------

FULTON COUNTY

19N06W23ADA1	682	3-13	211.03	471	-3.64	-0.73	Cherokee Village.
20N08W27ABD1	660	3-13	6.41	654	+0.38	+15.47	Salem public supply.

MARION COUNTY

19N16W32ADA1	950	3-20	436.68	513	-12.17	-1.23	Summit public supply.
--------------	-----	------	--------	-----	--------	-------	--------------------------

SHARP COUNTY

18N06W10DCC1	655	3-13	133.87	521	+2.72	-7.26	Ash Flat public supply.
--------------	-----	------	--------	-----	-------	-------	----------------------------

STONE COUNTY

15N12W02BCA1	985	3-21	449.00	536	+15.68	+13.13	Fifty-Six public supply.
--------------	-----	------	--------	-----	--------	--------	-----------------------------

Table 15.--Measurements of water levels in 1989 in wells completed in the aquifer in the Gunter Sandstone member of the Gasconade Formation--Continued

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Feet	Altitude of water level (feet)	Net change in water level (feet)	Remarks
	Date	1988-89	1984-89		

WASHINGTON COUNTY

15N31W17BBC1	1,200	4-21	62.41	1,138	+86.89	+94.39
15N31W30CAB1	1,175	4-27	28.56	1,146	-8.61	-14.18
16N32W09ABD1	1,135	4-21	126.52	1,008	-2.10	+0.60

Table 16.--Measurements of water levels in 1989 in wells completed in the aquifer in the Potosi-Eminence Dolomite

Well number	Altitude of land surface (feet)	Depth to wa- ter below land surface Date	Altitude of water level Feet	Net change in water level (feet)		Remarks
				1988-89	1984-89	
BENTON COUNTY						
20N29W13BCA1	1,430	4-19	395.42	1,035	-6.12	-14.38 Benton County Water District public supply.
BOONE COUNTY						
21N18W20CCD1	882	3-14	221.90	660	-0.98	+11.08 Diamond City public supply 2.
CARROLL COUNTY						
20N26W23ACA1	1,296	5-11	274.88	1,021	-2.78	+12.55 Eureka Springs public supply.

4

20

5

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316