

WATER-QUALITY AND GROUND-WATER- LEVEL TRENDS, 1990-99, AND DATA COLLECTED FROM 1995 THROUGH 1999, EAST MOUNTAIN AREA, BERNALILLO COUNTY, CENTRAL NEW MEXICO

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U.S. GEOLOGICAL SURVEY

Open-File Report 00-476

Prepared in cooperation with the

BERNALILLO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

Albuquerque, New Mexico
2000

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY
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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
foot	0.3048	meter
mile	1.609	kilometer
square mile	2.590	square kilometer

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

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

WATER-QUALITY AND GROUND-WATER-LEVEL TRENDS, 1990-99, AND DATA COLLECTED FROM 1995 THROUGH 1999, EAST MOUNTAIN AREA, BERNALILLO COUNTY, CENTRAL NEW MEXICO

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Abstract

Bernalillo County officials recognize the importance of monitoring water quality and ground-water levels in rapidly developing areas. For this reason, water-quality and ground-water-level data were collected from 87 wells, 3 springs, and the Ojo Grande Acequia in the east mountain area of Bernalillo County between January 1990 and June 1999. The water samples were analyzed for selected nutrient species; total organic carbon; major dissolved constituents; methylene blue active substances; and dissolved arsenic. Analytical results were used to compute hardness, sodium adsorption ratio, and dissolved solids. Specific conductance, pH, air and water temperature, alkalinity, and dissolved oxygen were measured in the field at the time of sample collection. Ground-water levels were measured at the time of sample collection.

From January 1990 through June 1993, water-quality and ground-water-level data were collected monthly from an initial set of 20 wells; these data were published in a 1995 report. During 1995, water samples and ground-water-level data were collected and analyzed from the initial set of 20 wells and from an additional 31 wells, 2 springs, and the Ojo Grande Acequia; these data were published in a 1996 report. Additional water-quality and ground-water-level data have been collected from sites in the east mountain area: 34 wells and the acequia during 1997, 14 wells and 1 spring during 1998, and 6 wells during 1999.

Water-quality and ground-water-level data collected in the east mountain area during 1995 through 1999 are presented in tables. In addition,

temporal trends for ground-water levels, concentrations of total and dissolved nitrite plus nitrate, concentrations of dissolved chloride, and specific conductance are presented for 20 selected wells in water-quality and water-level hydrographs.

INTRODUCTION

Unincorporated areas of eastern Bernalillo County have undergone rapid development and a subsequent rise in population in recent years. As a result, the demand for ground-water supplies is greater and the potential for contamination has increased. Most homes in the unincorporated areas use septic systems for the disposal of wastewater. Bernalillo County officials recognize the importance of continuing and expanding monitoring efforts in these rapidly developing areas, with particular attention to the degradation of ground water that may result from sewage disposal.

Accordingly, the U.S. Geological Survey (USGS), in cooperation with the Bernalillo County Environmental Health Department, has collected ground-water data in the east mountain area of Bernalillo County (fig. 1). In January 1990, the USGS began monitoring ground-water quality and ground-water levels in 20 domestic-supply wells in eastern Bernalillo County, referred to hereafter as the east mountain area. Water-quality samples were collected and ground-water-levels were measured monthly between January 1990 and June 1993 (Kues and Garcia, 1995). Between 1995 and 1999, an additional 67 wells, 3 springs, and the Ojo Grande Acequia were sampled (fig. 2).

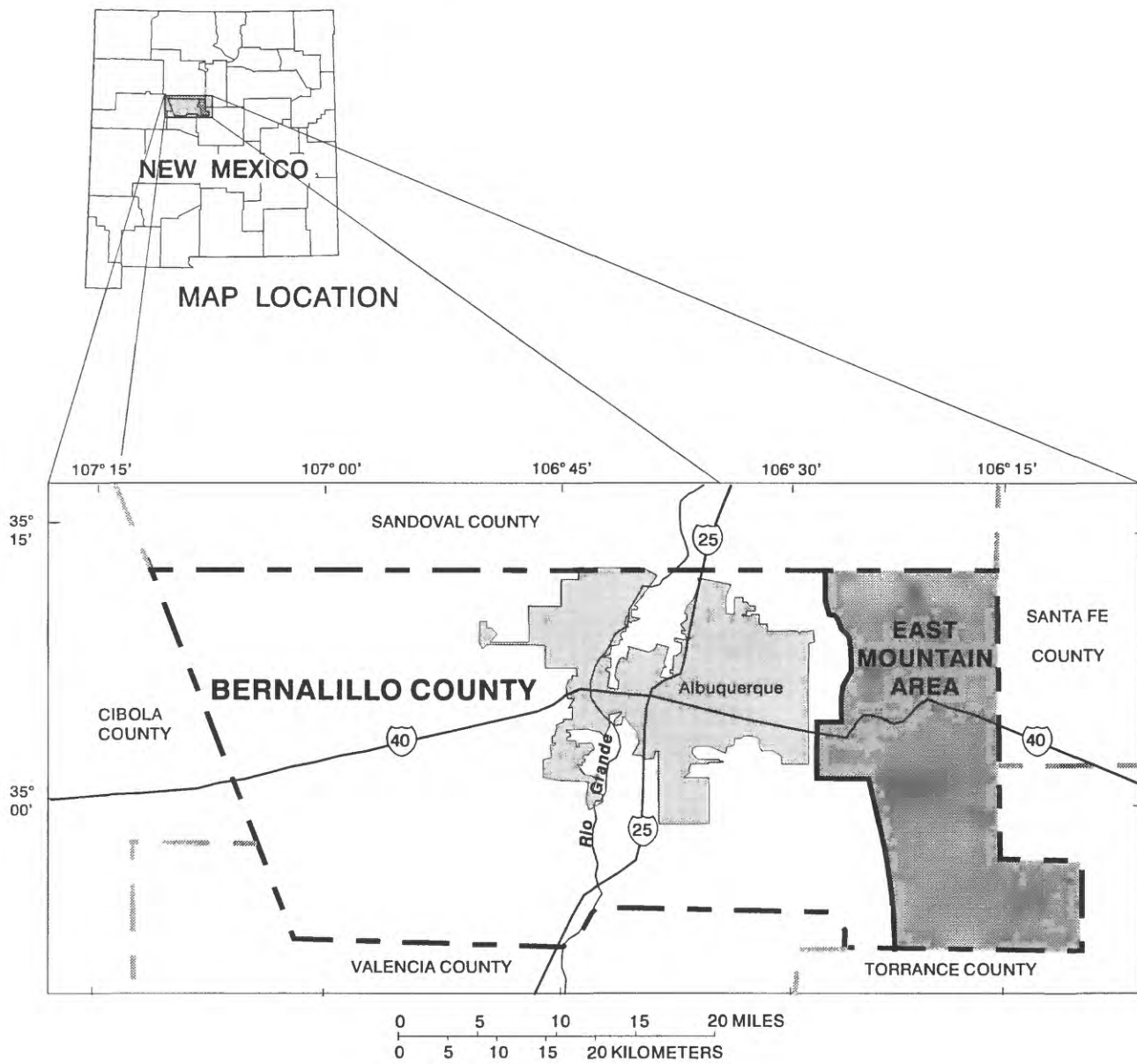
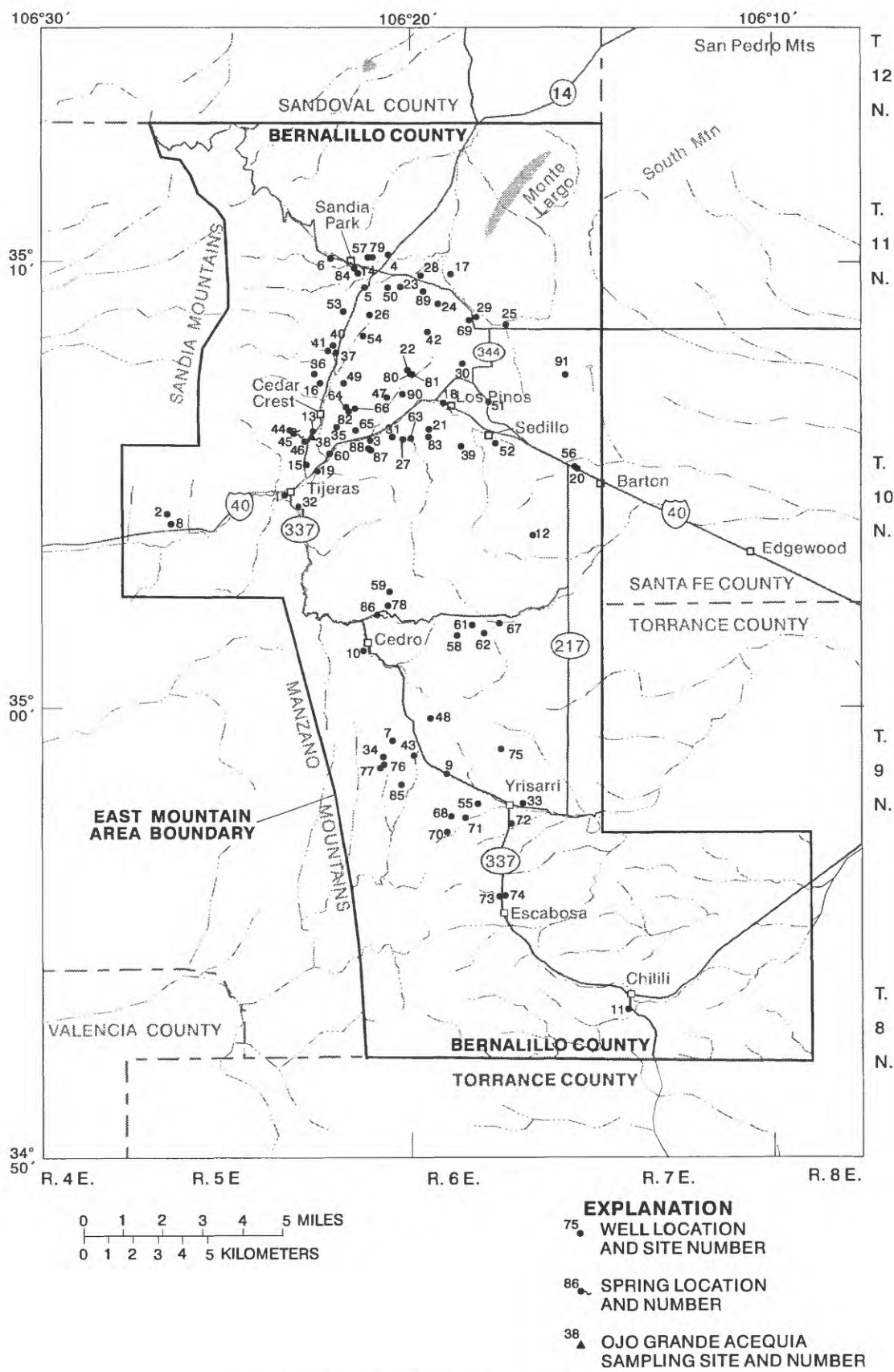


Figure 1. Location of east mountain area, Bernalillo County, New Mexico.



Purpose and Scope

This report presents the water-quality and ground-water-level data collected in the east mountain area from 1995 through 1999. During 1995, water samples were collected and analyzed from 51 wells, 2 springs, and the Ojo Grande Acequia; during 1997, from 34 wells and the Ojo Grande Acequia; during 1998, from 14 wells and 1 spring; and during 1999, from 6 wells. In addition, hydrographs showing temporal trends for ground-water levels, concentrations of total and dissolved nitrite plus nitrate, concentrations of dissolved chloride, and specific conductance are presented for 20 selected wells.

Description of the Study Area

The east mountain area comprises approximately 150 square miles in eastern Bernalillo County. The boundaries of the area are the county lines on the north, east, and south, the crest line of the Sandia Mountains on the northwest, and the Manzano Mountains on the southwest (figs. 1 and 2). Soil and unconsolidated alluvial deposits overlie shallow, fractured limestone in most of the study area. Fractured sandstone and shale underlie the central part of the area, and igneous and metamorphic rocks crop out on the south slopes of the Sandia Mountains and north slopes of the Manzano Mountains. The ground-water system and geology of the area have been described by Titus (1980) and by Kues (1990).

Acknowledgments

The cooperation of the well owners, whose permission allowed water sampling and ground-water-level data collection to be conducted, is gratefully acknowledged. Appreciation is also extended to Bernalillo County Environmental Health Department personnel, particularly Mr. Jeffrey Peterson; to New Mexico Office of the State Engineer personnel, who furnished information on wells that were sampled; and to Mr. Chris Jinzo, Mayordomo of the Ojo Grande Acequia, who provided access to and information regarding the springs and the acequia. This report was prepared in cooperation with the Bernalillo County Environmental Health Department.

WATER-QUALITY AND GROUND-WATER-LEVEL DATA

Water samples collected from the east mountain area of Bernalillo County were analyzed for common indicators of ground-water contamination from sewage effluent, including dissolved nitrite plus nitrate, nitrite, phosphorus, orthophosphate, and ammonia. The samples also were analyzed for possible indicators of ground-water contamination from sewage effluent, including total organic carbon, dissolved boron and iron, and methylene blue active substances, which are detergent additives that were used until the mid-1970's. Analyses also were conducted for dissolved calcium, magnesium, sodium, potassium, chloride, sulfate, fluoride, silica, manganese, and arsenic. Hardness, sodium absorption ratio, and dissolved solids were calculated from analytical results. Field properties measured include specific conductance, pH, air and water temperature, and dissolved oxygen; alkalinity also was determined. Water-quality data are listed in table 1. Hydrographs showing concentrations of nitrite plus nitrate, dissolved chloride, and specific conductance from 1990 through 1999 are shown in figures 3-22.

Nitrate concentrations were determined by analyzing the water sample for the sum of nitrite plus nitrate and for nitrite separately, then calculating the concentration of nitrate by the difference. The sum concentration of nitrite plus nitrate as nitrogen and the concentration of nitrite are listed separately in table 1 because the concentrations of nitrite in most cases were less than the minimum reporting level. The minimum concentration of an analyte that can be reliably measured and reported by the laboratory for the analytical method is 0.01 milligram per liter (mg/L) as nitrogen. Because the concentration of nitrite in most samples was less than or near the minimum reporting level, the concentration of nitrate alone is about the same as that of nitrite plus nitrate.

Water quality differs appreciably among the 87 wells sampled in the east mountain area. For example, nitrite plus nitrate ranged from less than the detection level (0.050 mg/L) in wells 7, 15, 22, 43, 47, 49, 54, 55, 64, 70, 72, 75, 80, 82, and 91 to 21.0 mg/L in well 5; dissolved solids ranged from 221 mg/L in well 38 to 3,290 mg/L in well 66; field specific conductance ranged from 508 microsiemens per centimeter at 25 degrees Celsius ($\mu\text{S}/\text{cm}$) in well 50 to 4,010 $\mu\text{S}/\text{cm}$ in well 66; and pH ranged from 6.4 in well 49 to 9.3 in well 16. Other constituents display similar variability.

Since January 1990, 87 wells, 3 springs, and 1 acequia have been sampled at least once. Twenty of the 87 wells (1-11, 13-20, and 42) were sampled monthly from January 1990 through June 1993 except for site 8, which was sampled through 1992 (Kues and Garcia, 1995). These data are not listed in the tables in this report; the reader is referred to Kues and Garcia (1995). Sites 1-54 (site 38 is the acequia and sites 44 and 45 are springs) were sampled once in 1995 (Rankin, 1996). Sites 3, 5, 8, 13, 14, 18, 20, 25, 37-39, 53, and 55-77 were sampled once in 1997. Sites 8, 13, 55, 59, 62, 71, and 78-86 (site 86 is a spring) were sampled once in 1998, and sites 5 and 87-91 were sampled once in 1999.

Ground-water levels collected from 1995 through 1999 are listed in table 2. Hydrographs showing water levels from 1990 through 1999 are shown in figures 3-22; lines connecting points are for the reader's benefit and do not represent continuous water-level measurements.

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- Kues, G.E., 1990, Ground-water availability and quality in eastern Bernalillo County and vicinity, central New Mexico: U.S. Geological Survey Water-Resources Investigations Report 89-3127, 82 p.
- Kues, G.E., and Garcia, B.M., 1995, Ground-water-quality and ground-water-level data, Bernalillo County, central New Mexico, 1990-93: U.S. Geological Survey Open-File Report 95-385, 76 p.
- Rankin, D.R., 1996, Water-quality and ground-water-level data, Bernalillo County, central New Mexico, 1995: U.S. Geological Survey Open-File Report 96-578, 14 p.
- Titus, F.B., 1980, Ground water in the Sandia and northern Manzano Mountains, New Mexico: Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 66 p.

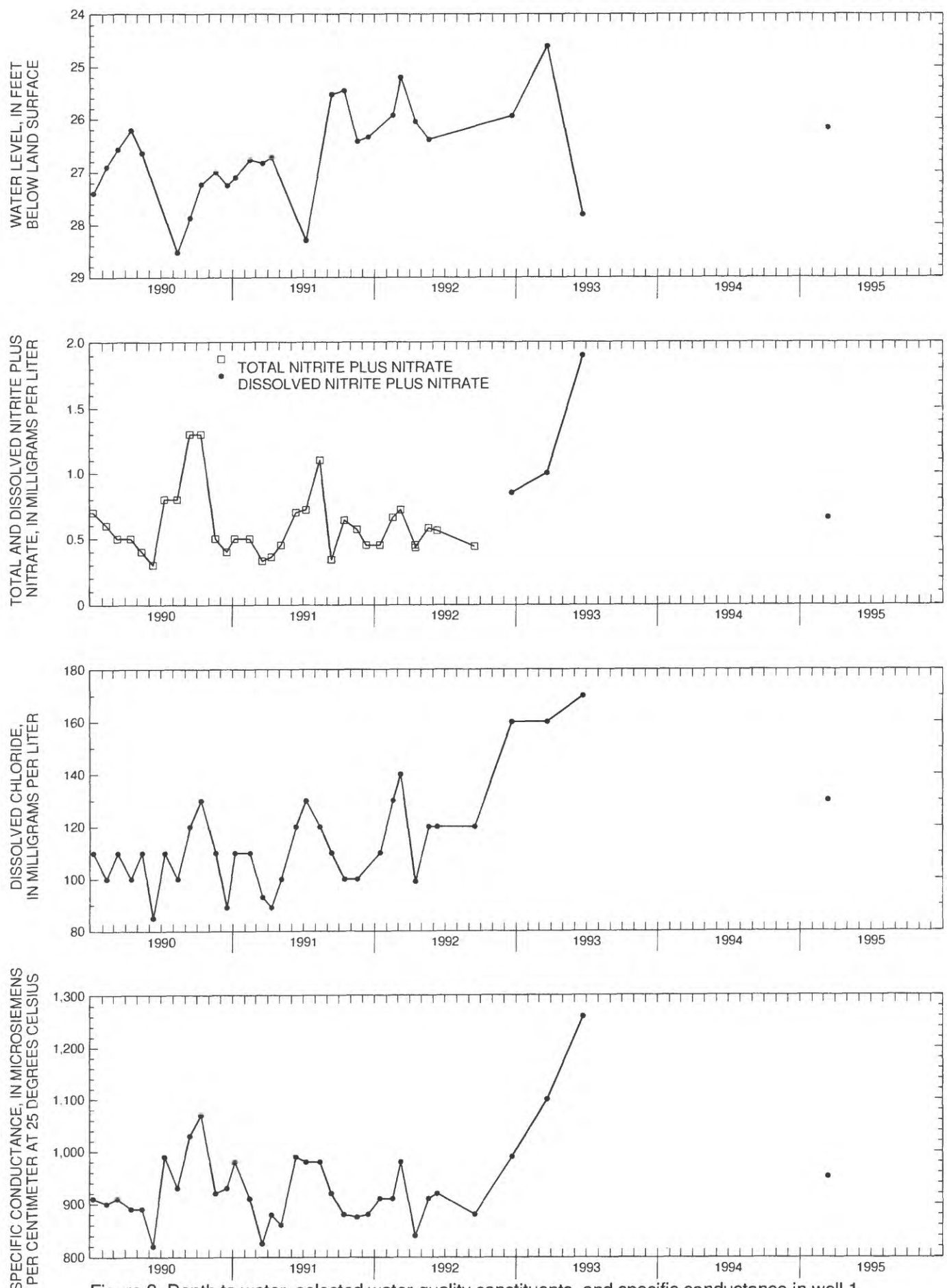


Figure 3. Depth to water, selected water-quality constituents, and specific conductance in well 1, completed in the Madera Limestone of Pennsylvanian age.

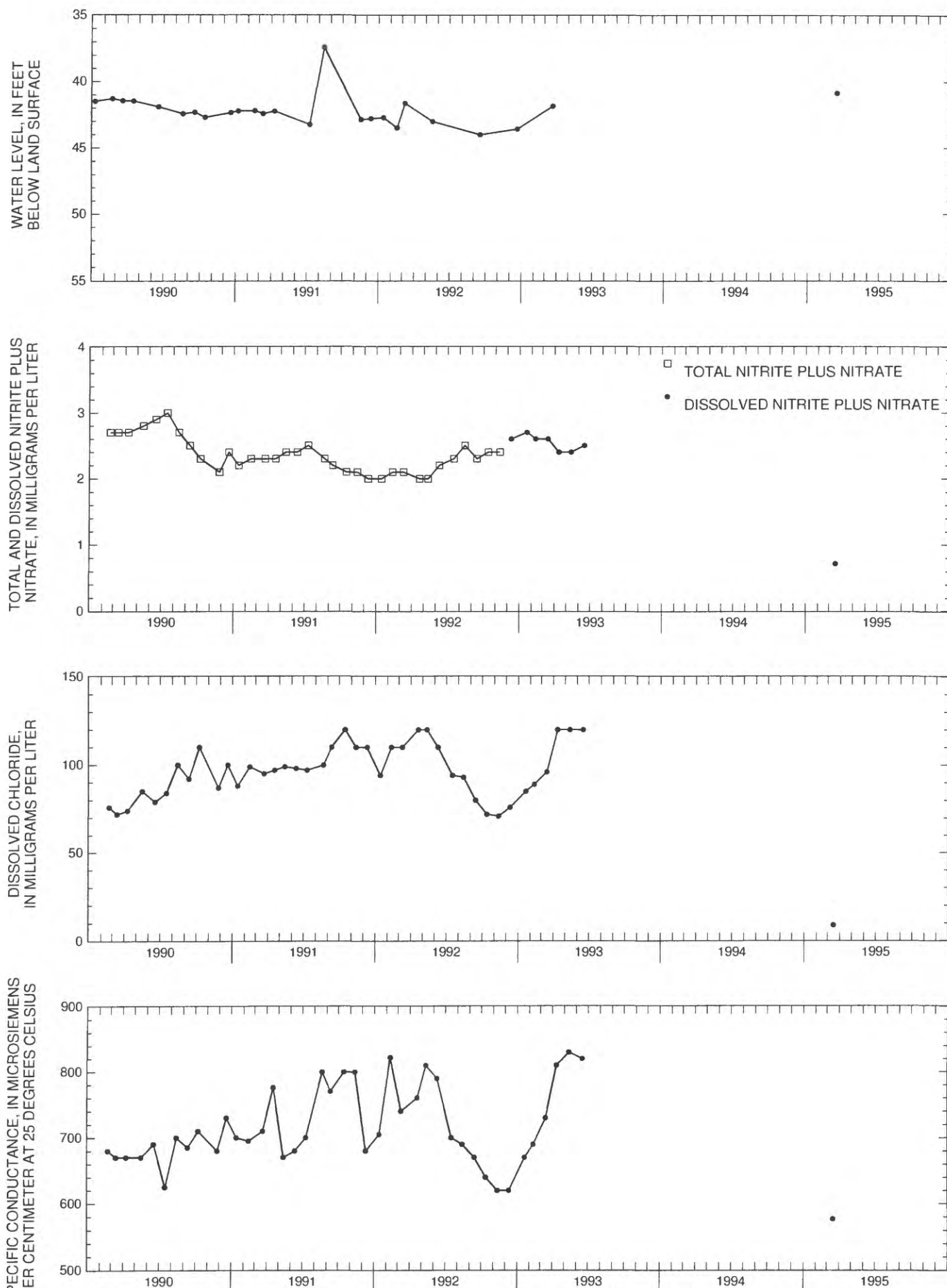


Figure 4. Depth to water, selected water-quality constituents, and specific conductance in well 2, completed in rock of Precambrian age.

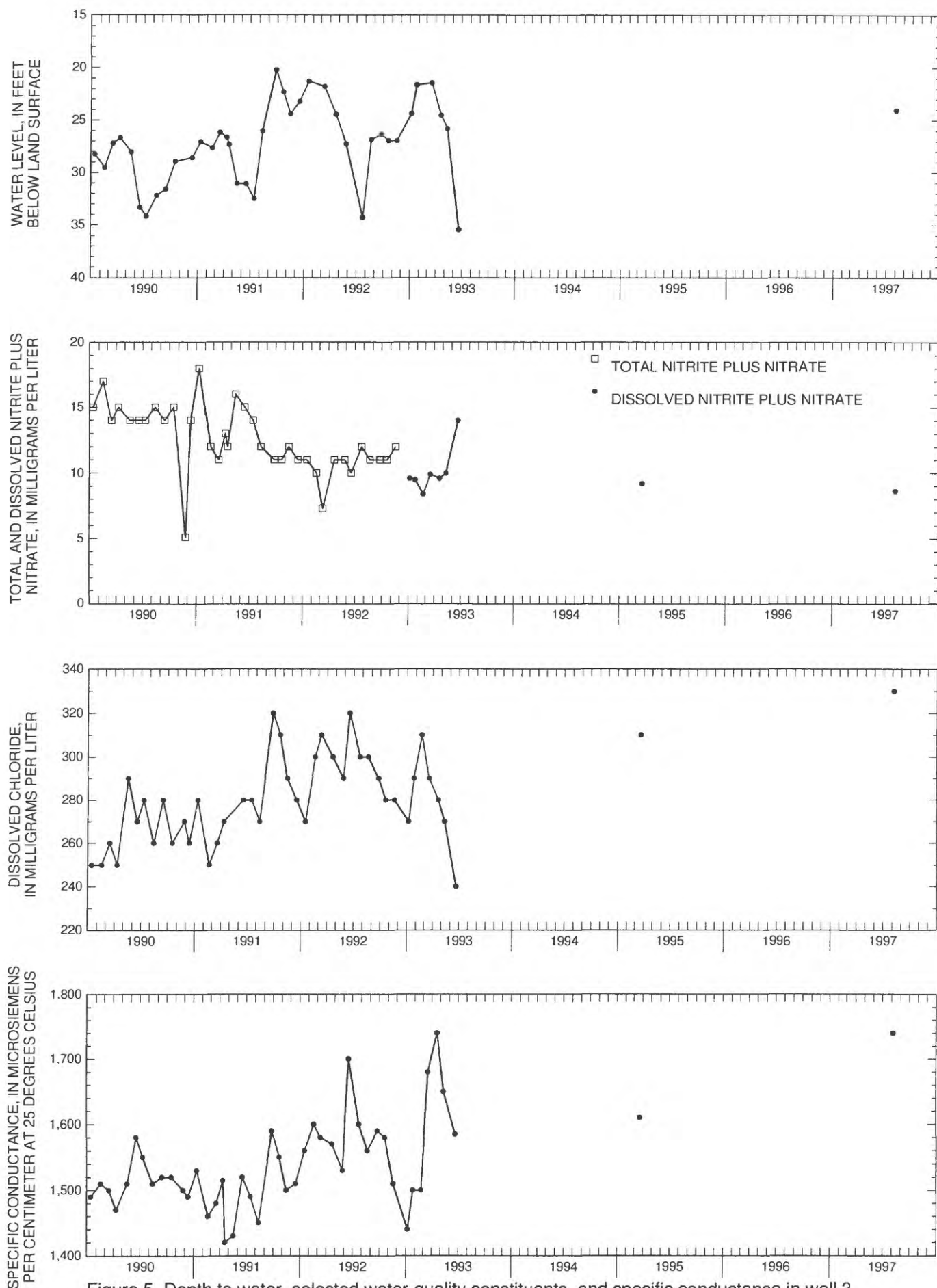


Figure 5. Depth to water, selected water-quality constituents, and specific conductance in well 3, completed in the Madera Limestone of Pennsylvanian age.

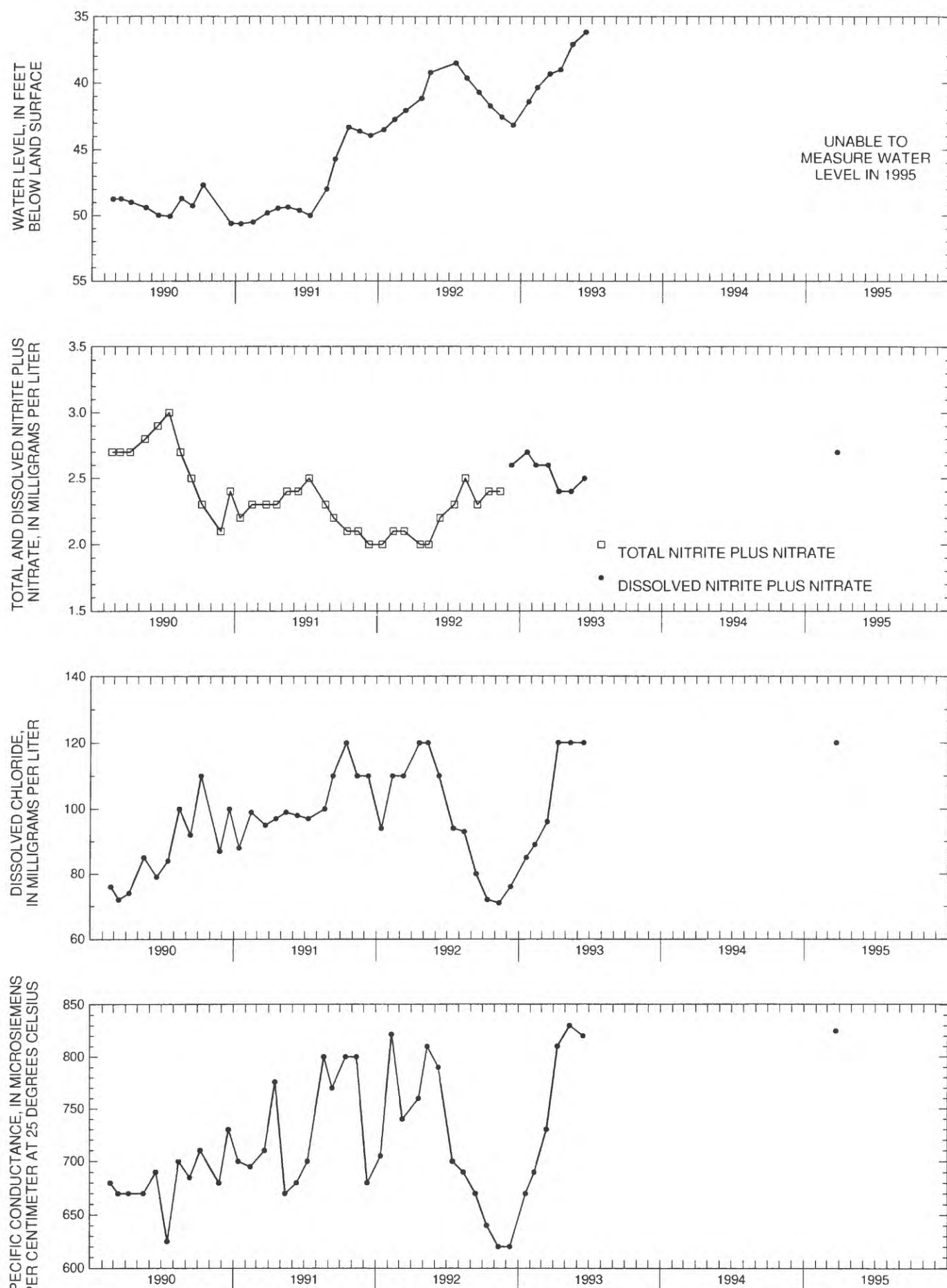


Figure 6. Depth to water, selected water-quality constituents, and specific conductance in well 4, completion unknown.

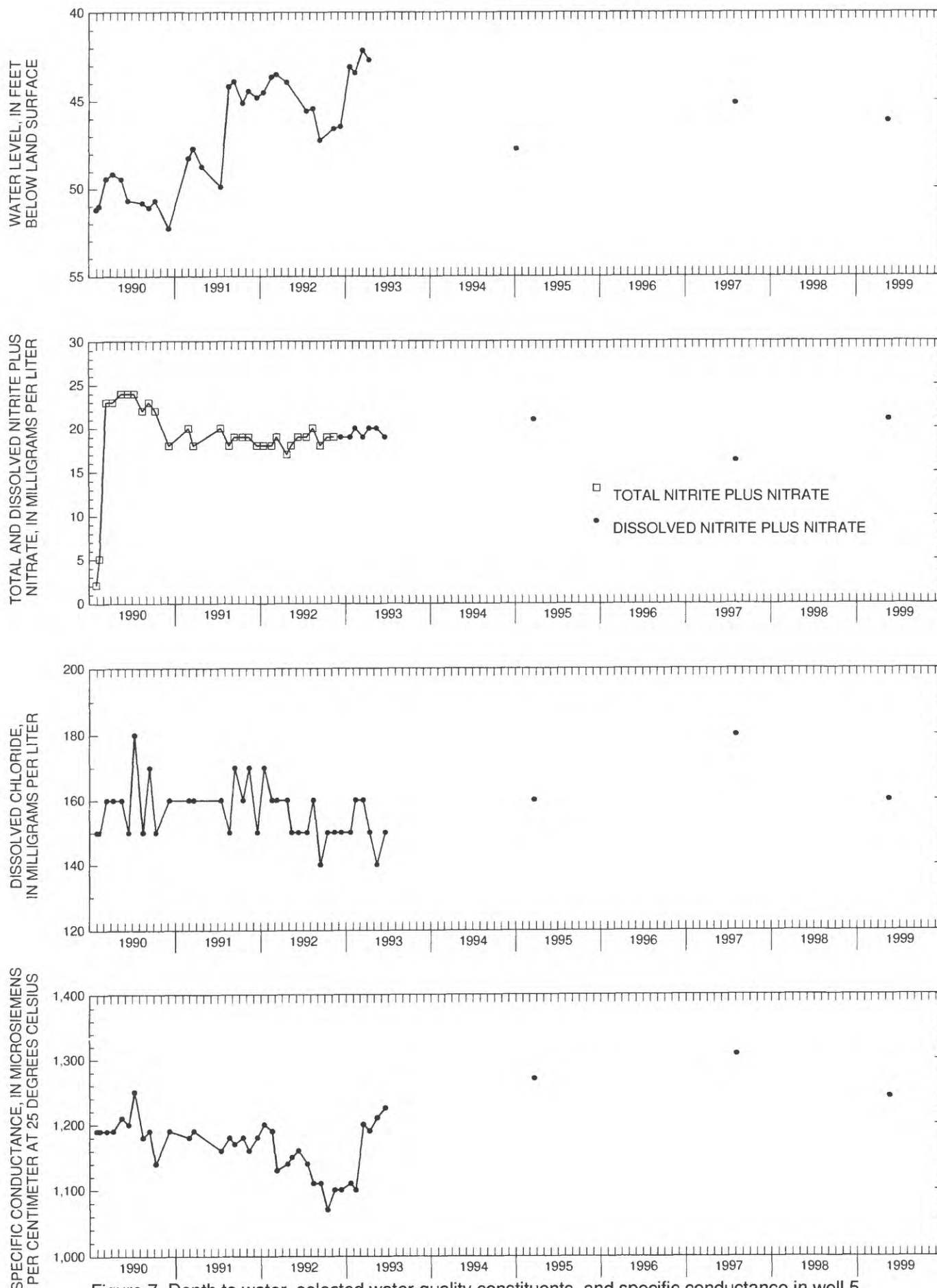


Figure 7. Depth to water, selected water-quality constituents, and specific conductance in well 5, completed in the Chinle Formation of Triassic age.

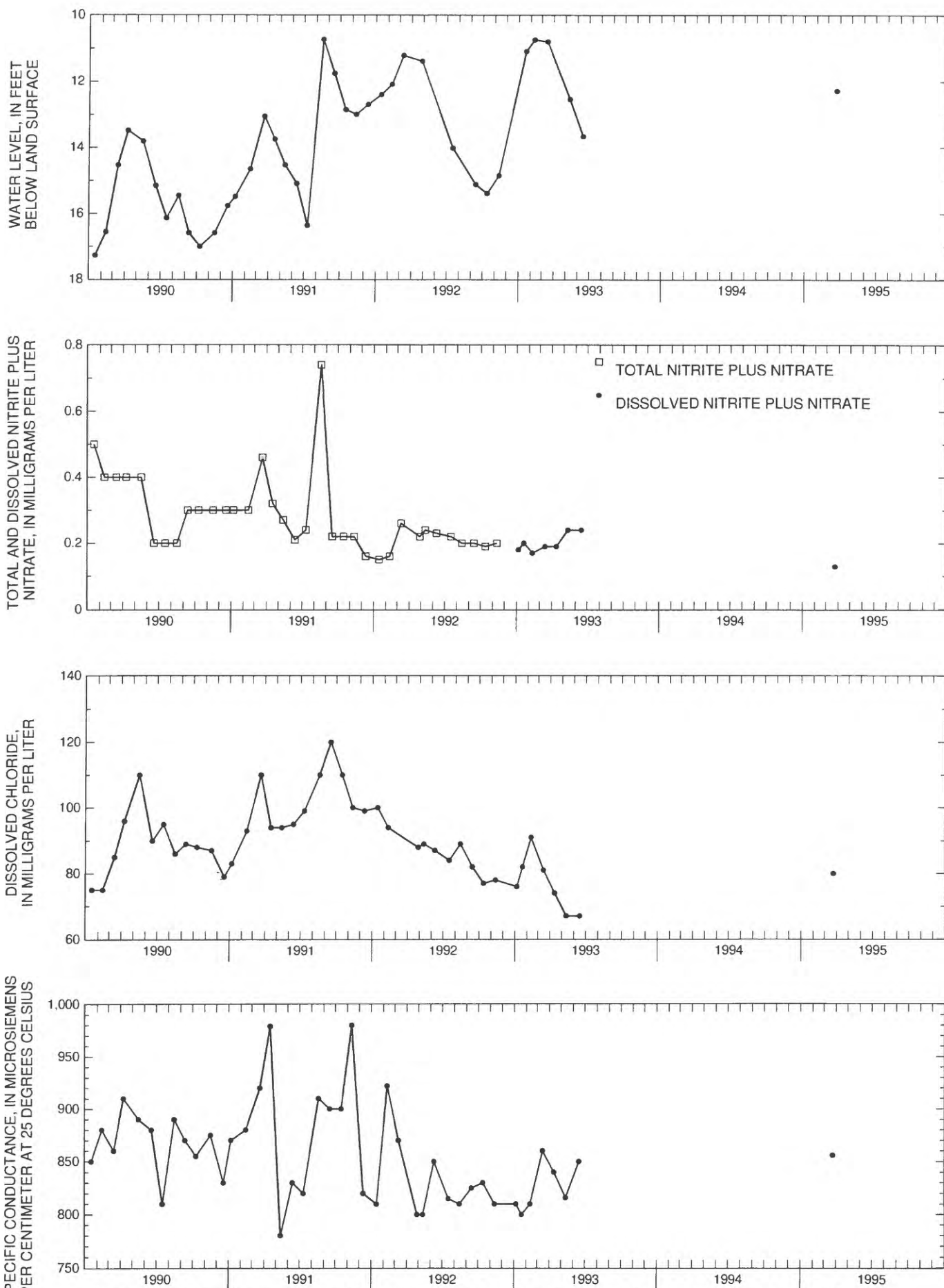


Figure 8. Depth to water, selected water-quality constituents, and specific conductance in well 6, completion unknown.

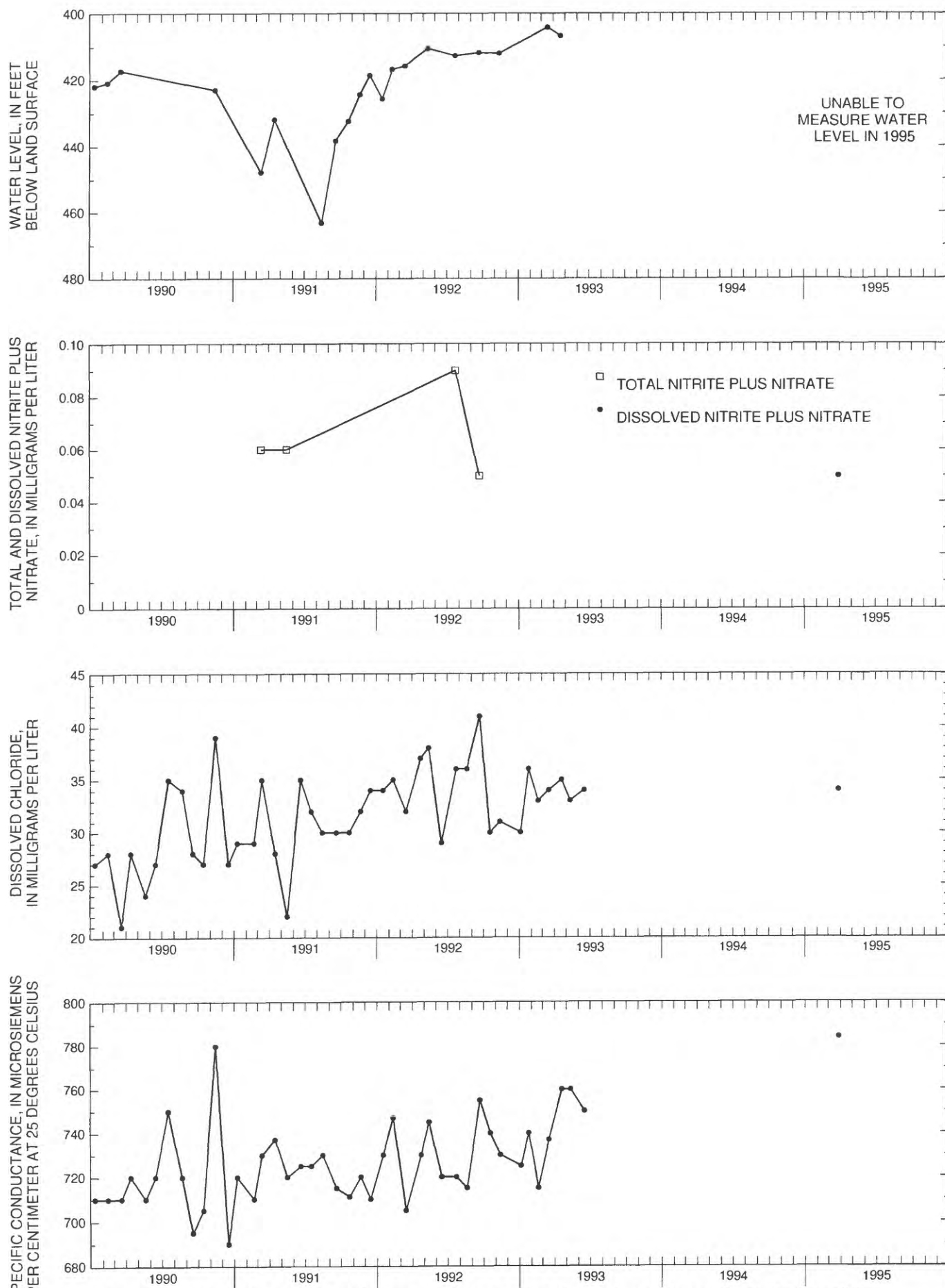


Figure 9. Depth to water, selected water-quality constituents, and specific conductance in well 7, completed in the Madera Limestone of Pennsylvanian age.

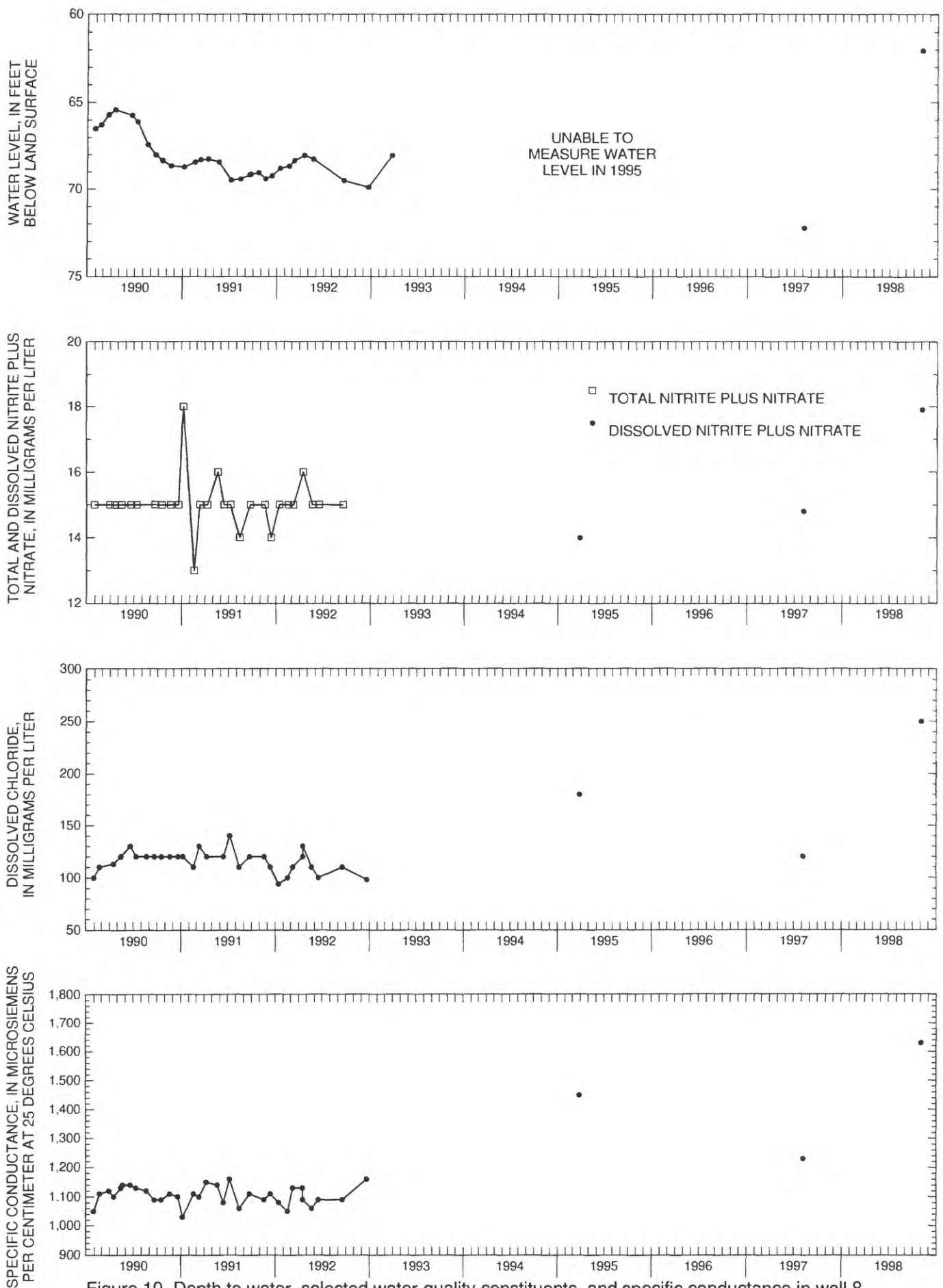


Figure 10. Depth to water, selected water-quality constituents, and specific conductance in well 8, completed in rock of Precambrian age.

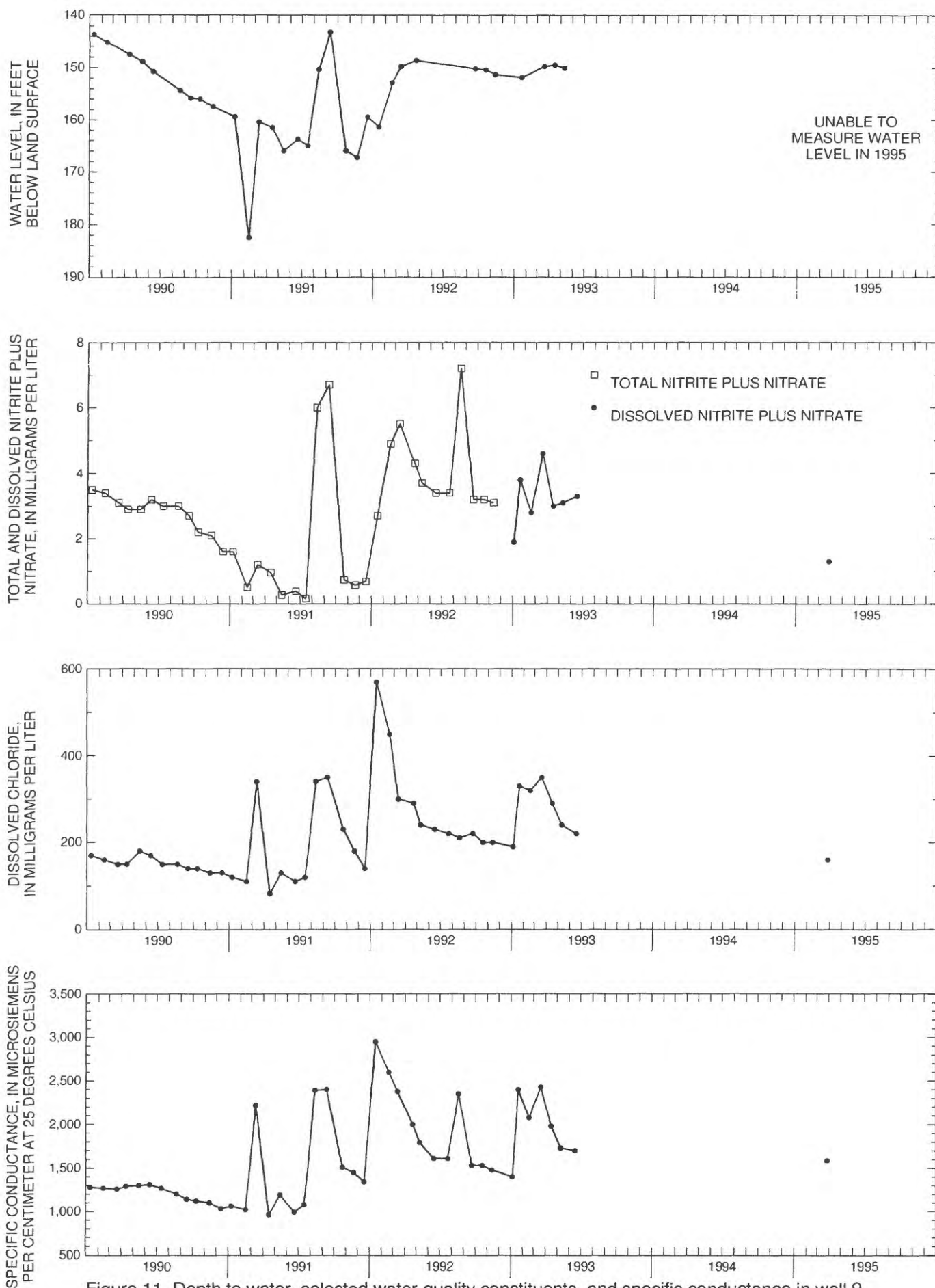


Figure 11. Depth to water, selected water-quality constituents, and specific conductance in well 9, completed in the Madera Limestone of Pennsylvanian age.

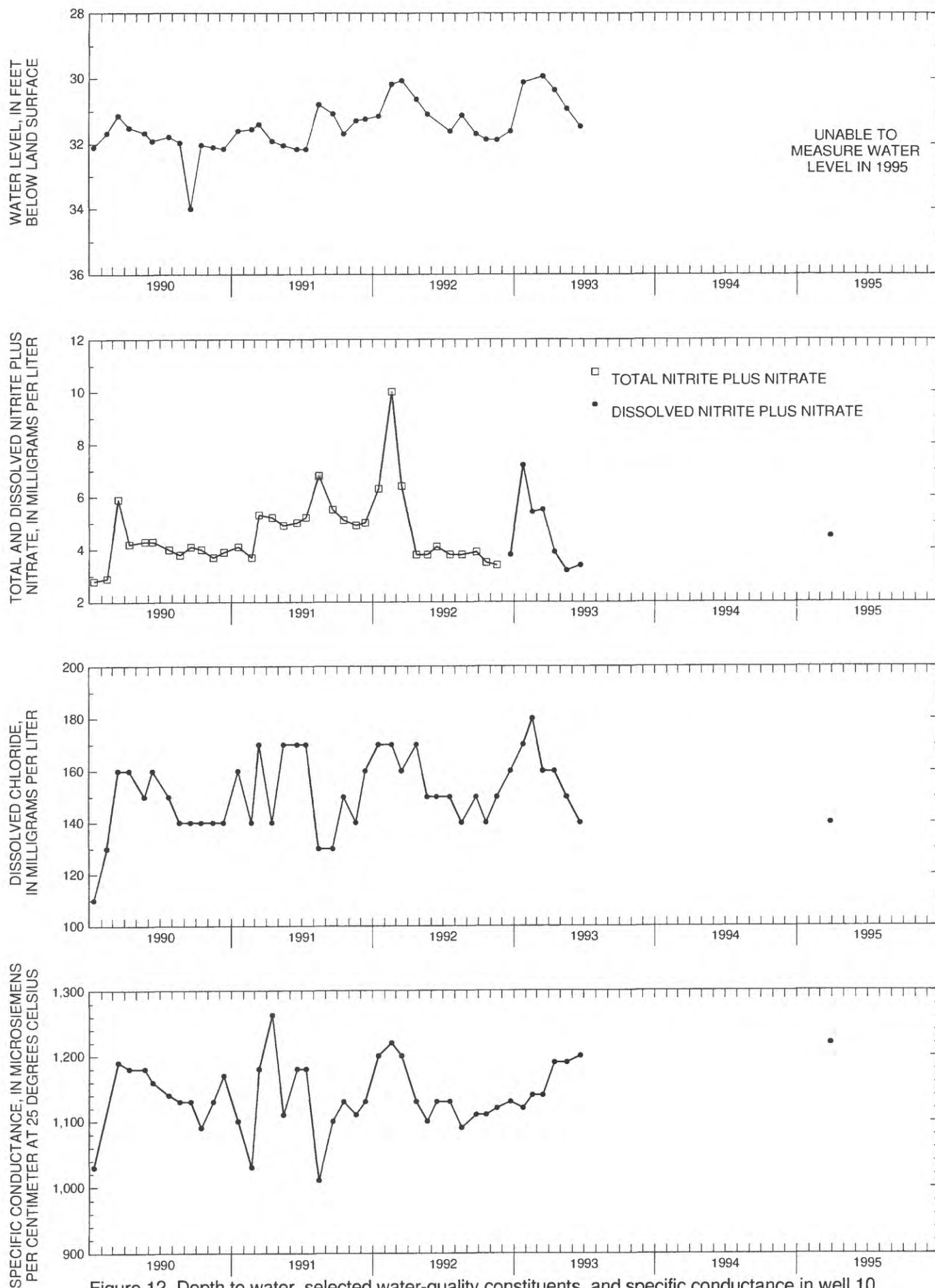


Figure 12. Depth to water, selected water-quality constituents, and specific conductance in well 10, completed in the Madera Limestone of Pennsylvanian age.

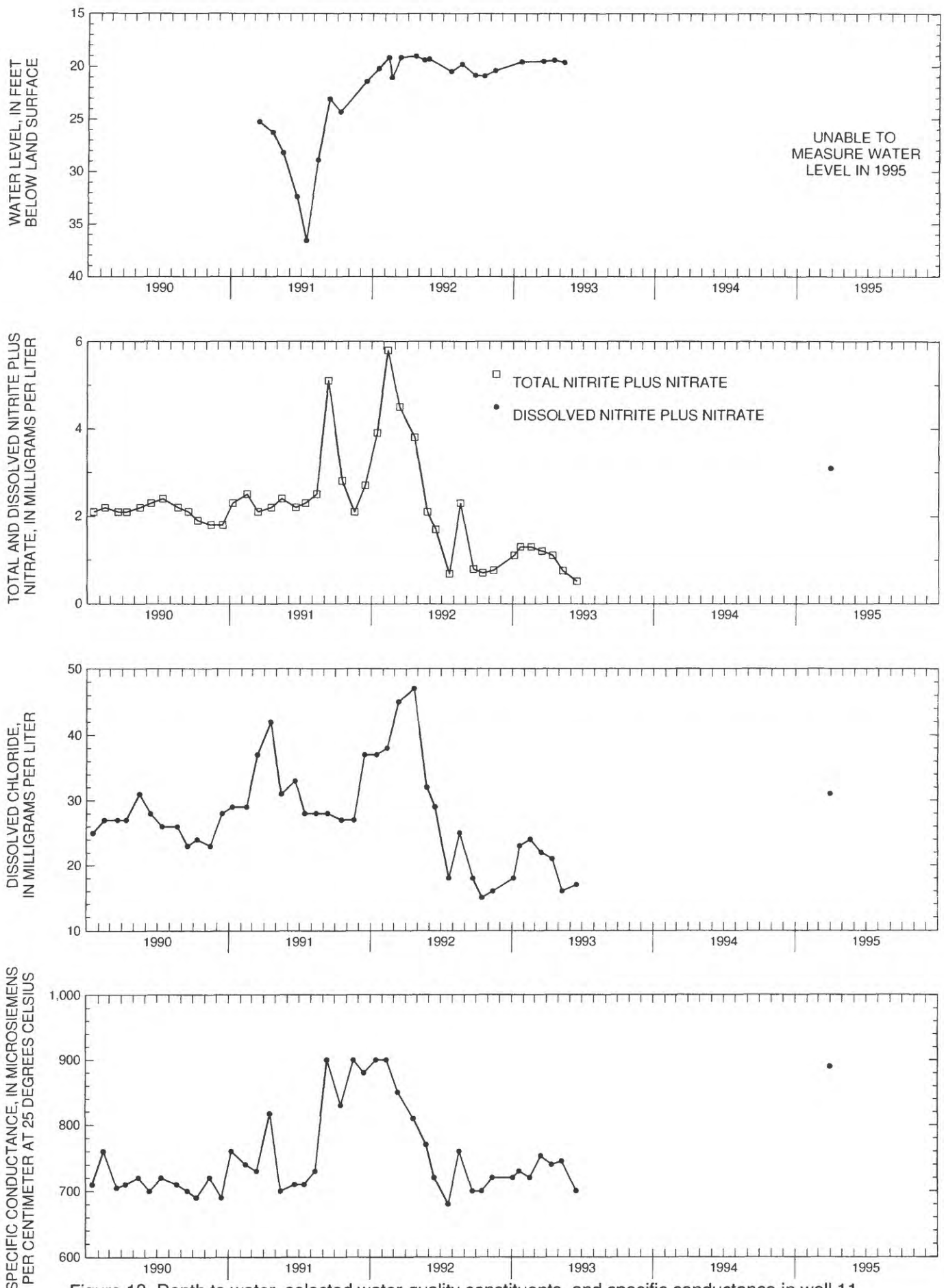


Figure 13. Depth to water, selected water-quality constituents, and specific conductance in well 11, completed in the Madera Limestone of Pennsylvanian age.

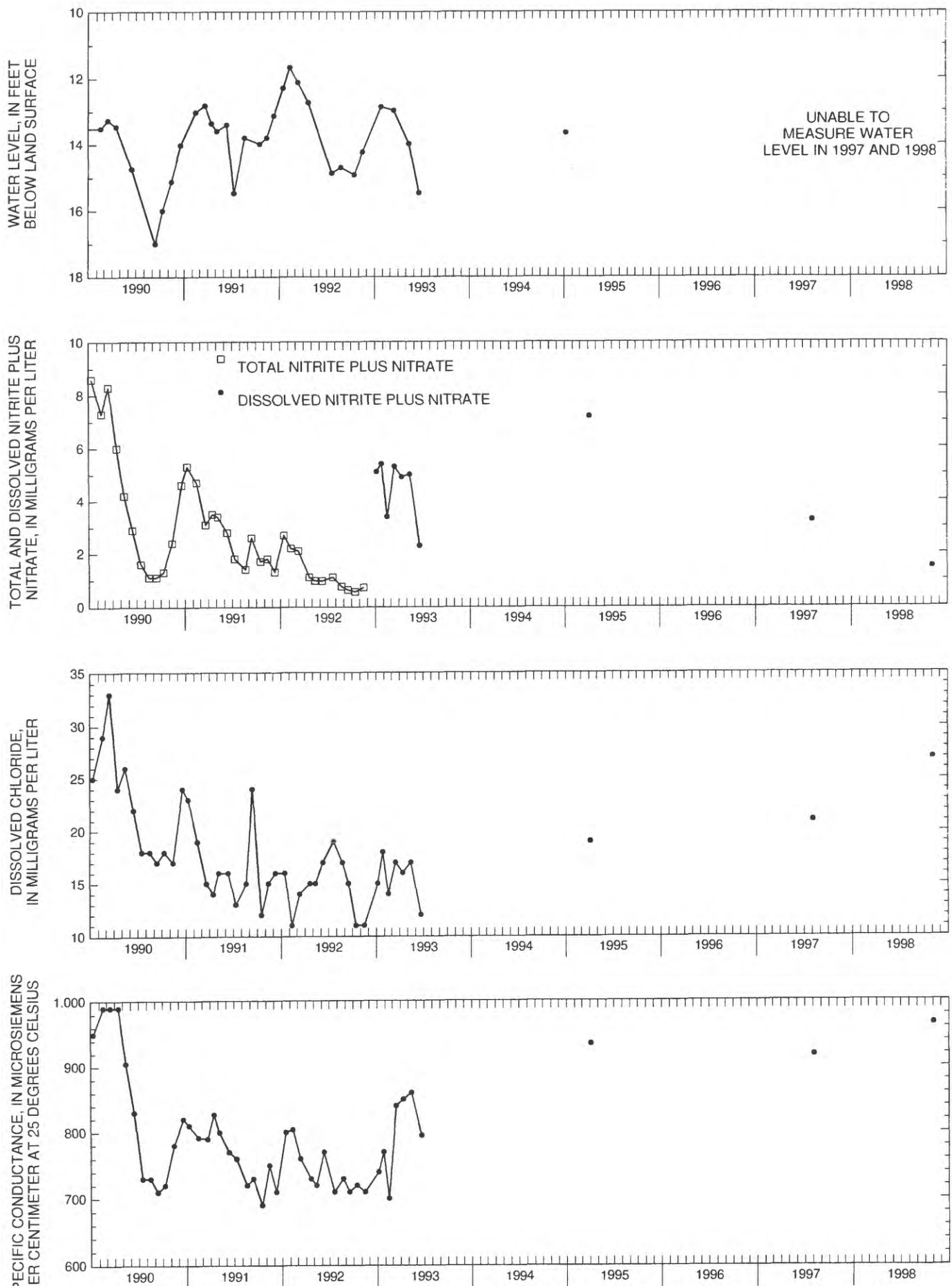


Figure 14. Depth to water, selected water-quality constituents, and specific conductance in well 13, completed in the Mancos Shale of Cretaceous age.

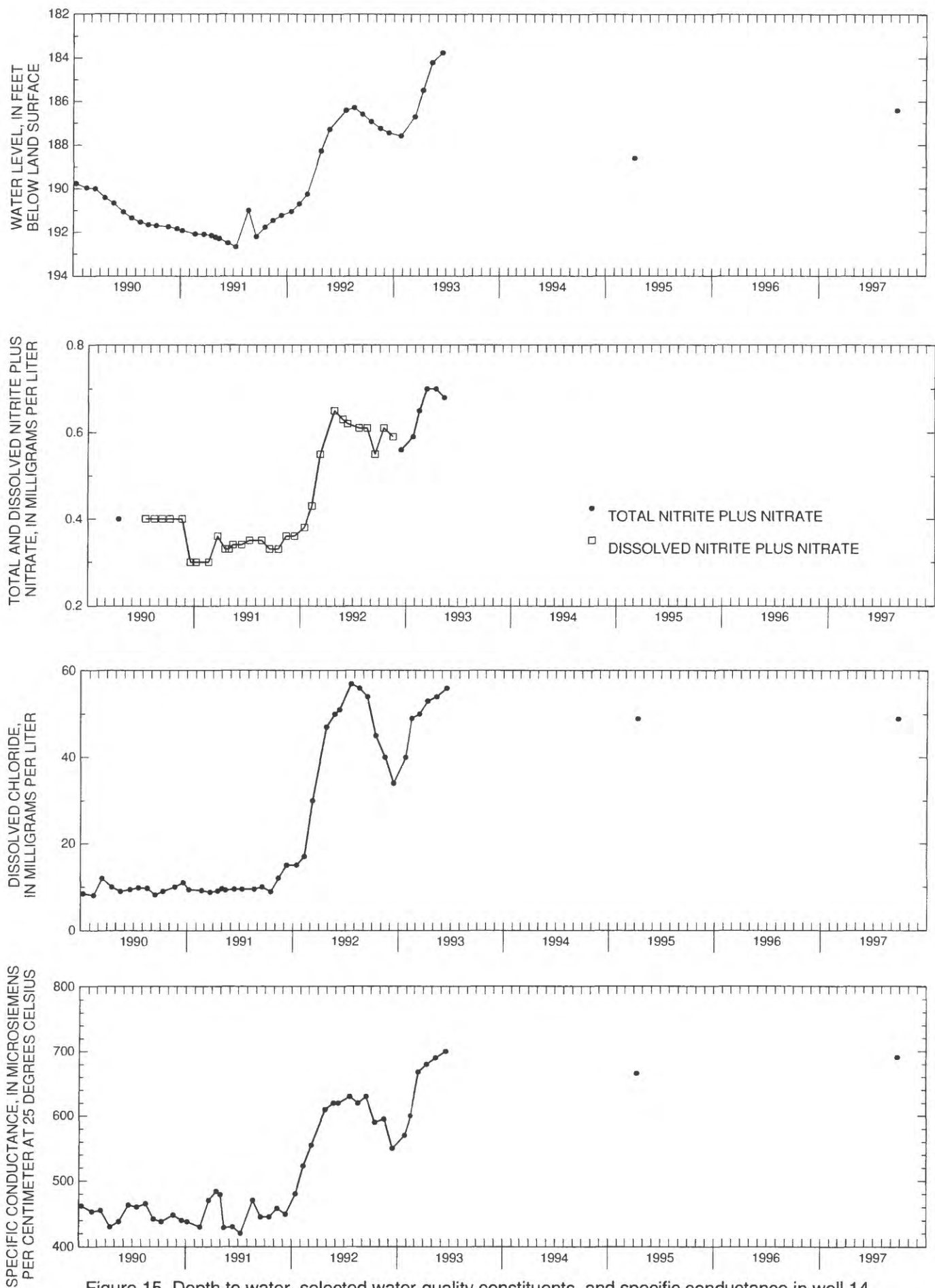


Figure 15. Depth to water, selected water-quality constituents, and specific conductance in well 14, completed in the Abo/Yeso Formations (undifferentiated) of Permian age.

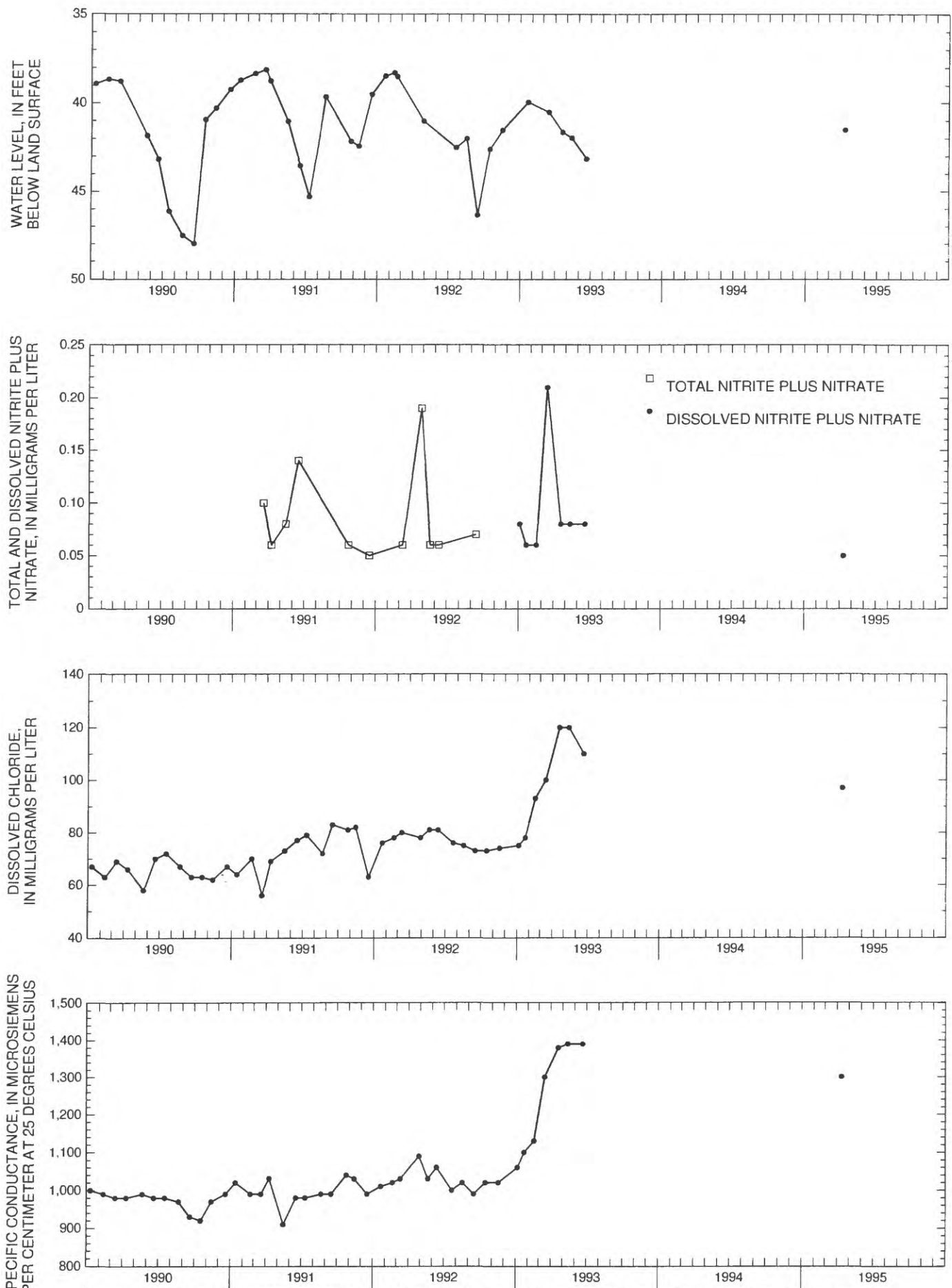


Figure 16. Depth to water, selected water-quality constituents, and specific conductance in well 15, completed in the Abo Formation (?) of Permian age.

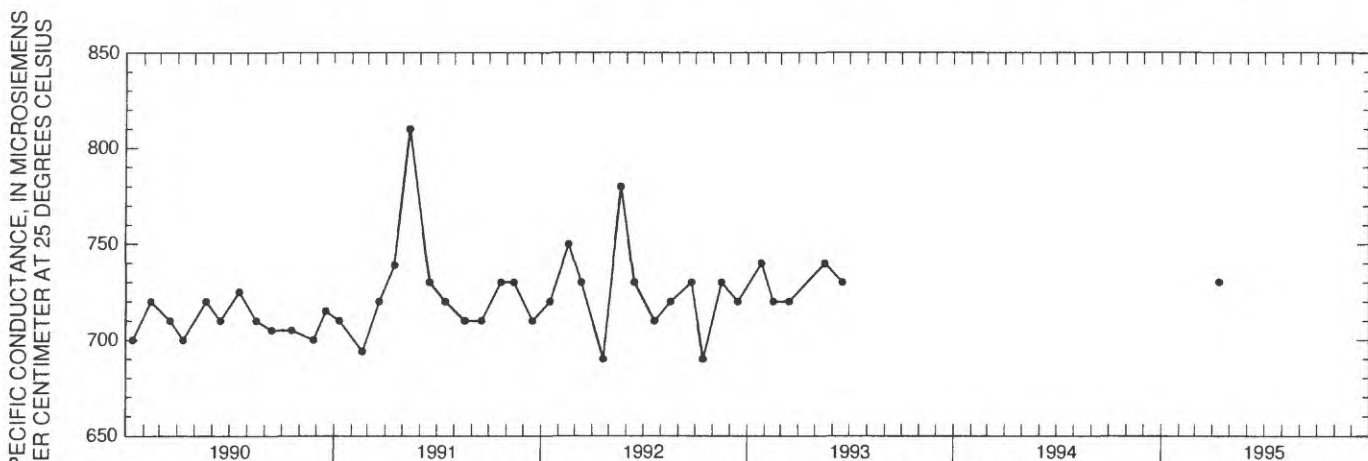
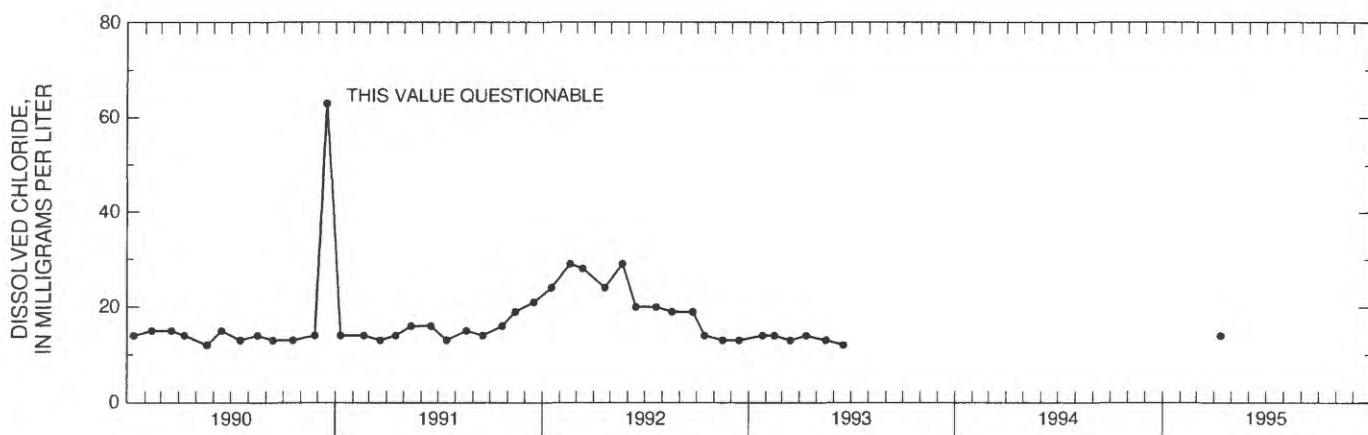
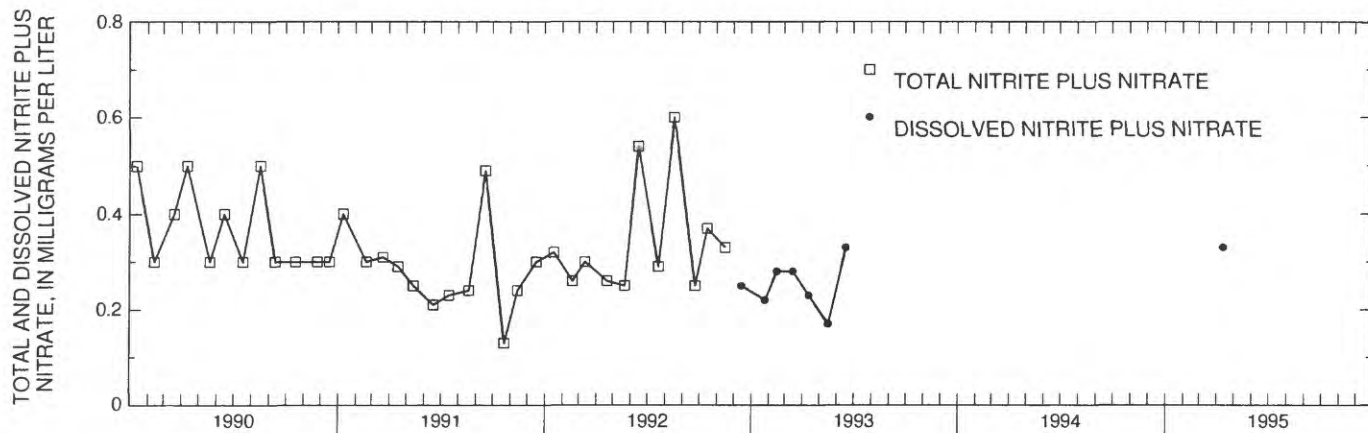
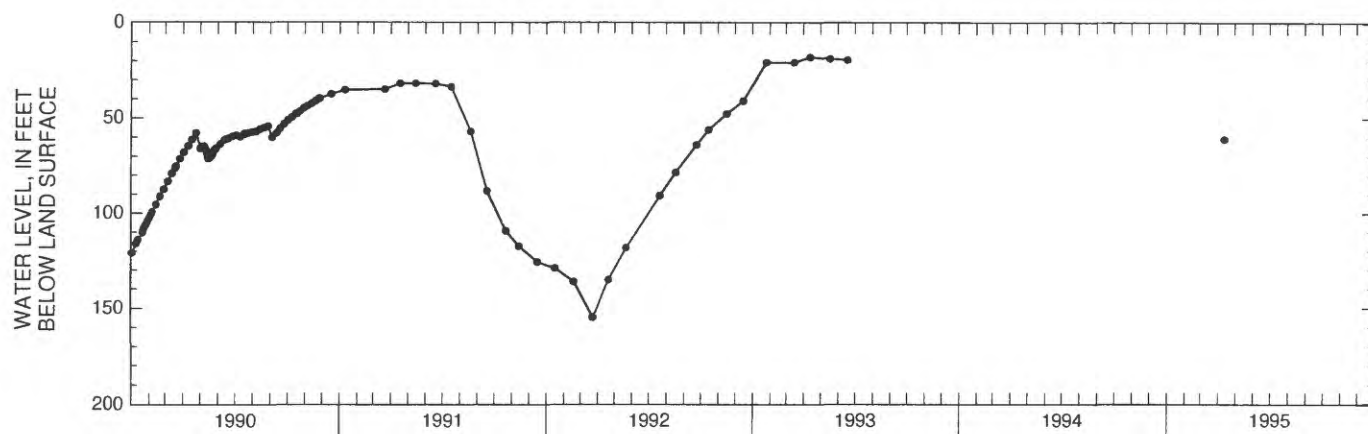


Figure 17. Depth to water, selected water-quality constituents, and specific conductance in well 16, completed in the Chinle Formation of Triassic age.

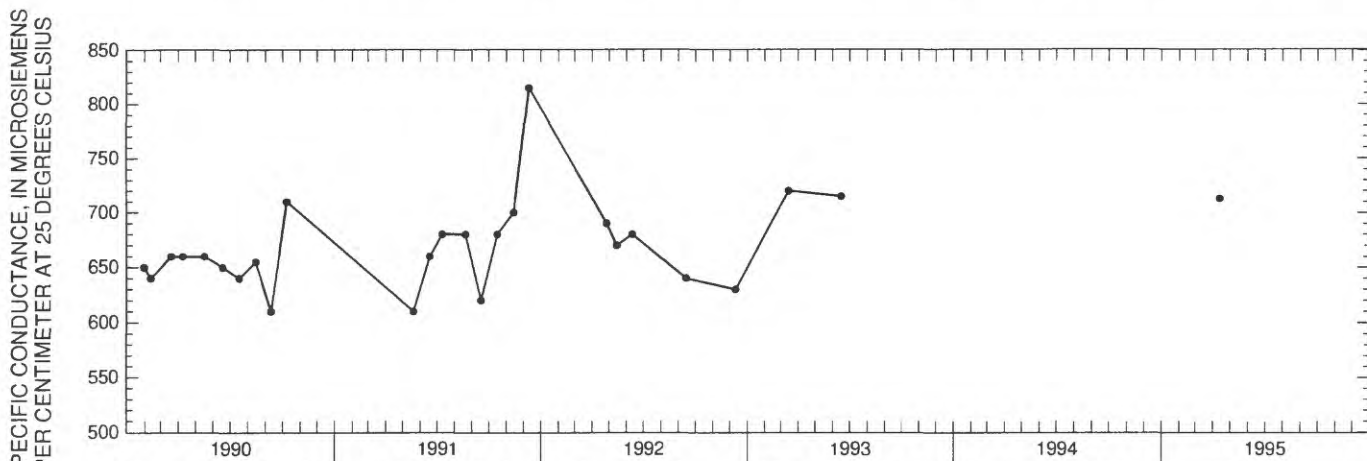
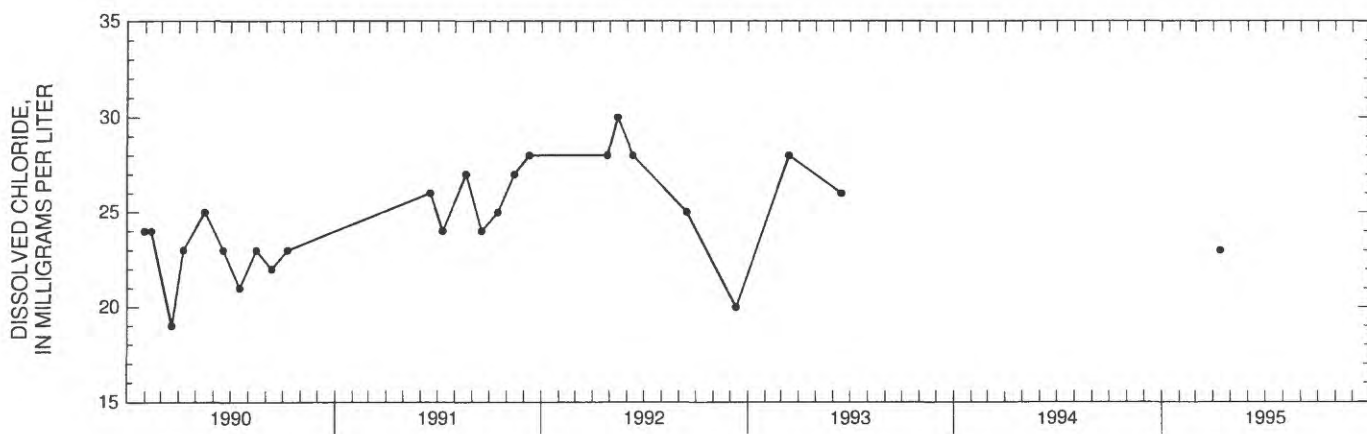
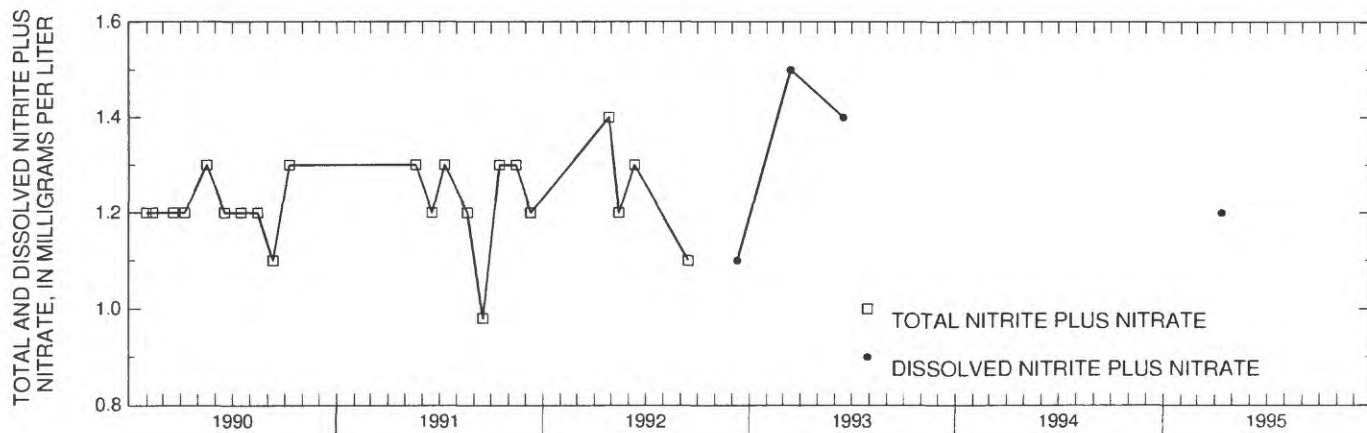
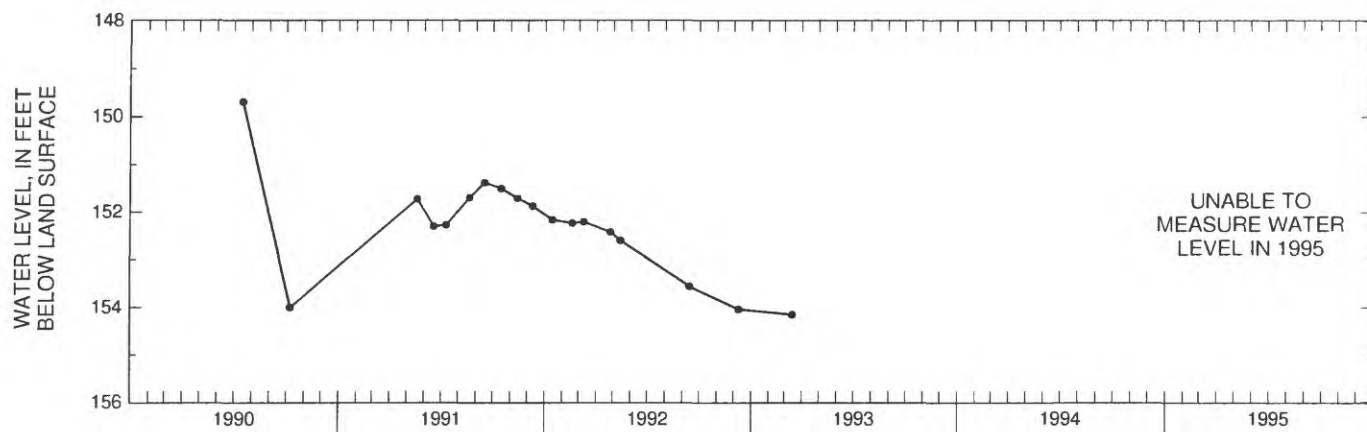


Figure 18. Depth to water, selected water-quality constituents, and specific conductance in well 17, completion unknown.

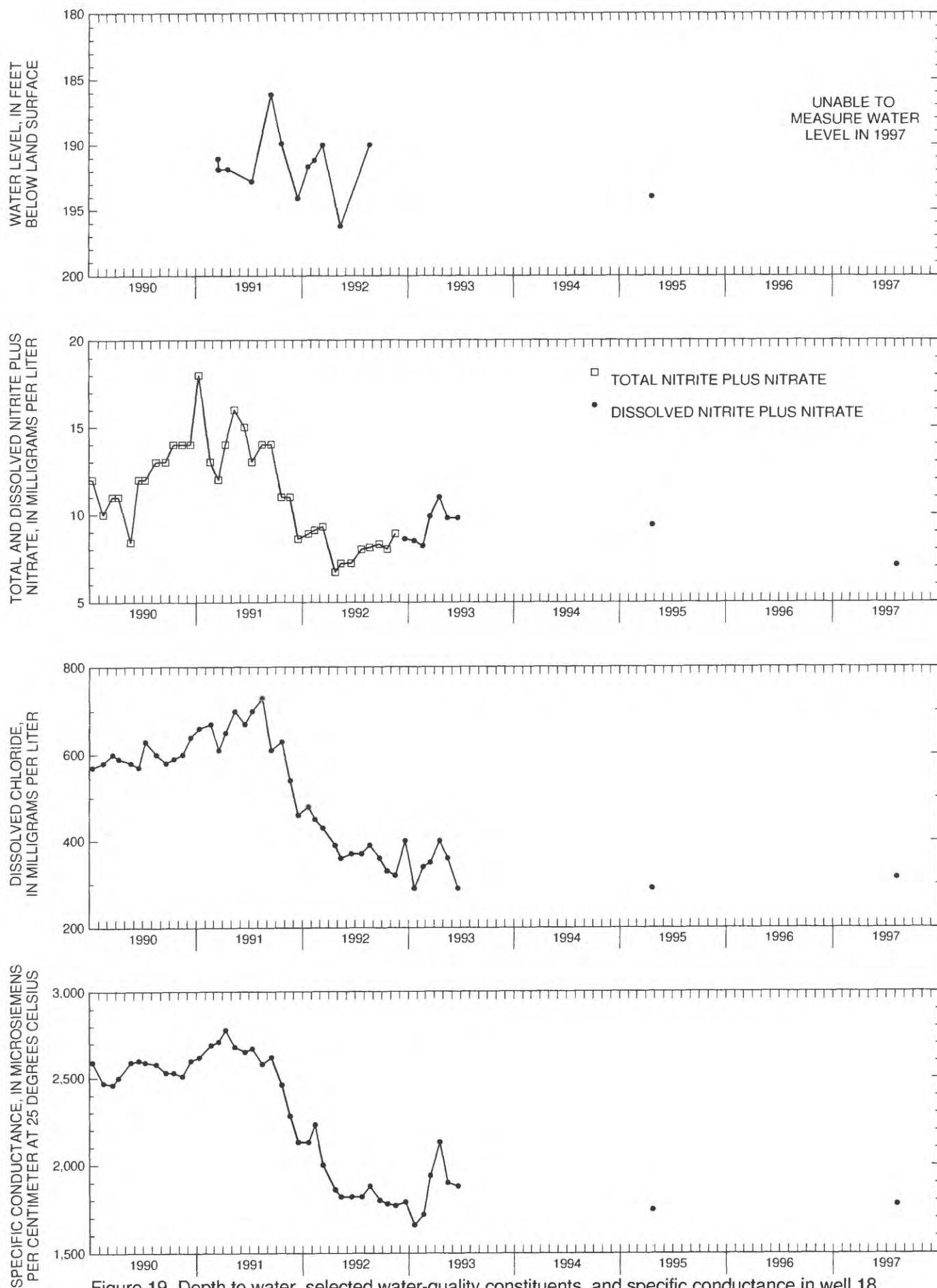


Figure 19. Depth to water, selected water-quality constituents, and specific conductance in well 18, completed in the Madera Limestone of Pennsylvanian age.

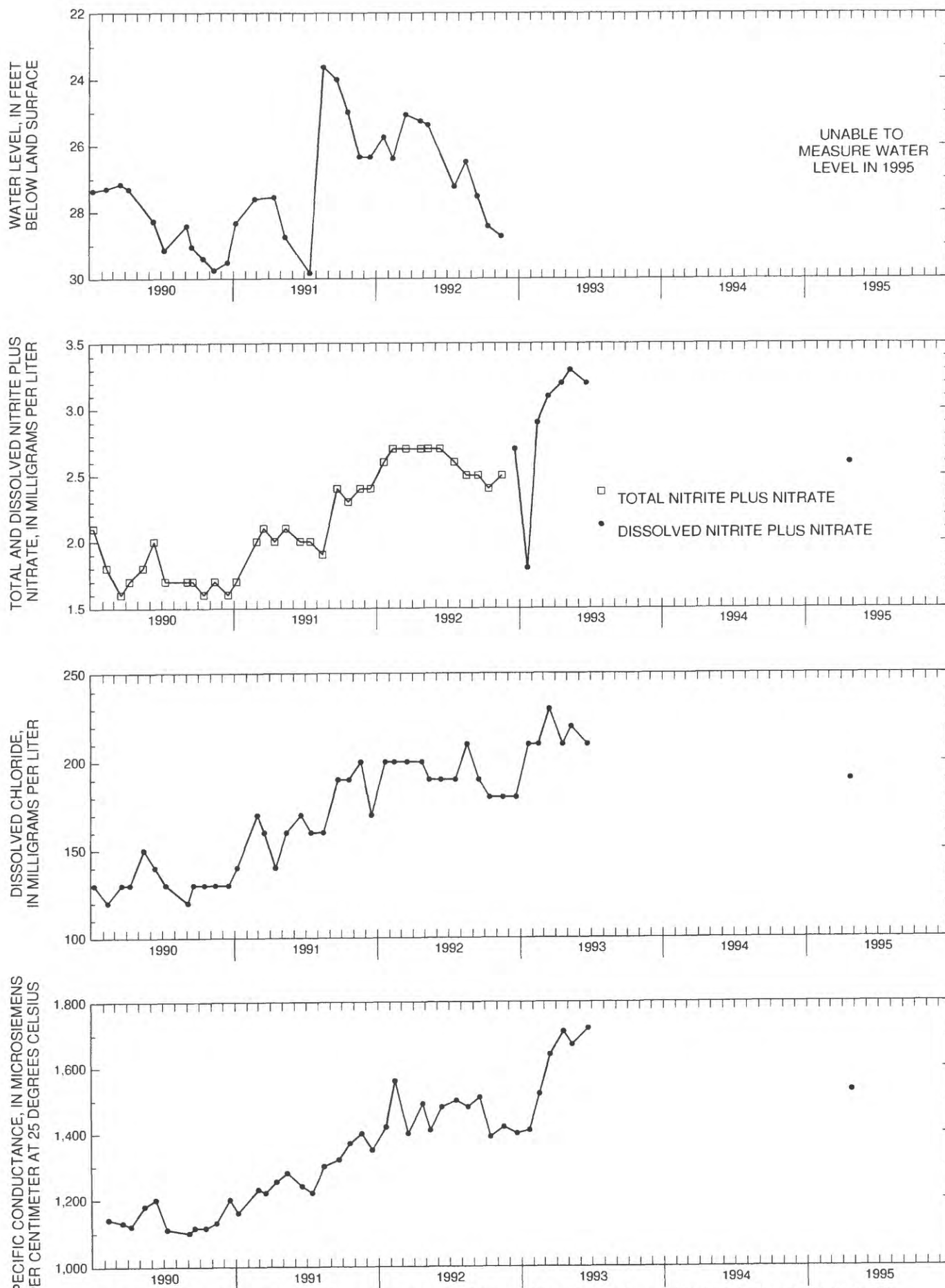


Figure 20. Depth to water, selected water-quality constituents, and specific conductance in well 19, completed in the Madera Limestone of Pennsylvanian age.

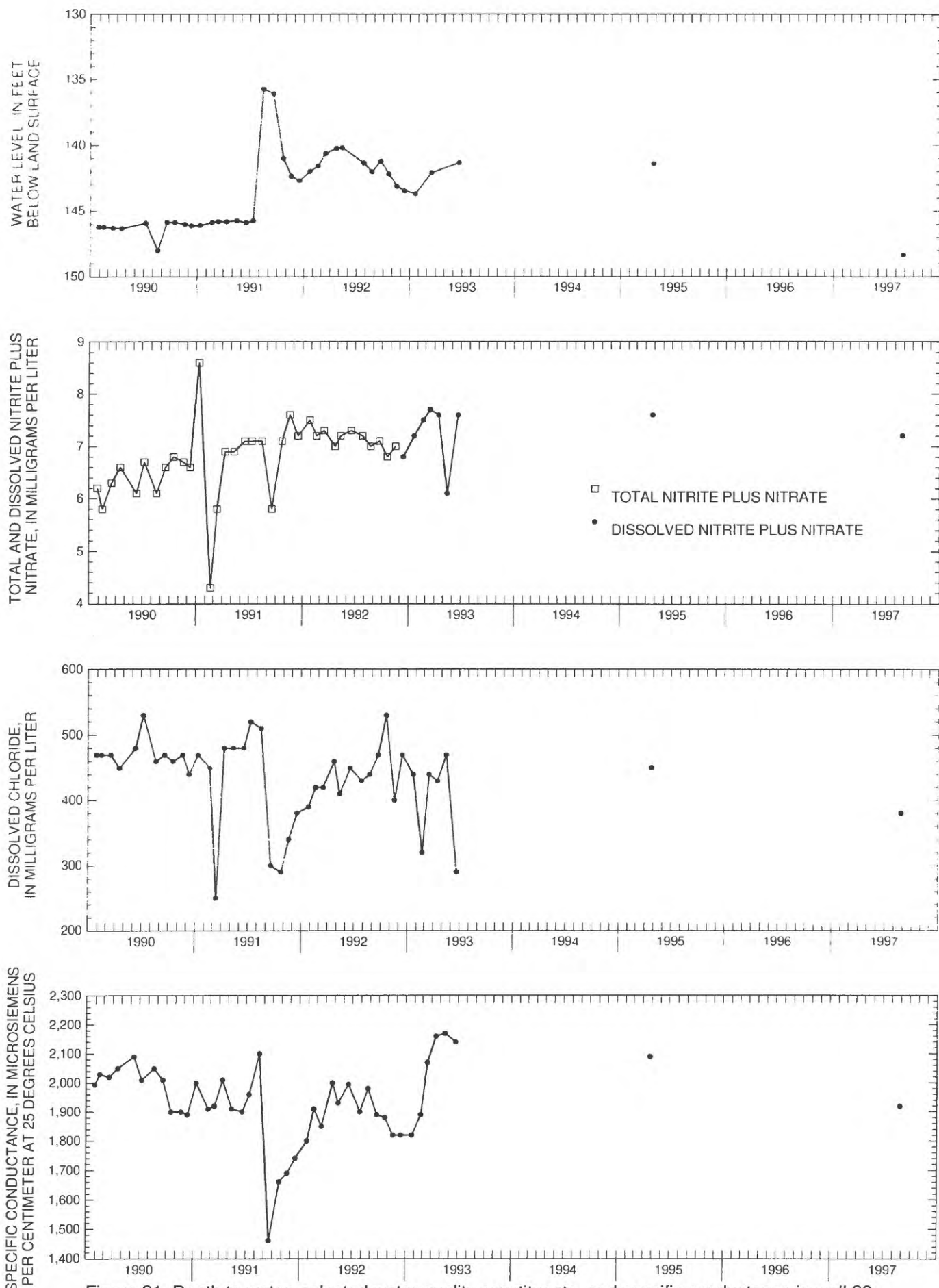


Figure 21. Depth to water, selected water-quality constituents, and specific conductance in well 20, completed in the Madera Limestone of Pennsylvanian age.

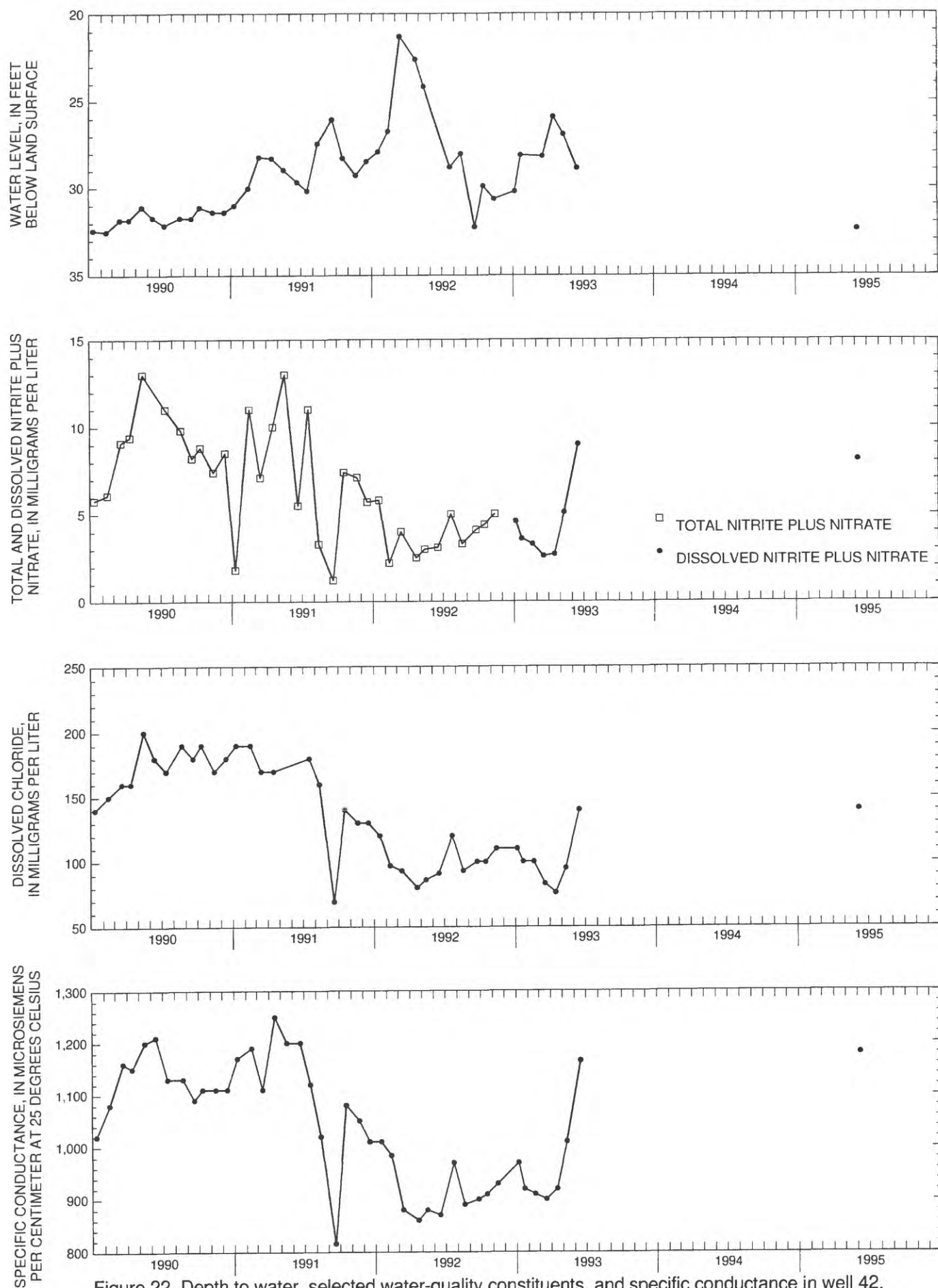


Figure 22. Depth to water, selected water-quality constituents, and specific conductance in well 42, completed in the Madera Limestone of Pennsylvanian age.

Table 1. Water-quality data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99

[mg/L, milligrams per liter; µg/L, micrograms per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius (deg C); <, less than minimum reporting level; --, no data; E, estimated]

Site number (fig. 2)	Station number	Date	Nitrite + nitrate, dissolved (mg/L as N)	Nitrite, dissolved (mg/L as N)	Phosphorus ¹ , dissolved (mg/L as P)	Ortho-phosphate, dissolved (mg/L as P)	Ammonia ¹ , dissolved (mg/L as N)	Ammonia + organic ¹ , dissolved (mg/L as N)
1	350449106231901	03-14-95	0.660	0.010	<0.010	<0.010	<0.015	<0.20
2	350423106263301	03-17-95	.720	<.010	<.010	<.010	<.015	<.20
3	350604106205801	03-22-95	9.20	<.010	.010	.020	.020	<.20
		08-06-97	8.60	<.010	.016	.023	.024	.394
4	351014106202801	03-23-95	2.70	<.010	.010	.010	<.015	<.20
5	350930106210701	03-23-95	21.0	<.010	.020	.020	<.015	<.20
		08-05-97	16.3	<.010	<.010	.020	.022	<.20
		05-18-99	21.0	<.010	.024	.029	<.020	.14
6	351011106220401	03-24-95	.130	<.010	<.010	<.010	<.015	<.20
7	345918106202001	03-28-95	<.050	<.010	<.010	<.010	<.015	<.20
8	350410106262601	03-28-95	14.0	<.010	<.010	<.010	<.015	<.20
		08-07-97	14.8	<.010	<.010	.011	.015	.20
		11-04-98	17.9	<.010	<.050	<.010	<.020	<.10
9	345833106185101	03-28-95	1.30	<.010	.020	.030	<.015	.20
10	350119106210901	03-29-95	4.50	<.010	<.010	<.010	<.015	<.20
11	345319106135101	03-31-95	3.10	<.010	.050	.030	<.015	<.20
12	350356106162901	03-31-95	.080	<.010	<.010	<.010	<.015	<.20
13	350615106223301	04-05-95	7.20	.020	.020	.020	<.015	<.20
		08-05-97	3.25	<.010	.16	.021	.022	<.20
		11-04-98	1.48	<.010	.021	.021	.021	.14
14	350949106211801	04-12-95	.630	<.010	<.010	<.010	<.015	<.20
		09-24-97	.682	<.010	<.010	.014	<.015	<.20
15	350531106224301	04-12-95	<.050	<.010	<.010	<.010	<.015	<.20
16	350721106222101	04-13-95	.330	.020	.030	.020	<.015	<.20
17	350949106184501	04-14-95	1.20	<.010	<.010	<.010	<.015	<.20
18	350655106185601	04-24-95	9.40	<.010	<.010	<.010	<.015	.20
		08-08-97	7.07	<.010	.018	.014	.019	<.20
19	350522106222501	04-24-95	2.60	<.010	<.010	.010	<.015	<.20
20	350525106151701	04-25-95	7.60	<.010	<.010	.010	<.015	.20
		08-27-97	7.21	<.010	.011	.022	<.015	.20
21	350620106192201	04-25-95	.560	<.010	<.010	<.010	<.015	<.20
22	350739106195601	04-25-95	<.050	<.010	<.010	<.010	.210	.30
23	350931106200901	04-26-95	2.00	<.010	.030	.020	.020	<.20
24	350908106190601	04-26-95	.180	<.010	.020	.010	<.015	<.20
25	350840106171601	04-26-95	5.80	<.010	.030	.030	<.015	<.20
		08-04-97	5.52	<.010	.071	.036	.018	.20
26	350854106210001	04-28-95	5.20	<.010	<.010	<.010	<.015	<.20
27	350606106200401	05-30-95	.480	<.010	<.010	<.010	<.015	2.1
28	350946106193501	05-31-95	3.20	<.010	<.010	<.010	.020	<.20
29	350851106180301	05-31-95	4.20	<.010	<.010	.020	.020	.20
30	350748106182601	05-31-95	4.40	<.010	<.010	<.010	.020	<.20
31	350609106202201	06-01-95	1.70	.020	<.010	.010	.020	<.20

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Date	Total organic carbon (mg/L as C)	Boron, dissolved (µg/L as B)	Iron ¹ , dissolved (µg/L as Fe)	Methylene blue active substances (mg/L)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)
1	03-14-95	3.3	190	100	<0.02	74	46	56	5.3
2	03-17-95	4.9	30	8.0	<.02	73	18	24	3.7
3	03-22-95	12	110	7.0	<.02	180	45	71	2.9
	08-06-97	4.1	120	4.6	--	190	50	71	2.8
4	03-23-95	6.0	50	<3.0	<.02	110	21	16	1.3
5	03-23-95	4.2	60	<3.0	<.02	190	21	31	1.2
	08-05-97	2.5	64	<3.0	--	180	21	31	1.1
	05-18-99	4.4	67	<10	--	180	21	31	.98
6	03-24-95	4.5	20	<3.0	<.02	130	13	30	1.1
7	03-28-95	3.4	280	13	<.02	8.7	7.3	160	4.1
8	03-28-95	1.0	50	5.0	<.02	190	37	48	4.0
	08-07-97	1.0	49	<3.0	--	160	31	44	5.8
	11-04-98	.80	53	<10	--	190	42	58	6.7
9	03-28-95	9.9	120	29	.02	160	32	140	3.7
10	03-29-95	5.6	40	7.0	<.02	160	29	47	1.9
11	03-31-95	2.7	60	6.0	.04	130	15	41	2.1
12	03-31-95	12	320	14	.03	27	22	170	4.8
13	04-05-95	.80	50	4.0	<.02	140	26	30	.80
	08-05-97	3.2	44	3.5	--	130	26	30	.76
	11-04-98	1.2	39	<10	--	130	26	34	.85
14	04-12-95	3.4	20	<3.0	<.02	110	9.3	12	.80
	09-24-97	.50	22	<3.0	--	110	9.6	12	.77
15	04-12-95	11	50	19	<.02	200	34	39	1.9
16	04-13-95	1.5	10	9.0	<.02	1.1	.06	170	.10
17	04-14-95	3.9	70	7.0	<.02	83	29	23	1.3
18	04-24-95	12	50	5.0	.04	200	52	63	4.1
	08-08-97	3.0	55	5.7	--	200	54	71	3.8
19	04-24-95	8.9	50	5.0	<.02	190	36	77	2.1
20	04-25-95	12	50	10	.02	260	42	57	1.8
	08-27-97	2.6	64	<3.0	--	240	37	55	1.5
21	04-25-95	4.2	150	5.0	<.02	50	24	84	5.5
22	04-25-95	8.5	180	360	.02	160	66	60	5.3
23	04-26-95	1.8	30	5.0	<.02	310	17	19	1.8
24	04-26-95	5.2	70	15	<.02	120	21	22	2.1
25	04-26-95	2.4	50	<3.0	<.02	140	20	21	1.9
	08-04-97	1.5	61	<3.0	--	140	21	23	1.9
26	04-28-95	8.6	80	<3.0	.04	130	41	26	3.8
27	05-30-95	1.5	60	<3.0	<.02	84	19	22	1.8
28	05-31-95	.90	150	<3.0	.02	52	26	47	2.1
29	05-31-95	.50	40	<3.0	<.02	92	15	14	1.7
30	05-31-95	1.5	70	<3.0	<.02	120	35	33	2.2
31	06-01-95	2.6	230	<3.0	<.02	49	27	82	4.3

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Date	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO ₄)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO ₂)	Manganese ¹ , dissolved (µg/L as Mn)	Arsenic ¹ , dissolved (µg/L as As)	Hardness, total (mg/L as CaCO ₃)	Sodium adsorption ratio
1	03-14-95	130	88	0.20	17	19	2	370	1
2	03-17-95	8.9	74	2.1	19	<1.0	<1	260	.7
3	03-22-95	310	67	.20	20	<1.0	<1	630	1
	08-06-97	330	66	.23	21	<1.0	<1	690	1
4	03-23-95	120	39	.30	26	<1.0	2	360	.4
5	03-23-95	160	31	.20	29	<1.0	1	560	.6
	08-05-97	180	30	.19	29	<1.0	<1	550	.6
	05-18-99	160	29	.19	27	<3.0	1	530	.6
6	03-24-95	80	34	.60	17	<1.0	<1	380	.7
7	03-28-95	34	21	4.9	10	<1.0	<1	52	10
8	03-28-95	180	160	1.8	21	1.0	<1	630	.8
	08-07-97	120	150	1.7	20	1.3	<1	520	.9
	11-04-98	250	140	1.6	21	E1.6	<1	650	1
9	03-28-95	160	170	1.1	20	8.0	28	530	3
10	03-29-95	140	51	.40	15	3.0	<1	520	.9
11	03-31-95	31	49	.20	18	<1.0	<1	390	.9
12	03-31-95	55	83	4.8	11	6.0	<1	160	6
13	04-05-95	19	100	.20	20	1.0	<1	460	.6
	08-05-97	21	130	.24	19	1.0	<1	420	.6
	11-04-98	27	150	.25	21	E2.9	<1	440	.7
14	04-12-95	49	25	.30	16	<1.0	<1	310	.3
	09-24-97	50	27	.27	15	<1.0	<1	310	.3
15	04-12-95	97	270	.30	19	4.0	<1	640	.7
16	04-13-95	14	40	.90	10	4.0	2	3	43
17	04-14-95	23	56	.30	27	2.0	1	330	.6
18	04-24-95	290	150	.20	16	<1.0	<1	710	1
	08-08-97	320	130	.18	16	<1.0	<1	720	1
19	04-24-95	190	240	.20	20	<1.0	<1	620	1
20	04-25-95	450	130	.30	19	<10	<1	820	.9
	08-27-97	380	120	.21	22	<1.0	<1	760	.9
21	04-25-95	45	69	1.2	10	2.0	4	220	2
22	04-25-95	35	290	.40	23	18	<1	670	1
23	04-26-95	20	660	.30	23	<1.0	<1	840	.3
24	04-26-95	3.9	210	.30	21	2.0	1	390	.5
25	04-26-95	140	100	.30	18	<1.0	<1	430	.4
	08-04-97	150	93	.30	19	<1.0	<1	450	.5
26	04-28-95	97	94	.30	22	6.0	<1	490	.5
27	05-30-95	21	66	.40	16	<1.0	<1	290	.6
28	05-31-95	51	80	.90	23	2.0	2	240	1
29	05-31-95	20	25	.30	19	3.0	<1	290	.4
30	05-31-95	200	68	.30	18	<1.0	<1	440	.7
31	06-01-95	27	69	.80	12	10	1	230	2

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Date	Dissolved solids (mg/L)	Specific conductance, field ($\mu\text{S}/\text{cm}$)	Specific conductance, lab ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature air (deg C)	Temperature water (deg C)	Alkalinity (mg/L as CaCO_3)	Oxygen, dissolved (mg/L)
1	03-14-95	558	952	991	7.4	12.8	13.8	222	--
2	03-17-95	353	577	586	7.3	24.0	16.8	208	--
3	03-22-95	909	1,620	1,670	7.1	14.8	13.7	278	--
	08-06-97	918	1,740	1,750	7.1	21.9	13.9	280	1.0
4	03-23-95	452	825	823	7.2	11.5	12.0	174	--
5	03-23-95	738	1,270	1,270	7.0	10.8	13.0	298	--
	08-05-97	695	1,310	1,210	7.0	19.9	13.8	293	--
	05-18-99	721	1,240	1,240	7.0	23.1	14.5	--	1.0
6	03-24-95	488	856	864	6.9	10.0	9.0	300	--
7	03-28-95	445	784	775	7.9	-.3	11.0	--	--
8	03-28-95	845	1,450	1,440	7.2	6.0	14.1	--	--
	08-07-97	738	1,230	1,170	6.9	17.3	16.8	247	2.0
	11-04-98	936	1,630	1,630	--	12.6	16.7	--	--
9	03-28-95	938	1,580	1,580	7.1	.0	11.2	--	--
10	03-29-95	674	1,220	1,190	7.1	.0	10.2	354	--
11	03-31-95	527	890	891	7.1	7.8	11.1	376	--
12	03-31-95	602	1,040	1,040	7.6	9.0	15.5	372	--
13	04-05-95	582	935	933		15.5	11.9	348	
	08-05-97	570	918	893	7.2	20.0	17.3	328	--
	11-04-98	601	966	967	--	14.5	13.9	--	--
14	04-12-95	380	666	684	7.0	9.2	7.0	247	--
	09-24-97	346	691	619	7.4	14.1	13.1	256	6.1
15	04-12-95	831	1,300	1,340	6.8	18.0	15.0	322	--
16	04-13-95	432	730	752	9.3	18.7	14.0	312	--
17	04-14-95	424	713	707	7.3	20.4	13.5	286	--
18	04-24-95	976	1,740	1,730	6.7	12.0	12.8	274	--
	08-08-97	990	1,780	1,760	7.4	20.1	16.6	273	.9
19	04-24-95	948	1,530	1,530	7.1	10.0	12.2	288	--
20	04-25-95	1,120	2,090	2,060	7.0	12.5	8.2	198	--
	08-27-97	1,030	1,920	1,870	7.3	22.4	15.4	230	6.8
21	04-25-95	466	800	812	7.3	13.2	15.0	286	--
22	04-25-95	935	1,440	1,460	6.9	15.0	--	514	--
23	04-26-95	1,160	1,470	1,480	7.0	16.0	12.5	140	--
24	04-26-95	541	826	811	7.0	14.5	11.2	228	--
25	04-26-95	566	989	980	7.1	11.2	13.4	161	--
	08-04-97	580	1,040	1,030	7.0	24.6	15.0	159	--
26	04-28-95	628	1,100	1,090	6.8	17.2	13.2	318	--
27	05-30-95	374	690	644	6.8	20.0	16.0	232	--
28	05-31-95	413	700	706	7.1	20.5	15.0	185	--
29	05-31-95	365	530	628	6.5	20.0	15.0	258	--
30	05-31-95	600	1,110	1,110	6.8	21.5	16.5	169	--
31	06-01-95	464	790	787	6.9	18.5	17.5	299	--

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Station number	Date	Nitrite + nitrate, dissolved (mg/L as N)	Nitrite, dissolved (mg/L as N)	Phosphorus ¹ , dissolved (mg/L as P)	Ortho-phosphate, dissolved (mg/L as P)	Ammonia ¹ , dissolved (mg/L as N)	Ammonia ¹ + organic ¹ , dissolved (mg/L as N)
32	350434106225701	06-01-95	1.20	<0.010	<0.010	<0.010	<0.015	<0.20
33	345754106164601	06-02-95	3.70	<.010	<.010	<.010	.020	<.20
34	345855106203601	06-02-95	4.70	<.010	<.010	.020	.020	<.20
35	350623106215301	06-02-95	1.20	<.010	<.010	<.010	.080	<.20
36	350735106223001	06-06-95	.320	<.010	<.010	<.010	<.015	<.20
37	350802106215401	06-06-95	7.00	.030	<.010	<.010	<.015	<.20
		08-07-97	6.41	<.010	<.010	.014	<.015	<.20
² 38	350610106223510	06-06-95	.140	<.010	<.010	<.010	.020	<.20
		10-06-97	.138	<.010	<.010	<.010	<.015	<.20
39	350557106182701	06-07-95	7.20	.010	.010	.010	.030	<.20
		09-02-97	7.52	<.010	<.010	.026	<.015	<.20
40	350812106220001	06-07-95	3.30	<.010	.050	.040	.030	<.20
41	350805106220801	06-07-95	7.90	<.010	.010	.020	.030	<.20
42	345858106194601	06-08-95	8.10	<.010	<.010	.040	.030	<.20
43	350831106192301	06-08-95	<.050	<.010	<.010	<.010	1.10	.90
³ 44	350617106231101	06-08-95	.180	<.010	<.010	<.010	.020	<.20
³ 45	350613106230601	06-08-95	.170	<.010	<.010	<.010	.020	<.20
46	350602106224701	06-09-95	5.10	.020	<.010	<.010	.020	<.20
47	350702106203101	06-12-95	<.050	<.010	<.010	<.010	.380	.50
48	345948106191701	06-12-95	.560	<.010	.020	.010	.020	<.20
49	350721106214101	06-14-95	<.050	<.010	.020	<.010	.100	<.20
50	350930106203001	06-14-95	1.90	<.010	.050	.010	.020	<.20
51	350658106174401	06-14-95	.790	.010	.030	<.010	.030	<.20
52	350601106173101	07-25-95	.100	<.010	<.010	<.010	.030	<.20
53	350859106214301	07-26-95	9.70	<.010	.040	.020	<.015	<.20
		08-11-97	5.47	<.010	.043	.043	<.015	<.20
54	350825106211101	07-27-95	<.050	<.010	<.010	.010	.430	.50
55	345753106175901	08-12-97	2.04	<.010	<.010	<.010	.029	<.20
		11-06-98	<.050	<.010	<.050	<.010	.027	<.10
56	350526106151801	08-14-97	.452	<.010	<.010	<.010	.041	<.20
57	351011106210101	08-15-97	.783	<.010	<.010	.014	<.015	<.20
58	350140106183401	08-18-97	.167	<.010	<.010	<.010	<.015	<.20
59	350239106202601	08-20-97	1.10	<.010	<.010	.013	<.015	<.20
		11-06-98	.721	<.010	<.050	.014	<.020	<.10
60	350546106220601	08-21-97	7.34	<.010	<.010	.018	<.015	<.20
61	350154106180901	08-22-97	2.64	<.010	<.010	<.010	<.015	.50
62	350144106175001	08-22-97	1.83	<.010	<.010	.011	<.015	<.20
		11-17-98	2.60	<.010	<.050	.019	.027	.12
63	350609106195101	08-26-97	1.47	<.010	<.010	.019	.034	<.20
64	350648106213801	08-26-97	<.050	.024	.013	.039	.794	.93
65	350617106212201	08-26-97	.297	.016	<.010	<.010	.039	<.20
66	350647106212301	08-27-97	.093	<.010	<.010	<.010	1.76	1.9

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Date	Total organic carbon (mg/L as C)	Boron, dissolved (µg/L as B)	Iron ¹ , dissolved (µg/L as Fe)	Methylene blue active substances (mg/L)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)
32	06-01-95	0.40	70	10	0.04	72	38	24	2.5
33	06-02-95	2.3	70	<3.0	.04	170	28	38	2.0
34	06-02-95	2.4	50	<3.0	.03	150	17	32	1.5
35	06-02-95	3.1	140	70	<.02	400	200	310	50
36	06-06-95	1.0	250	3.0	.07	77	20	52	.90
37	06-06-95	2.2	230	16	.03	210	43	40	2.6
	08-07-97	2.2	265	<3.0	--	260	46	58	2.6
² 38	06-06-95	3.2	20	<3.0	.04	70	9.6	6.7	.70
	10-06-97	.70	19	<3.0	--	68	9.4	7.1	.68
39	06-07-95	1.7	50	4.0	.05	190	45	42	2.5
	09-02-97	1.5	56	<3.0	--	190	44	42	2.4
40	06-07-95	1.1	90	<3.0	.02	110	15	26	.80
41	06-07-95	1.5	100	<3.0	<.02	120	21	31	.70
42	06-08-95	3.3	50	8.0	<.02	190	13	26	.90
43	06-08-95	.90	230	2,100	<.02	60	55	190	4.4
³ 44	06-08-95	.70	<10	<3.0	.02	84	9.5	6.6	.70
³ 45	06-08-95	1.3	20	<3.0	<.02	87	9.6	6.6	.70
46	06-09-95	1.0	60	<3.0	.03	100	19	55	2.0
47	06-12-95	1.9	260	700	.04	280	150	230	7.4
48	06-12-95	1.3	60	4.0	<.02	120	34	22	3.7
49	06-14-95	1.2	70	<10	<.02	430	140	45	4.2
50	06-14-95	1.1	20	<3.0	<.02	86	4.4	12	.70
51	06-14-95	2.7	100	<10	<.02	220	85	150	3.3
52	07-25-95	3.3	130	70	<.02	310	140	73	5.0
53	07-26-95	3.7	120	<3.0	<.02	180	31	24	1.5
	08-11-97	5.9	98	<3.0	--	170	27	23	1.5
54	07-27-95	.90	480	140	<.02	3.0	1.7	290	1.9
55	08-12-97	3.4	143	5.5	--	170	39	50	3.7
	11-06-98	.90	123	120	--	94	30	38	3.5
56	08-14-97	1.6	331	6.5	--	39	33	216	4.2
57	08-15-97	.10	19	<3.0	--	94	8.9	9.1	.73
58	08-18-97	1.1	111	<3.0	--	60	27	49	6.0
59	08-20-97	.90	72	<3.0	--	95	28	20	1.7
	11-06-98	1.2	76	<10	--	95	30	24	2.1
60	08-21-97	1.9	124	<9.0	--	290	113	240	3.2
61	08-22-97	3.2	42	<3.0	--	170	19	25	1.1
62	08-22-97	1.5	69	<3.0	--	120	29	36	2.0
	11-17-98	1.7	75	E9.3	--	120	29	41	2.6
63	08-26-97	.50	39	<3.0	--	100	14	11	1.5
64	08-26-97	1.6	215	52	--	73	60	472	4.3
65	08-26-97	--	89	<3.0	--	140	76	49	2.9
66	08-27-97	2.8	148	130	--	440	266	173	13

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site num- ber (fig. 2)	Date	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO ₄)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO ₂)	Manganese ¹ , dissolved (µg/L as Mn)	Arsenic ¹ , dissolved (µg/L as As)	Hardness, total (mg/L as CaCO ₃)	Sodium adsorption ratio
32	06-01-95	36	70	0.50	17	<1.0	<1	340	0.6
33	06-02-95	130	130	.30	18	4.0	<1	540	.7
34	06-02-95	82	76	.20	19	<1.0	<1	440	.7
35	06-02-95	180	1,800	.50	19	30	<1	1,800	3
36	06-06-95	43	42	.30	16	<1.0		270	1
37	06-06-95	210	250	.20	19	2.0	<1	700	.7
	08-07-97	200	460	.16	23	<1.0	<1	840	.9
238	06-06-95	4.0	15	.20	18	<1.0	<1	210	.2
	10-06-97	4.4	14	.17	19	<1.0	<1	210	.2
39	06-07-95	210	200	.40	14	5.0	<1	660	.7
	09-02-97	210	210	.34	15	<1.0	<1	650	.7
40	06-07-95	53	28	.30	25	<1.0	2	340	.6
41	06-07-95	77	45	.30	24	<1.0	1	390	.7
42	06-08-95	140	43	.20	19	<1.0	<1	530	.5
43	06-08-95	17	270	.30	18	12	<1	380	4
344	06-08-95	4.0	14	.20	17	<1.0	<1	250	.2
345	06-08-95	3.9	14	.20	17	<1.0	<1	260	.2
46	06-09-95	12	98	.20	16	4.0	<1	330	1
47	06-12-95	190	1,000	.40	18	60	<1	1,300	3
48	06-12-95	45	63	.30	13	<1.0	<1	440	.5
49	06-14-95	50	1,200	.30	24	140	<1	1,700	.5
50	06-14-95	20	10	.20	18	2.0	1	230	.3
51	06-14-95	520	520	.40	16	--	<1	900	2
52	07-25-95	470	640	.30	19	30	<1	1,400	.9
53	07-26-95	220	29	.20	27	12	<1	580	.4
	08-11-97	200	41	.17	27	5.8	1	550	.4
54	07-27-95	6.5	150	.60	9.6	1.0	<1	14	33
55	08-12-97	220	82	.67	14	3.9	1	580	.9
	11-06-98	72	51	1.4	13	26	4	360	.9
56	08-14-97	160	89	8.1	11	<1.0	<1	230	6
57	08-15-97	23	20	.31	20	<1.0	<1	270	.2
58	08-18-97	18	34	1.2	14	<1.0	<1	260	1
59	08-20-97	25	40	.46	17	<1.0	<1	350	.5
	11-06-98	31	47	.57	16	El.6	<1	360	.5
60	08-21-97	380	790	.29	26	7.5	<1	1,200	3
61	08-22-97	180	120	.20	15	<1.0	<1	510	.5
62	08-22-97	100	110	.58	14	<1.0	<1	430	.8
	11-17-98	96	120	.60	14	<3.0	<1	420	.9
63	08-26-97	26	48	.21	14	<1.0	<1	310	.3
64	08-26-97	100	620	1.1	12	26	<1	430	10
65	08-26-97	59	440	.49	18	18	<1	670	.8
66	08-27-97	220	1,900	<.10	23	117	<1	2,200	2

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site num- ber (fig. 2)	Date	Dissolved solids (mg/L)	Specific conduct- ance, field (μ S/cm)	Specific conduct- ance, lab (μ S/cm)	pH (standard units)	Temper- ature air (deg C)	Temper- ature water (deg C)	Alkalinity (mg/L as CaCO ₃)	Oxygen, dissolved (mg/L)
32	06-01-95	427	730	737	6.8	22.0	17.0	260	--
33	06-02-95	708	1,220	1,180	6.7	22.0	17.0	286	--
34	06-02-95	583	989	969	6.5	21.0	12.5	296	--
35	06-02-95	3,210	3,850	3,840	6.6	32.0	14.5	496	--
36	06-06-95	433	760	758	6.7	21.5	14.0	287	--
37	06-06-95	937	1,570	1,570	6.7	26.0	15.0	213	--
	08-07-97	1,210	1,810	1,770	7.7	13.6	14.0	211	1.0
² 38	06-06-95	229	421	395	7.7	24.0	19.0	202	--
	10-06-97	221	426	403	8.4	16.2	13.3	--	7.8
39	06-07-95	894	1,510	1,510	6.8	21.5	18.5	255	--
	09-02-97	879	1,550	1,580	7.4	23.2	15.1	252	4.9
40	06-07-95	445	768	690	6.7	22.5	14.0	278	--
41	06-07-95	526	905	898	6.7	23.0	14.0	275	--
42	06-08-95	663	1,180	1,170	6.5	16.5	13.0	314	--
43	06-08-95	931	--	1,440	6.9	19.0	16.0	510	--
³ 44	06-08-95	287	484	498	6.8	20.0	14.5	250	--
³ 45	06-08-95	290	486	499	7.0	20.0	15.0	243	--
46	06-09-95	522	842	847	6.8	13.0	17.0	318	--
47	06-12-95	2,150	2,960	2,910	6.7	28.0	16.0	448	--
48	06-12-95	516	872	878	6.9	27.0	15.0	342	--
49	06-14-95	2,150	2,580	2,560	6.4	22.0	17.0	410	--
50	06-14-95	290	508	507	6.8	32.0	18.0	210	--
51	06-14-95	1,360	2,400	2,410	6.6	31.0	18.0	220	--
52	07-25-95	1,830	2,790	2,810	7.2	31.0	16.5	270	--
53	07-26-95	709	1,280	1,270	7.7	29.5	16.0	245	--
53	08-11-97	673	1,250	1,220	7.3	22.6	15.5	251	1.0
54	07-27-95	761	1,240	1,230	8.4	32.0	19.0	494	--
55	08-12-97	715	1,390	1,360	7.2	23.4	14.5	277	1.0
55	11-06-98	484	874	877	6.7	12.5	12.6	--	--
56	08-14-97	801	1,430	1,410	7.8	21.5	19.4	389	--
57	08-15-97	330	577	573	7.5	24.7	14.5	247	5.7
58	08-18-97	407	712	702	7.8	22.0	18.8	321	--
59	08-20-97	409	752	739	7.5	23.2	18.1	322	--
59	11-06-98	448	792	791	6.9	10.2	13.0	306	--
60	08-21-97	2,090	3,110	3,040	7.5	26.1	22.8	312	4.6
61	08-22-97	660	1,220	1,170	7.3	21.2	14.0	186	7.9
62	08-22-97	548	1,050	1,020	7.3	23.0	17.6	265	--
62	11-17-98	595	1,060	1,070	6.9	16.8	10.7	--	1.0
63	08-26-97	357	662	629	7.3	20.8	15.2	251	2.9
64	08-26-97	1,730	2,660	2,610	7.6	23.8	15.2	729	--
65	08-26-97	905	1,400	1,260	7.1	24.1	15.0	244	--
66	08-27-97	3,290	4,010	3,850	7.1	22.4	19.1	512	3.5

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Station number	Date	Nitrite + nitrate, dissolved (mg/L as N)	Nitrite, dissolved (mg/L as N)	Phosphorus ¹ , dissolved (mg/L as P)	Ortho-phosphate, dissolved (mg/L as P)	Ammonia ¹ , dissolved (mg/L as N)	Ammonia ¹ + organic, dissolved (mg/L as N)
67	350157106172501	08-28-97	3.82	<0.010	0.023	0.018	<0.015	<0.20
68	345735106184501	08-29-97	3.57	<.010	.012	.021	<.015	<.20
69	350847106181401	09-02-97	8.13	<.010	.065	.067	<.015	.22
70	345714106185001	09-04-97	<.050	<.010	<.010	<.010	.037	<.20
71	345733106181901	09-04-97	7.46	<.010	<.010	<.010	.024	<.20
		11-05-98	7.37	<.010	<.050	<.010	<.020	.25
72	345726106170401	09-05-97	<.050	<.010	<.010	<.010	.026	<.20
73	345549106172101	09-10-97	2.98	<.010	<.010	.013	<.015	.20
74	345550106171501	09-10-97	3.43	<.010	<.010	.010	<.015	<.20
75	345907106172101	09-22-97	<.050	<.010	<.010	<.010	.036	<.20
76	345845106203501	09-24-97	4.54	<.010	<.010	.012	<.015	<.20
77	345841106203901	10-03-97	4.90	<.010	<.010	<.010	.059	<.20
78	350221106202801	05-29-98	.539	.014	<.010	<.010	.053	<.10
79	351011106205801	09-15-98	.687	<.010	.031	.019	<.020	.17
80	350733106195001	11-05-98	<.050	<.010	<.050	.014	2.00	2.2
81	350734106195101	11-05-98	1.06	<.010	<.050	.013	--	2.0
82	350644106213401	11-17-98	<.050	<.010	.015	.021	.559	.61
83	350609106192201	11-19-98	5.36	<.010	.017	.013	<.020	.27
84	350956106212401	12-03-98	.607	<.010	<.050	.019	<.020	<.10
85	345819106200601	12-21-98	7.02	.942	<.050	.013	.057	.39
³ 86	350208106204601	12-21-98	.091	.010	<.050	.015	.036	.17
87	350553106210001	03-16-99	11.3	<.010	.018	.015	<.020	.11
88	350551106205801	03-16-99	11.7	<.010	.017	.015	<.020	.14
89	350925106193101	05-19-99	.578	<.010	.016	.024	.049	E.10
90	350706106200501	06-04-99	3.04	<.010	.031	.051	<.020	E.10
91	350734106153601	06-04-99	<.050	<.010	<.004	.024	.033	E.10

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Date	Total organic carbon, (mg/L as C)	Boron, dissolved (µg/L as B)	Iron ¹ , dissolved (µg/L as Fe)	Methylene blue active substances (mg/L)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)
67	08-28-97	1.1	62	<3.0	--	130	27	31	2.0
68	08-29-97	2.6	51	<3.0	--	130	21	29	1.6
69	09-02-97	2.1	97	<3.0	--	150	25	21	1.6
70	09-04-97	.30	200	70	--	48	21	59	5.1
71	09-04-97	3.1	60	<3.0	--	170	27	36	2.1
	11-05-98	3.4	59	<10	--	180	23	37	2.0
72	09-05-97	1.2	72	25	--	120	22	25	2.7
73	09-10-97	3.9	48	5.4	--	170	21	32	2.1
74	09-10-97	3.6	53	<3.0	--	170	22	33	2.3
75	09-22-97	.50	67	11	--	77	15	37	2.5
76	09-24-97	2.0	37	3.5	--	130	23	22	1.8
77	10-03-97	3.3	45	6.9	--	170	17	33	1.3
78	05-29-98	1.0	56	<10	--	94	28	19	1.7
79	09-15-98	1.2	20	E6.6	--	88	8.7	9.7	.89
80	11-05-98	4.0	332	350	--	60	53	220	7.2
81	11-05-98	3.8	137	21	--	170	121	225	9.8
82	11-17-98	1.5	220	E20	--	3.8	2.6	493	3.0
83	11-19-98	3.9	77	<10	--	140	27	23	1.8
84	12-03-98	--	28	<10	--	110	11	15	.78
85	12-21-98	--	78	12	--	170	33	40	2.3
³ 86	12-21-98	3.2	81	14	--	120	50	33	<.10
87	03-16-99	5.9	148	<10	--	110	41	77	2.8
88	03-16-99	1.5	147	<10	--	120	41	79	2.8
89	05-19-99	.60	684	<10	--	--	--	--	--
90	06-04-99	3.5	69	<10	--	110	33	23	1.5
91	06-04-99	4.9	234	50	--	45	18	126	5.7

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Continued

Site number (fig. 2)	Date	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO ₄)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO ₂)	Manganese ¹ , dissolved (µg/L as Mn)	Arsenic ¹ , dissolved (µg/L as As)	Hardness, total (mg/L as CaCO ₃)	Sodium adsorption ratio
67	08-28-97	89	96	0.37	15	<1.0	<1	440	0.7
68	08-29-97	80	59	.20	17	<1.0	<1	410	.6
69	09-02-97	86	37	.23	26	<1.0	1	470	.4
70	09-04-97	12	32	2.0	12	31	<1	200	2
71	09-04-97	170	92	.33	17	3.9	<1	520	.7
	11-05-98	160	89	.25	18	<3.0	<1	540	.7
72	09-05-97	87	64	.74	16	18	4	390	.5
73	09-10-97	140	110	.23	18	<1.0	<1	500	.6
74	09-10-97	150	110	.23	18	<1.0	<1	500	.6
75	09-22-97	19	42	.35	23	49	<1	250	1
76	09-24-97	75	42	.18	12	<1.0	<1	420	.5
77	10-03-97	100	59	.17	20	<1.0	<1	490	.6
78	05-29-98	23	38	.50	15	<4.0	<1	350	.4
79	09-15-98	16	18	.33	20	<3.0	<1	250	.3
80	11-05-98	13	260	.20	17	19	<1	370	5
81	11-05-98	65	790	.22	19	20	<2	920	3
82	11-17-98	110	150	1.9	10	<9.0	<1	20	48
83	11-19-98	80	100	.32	18	<3.0	1	470	.5
84	12-03-98	44	25	.37	18	<4.0	<1	320	.4
85	12-21-98	200	96	.18	16	<4.0	2	550	.8
³ 86	12-21-98	49	67	.50	20	127	1	510	.6
87	03-16-99	170	90	.40	20	E1.9	1	450	2
88	03-16-99	170	90	.40	20	<3.0	1	460	2
89	05-19-99	--	470	2.2	11	32	<1	--	--
90	06-04-99	42	58	.28	27	<3.0	2	400	.5
91	06-04-99	8.8	75	3.9	9.2	32	<1	190	4

Table 1. Water-quality and ground-water-level data for wells, springs, and an acequia, east mountain area, Bernalillo County, New Mexico, 1995-99--Concluded

Site number (fig. 2)	Date	Dissolved solids (mg/L)	Specific conductance, field ($\mu\text{S}/\text{cm}$)	Specific conductance, lab ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature air (deg C)	Temperature water (deg C)	Alkalinity (mg/L as CaCO_3)	Oxygen, dissolved (mg/L)
67	08-28-97	544	985	--	7.3	21.5	15.8	269	8.8
68	08-29-97	497	930	869	7.4	23.1	17.0	280	--
69	09-02-97	577	1,010	953	7.3	27.8	16.1	318	3.9
70	09-04-97	358	650	635	7.8	20.4	16.6	296	.2
71	09-04-97	714	1,280	1,210	7.2	19.4	13.4	275	6.8
	11-05-98	716	1,280	1,280	--	9.5	12.5	--	--
72	09-05-97	507	919	873	7.4	24.0	13.9	281	.3
73	09-10-97	649	1,200	1,020	7.2	20.5	14.8	253	--
74	09-10-97	622	1,210	1,040	7.1	20.1	14.8	252	--
75	09-22-97	378	630	597	7.5	19.3	15.0	259	.1
76	09-24-97	500	954	862	7.3	12.5	11.8	343	2.7
77	10-03-97	627	1,080	985	7.2	16.1	13.0	--	5.9
78	05-29-98	424	750	725	7.4	20.5	13.3	328	3.4
79	09-15-98	309	550	542	--	20.4	14.2	--	--
80	11-05-98	955	1,610	1,640	--	9.6	14.2	--	--
81	11-05-98	1,730	2,410	2,430	--	9.6	12.8	--	--
82	11-17-98	1,270	2,070	2,160	8.0	10.4	14.4	809	1.0
83	11-19-98	586	1,010	1,000	6.9	7.6	12.7	271	5.5
84	12-03-98	390	692	694	7.1	4.7	12.0	261	5.7
85	12-21-98	725	1,310	1,280	7.4	-1.6	12.5	223	--
³ 86	12-21-98	--	1,050	1,040	7.9	-2.0	3.5	444	--
87	03-16-99	754	1,350	1,360	7.1	13.9	10.4	199	--
88	03-16-99	760	1,340	1,360	7.3	14.1	11.0	299	--
89	05-19-99	--	1,770	1,770	7.6	23.0	15.9	364	.2
90	06-04-99	500	838	842	7.2	24.0	14.7	--	1.0
91	06-04-99	488	866	873	7.5	25.3	17.7	--	.6

¹Minimum reporting level varies because of different analytical techniques

²Acequia

³Spring

Table 2. Water levels, completion depths, altitudes, and geologic units for wells and altitudes and geologic units for springs and an acequia, east mountain area, Bernalillo County, New Mexico

[--, not available; R, reported value; NA, not applicable]

Well number (fig. 2)	Station number	Water-level date	Depth to water (feet below land surface)	Depth of well (feet)	Land-surface altitude (feet above sea level)	Geologic unit and age
1	350449106231901	03-14-95	26.17	--	6,355	Madera Limestone/Pennsylvanian
2	350423106263301	03-17-95	40.84	146	6,255	Precambrian
3	350604106205801	03-22-95 08-06-97	-- 24.05	85	6,520	Madera Limestone/Pennsylvanian
4	351014106202801	03-23-95	--	--	6,798	--
5	350930106210701	03-23-95 08-05-97 05-18-99	-- 45.13 46.13	120	6,860	Chinle Formation/Triassic
6	351011106220401	03-24-95	12.28	--	7,100	--
7	345918106202001	03-28-95	--	680	7,660	Madera Limestone/Pennsylvanian
8	350410106262601	03-28-95 08-07-97 11-04-98	-- 72.25 62.05	120	6,030	Precambrian
9	345833106185101	03-28-95	--	315	7,420	Madera Limestone/Pennsylvanian
10	350119106210901	03-29-95	--	--	7,060	Do.
11	345319106135101	03-31-95	--	--	6,790	Do.
12	350356106162901	03-31-95	--	--	7,030	Do.
13	350615106223301	04-05-95 08-05-97 11-04-98	-- -- --	80	6,580	Mancos Shale/Cretaceous
14	350949106211801	04-12-95 09-24-97	188.61 186.41	260	6,940	Abo/Yeso Formations (undifferentiated)/Permian
15	350531106224301	04-12-95	41.52	160	6,540	Abo Formation (?)/Permian
16	350721106222101	04-13-95	60.80	200	6,765	Chinle Formation/Triassic
17	350949106184501	04-14-95	--	280	6,700	--
18	350655106185601	04-24-95 08-08-97	193.99 --	300	6,880	Madera Limestone/Pennsylvanian
19	350522106222501	04-24-95	--	73	6,400	Do.
20	350525106151701	04-25-95 08-27-97	141.42 148.34	275	6,775	Do.
21	350620106192201	04-25-95	--	--	6,880	Do.
22	350739106195601	04-25-95	--	--	6,800	--
23	350931106200901	04-26-95	--	--	6,740	--

Table 2. Water levels, completion depths, altitudes, and geologic units for wells and altitudes and geologic units for springs and an acequia, east mountain area, Bernalillo County, New Mexico--
Continued

Well number (fig. 2)	Station number	Water-level date	Depth to water (feet below land surface)	Depth of well (feet)	Land-surface altitude (feet above sea level)	Geologic unit and age
24	350908106190601	04-26-95	155.07	178	6,800	Chinle Formation (?)/Triassic(?)
25	350840106171601	04-26-95 08-04-97	109R 116.65	200	6,780	--
26	350854106210001	04-28-95	--	450	6,960	--
27	350606106200401	05-30-95	--	--	6,730	Madera Limestone/Pennsylvanian
28	350946106193501	05-31-95	109.80		6,690	
29	350851106180301	05-31-95	--	--	6,720	--
30	350748106182601	05-31-95	--	--	6,880	
31	350609106202201	06-01-95	--	137	6,580	Madera Limestone/Pennsylvanian
32	350434106225701	06-01-95	¹ -37.5	253	6,350	Do.
33	345754106164601	06-02-95	--	125	7,220	Do.
34	345855106203601	06-02-95	--	--	7,570	--
35	350623106215301	06-02-95	--	225	6,540	Mancos Shale (?)/Cretaceous(?)
36	350735106223001	06-06-95	51.70	245	6,840	--
37	350802106215401	06-06-95 08-07-97	37.90 34.75	200	6,855	Chinle Formation (?)/Triassic(?)
² 38	350610106223510	06-06-95 10-06-97	NA	NA	6,850	San Andres Limestone/ Glorieta Sandstone (undifferentiated)/Permian
39	350557106182701	06-07-95 09-02-97	-- 272.50	450	7,200	Madera Limestone/Pennsylvanian
40	350812106220001	06-07-95	38.30	100	6,860	Chinle Formation/Triassic
41	350805106220801	06-07-95	74.80	--	6,900	--
42	345858106194601	06-08-95	32.40	100	7,490	Madera Limestone/Pennsylvanian
43	350831106192301	06-08-95	--	--	6,886	--
³ 44	350617106231101	06-08-95	NA	NA	6,800	San Andres Limestone/Permian Glorieta Sandstone/Permian
³ 45	350613106230601	06-08-95	NA	NA	6,760	Glorieta Sandstone/Permian
46	350602106224701	06-09-95	41-74	--	6,600	--
47	350702106203101	06-12-95	140R		6,660	--
48	345948106191701	06-12-95	--	--	7,680	--
49	350721106214101	06-14-95	--	--	7,300	--

Table 2. Water levels, completion depths, altitudes, and geologic units for wells and altitudes and geologic units for springs and an acequia, east mountain area, Bernalillo County, New Mexico--
Continued

Well number (fig. 2)	Station number	Water-level date	Depth to water (feet below land surface)	Depth of well (feet)	Land-surface altitude (feet above sea level)	Geologic unit and age
50	350930106203001	06-14-95	--	--	6,810	--
51	350658106174401	06-14-95	98.54	205	6,990	Madera Limestone (?)/Pennsylvanian
52	350601106173101	07-25-95	--	--	6,960	Madera Limestone/Pennsylvanian
53	350859106214301	07-26-95 08-11-97	--	--	6,980	--
54	350825106211101	07-27-95	125.00	150	6,920	Chinle Formation (?)/Triassic(?)
55	345753106175901	08-12-97 11-06-98	160.07 --	--	7,300	Madera Limestone/Pennsylvanian
56	350526106151801	08-14-97	245R	380	6,785	--
57	351011106210101	08-15-97	146.55	--	6,910	--
58	350140106183401	08-18-97	--	--	7,365	Madera Limestone/Pennsylvanian
59	350239106202601	08-20-97 11-06-98	53.03 47.86	180	7,185	Do.
60	350546106220601	08-21-97	31.05	200	6,435	--
61	350154106180901	08-22-97	133.30	360	7,225	Madera Limestone/Pennsylvanian
62	350144106175001	08-22-97 11-17-98	125.40 119.90	130	7,138	Do.
63	350609106195101	08-26-97	257.13	--	6,380	Do.
64	350648106213801	08-26-97	--	160	6,680	Mancos Shale/Cretaceous
65	350617106212201	08-26-97	--	--	6,560	--
66	350647106212301	08-27-97	90.05	--	6,680	Mancos Shale/Cretaceous
67	350157106172501	08-27-97	182.55	--	7,080	Madera Limestone/Pennsylvanian
68	345735106184501	08-29-97	--	--	7,465	Do.
69	350847106181401	09-02-97	--	--	6,715	--
70	345714106185001	09-04-97	--	--	7,390	Madera Limestone/Pennsylvanian
71	345733106181901	09-04-97 11-05-98	128.90 66.90	--	7,280	Do.
72	345726106170401	09-05-97	80.50	--	7,230	Do.
73	345549106172101	09-10-97	--	--	7,400	Do.
74	345550106171501	09-10-97	95.38	--	7,410	Do.
75	345907106172101	09-22-97	98.20	--	7,318	Do.

Table 2. Water levels, completion depths, altitudes, and geologic units for wells and altitudes and geologic units for springs and an acequia, east mountain area, Bernalillo County, New Mexico--
Concluded

Well number (fig. 2)	Station number	Water-level date	Depth to water (feet below land surface)	Depth of well (feet)	Land-surface altitude (feet above sea level)	Geologic unit and age
76	345845106203501	09-24-97	51.60	--	7,510	Madera Limestone/Pennsylvanian
77	345841106203901	10-03-97	157.65	--	7,615	Do.
78	350221106202801	05-29-98	--	--	7,160	Do.
79	351011106205801	09-15-98	120R	--	6,970	Do.
80	350733106195001	11-05-98	--	150	6,780	Mancos Shale/Cretaceous
81	350734106195101	11-05-98	133.70	--	6,780	Do.
82	350644106213401	11-17-98	--	--	6,680	Do.
83	350609106192201	11-19-98	203.50	--	7,005	Madera Limestone/Pennsylvanian
84	350956106212401	12-03-98	131.38	--	6,980	Yeso Formation/Permian
85	345819106200601	12-21-98	--	--	7,420	--
³ 86	350208106204610	12-21-98	NA	NA	7,030	Madera Limestone/Pennsylvanian
87	350553106210001	03-16-99	--	--	6,560	Do.
88	350551106205801	03-16-99	--	--	6,560	Do.
89	350925106193101	05-19-99	--	--	6,665	--
90	350706106200501	06-04-99	200R	--	6,725	--
91	350734106153601	06-04-99	500R	920	6,967	Madera Limestone/Pennsylvanian

¹Artesian well; negative sign indicates that the water level was higher than the surface of the ground

²Acequia

³Spring