Selected Hydrogeologic Data From the Cedar Rapids Area, Benton and Linn Counties, Iowa, October 1992 Through March 1996

By DOUGLAS J. SCHNOEBELEN and
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CONVERSION FACTORS, ABBREVIATIONS, AND VERTICAL DATUM

Multiply	By	To obtain
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
square mile (mi^2)	2.590	square kilometer
million gallons (Mgal)	3,785	cubic meter
gallon per minute (gal/min)	0.06309	liter per second
million gallons per day (Mgal/d)	3,785	cubic meter per day

Temperature in degrees Celsius (^oC) may be converted to degrees Fahrenheit (^oF) as follows:

$$^oF=9/5\ (^oC)+32.$$

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.

Water year: Water year is the 12-month period from October 1 through September 30. The water year is designated by the year in which it ends; for example, the 12-month period ending September 30, 1993, is called the "1993 water year."

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By Douglas J. Schnoebelen *and* Peter M. Schulmeyer

Abstract

The city of Cedar Rapids, Iowa, obtains its water supply from shallow wells screened in the alluvial aquifer along the Cedar River. A cooperative study between the city of Cedar Rapids, Iowa, and the U.S. Geological Survey was started in March 1992 to assess the water quality and water quantity of the ground-water resource. This report summarizes selected hydrogeologic data collected from October 1992 through March 1996. Information collected includes water quality (major ions, nutrients, and pesticides), ground-water levels, multiprobe-instrument data (water levels, specific conductance, pH, water temperature, and dissolved oxygen monitored at 15-, 30-, or 60-minute intervals), well information (location, casing type, screen interval, and depth), and geophysical seismic-refraction and seismic-reflection data (estimated depth to bedrock and alluvial thickness along the Cedar River). Geologic, hydrologic, and water-quality data were collected from domestic, municipal, observation, and industrial wells and the Cedar River. Well-construction data for more than 300 wells in the Cedar Rapids area in Benton and Linn Counties, Iowa, were compiled primarily from records on file with the Iowa Department of Natural Resources, Geologic Survey Bureau (Iowa City).

INTRODUCTION

Alluvial aquifers adjacent to large streams are an important source of ground water for drinking and industrial use in many municipalities. The city of Cedar Rapids, Iowa, obtains its water supply from shallow wells (60 to 80 ft deep) along the Cedar River. The city has 53 vertical wells and has planned two horizontal collector wells. A typical vertical well can be pumped at 1.0 to 1.2 Mgal/d, and each horizontal well can be pumped at 9.0 to 11.0 Mgal/d (John North, Cedar Rapids Water Department, oral commun., 1995). The city of Cedar Rapids has seen a steady increase in the demand for water. Pumpage from municipal wells was 8,487 Mgal in 1980, 9,118 Mgal in 1990, and 11,000 Mgal in 1994 (Bob Glass, Cedar Rapids Water Department, oral commun., 1995).

The alluvial aquifer is recharged by precipitation, and municipal pumping can induce recharge from the Cedar River and the underlying Silurian-Devonian bedrock aquifer. The underlying bedrock aquifer and the Cedar River are in hydraulic connection with the alluvial aquifer (Hansen, 1970; Wang and Squillace, 1994). Historically, the alluvial aquifer has supplied the needed quantity of water, which is generally of high quality. As future population growth in the area continues and water-quality concerns increase, the water managers of the city of Cedar Rapids have recognized the need to: (1) determine the maximum safe yield of the alluvial aquifer adjacent to the Cedar River, (2) plan for additional withdrawals and future expansion, and (3) identify potential threats to the quality of water in

the alluvial aquifer. To meet these needs, the city of Cedar Rapids and the U.S. Geological Survey (USGS) began a cooperative study in 1992 to assess the ground-water flow and quality in the alluvial aquifer.

Purpose and Scope

This report summarizes the methods of data collection and presents selected hydrogeologic data collected and compiled from October 1992 through March 1996 for the cooperative study by the city of Cedar Rapids, Iowa, and the USGS. Geologic, hydrologic, and water-quality data were collected from domestic, municipal, observation, and industrial wells and the Cedar River. The data include a one-time synoptic sampling for water quality and water levels, quarterly samples for water quality and water levels, and multiprobe-instrument data for water-quality properties (collected every 15, 30, or 60 minutes) in water from selected wells and the river.

Location and Description of Study Area

The study area encompasses 231 mi^2 (fig. 1) in Benton and Linn Counties, east-central Iowa. Information on wells located immediately outside of the study area also was collected to improve definition of the hydrogeologic framework near the edges of the study area. An area between Cedar Rapids and Palo (approximately 10 river mi upstream) that extends approximately 1 mi beyond either side of the Cedar River in Linn County was selected for more detailed study (fig. 2). The detailed area of study focuses particularly on the alluvial aquifer, which is the area of greatest concern as future population growth continues. Land use in the study area is approximately 81 percent agricultural upstream from Cedar Rapids (U.S. Department of Agriculture, 1976). Water is pumped from the alluvial aquifer by the city of Cedar Rapids at the Seminole, West, and East municipal well fields adjacent to the Cedar River (fig. 2).

Surficial Quaternary-age unconsolidated aquifers overlie Silurian-Devonian-age carbonate bedrock aquifers in the study area. The surface of the Silurian-Devonian-age bedrock was eroded, and an incised drainage system was established before deposition of overlying glacial material. In some cases, buried-channel aquifers were created when the valleys were filled with outwash deposits consisting of glacial drift, loess, and alluvium (Hansen, 1970; Wahl and Bunker, 1986). Cross-bed leakage of ground water can occur between the bedrock aquifer and alluvial aquifer during pumping of the alluvial aquifer (Hansen, 1970). The Cedar River alluvium consists of sand and gravel that range from 5 to 95 ft thick and can yield as much as 2,000 gal/min (Wahl and Bunker, 1986). Exchange of water occurs periodically between the alluvial aquifer and the Cedar River (Wang and Squillace, 1994; Schulmeyer, 1995).

Acknowledgments

The authors would like to thank Paul Squillace, USGS, for starting the project. Also, Robert Goodrich, Craig Harvey, Ronald Kuzniar, and Rebecca Lambert, USGS, for data collection and compilation. The assistance of city officials and other personnel from the city of Cedar Rapids in well drilling, sampling, and providing well information is very much appreciated. In addition, personnel from the Iowa Department of Natural Resources, Geologic Survey Bureau (IDNR/GSB), have been very helpful in providing well data for the study. Special thanks to the following landowners who granted permission to access their property for collection of geophysical data, construction of observation wells, and (or) access to private wells for water-quality sampling: T. Gruber, R.J. Kilberger, J. Kindred, J. Kwapil, A. Loan, D. Loan, M. Lynch, W. Martin, the Pepsi-Cola bottling plant of Cedar Rapids, Iowa, K. Schatzle, and T. Watson.

METHODS OF INVESTIGATION

The data-collection sites used in the study are assigned a numeric or alphanumeric data-base identifier (data-base ID) and include ground-water sites (domestic, municipal, observation, and industrial wells) (table 1), three surface-water sites (table 2; sites 700, 701, 702), and "raw" water from the Cedar Rapids municipal waterworks plant (table 2; site 800). Several methods of investigation were used to meet the objectives of the study. The study included construction of observation wells, water-quality data collection, measurement of ground-water levels, multiprobe-instrument data collection, and geophysical seismic-refraction and seismic-reflection surveys. These data were used to help define the hydrogeology of the alluvial aquifer, to assess the water quality, and

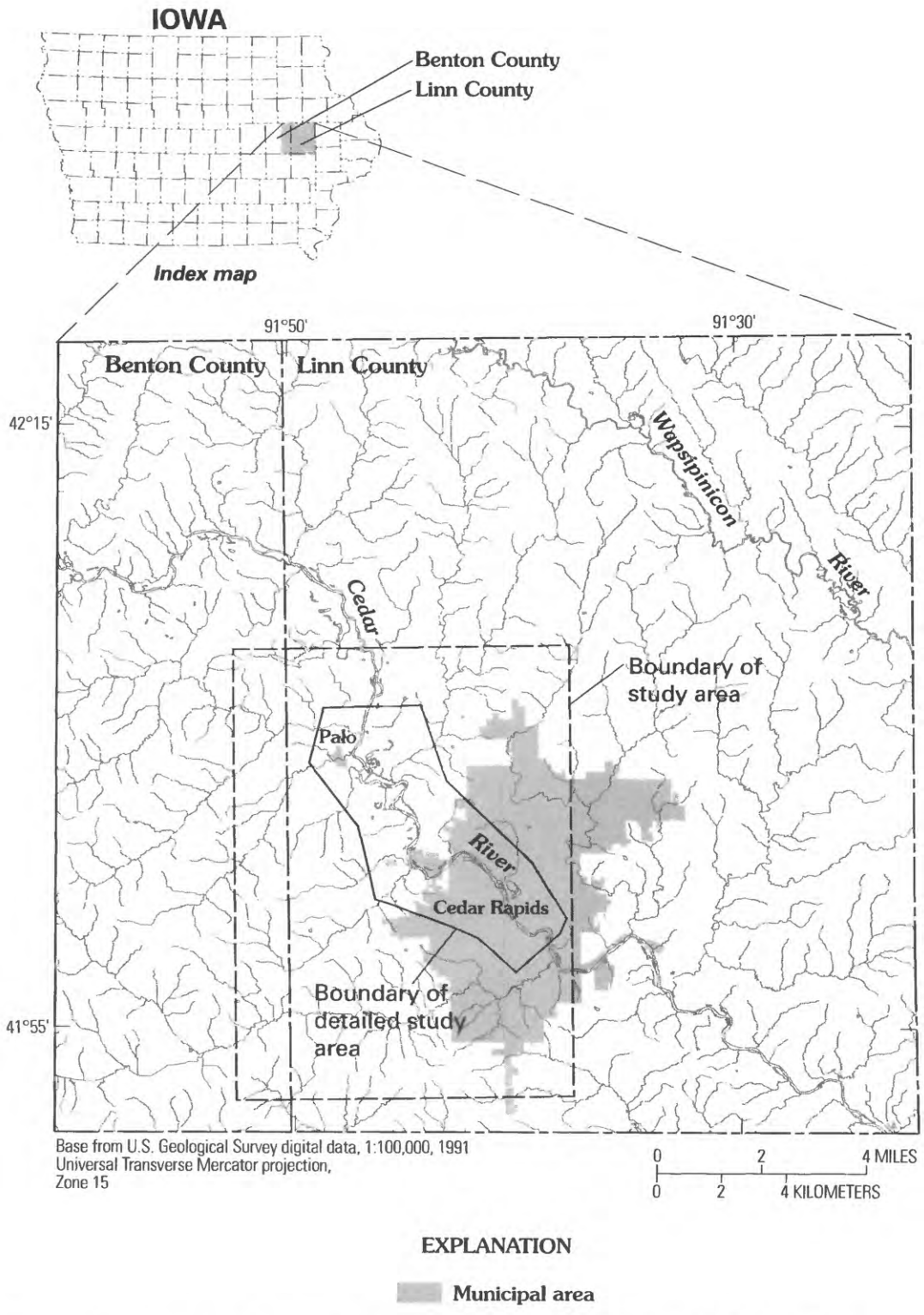


Figure 1. Location of study area in the Cedar Rapids area, Benton and Linn Counties, Iowa.

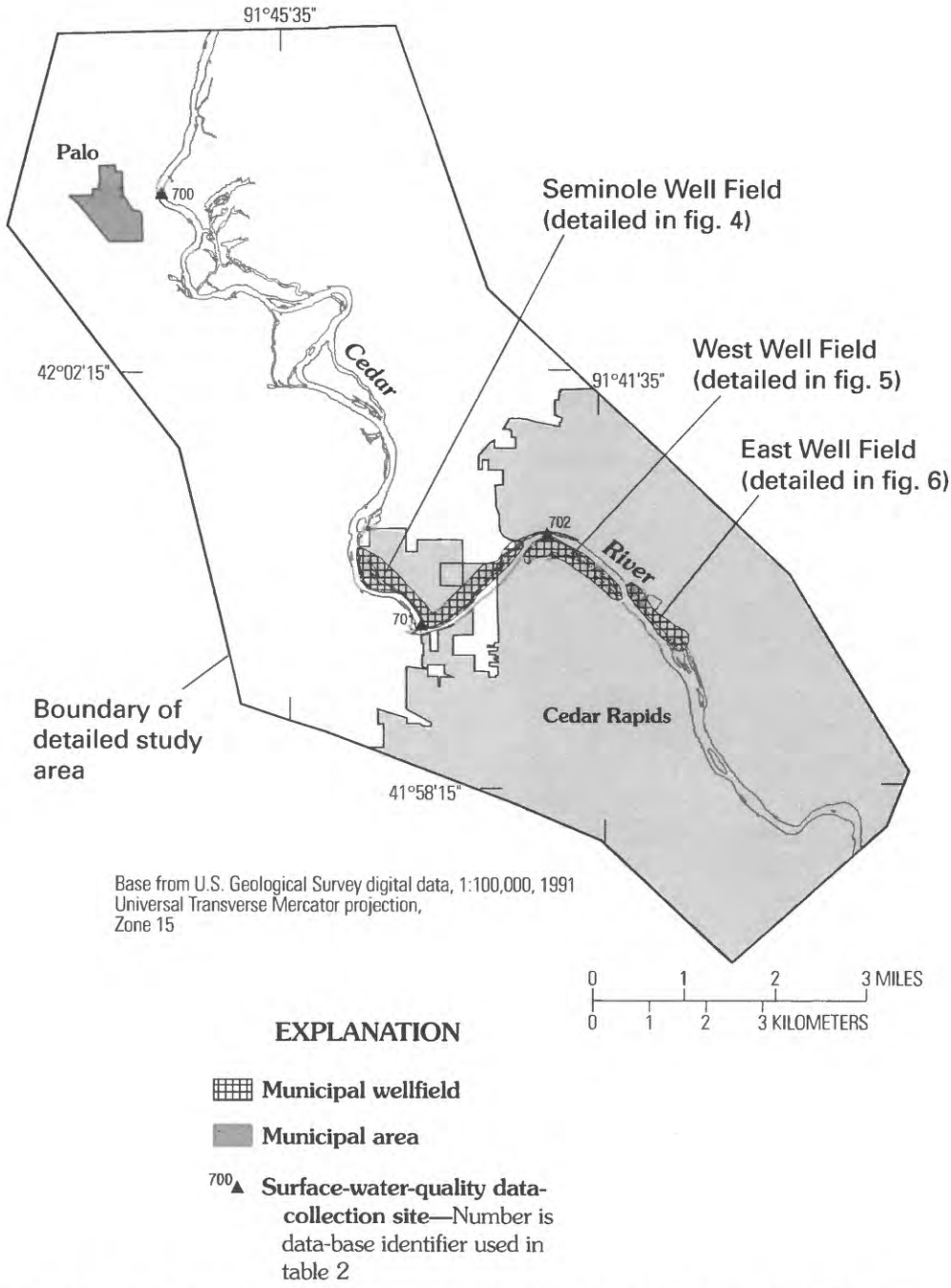


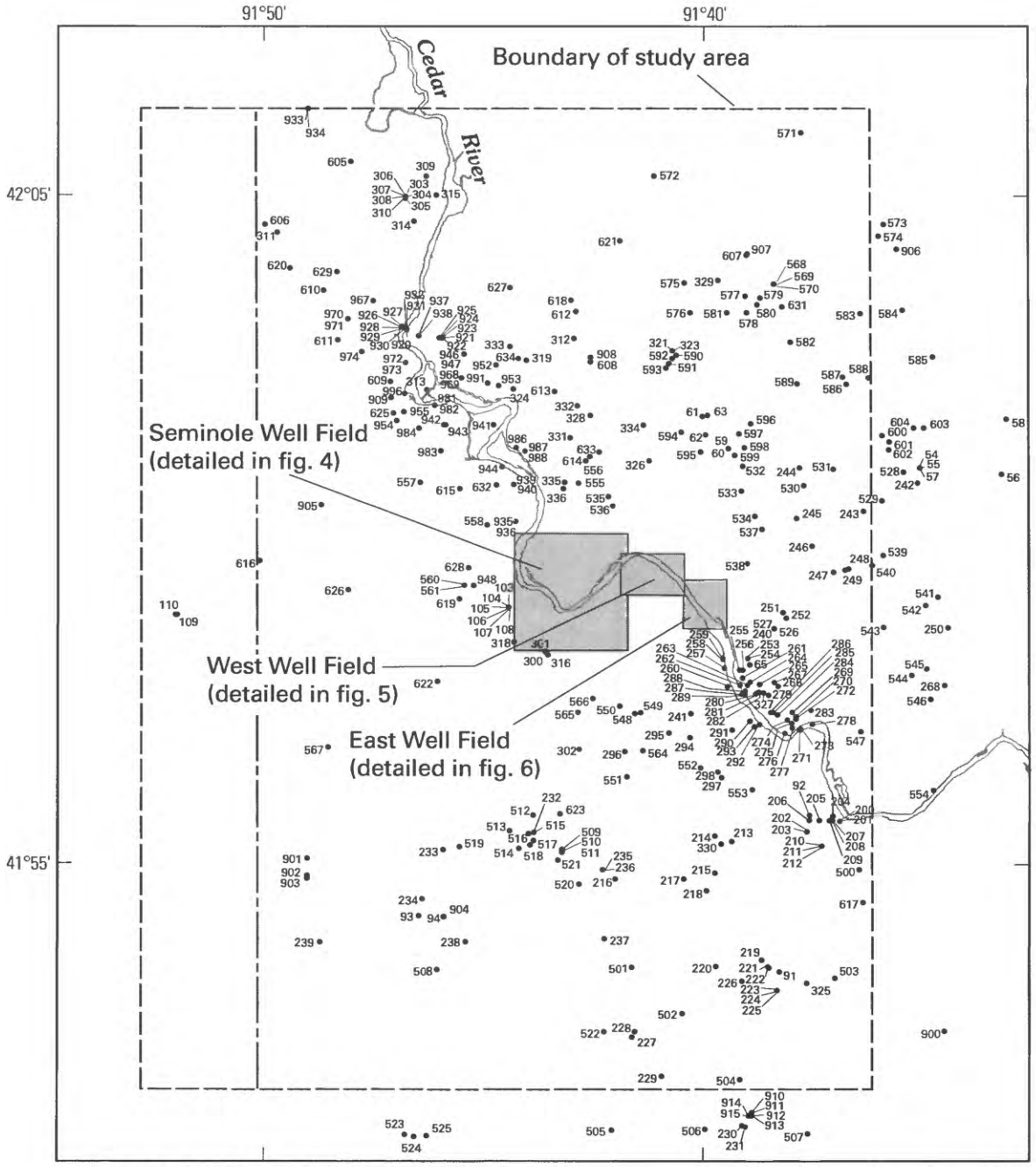
Figure 2. Area of detailed study and location of municipal well fields near Cedar Rapids, Iowa.

to assist in the development of a digital ground-water flow model.

Well Construction and Nomenclature

Information was compiled for available wells in parts of Benton and Linn Counties in and near the study area during the early part of the study. A search of well records was conducted, and approximately 300 were inventoried for location, geology, well construction, and depth (figs. 3–6 and table 1) and assigned a data-base ID.

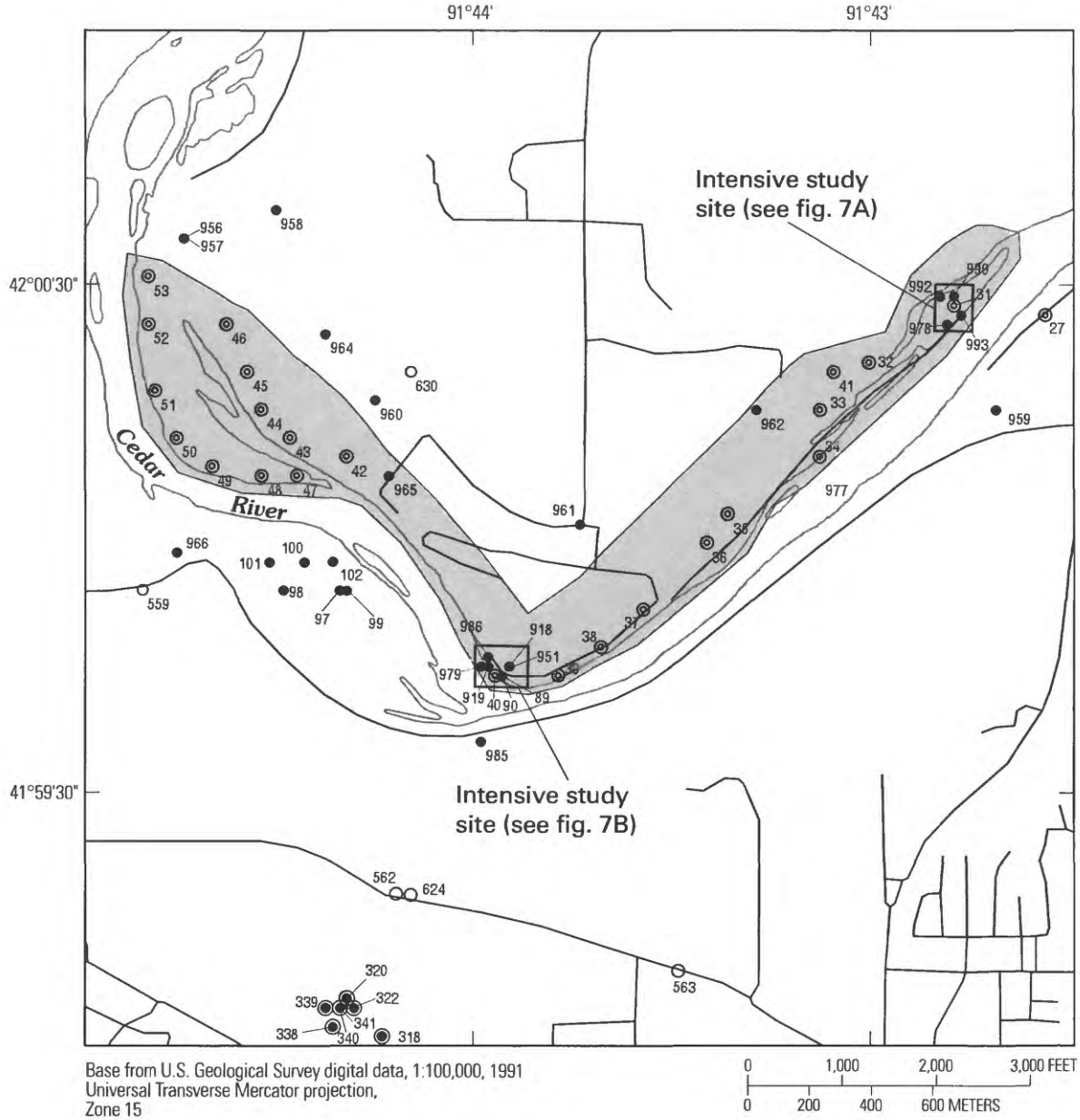
New observation wells were installed during the study to meet specific objectives and to provide information on geology, water levels, and water quality.



EXPLANATION

[10]● **Data-collection site**—Number is data-base identifier used in table 3

Figure 3. Location of data-collection sites in and and near study area, Linn and Benton Counties, Iowa.



EXPLANATION

- **Seminole Well Field**
- **Road**
- **River**
- 958 ● **Observation well**—Number is data-base identifier used table 1
- 53 ◎ **Municipal well**—Number is data-base identifier used table 1
- 562 ○ **Domestic well**—Number is data-base identifier used table 1
- 338 ◉ **Industrial well**—Number is data-base identifier used table 1

Figure 4. Seminole Well Field and wells sampled for this study in Cedar Rapids, Iowa.

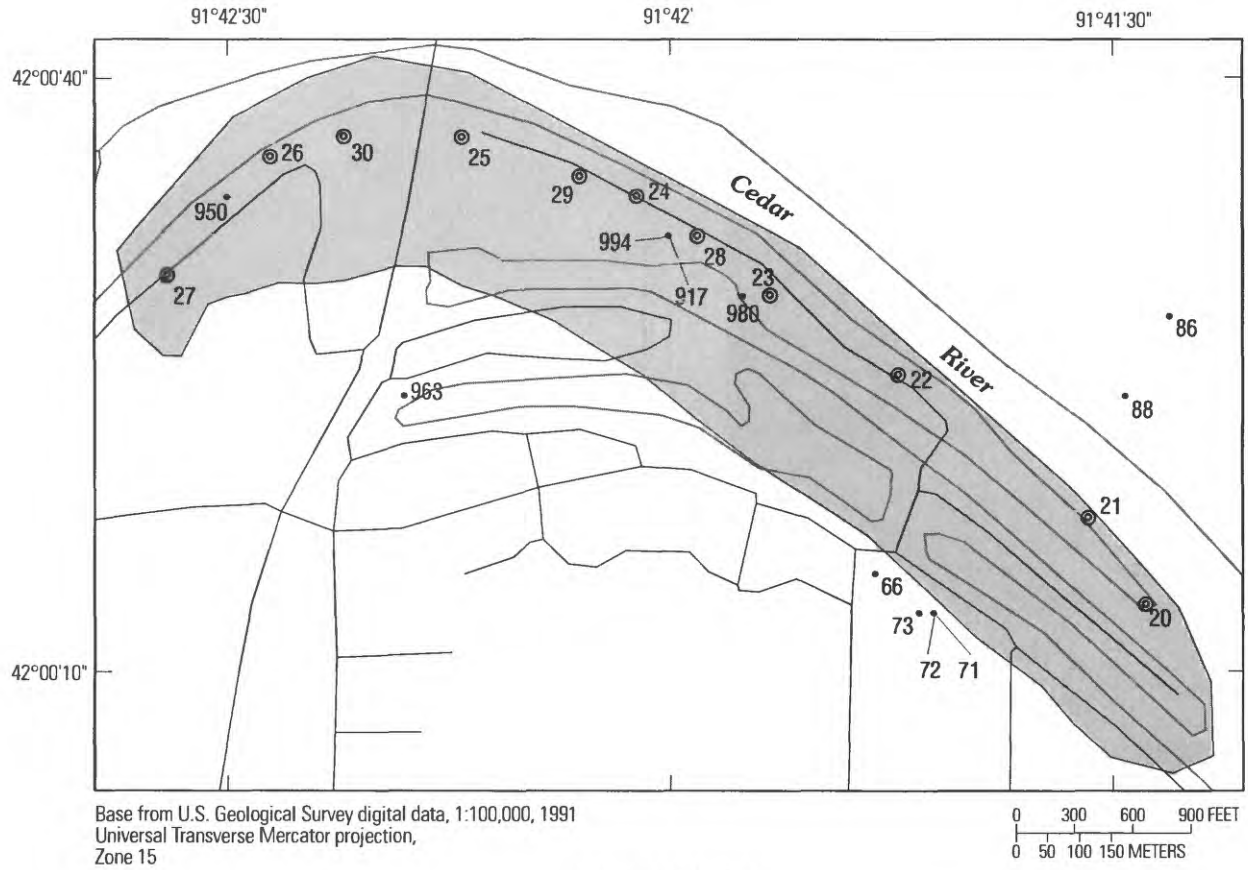
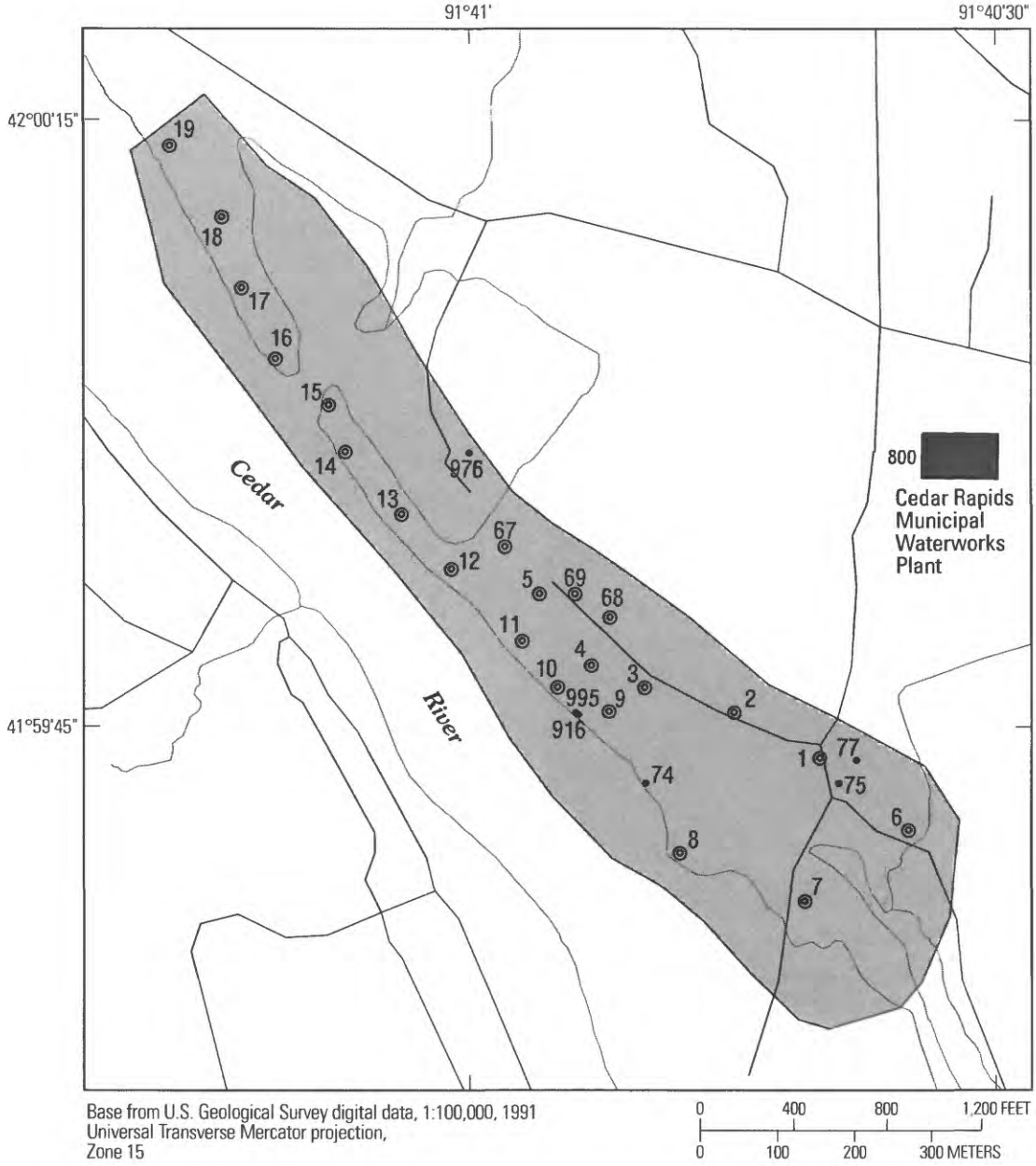


Figure 5. West Well Field and wells sampled for this study in Cedar Rapids, Iowa.

New observation wells consisted of 54 small-diameter [0.1406-in. outside diameter (O.D.)] wells capped with 1-in. tubing, two 2-in. O.D. diameter wells, and eleven 4-in. O.D. diameter wells. All observation wells drilled for this study were identified by a data-base ID and a site name, with the year installed and USGS CRM (Cedar Rapids Municipal) as a prefix (for example, 1993 USGS CRM–7). The small-diameter wells were further designated by SD (small diameter) after the data-base ID (for example, USGS CRM–SD–37). Clusters of observation wells are designated by a site name that includes alpha characters to differentiate closely spaced sites and relative depth (for example, USGS SD–37A and SD–37B, where "B" indicates a deeper well than "A"). The small-diameter wells were installed using 9 ft of 1.25-in. O.D. diameter solid-stem augers to start the borehole. The 0.1406-in. O.D. tubing was advanced inside a 0.75 in. O.D. drill rod by an electric hand-held hammer drill. The screen intervals for the small-diameter wells are 3 in. long and composed of polyvinyl chloride (PVC) or stainless steel.

Four bedrock wells were installed using direct mud-rotary drilling, and drill cuttings were collected about every 5 ft for geologic description. The bedrock wells penetrated 10 to 15 ft of bedrock at each location



EXPLANATION

East Well Field

800 **Waterworks Plant**—Number is data-base identifier used in table 2

Road

River

976 **Observation well**—Number is data-base identifier used table 1

19 **Municipal well**—Number is data-base identifier used table 1

Figure 6. East Well Field and wells sampled for this study in Cedar Rapids, Iowa.

and were completed open hole, with 4-in. (O.D.) PVC casing set in the alluvial material above the bedrock.

Wells open to the alluvial aquifer were drilled using continuous-flight hollow-stem augers and completed with 2- and 4-in. O.D. PVC casing and 2.5-ft PVC screen. Cuttings returned to the surface during drilling were collected at about 5-ft intervals for geologic description. The observation wells were capped with a vented cap and developed by pumping three to four casing volumes of water to provide a representative water sample and water level.

The newly drilled wells, and other available wells used by the USGS to collect water-level measurements during the study, were surveyed for vertical control referenced to sea level and location (latitude and longitude) with a global positioning system (GPS) (Ashtech Company, 1991). The GPS surveying unit had a 3 ft or better horizontal accuracy (Ronald Kuzniar, USGS, oral commun., 1996).

The wells in this report are also identified by a land-survey system (township, range, section) used by the U.S. Bureau of Land Management and USGS. The land-survey system uses three numbers and four letters to identify a location. The first numeral denotes the township north (N) of a base line, the second numeral denotes the range east or west (E or W) of a principal meridian, and the third numeral denotes the section in which the well is located. The letters after the section number are used to divide the section into quarters. The letters A, B, C, and D are used to designate the northeast, northwest, southwest, and southeast quarters of any area within a section. The first letter designates the location for the 160-acre quarter section; the second letter, the 40-acre quarter-quarter section; the third letter, the 10-acre quarter-quarter-quarter section; the fourth letter the 2.5-acre quarter-quarter-quarter-quarter section. For example, 83N7W3CDBD would be a well located in the southeast quarter of the northwest quarter of the southeast quarter of the southwest quarter of section 3, range 7 west, township 83 north.

Water Quality

Water samples were collected for analysis of the following dissolved constituents at the USGS National Water-Quality Laboratory (NWQL) in Arvada, Colorado, following the procedures of Fishman and Friedman (1989)—major ions (calcium, magnesium, sodium, potassium, sulfate, chloride, and fluoride), nutrients (nitrite as nitrogen, nitrite plus nitrate as nitrogen, ammonia as nitrogen, ammonia-plus-organic nitrogen, phosphorus, and orthophosphate), iron and manganese, dissolved organic carbon (DOC), and pesticides. Onsite measurements of specific conductance, pH, water temperature, dissolved oxygen, and alkalinity were determined at the time of sample collection.

Samples were collected after three well volumes were removed. The small-diameter observation wells were sampled with a peristaltic pump. Observation wells that were constructed with 2- and 4-in. O.D. PVC were pumped and sampled with a portable submersible pump made of stainless steel and equipped with Teflon tubing. Municipal and industrial wells had permanently installed pumps and were sampled at the well head.

Pumps and tubing were cleaned with laboratory detergent, rinsed with organic-free deionized water, and allowed to air dry. Filter plates and the peristaltic-pump tubing were cleaned using the same technique and included a once-daily rinse with a solution of 5-percent hydrochloric acid. Filter plates were autoclaved before sampling. Samples were prepared onsite, preserved, and stored according to NWQL analytical requirements. Samples of dissolved constituents were filtered through a 0.45-micrometer pore-size cellulose filter in a polycarbonate filter plate. Samples for calcium, magnesium, sodium, iron, and manganese were preserved with nitric acid, whereas samples for alkalinity, sulfate, chloride, fluoride, nutrients, and DOC were untreated. All samples were stored on ice during transport to the laboratory. Nutrient and pesticide samples were shipped on ice by next-day air freight to the NWQL for analysis.

Approximately 10 percent of the analytical samples were quality-control (QC) samples—a mixture of blank and replicate samples. Blank samples of organic-free deionized water from the USGS water-quality laboratory in Iowa City were passed through pumps, filter plates, and filters as if they were environmental samples to verify cleanliness of sampling equipment and technique. The replicate samples were collected simultaneously with environmental samples to help define the possible deviations in data handling or the variability in analytical results. Analytical results from the replicate samples were similar to the original environmental samples. Blank samples for pesticides were typically less than the minimum detection limit (MDL) of 0.05 µg/L (micrograms per liter). Nutrient blanks were less than the MDL of 0.01 mg/L (milligrams per liter), with the exception of one blank sample that had a nitrate plus nitrite as nitrogen

concentration of 0.06 mg/L. The blank samples for major ions were generally less than the MDL for a particular constituent, although calcium, chloride, and fluoride showed minor amounts at 0.05, 0.30, and 0.10 mg/L, respectively. The analytical results of the blank and replicate data indicate minimal variability and verify that the sample collection and handling procedures were appropriate.

Measurement of Ground-Water Levels

Water levels were measured manually to the nearest 0.01 ft in the 2- and 4-in. diameter observation wells using a calibrated steel tape. Water levels for the small-diameter wells were measured using an electric tape because the diameters of these wells were too small for a conventional steel tape. All water levels were measured according to USGS protocols (U.S. Office of Water-Data Coordination, 1977).

Multiprobe-Instrument Data Collection

Multiprobe instruments were used to continually monitor water level, specific conductance, pH, temperature, and dissolved-oxygen concentration in selected wells at two intensive study sites (figs. 4, 7*A*, 7*B*) and in the Cedar River (fig. 7*B*). The multiprobe for the Cedar River was installed in a 6-in. diameter pipe placed in the river. The multiprobe instrument recorded data at 15-, 30-, or 60-minute intervals that were generally retrieved every 4 weeks. However, in the winter months, the data from multiprobe instrument in the river were retrieved less frequently because of water freezing in the pipe. The multiprobes were recalibrated using known specific conductance and pH standards after each data retrieval.

Surface Geophysics

Seismic refraction on land and continuous seismic reflection on the Cedar River were used to determine the depth to bedrock. The refraction system consisted of a 12-channel seismograph, portable computer, energy source and associated equipment, geophones, geophone cables, and surveying equipment. For the seismic-refraction technique, geophones were laid in a line perpendicular to the river, where possible, using 50- or 100-ft spacings. Data were recorded on seismograms and then onto computer disk. Onsite calculations of the data, made on the basis of equations given by Haeni (1988), were done to check the planning of site geometries to maximize the data collected. Final processing of the data was done using a computer modeling program, SIPT2V3.2 (Rimrock Geophysics, 1992).

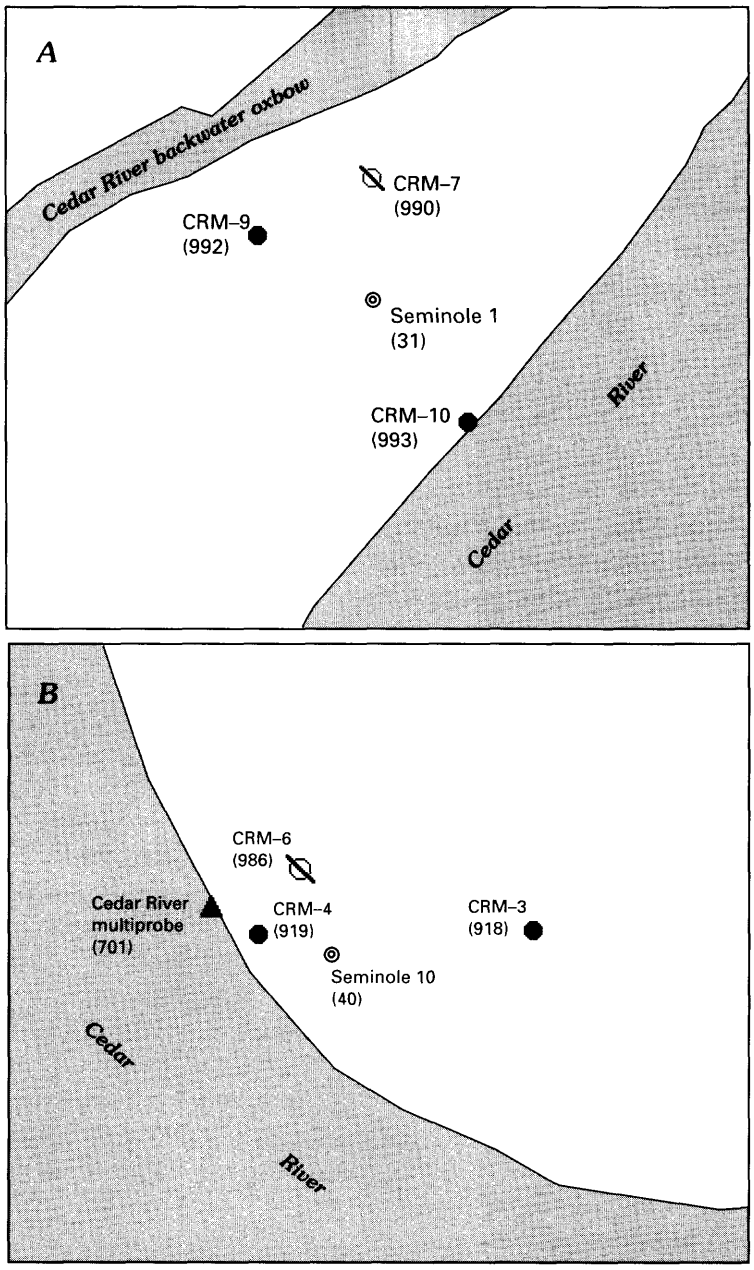
The continuous seismic-reflection work used a low-frequency, continuous seismic-profiling system consisting of a filter-amplifier unit, 455-joule sound source, hydrophone streamer, a single hand-held GPS (Magellan, Nav-Pro 5000), digital tape recorder, portable generator, and a graphic recorder. The graphic recorder synchronized the firing of the sound source and graphically displayed the received signals from the hydrophone streamer. The filter-amplifier unit received the signal from the hydrophone streamer, filtered out signals that were not within its preset range, and amplified the desirable signal to send to the graphic recorder. The raw signal was recorded on tape for playback at a later time. The hand-held Magellan GPS unit was used to locate latitude-longitude points for geophysical lines on the map.

SELECTED HYDROGEOLOGIC DATA

Hydrogeologic data were collected to create a data base for an assessment of ground-water flow and quality. Various types of water-quality data were collected to assist with analyzing short- and long-term trends. Information collected included well-construction data, water quality, ground-water levels, multiprobe-instrument data (water levels, specific conductance, pH, temperature, and dissolved oxygen), and surface-geophysical data.

Well-Construction Data

Information for ground-water wells in the vicinity of Cedar Rapids was collected to improve definition of the hydrogeology. Much of the well-construction data were obtained from well files of the IDNR/GSB. Selected well information in table 1 includes data-base ID, site name, site identification number, land-net location (township, range, section), land-surface elevation, site type, types of data collected, diameter of well casing, screen interval, total depth drilled, and USGS aquifer code.



NOT TO SCALE

EXPLANATION

CRM-3 (918) — **Alluvial observation well and name**—Number in parentheses ( ) is data-base identifier used table 1

Seminole 10 (40) — **Municipal well and name**—Number in parentheses ( ) is data-base identifier used table 1

CRM-6 (986) — **Bedrock observation well and name**—Number in parentheses ( ) is data-base identifier used table 1

Cedar River multiprobe (701) — **Surface-water-quality data-collection site and name**—Number in parentheses ( ) is data-base identifier used table 1

Figure 7. Schematic diagrams showing features of intensive study sites (*A*) near Cedar Rapids Seminole well 1 and (*B*) near Cedar Rapids Seminole well 10. Location of intensive study sites shown in figure 4.

Water-Quality Data

Information on water quality was collected from a one-time synoptic sampling during November 1993 that was used to assess the areal distribution of water quality of the alluvial aquifer, primarily in the detailed area of study adjacent to the river (fig. 2). Preparation for the synoptic sampling involved the construction of 54 small-diameter wells. The synoptic sampling also included municipal wells and USGS 2- and 4-in. diameter observation wells. The synoptic sampling provided a "snapshot" of the water quality to improve understanding of the ground-water resource.

Quarterly sampling of 10 wells (observation and municipal wells) and the Cedar River has been an ongoing part of the study since 1992. The quarterly sampling provided a temporal assessment of the ground water and surface water and was used to improve understanding of water-quality trends in the Cedar River and the alluvial aquifer.

Table 2 lists the sites used for water-quality sampling and identifies the sampling frequency (synoptic or quarterly) and the site type (alluvial, bedrock, or surface water). The physical properties and constituent concentrations in water from the sampled sites are listed in table 3.

Ground-Water-Level Data

Ground-water levels were measured in the Silurian-Devonian bedrock aquifer and the alluvial aquifer to prepare potentiometric-surface maps of the study area and to establish general directions of ground-water flow. This information also was used for calibrating a computer ground-water model being constructed for the study. The bedrock water levels were measured from 76 domestic and industrial wells between June and August 1993. Synoptic water levels for small-diameter wells, observation wells, and municipal wells completed in the alluvial aquifer were measured during November 1993. Water levels also were measured during November and December 1994 in both bedrock and alluvial wells. Wells used for measuring ground-water levels are listed in table 4, and the location of wells is shown in figures 3, 4, 5, and 6.

Multiprobe-Instrument Data

The intensive study sites were used to investigate the relation between the alluvial aquifer, the Cedar River, and the bedrock aquifer. The intensive study sites also were important for determining if the ground water was directly affected by surface water (Schulmeyer, 1995).

The first site of intensive study was near municipal well Cedar Rapids Seminole 10 (fig. 7*B*). Multiprobes at this site were installed in the Cedar River (site 800), alluvial observation wells (1993 USGS CRM–3 and CRM–4), the bedrock observation well (1993 USGS CRM–6), and municipal well Cedar Rapids Seminole 10. Data were collected from December 1992 through January 1994. The multiprobes from the wells at the Seminole 10 site then were moved to the second intensive study site near Cedar Rapids Seminole 1 (fig. 7*A*), and data were collected from June 1994 through February 1996. The multiprobes at the second site were installed in the alluvial observation wells (1993 USGS CRM–9 and CRM–10), the bedrock observation well (1993 USGS CRM–7), and municipal well Cedar Rapids Seminole 1. The multiprobe in the river remained at the Cedar Rapids Seminole 10 site for the duration of data collection at the two intensive study sites. Specific-conductance and temperature data collected with the multiprobes were the most important indicators of water-quality changes in the alluvial aquifer that correspond to changes in the river (Schulmeyer, 1995). Selected mean daily specific-conductance, temperature, and dissolved-oxygen data for the two intensive sites are shown in figures 8–13, with the mean daily values for each water year given in tables 8–28.

Surface-Geophysical Data

Geophysical seismic-refraction and continuous seismic-reflection surveys were conducted from October 1992 through June 1993 to determine depth to bedrock and thickness of the alluvial aquifer along the Cedar River between Cedar Rapids and Palo, Iowa, at selected locations in the detailed study area. The location for the seismic-refraction traverses is shown in figure 14. The seismic-refraction sections are illustrated in figures 15–18, and the seismic-refraction data are listed in table 5. The continuous seismic-reflection data collected on the Cedar River between the East Well Field in Cedar Rapids and Palo, Iowa, are listed in table 6.

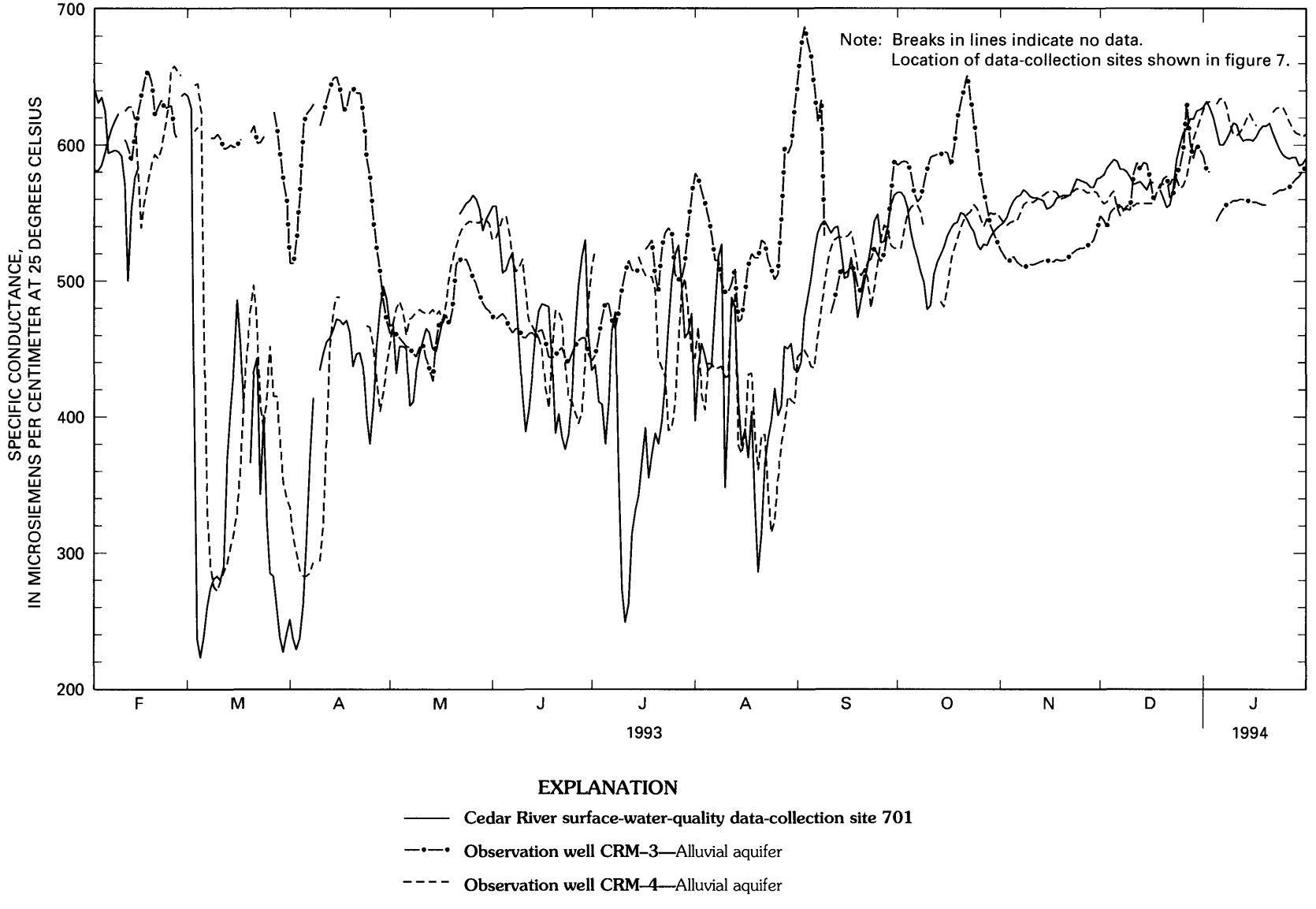


Figure 8. Specific conductance in Cedar River, observation well 1993 USGS CRM–3, and observation well 1993 USGS CRM–4 near Cedar Rapids, Iowa, February 1993 through January 1994.

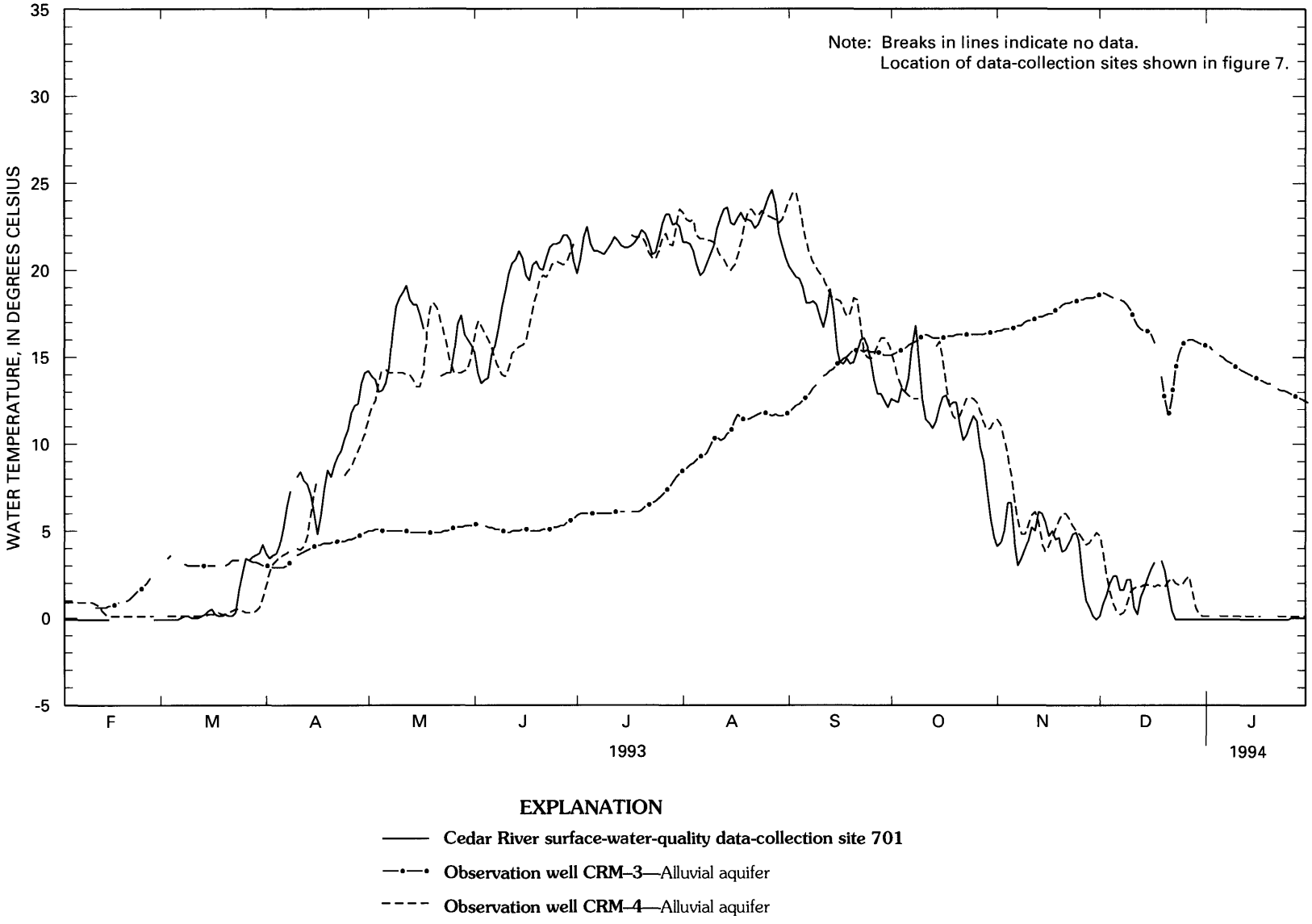


Figure 9. Water temperature in Cedar River, observation well 1993 USGS CRM–3, and observation well 1993 USGS CRM–4 near Cedar Rapids, Iowa, February 1993 through January 1994.

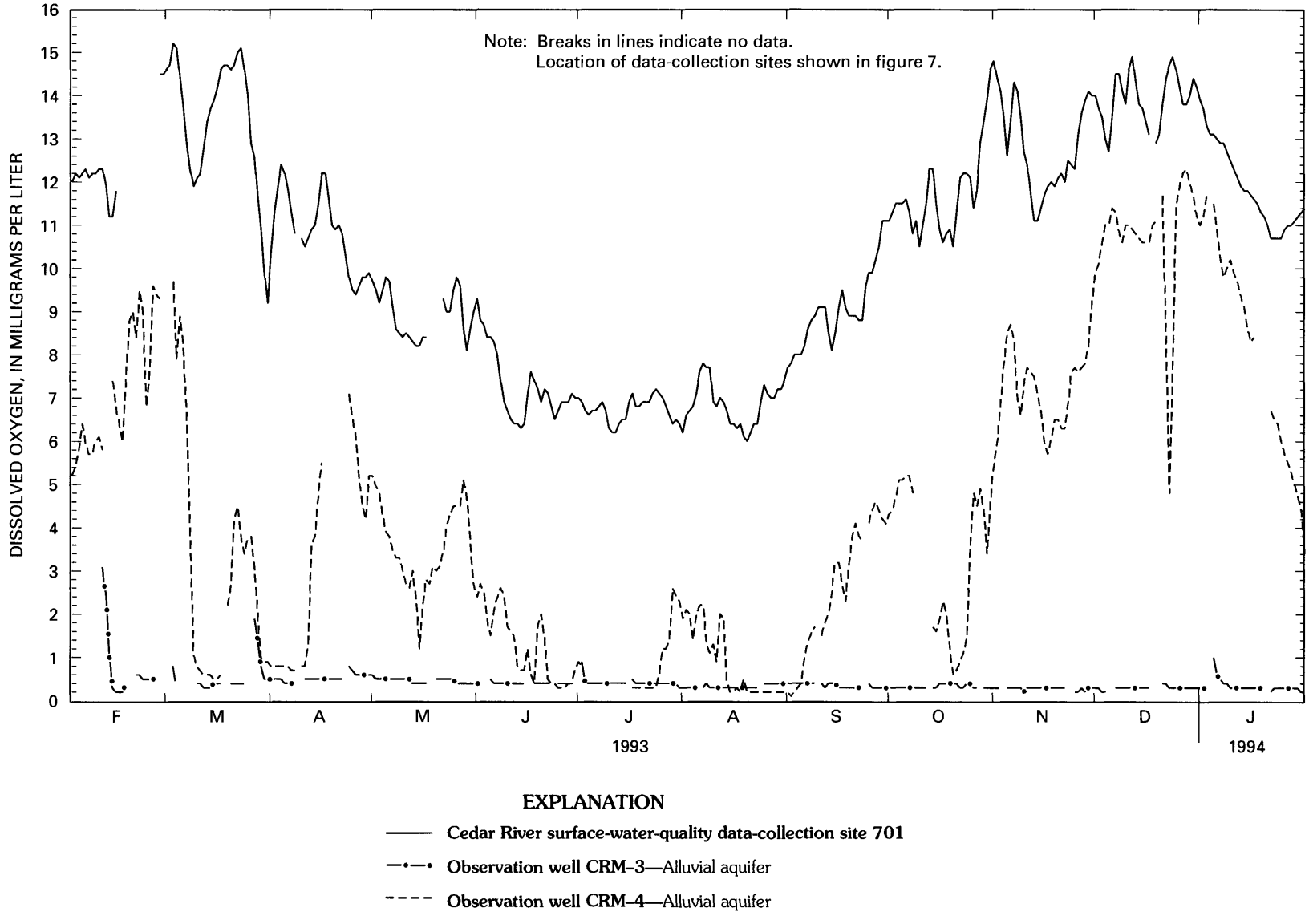


Figure 10. Dissolved-oxygen concentrations in Cedar River, observation well 1993 USGS CRM–3, and observation well 1993 USGS CRM–4 near Cedar Rapids, Iowa, February 1993 through January 1994.

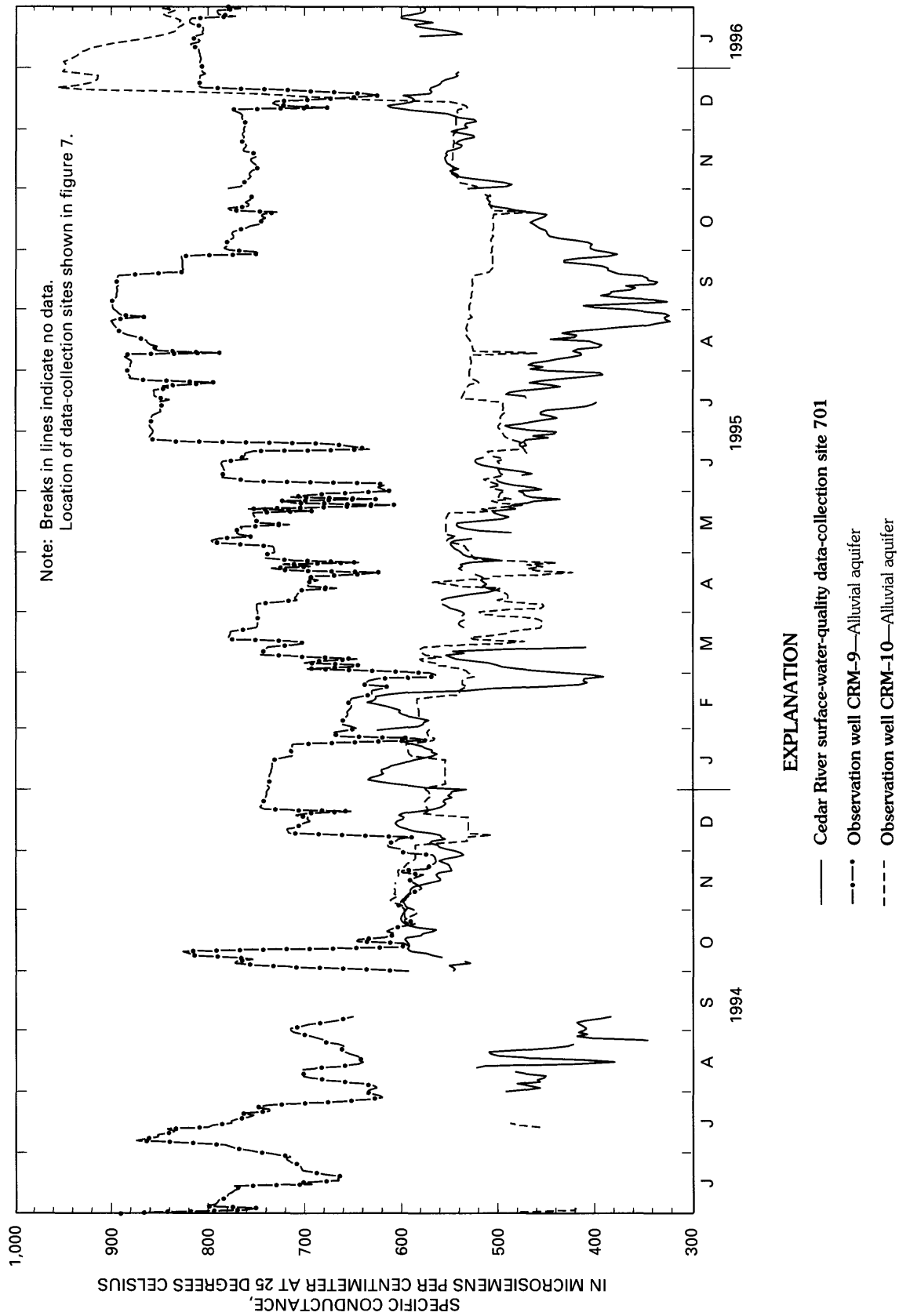


Figure 11. Specific conductance in Cedar River, observation well 1993 USGS CRM–9, and observation well 1993 USGS CRM–10 near Cedar Rapids, Iowa, June 1994 through January 1996.

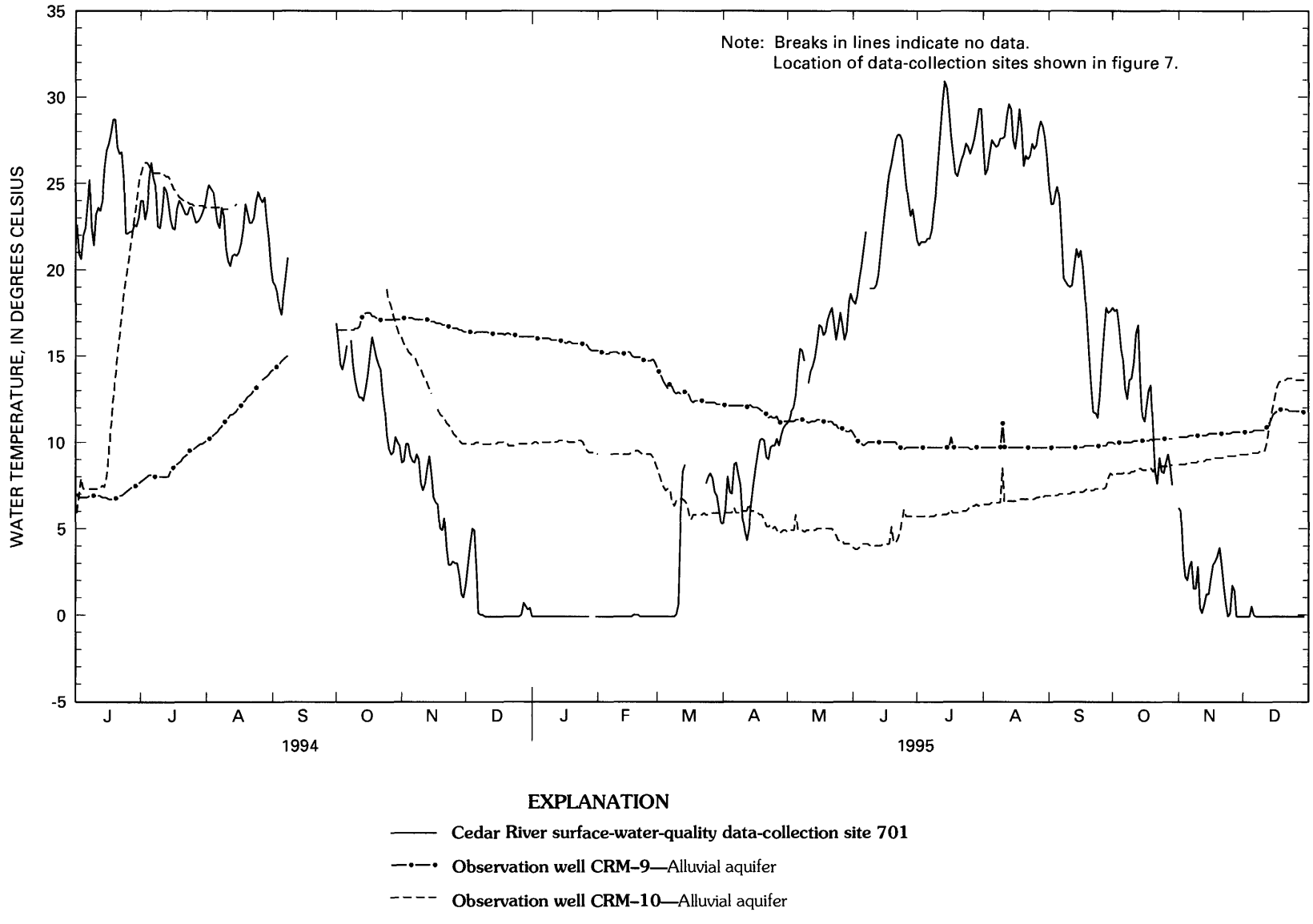


Figure 12. Water temperature in Cedar River, observation well 1993 USGS CRM–9 and observation well 1993 USGS CRM–10 near Cedar Rapids, Iowa, June 1994 through December 1995.

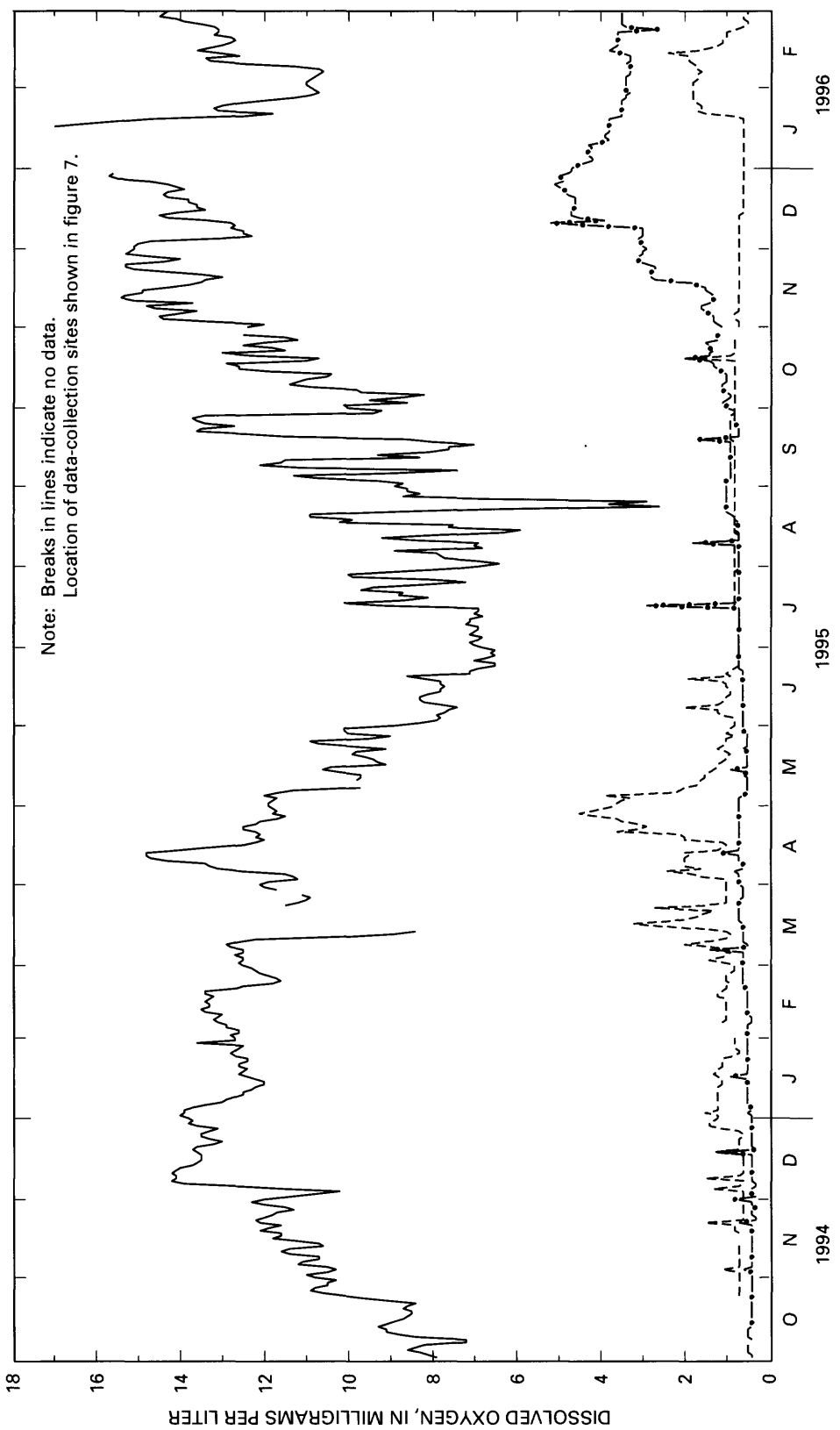


Figure 13. Dissolved-oxygen concentrations in Cedar River, observation well 1993 USGS CRM–9, and observation well 1993 USGS CRM–10 near Cedar Rapids, Iowa, October 1994 through February 1996.

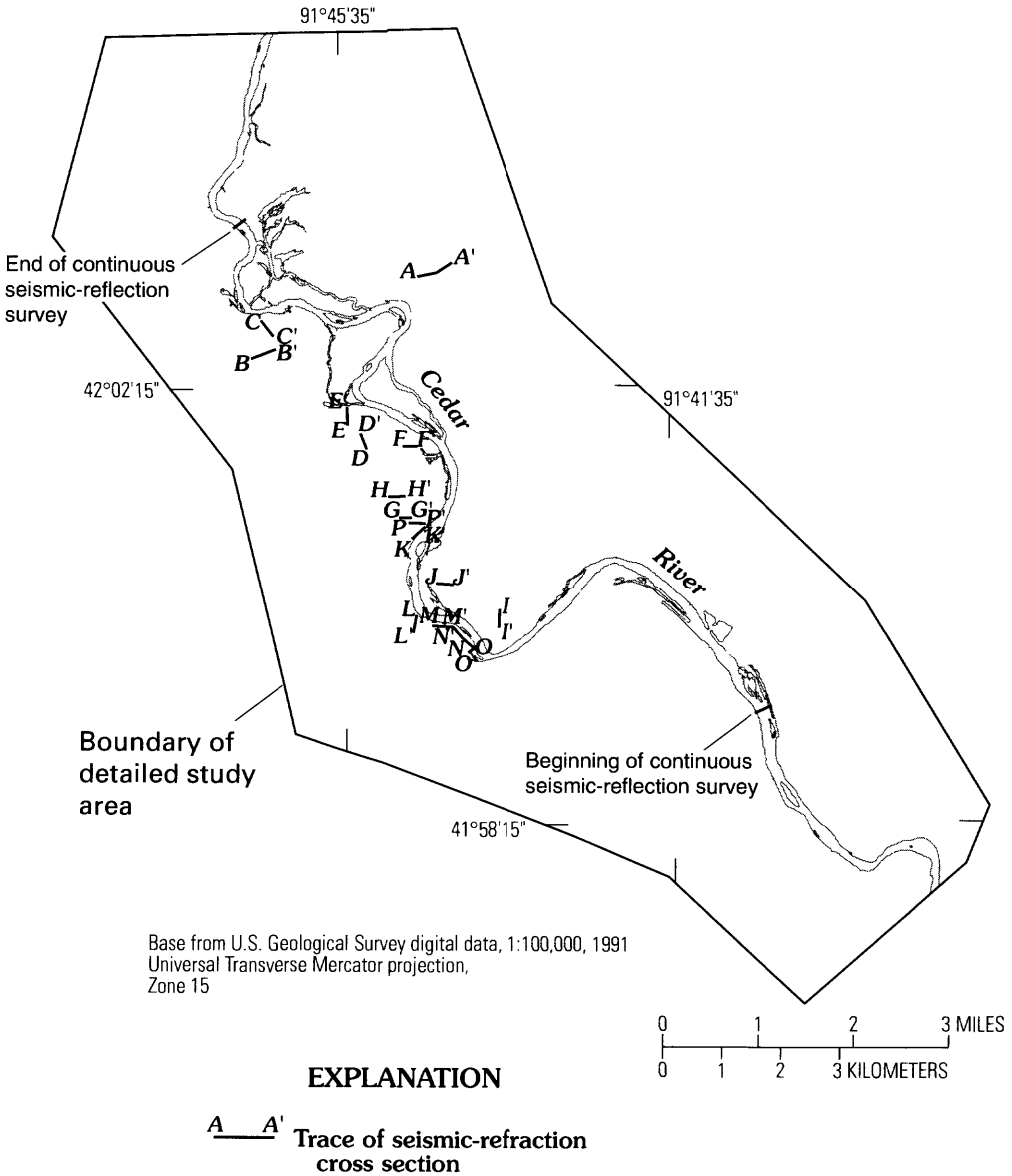


Figure 14. Location of seismic-refraction cross sections *A–A'* through *P–P'* and beginning and end points of seismic-reflection survey in detailed study area along Cedar River, Linn County, Iowa.

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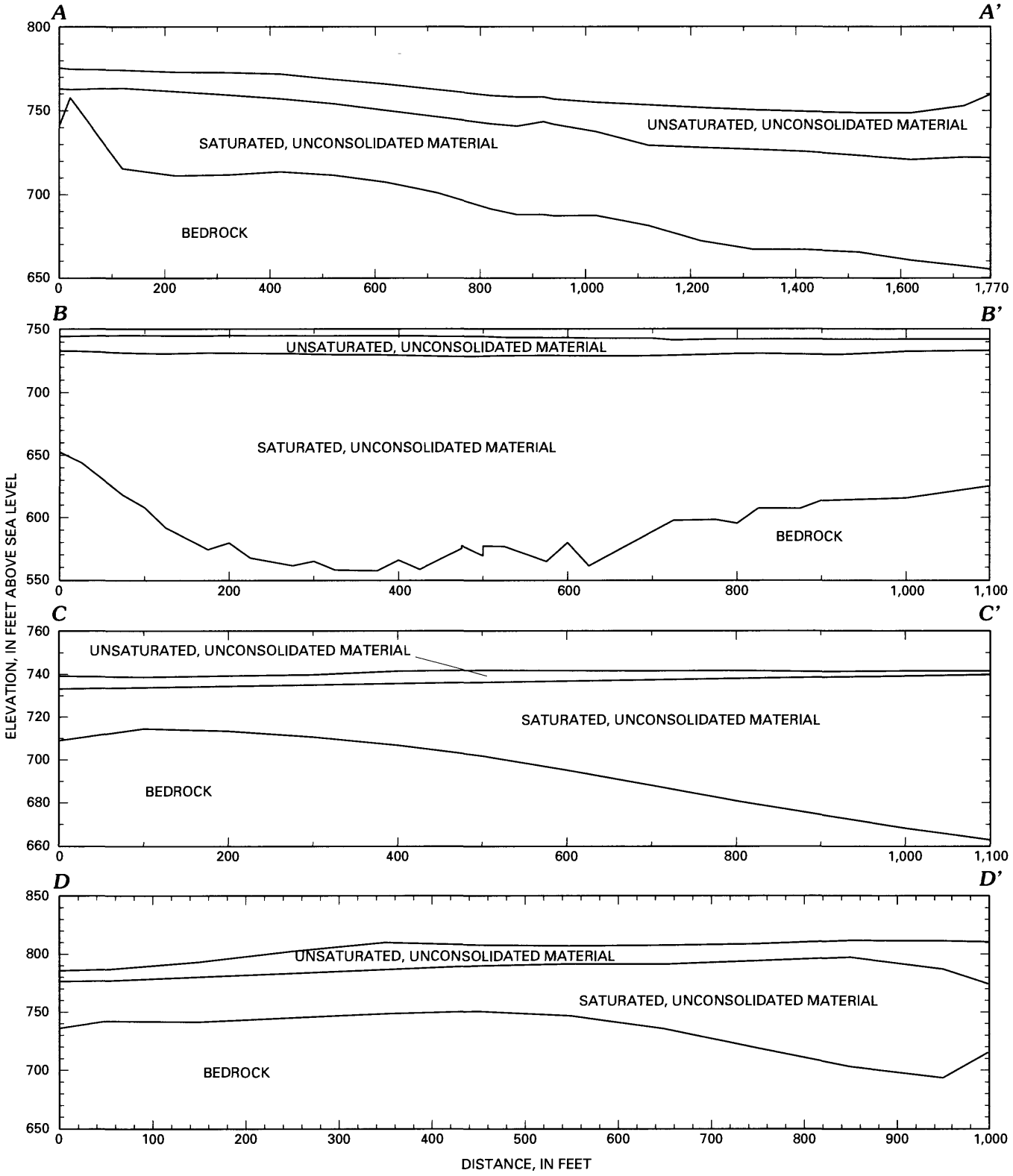

Figure 15. Seismic cross sections *A–A'* through *D–D'* along Cedar River, Iowa. Traces of sections shown in figure 14.

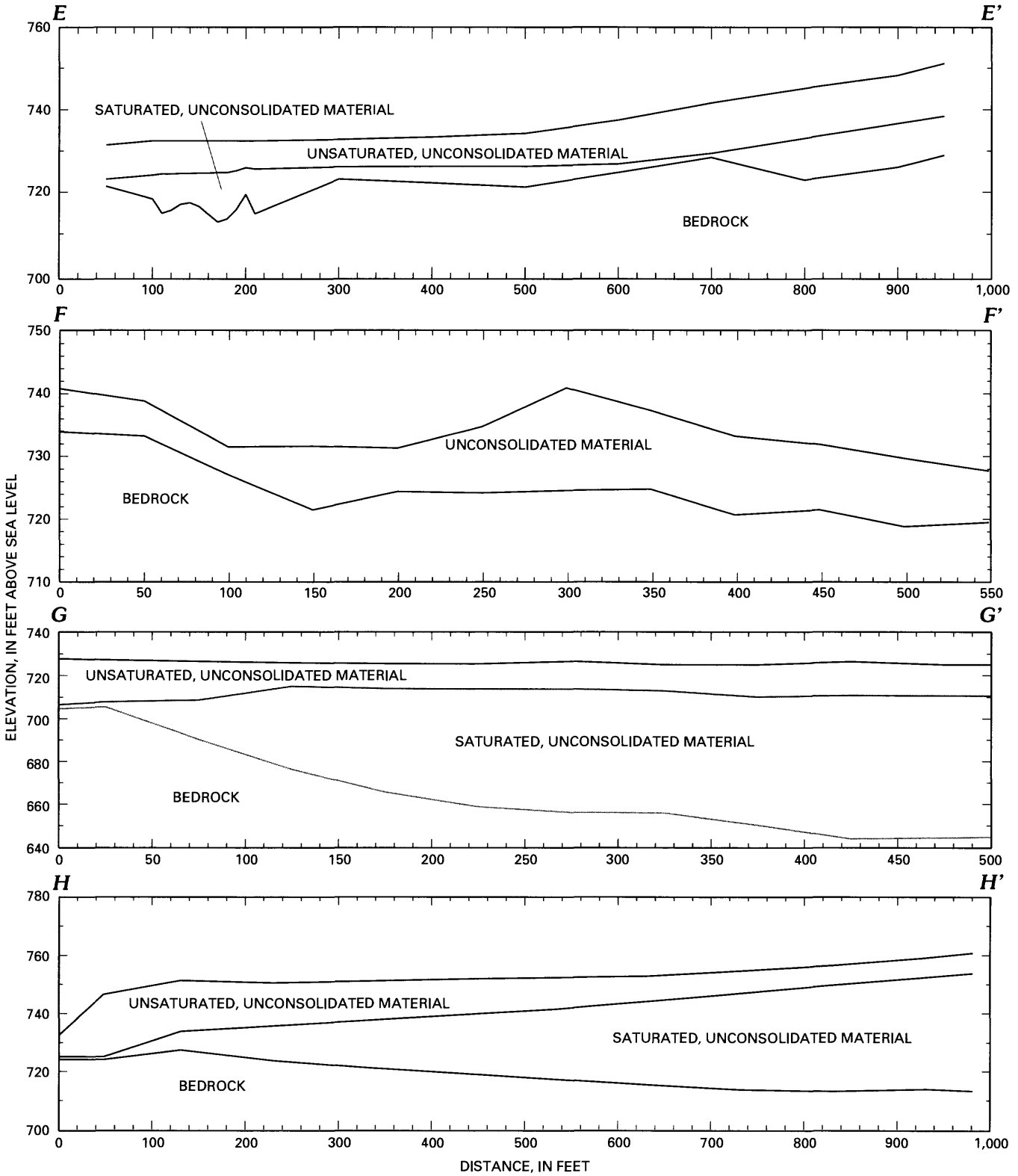

Figure 16. Seismic cross sections *E–E'* through *H–H'* along Cedar River, Iowa. Traces of sections shown in figure 14.

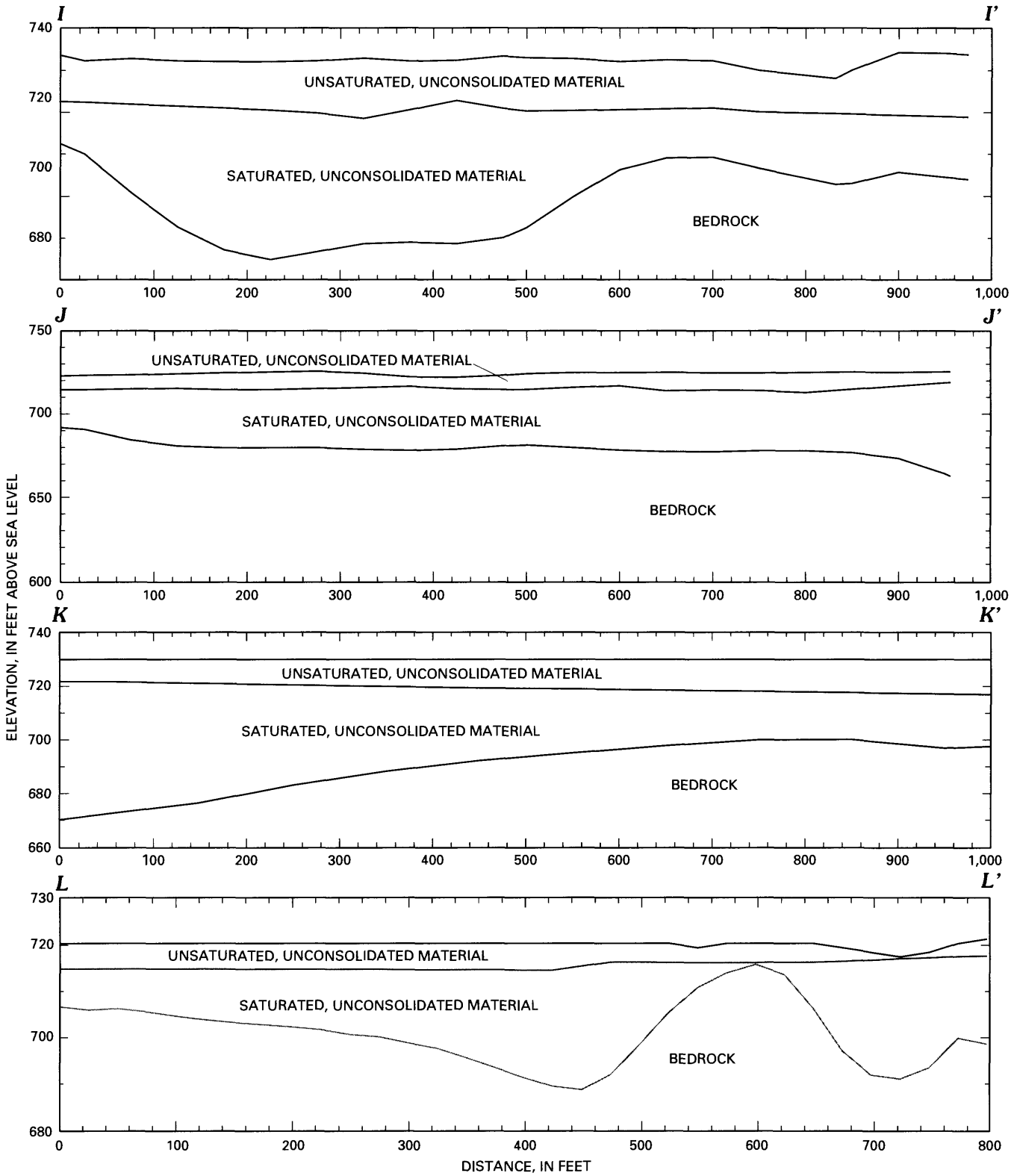

Figure 17. Seismic cross sections *I–I'* through *L–L'* along Cedar River, Iowa. Traces of sections shown in figure 14.

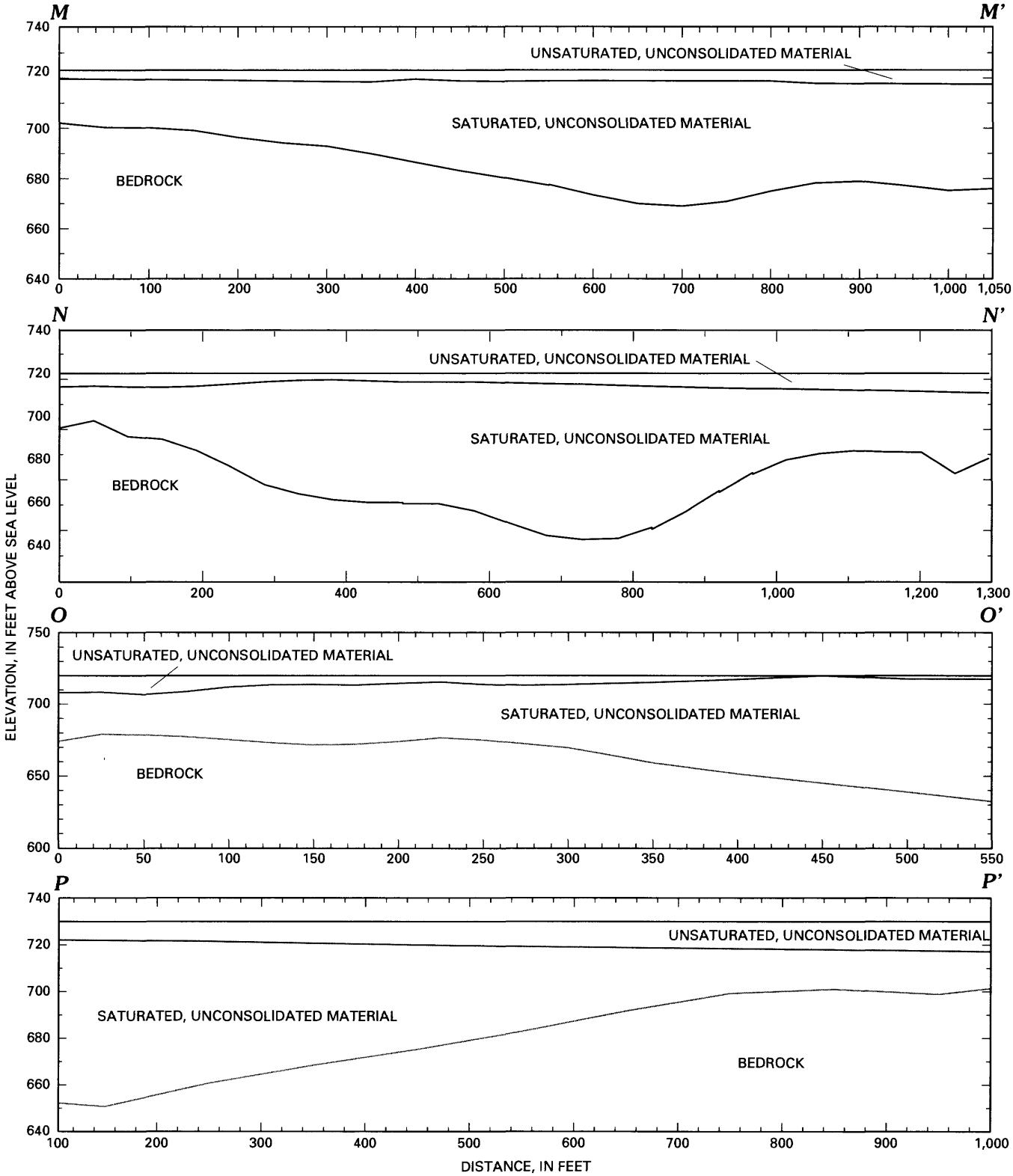

Figure 18. Seismic cross sections *M–M'* through *P–P'* along Cedar River, Iowa. Traces of sections shown in figure 14.

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Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa

[Data-base ID, an assigned number that relates data from tables and figures in this report; land-surface elevation, in feet above sea level; site type (M, municipal; I, industrial; O, observation; D, domestic; S, spring); types of data, (G, geologic, LQ, quarterly water levels; WQQ, quarterly water quality; WQI, intermittent water quality; C, continuous multiprobe data; LS93, summer 1993 water levels; LF93, fall 1993 water levels; LW94, winter 1994 water levels); casing diameter, diameter of drill hole in inches; screen interval, top/bottom, top and bottom of screen interval in feet below land surface; total depth drilled, in feet below land surface; USGS aquifer code, U.S. Geological Survey aquifer code (see table 7); --, no data]

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
1	Cedar Rapids East 1	415946091403901	83N7W17DDAA	726.34	M	G, LF93	30.0	50.0/70.0	70.0	111ALVM
2	Cedar Rapids East 2	415949091404301	83N7W17DADC	730.26	M	G, LF93	30.0	52.0/72.0	72.0	111ALVM
3	Cedar Rapids East 3	415949091404901	83N7W17DACD	728.55	M	G, LF93	30.0	52.0/72.0	72.0	111ALVM
4	Cedar Rapids East 4	415954091405101	83N7W17DACB	727.15	M	G, LF93	30.0	52.0/72.0	72.0	111ALVM
5	Cedar Rapids East 5	415954091405601	83N7W17DBCC	730.31	M	G, LF93	30.0	51.6/71.6	71.5	111ALVM
6	Cedar Rapids East 6	415944091403501	83N7W16CCBB	724.91	M	G, LF93	30.0	50.0/70.0	70.0	111ALVM
7	Cedar Rapids East 8	415941091404101	83N7W17DDAD	722.39	M	G, LF93	30.0	59.6/69.6	69.6	111ALVM
8	Cedar Rapids East 9	415944091404801	83N7W17DDBD	725.13	M	G, LF93	30.0	54.0/67.0	67.0	111ALVM
9	Cedar Rapids East 10	415949091405201	83N7W17DACC	722.44	M	G, LF93, WQI	30.0	52.0/67.0	67.0	111ALVM
10	Cedar Rapids East 11	415950091405501	83N7W17DBDA	725.90	M	G, LF93	30.0	36.5/56.5	57.0	111ALVM
11	Cedar Rapids East 12	415952091405701	83N7W17DBDA	727.22	M	G, LF93, WQI	30.0	41.0/61.0	61.0	111ALVM
12	Cedar Rapids East 13	415955091410101	83N7W17DBAC	736.16	M	G, LF93	30.0	41.0/61.0	61.0	111ALVM
13	Cedar Rapids East 14	415959091410501	83N7W17DBBA	725.12	M	G, LF93	30.0	44.5/64.5	65.0	111ALVM
14	Cedar Rapids East 15	420000091410701	83N7W17ACCD	724.09	M	G, LF93	30.0	47.0/67.0	67.0	111ALVM
15	Cedar Rapids East 16	420002091410701	83N7W17ACCD	723.71	M	G, LF93	30.0	49.0/69.0	69.0	111ALVM
16	Cedar Rapids East 17	420005091411001	83N7W17ACCB	720.99	M	G, LF93	30.3	39.0/59.0	59.8	111ALVM
17	Cedar Rapids East 18	420007091411201	83N7W17ACBC	720.67	M	G, LF93	30.3	39.0/59.0	59.8	111ALVM
18	Cedar Rapids East 19	420010091411501	83N7W17BDAA	719.02	M	G, LF93	30.3	37.0/57.0	58.0	111ALVM
19	Cedar Rapids East 20	420013091411601	83N7W17BADD	721.29	M	G, LF93	30.3	36.0/56.0	57.0	111ALVM
20	Cedar Rapids West 1	420012091412801	83N7W17BDBB	727.19	M	G, LF93, WQI	30.0	56.0/66.0	66.0	111ALVM

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
21	Cedar Rapids West 2	420017091413401	83N7W17BBDA	724.21	M	G, LF93, WQI	30.0	62.0/72.0	72.0	111ALVM
22	Cedar Rapids West 3	420024091414601	83N7W17BBBB	722.18	M	G, LF93, WQI	30.0	62.0/72.0	72.0	111ALVM
23	Cedar Rapids West 4	420029091415501	83N7W7DDD	723.13	M	G, LF93	30.0	54.0/69.0	69.0	111ALVM
24	Cedar Rapids West 5	420034091410501	83N7W7DDBC	722.00	M	G, LF93	30.0	53.0/68.0	68.0	111ALVM
25	Cedar Rapids West 6	420037091421401	83N7W7DCAB	722.24	M	G, LF93	30.0	56.0/71.0	71.0	111ALVM
26	Cedar Rapids West 7	420036091422701	83N7W7CDAB	724.05	M	G, LF93, WQI	30.0	55.0/70.0	70.0	111ALVM
27	Cedar Rapids West 8	420032091423301	83N7W7CDCA	724.59	M	G, LF93	30.0	62.0/72.0	72.0	111ALVM
28	Cedar Rapids West 9	420031091415701	83N7W7DDDB	722.50	M	G, LF93	30.0	48.0/63.0	63.0	111ALVM
29	Cedar Rapids West 10	420036091420901	83N7W7DCAA	723.78	M	G, LF93, WQI	30.0	52.0/67.0	67.0	111ALVM
30	Cedar Rapids West 11	420039091422101	83N7W7DCBB	723.97	M	G, LF93	30.0	51.0/66.0	66.0	111ALVM
31	Cedar Rapids Seminole 1	420030091424901	83N7W7CCDB	719.99	M	G, LF93, WQQ	30.0	53.8/64.0	63.9	111ALVM
32	Cedar Rapids Seminole 2	420025091425801	83N8W13AAAA	719.98	M	G, LF93, WQI	30.0	43.9/53.9	53.9	111ALVM
33	Cedar Rapids Seminole 3	420020091430601	83N8W13AACA	720.89	M	G, LF93, WQI	30.0	52.6/62.8	62.9	111ALVM
34	Cedar Rapids Seminole 4	420015091430601	83N8W13AACC	720.53	M	G, LF93, WQI	30.0	34.7/44.9	54.9	111ALVM
35	Cedar Rapids Seminole 5	420009091431901	83N8W13ACAD	718.03	M	G, LF93	30.0	53.7/63.9	64.0	111ALVM

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
36	Cedar Rapids Seminole 6	420006091432201	83N8W13ACDB	722.19	M	G, LF93, WQI	30.0	50.9/61.1	61.1	111ALVM
37	Cedar Rapids Seminole 7	415959091433001	83N8W13DBBB	724.72	M	G, LF93		52.9/63.1	63.1	111ALVM
38	Cedar Rapids Seminole 8	415955091433601	83N8W13CAAC	721.79	M	G, LF93, WQI	30.0	47.1/57.3	57.3	111ALVM
39	Cedar Rapids Seminole 9	415952091434301	83N8W13CACA	724.85	M	G, LF93	30.0	47.2/57.4	57.5	111ALVM
40	Cedar Rapids Seminole 10	415953091435201	83N8W13CBDA	725.73	M	G, LF93, WQI	30.0	58.4/58.6	68.6	111ALVM
41	Cedar Rapids Seminole 11	420024091430401	83N8W13AAAB	717.61	M	G, LF93	30.0	47.0/62.0	62.0	111ALVM
42	Cedar Rapids Seminole 12	420015091441301	83N8W14AADC	722.08	M	G, LF93	30.0	43.0/58.0	58.0	111ALVM
43	Cedar Rapids Seminole 13	420017091442101	83N8W14AAC	722.62	M	G, LF93	30.0	46.0/61.0	61.0	111ALVM
44	Cedar Rapids Seminole 14	420020091442501	83N8W14ABDA	725.12	M	G, LF93, WQI	30.0	44.0/59.0	59.0	111ALVM
45	Cedar Rapids Seminole 15	420024091442701	83N8W14ABAA	726.37	M	G, LF93	30.0	47.0/62.0	62.0	111ALVM
46	Cedar Rapids Seminole 16	420029091443001	83N8W11DCDC	725.90	M	G, LF93, WQI	30.0	51.0/65.0	65.0	111ALVM
47	Cedar Rapids Seminole 17	420013091442001	83N8W14ADBB	722.95	M	G, LF93	30.0	34.0/54.0	54.0	111ALVM
48	Cedar Rapids Seminole 18	420013091442501	83N8W14ACAA	722.90	M	G, LF93	30.0	32.0/52.0	52.0	111ALVM
49	Cedar Rapids Seminole 19	420014091443201	83N8W14ABDC	721.22	M	G, LF93	30.0	28.0/40.0	42.0	111ALVM
50	Cedar Rapids Seminole 20	420017091443701	83N8W14ABC	721.57	M	G, LF93	30.0	28.0/43.0	43.0	111ALVM
51	Cedar Rapids Seminole 21	420022091444001	83N8W14ABBC	721.38	M	G, LF93	30.0	36.7/51.7	51.7	111ALVM
52	Cedar Rapids Seminole 22	420029091444101	83N8W11DCCC	719.24	M	G, LF93	30.0	42.0/57.0	58.7	111ALVM
53	Cedar Rapids Seminole 23	420034091444101	83N8W11DCBC	723.27	M	G, LF93	30.0	40.0/57.0	59.0	111ALVM
54	Marion 1	420200091363003	83N7W1BADC	785	M	G	12.0	128.4/437.4	438.0	350SLRN
55	Marion 2	420200091363002	83N7W1BAAD	793	M	G	12.0	100.0/435.0	435.0	350NIGR

Table 1. *Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued*

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
56	Marion 3	420154091344901	6W83N6ADAA	855	M	G	12.0	1153/1400 1500/1663	1663.0	371JRDN
57	Marion 4	420200091363001	83N7W1BADD	800	M	G	12.0	1077.5/1566	1566.0	371JRDN
58	Marion 5	420219091344101	84N6W32BCBC	859	M	G	12.5	--	1660.0	371JRDN
59	Hiawatha 1	420218091402601	84N7W33CCDB	841	M	G, LS93	8.0	120.0/285.0	285.0	350SLRN
60	Hiawatha 2	420218091402602	84N7W33CCDB	841	M	G, LS93	--	--	235.0	350SLRN
61	Hiawatha 3	423034091403001	84N7W33BBBA	855	M	G	--	--	317.0	350SLRN
62	Hiawatha 4	420231091405401	84N7W32DACB	848	M	G, LS93	8.0	191.0/441	250.0	350SLRN
63	Hiawatha 5	420249091405201	84N7W32ACAD	855	M	G, LS93	10.0	205.0/733.0	530. 0	350SLRN
64	Cedar Rapids SLRN 1	415959091403001	83N7W16CBBB	740	M	G	--	85.0/278.9	305.0	350SLRN
65	Cedar Rapids JRDN 1	415900091400001	83N7W21CACB	725	M	G	--	--	2225.0	371JRDN
66	Cedar Rapids Test 2A	420015091414601	83N7W17AD	720	M	G	--	--	65.0	111ALVM
67	Cedar Rapids W.S. 7	415956091405801	83N7W17DAD	720	M	G	--	--	90.0	111ALVM
68	Cedar Rapids W.S. 8	415953091405201	83N7W17DAD	720	M	G	--	--	110.0	111ALVM
69	Cedar Rapids W.S. 9	415954091405401	83N7W17DAD	720	M	G	--	--	110.0	111ALVM
70	Cedar Rapids Test #1	420003091403001	83N7W16C	753	O	G	--	--	37.0	111ALVM
71	Cedar Rapids Gauge A	420013091414201	83N7W17BDB	720	O	G	--	--	70.0	111ALVM
72	Cedar Rapids Gauge B	420013091414201	83N7W17BDB	720	O	G	--	--	69.0	111ALVM
73	Cedar Rapids Gauge C	420013091414301	83N7W17BAC	720	O	G	--	--	68.0	111ALVM
74	Cedar Rapids Test #4a	415946091405001	83N7W17DDB	720	O	G	--	--	115.0	111ALVM
75	Cedar Rapids Test #10	415946091403901	83N7W17DDA	720	O	G	--	--	65.0	111ALVM

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
76	Cedar Rapids Test #8	415949091403801	83N7W17DAD	721	O	G	--	--	70.0	111ALVM
77	Cedar Rapids Test #9	415947091403801	83N7W17DAD	721	O	G	--	--	80.0	111ALVM
78	Cedar Rapids Test #7	415950091403501	83N7W16CBC	720	O	G	--	--	60.0	111ALVM
79	Cedar Rapids Test #13	415959091403301	83N7W16CBB	720	O	G	--	--	95.0	111ALVM
80	Cedar Rapids Test #6	415952091403301	83N7W16CBC	719	O	G	--	--	17.0	111ALVM
81	Cedar Rapids Test #5	415954091403301	83N7W16CBB	721	O	G	--	--	10.0	111ALVM
82	Cedar Rapids Test #4	415956091403201	83N7W16CBB	735	O	G	--	--	75	111ALVM
83	Cedar Rapids Test #3	415958091403301	83N7W16CBB	741	O	G	--	--	100	111ALVM
84	Cedar Rapids Test #6	420001091403201	83N7W16BCC	743	O	G	--	--	50	111ALVM
85	Cedar Rapids MW1	420023091412001	83N7W17BAAB	730.6	O	G	--	--	61.0	111ALVM
86	Cedar Rapids MW2	420028091412601	83N7W8CDCD	794.5	O	G	--	--	146.0	111ALVM
87	Cedar Rapids MW3	420024091412901	83N7W17BABB	727.4	O	G	--	--	66.0	111ALVM
88	Cedar Rapids MW3A	420024091412902	83N7W17BABB	727.4	O	G	--	--	46.0	111ALVM
89	Cedar Rapids Seminole 10a	415952091435101	83N8W13CBD	725.4	O	G	--	--	40.0	111ALVM
90	Cedar Rapids Seminole 10b	415952091435102	83N8W13CBD	725.4	O	G	--	--	45.0	111ALVM
91	City of Ely	415418091392401	82N7W	--	M	G	--	--	295.0	340DVSL
92	City of Cedar Rapids	415642091384701	82N7W3ABCC	710	M	G	--	--	430.0	350SLRN
93	City of Fairfax/Fairfax #2	415510091464801	82N8W16ABAB	772	M	G, LS93	--	--	333.0	350SLRN
94	City of Fairfax	415509091461701	82N8W16ABA	770	M	G, LS93	--	--	410.0	350SLRN
95	Cedar Rapids Test 1A	420006091410401	83N7W17AC	--	M	G	--	--	65.0	111ALVM
96	Cedar Rapids Test 3A	420006091410402	83N7W17AC	--	M	G	--	--	62.0	111ALVM
97	Cedar Rapids NW TH-9	420001091441401	83N8W13CBCB	722.5	O	G	4.0	--	63.0	111ALVM
98	Cedar Rapids NW TH-12	420001091442201	83N8W14ADCC	722.5	O	G	4.0	42.2/52.2	60.5	111ALVM
99	Cedar Rapids NW TH-10	420001091441301	83N8W14ADDC	722.5	O	G	4.0	52.0/62.0	65.0	111ALVM
100	Cedar Rapids NW TH-3	420004091441901	83N8W14ADCA	723.5	O	G	4.0	45.0/50.0	59.0	111ALVM

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
101	Cedar Rapids NW TH–2	420004091442401	83N8W14ADCC	723.5	O	G	4.0	45.0/50.0	59.5	111ALVM
102	Cedar Rapids NW TH–1	420004091441501	83N8W14ADDB	723.5	O	G	4.0	63.0/68.0	68.0	111ALVM
103	Cedar Rapids NW PW–1	415953091445701	83N8W13CBCB	722.5	O	G	--	--	59.5	111ALVM
104	Cedar Rapids NW TH–4	415953091445701	83N8W13CBCB	721.1	O	G	4.0	52.0/57.0	66.0	111ALVM
105	Cedar Rapids NW TH–5	415953091445701	83N8W13CBCB	720.9	O	G	4.0	56.0/61.0	64.0	111ALVM
106	Cedar Rapids NW TH–6	415953091445701	83N8W13CBCB	722	O	G	4.0	52.0/57.0	67.0	111ALVM
107	Cedar Rapids NW TH–7	415953091445701	83N8W13CBCB	721.6	O	G	4.0	--	--	111ALVM
108	Cedar Rapids NW TH–8	415953091445701	83N8W13CBCB	722.4	O	G	4.0	52.5/57.5	65.5	111ALVM
109	City of Atkins #1	415957091513601	83N9W14DBB	850	M	G, LS93	--	--	456.0	340DVSL
110	City of Atkins #2	415950091512501	83N9W14DBD	847	M	G, LS93	10.0	98.0/485.0	485.0	350SLRN
200	Central Iowa Power Coop	415636091381002	82N7W2BCB	717	I	G	--	--	55.0	110QRNR
201	Central Iowa Power Coop	415636091381001	82N7W2BCB	704	I	G	--	--	57.0	110QRNR
202	REA	415627091385001	82N7W3	721	I	G	--	--	68.0	110QRNR
203	REA	415627091385001	82N7W3	722	I	G	--	--	45.0	110QRNR
204	Central Iowa Power Coop	415641091381801	82N7W3AADD	722	I	G	--	--	434.0	355HPKN
205	Iowa Light & Power Co.	415637091383501	82N7W3ACAD	719	I	G, LS93	--	90.0/465.3	439.0	358ALXD
206	Iowa Light & Power Co.	415636091384701	82N7W3ACBC	719	I	G, LS93	--	--	432.0	350SLRN
207	Central Iowa Coop	415637091381901	82N7W3ADA	722	I	G	--	--	76.0	110QRNR
208	Central Iowa Coop	415637091381902	82N7W3ADA	722	I	G	--	--	73.0	110QRNR
209	Central Iowa Power Coop	415637091382201	82N7W3ADAB	722	I	G	--	--	434.0	350SLRN
210	REA	415614091383202	82N7W3D	721	I	G	--	--	64.0	110QRNR
211	REA	415614091383203	82N7W3D	721	I	G	--	--	60.0	110QRNR
212	REA	415614091383201	82N7W3D	721	I	G	--	--	50	110QRNR
213	Abel-Howe Corp.	415618091402301	82N7W4CBC	725	I	G	--	--	275.0	340DVSL
214	Sunline Auto Salvage	415614091404101	82N7W5DDAD	740	I	G, LS93	--	--	85.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
215	Chicago-N.W. RR	415549091404301	82N7W7BCB	737	I	G	--	--	91.0	110QRNR
216	Corn Sweeteners, Inc.	415544091424601	82N7W8BC	748	I	G	--	--	405.0	355NIGR
217	Corn Sweeteners, Inc.	415544091412201	82N7W8BDBD	745	I	G	--	--	1599.0	371JRDN
218	Wagonia Sorghum Co.	415533091405401	82N7W8DBA	738	I	G	--	--	400	340DVSL
219	College TWP School District	415424091394501	82N7W16DCAA	825	I	G	--	--	278.0	340DVSL
220	College TWP School District	415423091404201	82N7W16DCAA	832	I	G, LS93	--	--	269.0	340DVSL
221	College TWP School District	415422091393701	82N7W16DCD	835	I	G, LS93	--	--	420.0	355NIGR
222	College Comm. School Dist.	415423091393801	82N7W16DDC	835	I	G	--	--	284.0	340DVSL
223	College TWP School District	415401091392701	82N7W21ADA	799	I	G	--	--	225.0	340DVSL
224	College TWP School District	415401091392702	82N7W21ADA	799	I	G	--	--	245.0	340DVSL
225	College TWP School District	415401091392701	82N7W21ADA	799	I	G	--	--	269.0	340DVSL
226	College TWP School District	415410091401002	82N7W21BA	847	I	G	--	--	890.0	364GLEN
227	Cedar Rapids Airport	415318091422601	82N7W30BAD	868	I	G	--	--	672.0	350SLRN
228	Cedar Rapids Airport	415323091422201	82N7W30BAA	868	I	G	--	--	530.0	358KNKK
229	Iowa National Guard	415242091414901	82N7W30DDAD	853	I	G	--	--	250	350SLRN
230	Iowa Highway Commission	415157091401001	82N7W33CACC	845	I	G	--	--	515.0	350SLRN
231	Iowa Highway Commission	415156091400601	82N7W33CACD	845	I	G	--	--	500	350SLRN
232	Miska	415626091442701	82N8W2DBA	802	I	G	--	--	330.0	350SLRN
233	Doane Ag Service	415611091461801	82N8W3CCCC	824	I	G	--	--	242.0	350SLRN
234	Knickerbocker	415525091464401	82N8W9D	--	I	G	--	--	53.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
235	C&NW RR	415552091430201	82N8W12AAD	730	I	G	--	--	170.0	112PLSC
236	C&NW RR	415552091430202	82N8W12AAD	732	I	G	--	--	205.0	340DVSL
237	Chicago N.W. RR	415449091430001	82N8W12ADA	730	I	G	--	--	190.0	340DVSL
238	Linn County	415446091455101	82N8W15	--	I	G	--	--	269.0	340DVSL
239	McArthur Estate	415446091485001	82N8W18DAAA	832	I	G	--	--	229.0	340DVSL
240	Edelman Real Estate Co.	415933091393001	83N7W	--	I	G	--	--	295.0	340DVSL
241	Cargill	415815091411301	83N7W	--	I	G	--	--	70.0	110QRNR
242	American Legion Pool	420146091363301	83N7W1BDD	795	I	G	--	--	412.0	350SLRN
243	Cedar Memorial Cemetery	420120091374001	83N7W2CD	826	I	G	--	--	433.0	350SLRN
244	C.M.& ST.P RR	420200091385801	83N7W3BAD	855	I	G	--	--	500	350SLRN
245	Elmcrest Country Club	420116091305801	83N7W10BAAB	760	I	G, LS93	--	--	275.0	340DVSL
246	Collins Radio	420049091384301	83N7W10DBB	779	I	G	--	--	460.0	355NIGR
247	Marion Drive-In	420025091381701	83N7W10DDD	785	I	G	--	--	130.0	350SLRN
248	Kilborn Photo Products	420028091375802	83N7W11CCD	790	I	G, LS93	--	--	295.0	350SLRN
249	LaPlant-Choate Mfg. Co.	420027091380201	83N7W11CCDA	793	I	G	--	--	1560.0	371JRDN
250	Witwer Hilltop Farm	415934091355601	83N7W13DDDA	884	I	G	--	--	530.0	355NIGR
251	Iowa Manufacturing Co.	415948091391901	83N7W15CBC	770	I	G	--	--	63.0	110QRNR
252	Iowa Manufacturing Co.	415943091391501	83N7W15CCAB	770	I	G	--	--	445.0	340DVSL
253	Quaker Oats	415906091400301	83N7W21	--	I	G	--	--	1510.0	371JRDN
254	Cornstarch & Syrup Company	415906091400301	83N7W21	722	I	G	--	--	78.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
255	Quaker Oats Co.	415855091401301	83N7W21CACD	725	I	G	--	--	426.0	358KNKK
256	Quaker Oats Co.	415855091400901	83N7W21CADC	733	I	G	12.0	--	2525	370CMBR
257	Hubbard Ice & Fuel Company	415857091403201	83N7W21CBC	730	I	G	--	--	1550	371JRDN
258	Hubbard Ice Co.	415905091403401	83N7W21CBCA	720	I	G, LS93	--	--	418.0	350SLRN
259	Hubbard Ice & Fuel Co.	415906091403401	83N7W21CBCB	760	I	G, LS93	--	--	421.0	350SLRN
260	Sanitary Farm Dairies	415840091402801	83N7W21CCC	723	I	G	--	--	420.0	350SLRN
261	Quaker Oats Co.	415848091400901	83N7W21CDB	725	I	G	--	--	405.0	350SLRN
262	Cedar Rapids YMCA	415841091401301	83N7W21CDCD	724	I	G	--	--	1462.0	371JRDN
263	Hotel Roosevelt	415841091400301	83N7W21CDD	716	I	G	--	--	430.0	355NIGR
264	Fristar Bank (McLellan Stores)	415840091395501	83N7W21DCC	732	I	G, LS93	--	--	421.0	355GOWR
265	Cedar Rapids Gazette	415842091394801	83N7W21DCDA	733	I	G	--	630/1490.0	1495.0	360ODVC
266	State Theatre	415840091392501	83N7W21DDD	729	I	G	--	--	420.0	355NIGR
267	Colonial Baking Co.	415844091393001	83N7W21DDDA	--	I	G	--	--	280.0	340DVSL
268	Jerald Krause Trailer Camp	415841091360001	83N7W24DDD	885	I	G	--	--	320.0	340DVSL
269	Iowa Steel & Iron Works	415816091390801	83N7W27BCC	720	I	G	--	--	415.0	355NIGR
270	Wilson Packing Co.	415812091390301	83N7W27BDCC	725	I	G	--	--	425.0	350SLRN
271	Wilson Packing Co. 1	415800091385901	83N7W27CAC	714	I	G	--	--	1470.0	371JRDN
272	Wilson Packing Co.	415810091390301	83N7W27CACB	719	I	G	--	--	1494.0	371JRDN
273	Wilson Packing Co.	415800091385701	83N7W27CACD	715	I	G	--	--	425.0	350SLRN
274	Wilson Packing Co.	415809091391401	83N7W27CBA	716	I	G	--	--	1500	371JRDN

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
275	Wilson Packing Co.	415806091390901	83N7W27CBAD	716	I	G	--	--	1493.0	371JRDN
276	Wilson Packing Co. 3	415802091390801	83N7W27CBD	713	I	G	--	--	70.0	111ALVM
277	Wilson Packing Co.	415757091391701	83N7W27CCBA	705	I	G	--	--	424.0	350SLRN
278	Cargill Inc.	415805091384301	83N7W27DB	725	I	G	--	--	405.0	355NIGR
279	Peterson Baking Co.	415832091393701	83N7W28AABC	728	I	G	--	--	425.0	350SLRN
280	Woolworths	415833091395301	83N7W28AB	734	I	G	--	--	421.0	350SLRN
281	Hutchinson's Ice Cream Co.	415834091395101	83N7W28ABAC	730	I	G	--	--	386.0	350SLRN
282	Hotel Montrose	415835091394901	83N7W28ABBA	728	I	G	--	--	422.0	350SLRN
283	Witwer Wholesale Grocer	415818091384501	83N7W28ACA	723	I	G	--	--	423.0	355GOWR
284	Witwer Wholesale	415814091392601	83N7W28ADD	718	I	G	--	--	428.0	358KNKK
285	Cherry Burrel Co.	415816091393101	83N7W28ADD	735	I	G	--	--	420.0	350SLRN
286	The Kacena Co. (R. Chadima)	415816091393401	83N7W28ADDA	735	I	G	--	--	420.0	350SLRN
287	Newman's Department Store	415833091401001	83N7W28BA	711	I	G	--	--	420.0	350SLRN
288	Iowa Electric Light & Power	415836091400601	83N7W28BAA	725	I	G	--	--	1490.0	371JRDN
289	McRath's Ice Cream Co.	415833091400601	83N7W28BABD	727	I	G	--	--	267.0	340DVSL
290	Penick & Ford Co.	415808091400001	83N7W28CAAA	729	I	G	--	--	1507.0	371JRDN
291	Link Belt Co.	415800091402201	83N7W28CCB	731	I	G	--	--	360.0	350SLRN
292	Penick & Ford	415805091394801	83N7W28DB	712	I	G, LS93	--	--	450.0	350SLRN
293	Penick & Ford Co.	415803091395401	83N7W28DBCB	719	I	G	--	--	1490.0	371JRDN
294	Henderson Manufacturing Co.	415753091411401	83N7W29CDDA	753	I	G	--	--	140.0	--

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
295	Cargill Inc.	415757091410401	83N7W29DCBA	740	I	G, LS93	--	--	438.0	350SLRN
296	Twin Towers	415740091423401	83N7W31BAA	830	I	G	--	--	170.0	340DVSL
297	Evergreen (Cherry Burrell Corp.)	415716091403801	83N7W32DAA	801	I	G, LS93	--	--	521.0	355NIGR
298	Evergreen (Cherry Burrell Corp.)	415716091403802	83N7W32DAA	801	I	G, LS93	--	--	395.0	350SLRN
299	CCR Landfill - Stoney Point	415917091441201	83N8W23ADAC	805	I	G	--	--	37.0	110QRNR
300	Stoney Point	415911091441101	83N8W23ADD	830	I	G	--	--	302.0	340DVSL
301	CCR Landfill - Stoney Point	415912091441201	83N8W23ADDB	820	I	G	--	--	11.0	110QRNR
302	Jerry Edleman Trailer Ct.	415742091433101	83N8W36BAA	854	I	G	--	--	260.0	340DVSL
303	Hiawatha Water Board	--	84N7W	--	I	G	--	--	527.0	350SLRN
304	Iowa Electric Light & Power	420609091470401	84N8W9DCDC	750	I	G	--	--	130.0	340DVSL
305	Iowa Electric Light & Power	420609091470402	84N8W9DDCC	750	I	G	--	--	120.0	340DVSL
306	Iowa Electric Light & Power	420609091470403	84N8W9DCDC	750	I	G	--	--	130.0	340DVSL
307	Iowa Electric Light & Power	420609091470404	84N8W9DCDD	750	I	G	--	--	130.0	340DVSL
308	Iowa Electric Light & Power	420609091470405	84N8W9DCDD	750	I	G	--	--	110.0	340DVSL
309	Iowa Electric Light & Power	420609091470406	84N8W9	--	I	G	--	58.0/270.0	270.0	340DVSL
310	Iowa Electric Light & Power	420628091463801	84N8W 9AA	835	I	G	--	118.0/287.0	285.0	340DVSL
311	D.A. Energy Center 2	420607091470401	84N8W 9ACCC	780	I	G	--	--	138.0	112PLSC
312	Stookey & Gillis	420536091494201	84N8W18BABC	798	I		--	--	127.0	--
313	Otter Creek Gun Club	420359091433601	84N8W24CDC	790	I	G, LS93	--	--	192.0	340DVSL
314	Linn Co. Conservation Comm.	420312091463801	84N8W28DD	730	I	G	--	--	105.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing diameter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
315	D.A. Energy Center	420546091465301	84N8W9DCDC	750	I	G, LS93	--	--	121.0	110QRNR
316	D.A. Energy Center	420610091462601	84N8W10BCCC	750	I	G, LS93	--	--	298.0	340DVSL
317	Iowa Electric	415909091440901	83N8W23DDDA	837	I	G	--	--	62.28	110QRNR
318	Iowa Electric	415914091440801	83N8W23ADDA	821	I	G	--	--	65.16	110QRNR
319	Crawford Quarry	415921091445101	83N8W23BDAC	800	I	G, LS93	--	--	180.0	340DVSL
320	IES Utilities MW-12	415918091441301	83N8W23ADA	799.65	I	G, LS93	--	--	28.19	340DVSL
321	Blue Grass Enterprise	420339091443501	84N8W26ACAC	761	I	G, LS93	--	--	120.0	340DVSL
322	IES Utilities MW-16	415917091441201	83N8W23ADA	803.6	I	G, LS93	--	--	23.25	340DVSL
323	Evergreen Nursery	420348091413501	84N7W29BBDA	868	I	G, LS93	--	--	--	340DVSL
324	D & N Fence	420206091420601	83N7W6ABAD	839	I	G, LS93	--	--	200.0	340DVSL
325	Aggregates - Darrell Loan	420313091445101	84N8W26CADC	742	I	G, LS93	--	--	200.0	340DVSL
326	Kirkwood Community College	415408091385001	82N7W22BADA	810	I	G, LS93	--	--	200.0	340DVSL
327	Peck's Nursery	420207091420401	83N7W6AABC	840	I	G, LS93	--	--	300.0	340DVSL
328	Pepsi-Cola Plant	415834091394301	83N7W28ABCD	730	I	G, LS93, WQI	--	--	480.0	340DVSL
329	Greiner Well (Micheal Dr.)	420249091431601	84N8W36ACAD	827	D	G, LS93	--	--	200.0	340DVSL
330	Greiner Well (Quass Rd.)	420452091403801	84N7W16CCCC	874	D	G, LS93	--	--	300.0	340DVSL
331	Sunline Auto Salvage	415616091403601	82N7W05DDAD	740	I	G, LS93	--	--	50.0	110QRNR
332	Greiner Well (Tennis Ct.)	420228091434101	84N8W36CBDC	828	D	G, LS93	--	--	250.0	340DVSL
333	Greiner Well (Bettsy Ct.)	420258091433201	84N8W36ABCB	819	D	G, LS93	--	--	250.0	340DVSL
334	Greiner Well (Spring Green Ct.)	420352091445501	84N8W26DBAB	752	D	G, LS93	--	--	300.0	340DVSL

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
335	Greiner Well (Carpenter St.)	420240091421101	84N7W31DBAA	845	D	G, LS93	--	--	200.0	340DVSL
336	Greiner Well (Deer View Rd.)	420147091434801	83N8W1BCAB	797	D	G, LS93	--	--	250.0	340DVSL
337	Pate Construction/Sylvester	420628091415701	84N7W7AACB	835	I	G, LS93	--	--	200.0	340DVSL
338	IES Utilities MW-7	415909091440901	83N8W23ADA	837	I	G, LS93	--	--	62.28	344DVNNM
339	IES Utilities MW-19	415914091440801	83N8W23ADA	821	I	G, LS93	--	--	65.16	344DVNNM
500	David Novac	415552091374601	82N7W11BADC	795	D	G	--	--	135.0	--
501	E.J. Hynek (L. Petrak)	415422091422601	82N7W18CDCD	--	D	G	--	--	14.0	112PLSC
502	E. Trachta	415340091412401	82N7W20CDBB	857	D	G	--	--	255.0	340DVSL
503	Donald Olson (Rohlena Loe)	415412091381601	82N7W22AAA	824	D	G, LS93	--	--	240.0	340DVSL
504	Robert Buol	415239091401301	82N7W28CDCD	795	D	G	--	--	180.0	340DVSL
505	W.H. Hynek	415153091425101	82N7W31CCB	810	D	G	--	--	265.0	340DVSL
506	James Howell	415154091405601	82N7W32DCAA	837	D	G	--	--	265.0	340DVSL
507	Antoine Ipsan	415150091384901	82N7W34DCBC	835	D	G	--	--	232.0	340DVSL
508	Joseph Lutzenberg	415420091462601	82N8W	--	D	G	--	--	192.0	340DVSL
509	Frank Stevens (M.D. Findlay)	415611091435201	82N8W1CCDA	835	D	G, LS93	--	--	254.0	340DVSL
510	G. Keenan & K. Simon	415609091435201	82N8W1CCDB	855	D	G	--	--	202.0	340DVSL
511	Ronald Shimon (Gerald McCoy)	415608091435201	82N8W1CCDD	865	D	G, LS93	--	--	180.0	340DVSL
512	Dr. Howe	415642091442701	82N8W2ACAA	832	D	G	--	--	300.0	340DVSL
513	Richard Reid	415628091445601	82N8W2CAB	805	D	G	--	--	282.0	350SLRN
514	Paul Stralton	415612091444501	82N8W2CDA	790	D	G	--	--	295.0	350SLRN

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
515	Albert Laukato	415626091442701	82N8W2DBA	816	D	G	--	--	294.0	340DVSL
516	Dennis Graland	415625091443301	82N8W2DBBD	838	D	G	--	--	317.0	340DVSL
517	Roger Johnson	415619091442701	82N8W2DBDD	811	D	G, LS93	--	--	231.0	340DVSL
518	J.K. Listerbarger	415615091443101	82N8W2DCAB	825	D	G	--	--	249.0	340DVSL
519	R. Lavelle	415613091455801	82N8W3CDBD	843	D	G	--	--	270.0	340DVSL
520	Harland Henkes	415539091433101	82N8W12	--	D	G	--	--	310.0	340DVSL
521	Roy Ribble	415601091435701	82N8W12BBB	775	D	G	--	--	338.0	340DVSL
522	Mrs. Louvar	415323091430001	82N8W25AAAD	863	D	G	--	--	210.0	340DVSL
523	Louis Duesil	415149091470501	82N8W33CD	797	D	G	--	--	152.0	340DVSL
524	Emil Merta	415147091465401	82N8W33DCCB	823	D	G	--	--	137.0	340DVSL
525	John Lenicek	415148091463801	82N8W33DDCB	827	D	G	--	--	146.0	340DVSL
526	Robert Dolezal	415933091393001	83N7W	--	D	G	--	--	152.0	340DVSL
527	William Brewster	415933091393001	83N7W	--	D	G	--	--	320.0	340DVSL
528	Dallas Carsner	420156091365001	83N7W1B	--	D	G	--	--	59.0	110QRNR
529	Milo Pegum	420130091371701	83N7W2DAC	848	D	G	--	--	136.0	340DVSL
530	Neff	420144091385301	83N7W3	--	D	G	--	--	50.0	110QRNR
531	K. Ries	420159091381701	83N7W3AAAD	842	D	G	--	--	30.0	110QRNR
532	Levin	420202091400901	83N7W4BAD	847	D	G	--	--	103.0	110QRNR
533	Little	420139091401001	83N7W4CAAC	780	D	G	--	--	56.0	110QRNR
534	C.E. Van Alst (Cooper Spring)	420116091395301	83N7W4DCC	775	S	G	--	--	--	340DVSL

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
535	David Hanzelka	420134091425401	83N7W6CBCC	808	D	G, LS93	--	--	200.0	340DVSL
536	William Lutz	420125091424901	83N7W6CC	820	D	G	--	--	210.0	340DVSL
537	W.L. Fowler (McLeode Spring)	420104091394401	83N7W9ABD	765	S	G	--	--	--	340DVSL
538	K. Bell	420033091400301	83N7W9CDAB	857	D	G	--	--	140.0	340DVSL
539	Douglas Grant	420040091371501	83N7W11DACD	853	D	G	--	--	140.0	340DVSL
540	George Kosek	420031091372901	83N7W11DCA	822	D	G	--	--	100	110QRNR
541	Robert H. O'Meara	420002091360801	83N7W13ADBD	885	D	G	--	--	301.0	340DVSL
542	Van Meter	415954091362301	83N7W13DBB	866	D	G	--	--	243.0	340DVSL
543	Gene Pinney	415934091371501	83N7W14DDD	895	D	G	--	--	310.0	340DVSL
544	Agnes Dobrousky	415850091364001	83N7W24CD	815	D	G	--	--	100	110QRNR
545	Kaldenberg	415856091362201	83N7W24DB	--	D	G	--	--	210.0	340DVSL
546	L.VanDyke	415828091361701	83N7W25ABD	895	D	G	--	--	275.0	340DVSL
547	Al Desotel	415758091374301	83N7W26CDAC	852	D	G	--	--	210.0	340DVSL
548	B.L. Wiltsey	415815091422201	83N7W30	818	D	G	--	--	130.0	340DVSL
549	F.C. Welch	415816091421501	83N7W30ACCD	840	D	G	--	127.0/205.0	205.0	340DVSL
550	Emil Stodola	415822091424001	83N7W30BCA	798	D	G	--	--	66.0	110QRNR
551	Richard J. Dannels	415717091423201	83N7W31CAB	840	D	G	--	--	205.0	350SLRN
552	Floyd Fetter	415725091410101	83N7W32ACDC	805	D	G, LS93	--	--	282.0	340DVSL
553	H.W. Groat	415705091395701	83N7W33DCBC	821	D	G	--	--	276.0	112PLSC
554	Louis Pisney	415704091361401	83N7W36D	--	D	G	--	--	165.0	340DVSL

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
555	James MacCani	420146091433101	83N8W1	--	D	G	--	--	255.0	340DVSL
556	Robert Bent	420207091432201	83N8W1ABBA	845	D	G	--	--	232.0	340DVSL
557	H.C. Gerhold	420147091464601	83N8W4ACD	830	D	G	--	--	--	112PLSC
558	Kelly Good	420108091452301	83N8W10AACA	823	D	G	--	--	136.0	340DVSL
559	Howard Mitchell	420001091444201	83N8W14	--	D	G	--	--	195.0	340DVSL
560	T. Snethen	420013091455201	83N8W15BAD	787	D	G	--	--	80.0	110QRNR
561	Lester Floerchinger	420013091455201	83N8W15BADD	804	D	G	--	--	141.0	340DVSL
562	Dean Washburn	415929091440601	83N8W23AAAA	825	D	G	--	--	181.0	340DVNN
563	Gerber (Prochaska)	415921091432601	83N8W24ACB	872	D	G, LS93	--	--	415.0	
564	Ralph Mefford	415741091421201	83N8W24DDC	819	D	G	--	--	95.0	110QRNR
565	George Fett	415816091433201	83N8W25	--	D	G	--	--	65.0	110QRNR
566	Vaverka	415829091431401	83N8W25A	--	D	G	--	--	98.0	110QRNR
567	John Fox	415744091484001	83N8W32BBB	801	D	G	--	--	320.0	340DVSL
568	Blackford	420449091392901	84N7W	--	D	G	--	--	160.0	340DVSL
569	Ed Swimm	420449091392902	84N7W	--	D	G	--	--	128.0	340DVSL
570	David Jones	420449091392901	84N7W	--	D	G	--	--	239.0	340DVSL
571	Robert Hite	420708091385501	84N7W3BDA	895	D	G	--	--	84.0	110QRNR
572	Lorentz	420628091415701	84N7W7AA	840	D	G	--	--	210.0	--
573	J.F. Badham	420543091371401	84N7W11DDDB	887	D	G	--	--	30.0	112PLSC
574	Burns	420532091372001	84N7W14AAB	885	D	G	--	--	185.0	340DVSL

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing diameter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
575	Unknown	420450091412001	84N7W17CDC	920	D	G	--	--	180.0	--
576	J.L. Morrison	420423091411301	84N7W20	840	D	G	--	--	100	110QRNR
577	John Schminkey	420438091400501	84N7W20ABC	930	D	G	--	--	250	112PLSC
578	Willard Bindge	420423091400301	84N7W21	858	D	G	--	--	85.0	110QRNR
579	B.L.Anderson	420436091394601	84N7W21A	870	D	G	--	--	52.0	110QRNR
580	Mefferd	420430091395001	84N7W21AC	845	D	G	--	--	195.0	340DVSL
581	Ernest Sykora	420423091402801	84N7W21BCCA	880	D	G	--	--	186.0	340DVSL
582	Milan Friese	420356091390901	84N7W22CCD	872	D	G	--	--	60.0	110QRNR
583	Norman Peterson	420422091374301	84N7W23	--	D	G	--	--	90.0	110QRNR
584	George R. Smith	420425091365101	84N7W24BCAD	865	D	G	--	--	141.0	--
585	Donald Harbaugh	420342091361401	84N7W25A	--	D	G	--	--	134.0	--
586	Robert Boyson	420317091380001	84N7W26C	--	D	G	--	--	192.0	340DVSL
587	Frank Mentzer	420324091380501	84N7W26CBB	877	D	G	--	--	115.0	--
588	John Fillmore	420323091373301	84N7W26DBB	849	D	G	--	--	130.0	--
589	R.E. Knapp	420318091390101	84N7W27CAC	852	D	G	--	--	65.0	110QRNR
590	Dave Cook	420344091413001	84N7W29BBD	856	D	G	--	--	65.0	110QRNR
591	1958 Jennings Realty (Tower Terrace Park)	420336091413901	84N7W29BC	848	D	G, LS93	--	--	385.0	340DVSL
592	Thomas	420341091413501	84N7W29BCA	860	D	G	--	--	200.0	340DVSL
593	1961 Jennings Realty (Tower Terrace Park)	420332091414301	84N7W29BCC	853	D	G, LS93	--	--	370.0	340DVSL
594	O.E. Quass	420233091412401	84N7W32CA	860	D	G	--	--	115.0	--

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
595	O.E. Quass	420215091410001	84N7W32DC	850	D	G	--	--	285.0	340DVSL
596	Corbutt	420241091395801	84N7W33ACB	842	D	G	--	--	75	110QRNR
597	Chaffee	420232091401301	84N7W33CA	820	D	G	--	--	150	340DVSL
598	Fay Clark	420219091400601	84N7W33CCA	851	D	G	--	--	230.0	340DVSL
599	Martin Byers	420212091401801	84N7W33CCD	835	D	G	--	--	471.0	340DVSL
600	Boysen	420230091371601	84N7W35DA	--	D	G	--	--	47.0	110QRNR
601	Bowman Spring	420224091370701	84N7W35DAD	795	S	G	--	--	--	344WPPC
602	Lower Spring	420217091370801	84N7W35DDA	790	S	G	--	--	--	344WPPC
603	Rudolph Nelson	420237091362501	84N7W36ACC	804	D	G	--	--	134.0	--
604	W.F. Cooney	420237091363701	84N7W36CAAC	813	D	G	--	--	92.0	344WPPC
605	Carl Andrews	420641091481101	84N8W5DCCA	840	D	G, LS93	--	228.0/275.0	285.0	350SLRN
606	T. Brehm (Strawn)	420543091495701	84N8W18BBBA	882	D	G, LS93	--	--	297.0	340DVNN
607	Helen M. Faris	420516091400201	84N8W8ACC	789	D	G	--	95.0/114.0	85.0	340DVNN
608	Bill Eike	420338091431601	84N8W11DAD	930	D	G	--	--	235.0	112PLSC
609	Hazel Benka	420320091472201	84N8W19CD	810	D	G	--	--	256.0	340DVSL
610	A.P. Rankin	420443091484501	84N8W20BBB	798	D	G	--	78.0/170.0	170.0	344DVNN
611	L.L. Burgess	420358091482801	84N8W20CDC	757	D	G	--	--	36.0	111ALVM
612	Thomas Berkner	420424091433401	84N8W24	--	D	G	--	--	230.0	340DVSL
613	George and Irene Cramer	420311091440001	84N8W25CCCA	790	D	G, LS93	--	--	250.0	340DVSL
614	A. Buchholz	420211091431701	83N8W1AABA	845	D	G, LS93	--	--	160.0	340DVSL

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
615	Al Arp	420141091455701	83N8W3CAAC	872	D	G, LS93	--	--	300.0	340DVSL
616	Mickie Akers	420035091500401	83N8W17CCBC	862	D	G, LS93	--	--	305.0	340DVSL
617	James Garnant	415522091374101	82N7W11DDAC	812	D	G	--	--	200.0	340DVSL
618	Fred And Elaine Garity	420434091434001	84N8W24BDAB	850	D	G	--	--	240.0	340DVSL
619	Eichmeyer	420001091455801	83N8W15BAAC	825	D	G, LS93	--	--	260.0	340DVSL
620	Dan Ortmann	420503091492701	84N8W18CDAA	765	D	G, LS93	--	--	200.0	340DVSL
621	Bob and Verna Nance	420528091423901	84N7W18BDBA	832	D	G, LS93	--	--	200.0	340DVSL
622	K.L. Mercer	415845091462501	83N8W22CCCC	768	D	G, LS93	--	--	230.0	340DVSL
623	R. McMurrin	415643091435401	82N8W1BCAA	808	D	G, LS93	--	--	220.0	340DVSL
624	Martin	415929091440401	83N8W24CBBB	828	D	G, LS93, WQI	--	--	265.0	340DVSL
625	Jerry Kindred	420257091471901	84N8W33BDBB	750	D	G, LS93, WQI	--	--	110.0	340DVSL
626	D.R. Keiper	420009091481501	83N8W17BDAD	845	D	G, LS93	--	--	260.0	340DVSL
627	Penny Holscher	420446091445501	84N8W23BABD	821	D	G, LS93	--	--	150.0	340DVSL
628	Helen Pulda	420029091454701	83N8W10DCCD	770	D	G, LS93	--	--	162.0	340DVSL
629	Marsha Lewis	420500091482901	84N8W17CDBB	765	D	G, LS93	--	--	200.0	340DVSL
630	Kirk Schatzle	420024091440401	83N8W13BBBB	760	D	G, LS93, WQI	--	--	200.0	340DVSL
631	DeAnn Sitter	420428091391901	84N7W22BCDA	865	D	G, LS93	--	--	200.0	340DVSL
632	Tom Watson	420145091451201	83N8W2CBBA	785	D	G, LS93	--	--	180.0	340DVSL
633	Russ Crawford	420215091430501	84N8W36CDDD	829	D	G, LS93	--	--	237.0	340DVSL
634	Bluegrass (Loan)	420341091444501	84N8W26BDAD	735	D	G, LS93	--	--	100.0	340DVSL

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing diameter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
635	Lynch	420322091455101	84N8W27DCBC	750	D	G, WQI	6.0	--	110.0	340DVSL
900	IGS-USGS Ely (NW) Railroad	415323091360101	82N7W25AAAB	772	O	G	--	--	401.0	350SLRN
901	IGS-USGS	415603091490601	82N8W 7AABB	790	O	G	--	--	250.0	340DVSL
902	IGS-USGS	415547091490602	82N8W 7ACAA	781	O	G	7.9	--	242.0	340DVSL
903	IGS-USGS	415544091490603	82N8W 7ACDA	785	O	G	6.7	--	246.0	340DVSL
904	IGS-USGS/Rockpile	415509091461801	82N8W20ACBB	842	O	G, LW94	3.0	--	569.0	350SLRN
905	IGS-USGS/Lincoln Church	420126091484701	83N8W 6DDAD	842	O	G, LS93, LW94	--	83.0/561.0	561.0	340DVSL
906	USGS/13E2	420520091365801	84N7W13BC	880	O	G	--	15.0/17.0	17.0	112PLSC
907	IGS-USGS/Robins #15	420508091395811	84N7W16DBBB	873	O	G, LS93, LW94	--	173.1/520.0	520.0	350SLRN
908	IGS-USGS (Hiawatha)	420340091431601	84N8W25ACAD	805	O	G, LS93, LW94	--	152.8/467.0	468.0	350SLRN
909	IGS-USGS	420320091472201	84N8W28CBDD	743	O	G, LS93, LW94	--	148.0/442.0	441.0	340DVSL
910	GSB	415209091395801	82N7W33BDDD	830	O	G	5.0	--	121.0	--
911	GSB	415209091395802	82N7W33BDDD	830	O	G	2.0	--	90.0	--
912	GSB	415206091395803	82N7W33CAAA	815	O	G	2.0	72.2/74.7	75	110QRNR
913	GSB	415206091395804	82N7W33CAAA	830	O	G	2.0	55.0/57.5	58.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
914	GSB	415206091400205	82N7W33CAAB	840	O	G	--	--	38.0	110QRNR
915	GSB	415206091400206	82N7W33CAAB	840	O	G	--	--	97.0	--
916	1993 USGS CRM–1	415949091405401	83N7W17DACC	721.26	O	G, LF93, LW94, WQQ	4.0	40.0/42.5	42.5	111ALVM
917	1993 USGS CRM–2	420033091420301	83N7W7DDBD	719.52	O	G, LF93, LW94, WQI	4.0	40.0/42.5	42.5	111ALVM
918	1993 USGS CRM–3	415953091435001	83N8W13CBDA	726.71	O	G, LF93, LW94, WQQ, C	4.0	37.0/39.5	42.5	111ALVM
919	1993 USGS CRM–4	415953091435301	83N8W13CBDA	726.45	O	G, LF93, LW94, WQQ, C	4.0	40.0/42.5	42.5	111ALVM
920	1993 USGS CRM–5	420408091470201	84N8W21DCBB	738.33	O	G, LF93, LW94, WQI	4.0	27.0/29.5	37.0	111ALVM
921	1976 Iowa Department of Transportation test bore F3588	420400091461801	84N8W22CCDD	733.9	O	G	--	29.7/30.0	35.4	111ALVM
922	1976 Iowa Department of Transportation test bore F3589	420400091461901	84N8W22CCDC	733.9	O	G	--	12.0/12.3	31.4	111ALVM
923	1976 Iowa Department of Transportation test bore F3587	420400091462001	84N8W22CCCD	733.9	O	G	--	--	34.4	111ALVM

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
924	1976 Iowa Department of Transportation test bore F3586	420400091462101	84N8W22CCCD	733.9	O	G	--	--	34.4	111ALVM
925	1976 Iowa Department of Transportation test bore F3585	420400091462201	84N8W22CCC	733.9	O	G	--	--	29.4	111ALVM
926	1976 Iowa Department of Transportation test bore B3282	420410091470901	84N8W21CADD	729.4	O	G	--	--	55.0	111ALVM
927	1976 Iowa Department of Transportation test bore B3277	420410091470801	84N8W21DBCC	726.2	O	G	--	--	60.0	111ALVM
928	1976 Iowa Department of Transportation test bore B3278	420409091470701	84N8W21DBCC	726.2	O	G	--	--	200.0	340DVSL
929	1976 Iowa Department of Transportation test bore B3279	420409091470601	84N8W21DBCC	726.2	O	G	--	--	180.0	340DVSL
930	1976 Iowa Department of Transportation test bore B3280	420409091470501	84N8W21DBCC	726.2	O	G	--	--	237.0	340DVSL
931	1976 Iowa Department of Transportation test bore B3281	420408091470401	84N8W21DBCD	726.2	O	G	--	--	100.0	340DVSL
932	1976 Iowa Department of Transportation test bore C337	420408091470301	84N8W21DBCD	735.9	O	G	--	--	49.0	340DVSL
933	IGS-USGS, Pleasent Creek, Silurian	420730091490401	85N8W31DDCD	833	O	G, LS93, LW94	--	--	481.0	350SLRN

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
934	IGS-USGS, Pleasent Creek, Devonian	420730091490402	85N8W31DDCD	833	O	G, LS93, LW94	--	--	205.0	340DVSL
935	1993 USGS CRM-SD-1A	420357091461301	84N8W22CCDD	749	O	G, WQI	0.1406	14.75/15.0	15.0	110QRNR
936	1993 USGS CRM-SD-1B	420357091461302	84N8W22CCDD	749	O	G, WQI	0.1406	29.75/30.0	30.0	110QRNR
937	1993 USGS CRM-SD-2A	420403091464602	84N8W21DDCB	734.16	O	G, LF93, WQI	0.1406	17.25/17.5	17.5	110QRNR
938	1993 USGS CRM-SD-2B	420403091464601	84N8W21DDCB	734.13	O	G, LF93, WQI	0.1406	29.75/30.0	30.0	110QRNR
939	1993 USGS CRM-SD-3A	420145091445101	83N8W2ABAC	731	O	G	0.1406	14.75/15.0	15.0	110QRNR
940	1993 USGS CRM-SD-3B	420145091445101	83N8W2ABAC	731	O	G	0.1406	24.75/25.0	25.0	110QRNR
941	1993 USGS CRM-SD-4A	420240091451501	84N8W35CCCB	730	O	G, WQI	0.1406	14.75/15.0	15.0	110QRNR
942	1993 USGS CRM-SD-4B	420240091461501	83N8W10CACC	782	O	G	0.1406	14.75/15.0	15.0	110QRNR
943	1993 USGS CRM-SD-4C	420240091461703	84N8W34CDCB	735	O	G, WQI	0.1406	14.75/15.0	15.0	110QRNR
944	1993 USGS CRM-SD-5	420201091450501	83N8W2CDBB	730	O	G	0.1406	9.75/10.0	10.0	110QRNR
945	1993 USGS CRM-SD-7	420230091453401	84N8W34BCAD	722.04	O	G, LF93, LW94	0.1406	16.25/16.5	16.5	110QRNR
946	1993 USGS CRM-SD-11A	420350091453801	84N8W27ADBA	740.59	O	G, LF93, WQI	0.1406	15.25/15.5	15.5	110QRNR
947	1993 USGS CRM-SD-11B	420350091453802	84N8W27ADBA	740.58	O	G, LF93, WQI	0.1406	20.75/21.0	21.0	110QRNR
948	1993 USGS CRM-SD-13	420022091452601	83N8W15DBAA	821.29	O	G, LF93	0.1406	14.75/15.0	15.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
949	1993 USGS CRM-SD-14A	420034091423001	83N7W7CADC	721.30	O	G, LF93, WQI	0.1406	17.75/18.0	18.0	110QRNR
950	1993 USGS CRM-SD-14B	420034091423002	83N7W7CADC	721.28	O	G, LF93, WQI	0.1406	23.75/24.0	24.0	110QRNR
951	1993 USGS CRM-SD-15	415953091435002	83N8W13ADBC	722.32	O	G, LF93, LW94, WQI	0.1406	14.75/15.0	15.0	110QRNR
952	1993 USGS CRM-SD-17	420313091451901	84N8W27DADD	735.96	O	G, LF93, WQI	0.1406	17.75/18.0	18.0	110QRNR
953	1993 USGS CRM-SD-18	420328091445601	84N8W26ABAC	734.46	O	G, LF93,WQI	0.1406	15.75/16.0	16.0	110QRNR
954	1993 USGS CRM-SD-19	420244091470401	84N8W33ADDB	748.13	O	G, LF93, WQI	0.1406	10.75/11.0	11.0	110QRNR
955	1993 USGS CRM-SD-20	420224091463001	84N8W33AADD	744.91	O	G, LF93, WQI	0.1406	16.75/17.0	17.0	110QRNR
956	1993 USGS CRM-SD-21A	420038091443601	83N8W11ABCD	723	O	G, WQI	0.1406	20.75/21.0	21.0	110QRNR
957	1993 USGS CRM-SD-21B	420038091443602	83N8W11ABCD	723	O	G, WQI	0.1406	12.75/13.0	13.0	110QRNR
958	1993 USGS CRM-SD-24	420041091442301	83N8W11DACC	730.87	O	G, LW94, WQI	0.1406	--	--	110QRNR
959	1993 USGS CRM-SD-26	420020091424101	83N7W18DABB	721.08	O	G, LF93, LW94,WQI	0.1406	17.75/18.0	18..0	110QRNR
960	1993 USGS CRM-SD-29	420021091440901	83N8W14AAAD	722.50	O	G, WQI	0.1406	17.75/18.0	18.0	110QRNR
961	1993 USGS CRM-SD-30	420008091434001	83N8W13BDAC	730	O	G	0.1406	12.75/13.0	13.0	110QRNR
962	1993 USGS CRM-SD-31	420020091431501	83N8W13DABA	729	O	G, WQI	0.1406	17.75/18.0	18.0	110QRNR
963	1993 USGS CRM-SD-32	420024091421801	83N7W18BBBA	716.93	O	G, LF93, LW94, WQI	0.1406	17.75/18.0	18.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
964	1993 USGS CRM–SD–33	420023091430101	83N8W11DCDD	730	O	G	0.1406	11.75/12.0	12.0	110QRNR
965	1993 USGS CRM–SD–34	420013091440701	83N8W14AADA	720.41	O	G, LF93, LW94, WQI	0.1406	14.75/15.0	15.0	110QRNR
966	1993 USGS CRM–SD–35	420004091444001	83N8W14ACCA	723	O	G, LW94	0.1406	9.75/10.0	10.0	110QRNR
967	1993 USGS CRM–SD–36	420435091474701	84N8W20BADA	736.28	O	G, LF93, LW94, WQI	0.1406	17.25/17.5	17.5	110QRNR
968	1993 USGS CRM–SD–37A	420321091454501	84N8W27DCBC	735	O	G, LF93, WQI	0.1406	14.75/15.0	15.0	110QRNR
969	1993 USGS CRM–SD–37B	420337091465502	84N8W27DCBC	735	O	G, LF93	0.1406	31.25/31.5	31.5	110QRNR
970	1993 USGS CRM–SD–38A	420406091481601	84N8W20DADC	747.07	O	G, LF93, WQI	0.1406	34.75/35.0	35.0	110QRNR
971	1993 USGS CRM–SD–38B	420406091481602	84N8W20DADC	747.11	O	G, LF93, WQI	0.1406	17.25/17.5	17.5	110QRNR
972	1993 USGS CRM–SD–39A	420337091465501	84N8W28ACCA	731.32	O	G, WQI	0.1406	17.25/17.5	17.5	110QRNR
973	1993 USGS CRM–SD–39B	420337091465502	84N8W28ACCA	731.26	O	G, WQI	0.1406	41.75/42.0	42.0	110QRNR
974	1993 USGS CRM–SD–40	420345091475601	84N8W29CCAA	746.30	O	G, LF93, WQI	0.1406	17.25/17.5	17.5	110QRNR
975	1993 USGS CRM–SD–41A	420000091410001	83N7W17CDCA	720.74	O	G, LF93, LW94,WQI	0.1406	17.75/18.0	18.0	110QRNR
976	1993 USGS CRM–SD–41B	420000091410002	83N7W17CDCA	720.74	O	G, LF93, WQI	0.1406	23.75/24.0	24.0	110QRNR
977	1993 USGS CRM–SD–42	420013091430601	83N8W13DCAA	710	O	G, WQI	0.1406	2.75/3.0	3.0	110QRNR
978	1993 USGS CRM–SD–43	420029091424801	83N8W7BDCC	710	O	G, WQI	0.1406	2.75/3.0	3.0	110QRNR

Table 1. Ground-water data-collection sites in and near Cedar Rapids, Benton and Linn Counties, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, section	Land-surface elevation (feet)	Site type	Types of data	Casing dia-meter (inches)	Screen interval, top/bottom (feet)	Total depth drilled (feet)	USGS aquifer code (table 7)
979	1993 USGS CRM–SD–44	415953091435401	83N8W13ADBC	720	O	G, WQI	0.1406	6.75/7.0	7.0	110QRNR
980	1993 USGS CRM–SD–45	420029091415502	--	--	O	G, WQI	0.1406	--	--	110QRNR
981	1993 USGS CRM–SD–50A	420258091462801	--	--	O	G	0.1406	5.75/6.0	6.0	110QRNR
982	1993 USGS CRM–SD–50B	420258091462802	--	--	O	G	0.1406	14.75/15.0	15.0	110QRNR
983	1993 USGS CRM–SD–51	420216091462101	--	--	O	G	0.1406	11.75/12.0	12.0	110QRNR
984	1993 USGS CRM–SD–52	420237091464701	--	--	O	G, LW94	0.1406	17.75.18.0	18.0	110QRNR
985	1992 USGS CRM–SD–25	415946091435801	83N8W13BACC	750	O	G	0.1406	14.75/15.0	15.0	110QRNR
986	1993 USGS CRM–6	415954091435301	83N8W13ADBC	726.51	O	G, LW94, WQQ, C	4.0	91.5/94.0	94.0	340DVNN
987	1993 USGS CRM–SD–6A	420216091443701	84N8W35DCCD	742	O	G	0.1406	17.75/18.0	18.0	110QRNR
988	1993 USGS CRM–SD–6B	420216091443701	84N8W35DCCD	742	O	G	0.1406	24.75/25.0	25.0	110QRNR
989	1992 USGS CRM–SD–8	420241091455401	84N8W34DDDB	719.70	O	G, LW94	0.1406	16.75/17.0	17.0	110QRNR
990	1993 USGS CRM–7	420032091424701	83N7W7CCDB	720.38	O	G, LW94, WQQ	4.0	81.5/84.0	84.0	340DVNN
991	1993 USGS CRM–8	420314091452101	84N8W27DDAD	735.22	O	G, LW94, WQI	2.0	71.0/74.0	74.0	111ALVM
992	1993 USGS CRM–9	420032091424901	83N7W7CCDB	720.55	O	G, LW94, WQQ	4.0	35.0/37.5	37.5	111ALVM
993	1993 USGS CRM–10	420030091424601	83N7W7CCCB	720.65	O	G, LW94, WQQ	4.0	36.0/38.5	38.5	111ALVM
994	1993 USGS CRM–11	420033091420302	83N7W7DDBD	719.24	O	G, LW94, WQQ	4.0	82.5/85.0	85.0	340DVNN
995	1993 USGS CRM–12	415949091405402	83N7W17DAC	721.99	O	G, LW94, WQQ	4.0	72.5/75.0	75.0	340DVNN
996	1993 USGS CRM–13	420309091470501	84N8WD	740	O	G, LW94	2.0	68.5/75.0	145.0	110QRNR

Table 2. List of sites used for water-quality sampling in the detailed study area in and near Cedar Rapids, Iowa

[Data-base ID, an assigned number that relates data from tables and figures in this report; sampling frequency: S, one time sample; Q, quarterly (two or more samples); C, continuous multiprobe monitoring; site type: A, alluvial; B, bedrock; SW, surface water]

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Location (degrees, minutes, seconds)		Sampling frequency	Site type
			Latitude	Longitude		
9	Cedar Rapids East 10	415949091405201	41°59'49"	91°40'52"	S	A
11	Cedar Rapids East 12	415952091405701	41°59'52"	91°40'57"	S	A
20	Cedar Rapids West 1	420013091412801	42°00'13"	91°41'29"	S	A
21	Cedar Rapids West 2	420017091413401	42°00'17"	91°41'34"	S	A
22	Cedar Rapids West 3	420026091414601	42°00'26"	91°41'48"	S	A
26	Cedar Rapids West 7	420036091422701	42°00'36"	91°42'27"	S	A
29	Cedar Rapids West 10	420036091420901	42°00'36"	91°42'09"	S	A
31	Cedar Rapids Seminole 1	420030091424901	42°00'30"	91°42'49"	Q	A
32	Cedar Rapids Seminole 2	420025091425801	42°00'24"	91°42'58"	Q	A
33	Cedar Rapids Seminole 3	420020091430601	42°00'19"	91°43'06"	S	A
34	Cedar Rapids Seminole 4	420015091430601	42°00'15"	91°43'12"	S	A
36	Cedar Rapids Seminole 6	420006091432201	42°00'04"	91°43'24"	S	A
38	Cedar Rapids Seminole 8	415955091433601	41°59'55"	91°43'36"	S	A
40	Cedar Rapids Seminole 10	415953091435201	41°59'53"	91°43'52"	Q	A
44	Cedar Rapids Seminole 14	420020091442501	42°00'20"	91°44'25"	S	A
46	Cedar Rapids Seminole 16	420029091443001	42°00'30"	91°44'30"	S	A
328	Pepsi-Cola Plant	415834091394301	41°58'34"	91°39'43"	S	B
624	Martin	415929091440401	41°59'29"	91°44'04"	S	B
625	Jerry Kindred	420257091471901	42°02'57"	91°47'19"	S	B
630	Kirk Schatzle	420024091440401	42°00'24"	91°44'04"	S	B
635	Lynch	420322091455101	42°03'22"	91°45'51"	S	B
700	Cedar River at Blairs Ferry Bridge	420359091471000	42°03'59"	91°47'10"	S	SW
701	Multiprobe, Cedar River	415953091435300	41°59'53"	91°43'53"	C	SW
702	Cedar River at Edgewood Bridge	420042091421700	42°00'42"	91°42'17"	Q	SW
800	Cedar Rapids Waterworks Plant	420002091403201	42°00'00"	91°40'32"	Q	C

Table 2. List of sites used for water-quality sampling in the detailed study area in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Location (degrees, minutes, seconds)		Sampling frequency	Site type
			Latitude	Longitude		
916	1993 USGS CRM-1	415949091405401	41°59'49"	91°40'54"	Q	A
917	1993 USGS CRM–2	420033091420301	42°00'33"	91°42'03"	S	A
918	1993 USGS CRM–3	415953091435001	41°59'53"	91°43'50"	Q	A
919	1993 USGS CRM–4	415953091435301	41°59'53"	91°43'53"	Q	A
920	1993 USGS CRM–5	420408091470201	42°04'08"	91°47'02"	S	A
935	1993 USGS CRM–SD–1A	420357091461301	42°03'57"	91°46'13"	S	A
936	1993 USGS CRM–SD–1B	420357091461302	42°03'57"	91°46'13"	S	A
937	1993 USGS CRM–SD–2A	420403091464602	42°04'03"	91°46'46"	S	A
938	1993 USGS CRM–SD–2B	420403091464601	42°04'03"	91°46'46"	S	A
941	1993 USGS CRM–SD–4A	420240091451501	42°02'40"	91°45'15"	S	A
943	1993 USGS CRM–SD–4C	420240091461703	42°02'40"	91°46'17"	S	A
946	1993 USGS CRM–SD–11A	420350091453801	42°03'50"	91°45'38"	S	A
947	1993 USGS CRM–SD–11B	420350091453802	42°03'50"	91°45'38"	S	A
949	1993 USGS CRM–SD–14A	420034091423001	42°00'34"	91°42'30"	S	A
950	1993 USGS CRM–SD–14B	420034091423002	42°00'34"	91°42'30"	S	A
951	1993 USGS CRM–SD–15	415953091435002	41°59'53"	91°43'50"	S	A
952	1993 USGS CRM–SD–17	420313091451901	42°03'13"	91°45'19"	S	A
953	1993 USGS CRM–SD18	420328091445601	42°03'28"	91°44'56"	S	A
954	1993 USGS CRM–SD–19	420244091470401	42°02'44"	91°47'04"	S	A
955	1993 USGS CRM–SD–20	420224091463001	42°02'24"	91°46'30"	S	A
956	1993 USGS CRM–SD–21A	420038091443601	42°00'38"	91°44'36"	S	A
957	1993 USGS CRM–SD–21B	420038091443602	42°00'38"	91°44'36"	S	A
958	1993 USGS CRM–SD–24	420041091442301	42°00'41"	91°44'23"	S	A
959	1993 USGS CRM–SD–26	420020091424101	42°00'22"	91°42'36"	S	A
960	1993 USGS CRM–SD–29	420021091440901	42°00'21"	91°44'10"	S	A

Table 2. List of sites used for water-quality sampling in the detailed study area in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Location (degrees, minutes, seconds)		Sampling frequency	Site type
			Latitude	Longitude		
962	1993 USGS CRM–SD–31	420020091431501	42°00'20"	91°43'15"	S	A
963	1993 USGS CRM–SD–32	420026091421801	42°00'26"	91°42'15"	S	A
965	1993 USGS CRM–SD–34	420013091440701	42°00'14"	91°44'07"	S	A
967	1993 USGS CRM–SD–36	420435091474701	42°04'35"	91°47'47"	S	A
968	1993 USGS CRM–SD–37A	420321091454501	42°03'21"	91°45'45"	S	A
970	1993 USGS CRM–SD–38A	420406091481601	42°04'06"	91°48'16"	S	A
971	1993 USGS CRM–SD–38B	420406091481602	42°04'06"	91°48'16"	S	A
972	1993 USGS CRM–SD–39A	420337091465501	42°03'37"	91°46'55"	S	A
973	1993 USGS CRM–SD–39B	420337091465502	42°03'37"	91°46'55"	S	A
974	1993 USGS CRM–SD–40	420345091475601	42°03'45"	91°47'56"	S	A
975	1993 USGS CRM–SD–41A	420000091410001	42°00'00"	91°41'00"	S	A
976	1993 USGS CRM–SD–41B	420000091410002	42°00'00"	91°41'00"	S	A
977	1993 USGS CRM–SD–42	420013091430601	42°00'13"	91°43'06"	S	A
978	1993 USGS CRM–SD–43	420029091424801	42°00'29"	91°42'48"	S	A
979	1993 USGS CRM–SD–44	415953091435401	41°59'53"	91°43'54"	S	A
980	1993 USGS CRM–SD45	420029091415502	42°00'29"	91°41'55"	S	A
986	1993 USGS CRM–6	415954091435301	41°59'54"	91°43'53"	Q	B
990	1993 USGS CRM–7	420032091424701	42°00'32"	91°42'47"	Q	B
991	1993 USGS CRM–8	420314091452101	42°03'14"	91°45'52"	S	A
992	1993 USGS CRM–9	420032091424901	42°00'32"	91°42'49"	Q	A
993	1993 USGS CRM–10	420030091424601	42°00'31"	91°42'47"	Q	A
994	1993 USGS CRM–11	420033091420302	42°00'33"	91°42'03"	Q	B
995	1993 USGS CRM–12	415949091405402	41°59'49"	91°40'55"	Q	B

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996

[Data-base ID, an assigned number that relates data from tables and figures in this report; °C, degrees Celsius; µS/cm, microsiemens per centimeter at 25 degrees Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; --, no data; <, less than the analytical method reporting limit]

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific con-duct-ance (µS/cm)	pH (stan-dard units)	Water temper-ature (°C)	Dis-solved oxygen (mg/L)	Alkalin-ity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Am-monia (mg/L as N)	Phos-phorus, ortho (mg/L as P)
9	Cedar Rapids East 10	415949091405201	19931102	[1]0845	--	--	--	--	--	<0.01	<0.05	0.02	0.01
				0945	533	7.2	15.0	0.1	230	.01	1.6	.52	.03
11	Cedar Rapids East 12	415952091405701	19931102	1130	552	7.3	13.0	.6	230	<.01	1.9	.40	.01
20	Cedar Rapids West 1	420012091412801	19931102	1345	537	7.3	13.0	6.9	220	.02	1.8	.85	.04
21	Cedar Rapids West 2	420017091413401	19931102	1530	501	7.2	15.5	.1	210	<.01	.66	2.0	.03
22	Cedar Rapids West 3	420024091414601	19931102	1615	538	7.4	13.5	.1	230	<.01	.06	1.1	.03
26	Cedar Rapids West 7	420036091422701	19931103	0915	565	7.6	12.5	1.3	230	.04	3.8	.23	.07
29	Cedar Rapids West 10	420036091420901	19931103	1045	504	7.6	15.5	.4	250	.02	2.1	.20	.04
31	Cedar Rapids Seminole 1	420030091424901	19931025	1500	595	7.1	11.5	.7	240	.02	2.8	.44	.07
			19931029	1530	596	7.2	11.5	--	240	.02	2.8	.43	.06
			19931101	1100	599	7.3	11.5	.8	240	.02	2.9	.44	.04
			19931220	1330	584	7.1	10.0	.8	--	.01	2.7	.40	.03
			19940210	1300	--	--	--	--	--	--	--	--	--
			19940615	1230	570	7.6	6.0	5.8	240	.02	2.3	.35	.03
			19940615	[2]1235	570	7.6	6.0	5.8	240	.02	2.4	.35	.04
			19941209	1045	450	7.5	13.0	.1	240	.02	2.0	.44	.07
			19941209	[2]1050	450	7.5	13.0	.1	--	.02	2.0	.44	.07
			19950413	1030	567	7.4	11.0	5.1	240	<.05	2.3	.40	<.05
			19951020	1130	496	7.8	8.5	.5	180	.01	8.3	<.01	.10
32	Cedar Rapids Seminole 2	420025091425801	19931101	1300	568	7.6	14.0	2.6	220	.01	4.5	.12	.09
			19950413	1400	528	7.7	.5	4.7	200	--	--	--	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
32	Cedar Rapids Seminole 2	420025091425801	19950810	1400	510	7.7	17.5	0.5	200	--	--	--	--
			19950810	1515	809	7.7	9.0		430	--	--	--	--
			19960215	1300	608	7.6	6.0	2.4	--	0.02	3.5	0.19	0.07
33	Cedar Rapids Seminole 3	420020091430601	19931101	1400	563	7.4	14.0	1.6	220	.01	3.9	.02	<.05
34	Cedar Rapids Seminole 4	420015091430601	19931101	1430	562	7.3	14.0	.4	230	.04	2.4	.07	.03
36	Cedar Rapids Seminole 6	420006091432201	19931101	1515	548	7.4	14.5	.4	230	.02	3.1	.05	.04
38	Cedar Rapids Seminole 8	415955091433601	19931102	0830	546	7.3	14.5	1.0	220	<.01	3.6	.07	.02
40	Cedar Rapids Seminole 10	415953091435201	19930325	1115	516	7.2	2.5	1.7	--	<.05	4.3	.17	.04
			19930701	1230	484	6.5	15.0	.2	--	<.01	5.8	.09	.04
			19930701	[2]1235	485	6.5	15.5	.2	--	<.01	5.8	.09	.04
			19930924	0930	522	7.2	17.0	1.3	--	--	--	--	--
			19930924	1000	522	7.3	17.0	1.3	--	.01	4.5	.10	<.05
			19931025	1400	553	7.3	14.5	1.2	220	<.01	5.0	.10	.04
			19931102	1000	556	7.5	13.5	1.8	220	<.01	4.8	.10	<.05
			19931220	1130	586	7.5	7.0	8.2	--	<.01	4.7	.16	.04
			19940302	0930	587	7.2	2.5	2.7	210	<.01	5.3	.10	.04
			19940614	1030	469	7.4	13.0	.5	170	<.01	2.7	.06	.04
			19941202	1330	582	7.8	10.0	4.8	210	<.01	5.3	.08	.04
			19950414	0915	540	7.8	5.0	4.8	200	<.01	6.6	<.05	.06
			19950414	[2]0920	540	7.8	5.0	4.8	200	<.01	6.8	<.05	.06
			19960215	1330	532	7.8	12.0	10.8	--	.01	.87	.03	<.05
44	Cedar Rapids Seminole 14	420020091442501	19931102	1100	569	7.1	13.0	.3	250	<.01	.26	.26	.01

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
46	Cedar Rapids Seminole 16	420029091443001	19931102	1200	597	7.0	13.5	0.4	260	<0.01	0.11	0.18	0.01
328	Pepsi-Cola Plant	415834091394301	19931104	0845	732	7.4	13.5	.1	280	<.01	<.05	.11	<.01
			19950420	1100	690	7.9	12.0	--	290	--	--	--	--
624	Martin	415929091440401	19931104	1100	1,000	7.1	12.0	3.1	350	<.01	5.5	.03	.02
625	Jerry Kindred	420257091471901	19931104	1245	803	7.2	12.5	5.7	260	<.01	4.5	.02	<.05
630	Kirk Schatzle	420024091440401	19931103	1435	765	7.0	12.5	2.3	380	<.01	.90	.41	.02
635	Lynch	420322091455101	19931103	1300	510	7.5	12.0	4.1	190	<.01	4.1	.01	.03
700	Cedar River at Blairs Ferry Bridge	420359091471000	19921028	1000	522	8.4	11.0	--	--	.04	3.4	--	<.01
702	Cedar River at Edgewood Bridge	420042091421700	19921123	1300	562	6.6	4.5	12.2	--	.01	8.0	.06	.12
			19930308	1130	299	7.2	2.5	--	--	.06	2.4	1.50	.60
			19930325	1300	323	7.6	--	11.5	--	.04	2.8	--	.49
			19930610	0930	430	7.4	19.5	7.2	--	.07	7.3	.08	.13
			19930625	1045	420	7.4	21.0	6.8	--	.08	6.7	.06	.18
			19930820	1015	291	7.0	23.0	5.6	--	<.05	3.3	.06	.14
			19931025	1000	566	8.2	11.5	12.5	210	.02	5.3	.02	<.01
			19931029	1200	571	8.3	--	--	210	.02	5.3	.02	<.01
			19931101	1115	563	8.4	4.0	15.0	220	.01	5.7	.03	<.01
			19931221	1330	617	8.5	1.5	3.1	--	.02	5.6	<.05	.07
			19940303	1100	540	7.7	1.5	11.7	200	.03	4.7	.51	.21
			19940614	1500	451	8.3	22.0	11.8	140	.04	5.1	.04	.07
			19940614	[2]1505	451	8.3	22.0	11.8	140	--	--	--	--
			19941202	1300	593	8.0	2.5	11.3	230	.01	6.8	.11	.05
			19950413	1015	502	8.1	13.0	4.4	200	--	--	--	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
702	Cedar River at Edgewood Bridge	420042091421700	19950810	1000	430	8.2	25.0	8.1	140	--	--	--	--
			19951019	1000	488	8.1	18.0	5.5	170	0.01	2.3	0.02	0.01
			19951019	[2]1005	488	8.1	18.0	5.5	170	.02	2.4	.02	.02
			19960215	1100	513	7.6	0	10.8	--	.04	4.4	.83	.53
800	Cedar River Waterworks Plant	420002091403200	19921028	1200	568	7.2	16.0	--	--	.03	1.1	--	<.01
			19921125	1200	592	7.1	14.5	--	--	.02	.92	.92	<.01
			19921222	1500	614	7.1	13.0	--	--	.04	2.1	.26	<.01
			19930129	1200	625	7.3	13.0	--	--	.01	.62	1.5	.01
			19930301	1200	610	7.1	10.5	--	--	.02	1.2	.86	.03
			19930325	1330	502	7.2	9.5	--	--	.01	.95	1.1	<.01
			19930426	1045	505	7.0	7.5	--	--	.01	2.8	.61	.02
			19930505	1000	539	6.6	8.5	--	--	.01	3.0	.47	.02
			19930526	1130	520	6.7	11.0	--	--	.02	3.2	.46	.02
			19930603	1415	498	7.1	12.0	--	--	.01	3.4	.44	.02
			19930610	1130	522	6.8	12.0	.7	--	.02	3.3	.54	.03
			19930618	1200	518	6.4	11.0	.6	--	.01	2.4	.60	.02
			19930625	1145	500	6.7	13.0	--	--	.02	3.2	.43	.03
			19930701	1530	450	6.1	13.0	--	--	.01	3.0	.41	.04
			19930820	1215	473	7.5	17.0	--	--	.01	2.2	.37	.04
			19930924	1200	525	7.1	17.0	--	--	.01	2.5	.38	.04
			19931221	1000	566	7.3	10.0	--	--	.02	2.1	.21	.02
			19940303	0930	625	7.3	7.5	--	240	--	--	--	--
			19940614	0830	605	7.3	6.0	1.5	--	<.01	.63	.39	.02
			19941202	1030	641	--	13.5	.3	270	.02	1.8	.92	.02
			19950413	0930	748	7.0	9.5	.9	270	--	--	--	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—*Continued*

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific con-duct-ance (µS/cm)	pH (stan-dard units)	Water temper-ature (°C)	Dis-solved oxygen (mg/L)	Alkalin-ity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Am-monia (mg/L as N)	Phos-phorus, ortho (mg/L as P)
800	Cedar River Waterworks Plant	420002091403200	19950810	0845	540	7.7	18.0	0.3	240	--	--	--	--
			19951019	0900	659	7.3	17.0	.7	250	<0.01	0.31	1.6	0.02
			19960214	1500	620	7.2	10.0	1.0	--	.01	.78	.97	.01
916	1993 USGS CRM–1	415949091405401	19931104	1030	519	7.3	16.0	.2	190	.02	5.3	<.01	.02
			19950413	1515	570	7.7	3.5	.2	230	<.01	<.05	3.5	.04
			19951019	1140	840	7.4	15.0	.2	390	--	--	--	--
			19960215	1000	677	7.5	8.0	.3	--	<.01	<.05	8.9	.02
917	1993 USGS CRM–2	420033091420301	19931104	0900	497	7.3	9.5	.3	--	<.05	2.2	<.01	.01
918	1993 USGS CRM–3	415953091435001	19930325	1035	645	7.0	4.0	.7	--	.01	4.5	<.01	.01
			19930701	1300	484	5.6	7.0	.3	--	<.01	3.0	.01	.01
			19930701	[1]1330	--	8.5	23.0	5.7	--	<.01	<.05	<.01	<.01
			19930924	1030	555	6.9	16.0	.1	--	<.01	<.05	.02	.02
			19931104	1230	586	7.2	17.5	.1	230	.03	4.7	.01	.03
			19931220	1200	582	7.2	12.5	.1	--	<.01	6.0	.01	.01
			19940302	1000	411	7.6	0	5.6	130	--	--	--	--
			19940302	[1]1045	639	7.3	7.0	.2	220	.02	6.4	<.01	<.01
			19940614	1330	465	7.4	5.0	.6	180	<.01	1.3	.02	.01
			19940614	[1]1335	465	7.4	5.0	.6	180	--	--	--	--
			19941201	1400	597	7.3	18.5	.4	250	.03	.49	<.01	.02
			19950414	1120	512	7.6	4.0	.6	210	<.01	4.9	<.01	.01
			19950811	1045	525	7.5	17.0	.3	200	--	--	--	--
			19951019	1540	480	7.4	20.0	.1	150	<.01	<.05	<.01	.02
			19960214	1400	551	7.5	12.5	.2	--	<.01	<.05	.02	.02
919	1993 USGS CRM–4	415953091435301	19930325	0935	455	7.5	.5	3.2	--	.02	5.0	.03	.16
			19930701	1200	516	7.1	21.5	1.4	--	.03	7.6	.02	.17

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
919	1993 USGS CRM–4	415953091435301	19930924	0910	521	7.3	15.0	4.5	--	<0.01	5.9	0.02	0.15
			19931104	1200	568	7.5	10.0	7.8	210	<.01	6.1	<.01	.16
			19931220	1100	628	8.1	2.0	7.1	--	<.01	6.0	.01	.17
			19940614	1230	460	7.5	17.5	.7	160	<.01	3.9	.02	.10
			19940614	[1]1235	460	7.5	17.5	.7	160	--	--	--	--
			19941201	1200	585	8.0	4.5	10.6	220	<.01	6.3	<.01	.16
			19950414	1045	533	7.8	7.5	8.3	200	<.01	7.1	<.01	.12
			19950811	0945	551	7.9	12.0	.2	220	--	--	--	--
			19951019	1500	550	7.9	16.0	.2	140	<.01	2.5	.04	.13
			19960214	1300	660	7.5	5.0	.5	--	<.01	5.0	<.05	.11
			19960214	[1]1310	--	--	--	--	--	<.01	<.05	<.05	.01
920	1993 USGS CRM–5	420408091470201	19930308	1315	539	7.4	10.0	0	--	<.01	<.05	.10	.02
			19930622	1430	478	7.3	16.5	--	190	<.01	.11	.04	.03
			19931104	1400	490	7.5	16.5	.1	190	<.01	<.05	.13	.03
935	1993 USGS–CRM–SD–1A	420357091461301	19931103	0900	--	--	--	--	--	<.01	<.05	.01	<.01
			19931103	1500	338	6.5	13.0	--	95	<.01	5.2	.02	.12
936	1993 USGS–CRM–SD–1B	420357091461302	19931103	1530	489	7.1	12.0	--	190	<.01	<.05	.03	.06
937	1993 USGS–CRM–SD-2A	420403091464602	19931102	1000	557	7.3	12.0	--	250	.02	<.05	.08	.04
938	1993 USGS–CRM–SD-2B	420403091464601	19930308	1300	582	7.0	9.5	--	--	.02	<.05	.26	<.01
			19930922	1300	607	7.1	15.5	--	--	<.01	<.05	.27	<.01
			19931102	0930	581	7.3	12.0	--	260	.02	<.05	.27	.01
941	1993 USGS–CRM–SD–4A	420240091451501	19931103	1700	602	7.3	12.0	--	240	<.01	.67	<.01	.14
943	1993 USGS–CRM–SD–4C	420240091461703	19931104	1030	466	7.4	14.0	14.0	220	<.01	<.05	.02	.15
946	1993 USGS–CRM–SD–11A	420350091453801	19931102	0825	157	5.9	13.0	--	53	.03	.48	.02	.09
947	1993 USGS–CRM–SD–11B	420350091453802	19931104	0900	660	7.2	13.0	--	320	<.01	<.05	<.05	<.01

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
949	1993 USGS–CRM–SD–14A	420034091423001	19931103	0950	797	7.0	12.0	--	320	<0.01	1.5	0.01	0.02
950	1993 USGS–CRM–SD–14B	420034091423002	19931103	0920	814	7.2	12.0	--	320	<.01	1.4	.02	.12
951	1993 USGS–CRM–SD–15	415953091435002	19931104	1315	444	7.2	19.0	--	200	<.01	<.05	.03	.07
			19931104	[1]1330	449	7.1	19.0	--	200	<.01	<.05	.02	.02
952	1993 USGS–CRM–SD–17	420313091451901	19931102	1500	588	7.2	12.0	--	260	<.01	<.05	<.01	.03
			19931102	[2]1500	588	7.2	12.0	--	--	<.01	<.05	<.01	.03
953	1993 USGS–CRM–SD–18	420328091445601	19931103	1200	209	6.4	13.0	--	45	<.01	4.3	.01	.04
954	1993 USGS–CRM–SD–19	420244091470401	19931103	1405	310	6.8	14.0	--	110	<.01	3.4	.01	<.05
955	1993 USGS–CRM–SD–20	420224091463001	19931103	1315	402	7.8	12.0	--	140	<.01	12	.01	.04
956	1993 USGS–CRM–SD–21A	420038091443601	19931104	1600	646	7.4	12.0	--	290	.01	<.05	.35	<.01
			19931104	[1]1630	646	7.4	12.0	--	--	--	--	--	--
957	1993 USGS–CRM–SD–21B	420038091443602	19931104	1530	590	7.3	14.0	--	240	<.01	<.05	.10	<.01
958	1993 USGS–CRM–SD–24	420041091442301	19931104	1620	609	7.1	12.0	--	300	<.01	.23	.02	.11
959	1993 USGS–CRM–SD–26	420020091424101	19931103	0810	1,070	7.0	11.0	--	410	<.01	<.05	.02	.14
960	1993 USGS-CRM–SD–29	420021091440901	19930922	1230	659	6.6	16.5	--	--	<.01	1.2	.01	.08
			19931102	1330	668	6.9	12.0	--	320	<.01	.79	.02	.09
			19931102	1500	11	9.4	15.0	--	3.0	<.01	<.05	.01	<.01
962	1993 USGS–CRM–SD–31	420020091431501	19931104	1415	638	7.2	18.0	--	320	.02	.08	.03	.03
963	1993 USGS–CRM–SD–32	420024091421801	19931102	1420	654	7.3	12.0	--	250	<.01	<.05	.48	<.01
965	1993 USGS–CRM–SD–34	420013091440701	19931104	1515	665	7.2	11.0	--	290	<.01	.52	.07	.07
967	1993 USGS–CRM–SD–36	420435091474701	19931102	1050	--	--	--	--	--	.01	<.05	.01	.01
			19931102	[1]1100	581	7.4	11.0	--	270	.01	.12	.04	.11
968	1993 USGS–CRM–SD–37A	420321091454501	19931103	1300	608	7.5	12.0	--	170	<.01	15	<.01	.08
970	1993 USGS–CRM–SD–38A	420406091481601	19931102	1230	343	6.9	11.0	--	86	.01	12	.01	.11
971	1993 USGS–CRM–SD–38B	420406091481602	19931102	1200	306	6.5	13.0	--	62	<.01	12	.02	.10

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
972	1993 USGS–CRM–SD–39A	420337091465501	19931102	1345	180	7.8	14.0	--	84	<0.01	3.5	0.02	0.20
973	1993 USGS–CRM–SD–39B	420337091465502	19931102	1415	195	7.4	13.0	--	230	<.01	<.05	.09	<.01
974	1993 USGS–CRM–SD–40	420345091475601	19931102	1300	586	7.3	12.0	--	--	<.01	<.05	.03	.10
			19931102	1305	586	7.3	12.0	--	220	<.01	<.05	.03	.10
975	1993 USGS–CRM–SD–41A	420000091410001	19931103	0930	518	7.3	12.0	--	270	<.01	2.4	<.01	.13
976	1993 USGS–CRM–SD–41B	420000091410002	19931103	1000	598	7.4	12.0	--	280	<.01	3.4	.02	<.01
977	1993 USGS–CRM–SD–42	420013091430601	19931105	1400	611	8.1	8.0	--	250	<.01	3.1	<.01	.13
978	1993 USGS–CRM–SD–43	420029091424801	19931105	1430	581	7.7	9.5	--	260	<.01	<.05	2.90	.47
979	1993 USGS–CRM–SD–44	415953091435401	19931109	1300	590	8.0	8.5	--	220	<.01	3.3	.08	.02
980	1993 USGS–CRM–SD–45	420029091415502	19931102	0815	--	--	--	--	--	<.01	.06	<.01	<.01
			19931102	0850	590	7.3	12.5	--	260	<.01	<.05	7.80	.08
986	1993 USGS–CRM–6	415954091435301	19931103	0930	461	7.2	11.0	0.1	250	<.01	<.05	.26	<.01
			19931220	0930	452	7.1	10.5	.1	--	--	--	--	--
			19940614	1130	425	7.4	9.0	.4	230	<.01	.11	.27	<.01
			19940614	[1]1135	425	7.4	9.0	.4	230	--	--	--	--
			19941201	1030	462	7.3	10.0	.4	230	<.01	<.05	.33	<.01
			19950414	1000	441	7.7	9.5	.1	230	<.01	.07	.27	<.01
			19950811	0915	435	7.9	11.0	.2	250	--	--	--	--
			19951019	1430	375	7.8	11.0	.2	190	<.01	<.05	.28	<.01
			19960214	1230	428	7.2	9.0	.2	--	<.01	<.05	.29	<.01
990	1993 USGS–CRM–7	420032091424701	19931221	1230	518	7.5	10.5	.3	240	.01	.29	.24	.03
			19940303	1000	533	7.3	7.0	--	250	--	--	--	--
			19940615	0930	500	7.4	8.0	.3	240	<.01	<.05	.19	.02
			19941209	1600	--	--	10.0	.3	250	<.01	<.05	1.50	.03
			19950413	1130	700	7.7	11.0	.7	340	<.01	<.05	1.00	.02

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date of sample (year, month, day)	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L)	Nitrite (mg/L as N)	Nitrite plus nitrate (mg/L as N)	Ammonia (mg/L as N)	Phosphorus, ortho (mg/L as P)
990	1993 USGS–CRM–7	420032091424701	19950810	1300	598	7.6	12.0	0.2	270	--	--	--	--
			19951020	0940	632	7.6	11.5	1.8	290	<0.01	<0.05	1.90	0.02
			19960214	0930	592	7.5	9.0	.5	--	<.01	<.05	3.80	.04
991	1993 USGS–CRM–8	420314091452101	19931105	1245	513	7.4	10.5	.2	210	<.01	.07	.24	.02
992	1993 USGS–CRM–9	420032091424901	19940302	1430	754	6.8	10.5	.2	330	--	--	--	--
			19940615	1100	799	6.9	4.0	.2	400	<.01	<.05	.33	.01
			19941201	1530	605	6.7	15.5	.2	260	<.01	<.05	1.40	.04
			19950413	1100	733	7.0	11.5	.1	360	<.01	.06	.99	<.01
			19950810	1200	723	7.5	9.0	.2	330	<.01	<.05	1.40	<.01
			19951020	1140	781	7.2	10.0	.1	350	--	--	--	--
			19960214	1000	712	7.6	9.0	.3	--	<.01	<.05	1.6	.01
993	1993 USGS–CRM–10	420030091424601	19940211	1400	--	--	--	--	--	--	--	--	--
			19940302	1300	661	7.6	2.0	4.9	--	--	--	--	--
			19940615	1130	465	7.4	5.0	.6	160	.03	1.4	.02	.12
			19941209	1200	595	7.9	9.0	.1	230	<.01	5.4	.10	.14
			19950413	1200	500	7.6	5.0	.5	210	.02	5.0	.02	.11
			19950810	1100	465	8.2	6.0	.2	190	--	--	--	--
			19960214	1100	830	7.7	6.0	.2	--	.01	.06	<.02	.16
994	1993 USGS–CRM–11	420033091420302	19950414	1230	547	7.6	10.5	.1	200	<.01	<.05	.08	<.01
			19950811	1345	356	7.9	10.0	.3	210	--	--	--	--
			19951019	1315	363	7.8	1.0	.3	160	<.01	<.05	.08	.01
			19960215	1145	350	7.6	11.0	.3	--	<.01	<.05	.06	<.01
995	1993 USGS–CRM–12	415949091405402	19950413	1530	590	7.5	8.5	.1	270	--	--	--	--
			19950810	1615	792	7.6	10.0	.2	360	--	--	--	--
			19951019	1100	790	7.4	11.0	2.0	320	<.01	<.05	3.3	.01
			19960215	0900	720	7.4	11.0	.5	--	.01	<.05	5.0	<.01

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
9	Cedar Rapids East 10	415949091405201	19931102	[1]0845	0.39	0.03	0.70	<0.10	<0.10	<0.10	<0.10	3.8	--
			19931102	0945	73	21	7.8	2.7	38	16	.30	13	40
11	Cedar Rapids East 12	415952091405701	19931102	1130	74	21	8.0	2.7	29	21	.30	11	30
20	Cedar Rapids West 1	420012091412801	19931102	1345	69	21	8.3	2.4	36	15	.20	14	30
21	Cedar Rapids West 2	420017091413401	19931102	1530	61	20	8.0	3.2	34	16	.30	16	30
22	Cedar Rapids West 3	420024091414601	19931102	1615	66	21	8.8	2.9	39	16	.20	13	30
26	Cedar Rapids West 7	420036091422701	19931103	0915	78	21	8.1	2.0	31	17	.30	12	30
29	Cedar Rapids West 10	420036091420901	19931103	1045	74	20	7.7	2.7	38	16	.20	12	30
31	Cedar Rapids Seminole 1	420030091424901	19931025	1500	75	21	10	3.0	37	16	.30	13	30
			19931029	1530	76	21	10	2.7	37	19	.30	13	30
			19931101	1100	74	21	8.9	2.8	37	18	.30	13	20
			19931220	1330	75	20	9.8	2.7	37	20	.20	13	40
			19940210	1300	--	--	--	--	--	--	--	--	--
			19940615	1230	78	22	11	2.5	37	21	.20	12	30
			19940615	[2]1235	79	23	11	2.2	37	20	.20	12	30
			19941209	1045	74	21	10	2.8	32	20	.20	13	30
			19941209	[2]1050	74	21	10	2.8	36	21	.20	13	40
			19950413	1030	76	21	10	2.6	32	20	.20	13	30
			19951020	1130	65	23	8.2	2.4	25	18	.10	9.1	20
32	Cedar Rapids Seminole 2	420025091425801	19931101	1300	70	21	7.5	2.9	33	16	.30	12	20
			19950413	1400	64	23	12	1.7	31	23	.20	7.1	20
			19950810	1400	67	20	9.4	2.8	31	20	.20	13	30
			19950810	1515	--	--	--	--	--	--	--	--	--
			19960215	1300	78	27	14	2.6	40	27	.30	9.8	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
33	Cedar Rapids Seminole 3	420020091430601	19931101	1400	71	20	7.4	2.8	33	17	0.30	12	10
34	Cedar Rapids Seminole 4	420015091430601	19931101	1430	70	20	9.5	2.2	34	18	.30	11	30
36	Cedar Rapids Seminole 6	420006091432201	19931101	1515	71	18	7.7	2.2	29	14	.30	12	30
38	Cedar Rapids Seminole 8	415955091433601	19931102	0830	72	18	6.9	2.6	30	16	.30	12	10
40	Cedar Rapids Seminole 10	415953091435201	19930325	1115	64	20	9.8	--	32	20	.10	8.8	--
			19930701	1230	63	17	7.2	3.1	28	18	.30	11	--
			19930701	[2]1235	63	18	7.2	3.1	28	15	.30	11	--
			19930924	0930	--	--	--	--	--	--	--	--	--
			19930924	1000	69	19	6.9	4.1	28	14	.20	12	--
			19931025	1400	70	19	7.3	3.0	32	17	.30	11	20
			19931102	1000	70	20	8.8	2.2	33	18	.30	10	30
			19931220	1130	74	22	11	3.2	37	20	.20	9.4	30
			19940302	0930	72	21	12	1.8	37	25	.20	9.4	20
			19940614	1030	59	18	11	3.4	34	20	.20	11	30
			19941201	1330	71	24	11	2.6	35	20	.20	9.5	30
			19950414	0915	72	20	9.9	2.8	30	20	.20	10	20
			19950414	[2]0920	72	20	9.9	2.8	30	20	.20	10	20
			19960215	1330	69	22	13	2.6	38	24	.30	8.7	--
44	Cedar Rapids Seminole 14	420020091442501	19931102	1100	79	16	7.5	1.4	29	13	.20	14	30
46	Cedar Rapids Seminole 16	420029091443001	19931102	1200	83	17	6.5	1.7	29	15	.20	16	20
328	Pepsi-Cola Plant	415834091394301	19931104	0845	90	33	13	1.3	80	22	.20	15	70
			19950420	1100	88	32	13	1.4	74	25	.10	15	70
624	Martin	415929091440401	19931104	1100	130	28	37	.80	93	52	.20	24	80
625	Jerry Kindred	420257091471901	19931104	1245	110	7.8	50	.60	43	67	.20	20	260
630	Kirk Schatzle	420024091440401	19931103	1435	130	14	15	1.8	61	6.3	.20	18	140
635	Lynch	420322091455101	19931103	1300	79	12	9.4	1.2	30	18	.20	20	30

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
700	Cedar River at Blairs Ferry Bridge	420359091471000	19921028	1000	57	24	13	--	46	27	0.20	2.4	--
702	Cedar River at Edgewood Bridge	420042091421700	19921123	1300	68	19	7.6	--	30	21	.20	12	--
			19930308	1130	34	8.1	5.8	--	15	11	<.10	6.7	--
			19930325	1300	38	9.6	6.9	--	20	26	.20	7.1	--
			19930610	0930	46	12	4.1	--	22	15	.20	9.6	--
			19930625	1045	50	13	4.5	--	16	12	.20	14	--
			19930820	1015	43	10	3.4	3.0	11	6.4	.20	11	--
			19931025	1000	72	22	8.6	2.3	34	19	.30	7.4	20
			19931029	1200	73	23	10	2.7	35	15	.30	6.2	30
			19931101	1115	73	23	11	2.1	39	18	.20	6.6	--
			19931221	1330	79	22	11	2.6	38	20	.20	8.8	20
			19940303	1100	64	17	9.7	4.7	31	18	.20	12	20
			19940614	1500	69	18	8.2	3.0	27	16	.20	14	30
			19940614	[2]1505	--	--	--	--	--	--	--	--	--
			19941202	1300	76	22	11	1.9	32	20	.20	11	30
			19950413	1015	70	19	8.3	2.2	27	20	.20	9.9	10
			19950810	1000	42	21	11	3.4	35	22	.20	4.7	40
			19951019	1000	48	24	14	2.6	38	25	.20	1.0	40
			19951019	[2]1005	51	25	14	2.7	39	24	.20	1.1	50
			19960215	1100	60	19	14	7.2	29	26	.30	11	--
800	Cedar Rapids at Waterworks Plant	420002091403200	19921028	1200	73	20	11	--	37	24	.20	15	--
			19921125	1200	71	22	11	--	35	24	.20	13	--
			19921222	1500	71	25	11	--	32	25	.20	11	--
			19930129	1200	49	27	13	--	33	23	.10	15	--
			19930301	1200	82	22	12	--	40	24	.10	15	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
800	Cedar Rapids at	420002091403200	19930325	1330	76	24	10	--	40	23	0.10	13	--
	Waterworks Plant		19930426	1045	65	18	8.9	--	31	17	.20	11	--
			19930505	1000	68	21	8.7	--	32	18	.20	11	--
			19930526	1130	66	18	7.4	--	32	19	.30	11	--
			19930603	1415	66	19	7.5	--	33	18	.20	11	--
			19930610	1130	55	16	6.4	--	33	19	.20	10	--
			19930618	1200	69	20	8.2	--	32	18	.20	12	--
			19930625	1145	67	20	7.3	--	29	16	.20	12	--
			19930701	1530	64	20	7.9	2.4	31	15	.30	12	--
			19930820	1215	70	18	6.7	2.6	29	13	.40	14	--
			19930924	1200	68	19	6.6	3.7	29	14	.20	13	--
			19931221	1000	71	22	9.6	3.0	36	18	.20	11	30
			19940303	0930	76	22	10	1.9	42	20	.20	11	20
			19940614	0830	80	27	13	3.2	34	22	.20	12	90
			19941202	1030	78	26	11	3.2	32	21	.20	13	70
			19950413	0930	80	24	10	2.6	33	20	.20	14	20
			19950810	0845	72	21	9.1	2.7	30	18	.20	16	30
			19951019	0900	84	25	11	3.1	23	21	.10	18	60
			19960214	1500	82	26	14	2.4	37	25	.20	14	--
916	1993 USGS CRM–1	415949091405401	19931104	1030	71	18	7.6	2.2	31	17	.30	11	20
			19950413	1515	71	19	15	3.8	44	26	.30	16	10
			19951019	1140	100	36	11	3.1	<.1	21	.20	27	80
			19960215	1000	78	23	14	3.5	28	29	.40	24	--
917	1993 USGS CRM–2	420033091420301	19931104	0900	64	18	9.5	2.5	32	16	.30	8.2	20
918	1993 USGS CRM–3	415953091435001	19930325	1035	91	17	12	--	43	24	.10	8.2	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Calcium (mg/L as Ca)	Magnesium (mg/L as Mg)	Sodium (mg/L as Na)	Potassium (mg/L as K)	Sulfate (mg/L as SO_4)	Chloride (mg/L as Cl)	Fluoride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
918	1993 USGS CRM–3	415953091435001	19930701	1300	72	14	4.5	1.3	22	11	0.20	11	--
			19930701	[1]1330	.30	.04	<.20	<.10	.30	<.10	<.10	.06	--
			19930924	1030	89	15	4.0	1.9	14	8.5	.20	20	--
			19931104	1230	91	15	4.8	1.5	24	13	.20	16	50
			19931220	1200	85	15	9.8	1.6	37	19	.20	14	20
			19940302	1000	--	--	--	--	--	--	--	--	--
			19940302	[2]1045	82	22	13	2.0	44	23	.20	9.0	10
			19940614	1330	70	14	11	1.4	33	20	.20	11	30
			19940614	[2]1335	--	--	--	--	--	--	--	--	--
			19941201	1400	86	19	7.3	1.6	42	17	.20	15	30
			19950414	1120	65	22	12	1.6	35	22	.20	6.4	20
			19950811	1045	72	20	7.5	2.3	30	18	.30	12	20
			19951019	1540	66	17	10	2.8	29	22	.30	13	30
			19960214	1400	70	21	15	3.3	52	24	.30	8.9	--
919	1993 USGS CRM–4	415953091435301	19930325	0935	53	15	7.3	--	25	15	.10	8.8	--
			19930701	1200	67	19	6.1	2.8	28	16	.30	12	--
			19930924	0910	69	19	7.1	3.4	27	14	.20	11	--
			19931104	1200	75	22	9.1	1.6	35	19	.30	7.8	30
			19931220	1100	77	23	12	2.3	39	21	.20	7.1	30
			19940614	1230	50	21	11	2.7	32	19	.20	6.2	40
			19940614	[2]1235	--	--	--	--	--	--	--	--	--
			19941201	1200	72	23	11	2.0	33	20	.20	8.2	30
			19950414	1045	73	19	8.4	4.5	30	20	.30	11	20
			19950811	0945	78	21	7.3	2.4	31	17	.20	11	20

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
919	1993 USGS CRM–4	415953091435301	19951019	1500	67	19	16	2.2	43	26	0.10	7.8	40
			19960214	1300	78	34	17	2.6	45	31	.20	8.7	--
			19960214	[1]1310	.21	.07	<.20	<.10	<.10	<.10	<.10	.02	--
920	1993 USGS CRM–5	420408091470201	19930308	1315	71	18	13	--	44	26	.10	9.6	--
			19930622	1430	59	16	8.1	3.5	32	16	.20	8.6	--
			19931104	1400	65	17	8.8	2.5	36	22	.30	9.9	30
935	1993 USGS CRM–SD–1A	420357091461301	19931103	0900	.05	.02	<.20	<.10	.10	.20	<.10	.05	10
			19931103	1500	42	9.7	6.0	.50	34	9.0	.10	17	40
936	1993 USGS CRM–SD–1B	420357091461302	19931103	1530	72	16	6.5	.60	64	12	.20	18	20
937	1993 USGS CRM–SD–2A	420403091464602	19931102	1000	93	13	8.0	1.6	32	22	.10	15	20
938	1993 USGS CRM–SD–2B	420403091464601	19930308	1300	92	15	6.2	--	35	12	<.10	20	--
			19930922	1300	93	16	5.9	2.1	35	12	.10	18	--
			19931102	0930	91	16	5.6	1.3	38	16	.10	18	20
941	1993 USGS CRM–SD–4A	420240091451501	19931103	1700	100	16	5.5	1.5	64	23	.10	14	20
943	1993 USGS CRM–SD–4C	420240091461703	19931104	1030	66	16	4.9	3.8	14	9.3	.20	16	30
946	1993 USGS CRM–SD–11A	420350091453801	19931102	0825	--	--	--	--	--	--	--	--	--
947	1993 USGS CRM–SD–11B	420350091453802	19931104	0900	100	20	8.1	1.2	29	12	.10	15	20
949	1993 USGS CRM–SD–14A	420034091423001	19931103	0950	110	24	26	1.5	42	36	.20	28	40
950	1993 USGS CRM–SD–14B	420034091423002	19931103	0920	110	26	21	1.6	57	33	.20	27	30
951	1993 USGS CRM–SD–15	415953091435002	19931104	[1]1315	--	--	--	--	--	--	--	--	--
			19931104	1330	69	15	4.7	.10	16	11	.40	16	30
952	1993 USGS CRM–SD–17	420313091451901	19931102	1500	97	16	6.8	1.8	35	22	.20	12	20
953	1993 USGS CRM–SD–18	420328091445601	19931103	1200	29	4.5	3.4	.50	16	15	.10	16	30
954	1993 USGS CRM–SD–19	420244091470401	19931103	1405	41	9.0	6.2	<.10	30	4.9	.20	21	30
955	1993 USGS CRM–SD–20	420224091463001	19931103	1315	51	17	4.1	.10	17	1.9	.30	24	20
956	1993 USGS CRM–SD–21A	420038091443601	19931104	1600	95	21	7.2	1.3	22	19	.20	18	40

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
956	1993 USGS CRM–SD–21A	420038091443601	19931104	[1]1630	--	--	--	--	--	--	--	--	--
957	1993 USGS CRM–SD–21B	420038091443602	19931104	1530	88	18	6.9	1.0	32	18	0.20	17	20
958	1993 USGS CRM–SD–24	420041091442301	19931104	1620	110	9.6	4.8	.40	37	2.7	.20	28	40
959	1993 USGS CRM–SD–26	420020091424101	19931103	0810	150	36	25	1.6	100	45	.20	23	50
960	1993 USGS-CRM–SD–29	420021091440901	19930922	1230	110	11	13	1.7	51	11	.10	20	--
			19931102	1330	110	11	10	1.3	27	8.3	.20	19	40
			19931102	[1]1500	.47	.02	.80	.40	.20	.20	<.10	4.1	<10
962	1993 USGS CRM–SD–31	420020091431501	19931104	1415	99	22	7.3	1.7	11	13	.30	14	30
963	1993 USGS CRM–SD–32	420024091421801	19931102	1420	65	26	19	3.0	44	31	.20	14	40
965	1993 USGS CRM–SD–34	420013091440701	19931104	1515	110	16	7.7	1.6	51	17	.10	16	20
967	1993 USGS CRM–SD–36	420435091474701	19931102	[1]1050	.04	<.01	<.20	<.10	<.10	<.10	<.10	.06	10
				1100	89	20	8.3	1.4	39	19	.10	18	30
968	1993 USGS CRM–SD–37A	420321091454501	19931103	1300	88	13	4.0	.90	42	16	.20	12	30
970	1993 USGS CRM–SD–38A	420406091481601	19931102	1230	--	--	--	--	--	--	--	--	--
971	1993 USGS CRM–SD–38B	420406091481602	19931102	1200	--	--	--	--	--	--	--	--	--
972	1993 USGS CRM–SD–39A	420337091465501	19931102	1345	32	6.2	2.6	.30	14	2.4	.20	20	20
973	1993 USGS CRM–SD–39B	420337091465502	19931102	1415	--	--	--	--	--	--	--	--	--
974	1993 USGS CRM–SD–40	420345091475601	19931102	1300	89	18	12	2.4	79	21	.20	8.0	40
			19931102	[2]1305	86	18	11	2.9	79	28	.20	7.9	40
975	1993 USGS CRM–SD–41A	420000091410001	19931103	0930	37	44	5.6	2.0	26	9.0	.30	11	80
976	1993 USGS CRM–SD–41B	420000091410002	19931103	1000	82	26	5.8	2.3	23	13	.20	9.6	80
977	1993 USGS CRM–SD–42	420013091430601	19931105	1400	79	23	9.4	1.7	37	20	.20	7.9	20
978	1993 USGS CRM–SD–43	420029091424801	19931105	1430	67	23	8.2	3.3	21	22	.20	20	20
979	1993 USGS CRM–SD–44	415953091435401	19931109	1300	76	22	9.5	2.2	45	24	.20	7.4	30

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Calcium (mg/L as Ca)	Magnesium (mg/L as Mg)	Sodium (mg/L as Na)	Potassium (mg/L as K)	Sulfate (mg/L as SO_4)	Chloride (mg/L as Cl)	Fluoride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
980	1993 USGS CRM–SD–45	420029091415502	19931102	[1]0815	0.05	<0.01	<0.20	<0.10	<0.10	0.30	0.10	0.02	10
			19931102	0850	--	--	--	--	--	--	--	--	--
986	1993 USGS CRM–6	415954091435301	19931103	0930	57	22	4.3	1.4	6.9	.60	.40	13	40
			19931220	0930	56	22	4.6	1.9	7.9	1.0	.30	13	50
			19940614	1130	56	23	4.3	1.4	7.8	.90	.30	13	50
			19940614	[1]1135	--	--	--	--	--	--	--	--	--
			19941201	1030	57	23	5.2	1.3	11	3.5	.30	13	50
			19950414	1000	57	22	4.1	1.2	6.9	.60	.30	13	30
			19950811	0915	--	--	--	--	--	--	--	--	--
			19951019	1430	55	23	4.1	1.2	6.3	.50	.20	13	40
			19960214	1230	57	23	4.2	1.2	5.6	.50	.40	13	--
990	1993 USGS CRM–7	420032091424701	19931221	1230	60	24	11	2.8	22	14	.30	--	--
			19940303	1000	61	24	9.4	1.7	23	14	.30	9.0	40
			19940615	0930	61	26	9.3	2.1	21	14	.30	9.9	50
			19941209	1600	64	23	9.6	2.9	31	20	.30	13	50
			19950413	1130	83	27	9.8	4.6	20	21	.20	14	20
			19950810	1300	76	26	9.5	3.8	23	19	.30	14	40
			19951020	0940	77	27	9.5	5.0	21	21	.20	14	40
			19960214	0930	75	26	11	3.6	14	19	.30	15	--
991	1993 USGS CRM–8	420314091452101	19931105	1245	75	12	10	1.1	42	18	.20	15	20
992	1993 USGS CRM–9	420032091424901	19940302	1430	--	--	--	--	--	--	--	--	--
			19940615	1100	140	25	11	2.0	32	24	.20	18	30
			19941201	1530	85	15	12	2.2	23	23	.30	22	40
			19950413	1100	110	19	11	2.4	17	23	.20	20	30
			19950810	1200	110	19	13	2.0	29	35	.20	20	10

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Cal-cium (mg/L as Ca)	Magne-sium (mg/L as Mg)	Sodium (mg/L as Na)	Potas-sium (mg/L as K)	Sulfate (mg/L as SO_4)	Chlor-ide (mg/L as Cl)	Fluo-ride (mg/L as F)	Silica (mg/L as Si)	Boron (µg/L as B)
992	1993 USGS CRM–9	420032091424901	19951020	1140	130	22	12	2.2	20	24	0.20	20	40
			19960214	1000	110	23	9.6	2.4	26	15	.30	19	--
993	1993 USGS CRM–10	420030091424601	19940211	1400	--	--	--	--	--	--	--	--	--
			19940302	1300	--	--	--	--	--	--	--	--	--
			19940615	1130	56	18	11	2.0	36	22	.20	8.3	40
			19941209	1200	65	29	11	3.7	36	22	.20	8.7	20
			19950413	1200	59	26	11	2.7	30	21	.10	8.5	20
			19950810	1100	64	23	8.5	2.0	25	18	.20	8.9	30
			19960214	1100	110	40	11	3.1	19	20	.30	12	--
994	1993 USGS CRM–11	420033091420302	19950414	1230	50	15	3.9	1.0	3.4	1.0	.20	12	20
			19950811	1345	51	15	4.0	.90	3.4	1.0	.20	12	--
			19951019	1315	50	15	3.8	1.0	2.8	.90	.20	12	30
			19960215	1145	50	16	3.9	.90	2.5	1.1	.30	12	--
995	1993 USGS CRM–12	415949091405402	19950413	1530	73	24	14	2.8	32	26	.20	15	40
			19950810	1615	98	32	16	3.9	27	35	.20	18	30
			19951019	1100	98	34	16	3.8	15	26	.10	20	60
			19960215	0900	86	28	19	4.3	19	32	.20	20	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
9	Cedar Rapids East 10	415949091405201	19931102	[1]0845	9	<1	<0.05	<0.05	<0.05	<0.05	<0.05
			19931102	0945	710	480	<.05	<.05	.46	.10	.26
11	Cedar Rapids East 12	415952091405701	19931102	1130	93	480	<.05	<.05	.36	<.05	.22
20	Cedar Rapids West 1	420012091412801	19931102	1345	660	730	<.05	<.05	.51	.07	.23
21	Cedar Rapids West 2	420017091413401	19931102	1530	1,400	1,200	<.05	<.05	.67	.10	.25
22	Cedar Rapids West 3	420024091414601	19931102	1615	1,600	870	<.05	<.05	.42	.07	.21
26	Cedar Rapids West 7	420036091422701	19931103	0915	37	670	<.05	<.05	.34	<.05	.22
29	Cedar Rapids West 10	420036091420901	19931103	1045	56	780	<.05	<.05	.41	<.05	.23
31	Cedar Rapids Seminole 1	420030091424901	19931025	1500	630	820	<.05	<.05	.24	<.05	.16
			19931029	1530	620	810	<.05	<.05	.23	<.05	.15
			19931101	1100	590	790	<.05	<.05	.24	<.05	.16
			19931220	1330	550	800	<.05	<.05	.24	<.05	.16
			19940210	1300	--	--	--	--	--	--	--
			19940615	1230	600	840	<.05	<.05	.14	<.05	.11
			19940615	[2]1235	600	840	<.05	<.05	.13	<.05	.12
			19941209	1045	530	760	<.05	<.05	.15	<.20	.10
			19941209	[2]1050	480	760	<.05	<.05	.14	<.20	.11
			19950413	1030	480	780	<.05	<.05	<.05	<.20	<.05
			19951020	1130	<3	15	<.05	<.05	.43	<.20	.05
32	Cedar Rapids Seminole 2	420025091425801	19931101	1300	50	210	<.05	<.05	.37	<.05	.24
			19950413	1400	39	15	--	--	--	--	--
			19950810	1400	<3	8	<.05	<.05	.45	<.20	.10
			19950810	[1]1515	--	--	--	--	--	--	--
			19960215	1300	6	62	<.05	<.05	<.05	<.20	<.05

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
33	Cedar Rapids Seminole 3	420020091430601	19931101	1400	<3	150	<0.05	<0.05	0.32	<0.05	0.19
34	Cedar Rapids Seminole 4	420015091430601	19931101	1430	130	480	<.05	<.05	.45	<.05	.22
36	Cedar Rapids Seminole 6	420006091432201	19931101	1515	<3	320	<.05	<.05	.54	<.05	.22
38	Cedar Rapids Seminole 8	415955091433601	19931102	0830	5	350	<.05	<.05	.46	<.05	.20
40	Cedar Rapids Seminole 10	415953091435201	19930325	1115	5	160	<.05	<.05	.17	<.05	.10
			19930701	1230	<3	120	.11	<.05	1.6	.67	.32
			19930701	[2]1235	<3	120	.11	<.05	1.6	.68	.31
			19930924	[1]0930	--	--	<.05	<.05	.68	.11	.34
			19930924	1000	<3	160	<.05	<.05	.72	.10	.36
			19931025	1400	<3	160	<.05	<.05	.53	<.05	.29
			19931102	1000	<3	170	<.05	<.05	.39	<.05	.25
			19931220	1130	5	140	<.05	<.05	.22	<.05	.16
			19940302	0930	<3	140	<.05	<.05	.18	<.05	.12
			19940614	1030	<3	91	<.05	<.05	.86	<.05	.21
			19941202	1330	3	160	<.05	<.05	.09	<.20	.08
			19950414	0915	23	67	<.05	<.05	<.05	<.20	<.05
			19950414	[2]0920	<3	67	<.05	<.05	<.05	<.20	<.05
			19960215	1330	8	3	<.05	<.05	<.05	<.20	<.05
44	Cedar Rapids Seminole 14	420020091442501	19931102	1100	2,100	240	<.05	<.05	.26	<.05	.11
46	Cedar Rapids Seminole 16	420029091443001	19931102	1200	3,400	740	<.05	<.05	.22	<.05	.08
328	Pepsi-Cola Plant	415834091394301	19931104	0845	200	22	<.05	<.05	<.05	<.05	<.05
			19950420	1100	240	22	<.05	<.05	<.05	<.05	<.05
624	Martin	415929091440401	19931104	1100	13	6	<.05	<.05	<.05	<.05	<.05
625	Jerry Kindred	420257091471901	19931104	1245	12	5	<.05	<.05	<.05	<.05	<.05

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
630	Kirk Schatzle	420024091440401	19931103	1435	5	190	<0.05	<0.05	<0.05	<0.05	<0.05
635	Lynch	420322091455101	19931103	1300	6	4	<.05	<.05	<.05	<.05	.09
700	Cedar River at Blairs Ferry Bridge	420359091471000	19921028	1000	19	5	<.05	<.05	.12	<.05	.12
702	Cedar River at Edgewood Bridge	420042091421700	19921123	1300	46	10	.07	<.05	.26	<.05	.28
			19930308	1130	150	46	<.05	<.05	.27	.10	.15
			19930325	1300	59	14	<.05	<.05	.26	.07	.11
			19930610	0930	82	4	1.4	<.05	2.5	2.1	.23
			19930625	1045	25	3	.76	<.05	1.8	.84	.31
			19930820	1015	46	5	.07	<.05	.85	.09	.48
			19931025	1000	9	5	<.05	<.05	.26	<.05	.26
			19931029	1200	10	6	<.05	<.05	.24	<.05	.21
			19931101	1115	6	8	<.05	<.05	.21	<.05	.21
			19931221	1330	9	8	<.05	<.05	.15	<.05	.15
			19940303	1100	30	16	--	--	--	--	--
			19940614	1500	1,300	160	.78	<.05	5.3	.80	.66
			19940614	[2]1505	--	--	--	--	--	--	--
			19941202	1300	3	8	<.05	<.05	.07	<.20	.10
			19950413	1015	25	7	--	--	--	--	--
			19950810	1000	14	10	<.05	<.05	.17	<.20	.11
			19951019	1000	9	5	<.05	<.05	<.05	<.20	<.05
			19951019	[2]1005	<3	3	<.05	<.05	<.05	<.20	<.05
			19960215	1100	72	26	<.05	<.05	.07	<.20	<.05
800	Cedar Rapids Waterworks Plant	420002091403200	19921028	1200	170	550	<.05	<.05	.21	<.05	.11

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
800	Cedar Rapids Waterworks	420002091403200	19921125	1200	330	700	<0.05	<0.05	0.18	<0.05	0.11
	Plant		19921222	1500	170	490	<.05	<.05	.18	<.05	.10
			19930129	1200	170	790	<.05	<.05	.12	<.05	.07
			19930301	1200	240	780	<.05	<.05	.12	<.05	.11
			19930325	1330	380	650	<.05	<.05	.11	<.05	.07
			19930426	1045	160	410	<.05	<.05	.17	<.05	.13
			19930505	1000	130	400	<.05	<.05	.08	<.05	.07
			19930526	1130	170	380	<.05	<.05	.12	<.05	.11
			19930603	1415	180	360	<.05	<.05	.07	<.05	<.05
			19930610	1130	200	420	.12	<.05	.36	.26	.12
			19930618	1200	330	510	.13	<.05	.65	.41	.15
			19930625	1145	120	400	.09	<.05	.71	.35	.16
			19930701	1530	110	420	.16	<.05	1.2	.64	.31
			19930820	1215	150	470	<.05	<.05	.89	.20	.28
			19930924	1200	140	430	<.05	<.05	.67	.13	.29
			19931221	1000	84	350	<.05	<.05	.30	<.05	.16
			19940303	0930	120	540	--	<.05	.09	<.05	.08
			19940614	0830	220	430	<.05	<.05	.31	<.05	.13
			19941202	1030	190	780	<.05	<.05	.16	<.20	.09
			19950413	0930	350	990	--	--	--	--	--
			19950810	0845	270	750	<.05	<.05	.32	<.20	.07
			19951019	0900	420	1,300	<.05	<.05	.07	<.20	<.05
			19960214	1500	25	790	<.05	<.05	<.05	<.20	<.05
916	1993 USGS CRM–1	415949091405401	19931104	1030	18	500	<.05	<.05	.30	<.05	.33
			19950413	1515	60	810	--	--	--	--	--

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
916	1993 USGS CRM–1	415949091405401	19951019	1140	1,300	4,400	<0.05	<0.05	<0.05	<0.05	<0.05
			19960215	1000	7,800	6,700	<.05	<.05	<.05	<.20	<.05
917	1993 USGS CRM–2	420033091420301	19931104	0900	5	980	<.05	<.05	.67	.09	.42
918	1993 USGS CRM–3	415953091435001	19930325	1035	3	23	<.05	<.05	.08	<.05	.07
			19930701	1300	8	140	<.05	<.05	<.05	<.05	<.05
			19930701	[1]1330	8	2	<.05	<.05	<.05	<.05	<.05
			19930924	1030	32	350	<.05	<.05	<.05	<.05	.19
			19931104	1230	19	370	<.05	<.05	.53	<.05	.38
			19931220	1200	12	260	<.05	<.05	.18	<.05	.16
			19940302	[1]1000	--	--	.15	<.05	.39	<.05	.09
			19940302	1045	<3	180	<.05	<.05	.11	<.05	.10
			19940614	1330	4	7	<.05	<.05	.36	<.05	.16
			19940614	[1]1335	--	--	--	--	--	--	--
			19941201	1400	<3	110	<.05	<.05	.08	<.20	.06
			19950414	1120	<3	<1	<.05	<.05	.05	<.20	<.05
			19950811	1045	49	21	<.05	<.05	.61	<.20	.10
			19951019	1540	<3	25	<.05	<.05	.12	<.20	<.05
			19960214	1400	4	340	<.05	<.05	<.05	<.20	<.05
919	1993 USGS CRM–4	415953091435301	19930325	0935	<3	<1	<.05	<.05	.23	.06	.11
			19930701	1200	6	<1	.18	<.05	1.3	.50	.28
			19930924	0910	<3	<1	<.05	<.05	.40	<.05	.30
			19931104	1200	7	6	<.05	<.05	.22	<.05	.25
			19931220	1100	5	<1	<.05	<.05	.17	<.05	.15
			19940614	1230	<3	<1	<.05	<.05	1.0	<.05	.27

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
919	1993 USGS CRM–4	415953091435301	19940614	[1]1235	--	--	--	--	--	--	--
			19941201	1200	26	<1	<0.05	<0.05	0.07	<0.20	0.09
			19950414	1045	<3	<1	<.05	<.05	<.05	<.20	<.05
			19950811	0945	4	2	<.05	<.05	1.2	<.20	.11
			19951019	1500	<3	15	<.05	<.05	<.05	<.20	<.05
			19960214	1300	<3	<1	<.05	<.05	<.05	<.20	<.05
			19960214	[1]1310	5	<1	<.05	<.05	<.05	<.20	<.05
920	1993 USGS CRM–5	420408091470201	19930308	1315	67	1,100	<.05	<.05	.17	<.05	.08
			19930622	1430	10	330	<.05	<.05	.46	.08	.21
			19931104	1400	170	830	<.05	<.05	.45	.10	.25
935	1993 USGS CRM–SD–1A	420357091461301	19931103	0900	4	<1	<.05	<.05	<.05	<.05	<.05
			19931103	1500	<3	<1	<.05	<.05	.06	<.05	.12
936	1993 USGS CRM–SD–1B	420357091461302	19931103	1530	31	860	<.05	<.05	<.05	<.05	.09
937	1993 USGS CRM–SD-2A	420403091464602	19931102	1000	7	25	<.05	<.05	.19	<.05	.09
938	1993 USGS CRM–SD-2B	420403091464601	19930308	1300	5,400	340	<.05	<.05	.07	<.05	<.05
			19930922	1300	3,300	350	<.05	<.05	.11	<.05	<.05
			19931102	0930	7,200	330	<.05	<.05	.08	<.05	<.05
941	1993 USGS CRM–SD–4A	420240091451501	19931103	1700	3	<1	<.05	<.05	.05	<.05	.07
943	1993 USGS CRM–SD–4C	420240091461703	19931104	1030	<3	97	<.05	<.05	1.8	.13	.47
946	1993 USGS CRM–SD–11A	420350091453801	19931102	0825	--	--	<.05	<.05	<.05	<.05	<.05
947	1993 USGS CRM–SD–11B	420350091453802	19931104	0900	440	120	<.05	<.05	<.05	<.05	<.05
949	1993 USGS CRM–SD–14A	420034091423001	19931103	0950	3	<1	<.05	<.05	<.05	<.05	<.05
950	1993 USGS CRM–SD–14B	420034091423002	19931103	0920	<3	5	<.05	<.05	<.05	<.05	<.05
951	1993 USGS CRM–SD–15	415953091435002	19931104	[1]1315	--	--	<.05	<.05	1.0	<.05	.38
			19931104	1330	46	89	<.05	<.05	1.1	<.05	.32

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manga-nese (µg/L as Mn)	Ala-chlor (µg/L)	Ame-tryn (µg/L)	Atra-zine (µg/L)	Cyan-azine (µg/L)	Deethyl-atra-zine (µg/L)
952	1993 USGS CRM–SD–17	420313091451901	19931102	1500	21	21	<0.05	<0.05	<0.05	<0.05	<0.05
953	1993 USGS CRM–SD–18	420328091445601	19931103	1200	<3	14	<.05	<.05	.30	<.05	.36
954	1993 USGS CRM–SD–19	420244091470401	19931103	1405	4	5	<.05	<.05	<.05	<.05	<.05
955	1993 USGS CRM–SD–20	420224091463001	19931103	1315	<3	<1	<.05	<.05	<.05	<.05	<.05
956	1993 USGS CRM–SD–21A	420038091443601	19931104	1600	8,700	1,300	<.05	<.05	<.05	<.05	<.05
			19931104	1630	--	--	<.05	<.05	<.05	<.05	<.05
957	1993 USGS CRM–SD–21B	420038091443602	19931104	1530	140	1,800	<.05	<.05	.09	<.05	.09
958	1993 USGS CRM–SD–24	420041091442301	19931104	1620	23	1	<.05	<.05	<.05	<.05	<.05
959	1993 USGS CRM–SD–26	420020091424101	19931103	0810	6	480	<.05	<.05	<.05	<.05	<.05
960	1993 USGS-CRM–SD-29	420021091440901	19930922	1230	<3	<1	<.05	<.05	<.05	<.05	<.05
			19931102	1330	5	<1	<.05	<.05	<.05	<.05	<.05
			19931102	1500	9	<1	<.05	<.05	<.05	<.05	<.05
962	1993 USGS CRM–SD–31	420020091431501	19931104	1415	<3	1,700	<.05	<.05	.23	<.05	.13
963	1993 USGS CRM–SD–32	420024091421801	19931102	1420	9,600	4,500	<.05	<.05	<.05	<.05	<.05
965	1993 USGS CRM–SD–34	420013091440701	19931104	1515	3	4	<.05	<.05	<.05	<.05	<.05
967	1993 USGS CRM–SD–36	420435091474701	19931102	1050	<3	<1	<.05	<.05	<.05	<.05	<.05
				1100	14	2	<.05	<.05	<.05	<.05	<.05
968	1993 USGS CRM–SD–37A	420321091454501	19931103	1300	<3	<1	<.05	<.05	.30	<.05	.39
970	1993 USGS CRM–SD–38A	420406091481601	19931102	1230	--	--	<.05	<.05	<.05	<.05	<.05
971	1993 USGS CRM–SD–38B	420406091481602	19931102	1200	--	--	<.05	<.05	.18	<.05	.43
972	1993 USGS CRM–SD–39A	420337091465501	19931102	1345	11	10	<.05	<.05	<.05	<.05	<.05
973	1993 USGS CRM–SD–39B	420337091465502	19931102	1415	--	--	<.05	<.05	<.05	<.05	<.05
974	1993 USGS CRM–SD–40	420345091475601	19931102	1300	<3	2,700	<.05	<.05	.18	<.05	<.05
			19931102	[2]1305	<3	2,600	<.05	<.05	.17	<.05	<.05
975	1993 USGS CRM–SD–41A	420000091410001	19931103	0930	<3	<1	<.05	<.05	.25	<.05	.27

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
976	1993 USGS CRM–SD–41B	420000091410002	19931103	1000	<3	<1	<0.05	<0.05	0.48	<0.05	0.40
977	1993 USGS CRM–SD–42	420013091430601	19931105	1400	<3	23	<.05	<.05	.17	<.05	.15
978	1993 USGS CRM–SD–43	420029091424801	19931105	1430	2,800	1,700	<.05	<.05	<.05	<.05	<.05
979	1993 USGS CRM–SD–44	415953091435401	19931109	1300	9	100	<.05	<.05	.23	<.05	.23
980	1993 USGS CRM–SD–45	420029091415502	19931102	0815	<3	<1	<.05	<.05	<.05	<.05	<.05
			19931102	0850	--	--	<.05	<.05	.09	<.05	.08
986	1993 USGS CRM–6	415954091435301	19931103	0930	<3	4	<.05	<.05	<.05	<.05	<.05
			19931220	0930	5	7	<.05	<.05	<.05	<.05	<.05
			19940614	1130	5	6	<.05	<.05	<.05	<.05	<.05
			19940614	[1]1135	--	--	--	--	--	--	--
			19941201	1030	4	5	<.05	<.05	<.05	<.20	<.05
			19950414	1000	4	2	--	--	--	--	--
			19950811	0915	--	--	--	--	--	--	--
			19951019	1430	16	4	<.05	<.05	<.05	<.20	<.05
			19960214	1230	6	2	<.05	<.05	<.05	<.20	<.05
990	1993 USGS CRM–7	420032091424701	19931221	1230	--	200	<.05	<.05	<.05	<.05	<.05
			19940303	1000	<3	200	<.05	<.05	<.05	<.05	<.05
			19940615	0930	<3	120	<.05	<.05	<.05	<.05	<.05
			19941209	1600	37	520	<.05	<.05	<.05	<.20	<.05
			19950413	1130	530	1,400	--	--	--	--	--
			19950810	1300	130	880	<.05	<.05	<.05	<.20	<.05
			19951020	0940	920	1,400	<.05	<.05	<.05	<.20	<.05
			19960214	0930	340	2,100	<.05	<.05	<.05	<.20	<.05
991	1993 USGS CRM–8	420314091452101	19931105	1245	2,400	170	<.05	<.05	<.05	<.05	<.05
992	1993 USGS CRM–9	420032091424901	19940302	1430	--	--	<.05	<.05	<.05	<.05	<.05
			19940615	1100	360	1,000	<.05	<.05	<.05	<.05	<.05
			19941201	1530	470	770	<.05	<.05	<.05	<.20	<.05

Table 3. Physical properties and constituent concentrations in surface-water and ground-water samples in and near Cedar Rapids, Iowa, October 1992–March 1996—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Iron (µg/L as Fe)	Manganese (µg/L as Mn)	Alachlor (µg/L)	Ametryn (µg/L)	Atrazine (µg/L)	Cyanazine (µg/L)	Deethylatrazine (µg/L)
992	1993 USGS CRM–9	420032091424901	19950413	1100	1,800	1,300	--	--	--	--	--
			19950810	1200	2,400	1,200	<0.05	<0.05	<0.05	0.20	<0.05
			19951020	1140	4,100	1,600	<.05	<.05	<.05	<.20	<.05
			19960214	1000	3,000	1,500	<.05	<.05	<.05	.20	<.05
993	1993 USGS CRM–10	420030091424601	19940211	1400	--	--	--	--	--	--	--
			19940302	1300	--	--	<.05	<.05	.13	<.05	.10
			19940615	1130	13	9	<.05	<.05	.19	<.05	.16
			19941209	1200	34	93	<.05	<.05	.08	<.20	.09
			19950413	1200	17	11	<.05	<.05	<.05	<.20	<.05
			19950810	1100	8	5	<.05	<.05	1.1	.40	.21
			19960214	1100	13	110	<.05	<.05	.14	.20	<.05
994	1993 USGS CRM–11	420033091420302	19950414	1230	180	60	<.05	<.05	<.05	.20	<.05
			19950811	1345	190	55	<.05	<.05	<.05	.20	<.05
			19951019	1315	150	54	<.05	<.05	<.05	.20	<.05
			19960215	1145	210	54	<.05	<.05	<.05	.20	<.05
995	1993 USGS CRM–12	415949091405402	19950413	1530	1,600	450	<.05	<.05	<.05	<.20	<.05
			19950810	1615	3,000	540	<.05	<.05	<.05	<.20	<.05
			19951019	1100	3,200	550	<.05	<.05	<.05	<.20	<.05
			19960215	0900	3,400	610	<.05	<.05	<.05	<.20	<.05

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	De-isopropyl-atrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
9	Cedar Rapids East 10	415949091405201	19931102	[1]0845	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
			19931102	0945	.14	.21	<.05	<.05	<.05	<.05	<.05	<.05
11	Cedar Rapids East 12	415952091405701	19931102	1130	.12	.10	<.05	<.05	<.05	<.05	<.05	<.05
20	Cedar Rapids West 1	420012091412801	19931102	1345	.16	.18	<.05	<.05	<.05	<.05	<.05	<.05
21	Cedar Rapids West 2	420017091413401	19931102	1530	.19	.20	<.05	<.05	<.05	<.05	<.05	<.05
22	Cedar Rapids West 3	420024091414601	19931102	1615	.12	.14	<.05	<.05	<.05	<.05	<.05	<.05
26	Cedar Rapids West 7	420036091422701	19931103	0915	.15	.06	<.05	<.05	<.05	<.05	<.05	<.05
29	Cedar Rapids West 10	420036091420901	19931103	1045	.16	.13	<.05	<.05	<.05	<.05	<.05	<.05
31	Cedar Rapids Seminole 1	420030091424901	19931025	1500	.10	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931029	1530	.10	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931101	1100	.10	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931220	1330	.11	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940210	1300	--	--	--	--	--	--	--	--
			19940615	1230	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940615	[2]1235	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19941209	1045	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19941209	[2]1050	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950413	1030	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19951020	1130	<.05	.49	<.05	<.05	<.05	<.05	<.05	--
32	Cedar Rapids Seminole 2	420025091425801	19931101	1300	.16	.11	<.05	<.05	<.05	<.05	<.05	<.05
			19950413	1400	--	--	--	--	--	--	--	--
			19950810	1400	<.05	.10	<.05	<.05	<.05	<.05	<.05	--
			19950810	[1]1515	--	--	--	--	--	--	--	--
			19960215	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Deisopropyiatrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
33	Cedar Rapids Seminole 3	420020091430601	19931101	1400	0.12	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<.05
34	Cedar Rapids Seminole 4	420015091430601	19931101	1430	.13	.09	<.05	<.05	<.05	<.05	<.05	<.05
36	Cedar Rapids Seminole 6	420006091432201	19931101	1515	.15	.12	<.05	<.05	<.05	<.05	<.05	<.05
38	Cedar Rapids Seminole 8	415955091433601	19931102	0830	.12	.10	<.05	<.05	<.05	<.05	<.05	<.05
40	Cedar Rapids Seminole 10	415953091435201	19930325	1115	.06	.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930701	1230	.16	1.2	<.05	<.05	<.05	<.05	<.05	<.05
			19930701	[2]1235	.15	1.2	<.05	<.05	<.05	<.05	<.05	<.05
			19930924	[1]0930	.22	.23	<.05	<.05	<.05	<.05	<.05	<.05
			19930924	1000	.27	.25	<.05	<.05	<.05	<.05	<.05	<.05
			19931025	1400	.20	.16	<.05	<.05	<.05	<.05	<.05	<.05
			19931102	1000	.18	.12	<.05	<.05	<.05	<.05	<.05	<.05
			19931220	1130	.11	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940302	0930	<.05	.09	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	1030	<.05	.37	<.05	<.05	<.05	<.05	<.05	<.05
			19941202	1330	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950414	0915	<.05	.06	<.05	<.05	<.05	<.05	<.05	--
			19950414	[2]0920	.05	.06	<.05	<.05	<.05	<.05	<.05	--
			19960215	1330	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
44	Cedar Rapids Seminole 14	420020091442501	19931102	1100	.06	.06	<.05	<.05	<.05	<.05	<.05	<.05
46	Cedar Rapids Seminole 16	420029091443001	19931102	1200	<.05	.05	<.05	<.05	<.05	<.05	<.05	<.05
328	Pepsi-Cola Plant	415834091394301	19931104	0845	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19950420	1100	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
624	Martin	415929091440401	19931104	1100	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
625	Jerry Kindred	420257091471901	19931104	1245	.10	<.05	<.05	<.05	<.05	<.05	<.05	<.05

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	De-isopropyl-atrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
630	Kirk Schatzle	420024091440401	19931103	1435	<0.05	<0.05	<0.05	<0.05	<0.05	<.05	<0.05	<.05
635	Lynch	420322091455101	19931103	1300	.07	<.05	<.05	<.05	<.05	<.05	<.05	<.05
700	Cedar River at Blairs Ferry Bridge	420359091471000	19921028	1000	.08	<.05	<.05	<.05	<.05	<.05	<.05	<.05
702	Cedar River at Edgewood Bridge	420042091421700	19921123	1300	.15	.17	<.05	<.05	<.05	<.05	<.05	<.05
			19930308	1130	.10	.12	<.05	<.05	<.05	<.05	<.05	<.05
			19930325	1300	.09	.07	<.05	<.05	<.05	<.05	<.05	<.05
			19930610	0930	.14	4.1	<.05	<.05	<.05	<.05	<.05	<.05
			19930625	1045	.16	1.8	.13	<.05	<.05	<.05	<.05	<.05
			19930820	1015	.28	.42	<.05	<.05	<.05	<.05	<.05	<.05
			19931025	1000	.20	.09	<.05	<.05	<.05	<.05	<.05	<.05
			19931029	1200	.27	.06	<.05	<.05	<.05	<.05	<.05	<.05
			19931101	1115	.16	.07	<.05	<.05	<.05	<.05	<.05	<.05
			19931221	1330	.11	.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940303	1100	--	--	--	--	--	--	--	--
			19940614	1500	.45	.94	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	[2]1505	--	--	--	--	--	--	--	--
			19941202	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19950413	1015	--	--	--	--	--	--	--	--
			19950810	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19951019	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19951019	[2]1005	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960215	1100	<.05	.38	<.05	<.05	<.05	<.05	<.05	--
800	Cedar Rapids Waterworks Plant	420002091403200	19921028	1200	.07	.06	<.05	<.05	<.05	<.05	<.05	<.05

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	De-isopropyl-atrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
800	Cedar Rapids Waterworks	420002091403200	19921125	1200	0.06	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<.05
	Plant		19921222	1500	.06	.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930129	1200	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930301	1200	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930325	1330	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930426	1045	.05	.09	<.05	<.05	<.05	<.05	<.05	<.05
			19930505	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930526	1130	.05	.10	<.05	<.05	<.05	<.05	<.05	<.05
			19930603	1415	<.05	.06	<.05	<.05	<.05	<.05	<.05	<.05
			19930610	1130	.06	.50	<.05	<.05	<.05	<.05	<.05	<.05
			19930618	1200	.07	.70	<.05	<.05	<.05	<.05	<.05	<.05
			19930625	1145	.08	.62	<.05	<.05	<.05	<.05	<.05	<.05
			19930701	1530	.12	.90	<.05	<.05	<.05	<.05	<.05	<.05
			19930820	1215	.18	.40	<.05	<.05	<.05	<.05	<.05	<.05
			19930924	1200	.19	.25	<.05	<.05	<.05	<.05	<.05	<.05
			19931221	1000	.10	.08	<.05	<.05	<.05	<.05	<.05	<.05
			19940303	0930	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	0830	<.05	.12	<.05	<.05	<.05	<.05	<.05	<.05
			19941202	1030	<.05	.05	<.05	<.05	<.05	<.05	<.05	--
			19950413	0930	--	--	--	--	--	--	--	--
			19950810	0845	<.05	.08	<.05	<.05	<.05	<.05	<.05	--
			19951019	0900	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960214	1500	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
916	1993 USGS CRM–1	415949091405401	19931104	1030	.21	.10	<.05	<.05	<.05	<.05	<.05	<.05
			19950413	1515	--	--	--	--	--	--	--	--

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	De-isopropyl-atrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
916	1993 USGS CRM–1	415949091405401	19951019	1140	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
			19960215	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
917	1993 USGS CRM–2	420033091420301	19931104	0900	.23	.21	<.05	<.05	<.05	<.05	<.05	<.05
918	1993 USGS CRM–3	415953091435001	19930325	1035	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930701	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930701	[1]1330	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930924	1030	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931104	1230	.21	.13	<.05	<.05	<.05	<.05	<.05	<.05
			19931220	1200	.10	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940302	[1]1000	<.05	.41	<.05	<.05	<.05	<.05	<.05	<.05
			19940302	1045	.06	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	1330	<.05	.14	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	[1]1335	--	--	--	--	--	--	--	--
			19941201	1400	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950414	1120	<.05	.14	<.05	<.05	<.05	<.05	<.05	--
			19950811	1045	<.05	.17	<.05	<.05	<.05	<.05	<.05	--
			19951019	1540	<.05	.07	<.05	<.05	<.05	<.05	<.05	--
			19960214	1400	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
919	1993 USGS CRM–4	415953091435301	19930325	0935	.07	.09	<.05	<.05	<.05	<.05	<.05	<.05
			19930701	1200	.14	1.1	<.05	<.05	<.05	<.05	<.05	<.05
			19930924	0910	.19	.16	<.05	<.05	<.05	<.05	<.05	<.05
			19931104	1200	.16	.06	<.05	<.05	<.05	<.05	<.05	<.05
			19931220	1100	.09	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	1230	<.05	.52	<.05	<.05	<.05	<.05	<.05	<.05

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	De-isopro-pyl-atra-zine (µg/L)	Metola-chlor (µg/L)	Metri-buzin (µg/L)	Prome-ton (µg/L)	Prome-tryn (µg/L)	Propa-zine (µg/L)	Sima-zine (µg/L)	Terbu-tryn (µg/L)
919	1993 USGS CRM–4	415953091435301	19940614	[1]1235	--	--	--	--	--	--	--	--
			19941201	1200	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--
			19950414	1045	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950811	0945	<.05	.20	<.05	<.05	<.05	<.05	<.05	--
			19951019	1500	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960214	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960214	[1]1310	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
920	1993 USGS CRM–5	420408091470201	19930308	1315	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<0.05
			19930622	1430	.08	.15	<.05	<.05	<.05	<.05	<.05	<.05
			19931104	1400	.10	.16	<.05	<.05	<.05	<.05	<.05	<.05
935	1993 USGS CRM–SD–1A	420357091461301	19931103	0900	.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931103	1500	.24	<.05	<.05	<.05	<.05	<.05	<.05	<.05
936	1993 USGS CRM–SD–1B	420357091461302	19931103	1530	.07	<.05	<.05	<.05	<.05	<.05	<.05	<.05
937	1993 USGS CRM–SD-2A	420403091464602	19931102	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
938	1993 USGS CRM–SD-2B	420403091464601	19930308	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19930922	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931102	0930	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
941	1993 USGS CRM–SD–4A	420240091451501	19931103	1700	.70	<.05	<.05	<.05	<.05	<.05	<.05	<.05
943	1993 USGS CRM–SD–4C	420240091461703	19931104	1030	.33	.38	<.05	<.05	<.05	<.05	<.05	<.05
946	1993 USGS CRM–SD–11A	420350091453801	19931102	0825	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
947	1993 USGS CRM–SD–11B	420350091453802	19931104	0900	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
949	1993 USGS CRM–SD–14A	420034091423001	19931103	0950	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
950	1993 USGS CRM–SD–14B	420034091423002	19931103	0920	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
951	1993 USGS CRM–SD–15	415953091435002	19931104	[1]1315	.20	.10	<.05	<.05	<.05	<.05	<.05	<.05
			19931104	1330	.19	.12	<.05	<.05	<.05	<.05	<.05	<.05

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Deisopropylatrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
952	1993 USGS CRM–SD–17	420313091451901	19931102	1500	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
953	1993 USGS CRM–SD–18	420328091445601	19931103	1200	.31	<.05	<.05	<.05	<.05	<.05	<.05	<.05
954	1993 USGS CRM–SD–19	420244091470401	19931103	1405	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
955	1993 USGS CRM–SD–20	420224091463001	19931103	1315	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
956	1993 USGS CRM–SD–21A	420038091443601	19931104	1600	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931104	1630	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
957	1993 USGS CRM–SD–21B	420038091443602	19931104	1530	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
958	1993 USGS CRM–SD–24	420041091442301	19931104	1620	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
959	1993 USGS CRM–SD–26	420020091424101	19931103	0810	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
960	1993 USGS-CRM–SD-29	420021091440901	19930922	1230	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931102	1330	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931102	1500	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
962	1993 USGS CRM–SD–31	420020091431501	19931104	1415	.07	<.05	<.05	<.05	<.05	<.05	<.05	<.05
963	1993 USGS CRM–SD–32	420024091421801	19931102	1420	<.05	<.05	<.05	.10	<.05	<.05	<.05	<.05
965	1993 USGS CRM–SD–34	420013091440701	19931104	1515	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
967	1993 USGS CRM–SD–36	420435091474701	19931102	1050	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
967	1993 USGS CRM–SD–36	420435091474701	19931102	1100	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
968	1993 USGS CRM–SD–37A	420321091454501	19931103	1300	.13	<.05	<.05	<.05	<.05	<.05	<.05	<.05
970	1993 USGS CRM–SD–38A	420406091481601	19931102	1230	.26	<.05	<.05	<.05	<.05	<.05	<.05	<.05
971	1993 USGS CRM–SD–38B	420406091481602	19931102	1200	1.9	<.05	<.05	<.05	<.05	<.05	<.05	<.05
972	1993 USGS CRM–SD–39A	420337091465501	19931102	1345	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
973	1993 USGS CRM–SD–39B	420337091465502	19931102	1415	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
974	1993 USGS CRM–SD–40	420345091475601	19931102	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931102	[2]1305	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
975	1993 USGS CRM–SD–41A	420000091410001	19931103	0930	.33	<.05	<.05	<.05	<.05	<.05	<.05	<.05

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	De-isopro-pyl-atra-zine (µg/L)	Metola-chlor (µg/L)	Metri-buzin (µg/L)	Prome-ton (µg/L)	Prome-tryn (µg/L)	Propa-zine (µg/L)	Sima-zine (µg/L)	Terbu-tryn (µg/L)
976	1993 USGS CRM–SD–41B	420000091410002	19931103	1000	0.27	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
977	1993 USGS CRM–SD–42	420013091430601	19931105	1400	.08	<.05	<.05	<.05	<.05	<.05	<.05	<.05
978	1993 USGS CRM–SD–43	420029091424801	19931105	1430	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
979	1993 USGS CRM–SD–44	415953091435401	19931109	1300	.13	.06	<.05	<.05	<.05	<.05	<.05	<.05
980	1993 USGS CRM–SD–45	420029091415502	19931102	0815	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931102	0850	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
986	1993 USGS CRM–6	415954091435301	19931103	0930	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19931220	0930	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	1130	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940614	[1]1135	--	--	--	--	--	--	--	--
			19941201	1030	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
986	1993 USGS CRM–6	415954091435301	19950414	1000	--	--	--	--	--	--	--	--
			19950811	0915	--	--	--	--	--	--	--	--
			19951019	1430	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960214	1230	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
990	1993 USGS CRM–7	420032091424701	19931221	1230	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940303	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940615	0930	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19941209	1600	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950413	1130	--	--	--	--	--	--	--	--
			19950810	1300	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19951020	0940	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960214	0930	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
991	1993 USGS CRM–8	420314091452101	19931105	1245	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
992	1993 USGS CRM–9	420032091424901	19940302	1430	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19940615	1100	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
			19941201	1530	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--

Table 3. Hydrogeology and ground-water quality of confined aquifers in buried valleys in Rock County, Minnesota and Minnehaha County, South Dakota—Continued

Database ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Date (year, month, day)	Time (24-hour)	Deisopropylatrazine (µg/L)	Metolachlor (µg/L)	Metribuzin (µg/L)	Prometon (µg/L)	Prometryn (µg/L)	Propazine (µg/L)	Simazine (µg/L)	Terbutryn (µg/L)
992	1993 USGS CRM–9	420032091424901	19950413	1100	--	--	--	--	--	--	--	--
			19950810	1200	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--
			19951020	1140	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960214	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
993	1993 USGS CRM–10	420030091424601	19940211	1400	--	--	--	--	--	--	--	--
			19940302	1300	.07	<.05	<.05	<.05	<.05	<.05	<.05	<0.05
			19940615	1130	<.05	.06	<.05	<.05	<.05	<.05	<.05	<.05
			19941209	1200	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950413	1200	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950810	1100	<.05	.39	<.05	<.05	<.05	<.05	<.05	--
			19960214	1100	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
994	1993 USGS CRM–11	420033091420302	19950414	1230	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950811	1345	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19951019	1315	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960215	1145	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
995	1993 USGS CRM–12	415949091405402	19950413	1530	.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19950810	1615	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19951019	1100	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--
			19960215	0900	<.05	<.05	<.05	<.05	<.05	<.05	<.05	--

[1]Quality-control blank sample.
[2]Quality-control replicate sample.

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa

[Data-base ID, an assigned number that relates data from tables and figures in this report; well use, (M, minimal use; A, actively pumped; N, not used at time of measurement; D, domestic well; C, community well; P, well pumping)]

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (alluvial aquifer)					
916	1993 USGS CRM–1	415949091405401	83N7W17DACC	11–04–93	721.26	8.89	712.37	N
				12–01–94		12.90	708.36	N
				08–10–95		20.66	700.60	N
				10–19–95		21.06	700.20	N
				02–15–96		17.37	703.89	N
				04–23–96		18.99	702.27	N
917	1993 USGS CRM–2	420033091420301	83N7W7DDBD	11–04–93	719.52	4.93	714.59	N
				12–01–94		6.43	713.09	N
918	1993 USGS CRM–3	415953091435001	83N8W13CBDA	11–04–93	726.71	10.19	716.52	N
				12–20–93		9.85	716.86	N
				03–02–94		8.65	718.06	N
				12–01–94		14.74	711.97	N
				12–02–94		9.79	716.92	N
				04–14–95		7.46	719.25	N
				09–13–95		9.05	717.66	N
				10–19–95		10.09	716.62	N
				02–14–96		16.14	710.57	N
				04–22–96		9.48	717.23	N
919	1993 USGS CRM–4	415953091435301	83N8W13CBDA	11–01–93	726.45	9.88	716.57	N
				12–20–93		8.61	717.84	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (alluvial aquifer)—Continued					
919	1993 USGS CRM–4	415953091435301	83N8W13CBDA	06–14–94	726.45	9.47	716.98	N
				12–01–94		9.56	716.89	N
				12–01–94		9.62	716.83	N
				04–14–95		7.63	718.82	N
				10–19–95		9.52	716.93	N
				02–14–96		16.59	709.86	N
				04–22–96		9.07	717.38	N
920	1993 USGS CRM–5	420408091470201	84N8W21DCBB	03–08–93	738.33	5.25	733.08	N
				11–04–93		8.27	730.06	N
				12–01–94		8.79	729.54	N
937	1993 USGS CRM–SD–2A	420403091464602	84N8W21DDCB	11–03–93	734.16	6.32	727.84	N
938	1993 USGS CRM–SD–2B	420403091464601	84N8W21DDCB	11–03–93	734.13	6.16	727.97	N
945	1993 USGS CRM–SD–7	420230091453401	84N8W34BCAD	11–03–93	722.04	3.51	718.53	N
				12–01–94		3.47	718.57	N
946	1993 USGS CRM–SD–11A	420350091453801	84N8W27ADBA	11–04–93	740.59	7.55	733.04	N
947	1993 USGS CRM–SD–11B	420350091453802	84N8W27ADBA	11–04–93	740.58	7.45	733.13	N
948	1993 USGS CRM–SD–13	420022091452601	83N0W15DBAA	11–03–93	821.29	4.36	816.93	N
949	1993 USGS CRM–SD–14A	420034091423001	83N7W7CADC	11–03–93	721.30	4.85	716.45	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (alluvial aquifer)—Continued					
950	1993 USGS CRM–SD–14B	420034091423002	83N7W7CADC	11–03–93	721.28	5.01	716.27	N
951	1993 USGS CRM–SD–15	415953091435002	83N8W13ADBC	11–03–93	722.32	11.62	710.70	N
				12–01–94		.67	721.65	N
952	1992 USGS CRM–SD–17	420313091451901	84N8W27DADD	11–03–93	735.96	6.79	729.17	N
953	1992 USGS CRM–SD–18	420328091445601	84N8W26ABAC	11–03–93	734.46	6.66	727.80	N
954	1993 USGS CRM–SD–19	420244091470401	84N8W33ADDB	11–03–93	748.13	.99	747.14	N
955	1993 USGS CRM–SD–20	420224091463001	84N8W33AADD	11–03–93	744.91	6.09	738.82	N
958	1993 USGS CRM–SD–24	420041091442301	83N8W11DACC	12–01–94	730.87	2.80	728.07	N
959	1993 USGS CRM–SD–26	420020091424101	83N7W18DABB	11–03–93	721.08	2.12	718.96	N
				12–01–94		3.22	717.86	N
960	1993 USGS-CRM–SD–29	420021091440901	83N8W14AAAD	11–03–93	722.50	5.80	716.70	N
963	1993 USGS CRM–SD–32	420024091421801	83N7W18BBBA	11–03–93	716.93	.07	716.86	N
				12–01–94		1.54	715.39	N
965	1993 USGS CRM–SD–34	420013091440701	83N8W14AADA	11–03–93	720.41	2.68	717.73	N
				12–01–94		2.47	717.94	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (alluvial aquifer)—Continued					
967	1993 USGS CRM–SD–36	420435091474701	084N8W20BADA	11–03–93	736.28	3.03	733.25	N
				12–01–94		1.55	734.73	N
970	1993 USGS CRM–SD–38A	420406091481601	84N8W20DADC	11–03–93	747.07	3.38	743.69	N
971	1993 USGS CRM–SD–38B	420406091481602	84N8W20DADC	11–03–93	747.11	9.60	737.51	N
972	1993 USGS CRM–SD–39A	420337091465501	84N8W28ACCA	11–03–93	731.32	5.86	725.46	N
973	1993 USGS CRM–SD–39B	420337091465502	84N8W28ACCA	11–03–93	731.26	4.18	727.08	N
974	1993 USGS CRM–SD–40	420345091475601	84N8W29CCAA	11–03–93	746.30	5.82	740.48	N
975	1993 USGS CRM–SD–41A	420000091410001	83N7W17CDCA	11–03–93	720.74	9.50	711.24	N
				12–01–94		2.88	717.86	N
976	1993 USGS CRM–SD–41B	420000091410002	83N7W17DCA	11–03–93	720.74	6.67	714.07	N
989	1993 USGS CRM–SD–8	420241091455401	84N8W34DDDB	12–01–94	719.70	1.60	718.10	N
991	1993 USGS CRM–8	420314091452101	84N8W27DDAD	11–03–93	735.22	5.43	729.79	N
				12–01–94		6.69	728.53	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (alluvial aquifer)—Continued					
992	1994 USGS CRM–9	420032091424901	83N7W7CCDB	06–15–94	720.55	7.05	713.50	N
				12–01–94		5.33	715.22	N
				08–10–95		3.32	717.23	N
				10–20–95		3.50	717.05	N
				02–14–96		3.21	717.34	N
				04–22–96		3.48	717.07	N
993	1993 USGS CRM–10	420030091424601	83N7W7CCCB	03–02–94	720.65	3.41	717.24	N
				06–15–94		6.02	714.63	N
				12–01–94		5.73	714.92	N
				08–10–95		3.38	717.27	N
				10–20–95		3.52	717.13	N
				02–14–96		3.25	717.40	N
				04–22–96		3.50	717.15	N
			Observation wells (bedrock aquifers)					
552	Floyd Fetter	415725091410101	83N7W32ACDC	02–02–93	805	90.35	715	N
				05–04–93		89.20	716	N
				08–24–93		83.68	721	N
				11–12–93		90.52	714	N
				02–04–94	805	91.32	714	N
				05–03–94		92.05	713	N
				08–01–94		96.87	708	N
				11–10–94		96.52	708	N
				05–17–95		91.56	713	N
				08–14–95		97.04	708	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (bedrock aquifers)—Continued					
552	Floyd Fetter	415725091410101	83N7W32ACDC	12–15–95	805	98.23	707	N
				02–22–96		98.00	707	
				05–15–96		97.35	708	N
904	IGS–USGS/Rockpile	415509091461801	82N8W20ACBB	02–01–93	842	103.98	738	N
				05–04–93		103.59	738	N
				08–24–93		101.06	741	N
				11–12–93		101.70	740	N
				02–04–94		101.49	741	N
				05–03–94		104.28	738	N
				08–01–94		104.82	737	N
				11–09–94		107.28	735	N
				12–01–94		107.09	735	N
				05–17–95		102.89	739	N
				08–14–95		107.55	734	N
				12–15–95		108.64	733	N
				02–22–96		108.61	733	N
				05–15–96		116.27	726	N
905	USGS & IGS/Lincoln Church	420126091484701	83N8W6DDAD	12–01–94	842	8.62	833	N
907	IGS–USGS/Robbins #15	420508091395811	84N7W16DBBB	02–01–93	873	44.39	829	N
				05–04–93		39.11	834	N
				08–24–93		36.33	837	N
				11–12–93		43.30	830	N
				02–03–94		47.28	826	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (bedrock aquifers)—Continued					
907	IGS–USGS/Robbins #15	420508091395811	84N7W16DBBB	05–03–94	873	46.87	826	N
				08–01–94		45.23	828	N
				11–09–94		48.39	825	N
				12–01–94		47.97	825	N
				05–17–95		39.80	833	N
				08–14–95		47.19	826	N
				12–15–95		50.78	822	N
				02–22–96		50.47	823	N
				05–15–96		47.67	825	N
908	IGS–USGS (Hiawatha)	420340091431601	84N8W25ACAD	12–01–94	805	41.33	764	N
909	IGS–USGS (Palo)	420320091472201	84N8W28CBDD	02–01–93	743	8.33	735	N
				05–04–93		4.93	738	N
				08–13–93		4.60	738	N
				11–12–93		7.60	735	N
				02–03–94		8.87	734	N
				05–03–94		8.69	734	N
				08–01–94		8.12	735	N
				11–09–94		8.94	734	N
				12–01–94		82.06	661	N
				05–17–95		6.27	737	N
				08–14–95		9.29	734	N
				12–15–95		9.90	733	N
				02–22–96		8.43	735	N
				05–15–96		6.94	736	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (bedrock aquifers)—Continued					
933	IGS-USGS, Pleasant Creek, Silurian	420730091490401	85N8W31DDCD	02–01–93	833	98.01	735	N
				05–04–93		97.28	736	N
				08–13–93		95.97	737	N
				11–16–93		95.02	738	N
				02–04–94		101.01	732	N
				05–03–94		98.53	734	N
				08–01–94		106.42	727	N
				11–09–94		103.50	730	N
				12–01–94		102.88	730	N
				05–17–95		100.62	732	N
				08–14–95		105.28	728	N
				01–09–96		104.06	729	N
				02–22–96		103.27	730	N
				05–15–96		103.61	729	N
934	IGS-USGS, Pleasant Creek, Devonian	420730091490402	85N8W31DDCD	02–01–93	833	17.00	816	N
				05–04–93		15.52	817	N
				08–13–93		15.35	818	N
				11–16–93		16.80	816	N
				02–04–94		17.33	816	N
				05–03–94		16.88	816	N
				08–01–94		17.12	816	N
				11–09–94		17.37	816	N
				12–01–94		17.02	816	N
				05–17–95		16.31	817	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (bedrock aquifers)—Continued					
934	IGS-USGS, Pleasant Creek, Devonian	420730091490402	85N8W31DDCD	08–14–95	833	17.58	815	N
				12–15–95		17.54	815	N
				02–22–96		16.84	816	N
				05–15–96		16.56	816	N
986	1993 USGS CRM–6	415954091435301	83N8W13ADBC	11–03–93	726.51	4.84	721.67	N
				12–20–93		4.56	721.95	N
				06–14–94		4.35	722.16	N
				12–01–94		3.30	723.21	N
				12–01–94		4.44	722.07	N
				04–14–95		3.29	723.22	N
				05–15–95		1.66	724.85	N
				10–11–95		2.61	723.90	N
				10–19–95		3.15	723.36	N
				02–14–96		9.59	716.92	N
				04–22–96		4.84	721.67	N
990	1993 USGS CRM–7	420032091424701	83N7W7CCDB	06–15–94	720.38	6.15	714.23	N
				12–01–94		6.59	713.79	N
				12–09–94		9.36	711.02	N
				08–10–95		6.85	713.53	N
				10–20–95		9.23	711.15	N
				02–14–96		19.25	701.13	N
				04–22–96		3.38	717.00	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Observation wells (bedrock aquifers)—Continued					
994	1993 USGS CRM–11	420033091420302	83N7W7DDBD	12–01–94	719.24	3.12	716.12	N
				04–14–95		8.78	710.46	N
				08–11–95		5.17	714.07	N
				10–19–95		11.23	708.01	N
				02–14–96		10.99	708.25	N
				04–23–96		11.96	707.28	N
995	1993 USGS CRM–12	415949091405402	83N7W17DAC	12–01–94	721.99	12.98	709.01	N
				05–15–95		25.90	696.09	N
				08–10–95		20.81	701.18	N
				10–19–95		21.09	700.90	N
				02–15–96		17.55	704.44	N
				04–23–96		19.28	702.71	N
			Cedar Rapids municipal wells (alluvial aquifer)					
1	Cedar Rapids East 1	415946091403901	83N7W17DDCB	11–01–93	726.34	52.2	674.1	P
2	Cedar Rapids East 2	415949091404301	83N7W17DADC	11–01–93	730.26	43.4	686.9	P
3	Cedar Rapids East 3	415949091404901	83N7W17DACD	11–01–93	728.55	13.5	715.0	N
4	Cedar Rapids East 4	415954091405101	83N7W17DACB	11–01–93	727.15	8.7	718.4	N
5	Cedar Rapids East 5	415954091405601	83N7W17DBCC	11–01–93	730.31	12.8	717.5	N
6	Cedar Rapids East 6	415944091403501	83N7W16CCBB	11–01–93	724.91	10.2	714.7	N
7	Cedar Rapids East 8	415941091404101	83N7W17DDAD	11–01–93	722.39	2.5	719.9	N
8	Cedar Rapids East 9	415944091404801	83N7W17DDBD	11–01–93	725.13	11.6	713.5	N
9	Cedar Rapids East 10	415949091405201	83N7W17DACC	11–01–93	722.44	46.0	676.4	P
10	Cedar Rapids East 11	415950091405501	83N7W17DBDA	11–01–93	725.90	9.6	716.3	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Cedar Rapids municipal wells (alluvial aquifer)—Continued					
11	Cedar Rapids East 12	415952091405701	83N7W17DBDA	11–01–93	727.22	34.5	692.7	P
12	Cedar Rapids East 13	415955091410101	83N7W17DBAC	11–01–93	736.16	6.7	729.5	N
13	Cedar Rapids East 14	415959091410501	83N7W17DBBA	11–01–93	725.12	6.7	718.4	N
14	Cedar Rapids East 15	420000091410701	83N7W17ACCD	11–01–93	724.09	25.8	698.3	P
15	Cedar Rapids East 16	420002091410701	83N7W17ACCD	11–01–93	723.71	7.4	716.3	N
16	Cedar Rapids East 17	420005091411001	83N7W17ACCB	11–01–93	720.99	18.6	702.4	P
17	Cedar Rapids East 18	420007091411201	83N7W17ACBC	11–01–93	720.67	7.0	713.7	N
18	Cedar Rapids East 19	420010091411501	83N7W17BDAA	11–01–93	719.02	50.3	668.7	P
19	Cedar Rapids East 20	420013091411601	83N7W17BADD	11–01–93	721.29	6.8	714.5	P
20	Cedar Rapids West 1	420012091412801	83N7W17BDBB	11–01–93	727.19	48.0	679.2	P
21	Cedar Rapids West 2	420017091413401	83N7W17BBDA	11–01–93	724.21	32.2	692.0	P
22	Cedar Rapids West 3	420024091414601	83N7W17BBBB	11–01–93	722.18	52	670	P
23	Cedar Rapids West 4	420029091415501	83N7W7DDD	11–01–93	723.13	3.6	719.5	N
24	Cedar Rapids West 5	420034091410501	83N7W7DDBC	11–01–93	722.00	6.1	715.9	N
25	Cedar Rapids West 6	420037091421401	83N7W7DCAB	11–01–93	722.24	6.2	716.0	N
26	Cedar Rapids West 7	420036091422701	83N7W7CDAB	11–01–93	724.05	32.8	691.2	P
27	Cedar Rapids West 8	420032091423301	83N7W7CDCA	11–01–93	724.59	8.2	716.4	N
28	Cedar Rapids West 9	420031091415701	83N7W7DDDB	11–01–93	722.50	5.1	717.4	N
29	Cedar Rapids West 10	420036091420901	83N7W7DCAA	11–01–93	723.78	55.1	668.7	P
30	Cedar Rapids West 11	420039091422101	83N7W7DCBB	11–01–93	723.97	7.9	716.1	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Cedar Rapids municipal wells (alluvial aquifer)—Continued					
31	Cedar Rapids Seminole 1	420030091424901	83N7W7CCDB	11–01–93	719.99	37.0	683.0	P
32	Cedar Rapids Seminole 2	420025091425801	83N8W13AAAA	11–01–93	719.98	20.4	699.6	P
33	Cedar Rapids Seminole 3	420020091430601	83N8W13AACA	11–01–93	720.89	26.3	694.6	P
34	Cedar Rapids Seminole 4	420015091430601	83N8W13AACC	11–01–93	720.53	22.7	697.8	P
35	Cedar Rapids Seminole 5	420009091431901	83N8W13ACAD	11–01–93	718.03	3.7	714.3	N
36	Cedar Rapids Seminole 6	420006091432201	83N8W13ACDB	11–01–93	722.19	22.4	699.8	P
37	Cedar Rapids Seminole 7	415959091433001	83N8W13DBBB	11–01–93	724.72	7.2	717.5	N
38	Cedar Rapids Seminole 8	415955091433601	83N8W13CAAC	11–01–93	721.79	34.3	687.5	P
39	Cedar Rapids Seminole 9	415952091434301	83N8W13CACA	11–01–93	724.85	7.4	717.4	N
40	Cedar Rapids Seminole 10	415953091435201	83N8W13CBDA	11–01–93	725.73	20.7	705.0	P
41	Cedar Rapids Seminole 11	420024091430401	83N8W13AAAB	11–01–93	717.61	5.5	712.1	N
42	Cedar Rapids Seminole 12	420015091441301	83N8W14AADC	11–01–93	722.08	5.08	717.0	N
43	Cedar Rapids Seminole 13	420017091442101	83N8W14AAC	11–01–93	722.62	7.2	715.4	N
44	Cedar Rapids Seminole 14	420020091442501	83N8W14ABDA	11–01–93	725.12	25.2	699.9	P
45	Cedar Rapids Seminole 15	420024091442701	83N8W14ABAA	11–01–93	726.37	10.5	715.9	N
46	Cedar Rapids Seminole 16	420029091443001	83N8W11DCDC	11–01–93	725.90	28.6	697.3	P
47	Cedar Rapids Seminole 17	420013091442001	83N8W14ADBB	11–01–93	722.95	4.6	718.3	N
48	Cedar Rapids Seminole 18	420013091442501	83N8W14ACAA	11–01–93	722.90	4.7	718.2	N
49	Cedar Rapids Seminole 19	420014091443201	83N8W14ABDC	11–01–93	721.22	6.5	714.7	N
50	Cedar Rapids Seminole 20	420017091443701	83N0W14ABC	11–01–93	721.57	6.6	715.0	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Cedar Rapids municipal wells (alluvial aquifer)—Continued					
51	Cedar Rapids Seminole 21	420022091444001	83N8W14ABBC	11–01–93	721.38	7.2	714.2	N
52	Cedar Rapids Seminole 22	420029091444101	83N8W11DCCC	11–01–93	719.24	6.2	713.0	N
53	Cedar Rapids Seminole 23	420034091444101	83N8W11DCBC	11–01–93	723.27	7.0	716.3	N
			Other municipal wells (bedrock aquifer)					
59	Hiawatha 1	420218091402601	84N7W33CCDB	08–02–93	841	58.2	783	N
60	Hiawatha 2	420218091402602	84N7W33CCDB	08–02–93	841	60.0	781	N
62	Hiawatha 4	420231091405401	84N7W32DACB	07–29–93	848	48.8	799	A
63	Hiawatha 5	420249091405201	84N7W32ACAD	07–29–93	855	153	702	A
93	City of Fairfax, Fairfax #2	415510091464801	82N8W16ABAB	07–23–93	772	51.92	720	A
94	City of Fairfax	415509091461701	82N8W16ABA	07–23–93	770	31.27	739	N
109	City of Atkins, #1	415957091513601	83N9W14DBB	09–07–93	850	87	763	A
110	City of Atkins, #2	415950091512501	83N9W14DBD	09–07–93	847	108	739	A
			Domestic and industrial wells (bedrock aquifer)					
205	Iowa Light & Power Co.	415637091383501	82N7W03ACAD	07–15–93	719	66.92	652	A
206	Iowa Light & Power Co.	415636091384701	82N7W03ACBC	07–15–93	719	84.73	634	A
214	Sunline Auto Salvage	415614091404101	82N7W05DDAD	08–26–93	740	6.36	734	N
220	College Twp School District	415423091404201	82N7W16DCAA	06–29–93	832	90.0	742	A
221	College Twp School District	415422091393701	82N7W16DDCD	06–29–93	835	92.2	743	A
245	Elmcrest Country Club	420116091305801	83N7W10BAAB	07–02–93	760	56.3	704	N
248	Kilborn Photo Products	420028091375802	83N7W11CCD	07–20–93	790	62.50	727	A
258	Hubbard Ice Co.	415905091403401	83N7W21CBCA	07–02–93	720	109	611	N
259	Hubbard Ice and Fuel Co.	415906091403401	83N7W21CBCB	07–02–93	760	127	633	A
264	Fristar Bank (McLellan Stores)	415840091395501	83N7W21DCC	07–20–93	732	60.10	672	N

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Domestic and industrial wells (bedrock aquifer)—Continued					
292	Penick & Ford	415805091394801	83N7W28DB	07–15–93	712	42.52	669	N
295	Cargill Inc.	415757091410401	83N7W29DCBA	07–14–93	740	164	576	A
297	Evergreen (Cherry Burrell Corp.)	415716091403801	83N7W32DAA	06–30–93	801	109.67	691	A
298	Evergreen (Cherry Burrell Corp.)	415716091403802	83N7W32DAA	06–30–93	801	111.35	690	N
313	Otter Creek Gun Club	420359091433601	84N8W24CDC	07–23–93	790	.64	789	M
315	D.A. Energy Center	420546091465301	84N8W9DCDC	08–11–93	750	42.4	708	N
316	D.A. Energy Center	420610091462601	84N8W10BCCC	08–11–93	750	45.8	704	N
319	Crawford Quarry	415921091445101	83N8W23BDAC	08–26–93	800	56.9	743	D
321	Blue Grass Enterprise	420339091443501	84N8W26ACAC	08–11–93	761	15.0	746	M
323	Evergreen Nursery	420348091413501	84N7W29BBDA	08–02–93	868	66.5	802	N
324	D&N Fence Co.	420206091420601	83N7W6ABAD	08–02–93	839	54.0	785	M
325	Aggregates–Darrell Loan	420313091445101	84N8W26CADC	08–11–93	742	11.6	730	A
326	Kirkwood Community College	415408091385001	82N7W22BADA	08–31–93	810	70.6	739	M
327	Peck's Nursery	420207091420401	83N7W06AABC	07–29–93	840	33.1	807	M
328	Pepsi-Cola Plant	415834091394301	83N7W28ABCD	09–17–93	730	149	581	A
329	Greiner Well (Michael Dr.)	420249091431601	84N8W36ACAD	08–19–93	827	43.7	783	C
330	Greiner Well (Quass Rd.)	420452091403801	84N7W16CCCC	08–24–93	874	44.5	830	C
331	Sunline Auto Salvage	415616091403601	827W5DDAD	08–26–93	740	11.5	729	N
332	Greiner Well (Tennis Ct.)	420228091434101	84N8W36CBDC	08–20–93	828	43.3	785	C
333	Greiner Well (Bettsy Ct.)	420258091433201	84N8W36ABCB	08–19–93	819	39.6	779	C

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Domestic and industrial wells (bedrock aquifer)—Continued					
334	Greiner Well (Spring Green Ct.)	420352091445501	84N8W26DBAB	08–19–93	752	14.2	738	C
335	Greiner Well (Carpenter St.)	420240091421101	84N7W31DBAA	08–19–93	845	60.9	784	C
336	Greiner Well (Deer View Rd.)	420147091434801	83N8W1BCAB	08–19–93	797	50.1	747	C
337	Pate Construction/Sylvester	420628091415701	84N7W7AACB	08–02–93	835	35.0	800	M
338	IES Utilities MW–7	415909091440901	83N8W23ADA	08–13–93	837	55.6	781	N
339	IES Utilities MW–19	415914091440801	83N8W23ADA	08–13–93	821	7.31	814	N
503	Donald Olson (Rohlena Loe)	415412091381601	82N7W22AAA	06–28–93	824	111	713	D
509	Frank Stevens (M.D. Findlay)	415611091435201	82N8W1CCDA	06–28–93	835	106	729	D
511	Ronald Shimon (Gerald McCoy)	415608091435201	82N8W1CCDD	06–28–93	865	129	736	D
517	Roger Johnson	415619091442701	82N8W2DBDD	06–29–93	811	25.7	785	D
535	David Hanzelka	420134091425401	83N7W6CBCC	07–21–93	808	40.9	767	D
563	Gerber (Prochaska)	415921091432601	83N8W24ACB	07–19–93	872	105	767	M
591	1958 Jennings Realty (Tower Terrace Park)	420336091413901	84N7W29BC	07–29–93	848	41.5	807	C
593	1961 Jennings Realty (Tower Terrace Park)	420332091414301	84N7W29BCC	07–29–93	853	55.5	798	C
605	Carl Andrews	420641091481101	84N8W5DCCA	07–26–93	840	129	711	D

Table 4. Ground-water-level data from selected wells in and near Cedar Rapids, Iowa—Continued

Data-base ID (figs. 3, 4, 5, 6)	Site name	Site identification number	Township, range, and section	Date of water-level measure-ment (month-day-year)	Land-surface elevation (feet above sea level)	Water level (feet below land surface)	Elevation of water surface (feet above sea level)	Well use
			Domestic and industrial wells (bedrock aquifer)—Continued					
606	T. Brehm (Strawn)	420543091495701	84N8W18BBBA	08–13–93	882	89.9	792	D
613	George and Irene Cramer	420311091440001	84N8W25CCCA	08–06–93	790	32.7	757	D
614	A. Buchholz	420211091431701	83N8W1AABA	07–21–93	845	22.7	822	D
615	Al Arp	420141091455701	83N8W3CAAC	08–13–93	872	131	741	D
616	Mickie Akers	420035091500401	83N8W17CCBC	08–31–93	862	108	754	D
617	James Garnant	415522091374101	827W11DDAC	08–25–93	812	68.1	744	D
618	Fred and Elaine Garity	420434091434001	848W24BDAB	08–09–93	850	66.2	784	D
619	Eichmeyer	420001091455801	83N8W15BAAC	07–19–93	825	80.0	745	D
620	Dan Ortmann	420503091492701	84N8W18CDAA	08–11–93	765	19.5	746	D
621	Bob and Verna Nance	420528091423901	84N7W18BDBA	08–24–93	832	25.9	806	D
622	K.L. Mercer	415845091462501	83N8W22CCCC	08–06–93	768	75.2	693	D
623	R. McMurrin	415643091435401	82N8W1BCAA	08–31–93	808	68.7	739	D
624	Martin	415929091440401	83N8W24CBBB	07–09–93	828	52.3	776	D
625	Jerry Kindred	420257091471901	84N8W33BDBB	08–11–93	750	19.4	731	D
626	D.R. Keiper	420009091481501	83N8W17BDAD	08–13–93	845	114	731	D
627	Penny Holscher	420446091445501	84N8W23BABD	08–06–93	821	61.3	760	D
628	Helen Pulda	420029091454701	83N8W10DCCD	08–06–93	770	16.1	754	D
629	Marsha Lewis	420500091482901	84N8W17CDBB	08–06–93	765	11.6	753	D
630	Kirk Schatzle	420024091440401	83N8W13BBBB	08–20–93	760	21.2	739	D
631	DeAnn Sitter	420428091391901	84N7W22BCDA	08–24–93	865	26.6	838	D
632	Tom Watson	420145091451201	83N8W2CBBA	08–13–93	785	51.1	734	D
633	Russ Crawford	420215091430501	84N8W36CDDD	08–06–93	829	39.0	790	D
634	Blue Grass (Loan)	420341091444501	84N8W26BDAD	08–11–93	735	.62	734	M
635	Lynch	420322091455101	84N8W27DCBC	11–03–93	750	15.33	735	D

Table 5. *Seismic-refraction geophysical data in and near Cedar Rapids, Iowa, October 1992–June 1993*

[Location of seismic cross sections shown in figure 14]

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Land-surface elevation (feet above sea level)
		Seismic section *A–A'*		
42°03'25"	91°44'16"	116.3	659.3	775.6
42°03'24"	91°44'17"	111.7	663.2	774.9
42°03'23"	91°44'18"	85.8	688.5	774.3
42°03'23"	91°44'20"	72.0	701.1	773.1
42°03'22"	91°44'21"	61.9	710.9	772.8
42°03'22"	91°44'22"	54.6	717.4	772.0
42°03'21"	91°44'23"	49.2	719.5	768.7
42°03'21"	91°44'24"	48.3	717.5	765.8
42°03'20"	91°44'26"	48.2	714.2	762.4
42°03'20"	91°44'27"	48.1	710.9	759.0
42°03'19"	91°44'28"	47.1	709.7	756.8
42°03'19"	91°44'29"	57.5	697.4	754.9
42°03'19"	91°44'30"	69.7	683.6	753.3
42°03'19"	91°44'32"	81.7	670.0	751.7
42°03'19"	91°44'33"	86.1	664.2	750.3
42°03'19"	91°44'34"	87.3	662.1	749.4
42°03'19"	91°44'36"	89.9	658.8	748.7
42°03'19"	91°44'37"	97.1	651.6	748.7
42°03'18"	91°44'38"	106.8	646.0	752.8
42°03'18"	91°44'40"	116.3	643.2	759.5
		Seismic section *B–B'*		
42°02'35"	91°46'41"	136.9	608.2	745.1
42°02'35"	91°46'40"	165.6	579.6	745.2
42°02'36"	91°46'38"	179.9	564.9	744.8
42°02'36"	91°46'37"	179.1	565.7	744.8
42°02'36"	91°46'35"	175.0	569.3	744.3
42°02'37"	91°46'34"	163.5	579.8	743.3
42°02'37"	91°46'33"	154.1	588.7	742.8
42°02'38"	91°46'31"	146.7	595.4	742.1
42°02'38"	91°46'29"	128.5	613.6	742.1
42°02'39"	91°46'28"	126.4	615.7	742.1
42°02'39"	91°46'26"	116.7	625.4	742.1

Table 5. Seismic-refraction geophysical data in and near Cedar Rapids, Iowa, October 1992–June 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Land-surface elevation (feet above sea level)
	Seismic section *C–C'*			
42°02'55"	91°46'36"	30.2	709.0	739.2
42°02'54"	91°46'35"	24.2	714.5	738.7
42°02'53"	91°46'34"	25.9	713.4	739.4
42°02'53"	91°46'33"	29.1	710.7	739.8
42°02'52"	91°46'33"	34.6	706.8	741.4
42°02'51"	91°46'32"	40.0	701.8	741.8
42°02'50"	91°46'31"	46.5	695.1	741.6
42°02'49"	91°46'30"	53.5	688.0	741.5
42°02'49"	91°46'30"	60.9	680.8	741.7
42°02'48"	91°46'29"	66.8	674.4	741.2
42°02'47"	91°46'28"	73.3	668.2	741.5
42°02'47"	91°46'27"	78.7	662.8	741.5
	Seismic section *D–D'*			
42°01'52"	91°45'23"	44.7	742.1	786.8
42°01'51"	91°45'23"	51.8	741.4	793.2
42°01'50"	91°45'23"	57.4	745.0	802.4
42°01'49"	91°45'22"	61.6	748.4	810.0
42°01'48"	91°45'22"	57.2	750.6	807.8
42°01'47"	91°45'21"	60.5	746.6	807.1
42°01'47"	91°45'21"	72.1	735.5	807.6
42°01'45"	91°45'21"	89.8	719.1	808.9
42°01'45"	91°45'20"	108.6	703'.1	811.7
42°01'44"	91°45'20"	117.8	693.6	811.4
	Seismic section *E–E'*			
42°02'06"	91°45'34"	10.6	719.4	730.0
42°02'04"	91°45'34"	14.1	718.3	732.4
42°02'03"	91°45'34"	13.0	719.4	732.4
42°02'02"	91°45'34"	7.6	725.1	732.7
42°02'01"	91°45'34"	9.1	724.2	733.3
42°02'00"	91°45'34"	12.0	722.2	734.2
42°01'59"	91°45'33"	11.6	725.8	737.4
42°01'58"	91°45'33"	12.2	729.4	741.6
42°01'57"	91°45'33"	22.2	722.9	745.1

Table 5. Seismic-refraction geophysical data in and near Cedar Rapids, Iowa, October 1992–June 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Land-surface elevation (feet above sea level)
		Seismic section *F–F'*		
42°01'45"	91°44'52"	6.9	733.9	740.8
42°01'45"	91°44'51"	4.4	727.1	731.5
42°01'45"	91°44'50"	6.9	724.4	731.3
42°01'45"	91°44'48"	16.3	724.6	740.9
42°01'45"	91°44'46"	12.5	720.7	733.2
42°01'45"	91°44'45"	10.9	718.8	729.7
42°01'45"	91°44'43"	8.2	719.5	727.7
		Seismic section *G–G'*		
42°01'06"	91°44'56"	17.1	710.7	727.8
42°01'06"	91°44'55"	36.3	690.3	726.6
42°01'06"	91°44'53"	59.9	665.6	725.5
42°01'06"	91°44'52"	70.5	656.1	726.6
42°01'06"	91°44'50"	74.8	650.2	725
42°01'06"	91°44'48"	80.7	644.3	725
		Seismic section *H–H'*		
42°01'18"	91°44'52"	8.3	724.2	732.5
42°01'18"	91°44'53"	23.9	727.4	751.3
42°01'18"	91°44'54"	26.8	723.7	750.5
42°01'17"	91°44'55"	29.8	721.3	751.1
42°01'18"	91°44'57"	32.5	719.3	751.8
42°01'18"	91°44'58"	35.0	717.3	752.3
42°01'18"	91°44'59"	37.4	715.4	752.8
42°01'18"	91°45'00"	40.9	713.7	754.6
42°01'18"	91°45'02"	43.4	713.1	756.5
42°01'18"	91°45'03"	45.3	713.8	759.1
		Seismic section *I–I'*		
42°00'15"	91°43'43"	21.2	712.4	733.6
42°00'14"	91°43'43"	39.6	692.7	732.3
42°00'13"	91°43'43"	47.2	684.9	732.1
42°00'12"	91°43'43"	43.2	689.0	732.2
42°00'11"	91°43'43"	40.5	692.5	733.0
42°00'10"	91°43'43"	25.9	706.2	732.1
42°00'09"	91°43'44"	23.1	709.2	732.3
42°00'08"	91°43'44"	25.3	702.8	728.1
42°00'07"	91°43'44"	28.6	705.7	734.3
42°00'06"	91°43'44"	29.8	704.0	733.8

Table 5. Seismic-refraction geophysical data in and near Cedar Rapids, Iowa, October 1992–June 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Land-surface elevation (feet above sea level)
		Seismic section *J–J'*		
42°00'29"	91°44'17"	38.0	678.9	716.9
42°00'29"	91°44'18"	47.7	669.6	717.3
42°00'29"	91°44'20"	55.0	664.1	719.1
42°00'30"	91°44'21"	56.0	664.2	720.2
42°00'30"	91°44'22"	54.0	662.1	716.1
42°00'30"	91°44'24"	52.3	666.2	718.5
42°00'30"	91°44'25"	56.8	662.4	719.2
42°00'30"	91°44'26"	57.9	661.2	719.1
42°00'30"	91°44'28"	59.1	660.6	719.7
42°00'30"	91°44'29"	74.9	645.0	719.9
		Seismic section *K–K'*		
42°01'02"	91°44'36"	32.5	697.5	730.0
42°01'01"	91°44'37"	33.1	696.9	730.0
42°01'00"	91°44'38"	29.9	700.1	730.0
42°01'00"	91°44'39"	30.0	700.0	730.0
42°00'59"	91°44'40"	32.2	697.8	730.0
42°00'58"	91°44'41"	34.9	695.1	730.0
42°00'58"	91°44'41"	37.8	692.2	730.0
42°00'57"	91°44'43"	41.8	688.2	730.0
42°00'56"	91°44'44"	46.9	683.1	730.0
42°00'56"	91°44'45"	53.5	676.5	730.0
42°00'55"	91°44'45"	57.7	672.3	730.0
42°00'54"	91°44'46"	59.8	670.2	730.0
		Seismic section *L–L'*		
42°00'02"	91°44'43"	14.2	705.8	720.0
42°00'03"	91°44'43"	16.3	703.7	720.0
42°00'03"	91°44'42"	18.7	701.3	720.0
42°00'04"	91°44'42"	22.3	697.7	720.0
42°00'05"	91°44'41"	27.8	692.2	720.0
42°00'06"	91°44'41"	32.8	687.2	720.0
42°00'07"	91°44'40"	15.5	704.5	720.0
42°00'08"	91°44'40"	8.9	710.1	720.0
42°00'09"	91°44'39"	7.0	713.0	720.0
42°00'10"	91°44'39"	27.5	690.5	718.0
42°00'11"	91°44'38"	23.5	697.5	721.0

Table 5. Seismic-refraction geophysical data in and near Cedar Rapids, Iowa, October 1992–June 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Land-surface elevation (feet above sea level)
		Seismic section *M–M'*		
42°00'08"	91°44'24"	25.4	694.6	720.0
42°00'07"	91°44'33"	26.8	693.2	720.0
42°00'07"	91°44'31"	31.3	688.7	720.0
42°00'07"	91°44'30"	35.3	684.7	720.0
42°00'07"	91°44'28"	42.8	677.2	720.0
42°00'07"	91°44'25"	50.0	670.0	720.0
42°00'06"	91°44'23"	53.5	666.5	720.0
42°00'06"	91°44'20"	58.1	661.9	720.0
42°00'06"	91°44'18"	63.2	656.8	720.0
42°00'05"	91°44'17"	56.2	663.8	720.0
42°00'05"	91°44'16"	51.6	668.4	720.0
		Seismic section *N–N'*		
42°00'04"	91°44'16"	25.4	694.6	720.0
42°00'03"	91°44'15"	29.4	690.6	720.0
42°00'03"	91°44'14"	35.9	684.1	720.0
42°00'02"	91°44'13"	52.0	668.0	720.0
42°00'01"	91°44'13"	56.2	663.8	720.0
42°00'01"	91°44'12"	58.2	661.1	719.3
42°00'00"	91°44'11"	60.7	659.3	720.0
42°00'00"	91°44'10"	64.0	656.0	720.0
42°59'59"	91°44'09"	75.5	644.5	720.0
42°59'59"	91°44'08"	76.8	643.2	720.0
42°59'58"	91°44'07"	72.5	647.5	720.0
4159'57"	91°44'06"	64.3	655.7	720.0
4159'57"	91°44'05"	47.0	673.0	720.0
4159'56"	91°44'04"	37.4	682.6	720.0
4159'55"	91°44'04"	36.7	683.3	720.0
4159'55"	91°44'03"	46.7	673.3	720.0
		Seismic section *O–O'*		
4159'54"	91°44'02"	44.7	675.3	720.0
4159'54"	91°44'03"	38.4	681.6	720.0
4159'53"	91°44'03"	35.9	684.1	720.0
4159'53"	91°44'04"	41.9	678.1	720.0
4159'53"	91°44'05"	58.1	661.9	720.0

Table 5. Seismic-refraction geophysical data in and near Cedar Rapids, Iowa, October 1992–June 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Land-surface elevation (feet above sea level)
		Seismic section *O–O'*—Continued		
4159'52"	91°44'06"	72.2	647.8	720.0
4159'52"	91°44'07"	84.2	635.8	720.0
		Seismic section *P–P'*		
42°01'02"	91°44'36"	28.6	701.4	730.0
42°01'02"	91°44'37"	31.2	698.8	730.0
42°01'02"	91°44'38"	29.0	701.0	730.0
42°01'02"	91°44'40"	30.8	699.2	730.0
42°01'02"	91°44'41"	38.3	691.7	730.0
42°01'02"	91°44'42"	47.1	682.9	730.0
42°01'02"	91°44'44"	54.8	675.2	730.0
42°01'02"	91°44'45"	61.6	668.4	730.0
42°01'02"	91°44'46"	69.3	660.7	730.0
42°01'03"	91°44'48"	79.3	650.7	730.0
42°01'03"	91°44'49"	77.8	652.2	730.0
42°01'04"	91°44'48"	77.8	652.2	730.0

Table 6. Continuous seismic-reflection geophysical data in and near Cedar Rapids, Iowa, October 1992 and April 1993

[See figure 14 for the beginning and end points of the seismic-reflection survey]

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Estimated river stage (feet above sea level)
	Continuous seismic-reflection survey for October 5, 1992			
42°00'40"	91°42'06"	53.6	665.4	719
42°00'19"	91°42'52"	20.4	698.6	719
41°59'54"	91°43'28"	30.6	688.4	719
42°00'08"	91°44'25"	51.0	668.0	719
42°00'43"	91°44'47"	56.1	663.9	720
42°01'33"	91°44'21"	45.9	674.1	720
42°02'52"	91°44'46"	33.2	689.8	723
42°03'00"	91°45'02"	45.9	677.1	723
42°02'52"	91°45'26"	126.8	598.2	725
42°02'49"	91°45'37"	58.7	666.3	725
42°03'29"	91°46'43"	96.5	628.5	725
	Continuous seismic-reflection survey for October 13, 1992			
42°00'41"	91°42'08"	43.4	675.6	719
42°00'39"	91°42'29"	56.1	662.9	719
42°00'25"	91°42'48"	57.0	662.0	719
42°00'18"	91°42'59"	38.3	680.7	719
42°00'12"	91°42'59"	33.2	685.8	719
42°00'09"	91°43'11"	53.6	665.4	719
42°00'10"	91°43'12"	51.0	668.0	719
41°59'55"	91°43'30"	34.4	684.6	719
41°59'54"	91°43'38"	21.7	697.3	719
41°59'58"	91°43'41"	22.9	696.1	719
42°00'21"	91°41'39"	51.0	668.0	719
41°59'52"	91°43'50"	51.0	668.0	719
	Continuous seismic-reflection survey for October 14, 1992			
41°59'51"	91°43'42"	38.2	680.8	719
41°59'51"	91°43'48"	49.7	669.3	719
41°59'54"	91°43'54"	51.0	668.0	719
41°59'59"	91°43'56"	43.4	675.1	718.5
42°00'09"	91°44'14"	61.2	657.8	719

Table 6. Continuous seismic-reflection geophysical data in and near Cedar Rapids, Iowa, October 1992 and April 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Estimated river stage (feet above sea level)
Continuous seismic-reflection survey for October 14, 1992—Continued				
42°00'08"	91°44'20"	56.1	662.9	719
42°00'08"	91°44'26"	51.0	668.0	719
42°00'14"	91°44'35"	45.9	673.1	719
42°00'24"	91°44'43"	48.5	670.5	719
42°00'39"	91°44'48"	51.0	669.0	720
42°00'43"	91°44'47"	61.2	658.8	720
42°00'57"	91°44'30"	28.1	691.9	720
42°01'21"	91°44'15"	76.5	643.5	720
42°01'51"	91°44'36"	51.0	699.0	750
42°01'55"	91°44'39"	51.0	699.0	750
42°02'55"	91°44'47"	30.6	692.4	723
42°02'58"	91°44'47"	25.5	697.5	723
42°03'01"	91°44'58"	43.4	681.6	725
42°03'01"	91°45'01"	43.4	681.6	725
42°03'01"	91°45'04"	74.7	650.3	725
42°02'57"	91°45'09"	119.9	605.1	725
42°02'56"	91°45'15"	127.5	597.5	725
42°02'51"	91°45'23"	127.5	597.5	725
42°02'48"	91°45'34"	70.8	654.2	725
42°02'52"	91°45'45"	35.7	689.3	725
Continuous seismic-reflection survey for April 22, 1993				
42°03'19"	91°46'52"	50.0	680.0	730
42°02'59"	91°46'43"	27.5	702.5	730
42°02'59"	91°46'34"	32.5	697.5	730
42°03'00"	91°46'30"	50.0	680.0	730
42°03'03"	91°46'06"	50.0	677.0	727
42°02'58"	91°45'52"	45.0	680.0	725
42°02'55"	91°45'28"	45.0	680.0	725
42°02'59"	91°45'02"	50.0	675.0	725

Table 6. Continuous seismic-reflection geophysical data in and near Cedar Rapids, Iowa, October 1992 and April 1993—Continued

Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Depth to bedrock (feet below land surface)	Bedrock elevation (feet above sea level)	Estimated river stage (feet above sea level)
Continuous seismic-reflection survey for April 22, 1993—Continued				
42°02'50"	91°44'53"	42.5	682.5	725
42°02'39"	91°45'00"	32.5	692.5	728
42°02'25"	91°45'01"	50.0	675.0	725
42°02'16"	91°44'53"	50.0	675.0	725
42°02'08"	91°44'40"	50.0	675.0	725
42°01'59"	91°44'31"	25.0	700.0	725
42°01'53"	91°44'24"	26.0	699.0	725

Table 7. U.S. Geological Survey aquifer codes for wells in the Cedar Rapids area, Benton and Linn Counties, Iowa

[U.S. Geological Survey aquifer codes from Hutchinson (1975, appendix F)]

U.S. Geological Survey aquifer code	Approximate geologic equivalent
110QRNR	Quaternary System
111ALVM	Holocene alluvium
112PLSC	Pleistocene Series
340DVSL	Devonian-Silurian Systems
344DVNNM	Middle Devonian Series
344WPPC	Middle Devonian Series—Wapsipinicon Limestone
350SLRN	Silurian System
355GOWR	Silurian System—Gower Dolomite
355HPKN	Silurian System—Hopkinton Dolomite
355NIGR	Silurian System—Niagaran Series
358ALXD	Silurian System—Alexandrian Series
358KNKK	Silurian System—Kankakee Formation
360ODVC	Ordovician System
364GLEN	Middle Ordovician System—Galena Dolomite
371JRDN	Upper Cambrian System—Jordan Sandstone

Table 8. Mean daily concentration of specific conductance in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius, ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	640	636	251	467	555	434	397	433
2	---	---	---	---	631	627	237	468	555	438	436	440
3	---	---	---	---	635	408	229	432	533	411	454	473
4	---	---	---	---	625	237	237	452	506	409	445	487
5	---	---	---	---	594	223	262	452	508	380	434	502
6	---	---	---	---	595	238	310	450	516	411	437	521
7	---	---	---	---	596	260	368	408	521	464	480	535
8	---	---	---	---	595	274	414	411	491	477	518	541
9	---	---	---	---	592	281	---	433	454	358	527	544
10	---	---	---	---	571	283	434	446	416	273	348	540
11	---	---	---	---	500	280	446	456	389	249	408	535
12	---	---	---	---	553	290	455	465	405	262	488	539
13	---	---	---	---	576	369	458	462	430	314	481	540
14	---	---	---	---	583	406	464	450	460	331	411	523
15	---	---	---	---	---	437	472	448	478	342	379	502
16	---	---	---	---	---	486	471	459	483	367	391	503
17	---	---	---	---	---	454	468	471	482	392	370	517
18	---	---	---	---	---	403	471	---	481	355	404	500
19	---	---	---	---	---	---	462	---	442	372	337	473
20	---	---	---	---	---	366	437	---	388	388	286	486
21	---	---	---	---	---	433	446	---	402	380	314	499
22	---	---	---	---	---	443	447	549	385	396	365	512
23	---	---	---	---	---	343	436	553	376	424	384	526
24	---	---	---	---	---	401	400	557	387	466	397	544
25	---	---	---	---	---	323	380	559	415	500	421	549
26	---	---	---	---	---	285	408	563	461	519	401	528
27	---	---	---	632	636	283	451	560	497	526	408	529
28	---	---	---	624	638	261	479	553	518	496	452	539
29	---	---	---	640	---	238	496	537	530	458	450	556
30	---	---	---	643	---	227	487	545	460	462	454	563
31	---	---	---	644	---	240	---	550	---	476	435	---
Mean	---	---	---	637	597	348	406	487	464	404	417	516
Maximum	---	---	---	644	640	636	496	563	555	526	527	563
Minimum	---	---	---	624	500	223	229	408	376	249	286	433

Table 8. Mean daily concentration of specific conductance in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
						1994 water year						
1	565	541	576	628	590	---	---	---	---	---	492	410
2	565	543	578	632	590	---	---	---	---	---	471	408
3	562	547	583	627	591	---	---	---	---	---	456	411
4	554	554	586	620	595	---	---	---	---	---	466	415
5	536	559	589	610	604	---	---	---	---	---	480	418
6	525	562	588	600	605	---	---	---	---	---	456	409
7	517	563	582	600	606	---	---	---	---	---	459	393
8	507	567	582	604	611	---	---	---	---	---	452	382
9	499	565	580	609	607	---	---	---	---	---	450	---
10	479	562	576	616	604	---	---	---	---	---	471	---
11	482	561	571	615	608	---	---	---	---	---	482	---
12	505	561	572	607	611	---	---	---	---	---	---	---
13	514	560	573	603	608	---	---	---	---	---	522	---
14	519	559	570	604	601	---	---	---	---	---	513	---
15	525	553	567	604	598	---	---	---	---	---	419	---
16	533	554	573	603	596	---	---	---	---	---	379	---
17	538	556	572	606	---	---	---	---	---	---	410	---
18	542	561	---	611	---	---	---	---	---	---	467	---
19	543	562	567	614	---	---	---	---	---	---	499	---
20	550	563	561	614	---	---	---	---	---	---	507	---
21	549	563	554	616	---	---	---	---	---	---	509	---
22	545	563	556	609	---	---	---	---	---	---	476	---
23	540	569	568	603	---	---	---	---	---	---	445	---
24	536	575	589	597	---	---	---	---	---	---	427	---
25	527	574	600	593	---	---	---	---	---	---	421	---
26	523	573	609	591	---	---	---	---	---	---	---	---
27	527	572	612	590	---	---	---	---	---	---	344	---
28	526	569	619	591	---	---	---	---	---	---	402	---
29	532	569	619	591	---	---	---	---	---	---	418	---
30	536	575	625	585	---	---	---	---	---	---	407	---
31	539	---	626	586	---	---	---	---	---	---	416	---
Mean	530	562	584	606	602	---	---	---	---	---	452	406
Maximum	565	575	626	632	611	---	---	---	---	---	522	418
Minimum	479	541	554	585	590	---	---	---	---	---	344	382

Table 8. Mean daily concentration of specific conductance in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	546	594	544	532	606	430	536	537	478	439	447	363
2	544	593	553	574	582	457	542	540	454	470	466	399
3	546	595	560	590	577	478	549	544	463	486	453	411
4	550	596	562	609	576	495	552	546	483	492	468	360
5	528	598	570	623	571	501	557	548	493	474	463	324
6	534	595	568	634	581	509	---	548	499	466	448	338
7	---	594	554	631	592	525	558	544	501	453	438	373
8	557	592	558	623	599	542	552	526	---	438	423	393
9	567	592	559	618	602	548	540	---	475	445	413	383
10	573	590	568	620	601	553	528	---	464	455	414	382
11	589	590	585	620	608	534	510	485	477	455	422	362
12	593	589	593	613	615	546	502	518	493	449	417	357
13	592	586	601	610	624	492	510	532	504	424	395	367
14	591	577	604	601	635	408	515	540	515	408	392	337
15	592	568	606	593	628	---	511	542	521	401	399	334
16	594	559	604	586	626	---	514	541	523	397	405	344
17	596	559	598	576	626	---	517	517	522	---	445	344
18	593	562	597	567	613	---	514	494	514	470	420	350
19	579	563	602	562	593	---	517	488	---	471	418	374
20	577	560	598	568	531	---	523	497	469	491	433	380
21	567	547	582	567	508	---	---	503	471	487	421	386
22	563	548	567	574	452	---	536	505	472	474	394	386
23	582	549	559	578	415	---	540	481	474	453	373	392
24	591	550	555	586	407	534	536	488	477	435	344	407
25	596	555	553	596	411	538	538	484	477	447	335	431
26	599	560	556	599	410	540	528	470	472	467	321	431
27	600	554	554	599	390	539	497	462	470	454	326	415
28	600	542	547	596	402	534	513	435	447	432	327	385
29	599	535	551	---	---	---	530	464	463	410	322	376
30	598	538	548	---	---	537	535	472	441	391	327	386
31	596	---	547	625	---	534	---	473	---	394	348	---
Mean	578	571	571	596	549	513	529	508	483	448	401	376
Maximum	600	598	606	634	635	553	558	548	523	492	468	431
Minimum	528	535	544	532	390	408	497	435	441	391	321	324

Table 8. Mean daily concentration of specific conductance in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	399	531	541	---	577	356	---	---	---	---	---	---
2	404	491	531	---	586	366	---	---	---	---	---	---
3	404	485	534	---	594	371	---	---	---	---	---	---
4	402	493	533	---	601	367	---	---	---	---	---	---
5	406	508	522	---	609	378	---	---	---	---	---	---
6	419	526	524	---	613	403	---	---	---	---	---	---
7	436	540	540	---	609	434	---	---	---	---	---	---
8	446	541	546	---	603	454	---	---	---	---	---	---
9	448	545	552	---	597	472	---	---	---	---	---	---
10	449	549	573	---	551	485	---	---	---	---	---	---
11	450	540	595	---	407	488	---	---	---	---	---	---
12	456	546	611	---	413	478	---	---	---	---	---	---
13	459	549	614	---	444	463	---	---	---	---	---	---
14	462	552	597	---	433	450	---	---	---	---	---	---
15	466	553	588	---	441	443	---	---	---	---	---	---
16	462	554	586	---	434	451	---	---	---	---	---	---
17	457	554	589	581	402	446	---	---	---	---	---	---
18	451	552	598	537	397	440	---	---	---	---	---	---
19	449	553	570	544	407	431	---	---	---	---	---	---
20	463	552	568	555	420	423	---	---	---	---	---	---
21	481	544	570	571	409	416	---	---	---	---	---	---
22	490	538	569	584	407	---	---	---	---	---	---	---
23	504	537	563	586	404	---	---	---	---	---	---	---
24	509	543	559	567	382	---	---	---	---	---	---	---
25	508	541	558	581	362	---	---	---	---	---	---	---
26	509	535	554	600	340	---	---	---	---	---	---	---
27	511	524	546	600	333	---	---	---	---	---	---	---
28	509	525	541	589	338	---	---	---	---	---	---	---
29	513	536	543	578	348	---	---	---	---	---	---	---
30	---	548	540	575	---	---	---	---	---	---	---	---
31	---	---	---	575	---	---	---	---	---	---	---	---
Mean	459	536	562	575	464	429	---	---	---	---	---	---
Maximum	513	554	614	600	613	488	---	---	---	---	---	---
Minimum	399	485	522	537	333	356	---	---	---	---	---	---

Table 9. Mean daily temperature of water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years

[Temperatures given in degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	-0.1	-0.1	3.7	14.2	15.3	19.8	21.6	20.2
2	---	---	---	---	-.1	-.1	3.4	13.9	14.1	20.6	21.6	19.9
3	---	---	---	---	-.1	-.1	3.6	13.7	13.5	21.9	21.5	19.6
4	---	---	---	---	-.1	-.1	3.7	13.0	13.7	22.5	21.1	19.5
5	---	---	---	---	-.1	-.1	4.2	13.1	13.8	21.5	20.3	19.0
6	---	---	---	---	-.1	-.1	5.2	13.5	15.1	21.1	19.7	18.1
7	---	---	---	---	-.1	.0	6.4	14.4	15.7	21.1	19.9	18.1
8	---	---	---	---	-.1	.1	7.3	16.4	16.7	21.0	20.4	18.2
9	---	---	---	---	-.1	.1	---	17.9	17.9	20.9	20.9	18.0
10	---	---	---	---	-.1	0	8.1	18.4	18.8	21.2	21.4	17.3
11	---	---	---	---	-.1	0	8.4	18.7	19.8	21.5	22.4	16.7
12	---	---	---	---	-.1	0	7.9	19.1	20.4	21.9	23.0	17.5
13	---	---	---	---	-.1	.1	7.7	18.3	20.6	21.7	23.5	18.9
14	---	---	---	---	-.1	.2	7.1	18.0	21.1	21.4	23.6	17.7
15	---	---	---	---	---	.4	6.0	18.0	20.7	21.3	22.7	15.6
16	---	---	---	---	---	.5	4.8	17.4	19.7	21.3	22.6	14.7
17	---	---	---	---	---	.2	5.9	16.6	19.4	21.4	23.0	14.6
18	---	---	---	---	---	.1	7.4	---	20.3	21.6	23.3	14.9
19	---	---	---	---	---	.1	8.5	---	20.5	21.9	22.9	14.6
20	---	---	---	---	---	.2	8.1	---	20.1	22.3	22.9	14.7
21	---	---	---	---	---	.1	8.8	---	20.0	22.1	22.8	15.3
22	---	---	---	---	---	.1	9.3	13.9	20.7	21.6	22.4	16.0
23	---	---	---	---	---	.3	9.6	14.0	21.3	20.9	22.6	16.1
24	---	---	---	---	---	1.6	10.3	14.1	21.5	21.0	23.1	15.6
25	---	---	---	---	---	2.5	10.8	14.1	21.5	21.8	23.6	14.9
26	---	---	---	---	---	3.4	11.8	15.3	21.6	22.7	24.2	13.7
27	---	---	---	-0.1	-.1	3.3	12.2	16.9	22.0	23.2	24.6	12.9
28	---	---	---	-.1	-.1	3.5	12.3	17.4	22.0	23.2	23.8	12.9
29	---	---	---	-.1	---	3.6	13.5	16.3	21.7	22.6	22.1	12.5
30	---	---	---	-.1	---	3.7	14.1	16.0	20.5	22.7	21.4	12.1
31	---	---	---	-.1	---	4.2	---	15.7	---	22.5	20.7	---
Mean	---	---	---	-.1	-.1	.9	7.9	15.9	19.0	21.7	22.2	16.3
Maximum	---	---	---	-.1	-.1	4.2	14.1	19.1	22.0	23.2	24.6	20.2
Minimum	---	---	---	-.1	-.1	-.1	3.4	13.0	13.5	19.8	19.7	12.1

Table 9. Mean daily temperature of water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	12.6	4.1	0.1	-0.1	0	---	---	10.1	22.6	24.0	24.4	19.3
2	12.5	4.3	.8	-.1	0	---	10.0	11.6	20.9	24.0	24.9	19.1
3	12.4	5.0	1.3	-.1	-.1	---	9.6	13.0	20.6	22.9	24.7	18.7
4	13.2	6.6	2.0	-.1	-.1	---	9.9	13.6	22.0	23.5	24.5	17.8
5	13.0	6.6	2.4	-.1	-.1	0	8.9	13.8	22.4	25.3	23.6	17.4
6	13.8	4.4	2.4	-.1	-.1	.3	7.4	14.0	23.9	26.2	22.7	18.5
7	15.6	3.0	1.6	-.1	-.1	.2	7.8	14.5	25.2	25.3	22.4	19.6
8	16.8	3.4	1.6	-.1	-.1	.1	7.9	14.7	22.4	24.9	23.6	20.7
9	15.0	3.9	2.2	-.1	-.1	.3	8.6	15.9	21.4	22.5	23.1	---
10	12.6	4.4	2.2	-.1	-.1	.7	10.2	16.5	23.2	22.4	21.2	---
11	11.4	5.2	.6	-.1	-.1	1.1	10.2	17.0	23.6	23.3	20.5	---
12	11.2	5.0	.2	-.1	-.1	2.1	8.9	17.9	23.4	24.8	20.2	---
13	10.9	6.1	1.2	-.1	-.1	2.9	8.9	18.8	24.0	24.6	20.8	---
14	11.3	6.0	1.7	-.1	-.1	3.6	10.9	18.2	25.9	23.8	20.9	---
15	12.1	5.5	2.3	-.1	-.1	4.6	12.0	18.2	26.9	22.9	20.8	---
16	12.7	4.7	2.8	-.1	-.1	4.9	11.2	19.2	27.3	22.4	21.0	---
17	12.8	5.0	3.2	-.1	---	---	12.5	19.8	27.9	22.3	21.5	---
18	12.2	4.5	---	-.1	---	5.4	14.4	19.9	28.7	23.5	22.3	---
19	12.4	4.6	3.3	-.1	---	5.8	15.5	20.3	28.7	24.0	23.8	---
20	12.4	3.8	2.7	-.1	---	6.8	---	21.3	27.1	23.8	23.3	---
21	11.1	3.9	1.5	-.1	---	8.2	14.2	22.2	26.7	23.5	22.7	---
22	10.2	4.3	.4	-.1	---	9.1	14.7	23.1	26.8	23.2	22.7	---
23	10.5	4.8	-.1	-.1	---	10.6	14.9	23.7	25.3	23.2	23.0	---
24	11.1	4.9	-.1	-.1	---	9.7	16.2	22.8	22.1	23.6	24.0	---
25	11.6	4.3	-.1	-.1	---	8.4	18.7	22.5	22.1	23.6	24.5	---
26	11.3	2.3	-.1	0	---	8.0	19.7	20.9	22.2	23.1	24.1	---
27	9.8	1.0	-.1	0	---	8.3	16.8	20.2	22.2	22.7	23.9	---
28	9.0	.6	-.1	0	---	7.7	13.5	20.8	22.6	22.8	24.2	---
29	7.3	.1	-.1	0	---	6.5	11.4	20.7	22.5	23.0	22.8	---
30	5.7	-.1	-.1	0	---	6.4	10.5	21.4	23.0	23.3	21.8	---
31	4.6	---	-.1	0	---	7.1	---	23.4	---	23.7	20.2	---
Mean	11.6	4.1	1.2	-.1	-.1	5.0	12.0	18.4	24.1	23.6	22.7	18.9
Maximum	16.8	6.6	3.3	0	0	10.6	19.7	23.7	28.7	26.2	24.9	20.7
Minimum	4.6	-.1	-.1	-.1	-.1	0	7.4	10.1	20.6	22.3	20.2	17.4

Table 9. Mean daily temperature of water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
						1995 water year						
1	16.9	8.8	1.7	-0.1	-0.1	-0.1	5.3	11.1	18.2	21.7	27.2	25.1
2	15.8	8.9	2.8	-.1	-.1	-.1	6.1	11.3	18.0	21.4	25.5	23.8
3	14.5	9.9	4.0	-.1	-.1	-.1	8.0	11.8	18.4	21.6	25.8	23.8
4	14.2	9.9	5.0	-.1	-.1	-.1	7.1	12.0	19.4	21.6	26.7	24.4
5	14.8	9.2	4.9	-.1	-.1	-.1	7.0	12.7	20.2	21.6	27.5	24.8
6	15.6	8.9	2.7	-.1	-.1	-.1	8.7	14.2	21.2	21.8	27.3	24.1
7	---	8.8	.1	-.1	-.1	-.1	8.8	15.4	22.2	21.8	27.1	21.9
8	15.9	9.3	0	-.1	-.1	-.1	8.1	15.3	---	22.3	27.2	19.5
9	14.5	9.0	0	-.1	-.1	-.1	7.5	14.7	18.9	23.5	27.6	19.3
10	13.6	7.6	-.1	-.1	-.1	0	5.6	---	18.9	24.6	27.6	19.1
11	13.0	7.2	-.1	-.1	-.1	.6	4.8	13.4	18.9	26.3	27.7	19.0
12	12.6	7.6	-.1	-.1	-.1	5.7	4.3	14.1	19.1	28.0	28.9	19.1
13	12.6	8.5	-.1	-.1	-.1	8.3	5.0	14.4	19.7	29.8	29.6	20.2
14	12.4	9.2	-.1	-.1	-.1	8.7	6.4	14.9	21.0	30.9	29.3	21.2
15	13.1	8.1	-.1	-.1	-.1	---	7.5	15.7	22.2	30.5	27.5	20.7
16	13.9	6.8	-.1	-.1	-.1	---	8.5	16.8	23.4	29.2	27.0	21.1
17	15.1	6.5	-.1	-.1	-.1	---	9.3	16.7	24.5	27.7	28.0	20.2
18	16.1	6.4	-.1	-.1	0	---	10.1	16.2	25.5	26.7	29.3	18.7
19	15.5	5.0	-.1	-.1	0	---	10.2	16.4	26.1	25.6	28.2	16.9
20	14.9	4.9	-.1	-.1	0	---	10.1	17.1	26.8	25.4	26.0	15.0
21	14.5	5.6	-.1	-.1	-.1	---	9.1	17.5	27.5	25.9	26.6	13.2
22	14.2	3.9	-.1	-.1	-.1	---	9.0	17.8	27.8	26.4	26.4	11.7
23	12.9	2.9	-.1	-.1	-.1	---	9.7	16.9	27.8	26.7	26.6	11.7
24	11.9	2.9	-.1	-.1	-.1	7.6	9.8	15.9	27.5	27.3	27.3	11.4
25	10.4	3.1	-.1	-.1	-.1	8.0	9.8	16.6	26.1	27.1	27.0	12.5
26	9.6	3.0	-.1	-.1	-.1	8.2	10.2	17.5	24.9	26.7	27.2	14.6
27	9.3	3.0	0	-.1	-.1	7.9	9.8	16.8	24.0	27.1	28.1	16.3
28	9.4	2.3	.7	-.1	-.1	7.1	10.4	15.9	23.1	27.6	28.6	17.8
29	10.3	1.2	.5	---	---	6.9	10.8	16.4	23.5	28.4	28.3	17.5
30	10.0	1.0	.3	---	---	6.1	11.0	18.0	22.6	29.3	27.7	17.6
31	9.8	---	.4	-.1	---	5.3	---	18.6	---	29.3	26.6	---
Mean	13.2	6.3	.7	-.1	-.1	3.6	8.3	15.4	22.7	25.9	27.5	18.7
Maximum	16.9	9.9	5.0	-.1	0	8.7	11.0	18.6	27.8	30.9	29.6	25.1
Minimum	9.3	1.0	-.1	-.1	-.1	-.1	4.3	11.1	18.0	21.4	25.5	11.4

Table 9. Mean daily temperature of water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	17.8	6.2	-0.1	---	-0.1	-0.1	---	---	---	---	---	---
2	17.6	6.0	-.1	---	-.1	-.1	---	---	---	---	---	---
3	17.7	3.5	-.1	---	-.1	-.1	---	---	---	---	---	---
4	16.7	2.2	-.1	---	-.1	-.1	---	---	---	---	---	---
5	15.4	2.0	.5	---	-.1	-.1	---	---	---	---	---	---
6	14.7	2.8	0	---	-.1	-.1	---	---	---	---	---	---
7	13.1	3.1	-.1	---	-.1	-.1	---	---	---	---	---	---
8	12.5	1.5	-.1	---	-.1	-.1	---	---	---	---	---	---
9	13.6	1.5	-.1	---	-.1	-.1	---	---	---	---	---	---
10	13.7	2.8	-.1	---	-.1	-.1	---	---	---	---	---	---
11	14.6	.4	-.1	---	-.1	-.1	---	---	---	---	---	---
12	16.3	.1	-.1	---	-.1	-.1	---	---	---	---	---	---
13	16.8	.6	-.1	---	-.1	-.1	---	---	---	---	---	---
14	13.6	1.2	-.1	---	-.1	.5	---	---	---	---	---	---
15	11.5	1.2	-.1	---	-.1	1.6	---	---	---	---	---	---
16	11.2	2.1	-.1	---	-.1	4.1	---	---	---	---	---	---
17	12.0	2.9	-.1	-0.1	-.1	5.3	---	---	---	---	---	---
18	13.0	3.1	-.1	-.1	-.1	5.0	---	---	---	---	---	---
19	13.3	3.4	-.1	-.1	-.1	4.1	---	---	---	---	---	---
20	10.8	3.9	-.1	-.1	-.1	3.5	---	---	---	---	---	---
21	8.3	2.9	-.1	-.1	-.1	3.4	---	---	---	---	---	---
22	7.6	1.6	-.1	-.1	-.1	---	---	---	---	---	---	---
23	9.1	.6	-.1	-.1	-.1	---	---	---	---	---	---	---
24	8.3	-.1	-.1	-.1	-.1	---	---	---	---	---	---	---
25	8.2	.1	-.1	-.1	-.1	---	---	---	---	---	---	---
26	8.8	1.7	-.1	-.1	-.1	---	---	---	---	---	---	---
27	9.3	1.4	-.1	-.1	-.1	---	---	---	---	---	---	---
28	8.6	-.1	-.1	-.1	-.1	---	---	---	---	---	---	---
29	7.5	-.1	-.1	-.1	-.1	---	---	---	---	---	---	---
30	---	-.1	-.1	-.1	---	---	---	---	---	---	---	---
31	---	---	---	-.1	---	---	---	---	---	---	---	---
Mean	12.5	1.9	-.1	-.1	-.1	1.2	---	---	---	---	---	---
Maximum	17.8	6.2	.5	-.1	-.1	5.3	---	---	---	---	---	---
Minimum	7.5	-.1	-.1	-.1	-.1	-.1	---	---	---	---	---	---

Table 10. Mean daily concentration of dissolved oxygen in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	12.0	14.6	10.4	9.7	9.3	7.0	6.2	7.7
2	---	---	---	---	12.2	14.7	11.3	9.5	8.8	6.9	6.6	7.8
3	---	---	---	---	12.1	15.2	11.9	9.2	8.7	6.7	6.7	8.0
4	---	---	---	---	12.2	15.1	12.4	9.5	8.4	6.6	6.8	8.0
5	---	---	---	---	12.3	14.4	12.2	9.8	8.4	6.7	7.1	8.0
6	---	---	---	---	12.1	13.7	11.8	9.7	8.3	6.7	7.6	8.2
7	---	---	---	---	12.2	12.9	11.3	9.1	8.0	6.8	7.8	8.6
8	---	---	---	---	12.2	12.3	10.8	8.6	7.4	6.9	7.7	8.8
9	---	---	---	---	12.3	11.9	---	8.5	6.9	6.7	7.7	8.9
10	---	---	---	---	12.3	12.1	10.7	8.4	6.7	6.3	6.9	9.1
11	---	---	---	---	11.9	12.2	10.5	8.5	6.5	6.2	6.8	9.1
12	---	---	---	---	11.2	12.8	10.7	8.4	6.4	6.2	7.0	9.1
13	---	---	---	---	11.2	13.4	10.9	8.3	6.4	6.4	6.9	8.5
14	---	---	---	---	11.8	13.7	11.0	8.2	6.3	6.5	6.7	8.1
15	---	---	---	---	---	13.9	11.5	8.2	6.4	6.5	6.4	8.5
16	---	---	---	---	---	14.2	12.2	8.4	7.1	6.9	6.4	9.1
17	---	---	---	---	---	14.6	12.2	8.4	7.6	7.1	6.3	9.5
18	---	---	---	---	---	14.7	11.6	---	7.4	6.8	6.4	9.1
19	---	---	---	---	---	14.7	11.0	---	7.2	6.8	6.1	8.9
20	---	---	---	---	---	14.6	10.9	---	6.9	6.9	6.0	8.9
21	---	---	---	---	---	14.7	11.0	---	7.2	6.9	6.2	8.9
22	---	---	---	---	---	15.0	10.8	9.3	7.1	6.9	6.4	8.8
23	---	---	---	---	---	15.1	10.3	9.0	6.8	7.1	6.4	8.8
24	---	---	---	---	---	14.6	9.8	9.0	6.5	7.2	6.9	9.6
25	---	---	---	---	---	14.0	9.5	9.5	6.7	7.1	7.3	9.9
26	---	---	---	---	---	12.9	9.4	9.8	6.9	7.0	7.1	9.9
27	---	---	---	---	14.5	12.6	9.6	9.6	6.9	6.8	7.0	10.2
28	---	---	---	---	14.5	11.7	9.8	8.6	6.9	6.6	7.0	10.5
29	---	---	---	12.1	---	10.9	9.8	8.1	7.1	6.4	7.2	11.1
30	---	---	---	12.1	---	9.9	9.9	8.6	7.0	6.5	7.2	11.1
31	---	---	---	11.9	---	9.2	---	9.0	---	6.4	7.4	---
Mean	---	---	---	12.0	12.3	13.4	10.9	8.9	7.3	6.7	6.8	9.0
Maximum	---	---	---	12.1	14.5	15.2	12.4	9.8	9.3	7.2	7.8	11.1
Minimum	---	---	---	11.9	11.2	9.2	9.4	8.1	6.3	6.2	6.0	7.7

Table 10. Mean daily concentration of dissolved oxygen in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	11.1	14.8	14.0	13.9	11.4	---	---	12.1	---	---	---	---
2	11.3	14.4	13.7	13.7	11.5	---	14.0	12.7	---	---	---	---
3	11.5	14.1	13.5	13.3	11.5	---	13.8	13.5	---	---	---	---
4	11.5	13.5	13.0	13.1	11.5	---	13.3	12.5	---	---	---	---
5	11.5	12.6	12.7	13.1	11.5	12.7	12.9	12.3	---	---	---	---
6	11.6	13.4	13.5	13.0	11.5	12.3	13.9	---	---	---	---	---
7	11.3	14.3	14.5	12.9	11.4	12.5	13.7	13.5	---	---	---	---
8	10.8	14.1	14.5	12.9	11.4	12.8	12.2	14.2	---	---	---	---
9	11.1	13.5	14.1	12.7	11.2	13.3	13.1	13.8	---	---	---	---
10	10.5	12.7	13.8	12.5	11.0	13.3	13.4	12.9	---	---	---	---
11	11.0	12.4	14.6	12.3	10.8	13.3	11.9	11.5	---	---	---	---
12	11.5	11.7	14.9	12.1	10.8	12.9	10.7	10.6	---	---	---	---
13	12.3	11.1	14.3	11.9	10.8	12.5	11.8	10.2	---	---	---	---
14	12.3	11.1	13.8	11.8	10.8	12.2	12.7	7.5	---	---	---	---
15	11.5	11.4	13.7	11.8	10.8	11.9	11.1	8.4	---	---	---	---
16	10.9	11.7	13.4	11.7	11.0	11.8	10.8	9.9	---	---	---	---
17	10.6	11.9	13.1	11.6	---	---	8.4	10.5	---	---	---	---
18	10.8	12.0	---	11.5	---	11.9	10.0	11.0	---	---	---	---
19	10.9	11.9	12.9	11.3	---	11.6	11.1	---	---	---	---	---
20	10.5	12.1	13.1	11.2	---	11.3	---	---	---	---	---	---
21	11.3	12.2	13.8	11.0	---	11.0	12.2	---	---	---	---	---
22	12.1	12.0	14.4	10.7	---	10.9	13.1	---	---	---	---	---
23	12.2	12.5	14.7	10.7	---	10.8	12.5	---	---	---	---	---
24	12.2	12.4	14.9	10.7	---	11.1	10.6	---	---	---	---	---
25	12.1	12.3	14.6	10.7	---	11.9	9.6	---	---	---	---	---
26	11.4	13.1	14.2	10.9	---	12.1	9.2	---	---	---	---	---
27	11.8	13.6	13.8	11.0	---	12.8	9.5	---	---	---	---	---
28	12.9	13.9	13.8	11.0	---	13.0	9.1	---	---	---	---	---
29	13.4	14.1	14.0	11.1	---	13.8	10.9	---	---	---	---	---
30	13.9	14.0	14.4	11.2	---	14.2	11.2	---	---	---	---	---
31	14.6	---	14.2	11.3	---	13.8	---	---	---	---	---	---
Mean	11.7	12.8	13.9	11.9	11.2	12.4	11.7	11.6	---	---	---	---
Maximum	14.6	14.8	14.9	13.9	11.5	14.2	14.0	14.2	---	---	---	---
Minimum	10.5	11.1	12.7	10.7	10.8	10.8	8.4	7.5	---	---	---	---

Table 10. Mean daily concentration of dissolved oxygen in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	7.9	10.8	12.0	13.8	12.7	12.5	12.1	11.9	8.9	6.8	6.9	8.9
2	8.1	11.0	11.4	14.0	12.8	12.6	11.9	11.9	8.3	7.0	6.4	8.7
3	8.3	10.5	10.8	13.9	12.6	12.5	11.2	11.8	7.9	7.1	6.9	9.3
4	8.6	10.3	10.2	13.9	12.6	12.5	11.3	11.7	7.8	6.9	7.7	10.7
5	8.4	10.5	11.5	13.7	12.9	12.7	11.5	12.0	7.9	6.8	7.8	11.3
6	8.2	11.2	12.6	13.4	12.9	12.5	12.5	11.7	7.7	7.1	7.9	8.9
7	7.2	11.1	13.9	13.0	13.1	12.5	13.1	11.3	7.6	7.0	8.9	7.4
8	7.2	10.7	14.2	12.9	13.2	12.8	13.3	9.7	7.4	6.9	6.8	11.1
9	8.4	10.7	14.1	12.7	13.1	12.9	13.4	---	7.8	6.9	7.0	12.1
10	8.8	11.4	14.1	12.5	13.0	12.6	14.3	---	8.2	7.2	6.9	11.6
11	9.1	11.6	14.2	12.5	13.4	12.2	14.7	9.8	8.3	7.1	8.4	11.5
12	9.1	11.4	14.1	12.3	13.5	10.0	14.8	9.7	8.3	7.1	9.2	8.3
13	9.3	10.6	14.0	12.2	13.3	8.9	14.8	9.7	8.1	6.8	8.0	9.3
14	9.1	10.7	13.7	12.0	13.3	8.4	14.0	10.2	7.8	7.0	6.3	8.1
15	8.9	11.2	13.6	12.0	13.4	---	13.3	10.6	7.8	6.9	5.9	7.6
16	8.7	11.8	13.5	12.2	13.3	---	12.5	10.4	7.7	6.9	7.6	7.6
17	8.6	11.6	13.5	12.4	13.2	---	12.2	9.1	7.8	9.1	7.5	7.0
18	8.5	11.6	13.5	12.6	13.4	---	12.0	9.3	7.8	10.1	10.2	8.0
19	8.5	12.1	13.6	12.5	13.4	---	12.2	9.4	8.2	8.7	9.9	8.6
20	8.7	11.9	13.7	12.4	12.7	---	12.1	9.6	8.6	8.1	10.9	11.5
21	8.6	11.6	13.6	12.6	12.5	---	12.2	9.9	7.1	8.8	10.9	12.4
22	8.4	12.1	13.2	12.6	11.8	---	12.5	9.8	7.1	8.7	9.0	13.6
23	9.0	12.2	13.0	12.4	11.6	---	12.5	9.1	6.9	9.7	6.7	13.5
24	9.6	12.0	13.3	12.4	11.7	11.5	12.2	9.9	6.5	9.4	2.6	12.7
25	10.1	11.8	13.5	12.7	11.9	11.2	12.1	10.7	6.5	8.2	3.8	13.4
26	10.6	11.7	13.5	12.8	12.1	11.0	11.7	10.9	7.0	7.2	2.9	13.6
27	10.9	11.3	13.3	12.7	12.2	10.9	11.5	9.5	6.7	8.1	6.7	13.7
28	10.8	11.5	13.1	12.6	12.3	11.1	11.8	9.0	6.5	9.9	8.7	13.4
29	10.5	12.0	13.6	12.5	---	---	11.7	10.0	6.6	10.0	8.3	9.4
30	10.5	12.3	13.8	13.6	---	11.7	11.8	10.1	6.5	8.8	8.6	9.2
31	10.3	---	13.7	12.7	---	12.0	---	10.1	---	7.6	8.6	---
Mean	9.0	11.4	13.2	12.8	12.8	11.7	12.6	10.3	7.6	7.9	7.5	10.4
Maximum	10.9	12.3	14.2	14.0	13.5	12.9	14.8	12.0	8.9	10.1	10.9	13.7
Minimum	7.2	10.3	10.2	12.0	11.6	8.4	11.2	9.0	6.5	6.8	2.6	7.0

Table 10. Mean daily concentration of dissolved oxygen in water from Cedar River surface-water-quality data-collection site 800, 1993–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	10.0	12.4	15.1	---	10.9	14.3	---	---	---	---	---	---
2	10.1	12.0	15.1	---	11.0	14.2	---	---	---	---	---	---
3	8.6	13.4	15.0	---	11.0	14.3	---	---	---	---	---	---
4	9.5	14.4	14.7	---	10.9	14.0	---	---	---	---	---	---
5	8.7	14.5	13.0	---	10.8	13.8	---	---	---	---	---	---
6	8.2	14.0	12.3	---	10.7	14.0	---	---	---	---	---	---
7	9.7	13.6	12.5	---	10.6	14.2	---	---	---	---	---	---
8	9.8	14.6	12.5	---	10.7	14.2	---	---	---	---	---	---
9	10.9	14.8	12.8	---	11.3	14.1	---	---	---	---	---	---
10	11.4	13.7	12.7	---	12.5	13.9	---	---	---	---	---	---
11	11.2	15.1	12.8	---	13.3	14.1	---	---	---	---	---	---
12	11.0	15.4	13.4	---	13.4	14.2	---	---	---	---	---	---
13	10.5	15.3	14.3	---	12.6	14.1	---	---	---	---	---	---
14	10.4	14.9	14.5	---	13.1	14.1	---	---	---	---	---	---
15	11.9	14.9	14.1	---	13.6	13.8	---	---	---	---	---	---
16	12.6	14.3	13.4	---	13.3	12.6	---	---	---	---	---	---
17	12.6	13.8	13.6	17.0	13.0	11.9	---	---	---	---	---	---
18	12.9	13.5	13.6	16.3	12.8	12.1	---	---	---	---	---	---
19	11.0	13.4	13.8	15.5	12.7	12.4	---	---	---	---	---	---
20	10.7	13.0	13.8	14.7	12.8	13.6	---	---	---	---	---	---
21	12.3	13.5	14.3	12.5	13.2	13.8	---	---	---	---	---	---
22	13.0	14.3	14.4	11.8	13.1	---	---	---	---	---	---	---
23	11.5	15.1	14.3	13.1	13.1	---	---	---	---	---	---	---
24	11.8	15.3	13.9	13.2	13.2	---	---	---	---	---	---	---
25	12.5	15.3	14.1	13.0	13.5	---	---	---	---	---	---	---
26	12.0	14.4	14.3	12.6	13.9	---	---	---	---	---	---	---
27	11.2	14.0	14.7	12.0	14.1	---	---	---	---	---	---	---
28	11.5	14.7	15.5	11.3	14.5	---	---	---	---	---	---	---
29	12.5	15.3	15.7	10.9	14.4	---	---	---	---	---	---	---
30	---	15.2	15.6	10.7	---	---	---	---	---	---	---	---
31	---	---	---	10.8	---	---	---	---	---	---	---	---
Mean	11.0	14.3	14.0	13.0	12.6	13.7	---	---	---	---	---	---
Maximum	13.0	15.4	15.7	17.0	14.5	14.3	---	---	---	---	---	---
Minimum	8.2	12.0	12.3	10.7	10.6	11.9	---	---	---	---	---	---

Table 11. Mean daily specific conductance in water from municipal well Cedar Rapids Seminole 1, 1994–96 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	---	519	499	499
2	---	---	---	---	---	---	---	---	---	515	494	499
3	---	---	---	---	---	---	---	---	---	514	493	497
4	---	---	---	---	---	---	---	---	---	511	493	496
5	---	---	---	---	---	---	---	---	---	510	492	496
6	---	---	---	---	---	---	---	---	540	505	489	497
7	---	---	---	---	---	---	---	568	538	497	484	495
8	---	---	---	---	---	---	---	566	536	497	481	494
9	---	---	---	---	---	---	---	565	534	497	481	---
10	---	---	---	---	---	---	---	563	532	496	481	---
11	---	---	---	---	---	---	---	562	531	495	482	---
12	---	---	---	---	---	---	---	562	531	492	502	---
13	---	---	---	---	---	---	---	562	552	491	515	---
14	---	---	---	---	---	---	---	562	552	501	515	---
15	---	---	---	---	---	---	---	562	548	537	514	---
16	---	---	---	---	---	---	---	563	544	559	515	---
17	---	---	---	---	---	---	---	573	540	558	513	---
18	---	---	---	---	---	---	---	581	559	559	511	---
19	---	---	---	---	---	---	---	---	559	556	509	---
20	---	---	---	---	---	---	---	---	561	555	508	---
21	---	---	---	---	---	---	---	---	564	556	507	---
22	---	---	---	---	---	---	---	---	564	555	505	---
23	---	---	---	---	---	---	---	---	560	551	505	---
24	---	---	---	---	---	---	---	---	557	547	504	---
25	---	---	---	---	---	---	---	---	554	543	504	---
26	---	---	---	---	---	---	---	---	556	543	503	---
27	---	---	---	---	---	---	---	---	559	544	501	---
28	---	---	---	---	---	---	---	---	561	541	500	---
29	---	---	---	---	---	---	---	---	563	521	500	---
30	---	---	---	---	---	---	---	---	532	505	500	---
31	---	---	---	---	---	---	---	---	---	502	498	---
Mean	---	---	---	---	---	---	---	566	549	525	500	497
Maximum	---	---	---	---	---	---	---	581	564	559	515	499
Minimum	---	---	---	---	---	---	---	562	531	491	481	494

Table 11. Mean daily specific conductance in water from municipal well Cedar Rapids Seminole 1, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	491	522	555	551	560	507	534	567	584	558	551	572
2	494	526	556	549	559	507	534	567	583	557	551	571
3	497	527	555	557	559	508	532	565	584	557	550	570
4	498	528	554	562	557	507	531	563	583	556	550	569
5	497	532	532	561	555	506	531	552	583	555	551	569
6	495	533	511	558	556	503	542	553	578	555	551	568
7	480	535	509	557	554	535	549	554	578	555	551	568
8	468	535	511	556	553	563	549	552	567	555	551	568
9	467	536	518	554	551	561	548	555	559	554	550	567
10	466	537	517	553	550	557	548	555	557	558	550	568
11	465	538	515	552	548	556	548	553	557	562	550	567
12	466	539	512	551	548	554	552	551	556	562	551	566
13	471	539	513	550	554	553	567	556	555	563	551	567
14	472	539	515	549	560	555	567	557	554	562	550	567
15	472	540	515	548	558	559	566	555	556	562	550	566
16	473	540	514	548	557	561	564	553	561	562	549	566
17	473	540	513	541	524	563	565	552	564	560	561	565
18	473	541	514	546	498	560	568	551	564	556	573	564
19	474	542	531	554	497	558	568	550	564	555	574	546
20	473	537	545	553	495	557	571	549	565	555	572	530
21	475	535	553	551	496	556	574	548	566	555	572	530
22	476	547	550	549	505	555	569	556	571	555	572	530
23	476	556	549	547	504	547	569	569	572	558	571	529
24	491	557	547	545	503	540	569	585	573	558	571	530
25	507	557	545	552	502	539	567	588	569	558	571	529
26	507	559	543	560	501	538	571	581	559	555	571	529
27	510	560	540	560	507	537	569	579	557	553	572	529
28	511	560	547	559	508	536	568	586	557	551	575	529
29	514	560	549	557	---	536	566	578	557	551	575	548
30	518	556	549	556	---	536	564	579	558	551	575	544
31	520	---	552	557	---	535	---	581	---	551	573	---
Mean	486	542	533	553	533	541	557	563	566	557	561	554
Maximum	520	560	556	562	560	563	574	588	584	563	575	572
Minimum	465	522	509	541	495	503	531	548	554	551	549	529

Table 11. Mean daily specific conductance in water from municipal well Cedar Rapids Seminole 1, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	542	551	539	576	573	530	---	---	---	---	---	---
2	541	551	537	575	575	530	---	---	---	---	---	---
3	540	551	536	575	575	529	---	---	---	---	---	---
4	540	550	536	575	573	547	---	---	---	---	---	---
5	540	550	534	574	572	548	---	---	---	---	---	---
6	540	556	533	573	571	546	---	---	---	---	---	---
7	541	556	532	572	570	544	---	---	---	---	---	---
8	542	555	531	571	569	542	---	---	---	---	---	---
9	541	553	531	570	568	541	---	---	---	---	---	---
10	541	552	530	569	566	542	---	---	---	---	---	---
11	542	554	529	568	565	546	---	---	---	---	---	---
12	541	553	566	569	564	552	---	---	---	---	---	---
13	541	550	587	568	563	568	---	---	---	---	---	---
14	542	548	592	567	563	572	---	---	---	---	---	---
15	541	546	590	566	568	568	---	---	---	---	---	---
16	541	544	588	565	568	565	---	---	---	---	---	---
17	540	542	584	564	567	563	---	---	---	---	---	---
18	540	542	583	564	565	577	---	---	---	---	---	---
19	538	541	582	562	564	577	---	---	---	---	---	---
20	537	540	584	561	564	578	---	---	---	---	---	---
21	536	539	586	560	566	575	---	---	---	---	---	---
22	535	537	584	559	564	---	---	---	---	---	---	---
23	535	537	584	558	555	---	---	---	---	---	---	---
24	534	536	582	557	545	---	---	---	---	---	---	---
25	532	535	578	556	541	---	---	---	---	---	---	---
26	532	533	577	555	537	---	---	---	---	---	---	---
27	531	532	576	568	534	---	---	---	---	---	---	---
28	530	532	575	574	533	---	---	---	---	---	---	---
29	527	534	576	573	531	---	---	---	---	---	---	---
30	---	541	579	572	---	---	---	---	---	---	---	---
31	---	---	578	575	---	---	---	---	---	---	---	---
Mean	538	545	564	567	561	554	---	---	---	---	---	---
Maximum	542	556	592	576	575	578	---	---	---	---	---	---
Minimum	527	532	529	555	531	529	---	---	---	---	---	---

Table 12. Mean daily temperature of water from municipal well Cedar Rapids Seminole 1, 1994–96 water years

[Temperatures given in degrees Celsius; ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	---	9.2	14.8	16.8
2	---	---	---	---	---	---	---	---	---	9.4	15.4	16.8
3	---	---	---	---	---	---	---	---	---	9.6	15.5	16.8
4	---	---	---	---	---	---	---	---	---	9.9	15.5	16.9
5	---	---	---	---	---	---	---	---	---	10.1	15.6	16.8
6	---	---	---	---	---	---	---	---	5.8	10.6	15.6	16.8
7	---	---	---	---	---	---	---	4.6	5.7	11.0	15.8	16.9
8	---	---	---	---	---	---	---	4.5	5.5	10.9	15.9	16.9
9	---	---	---	---	---	---	---	4.5	5.5	10.9	16.0	---
10	---	---	---	---	---	---	---	4.5	5.4	10.9	16.0	---
11	---	---	---	---	---	---	---	4.5	5.4	11.0	16.1	---
12	---	---	---	---	---	---	---	4.5	5.5	11.0	16.0	---
13	---	---	---	---	---	---	---	4.5	6.7	10.9	16.1	---
14	---	---	---	---	---	---	---	4.5	6.5	10.7	16.4	---
15	---	---	---	---	---	---	---	4.5	7.1	11.0	16.4	---
16	---	---	---	---	---	---	---	4.5	7.7	11.2	16.2	---
17	---	---	---	---	---	---	---	5.6	7.6	11.6	16.3	---
18	---	---	---	---	---	---	---	6.0	7.6	11.6	16.5	---
19	---	---	---	---	---	---	---	---	7.7	11.8	16.7	---
20	---	---	---	---	---	---	---	---	7.8	11.8	16.8	---
21	---	---	---	---	---	---	---	---	7.9	12.1	16.7	---
22	---	---	---	---	---	---	---	---	8.0	12.2	16.9	---
23	---	---	---	---	---	---	---	---	8.1	12.4	16.8	---
24	---	---	---	---	---	---	---	---	8.2	12.5	16.9	---
25	---	---	---	---	---	---	---	---	8.3	13.0	16.9	---
26	---	---	---	---	---	---	---	---	8.4	13.0	17.0	---
27	---	---	---	---	---	---	---	---	8.6	13.0	17.1	---
28	---	---	---	---	---	---	---	---	8.8	13.3	16.9	---
29	---	---	---	---	---	---	---	---	8.9	13.8	16.9	---
30	---	---	---	---	---	---	---	---	9.0	14.2	16.9	---
31	---	---	---	---	---	---	---	---	---	14.5	17.0	---
Mean	---	---	---	---	---	---	---	4.7	7.3	11.6	16.3	16.8
Maximum	---	---	---	---	---	---	---	6.0	9.0	14.5	17.1	16.9
Minimum	---	---	---	---	---	---	---	4.5	5.4	9.2	14.8	16.8

Table 12. Mean daily temperature of water from municipal well Cedar Rapids Seminole 1, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	17.0	15.9	14.2	13.0	13.3	12.8	9.0	10.6	11.3	8.4	9.1	8.9
2	17.0	15.8	14.3	12.8	13.3	12.8	8.9	10.5	11.2	8.2	8.8	8.8
3	17.9	15.7	14.3	12.6	12.9	12.7	8.9	10.1	11.1	8.1	8.7	8.7
4	18.3	15.5	14.2	12.5	12.6	12.6	8.9	9.9	11.0	8.0	8.6	8.6
5	18.5	15.1	14.1	12.4	12.4	12.3	8.8	9.7	10.9	8.0	9.1	8.6
6	18.7	14.9	14.0	12.3	12.2	11.3	8.8	10.6	10.1	7.9	8.9	8.5
7	18.7	14.9	13.8	12.3	12.0	11.5	8.8	10.3	9.8	7.9	8.7	8.5
8	18.8	14.8	13.7	12.2	11.9	12.4	8.8	10.0	9.3	7.9	8.6	8.5
9	18.8	14.7	13.9	12.1	11.8	12.0	8.8	10.7	8.8	7.9	8.5	8.4
10	18.8	14.8	13.8	12.1	11.7	10.9	8.8	10.5	8.5	8.5	8.5	8.7
11	18.8	14.5	13.6	12.1	11.6	10.5	8.7	10.2	8.3	9.1	8.4	8.8
12	17.3	14.5	13.5	12.0	11.5	10.2	9.1	10.1	8.2	8.8	8.6	8.7
13	16.3	14.5	13.6	12.0	12.0	10.1	10.8	10.7	8.1	9.0	9.1	8.8
14	16.3	14.4	13.6	12.0	12.1	10.9	10.3	10.6	8.0	8.8	8.8	8.9
15	16.4	14.3	13.7	12.0	11.8	11.7	9.9	10.3	8.2	8.6	8.6	8.8
16	16.4	14.2	13.6	11.9	11.6	12.3	9.6	10.1	9.0	8.6	8.5	8.7
17	16.4	14.2	13.6	11.9	11.5	12.0	10.2	10.0	9.5	9.5	8.5	8.6
18	16.5	14.2	13.5	12.4	11.4	11.4	11.3	9.8	9.3	9.0	9.0	8.6
19	16.4	14.1	13.3	12.5	11.4	10.6	11.5	9.8	9.4	8.7	8.9	8.5
20	16.6	14.7	13.3	12.2	11.3	10.2	11.8	9.7	9.4	8.6	8.7	8.5
21	16.3	14.7	13.5	12.1	11.7	10.0	11.9	9.6	9.5	8.5	8.6	8.5
22	16.3	14.3	13.7	12.0	12.8	9.8	11.2	10.6	10.7	8.4	8.5	8.5
23	16.5	14.3	13.4	11.9	12.1	9.6	11.3	10.7	10.6	9.0	8.5	8.5
24	16.7	14.2	13.3	11.8	11.9	9.5	11.3	11.2	10.6	8.9	8.4	8.4
25	16.7	14.2	13.2	12.6	11.7	9.4	10.7	11.5	10.6	9.1	8.4	8.4
26	16.7	14.1	13.1	13.2	11.8	9.4	11.5	10.8	9.4	9.8	8.4	8.4
27	16.7	14.0	13.0	13.2	13.0	9.3	11.0	10.4	8.9	9.4	8.5	8.5
28	16.7	14.0	13.2	13.0	12.9	9.2	10.9	11.3	8.6	9.1	9.4	8.5
29	16.6	13.9	13.1	12.5	---	9.2	10.3	10.4	8.4	9.3	9.1	10.1
30	16.3	14.2	13.1	12.3	---	9.1	10.0	10.6	8.5	9.1	9.3	9.8
31	16.2	---	13.2	12.8	---	9.1	---	10.7	---	9.1	9.2	---
Mean	17.1	14.6	13.6	12.3	12.1	10.8	10.1	10.4	9.5	8.7	8.7	8.7
Maximum	18.8	15.9	14.3	13.2	13.3	12.8	11.9	11.5	11.3	9.8	9.4	10.1
Minimum	16.2	13.9	13.0	11.8	11.3	9.1	8.7	9.6	8.0	7.9	8.4	8.4

Table 12. Mean daily temperature of water from municipal well Cedar Rapids Seminole 1, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	9.6	9.0	9.2	10.9	10.6	9.8	---	---	---	---	---	---
2	9.4	9.0	9.1	10.9	10.7	9.8	---	---	---	---	---	---
3	9.3	9.0	9.1	10.8	10.8	9.8	---	---	---	---	---	---
4	9.2	9.0	9.1	10.8	10.6	10.3	---	---	---	---	---	---
5	9.2	9.0	9.1	10.7	10.5	10.2	---	---	---	---	---	---
6	9.1	9.3	9.0	10.6	10.4	10.1	---	---	---	---	---	---
7	9.4	9.3	9.0	10.6	10.4	9.9	---	---	---	---	---	---
8	9.4	9.3	9.0	10.6	10.4	9.8	---	---	---	---	---	---
9	9.3	9.2	9.0	10.5	10.4	9.8	---	---	---	---	---	---
10	9.2	9.1	9.0	10.6	10.4	10.0	---	---	---	---	---	---
11	9.5	9.4	8.9	10.6	10.4	10.2	---	---	---	---	---	---
12	9.6	9.4	10.0	10.7	10.3	10.3	---	---	---	---	---	---
13	9.6	9.3	10.1	10.7	10.3	10.8	---	---	---	---	---	---
14	9.6	9.2	10.4	10.7	10.3	10.8	---	---	---	---	---	---
15	9.5	9.2	10.5	10.6	10.6	10.6	---	---	---	---	---	---
16	9.5	9.1	10.6	10.8	10.5	10.4	---	---	---	---	---	---
17	9.6	9.1	10.6	10.7	10.3	10.4	---	---	---	---	---	---
18	9.5	9.1	10.7	10.7	10.3	10.8	---	---	---	---	---	---
19	9.5	9.1	10.7	10.6	10.2	11.0	---	---	---	---	---	---
20	9.4	9.1	10.8	10.5	10.3	11.0	---	---	---	---	---	---
21	9.3	9.1	10.8	10.5	10.5	10.8	---	---	---	---	---	---
22	9.2	9.0	11.1	10.6	10.4	---	---	---	---	---	---	---
23	9.4	9.0	11.1	10.7	10.2	---	---	---	---	---	---	---
24	9.4	9.0	11.0	10.6	10.1	---	---	---	---	---	---	---
25	9.2	9.0	11.0	10.5	10.1	---	---	---	---	---	---	---
26	9.3	9.0	10.9	10.4	10.1	---	---	---	---	---	---	---
27	9.4	9.0	10.9	10.8	10.0	---	---	---	---	---	---	---
28	9.3	9.0	10.8	10.7	9.9	---	---	---	---	---	---	---
29	9.2	9.1	10.8	10.6	9.8	---	---	---	---	---	---	---
30	---	9.2	11.0	10.5	---	---	---	---	---	---	---	---
31	---	---	11.0	10.8	---	---	---	---	---	---	---	---
Mean	9.4	9.1	10.1	10.7	10.3	10.3	---	---	---	---	---	---
Maximum	9.6	9.4	11.1	10.9	10.8	11.0	---	---	---	---	---	---
Minimum	9.1	9.0	8.9	10.4	9.8	9.8	---	---	---	---	---	---

Table 13. Mean daily concentration of dissolved oxygen in water from municipal well Cedar Rapids Seminole 1, 1994–96 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	---	1.4	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	0.5	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	1.2	---	---
15	---	---	---	---	---	---	---	---	---	1.4	---	---
16	---	---	---	---	---	---	---	---	1.6	1.4	---	---
17	---	---	---	---	---	---	---	---	1.7	---	---	---
18	---	---	---	---	---	---	---	---	1.7	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	0.8	---
26	---	---	---	---	---	---	---	---	---	---	.8	---
27	---	---	---	---	---	---	---	---	---	---	.8	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	1.2	---	---	---
30	---	---	---	---	---	---	---	---	1.3	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Mean	---	---	---	---	---	---	---	.5	1.5	1.3	.8	---
Maximum	---	---	---	---	---	---	---	.5	1.7	1.4	.8	---
Minimum	---	---	---	---	---	---	---	.5	1.2	1.2	.8	---

Table 13. Mean daily concentration of dissolved oxygen in water from municipal well Cedar Rapids Seminole 1, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	0.8	0.9	0.7	1.1	1.2	1.2	1.2	1.4	1.3	1.5	1.3	1.5
2	.8	.9	.7	1.1	1.3	1.2	1.2	1.4	1.3	1.6	1.3	1.5
3	.7	.9	.6	1.2	1.3	1.3	1.2	1.4	1.3	1.6	1.3	1.5
4	.7	.8	.6	1.1	1.2	1.3	1.2	1.4	1.4	1.6	1.4	1.5
5	.7	.7	.8	1.1	1.1	1.4	1.2	1.3	1.4	1.6	1.3	1.5
6	.7	.7	.8	1.1	1.2	1.4	1.4	1.2	1.4	1.6	1.4	1.5
7	.8	.7	.7	1.1	1.2	1.3	1.4	1.3	1.4	1.6	1.4	1.5
8	.7	.7	.8	1.1	1.2	1.0	1.4	1.2	1.5	1.6	1.4	1.5
9	.7	.7	.7	1.1	1.2	1.1	1.4	1.1	1.5	1.6	1.4	1.5
10	.7	.7	.8	1.1	1.2	1.2	1.4	1.0	1.5	1.6	1.4	1.5
11	.7	.7	.8	1.1	1.2	1.2	1.4	1.1	1.5	1.5	1.4	1.5
12	.7	.7	.8	1.1	1.2	1.1	1.5	1.1	1.5	1.5	1.4	1.6
13	.8	.7	.8	1.1	1.3	1.1	1.6	1.1	1.6	1.5	1.4	1.6
14	.8	.7	.8	1.1	1.3	1.1	1.5	1.1	1.6	1.5	1.4	1.6
15	.8	.7	.8	1.1	1.2	1.1	1.4	1.1	1.6	1.6	1.4	1.6
16	.8	.7	.8	1.1	1.2	1.0	1.4	1.1	1.5	1.6	1.4	1.6
17	.8	.7	.8	1.2	1.3	1.0	1.3	1.1	1.5	1.4	1.5	1.6
18	.8	.7	.8	1.1	1.3	1.2	1.3	1.1	1.5	1.3	1.5	1.6
19	.9	.7	.9	1.1	1.2	1.2	1.4	1.1	1.5	1.3	1.5	1.4
20	.9	.7	1.0	1.1	1.2	1.2	1.2	1.1	1.4	1.3	1.5	1.2
21	.9	.7	1.0	1.1	1.2	1.1	1.2	1.1	1.4	1.3	1.5	1.2
22	.9	.7	1.0	1.1	1.4	1.2	1.4	1.1	1.4	1.3	1.5	1.2
23	.9	.6	1.0	1.1	1.4	1.2	1.4	1.5	1.4	1.3	1.5	1.2
24	.9	.6	1.0	1.1	1.3	1.2	1.4	1.4	1.4	1.3	1.5	1.2
25	.8	.6	1.0	1.1	1.3	1.2	1.4	1.3	1.4	1.3	1.5	1.2
26	.8	.6	1.0	1.1	1.2	1.2	1.3	1.3	1.5	1.3	1.5	1.2
27	.8	.6	1.0	1.1	1.2	1.2	1.3	1.3	1.5	1.4	1.5	1.2
28	.8	.6	1.0	1.1	1.2	1.2	1.4	1.3	1.5	1.4	1.4	1.2
29	.8	.7	1.0	1.1	---	1.2	1.4	1.3	1.5	1.3	1.4	1.2
30	.9	.6	1.0	1.1	---	1.2	1.4	1.3	1.5	1.3	1.4	1.2
31	.8	---	1.1	1.2	---	1.2	---	1.3	---	1.3	1.4	---
Mean	.8	.7	.9	1.1	1.2	1.2	1.4	1.2	1.5	1.4	1.4	1.4
Maximum	.9	.9	1.1	1.2	1.4	1.4	1.6	1.5	1.6	1.6	1.5	1.6
Minimum	.7	.6	.6	1.1	1.1	1.0	1.2	1.0	1.3	1.3	1.3	1.2

Table 13. Mean daily concentration of dissolved oxygen in water from municipal well Cedar Rapids Seminole 1, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
						1996 water year						
1	1.2	1.1	1.2	1.1	1.3	1.0	---	---	---	---	---	---
2	1.2	1.1	1.2	1.1	1.3	1.0	---	---	---	---	---	---
3	1.2	1.1	1.2	1.1	1.3	1.0	---	---	---	---	---	---
4	1.2	1.1	1.2	1.1	1.4	1.1	---	---	---	---	---	---
5	1.2	1.1	1.2	1.1	1.4	1.1	---	---	---	---	---	---
6	1.2	1.1	1.2	1.1	1.4	1.0	---	---	---	---	---	---
7	1.2	1.1	1.2	1.1	1.4	1.0	---	---	---	---	---	---
8	1.2	1.1	1.2	1.1	1.4	1.0	---	---	---	---	---	---
9	1.2	1.1	1.3	1.1	1.4	1.0	---	---	---	---	---	---
10	1.2	1.1	1.3	1.1	1.4	1.0	---	---	---	---	---	---
11	1.2	1.1	1.3	1.1	1.5	1.1	---	---	---	---	---	---
12	1.2	1.1	1.2	1.2	1.5	1.0	---	---	---	---	---	---
13	1.2	1.1	1.1	1.2	1.5	1.0	---	---	---	---	---	---
14	1.3	1.1	1.1	1.2	1.5	.9	---	---	---	---	---	---
15	1.3	1.1	1.1	1.2	1.5	.9	---	---	---	---	---	---
16	1.3	1.1	1.1	1.2	1.5	.9	---	---	---	---	---	---
17	1.3	1.1	1.1	1.2	1.5	.9	---	---	---	---	---	---
18	1.3	1.1	1.1	1.2	1.5	.9	---	---	---	---	---	---
19	1.3	1.1	1.1	1.2	1.5	.9	---	---	---	---	---	---
20	1.3	1.1	1.1	1.2	1.6	1.0	---	---	---	---	---	---
21	1.3	1.1	1.1	1.2	1.6	1.0	---	---	---	---	---	---
22	1.4	1.1	1.1	1.2	1.6	---	---	---	---	---	---	---
23	1.4	1.1	1.1	1.2	1.3	---	---	---	---	---	---	---
24	1.4	1.1	1.1	1.2	1.0	---	---	---	---	---	---	---
25	1.4	1.1	1.2	1.2	1.0	---	---	---	---	---	---	---
26	1.4	1.1	1.1	1.3	1.0	---	---	---	---	---	---	---
27	1.4	1.2	1.1	1.3	1.0	---	---	---	---	---	---	---
28	1.4	1.2	1.1	1.3	1.0	---	---	---	---	---	---	---
29	1.4	1.2	1.1	1.3	1.0	---	---	---	---	---	---	---
30	---	1.2	1.1	1.3	---	---	---	---	---	---	---	---
31	---	---	1.2	1.3	---	---	---	---	---	---	---	---
Mean	1.3	1.1	1.2	1.2	1.4	1.0	---	---	---	---	---	---
Maximum	1.4	1.2	1.3	1.3	1.6	1.1	---	---	---	---	---	---
Minimum	1.2	1.1	1.1	1.1	1.0	.9	---	---	---	---	---	---

Table 14. Mean daily specific conductance in water from municipal well Cedar Rapids Seminole 10, 1993–94 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	538	---	---	386	550	---	447	432
2	---	---	---	---	539	---	---	381	550	418	453	428
3	---	---	---	---	539	636	---	388	547	461	461	427
4	---	---	---	---	541	635	---	402	546	460	470	429
5	---	---	---	---	542	634	---	416	544	464	475	428
6	---	---	---	---	542	634	---	430	541	443	459	415
7	---	---	---	---	541	635	---	414	533	447	440	417
8	---	---	---	584	---	626	---	404	522	467	431	422
9	---	---	---	583	---	596	---	395	541	473	438	425
10	---	---	---	581	575	571	287	393	538	470	442	416
11	---	---	---	---	587	520	288	405	531	466	447	413
12	---	---	---	---	608	445	290	405	515	468	436	419
13	---	---	---	---	627	383	299	422	517	468	437	425
14	---	---	---	---	634	348	321	448	517	465	434	433
15	---	---	---	---	635	325	355	453	522	458	427	436
16	---	---	---	---	630	310	390	453	521	468	429	446
17	---	---	---	---	615	305	423	451	516	478	431	459
18	---	---	---	---	609	306	450	478	509	476	431	468
19	---	---	---	---	610	313	470	505	500	480	428	477
20	---	---	---	---	609	326	487	505	488	458	427	485
21	---	---	---	---	627	349	495	505	473	438	425	495
22	---	---	---	---	600	381	500	507	454	435	426	496
23	---	---	---	---	590	417	506	510	449	441	426	491
24	---	---	---	---	595	453	510	514	449	449	444	510
25	---	---	---	---	606	469	508	522	454	455	459	517
26	---	---	---	536	619	463	499	531	459	456	456	515
27	---	---	---	536	---	---	492	538	460	453	451	518
28	---	---	---	536	---	---	486	545	453	446	449	525
29	---	---	---	537	---	---	477	547	443	439	444	534
30	---	---	---	538	---	---	429	550	---	439	441	538
31	---	---	---	538	---	---	---	550	---	443	438	---
Mean	---	---	---	552	590	462	427	463	505	456	442	461
Maximum	---	---	---	584	635	636	510	550	550	480	475	538
Minimum	---	---	---	536	538	305	287	381	443	418	425	413

Table 14. Mean daily specific conductance in water from municipal well Cedar Rapids Seminole 10, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					1994 water year							
1	537	537	574	575	589	---	---	---	---	---	---	---
2	535	536	573	583	---	---	---	---	---	---	---	---
3	534	535	573	593	---	---	---	---	---	---	---	---
4	536	534	572	---	---	---	---	---	---	---	---	---
5	541	533	571	617	---	---	---	---	---	---	---	---
6	548	532	562	623	---	---	---	---	---	---	---	---
7	553	531	556	628	---	---	---	---	---	---	---	---
8	556	530	557	632	---	---	---	---	---	---	---	---
9	557	527	558	636	---	---	---	---	---	---	---	---
10	555	525	553	638	---	---	---	---	---	---	---	---
11	549	528	552	640	---	---	---	---	---	---	---	---
12	535	533	550	640	---	---	---	---	---	---	---	---
13	526	534	550	637	---	---	---	---	---	---	---	---
14	520	537	548	633	---	---	---	---	---	---	---	---
15	512	542	547	628	---	---	---	---	---	---	---	---
16	501	546	547	625	---	---	---	---	---	---	---	---
17	493	548	547	---	---	---	---	---	---	---	---	---
18	492	550	546	---	---	---	---	---	---	---	---	---
19	498	551	546	---	---	---	---	---	---	---	---	---
20	506	551	546	---	---	---	---	---	---	---	---	---
21	515	551	551	---	---	---	---	---	---	---	---	---
22	522	551	558	586	---	---	---	---	---	---	---	---
23	530	562	566	585	---	---	---	---	---	---	---	---
24	535	570	570	585	---	---	---	---	---	---	---	---
25	539	570	571	585	---	---	---	---	---	---	---	---
26	542	572	571	587	---	---	---	---	---	---	---	---
27	544	574	572	589	---	---	---	---	---	---	---	---
28	546	575	572	591	---	---	---	---	---	---	---	---
29	546	574	571	592	---	---	---	---	---	---	---	---
30	544	574	570	592	---	---	---	---	---	---	---	---
31	540	---	571	591	---	---	---	---	---	---	---	---
Mean	532	547	560	608	589	---	---	---	---	---	---	---
Maximum	557	575	574	640	589	---	---	---	---	---	---	---
Minimum	492	525	546	575	589	---	---	---	---	---	---	---

Table 15. Mean daily temperature of water from municipal well Cedar Rapids Seminole 10, 1993–94 water years

[Temperatures given in degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	5.4	6.5	---	---	7.2	15.0	---	20.8	18.4
2	---	---	---	5.2	6.5	---	---	7.5	14.8	17.1	20.9	18.5
3	---	---	---	5.2	6.5	-0.1	---	8.0	14.7	14.5	21.0	18.5
4	---	---	---	5.6	6.5	-.1	---	8.5	14.7	14.5	21.0	18.3
5	---	---	---	6.1	6.5	-.2	---	9.0	14.7	14.4	21.1	18.5
6	---	---	---	6.0	6.4	-.2	---	9.5	14.7	15.7	21.0	20.3
7	---	---	---	6.3	6.4	-.2	---	7.3	13.7	15.5	19.2	20.3
8	---	---	---	6.3	---	-.2	---	6.8	12.4	14.6	18.5	19.9
9	---	---	---	6.1	---	-.2	---	6.7	15.1	13.6	19.2	20.2
10	---	---	---	6.0	6.1	-.2	2.2	6.8	15.3	13.6	19.2	20.8
11	---	---	---	---	5.1	-.2	2.5	7.3	15.4	13.6	19.6	21.1
12	---	---	---	---	1.7	-.2	2.8	7.3	13.1	14.4	19.6	21.2
13	---	---	---	---	1.0	-.2	3.0	8.3	12.5	14.6	18.8	21.4
14	---	---	---	---	.8	-.2	3.1	10.2	12.8	14.2	19.9	20.6
15	---	---	---	---	.6	-.2	3.3	10.8	12.7	13.7	18.5	21.2
16	---	---	---	---	.4	-.2	3.4	11.3	13.8	13.7	19.5	21.1
17	---	---	---	---	2.9	-.1	3.7	11.8	15.1	13.7	20.3	21.2
18	---	---	---	---	4.4	-.1	4.1	12.0	15.0	13.4	20.1	21.0
19	---	---	---	---	4.4	-.1	4.6	12.1	15.0	14.1	20.4	20.8
20	---	---	---	---	4.5	-.1	5.4	12.3	14.9	15.2	20.2	20.6
21	---	---	---	---	.7	-.1	6.1	12.5	14.9	17.0	20.3	19.8
22	---	---	---	---	.2	-.1	6.2	12.9	15.2	18.2	19.9	19.1
23	---	---	---	---	0	-.1	6.3	13.2	15.5	18.6	19.7	18.7
24	---	---	6.2	---	0	-.1	6.7	13.5	15.7	18.9	19.2	18.1
25	---	---	5.7	---	-.1	-.1	6.9	13.8	15.7	19.0	18.5	17.4
26	---	---	5.5	6.7	-.1	-.1	6.7	14.1	15.9	19.1	18.6	17.0
27	---	---	5.4	6.7	---	---	6.5	14.5	16.2	19.6	18.7	16.6
28	---	---	5.5	6.7	---	---	6.6	14.8	16.5	20.0	18.5	16.3
29	---	---	5.7	6.6	---	---	6.8	15.1	16.9	20.3	18.5	16.0
30	---	---	5.8	6.6	---	---	7.0	15.2	---	20.5	18.4	15.9
31	---	---	5.7	6.6	---	---	---	15.1	---	20.7	18.2	---
Mean	---	---	5.7	6.1	3.2	-.2	4.9	10.8	14.8	16.2	19.6	19.3
Maximum	---	---	6.2	6.7	6.5	-.1	7.0	15.2	16.9	20.7	21.1	21.4
Minimum	---	---	5.4	5.2	-.1	-.2	2.2	6.7	12.4	13.4	18.2	15.9

Table 15. Mean daily temperature of water from municipal well Cedar Rapids Seminole 10, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					1994 water year							
1	15.8	11.8	5.0	1.8	-0.1	---	---	---	---	---	---	---
2	15.7	11.7	4.9	1.8	---	---	---	---	---	---	---	---
3	15.5	11.6	4.9	1.7	11.9	---	---	---	---	---	---	---
4	15.3	11.5	4.8	---	11.7	---	---	---	---	---	---	---
5	15.0	11.4	4.7	1.3	11.6	---	---	---	---	---	---	---
6	14.6	11.2	4.5	1.1	11.4	---	---	---	---	---	---	---
7	14.3	10.9	4.3	.9	11.2	---	---	---	---	---	---	---
8	13.9	10.5	4.5	.7	11.0	---	---	---	---	---	---	---
9	13.6	10.1	4.4	.5	10.9	---	---	---	---	---	---	---
10	13.4	9.5	6.8	.4	10.7	---	---	---	---	---	---	---
11	13.2	8.9	6.4	.3	10.5	---	---	---	---	---	---	---
12	13.0	8.2	6.4	.2	10.3	---	---	---	---	---	---	---
13	13.0	7.8	6.5	.1	10.2	---	---	---	---	---	---	---
14	13.0	7.2	6.5	.1	9.9	---	---	---	---	---	---	---
15	13.2	6.7	6.5	0	9.8	---	---	---	---	---	---	---
16	13.5	6.3	6.6	0	9.6	---	---	---	---	---	---	---
17	13.8	5.9	6.6	---	---	---	---	---	---	---	---	---
18	13.9	5.7	6.6	---	---	---	---	---	---	---	---	---
19	13.8	5.4	6.6	---	---	---	---	---	---	---	---	---
20	13.6	5.2	6.6	---	---	---	---	---	---	---	---	---
21	13.3	5.0	6.1	---	---	---	---	---	---	---	---	---
22	12.9	5.0	3.8	-.1	---	---	---	---	---	---	---	---
23	12.6	5.0	2.7	-.2	---	---	---	---	---	---	---	---
24	12.4	5.0	2.0	-.2	---	---	---	---	---	---	---	---
25	12.4	5.0	1.7	-.1	---	---	---	---	---	---	---	---
26	12.4	5.0	1.6	-.2	---	---	---	---	---	---	---	---
27	12.4	5.0	1.6	-.2	---	---	---	---	---	---	---	---
28	12.3	5.0	1.6	-.2	---	---	---	---	---	---	---	---
29	12.2	5.0	1.6	-.2	---	---	---	---	---	---	---	---
30	12.1	5.0	1.7	-.1	---	---	---	---	---	---	---	---
31	11.9	---	1.8	-.1	---	---	---	---	---	---	---	---
Mean	13.5	7.6	4.5	.4	10.0	---	---	---	---	---	---	---
Maximum	15.8	11.8	6.8	1.8	11.9	---	---	---	---	---	---	---
Minimum	11.9	5.0	1.6	-.2	-.1	---	---	---	---	---	---	---

Table 16. Mean daily concentration of dissolved oxygen in water from municipal well Cedar Rapids Seminole 10, 1993–94 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	2.9	0.4	---	---	1.6	0.8	---	0.4	0.5
2	---	---	---	3.1	.4	---	---	1.3	.7	0.5	.4	.5
3	---	---	---	3.2	.4	9.6	---	1.3	.7	.6	.4	.5
4	---	---	---	2.6	---	9.2	---	1.2	.7	.6	.4	.5
5	---	---	---	4.9	.6	9.2	---	1.2	.6	.6	.4	.5
6	---	---	---	3.0	.5	9.1	---	.9	.6	.6	---	.5
7	---	---	---	3.0	.5	8.8	---	1.1	.8	.6	1.0	.5
8	---	---	---	.7	---	8.4	---	1.0	.7	.6	1.5	.5
9	---	---	---	.5	---	8.2	---	.9	.7	.6	.7	.5
10	---	---	---	.3	.4	8.0	1.0	.9	.7	.6	.5	.5
11	---	---	---	---	2.5	7.2	1.0	.9	.7	.6	.5	.4
12	---	---	---	---	5.2	5.8	.9	.9	.9	.6	.6	.4
13	---	---	---	---	6.4	4.0	.9	.9	.7	.6	.7	.4
14	---	---	---	---	7.2	2.5	.9	.7	.7	.6	.5	.5
15	---	---	---	---	7.5	1.8	.9	.7	.7	.6	.6	.4
16	---	---	---	---	7.6	1.4	.9	.7	.7	.9	.5	.4
17	---	---	---	---	4.6	1.2	.9	.6	.7	.7	.4	.4
18	---	---	---	---	4.2	1.4	.8	.7	.6	.7	.4	.4
19	---	---	---	---	2.6	1.3	.8	.7	.6	.6	.4	.5
20	---	---	---	---	1.9	1.2	.8	.7	.6	.6	.4	.5
21	---	---	---	---	7.1	1.5	.9	.7	.6	.5	.4	.6
22	---	---	---	---	6.3	2.1	1.2	.7	.6	.5	.4	1.0
23	---	---	45.0	---	6.0	3.0	1.4	.7	.6	.5	.4	1.3
24	---	---	14.2	---	6.9	3.9	1.7	.7	.6	.5	---	1.5
25	---	---	9.3	---	7.8	4.5	1.9	.7	.6	.5	.5	1.7
26	---	---	6.7	.7	7.8	5.0	2.0	.7	.6	.5	.5	1.8
27	---	---	5.2	.6	---	---	2.1	.7	.6	.5	.5	1.9
28	---	---	4.1	.4	---	---	2.3	.7	.6	.5	.5	2.0
29	---	---	3.4	.4	---	---	2.2	.7	.6	.5	.5	2.3
30	---	---	3.0	.4	---	---	2.0	.7	---	.5	.5	2.4
31	---	---	3.0	.4	---	---	---	.8	---	.5	.5	---
Mean	---	---	10.4	1.7	4.1	4.9	1.3	.9	.7	.6	.5	.9
Maximum	---	---	45.0	4.9	7.8	9.6	2.3	1.6	.9	.9	1.5	2.4
Minimum	---	---	3.0	.3	.4	1.2	.8	.6	.6	.5	.4	.4

Table 16. Mean daily concentration of dissolved oxygen in water from municipal well Cedar Rapids Seminole 10, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					1994 water year							
1	2.4	4.6	8.6	11.3	5.8	---	---	---	---	---	---	---
2	2.5	4.2	8.5	11.5	---	---	---	---	---	---	---	---
3	2.7	4.1	8.6	11.3	---	---	---	---	---	---	---	---
4	2.9	4.3	8.9	---	---	---	---	---	---	---	---	---
5	3.1	4.9	9.4	11.0	---	---	---	---	---	---	---	---
6	3.3	5.7	10.3	10.9	---	---	---	---	---	---	---	---
7	3.4	6.6	10.9	11.0	---	---	---	---	---	---	---	---
8	3.6	7.5	10.6	11.1	---	---	---	---	---	---	---	---
9	3.8	7.4	10.5	11.1	---	---	---	---	---	---	---	---
10	3.8	7.2	5.1	10.9	---	---	---	---	---	---	---	---
11	3.9	7.0	4.0	10.6	---	---	---	---	---	---	---	---
12	3.9	6.8	3.1	10.4	---	---	---	---	---	---	---	---
13	3.8	6.7	2.5	10.1	---	---	---	---	---	---	---	---
14	3.4	7.1	2.0	10.0	---	---	---	---	---	---	---	---
15	3.1	7.7	1.6	9.8	---	---	---	---	---	---	---	---
16	2.9	8.0	1.4	9.8	---	---	---	---	---	---	---	---
17	2.7	7.9	1.2	---	---	---	---	---	---	---	---	---
18	2.8	7.8	1.2	---	---	---	---	---	---	---	---	---
19	3.2	7.6	1.1	---	---	---	---	---	---	---	---	---
20	3.3	7.4	1.0	---	---	---	---	---	---	---	---	---
21	3.0	7.2	5.6	---	---	---	---	---	---	---	---	---
22	2.6	6.9	9.8	7.6	---	---	---	---	---	---	---	---
23	2.4	7.2	9.7	7.4	---	---	---	---	---	---	---	---
24	2.5	7.4	9.5	7.1	---	---	---	---	---	---	---	---
25	2.7	7.6	8.6	6.9	---	---	---	---	---	---	---	---
26	3.1	7.8	7.5	6.8	---	---	---	---	---	---	---	---
27	3.8	8.0	6.7	6.7	---	---	---	---	---	---	---	---
28	4.5	8.3	7.0	6.6	---	---	---	---	---	---	---	---
29	4.7	8.5	7.8	6.4	---	---	---	---	---	---	---	---
30	4.9	8.6	9.3	6.2	---	---	---	---	---	---	---	---
31	4.9	---	10.6	6.0	---	---	---	---	---	---	---	---
Mean	3.3	6.9	6.5	9.1	5.8	---	---	---	---	---	---	---
Maximum	4.9	8.6	10.9	11.5	5.8	---	---	---	---	---	---	---
Minimum	2.4	4.1	1.0	6.0	5.8	---	---	---	---	---	---	---

Table 17. Mean daily specific conductance in water from observation well 1993 USGS CRM–3, 1993–94 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	---	---	513	462	474	441	579	647
2	---	---	---	---	---	---	513	460	472	445	575	674
3	---	---	---	---	---	610	528	461	474	457	565	687
4	---	---	---	---	---	613	566	458	476	473	557	675
5	---	---	---	---	---	---	616	455	473	484	548	665
6	---	---	---	---	---	---	623	452	466	483	533	640
7	---	---	---	---	---	---	626	451	462	471	515	617
8	---	---	---	---	---	605	630	447	465	465	515	633
9	---	---	---	---	---	605	---	444	465	477	499	533
10	---	---	---	---	604	608	614	451	459	494	492	---
11	---	---	---	---	598	604	622	453	458	506	492	476
12	---	---	---	---	588	597	634	443	461	515	498	485
13	---	---	---	---	608	598	643	435	462	508	509	497
14	---	---	---	---	624	600	649	426	459	507	470	509
15	---	---	---	---	637	598	650	455	463	508	472	505
16	---	---	---	---	648	600	640	470	464	---	490	507
17	---	---	---	---	655	604	625	469	456	523	511	511
18	---	---	---	---	647	---	629	475	444	526	520	508
19	---	---	---	---	622	---	640	468	443	530	517	496
20	---	---	---	---	628	609	641	480	445	504	517	492
21	---	---	---	---	633	614	638	512	448	492	530	505
22	---	---	---	---	627	601	638	516	451	524	528	514
23	---	---	---	---	628	602	621	515	444	535	515	516
24	---	---	---	---	629	606	589	516	439	539	509	524
25	---	---	---	---	609	---	575	510	446	535	501	519
26	---	---	---	---	603	---	546	503	452	505	505	514
27	---	---	---	---	---	624	524	498	456	501	546	520
28	---	---	---	---	---	611	507	490	458	502	597	536
29	---	---	---	---	---	592	486	484	458	513	594	565
30	---	---	---	---	---	572	471	480	446	542	600	588
31	---	---	---	---	---	559	---	478	---	563	629	---
Mean	---	---	---		623	601	593	472	458	502	530	554
Maximum	---	---	---		655	624	650	516	476	563	629	687
Minimum	---	---	---		588	559	471	426	439	441	470	476

Table 17. Mean daily specific conductance in water from observation well 1993 USGS CRM–3, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	585	523	548	592	584	---	---	---	---	---	---	---
2	587	519	545	581	---	---	---	---	---	---	---	---
3	588	515	540	580	---	---	---	---	---	---	---	---
4	587	515	550	---	---	---	---	---	---	---	---	---
5	579	518	553	544	---	---	---	---	---	---	---	---
6	565	514	554	549	---	---	---	---	---	---	---	---
7	558	512	556	553	---	---	---	---	---	---	---	---
8	561	510	552	556	---	---	---	---	---	---	---	---
9	573	511	553	557	---	---	---	---	---	---	---	---
10	583	512	552	559	---	---	---	---	---	---	---	---
11	591	512	579	559	---	---	---	---	---	---	---	---
12	592	513	587	560	---	---	---	---	---	---	---	---
13	593	514	582	560	---	---	---	---	---	---	---	---
14	593	515	587	559	---	---	---	---	---	---	---	---
15	595	515	586	559	---	---	---	---	---	---	---	---
16	594	515	575	558	---	---	---	---	---	---	---	---
17	585	514	561	558	---	---	---	---	---	---	---	---
18	598	516	---	557	---	---	---	---	---	---	---	---
19	620	515	568	556	---	---	---	---	---	---	---	---
20	630	516	575	556	---							
21	642	516	577	---	---	---	---	---	---	---	---	---
22	651	519	561	564	---	---	---	---	---	---	---	---
23	634	521	564	565	---	---	---	---	---	---	---	---
24	618	523	579	567	---	---	---	---	---	---	---	---
---	596	524	584	567	---	---	---	---	---	---	---	---
26	577	524	596	568	---	---	---	---	---	---	---	---
27	564	526	631	569	---	---	---	---	---	---	---	---
28	554	527	602	572	---	---	---	---	---	---	---	---
29	541	530	590	575	---	---	---	---	---	---	---	---
30	535	537	600	577	---	---	---	---	---	---	---	---
31	529	---	596	581	---	---	---	---	---	---	---	---
Mean	587	518	573	564	584	---	---	---	---	---	---	---
Maximum	651	537	631	592	584	---	---	---	---	---	---	---
Minimum	529	510	540	544	584	---	---	---	---	---	---	---

Table 18. Mean daily temperature of water from observation well 1993 USGS CRM–3, 1993–94 water years

[Temperatures given in degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	---	---	3.0	5.0	5.4	5.9	8.5	11.8
2	---	---	---	---	---	---	3.0	5.0	5.4	6.0	8.6	12.0
3	---	---	---	---	---	3.4	2.9	5.1	---	6.0	8.8	12.2
4	---	---	---	---	---	3.6	2.9	5.1	5.3	6.0	8.9	12.3
5	---	---	---	---	---	---	2.9	5.0	5.2	6.0	9.1	12.5
6	---	---	---	---	---	---	2.9	5.0	5.2	6.0	9.3	12.7
7	---	---	---	---	---	---	3.0	5.0	5.1	6.0	9.3	12.9
8	---	---	---	---	---	3.1	3.2	5.0	5.1	6.0	9.5	13.2
9	---	---	---	---	---	3.0	---	5.0	5.0	6.0	9.9	13.4
10	---	---	---	---	0.6	3.0	3.6	5.0	5.0	6.0	10.3	---
11	---	---	---	---	.6	3.0	3.7	5.0	4.9	6.0	10.4	13.9
12	---	---	---	---	.6	3.0	3.8	5.0	5.0	6.1	10.2	14.0
13	---	---	---	---	.6	3.0	3.9	4.9	5.0	6.1	10.3	14.2
14	---	---	---	---	.7	3.0	4.0	4.9	5.0	6.1	10.6	14.3
15	---	---	---	---	.7	3.0	4.1	4.9	5.1	6.1	10.7	14.6
16	---	---	---	---	.8	3.0	4.2	4.9	5.1	---	11.3	14.7
17	---	---	---	---	.9	3.0	4.2	4.9	5.0	6.1	11.7	14.9
18	---	---	---	---	---	---	4.3	4.9	5.0	6.1	11.5	15.0
19	---	---	---	---	1.0	---	4.3	4.9	5.0	6.1	11.4	15.2
20	---	---	---	---	1.1	3.0	4.3	4.9	5.0	6.2	11.4	15.4
21	---	---	---	---	1.3	3.1	4.4	4.9	5.1	6.4	11.5	15.4
22	---	---	---	---	1.5	3.3	4.4	4.9	5.1	6.5	11.6	15.4
23	---	---	---	---	1.6	3.3	4.4	5.0	5.1	6.6	11.7	15.3
24	---	---	---	---	1.8	3.3	4.4	5.0	5.2	6.7	11.8	15.4
25	---	---	---	---	2.0	---	4.5	5.1	5.2	6.9	11.8	15.3
26	---	---	---	---	2.3	---	4.5	5.2	5.3	7.1	11.7	15.3
27	---	---	---	---	---	3.3	4.6	5.2	5.3	7.3	11.6	15.3
28	---	---	---	---	---	3.2	4.7	5.2	5.5	7.5	11.7	15.2
29	---	---	---	---	---	3.2	4.8	5.3	5.6	7.8	11.6	15.1
30	---	---	---	---	---	3.1	4.9	5.3	5.7	8.1	11.6	15.1
31	---	---	---	---	---	3.0	---	5.3	---	8.3	11.7	---
Mean	---	---	---	---	1.1	3.1	3.9	5.0	5.2	6.5	10.6	14.2
Maximum	---	---	---	---	2.3	3.6	4.9	5.3	5.7	8.3	11.8	15.4
Minimum	---	---	---	---	.6	3.0	2.9	4.9	4.9	5.9	8.5	11.8

Table 18. Mean daily temperature of water from observation well 1993 USGS CRM–3, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	15.1	16.5	18.6	15.7	12.2	---	---	2.4	---	---	---	---
2	15.2	16.5	18.7	15.6	---	---	7.0	2.4	---	---	---	---
3	15.3	16.6	18.6	15.4	---	---	6.6	2.4	---	---	---	---
4	15.4	16.6	18.5	---	---	---	6.4	2.5	---	---	---	---
5	15.5	16.6	18.4	15.1	---	6.9	6.0	2.6	---	---	---	---
6	15.7	16.7	---	15.0	---	6.6	5.7	---	---	---	---	---
7	15.8	16.8	18.3	14.8	---	6.5	5.4	---	---	---	---	---
8	15.9	16.8	18.2	14.7	---	6.6	5.1	---	---	---	---	---
9	16.0	17.0	18.0	14.6	---	6.8	4.8	---	---	---	---	---
10	16.2	17.1	17.7	14.4	---	7.3	4.7	---	---	---	---	---
11	16.3	17.1	17.2	14.3	---	7.7	4.6	---	---	---	---	---
12	16.2	17.2	16.8	14.2	---	8.3	4.3	---	---	---	---	---
13	16.1	17.3	16.6	14.1	---	8.8	4.1	---	---	---	---	---
14	16.1	17.3	16.5	14.0	---	9.3	3.9	---	---	---	---	---
15	16.1	17.4	16.5	13.9	---	9.5	3.7	---	---	---	---	---
16	16.1	17.5	16.3	13.8	---	9.7	3.5	---	---	---	---	---
17	16.2	17.5	15.8	13.7	---	9.7	3.3	---	---	---	---	---
18	16.2	17.7	---	13.6	---	9.7	3.2	---	---	---	---	---
19	16.2	17.8	13.9	13.5	---	9.7	3.0	---	---	---	---	---
20	16.3	18.0	12.6	13.5	---	9.7	---	---	---	---	---	---
21	16.3	18.1	11.6	---	---	9.7	2.7	---	---	---	---	---
22	16.3	18.1	12.6	13.2	---	9.7	2.6	---	---	---	---	---
23	16.3	18.2	14.2	13.1	---	9.6	2.6	---	---	---	---	---
24	16.3	18.2	15.1	13.1	---	9.4	2.5	---	---	---	---	---
25	16.3	18.3	15.7	13.0	---	9.2	2.5	---	---	---	---	---
26	16.3	18.3	15.9	12.9	---	8.9	2.4	---	---	---	---	---
27	16.3	18.4	16.0	12.8	---	8.6	2.4	---	---	---	---	---
28	16.3	18.4	16.0	12.7	---	8.3	2.4	---	---	---	---	---
29	16.4	18.4	15.9	12.6	---	8.0	2.4	---	---	---	---	---
30	16.4	18.5	15.8	12.5	---	7.8	2.3	---	---	---	---	---
31	16.4	---	15.7	12.4	---	7.5	---	---	---	---	---	---
Mean	16.0	17.5	16.3	13.9	12.2	8.5	3.9	2.5	---	---	---	---
Maximum	16.4	18.5	18.7	15.7	12.2	9.7	7.0	2.6	---	---	---	---
Minimum	15.1	16.5	11.6	12.4	12.2	6.5	2.3	2.4	---	---	---	---

Table 19. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–3, 1993–94 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	---	---	0.5	0.6	0.4	---	0.3	0.4
2	---	---	---	---	---	---	.5	.5	.4	0.9	.3	.4
3	---	---	---	---	---	0.8	.5	.5	---	.4	.3	.4
4	---	---	---	---	---	.4	.5	.5	---	.4	.3	.4
5	---	---	---	---	---	---	.4	.5	.5	.4	.3	.4
6	---	---	---	---	---	---	.4	.5	.4	.4	---	.4
7	---	---	---	---	---	---	.4	.5	.4	.4	.3	.4
8	---	---	---	---	---	---	.4	.5	.4	.4	.4	.4
9	---	---	---	---	---	---	---	.5	.4	.4	.3	.4
10	---	---	---	---	3.1	.4	---	.5	.4	.4	.3	---
11	---	---	---	---	2.4	.4	.5	.5	.4	.4	.3	.4
12	---	---	---	---	1.1	.3	.5	.5	.4	.4	.3	.3
13	---	---	---	---	.3	.3	.5	.4	.4	.4	.3	.4
14	---	---	---	---	.2	.3	.5	.4	.4	.4	.3	.4
15	---	---	---	---	.2	.4	.5	.4	.4	.4	.3	.4
16	---	---	---	---	.2	.4	.5	.4	---	---	.3	.3
17	---	---	---	---	.4	.4	.5	.4	---	.5	.3	.3
18	---	---	---	---	---	---	.5	---	.4	.4	.3	.3
19	---	---	---	---	---	---	.5	---	.4	.4	.3	.3
20	---	---	---	---	.6	.4	.5	.5	.4	.4	.3	.3
21	---	---	---	---	.6	.4	.5	.5	.4	.4	.3	.3
22	---	---	---	---	.5	.4	.5	.5	.4	.4	.3	.3
23	---	---	---	---	.5	.4	---	.5	.4	.4	.3	.3
24	---	---	---	---	.5	.4	.8	.5	---	.4	---	---
25	---	---	---	---	.5	---	.7	.5	.4	.4	.4	.4
26	---	---	---	---	.5	---	.6	.4	.4	.4	.4	.3
27	---	---	---	---	---	1.9	.6	.4	.4	.4	.4	.3
28	---	---	---	---	---	1.4	.6	.4	.4	.4	.4	.3
29	---	---	---	---	---	.8	.6	.4	.4	.4	.4	.3
30	---	---	---	---	---	.5	.6	.4	.4	.4	.4	.3
31	---	---	---	---	---	.5	---	.4	---	.3	.4	---
Mean	---	---	---	---	.8	.6	.5	.5	.4	.4	.3	.3
Maximum	---	---	---	---	3.1	1.9	.8	.6	.5	.9	.4	.4
Minimum	---	---	---	---	.2	.3	.4	.4	.4	.3	.3	.3

Table 19. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–3, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	0.3	0.3	0.3	0.3	0.2	---	---	1.6	---	---	---	---
2	.3	.3	.3	.3	---	---	2.2	1.4	---	---	---	---
3	.3	.3	.2	.3	---	---	.8	1.2	---	---	---	---
4	.3	---	.2	---	---	---	.7	1.1	---	---	---	---
5	.3	.3	.2	1.0	---	0.6	.7	1.1	---	---	---	---
6	.3	.3	---	.6	---	.6	.8	---	---	---	---	---
7	.3	.3	.3	.5	---	.6	1.1	---	---	---	---	---
8	.3	.3	.3	.4	---	.6	.9	---	---	---	---	---
9	.3	.3	.3	.4	---	.6	1.2	---	---	---	---	---
10	.3	.2	.3	.3	---	.6	1.8	---	---	---	---	---
11	.3	.3	.3	.3	---	.5	1.9	---	---	---	---	---
12	.3	.3	.3	.3	---	.5	2.0	---	---	---	---	---
13	---	.3	.3	.3	---	.5	2.1	---	---	---	---	---
14	.3	.3	.3	.3	---	.5	2.1	---	---	---	---	---
15	.3	.3	.3	.3	---	.5	2.3	---	---	---	---	---
16	.4	.3	.3	.3	---	.5	3.2	---	---	---	---	---
17	.4	.3	.3	.3	---	---	4.2	---	---	---	---	---
18	.4	.3	---	.3	---	.8	4.6	---	---	---	---	---
19	.4	.3	.4	.3	---	.5	4.7	---	---	---	---	---
20	.4	.3	---	.3	---	.5	---	---	---	---	---	---
21	.4	.3	.4	---	---	.5	5.7	---	---	---	---	---
22	.3	.3	.4	.2	---	.5	5.6	---	---	---	---	---
23	.3	---	.3	.3	---	.5	5.5	---	---	---	---	---
24	.4	---	.3	.3	---	.5	5.2	---	---	---	---	---
25	.4	.2	.3	.3	---	.5	5.2	---	---	---	---	---
26	.3	.2	.3	.3	---	.5	4.6	---	---	---	---	---
27	.3	.3	.3	.3	---	.5	4.1	---	---	---	---	---
28	---	.2	.3	.3	---	.5	3.6	---	---	---	---	---
29	.3	.3	.3	.3	---	.5	2.7	---	---	---	---	---
30	.3	.3	.3	.3	---	.6	2.0	---	---	---	---	---
31	.3	---	.3	.2	---	.7	---	---	---	---	---	---
Mean	.3	.3	.3	.3	.2	.5	2.9	1.3	---	---	---	---
Maximum	.4	.3	.4	1.0	.2	.8	5.7	1.6	---	---	---	---
Minimum	.3	.2	.2	.2	.2	.5	.7	1.1	---	---	---	---

Table 20. Mean daily specific conductance in water from observation well 1993 USGS CRM–4, 1993–94 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	581	---	332	453	530	511	443	444
2	---	---	---	---	581	---	312	469	532	523	466	447
3	---	---	---	---	585	644	300	480	538	---	414	449
4	---	---	---	---	594	645	287	485	546	---	405	445
5	---	---	---	---	604	624	283	477	548	---	439	437
6	---	---	---	---	612	464	283	460	536	---	439	436
7	---	---	---	---	618	330	285	472	516	---	435	457
8	---	---	---	---	623	291	293	474	507	---	436	477
9	---	---	---	---	---	275	---	476	510	---	437	496
10	---	---	---	---	625	272	294	479	516	---	429	513
11	---	---	---	---	628	279	321	477	493	---	430	525
12	---	---	---	---	628	286	388	476	470	---	480	530
13	---	---	---	---	618	292	450	476	467	---	490	532
14	---	---	---	---	582	303	478	479	462	---	379	532
15	---	---	---	---	539	314	488	475	458	518	373	532
16	---	---	---	---	560	330	488	478	450	510	387	533
17	---	---	---	---	574	363	---	471	421	504	431	536
18	---	---	---	---	584	415	---	482	406	503	432	525
19	---	---	---	---	593	446	---	505	445	503	388	508
20	---	---	---	---	590	479	---	516	478	493	361	504
21	---	---	---	---	596	497	---	526	478	442	387	508
22	---	---	---	---	611	469	---	534	471	438	387	502
23	---	---	---	---	627	408	---	539	439	429	345	480
24	---	---	---	---	655	391	467	542	413	390	315	495
25	---	---	---	---	658	418	466	544	411	392	323	513
26	---	---	---	---	654	452	453	543	403	409	355	531
27	---	---	---	---	651	415	426	543	395	453	380	541
28	---	---	---	594	---	415	404	543	404	493	394	538
29	---	---	---	591	---	381	417	546	439	502	415	526
30	---	---	---	587	---	351	438	545	486	478	412	524
31	---	---	---	583	---	342	---	542	---	447	410	---
Mean	---	---	---	589	607	400	380	500	472	470	407	501
Maximum	---	---	---	594	658	645	488	546	548	523	490	541
Minimum	---	---	---	583	539	272	283	453	395	390	315	436

Table 20. Mean daily specific conductance in water from observation well 1993 USGS CRM–4, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					1994 water year							
1	524	546	560	626	608	---	---	---	---	---	---	---
2	524	543	557	631	---	---	---	---	---	---	---	---
3	537	541	558	632	---	---	---	---	---	---	---	---
4	549	543	563	---	---	---	---	---	---	---	---	---
5	554	544	566	630	---	---	---	---	---	---	---	---
6	556	544	554	634	---	---	---	---	---	---	---	---
7	556	549	548	634	---	---	---	---	---	---	---	---
8	550	556	552	628	---	---	---	---	---	---	---	---
9	538	558	555	616	---	---	---	---	---	---	---	---
10	---	558	556	608	---	---	---	---	---	---	---	---
11	---	558	555	607	---	---	---	---	---	---	---	---
12	---	560	557	609	---	---	---	---	---	---	---	---
13	---	562	557	613	---	---	---	---	---	---	---	---
14	485	563	557	619	---	---	---	---	---	---	---	---
15	481	565	557	623	---	---	---	---	---	---	---	---
16	493	566	557	618	---	---	---	---	---	---	---	---
17	512	566	557	614	---	---	---	---	---	---	---	---
18	523	565	565	---	---	---	---	---	---	---	---	---
19	531	560	571	---	---	---	---	---	---	---	---	---
20	539	561	571	---	---	---	---	---	---	---	---	---
21	545	562	570	---	---	---	---	---	---	---	---	---
22	549	565	571	624	---	---	---	---	---	---	---	---
23	551	566	576	627	---	---	---	---	---	---	---	---
24	556	568	575	628	---	---	---	---	---	---	---	---
25	553	567	568	628	---	---	---	---	---	---	---	---
26	546	567	570	623	---	---	---	---	---	---	---	---
27	540	565	576	617	---	---	---	---	---	---	---	---
28	546	565	590	612	---	---	---	---	---	---	---	---
29	550	566	604	609	---	---	---	---	---	---	---	---
30	549	565	611	608	---	---	---	---	---	---	---	---
31	550	---	619	606	---	---	---	---	---	---	---	---
Mean	537	559	568	620	608	---	---	---	---	---	---	---
Maximum	556	568	619	634	608	---	---	---	---	---	---	---
Minimum	481	541	548	606	608	---	---	---	---	---	---	---

Table 21. Mean daily temperature of water from observation well 1993 USGS CRM–4, 1993–94 water years

[Temperatures given in degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	0.9	---	1.8	11.5	16.3	---	23.3	23.9
2	---	---	---	---	.9	---	2.6	12.1	17.1	---	22.9	24.4
3	---	---	---	---	.9	0.1	3.1	12.5	16.8	---	22.8	24.5
4	---	---	---	---	.9	.1	3.3	13.6	16.4	---	22.9	23.8
5	---	---	---	---	.9	.1	3.5	14.2	16.0	---	22.0	22.6
6	---	---	---	---	.9	.1	3.6	14.3	15.6	---	21.8	21.7
7	---	---	---	---	.9	.1	3.7	14.1	14.9	---	21.8	21.0
8	---	---	---	---	.9	.1	3.9	14.1	14.4	---	21.7	20.5
9	---	---	---	---	.9	.1	---	14.1	14.0	---	21.7	20.1
10	---	---	---	---	.8	.1	4.0	14.1	13.9	---	21.6	19.8
11	---	---	---	---	.7	.1	3.9	14.1	14.3	---	21.3	19.6
12	---	---	---	---	.4	.1	4.1	14.0	15.2	---	20.8	19.1
13	---	---	---	---	.2	.1	4.7	14.0	15.4	---	20.6	18.6
14	---	---	---	---	.1	.1	5.9	13.7	15.6	---	20.2	18.3
15	---	---	---	---	.1	.2	7.2	13.3	15.7	---	20.0	18.3
16	---	---	---	---	.1	.2	8.0	13.3	15.9	---	20.2	18.2
17	---	---	---	---	.1	.2	---	14.1	16.8	22.0	20.8	17.8
18	---	---	---	---	.1	.3	---	16.5	17.8	21.9	21.6	17.3
19	---	---	---	---	.1	.2	---	18.0	18.6	21.9	22.6	17.5
20	---	---	---	---	.1	.2	---	18.1	19.4	21.9	23.3	18.4
21	---	---	---	---	.1	.3	---	17.8	19.7	21.6	23.5	18.3
22	---	---	---	---	.1	.4	---	17.1	19.6	21.0	23.2	16.7
23	---	---	---	---	.1	.5	---	16.3	20.0	20.7	23.1	15.3
24	---	---	---	---	.1	.5	8.2	15.5	20.4	20.6	23.4	15.0
25	---	---	---	---	.1	.4	8.4	14.7	20.5	21.1	23.2	14.9
26	---	---	---	---	.1	.3	8.7	14.1	20.4	21.9	23.1	15.1
27	---	---	---	---	.1	.3	9.2	14.1	20.3	22.1	23.0	15.7
28	---	---	---	0.9	---	.3	9.6	14.1	20.5	21.5	22.9	16.1
29	---	---	---	.9	---	.4	10.1	14.2	21.0	21.4	22.7	16.1
30	---	---	---	.9	---	.6	10.6	14.3	21.5	22.6	22.9	15.8
31	---	---	---	.9	---	1.1	---	15.0	---	23.5	23.4	---
	---	---	---	.9	.4	.3	5.8	14.5	17.5	21.7	22.2	18.8
Maximum	---	---	---	.9	.9	1.1	10.6	18.1	21.5	23.5	23.5	24.5
Minimum	---	---	---	.9	.1	.1	1.8	11.5	13.9	20.6	20.0	14.9

Table 21. Mean daily temperature of water from observation well 1993 USGS CRM–4, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
					1994 water year							
1	15.3	11.4	4.7	0.1	0.1	---	---	---	---	---	---	---
2	14.6	11.1	3.8	.1	.1	---	---	---	---	---	---	---
3	13.8	10.3	2.5	.1	.1	---	---	---	---	---	---	---
4	13.3	9.4	1.5	---	.1	---	---	---	---	---	---	---
5	13.0	8.2	.8	.1	.1	---	---	---	---	---	---	---
6	12.8	6.8	.4	.1	.1	---	---	---	---	---	---	---
7	12.6	5.6	.2	.1	.1	---	---	---	---	---	---	---
8	12.6	4.8	.3	.1	.1	---	---	---	---	---	---	---
9	12.6	4.8	.8	.1	.1	---	---	---	---	---	---	---
10	---	5.3	1.5	.1	.1	---	---	---	---	---	---	---
11	---	5.9	1.7	.1	.1	---	---	---	---	---	---	---
12	---	6.1	1.8	.1	.1	---	---	---	---	---	---	---
13	---	5.5	1.8	.1	---	---	---	---	---	---	---	---
14	15.6	4.3	1.9	.1	---	---	---	---	---	---	---	---
15	15.9	3.8	1.9	.1	---	---	---	---	---	---	---	---
16	15.0	4.1	1.9	.1	---	---	---	---	---	---	---	---
17	13.4	4.6	1.8	.1	---	---	---	---	---	---	---	---
18	12.2	5.1	1.9	---	---	---	---	---	---	---	---	---
19	11.6	5.6	1.8	---	---	---	---	---	---	---	---	---
20	11.4	6.0	1.8	---	---	---	---	---	---	---	---	---
21	11.6	6.0	2.1	---	---	---	---	---	---	---	---	---
22	12.1	5.7	2.3	.1	---	---	---	---	---	---	---	---
23	12.6	5.3	2.0	.1	---	---	---	---	---	---	---	---
24	12.7	5.0	1.9	.1	---	---	---	---	---	---	---	---
25	12.6	4.8	1.9	.1	---	---	---	---	---	---	---	---
26	12.4	4.5	2.2	.1	---	---	---	---	---	---	---	---
27	11.9	4.2	2.4	.1	---	---	---	---	---	---	---	---
28	11.2	4.3	1.5	.1	---	---	---	---	---	---	---	---
29	10.8	4.6	.6	.1	---	---	---	---	---	---	---	---
30	10.9	4.9	.2	.1	---	---	---	---	---	---	---	---
31	11.3	---	.1	.1	---	---	---	---	---	---	---	---
Mean	12.8	5.9	1.7	.1	.1	---	---	---	---	---	---	---
Maximum	15.9	11.4	4.7	.1	.1	---	---	---	---	---	---	---
Minimum	10.8	3.8	.1	.1	.1	---	---	---	---	---	---	---

Table 22. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–4, 1993–94 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1993 water year						
1	---	---	---	---	5.2	---	0.8	5.2	2.4	0.9	1.9	0.2
2	---	---	---	---	5.4	---	.8	5.0	2.7	.8	2.1	.1
3	---	---	---	---	5.8	9.7	.8	4.8	2.5	---	2.0	.2
4	---	---	---	---	6.4	7.9	.8	4.3	1.9	---	1.4	.3
5	---	---	---	---	6.0	8.9	.8	3.9	1.5	---	2.0	.4
6	---	---	---	---	5.7	8.2	.8	3.8	2.1	---	2.2	1.0
7	---	---	---	---	5.7	6.6	.7	3.5	2.4	---	2.2	1.3
8	---	---	---	---	6.0	4.0	.7	3.3	2.6	---	1.3	1.6
9	---	---	---	---	6.1	1.1	---	3.3	2.4	---	1.1	1.7
10	---	---	---	---	5.8	.8	.8	3.1	1.7	---	1.3	---
11	---	---	---	---	---	.7	.8	2.7	1.6	---	.9	1.5
12	---	---	---	---	---	.6	1.3	2.6	1.5	---	2.0	1.8
13	---	---	---	---	7.4	.6	3.6	3.0	.8	---	1.9	2.0
14	---	---	---	---	6.8	.6	3.8	2.3	.7	---	.5	2.5
15	---	---	---	---	6.4	.5	4.8	1.2	.7	---	.2	3.2
16	---	---	---	---	6.0	.5	5.5	2.2	1.2	---	.2	3.2
17	---	---	---	---	7.5	.6	---	2.8	.6	.3	.3	2.7
18	---	---	---	---	8.8	---	---	2.7	.4	.3	.2	2.3
19	---	---	---	---	9.0	2.2	---	3.1	1.7	.3	.5	3.1
20	---	---	---	---	8.4	2.6	---	3.0	2.0	.3	.2	3.8
21	---	---	---	---	9.5	4.2	---	3.1	1.5	.3	.2	4.1
22	---	---	---	---	9.0	4.5	---	3.4	.5	.3	.2	3.8
23	---	---	---	---	6.8	3.8	---	4.0	.4	.3	.2	3.7
24	---	---	---	---	7.6	3.4	7.1	4.3	.4	.3	.2	---
25	---	---	---	---	9.6	3.7	6.6	4.5	.3	.6	.2	4.1
26	---	---	---	---	9.4	3.8	6.1	4.5	.3	1.2	.2	4.4
27	---	---	---	---	9.3	3.1	5.2	4.5	.3	1.2	.2	4.6
28	---	---	---	6.1	---	2.0	4.5	5.1	.4	1.4	.2	4.4
29	---	---	---	5.6	---	1.0	4.2	4.7	.4	2.6	.2	4.2
30	---	---	---	5.3	---	.9	5.2	3.7	.7	2.4	.2	4.1
31	---	---	---	5.1	---	.9	---	2.7	---	2.3	.2	---
Mean	---	---	---	5.5	7.2	3.1	3.0	3.6	1.3	.9	.9	2.5
Maximum	---	---	---	6.1	9.6	9.7	7.1	5.2	2.7	2.6	2.2	4.6
Minimum	---	---	---	5.1	5.2	.5	.7	1.2	.3	.3	.2	.1

Table 22. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–4, 1993–94 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	4.3	5.4	9.9	11.0	3.4	---	8.0	---	---	---	---	---
2	4.4	6.0	10.1	11.2	---	---	8.7	---	---	---	---	---
3	4.7	6.8	10.6	11.7	---	---	8.5	---	---	---	---	---
4	5.1	7.7	11.0	---	---	---	8.5	---	---	---	---	---
5	5.1	8.5	11.0	11.5	---	7.9	8.3	---	---	---	---	---
6	5.2	8.7	11.4	10.9	---	7.9	8.2	---	---	---	---	---
7	5.2	8.4	11.3	10.2	---	8.1	8.1	---	---	---	---	---
8	4.8	7.0	10.9	9.8	---	8.8	6.9	---	---	---	---	---
9	4.9	6.6	10.6	10.0	---	8.3	7.2	---	---	---	---	---
10	---	7.3	11.0	10.2	---	7.3	8.2	---	---	---	---	---
11	---	7.7	11.0	9.9	---	6.6	7.9	---	---	---	---	---
12	---	7.6	10.9	9.7	---	7.4	7.3	---	---	---	---	---
13	---	7.5	10.8	9.4	---	8.4	8.3	---	---	---	---	---
14	1.7	7.1	10.7	9.1	---	8.8	6.6	---	---	---	---	---
15	1.6	6.7	10.6	8.6	---	8.7	5.7	---	---	---	---	---
16	1.9	6.0	10.6	8.3	---	7.7	5.4	---	---	---	---	---
17	2.3	5.7	10.6	8.4	---	7.5	6.0	---	---	---	---	---
18	2.0	6.0	11.0	---	---	6.2	4.6	---	---	---	---	---
19	1.2	6.5	11.1	---	---	5.4	5.2	---	---	---	---	---
20	.6	6.5	---	---	---	5.1	---	---	---	---	---	---
21	.7	6.3	11.7	---	---	4.9	2.9	---	---	---	---	---
22	.9	6.3	8.5	6.7	---	4.7	4.0	---	---	---	---	---
23	1.1	6.9	4.8	6.5	---	5.3	4.1	---	---	---	---	---
24	1.4	7.6	7.7	6.4	---	5.8	4.3	---	---	---	---	---
25	3.5	7.7	11.4	6.0	---	5.9	4.2	---	---	---	---	---
26	4.8	7.6	11.9	5.7	---	6.2	3.8	---	---	---	---	---
27	4.5	7.7	12.2	5.5	---	6.0	2.2	---	---	---	---	---
28	4.9	7.8	12.3	5.3	---	6.3	---	---	---	---	---	---
29	4.4	8.2	12.0	5.0	---	6.7	---	---	---	---	---	---
30	3.4	9.2	11.7	4.7	---	6.9	---	---	---	---	---	---
31	4.6	---	11.2	4.4	---	7.5	---	---	---	---	---	---
Mean	3.3	7.2	10.7	8.3	3.4	6.9	6.3	---	---	---	---	---
Maximum	5.2	9.2	12.3	11.7	3.4	8.8	8.7	---	---	---	---	---
Minimum	.6	5.4	4.8	4.4	3.4	4.7	2.2	---	---	---	---	---

Table 23. Mean daily specific conductance in water from observation well 1993 USGS CRM–9, 1994–96 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	847	745	636	714
2	---	---	---	---	---	---	---	---	763	756	632	714
3	---	---	---	---	---	---	---	---	748	770	625	703
4	---	---	---	---	---	---	---	---	802	776	628	695
5	---	---	---	---	---	---	---	---	792	782	640	677
6	---	---	---	---	---	---	---	---	790	816	659	666
7	---	---	---	---	---	---	---	685	789	874	677	658
8	---	---	---	---	---	---	---	686	783	864	694	649
9	---	---	---	---	---	---	---	689	780	851	703	---
10	---	---	---	---	---	---	---	690	779	852	701	---
11	---	---	---	---	---	---	---	692	775	839	701	---
12	---	---	---	---	---	---	---	693	772	834	702	---
13	---	---	---	---	---	---	---	695	766	842	685	---
14	---	---	---	---	---	---	---	697	773	799	661	---
15	---	---	---	---	---	---	---	699	692	795	644	---
16	---	---	---	---	---	---	---	701	702	775	639	---
17	---	---	---	---	---	---	---	726	664	776	642	---
18	---	---	---	---	---	---	---	767	666	770	641	---
19	---	---	---	---	---	---	---	727	661	758	646	---
20	---	---	---	---	---	---	---	717	679	752	653	---
21	---	---	---	---	---	---	---	761	689	765	658	---
22	---	---	---	---	---	---	---	794	702	736	661	---
23	---	---	---	---	---	---	---	766	703	736	662	---
24	---	---	---	---	---	---	---	762	704	749	659	---
25	---	---	---	---	---	---	---	794	706	739	665	---
26	---	---	---	---	---	---	---	830	713	708	679	---
27	---	---	---	---	---	---	---	850	717	663	680	---
28	---	---	---	---	---	---	---	927	719	637	686	---
29	---	---	---	---	---	---	---	911	714	619	694	---
30	---	---	---	---	---	---	---	905	728	622	701	---
31	---	---	---	---	---	---	---	899	---	632	711	---
Mean	---	---	---	---	---	---	---	763	737	762	667	684
Maximum	---	---	---	---	---	---	---	927	847	874	711	714
Minimum	---	---	---	---	---	---	---	685	661	619	625	649

Table 23. Mean daily specific conductance in water from observation well 1993 USGS CRM–9, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	592	596	600	737	646	570	748	730	611	856	883	897
2	635	598	601	736	652	629	749	731	619	857	881	898
3	705	602	613	738	661	697	749	731	624	859	880	898
4	748	603	614	738	660	650	749	732	617	860	880	899
5	772	600	612	736	660	644	749	762	624	860	879	899
6	770	599	605	736	659	700	726	794	759	858	879	897
7	753	596	603	736	656	684	707	796	767	859	883	894
8	774	594	588	736	655	645	710	788	786	858	886	894
9	815	591	652	735	656	685	708	753	785	857	885	894
10	819	587	716	734	654	745	707	767	783	853	787	893
11	826	582	717	734	652	742	705	770	782	848	851	893
12	726	578	718	733	651	742	703	771	783	849	857	894
13	603	580	709	733	651	740	666	764	784	847	851	892
14	593	583	705	733	655	737	696	766	785	847	859	892
15	597	587	701	732	652	715	696	714	786	849	862	894
16	646	591	694	731	651	699	696	748	784	849	863	893
17	644	587	697	722	641	707	685	749	758	839	867	893
18	617	582	696	712	630	775	696	750	765	850	874	892
19	609	576	709	713	630	778	691	751	761	855	883	856
20	607	599	696	713	630	777	643	752	761	855	888	824
21	615	599	651	713	619	776	622	753	753	855	892	825
22	611	570	741	712	614	776	719	691	632	856	893	826
23	606	571	746	712	638	761	734	758	644	840	895	826
24	593	567	744	712	636	749	693	669	659	847	897	826
25	585	564	743	648	633	748	722	607	680	817	898	826
26	589	563	742	573	623	748	643	708	834	791	900	826
27	593	564	742	585	567	748	709	725	858	862	893	827
28	596	565	740	660	563	748	739	626	860	881	863	827
29	596	567	739	670	---	748	740	714	859	880	889	747
30	596	596	739	669	---	748	738	696	857	882	892	750
31	597	---	739	655	---	748	---	666	---	883	894	---
Mean	659	585	687	707	639	721	708	733	745	854	877	863
Maximum	826	603	746	738	661	778	749	796	860	883	900	899
Minimum	585	563	588	573	563	570	622	607	611	791	787	747

Table 23. Mean daily specific conductance in water from observation well 1993 USGS CRM–9, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	778	779	763	806	780	735	---	---	---	---	---	---
2	783	765	762	806	760	735	---	---	---	---	---	---
3	780	764	761	808	767	735	---	---	---	---	---	---
4	780	762	762	808	770	733	---	---	---	---	---	---
5	780	761	761	807	769	734	---	---	---	---	---	---
6	778	757	764	807	769	734	---	---	---	---	---	---
7	773	755	765	808	770	733	---	---	---	---	---	---
8	773	757	764	808	771	734	---	---	---	---	---	---
9	775	756	766	809	771	734	---	---	---	---	---	---
10	774	754	771	809	770	733	---	---	---	---	---	---
11	768	748	775	810	769	734	---	---	---	---	---	---
12	760	751	675	816	768	723	---	---	---	---	---	---
13	756	750	727	818	768	718	---	---	---	---	---	---
14	746	753	733	809	730	728	---	---	---	---	---	---
15	744	755	730	808	759	737	---	---	---	---	---	---
16	746	755	691	815	757	737	---	---	---	---	---	---
17	740	750	655	813	755	736	---	---	---	---	---	---
18	744	750	623	805	754	689	---	---	---	---	---	---
19	743	753	638	806	753	726	---	---	---	---	---	---
20	728	763	676	805	750	748	---	---	---	---	---	---
21	776	763	731	805	748	775	---	---	---	---	---	---
22	779	761	806	806	747	---	---	---	---	---	---	---
23	758	760	810	815	748	---	---	---	---	---	---	---
24	757	763	809	819	746	---	---	---	---	---	---	---
25	761	765	808	819	744	---	---	---	---	---	---	---
26	757	765	808	817	743	---	---	---	---	---	---	---
27	753	762	808	771	741	---	---	---	---	---	---	---
28	755	764	808	789	738	---	---	---	---	---	---	---
29	757	764	802	790	737	---	---	---	---	---	---	---
30	---	762	806	790	---	---	---	---	---	---	---	---
31	---	---	805	766	---	---	---	---	---	---	---	---
Mean	762	759	754	805	757	733	---	---	---	---	---	---
Maximum	783	779	810	819	780	775	---	---	---	---	---	---
Minimum	728	748	623	766	730	689	---	---	---	---	---	---

Table 24. Mean daily temperature of water from observation well 1993 USGS CRM–9, 1994–96 water years

[Temperatures given in degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
						1994 water year						
1	---	---	---	---	---	---	---	---	5.9	25.4	23.6	---
2	---	---	---	---	---	---	---	---	6.9	25.9	23.6	---
3	---	---	---	---	---	---	---	---	7.9	26.2	23.6	---
4	---	---	---	---	---	---	---	---	7.3	26.2	23.6	---
5	---	---	---	---	---	---	---	---	7.3	26.0	23.6	---
6	---	---	---	---	---	---	---	---	7.3	25.7	23.6	---
7	---	---	---	---	---	---	---	2.6	7.3	25.6	23.6	---
8	---	---	---	---	---	---	---	2.6	7.3	25.6	23.5	---
9	---	---	---	---	---	---	---	2.6	7.3	25.6	23.5	---
10	---	---	---	---	---	---	---	2.6	7.3	25.6	23.5	---
11	---	---	---	---	---	---	---	2.6	7.3	25.5	23.5	---
12	---	---	---	---	---	---	---	2.6	7.3	25.5	---	---
13	---	---	---	---	---	---	---	2.6	7.5	25.4	---	---
14	---	---	---	---	---	---	---	2.6	7.4	25.4	23.7	---
15	---	---	---	---	---	---	---	2.6	8.0	25.2	23.8	---
16	---	---	---	---	---	---	---	2.6	9.2	24.8	---	---
17	---	---	---	---	---	---	---	2.7	10.9	24.6	---	---
18	---	---	---	---	---	---	---	2.7	12.2	24.4	---	---
19	---	---	---	---	---	---	---	2.9	13.5	24.2	---	---
20	---	---	---	---	---	---	---	3.1	14.9	24.1	---	---
21	---	---	---	---	---	---	---	3.4	16.2	24.0	---	---
22	---	---	---	---	---	---	---	3.7	17.4	23.9	---	---
23	---	---	---	---	---	---	---	4.0	18.5	23.9	---	---
24	---	---	---	---	---	---	---	4.4	19.4	23.8	---	---
25	---	---	---	---	---	---	---	4.9	20.2	23.8	---	---
26	---	---	---	---	---	---	---	5.5	21.1	23.7	---	---
27	---	---	---	---	---	---	---	6.0	22.0	23.7	---	---
28	---	---	---	---	---	---	---	5.6	23.0	23.7	---	---
29	---	---	---	---	---	---	---	5.6	23.9	23.7	---	---
30	---	---	---	---	---	---	---	5.6	24.8	23.7	---	---
31	---	---	---	---	---	---	---	5.6	---	23.6	---	---
Mean	---	---	---	---	---	---	---	3.7	12.5	24.8	23.6	---
Maximum	---	---	---	---	---	---	---	6.0	24.8	26.2	23.8	---
Minimum	---	---	---	---	---	---	---	2.6	5.9	23.6	23.5	---

Table 24. Mean daily temperature of water from observation well 1993 USGS CRM–9, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	---	16.0	9.9	9.9	9.3	8.5	5.9	4.8	3.9	5.7	6.4	6.9
2	---	15.7	9.9	10.0	---	8.1	5.9	4.9	3.8	5.7	6.4	6.9
3	---	15.5	9.9	10.0	---	7.7	5.9	4.9	3.8	5.7	6.4	6.9
4	---	15.3	9.9	9.9	---	7.4	5.9	4.9	3.9	5.7	6.4	6.9
5	---	15.1	10.0	10.0	---	7.2	5.9	5.0	4.1	5.7	6.5	6.9
6	---	15.0	10.0	10.0	---	7.3	6.0	4.9	4.1	5.7	6.5	7.0
7	---	14.9	10.0	10.0	9.3	7.1	5.9	4.9	4.1	5.7	6.5	7.0
8	---	14.7	10.0	10.0	9.3	6.6	5.9	4.9	4.1	5.7	6.5	7.0
9	---	14.4	9.9	10.0	9.3	6.3	5.9	4.8	4.0	5.7	6.5	7.0
10	---	14.2	9.9	10.0	9.3	6.6	6.0	4.9	4.0	5.8	8.5	7.0
11	---	13.9	9.9	10.0	9.3	6.6	6.0	4.9	4.0	5.8	6.5	7.0
12	---	13.7	9.9	10.0	9.3	6.7	6.0	4.9	4.0	5.8	6.6	7.1
13	---	13.4	9.9	10.0	9.3	6.7	6.4	4.9	4.0	5.8	6.6	7.1
14	---	13.1	9.9	10.1	9.3	6.6	6.0	4.9	4.0	5.8	6.6	7.1
15	---	12.8	9.9	10.1	9.3	6.4	6.0	5.0	4.1	5.8	6.6	7.1
16	---	---	10.0	10.1	9.3	5.8	6.0	5.0	4.1	5.9	6.6	7.1
17	---	---	10.0	10.0	9.4	5.5	5.9	5.0	4.1	6.0	6.6	7.1
18	---	11.9	10.0	10.0	9.4	5.8	5.8	5.0	4.1	5.9	6.7	7.2
19	---	11.6	10.0	10.0	9.5	5.8	5.8	5.0	4.2	5.9	6.7	7.2
20	---	11.5	10.0	10.0	9.5	5.8	5.5	5.0	4.2	5.9	6.7	7.2
21	---	11.4	9.8	10.0	9.4	5.8	5.1	5.0	4.2	5.9	6.7	7.2
22	---	11.1	9.8	10.1	9.3	5.8	5.1	5.0	4.4	6.0	6.7	7.2
23	---	11.0	9.8	10.1	9.3	5.8	5.2	4.8	4.8	6.0	6.7	7.3
24	---	10.8	9.8	10.1	9.3	5.8	5.0	4.6	5.3	6.0	6.7	7.3
25	18.9	10.6	9.9	10.0	9.3	5.8	5.1	4.3	6.1	6.1	6.7	7.3
26	18.3	10.4	9.9	9.7	9.3	5.9	4.9	4.3	5.7	6.3	6.8	7.3
27	17.8	10.3	9.9	9.5	9.1	5.9	4.7	4.3	5.7	6.3	6.8	7.3
28	17.3	10.1	9.9	9.4	8.8	5.9	4.8	4.1	5.7	6.3	6.9	7.4
29	16.9	10.0	9.9	9.4	---	5.9	4.9	4.1	5.7	6.4	6.8	7.9
30	16.5	9.9	9.9	9.4	---	5.9	4.9	4.1	5.7	6.3	6.9	8.2
31	16.2	---	9.9	9.4	---	5.9	---	4.1	---	6.4	6.9	---
Mean	17.4	12.8	9.9	9.9	9.3	6.4	5.6	4.7	4.5	5.9	6.7	7.2
Maximum	18.9	16.0	10.0	10.1	9.5	8.5	6.4	5.0	6.1	6.4	8.5	8.2
Minimum	16.2	9.9	9.8	9.4	8.8	5.5	4.7	4.1	3.8	5.7	6.4	6.9

Table 24. Mean daily temperature of water from observation well 1993 USGS CRM–9, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	8.1	8.7	9.3	13.6	13.2	12.7	---	---	---	---	---	---
2	8.2	8.7	9.3	13.6	13.2	12.6	---	---	---	---	---	---
3	8.2	8.7	9.3	13.6	13.2	12.6	---	---	---	---	---	---
4	8.2	8.7	9.4	13.6	13.2	12.6	---	---	---	---	---	---
5	8.2	8.8	9.4	13.5	13.2	12.6	---	---	---	---	---	---
6	8.2	8.8	9.4	13.5	13.1	12.6	---	---	---	---	---	---
7	8.3	8.8	9.4	13.5	13.1	12.5	---	---	---	---	---	---
8	8.2	8.8	9.4	13.5	13.1	12.5	---	---	---	---	---	---
9	8.2	8.8	9.5	13.5	13.1	12.5	---	---	---	---	---	---
10	8.3	8.9	9.5	13.5	13.1	12.5	---	---	---	---	---	---
11	8.3	8.9	9.5	13.5	13.1	12.5	---	---	---	---	---	---
12	8.4	8.9	10.0	13.4	13.0	12.4	---	---	---	---	---	---
13	8.4	8.9	10.8	13.4	13.0	12.4	---	---	---	---	---	---
14	8.5	9.0	11.5	13.4	12.5	12.4	---	---	---	---	---	---
15	8.4	9.0	12.0	13.4	13.0	12.4	---	---	---	---	---	---
16	8.4	9.0	12.6	13.4	13.0	12.4	---	---	---	---	---	---
17	8.4	9.0	13.2	13.4	13.0	12.4	---	---	---	---	---	---
18	8.5	9.1	13.5	13.4	13.0	12.3	---	---	---	---	---	---
19	8.5	9.1	13.5	13.4	12.9	12.1	---	---	---	---	---	---
20	8.3	9.1	13.6	13.3	12.9	12.1	---	---	---	---	---	---
21	8.5	9.1	13.6	13.3	12.9	12.1	---	---	---	---	---	---
22	8.5	9.1	13.7	13.3	12.9	---	---	---	---	---	---	---
23	8.6	9.1	13.7	13.3	12.8	---	---	---	---	---	---	---
24	8.6	9.2	13.7	13.3	12.8	---	---	---	---	---	---	---
25	8.6	9.2	13.7	13.3	12.8	---	---	---	---	---	---	---
26	8.6	9.2	13.6	13.3	12.8	---	---	---	---	---	---	---
27	8.6	9.2	13.6	13.2	12.8	---	---	---	---	---	---	---
28	8.6	9.2	13.6	13.2	12.7	---	---	---	---	---	---	---
29	8.7	9.3	13.6	13.2	12.7	---	---	---	---	---	---	---
30	---	9.3	13.6	13.2	---	---	---	---	---	---	---	---
31	---	---	13.6	13.2	---	---	---	---	---	---	---	---
Mean	8.4	9.0	11.7	13.4	13.0	12.4	---	---	---	---	---	---
Maximum	8.7	9.3	13.7	13.6	13.2	12.7	---	---	---	---	---	---
Minimum	8.1	8.7	9.3	13.2	12.5	12.1	---	---	---	---	---	---

Table 25. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–9, 1994–96 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	0.6	0.8	0.7	0.5
2	---	---	---	---	---	---	---	---	.6	.8	.7	.5
3	---	---	---	---	---	---	---	---	.7	.8	.7	.5
4	---	---	---	---	---	---	---	---	.9	.8	.7	.5
5	---	---	---	---	---	---	---	---	.9	.8	.7	.5
6	---	---	---	---	---	---	---	---	.9	.8	.7	.5
7	---	---	---	---	---	---	---	0.6	.8	.8	.7	.5
8	---	---	---	---	---	---	---	.6	.8	.8	.7	.5
9	---	---	---	---	---	---	---	.6	.8	.8	.7	---
10	---	---	---	---	---	---	---	.6	.8	.8	.7	---
11	---	---	---	---	---	---	---	.6	.8	.8	.7	---
12	---	---	---	---	---	---	---	.6	.8	.8	.7	---
13	---	---	---	---	---	---	---	.6	.8	.8	.6	---
14	---	---	---	---	---	---	---	.6	.8	.8	.7	---
15	---	---	---	---	---	---	---	.6	.9	---	.7	---
16	---	---	---	---	---	---	---	.6	.9	.8	.7	---
17	---	---	---	---	---	---	---	.6	---	.8	.7	---
18	---	---	---	---	---	---	---	.6	.9	.8	.7	---
19	---	---	---	---	---	---	---	---	.9	.8	.7	---
20	---	---	---	---	---	---	---	.6	.9	.8	.6	---
21	---	---	---	---	---	---	---	.6	.9	.8	.6	---
22	---	---	---	---	---	---	---	.6	.9	.8	.6	---
23	---	---	---	---	---	---	---	.6	.9	.8	.6	---
24	---	---	---	---	---	---	---	.6	.9	.8	.6	---
25	---	---	---	---	---	---	---	.6	.8	.8	.6	---
26	---	---	---	---	---	---	---	.6	.8	.8	.6	---
27	---	---	---	---	---	---	---	.6	.8	.8	.5	---
28	---	---	---	---	---	---	---	.6	.8	.7	.6	---
29	---	---	---	---	---	---	---	.6	.8	---	.5	---
30	---	---	---	---	---	---	---	.6	.9	.7	.5	---
31	---	---	---	---	---	---	---	.6	---	.7	.5	---
Mean	---	---	---	---	---	---	---	.6	.8	.8	.6	.5
Maximum	---	---	---	---	---	---	---	.6	.9	.8	.7	.5
Minimum	---	---	---	---	---	---	---	.6	.6	.7	.5	.5

Table 25. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–9, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	1.0	1.1	2.9	4.7	3.4	3.5	---	---	---	---	---	---
2	1.0	1.2	3.0	4.6	3.4	3.5	---	---	---	---	---	---
3	1.1	1.3	3.0	4.4	3.4	3.5	---	---	---	---	---	---
4	1.0	1.3	3.1	4.2	3.4	3.5	---	---	---	---	---	---
5	.9	1.3	3.1	4.2	3.4	3.5	---	---	---	---	---	---
6	.9	1.4	3.0	4.3	3.3	3.6	---	---	---	---	---	---
7	1.0	1.5	3.0	4.3	3.3	3.6	---	---	---	---	---	---
8	1.1	1.6	3.0	4.3	3.3	3.5	---	---	---	---	---	---
9	1.1	1.6	3.0	4.2	3.3	3.5	---	---	---	---	---	---
10	1.1	1.4	4.1	4.3	3.4	3.6	---	---	---	---	---	---
11	1.0	1.3	5.2	4.0	3.3	3.6	---	---	---	---	---	---
12	1.0	1.3	3.9	3.8	3.3	3.6	---	---	---	---	---	---
13	1.0	1.3	4.5	3.9	3.3	3.6	---	---	---	---	---	---
14	1.0	1.4	4.7	3.9	3.5	3.7	---	---	---	---	---	---
15	1.1	1.5	4.7	3.8	3.8	3.7	---	---	---	---	---	---
16	1.2	1.5	4.7	3.8	3.7	3.7	---	---	---	---	---	---
17	1.3	1.7	4.6	3.8	3.6	3.7	---	---	---	---	---	---
18	1.3	1.9	4.6	3.8	3.6	3.7	---	---	---	---	---	---
19	1.4	2.7	4.6	3.8	3.6	3.8	---	---	---	---	---	---
20	2.0	2.8	4.6	3.8	3.6	3.8	---	---	---	---	---	---
21	1.4	2.8	4.6	3.5	3.6	3.8	---	---	---	---	---	---
22	1.4	2.8	4.8	3.5	3.6	---	---	---	---	---	---	---
23	1.3	2.7	4.8	3.5	2.6	---	---	---	---	---	---	---
24	1.4	2.7	4.9	3.5	3.4	---	---	---	---	---	---	---
25	1.4	2.9	5.0	3.5	3.5	---	---	---	---	---	---	---
26	1.5	3.1	5.1	3.5	3.5	---	---	---	---	---	---	---
27	1.2	3.1	4.9	3.5	3.5	---	---	---	---	---	---	---
28	1.2	3.1	4.9	3.4	3.5	---	---	---	---	---	---	---
29	1.2	3.0	5.0	3.4	3.5	---	---	---	---	---	---	---
30	---	3.0	4.8	3.3	---	---	---	---	---	---	---	---
31	---	---	4.7	3.4	---	---	---	---	---	---	---	---
Mean	1.2	2.0	4.2	3.9	3.4	3.6	---	---	---	---	---	---
Maximum	2.0	3.1	5.2	4.7	3.8	3.8	---	---	---	---	---	---
Minimum	.9	1.1	2.9	3.3	2.6	3.5	---	---	---	---	---	---

Table 25. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–9, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	1.0	1.1	2.9	4.7	3.4	3.5	---	---	---	---	---	---
2	1.0	1.2	3.0	4.6	3.4	3.5	---	---	---	---	---	---
3	1.1	1.3	3.0	4.4	3.4	3.5	---	---	---	---	---	---
4	1.0	1.3	3.1	4.2	3.4	3.5	---	---	---	---	---	---
5	.9	1.3	3.1	4.2	3.4	3.5	---	---	---	---	---	---
6	.9	1.4	3.0	4.3	3.3	3.6	---	---	---	---	---	---
7	1.0	1.5	3.0	4.3	3.3	3.6	---	---	---	---	---	---
8	1.1	1.6	3.0	4.3	3.3	3.5	---	---	---	---	---	---
9	1.1	1.6	3.0	4.2	3.3	3.5	---	---	---	---	---	---
10	1.1	1.4	4.1	4.3	3.4	3.6	---	---	---	---	---	---
11	1.0	1.3	5.2	4.0	3.3	3.6	---	---	---	---	---	---
12	1.0	1.3	3.9	3.8	3.3	3.6	---	---	---	---	---	---
13	1.0	1.3	4.5	3.9	3.3	3.6	---	---	---	---	---	---
14	1.0	1.4	4.7	3.9	3.5	3.7	---	---	---	---	---	---
15	1.1	1.5	4.7	3.8	3.8	3.7	---	---	---	---	---	---
16	1.2	1.5	4.7	3.8	3.7	3.7	---	---	---	---	---	---
17	1.3	1.7	4.6	3.8	3.6	3.7	---	---	---	---	---	---
18	1.3	1.9	4.6	3.8	3.6	3.7	---	---	---	---	---	---
19	1.4	2.7	4.6	3.8	3.6	3.8	---	---	---	---	---	---
20	2.0	2.8	4.6	3.8	3.6	3.8	---	---	---	---	---	---
21	1.4	2.8	4.6	3.5	3.6	3.8	---	---	---	---	---	---
22	1.4	2.8	4.8	3.5	3.6	---	---	---	---	---	---	---
23	1.3	2.7	4.8	3.5	2.6	---	---	---	---	---	---	---
24	1.4	2.7	4.9	3.5	3.4	---	---	---	---	---	---	---
25	1.4	2.9	5.0	3.5	3.5	---	---	---	---	---	---	---
26	1.5	3.1	5.1	3.5	3.5	---	---	---	---	---	---	---
27	1.2	3.1	4.9	3.5	3.5	---	---	---	---	---	---	---
28	1.2	3.1	4.9	3.4	3.5	---	---	---	---	---	---	---
29	1.2	3.0	5.0	3.4	3.5	---	---	---	---	---	---	---
30	---	3.0	4.8	3.3	---	---	---	---	---	---	---	---
31	---	---	4.7	3.4	---	---	---	---	---	---	---	---
Mean	1.2	2.0	4.2	3.9	3.4	3.6	---	---	---	---	---	---
Maximum	2.0	3.1	5.2	4.7	3.8	3.8	---	---	---	---	---	---
Minimum	.9	1.1	2.9	3.3	2.6	3.5	---	---	---	---	---	---

Table 26. Mean daily specific conductance in water from observation well 1993 USGS CRM–10, 1994–96 water years

[Specific conductance given in microsiemens per centimeter at 25 degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	477	---	---	---
2	---	---	---	---	---	---	---	---	421	---	---	---
3	---	---	---	---	---	---	---	---	419	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	482	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	456	492	---
15	---	---	---	---	---	---	---	---	---	478	---	---
16	---	---	---	---	---	---	---	---	---	487	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	520	---	---	---	---
19	---	---	---	---	---	---	---	518	---	---	---	---
20	---	---	---	---	---	---	---	513	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Mean	---	---	---	---	---	---	---	517	439	474	487	---
Maximum	---	---	---	---	---	---	---	520	477	487	492	---
Minimum	---	---	---	---	---	---	---	513	419	456	482	---

Table 26. Mean daily specific conductance in water from observation well 1993 USGS CRM–10, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	---	586	586	574	569	530	519	528	492	495	529	529
2	---	591	585	575	---	532	493	530	501	497	528	529
3	---	598	585	561	---	537	455	532	507	499	528	529
4	---	604	585	553	---	547	452	533	497	499	528	528
5	---	609	558	554	---	564	453	536	503	497	527	527
6	---	611	531	554	---	564	486	548	509	496	527	528
7	---	607	533	554	581	577	500	552	514	496	528	527
8	---	603	532	554	581	580	489	550	503	497	528	527
9	---	607	506	554	581	558	489	542	493	496	528	527
10	---	606	530	554	581	574	490	551	497	494	459	526
11	---	606	530	554	582	577	494	554	498	491	525	526
12	---	607	530	554	582	579	501	553	499	494	525	526
13	---	607	530	554	583	580	497	553	498	494	526	526
14	---	606	530	554	583	576	538	553	498	494	526	525
15	---	605	530	554	583	548	551	553	498	494	527	526
16	---	---	530	553	583	492	567	553	500	494	528	526
17	---	---	530	571	560	472	540	553	494	516	529	525
18	---	603	530	588	539	524	506	553	498	537	531	525
19	---	602	557	591	539	528	505	552	506	536	532	516
20	---	603	578	592	539	505	453	551	508	535	533	508
21	---	603	572	592	536	490	422	550	510	534	531	507
22	---	600	572	593	531	486	459	501	478	533	532	505
23	---	596	573	594	536	472	468	516	477	532	532	504
24	---	594	574	594	536	455	453	492	470	531	531	505
25	592	591	575	579	536	454	469	472	471	529	531	505
26	596	587	575	566	534	454	439	498	479	519	530	505
27	596	585	573	565	524	453	499	506	486	522	530	505
28	594	585	571	571	526	456	524	486	491	527	526	505
29	589	585	568	572	---	462	525	499	493	529	528	508
30	584	586	570	573	---	498	527	498	494	529	528	506
31	583	---	571	571	---	516	---	497	---	529	528	---
Mean	591	599	555	568	558	521	492	530	495	512	526	519
Maximum	596	611	586	594	583	580	567	554	514	537	533	529
Minimum	583	585	506	553	524	453	422	472	470	491	459	504

Table 26. Mean daily specific conductance in water from observation well 1993 USGS CRM–10, 1994–96 water years—Continued

Day	Oct	Nov	Dec.	Jan	Feb	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	506	523	542	948	838	800	---	---	---	---	---	---
2	506	521	543	947	851	788	---	---	---	---	---	---
3	505	529	543	947	860	773	---	---	---	---	---	---
4	506	538	543	949	845	768	---	---	---	---	---	---
5	506	540	543	943	835	777	---	---	---	---	---	---
6	507	541	543	939	830	783	---	---	---	---	---	---
7	506	542	543	935	827	793	---	---	---	---	---	---
8	504	545	542	933	826	803	---	---	---	---	---	---
9	506	548	541	930	830	810	---	---	---	---	---	---
10	506	547	542	925	838	793	---	---	---	---	---	---
11	505	546	541	920	850	791	---	---	---	---	---	---
12	504	545	531	910	858	816	---	---	---	---	---	---
13	504	549	533	900	866	898	---	---	---	---	---	---
14	504	549	540	888	791	968	---	---	---	---	---	---
15	505	548	550	874	786	940	---	---	---	---	---	---
16	505	546	640	862	799	949	---	---	---	---	---	---
17	505	546	676	851	804	960	---	---	---	---	---	---
18	504	546	720	842	817	999	---	---	---	---	---	---
19	504	546	756	836	824	1,030	---	---	---	---	---	---
20	463	546	814	832	819	1,010	---	---	---	---	---	---
21	506	546	928	832	810	1,010	---	---	---	---	---	---
22	506	546	955	829	822	---	---	---	---	---	---	---
23	507	546	935	825	825	---	---	---	---	---	---	---
24	508	545	926	830	826	---	---	---	---	---	---	---
25	508	545	918	828	833	---	---	---	---	---	---	---
26	507	546	914	833	829	---	---	---	---	---	---	---
27	507	546	914	842	819	---	---	---	---	---	---	---
28	507	546	913	846	807	---	---	---	---	---	---	---
29	508	545	929	839	803	---	---	---	---	---	---	---
30	---	542	950	834	---	---	---	---	---	---	---	---
31	---	---	948	847	---	---	---	---	---	---	---	---
Mean	504	543	708	881	826	869	---	---	---	---	---	---
Maximum	508	549	955	949	866	1,030	---	---	---	---	---	---
Minimum	463	521	531	825	786	768	---	---	---	---	---	---

Table 27. Mean daily temperature of water from observation well 1993 USGS CRM–10, 1994–96 water years

[Temperatures given in degrees Celsius. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	5.9	25.4	23.6	---
2	---	---	---	---	---	---	---	---	6.9	25.9	23.6	---
3	---	---	---	---	---	---	---	---	7.9	26.2	23.6	---
4	---	---	---	---	---	---	---	---	7.3	26.2	23.6	---
5	---	---	---	---	---	---	---	---	7.3	26.0	23.6	---
6	---	---	---	---	---	---	---	---	7.3	25.7	23.6	---
7	---	---	---	---	---	---	---	2.6	7.3	25.6	23.6	---
8	---	---	---	---	---	---	---	2.6	7.3	25.6	23.5	---
9	---	---	---	---	---	---	---	2.6	7.3	25.6	23.5	---
10	---	---	---	---	---	---	---	2.6	7.3	25.6	23.5	---
11	---	---	---	---	---	---	---	2.6	7.3	25.5	23.5	---
12	---	---	---	---	---	---	---	2.6	7.3	25.5	---	---
13	---	---	---	---	---	---	---	2.6	7.5	25.4	---	---
14	---	---	---	---	---	---	---	2.6	7.4	25.4	23.7	---
15	---	---	---	---	---	---	---	2.6	8.0	25.2	23.8	---
16	---	---	---	---	---	---	---	2.6	9.2	24.8	---	---
17	---	---	---	---	---	---	---	2.7	10.9	24.6	---	---
18	---	---	---	---	---	---	---	2.7	12.2	24.4	---	---
19	---	---	---	---	---	---	---	2.9	13.5	24.2	---	---
20	---	---	---	---	---	---	---	3.1	14.9	24.1	---	---
21	---	---	---	---	---	---	---	3.4	16.2	24.0	---	---
22	---	---	---	---	---	---	---	3.7	17.4	23.9	---	---
23	---	---	---	---	---	---	---	4.0	18.5	23.9	---	---
24	---	---	---	---	---	---	---	4.4	19.4	23.8	---	---
25	---	---	---	---	---	---	---	4.9	20.2	23.8	---	---
26	---	---	---	---	---	---	---	5.5	21.1	23.7	---	---
27	---	---	---	---	---	---	---	6.0	22.0	23.7	---	---
28	---	---	---	---	---	---	---	5.6	23.0	23.7	---	---
29	---	---	---	---	---	---	---	5.6	23.9	23.7	---	---
30	---	---	---	---	---	---	---	5.6	24.8	23.7	---	---
31	---	---	---	---	---	---	---	5.6	---	23.6	---	---
Mean	---	---	---	---	---	---	---	3.7	12.5	24.8	23.6	---
Maximum	---	---	---	---	---	---	---	6.0	24.8	26.2	23.8	---
Minimum	---	---	---	---	---	---	---	2.6	5.9	23.6	23.5	---

Table 27. Mean daily temperature of water from observation well 1993 USGS CRM–10, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1995 water year						
1	---	16.0	9.9	9.9	9.3	8.5	5.9	4.8	3.9	5.7	6.4	6.9
2	---	15.7	9.9	10.0	---	8.1	5.9	4.9	3.8	5.7	6.4	6.9
3	---	15.5	9.9	10.0	---	7.7	5.9	4.9	3.8	5.7	6.4	6.9
4	---	15.3	9.9	9.9	---	7.4	5.9	4.9	3.9	5.7	6.4	6.9
5	---	15.1	10.0	10.0	---	7.2	5.9	5.0	4.1	5.7	6.5	6.9
6	---	15.0	10.0	10.0	---	7.3	6.0	4.9	4.1	5.7	6.5	7.0
7	---	14.9	10.0	10.0	9.3	7.1	5.9	4.9	4.1	5.7	6.5	7.0
8	---	14.7	10.0	10.0	9.3	6.6	5.9	4.9	4.1	5.7	6.5	7.0
9	---	14.4	9.9	10.0	9.3	6.3	5.9	4.8	4.0	5.7	6.5	7.0
10	---	14.2	9.9	10.0	9.3	6.6	6.0	4.9	4.0	5.8	8.5	7.0
11	---	13.9	9.9	10.0	9.3	6.6	6.0	4.9	4.0	5.8	6.5	7.0
12	---	13.7	9.9	10.0	9.3	6.7	6.0	4.9	4.0	5.8	6.6	7.1
13	---	13.4	9.9	10.0	9.3	6.7	6.4	4.9	4.0	5.8	6.6	7.1
14	---	13.1	9.9	10.1	9.3	6.6	6.0	4.9	4.0	5.8	6.6	7.1
15	---	12.8	9.9	10.1	9.3	6.4	6.0	5.0	4.1	5.8	6.6	7.1
16	---	---	10.0	10.1	9.3	5.8	6.0	5.0	4.1	5.9	6.6	7.1
17	---	---	10.0	10.0	9.4	5.5	5.9	5.0	4.1	6.0	6.6	7.1
18	---	11.9	10.0	10.0	9.4	5.8	5.8	5.0	4.1	5.9	6.7	7.2
19	---	11.6	10.0	10.0	9.5	5.8	5.8	5.0	4.2	5.9	6.7	7.2
20	---	11.5	10.0	10.0	9.5	5.8	5.5	5.0	4.2	5.9	6.7	7.2
21	---	11.4	9.8	10.0	9.4	5.8	5.1	5.0	4.2	5.9	6.7	7.2
22	---	11.1	9.8	10.1	9.3	5.8	5.1	5.0	4.4	6.0	6.7	7.2
23	---	11.0	9.8	10.1	9.3	5.8	5.2	4.8	4.8	6.0	6.7	7.3
24	---	10.8	9.8	10.1	9.3	5.8	5.0	4.6	5.3	6.0	6.7	7.3
25	18.9	10.6	9.9	10.0	9.3	5.8	5.1	4.3	6.1	6.1	6.7	7.3
26	18.3	10.4	9.9	9.7	9.3	5.9	4.9	4.3	5.7	6.3	6.8	7.3
27	17.8	10.3	9.9	9.5	9.1	5.9	4.7	4.3	5.7	6.3	6.8	7.3
28	17.3	10.1	9.9	9.4	8.8	5.9	4.8	4.1	5.7	6.3	6.9	7.4
29	16.9	10.0	9.9	9.4	---	5.9	4.9	4.1	5.7	6.4	6.8	7.9
30	16.5	9.9	9.9	9.4	---	5.9	4.9	4.1	5.7	6.3	6.9	8.2
31	16.2	---	9.9	9.4	---	5.9	---	4.1	---	6.4	6.9	---
Mean	17.4	12.8	9.9	9.9	9.3	6.4	5.6	4.7	4.5	5.9	6.7	7.2
Maximum	18.9	16.0	10.0	10.1	9.5	8.5	6.4	5.0	6.1	6.4	8.5	8.2
Minimum	16.2	9.9	9.8	9.4	8.8	5.5	4.7	4.1	3.8	5.7	6.4	6.9

Table 27. Mean daily temperature of water from observation well 1993 USGS CRM–10, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1996 water year						
1	8.1	8.7	9.3	13.6	13.2	12.7	---	---	---	---	---	---
2	8.2	8.7	9.3	13.6	13.2	12.6	---	---	---	---	---	---
3	8.2	8.7	9.3	13.6	13.2	12.6	---	---	---	---	---	---
4	8.2	8.7	9.4	13.6	13.2	12.6	---	---	---	---	---	---
5	8.2	8.8	9.4	13.5	13.2	12.6	---	---	---	---	---	---
6	8.2	8.8	9.4	13.5	13.1	12.6	---	---	---	---	---	---
7	8.3	8.8	9.4	13.5	13.1	12.5	---	---	---	---	---	---
8	8.2	8.8	9.4	13.5	13.1	12.5	---	---	---	---	---	---
9	8.2	8.8	9.5	13.5	13.1	12.5	---	---	---	---	---	---
10	8.3	8.9	9.5	13.5	13.1	12.5	---	---	---	---	---	---
11	8.3	8.9	9.5	13.5	13.1	12.5	---	---	---	---	---	---
12	8.4	8.9	10.0	13.4	13.0	12.4	---	---	---	---	---	---
13	8.4	8.9	10.8	13.4	13.0	12.4	---	---	---	---	---	---
14	8.5	9.0	11.5	13.4	12.5	12.4	---	---	---	---	---	---
15	8.4	9.0	12.0	13.4	13.0	12.4	---	---	---	---	---	---
16	8.4	9.0	12.6	13.4	13.0	12.4	---	---	---	---	---	---
17	8.4	9.0	13.2	13.4	13.0	12.4	---	---	---	---	---	---
18	8.5	9.1	13.5	13.4	13.0	12.3	---	---	---	---	---	---
19	8.5	9.1	13.5	13.4	12.9	12.1	---	---	---	---	---	---
20	8.3	9.1	13.6	13.3	12.9	12.1	---	---	---	---	---	---
21	8.5	9.1	13.6	13.3	12.9	12.1	---	---	---	---	---	---
22	8.5	9.1	13.7	13.3	12.9	---	---	---	---	---	---	---
23	8.6	9.1	13.7	13.3	12.8	---	---	---	---	---	---	---
24	8.6	9.2	13.7	13.3	12.8	---	---	---	---	---	---	---
25	8.6	9.2	13.7	13.3	12.8	---	---	---	---	---	---	---
26	8.6	9.2	13.6	13.3	12.8	---	---	---	---	---	---	---
27	8.6	9.2	13.6	13.2	12.8	---	---	---	---	---	---	---
28	8.6	9.2	13.6	13.2	12.7	---	---	---	---	---	---	---
29	8.7	9.3	13.6	13.2	12.7	---	---	---	---	---	---	---
30	---	9.3	13.6	13.2	---	---	---	---	---	---	---	---
31	---	---	13.6	13.2	---	---	---	---	---	---	---	---
Mean	8.4	9.0	11.7	13.4	13.0	12.4	---	---	---	---	---	---
Maximum	8.7	9.3	13.7	13.6	13.2	12.7	---	---	---	---	---	---
Minimum	8.1	8.7	9.3	13.2	12.5	12.1	---	---	---	---	---	---

Table 28. Mean daily concentrations of dissolved oxygen in water from observation well 1993 USGS CRM–10, 1994–96 water years

[Dissolved-oxygen concentrations given in milligrams per liter. ---, no data]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
						1994 water year						
1	---	---	---	---	---	---	---	---	---	0.4	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	0.4	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	.4	.4	---
15	---	---	---	---	---	---	---	---	---	.4	.4	---
16	---	---	---	---	---	---	---	---	0.8	.4	---	---
17	---	---	---	---	---	---	---	---	.9	---	---	---
18	---	---	---	---	---	---	---	1.0	.8	---	---	---
19	---	---	---	---	---	---	---	5.2	---	---	---	---
20	---	---	---	---	---	---	---	4.6	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	.4	---	---
29	---	---	---	---	---	---	---	---	.4	.4	---	---
30	---	---	---	---	---	---	---	---	.4	.4	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Mean	---	---	---	---	---	---	---	3.6	.7	.4	.4	---
Maximum	---	---	---	---	---	---	---	5.2	.9	.4	.4	---
Minimum	---	---	---	---	---	---	---	1.0	.4	.4	.4	---

Table 28. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–10, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					1995 water year							
1	---	0.7	0.6	1.2	0.8	0.8	1.0	3.7	0.8	0.7	0.8	0.8
2	---	.7	.6	1.2	---	1.0	1.0	3.6	.8	.7	.8	.8
3	---	.7	.6	1.5	---	1.4	1.0	3.5	.8	.7	.8	.8
4	---	.7	.6	1.2	---	1.2	1.6	3.3	.8	.7	.8	.8
5	---	.7	.7	1.2	---	1.0	1.8	2.9	1.1	.7	.8	.8
6	---	.7	.7	1.2	---	.9	1.8	2.2	1.2	.7	.8	.8
7	---	.7	.6	1.2	1.0	.9	1.6	2.1	1.2	.7	.8	.8
8	---	.7	.6	1.2	1.0	1.3	2.0	2.0	1.3	.7	.8	.8
9	---	.7	1.5	1.2	1.0	2.0	2.0	1.7	1.2	.7	.8	.8
10	---	.7	.7	1.2	1.0	1.5	2.0	1.7	1.1	.7	1.8	.8
11	---	.7	.6	1.2	1.0	1.1	2.0	1.6	1.0	.7	.8	.8
12	---	.7	.6	1.2	1.0	.9	1.9	1.5	1.0	.7	.7	.8
13	---	.7	.6	1.2	1.0	.9	2.0	1.5	.9	.7	.7	.8
14	---	.7	.6	1.1	1.0	1.0	1.2	1.4	.9	.7	.8	.8
15	---	.7	.6	1.1	1.0	1.5	1.1	1.3	.9	.7	.8	.8
16	---	---	.6	1.1	1.0	2.7	1.0	1.2	1.0	.7	.8	.8
17	---	---	.6	1.2	1.1	3.2	1.1	1.2	1.0	.8	.8	.8
18	---	.7	.6	1.3	1.2	2.3	2.0	1.1	1.1	.8	.8	.8
19	---	.8	.7	1.2	1.1	1.9	2.0	1.0	1.0	.8	.8	.9
20	---	.8	.7	1.2	1.0	1.7	2.1	1.0	.9	.8	.8	.9
21	---	.8	.7	1.1	1.0	1.5	3.6	.9	1.0	.8	.8	.9
22	---	.8	.7	1.1	.9	1.3	3.1	1.0	.9	.8	.8	.9
23	---	.6	.7	1.1	1.0	1.7	2.9	1.1	.8	.8	.8	.9
24	---	.6	.7	1.1	1.0	1.5	3.1	1.1	.7	.8	.8	.9
25	0.7	.6	.6	.9	1.0	1.0	3.5	1.0	.7	.8	.8	.9
26	.7	.6	.6	.7	.9	1.0	3.6	1.0	.7	.8	.8	.9
27	.7	.6	.7	.7	.8	1.0	4.1	1.0	.7	.8	.8	.9
28	.7	.6	1.1	.8	.8	1.0	4.5	.8	.7	.8	.8	.9
29	.7	.6	1.4	.8	---	1.0	4.2	1.0	.7	.8	.8	.8
30	.7	.6	1.4	.8	---	1.0	3.9	.9	.7	.8	.8	.8
31	.7	---	1.3	.8	---	1.0	---	.9	---	.7	.8	---
Mean	.7	.7	.8	1.1	1.0	1.4	2.3	1.6	.9	.7	.8	.8
Maximum	.7	.8	1.5	1.5	1.2	3.2	4.5	3.7	1.3	.8	1.8	.9
Minimum	.7	.6	.6	.7	.8	.8	1.0	.8	.7	.7	.7	.8

Table 28. Mean daily concentration of dissolved oxygen in water from observation well 1993 USGS CRM–10, 1994–96 water years—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					1996 water year							
1	0.8	0.7	0.7	0.6	1.8	0.5	---	---	---	---	---	---
2	.8	.7	.7	.6	1.8	.5	---	---	---	---	---	---
3	.8	.7	.7	.6	1.8	.6	---	---	---	---	---	---
4	.8	.8	.7	.6	1.7	.6	---	---	---	---	---	---
5	.8	.8	.7	.6	1.7	.6	---	---	---	---	---	---
6	.8	.8	.7	.6	1.7	.6	---	---	---	---	---	---
7	.8	.7	.7	.6	1.6	.6	---	---	---	---	---	---
8	.8	.7	.7	.6	1.7	.6	---	---	---	---	---	---
9	.8	.7	.7	.6	1.7	.6	---	---	---	---	---	---
10	.8	.7	.7	.6	1.8	.6	---	---	---	---	---	---
11	.8	.7	.7	.6	1.9	.6	---	---	---	---	---	---
12	.8	.7	.7	.6	1.9	.6	---	---	---	---	---	---
13	.8	.7	.7	.6	1.9	.7	---	---	---	---	---	---
14	.8	.7	.7	.6	2.4	.7	---	---	---	---	---	---
15	.8	.7	.6	.6	1.7	.7	---	---	---	---	---	---
16	.8	.7	.6	.6	1.4	.7	---	---	---	---	---	---
17	.8	.7	.6	.6	1.2	.7	---	---	---	---	---	---
18	.8	.7	.6	.6	1.1	.7	---	---	---	---	---	---
19	.8	.7	.6	.6	1.1	.7	---	---	---	---	---	---
20	1.9	.7	.6	.6	1.0	.7	---	---	---	---	---	---
21	.9	.7	.6	.8	1.0	.8	---	---	---	---	---	---
22	.8	.7	.6	1.5	1.0	---	---	---	---	---	---	---
23	.8	.7	.6	1.7	.8	---	---	---	---	---	---	---
24	.8	.7	.6	1.6	.6	---	---	---	---	---	---	---
25	.8	.7	.6	1.6	.5	---	---	---	---	---	---	---
26	.8	.7	.6	1.7	.5	---	---	---	---	---	---	---
27	.8	.7	.6	1.8	.6	---	---	---	---	---	---	---
28	.8	.7	.6	1.8	.6	---	---	---	---	---	---	---
29	.8	.7	.6	1.8	.5	---	---	---	---	---	---	---
30	---	.7	.6	1.8	---	---	---	---	---	---	---	---
31	---	---	.6	1.8	---	---	---	---	---	---	---	---
Mean	.8	.7	.6	1.0	1.3	.6	---	---	---	---	---	---
Maximum	1.9	.8	.7	1.8	2.4	.8	---	---	---	---	---	---
Minimum	.8	.7	.6	.6	.5	.5	---	---	---	---	---	---

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