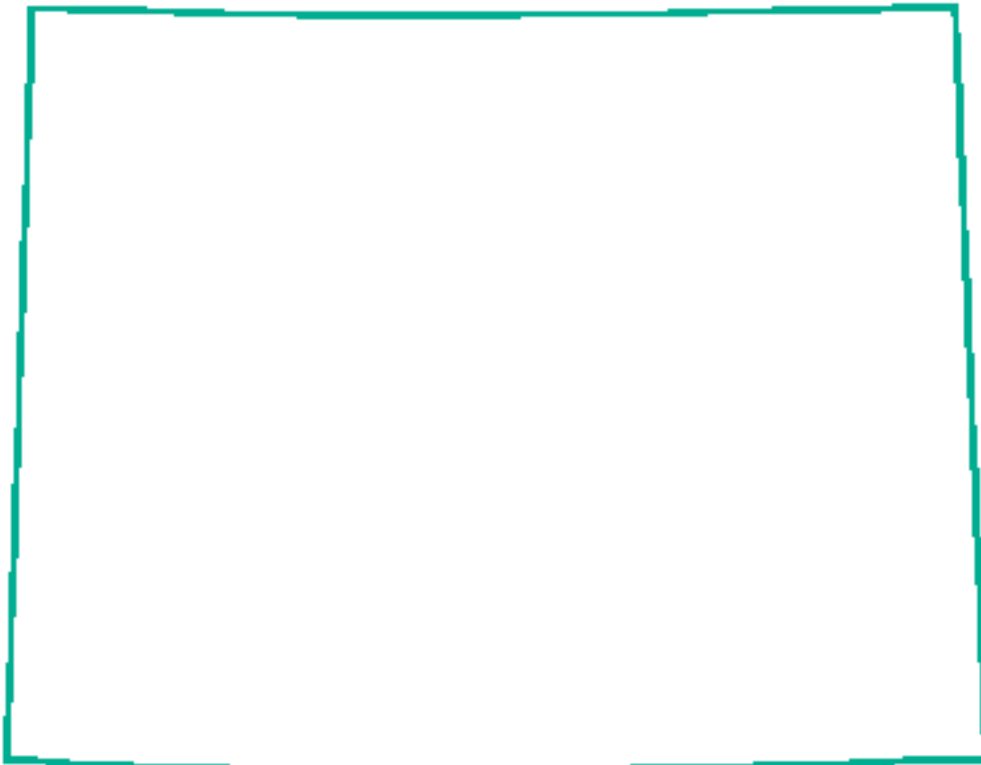


Water Resources Data Wyoming Water Year 2000

Volume 2. Ground Water

Water-Data Report WY-00-2



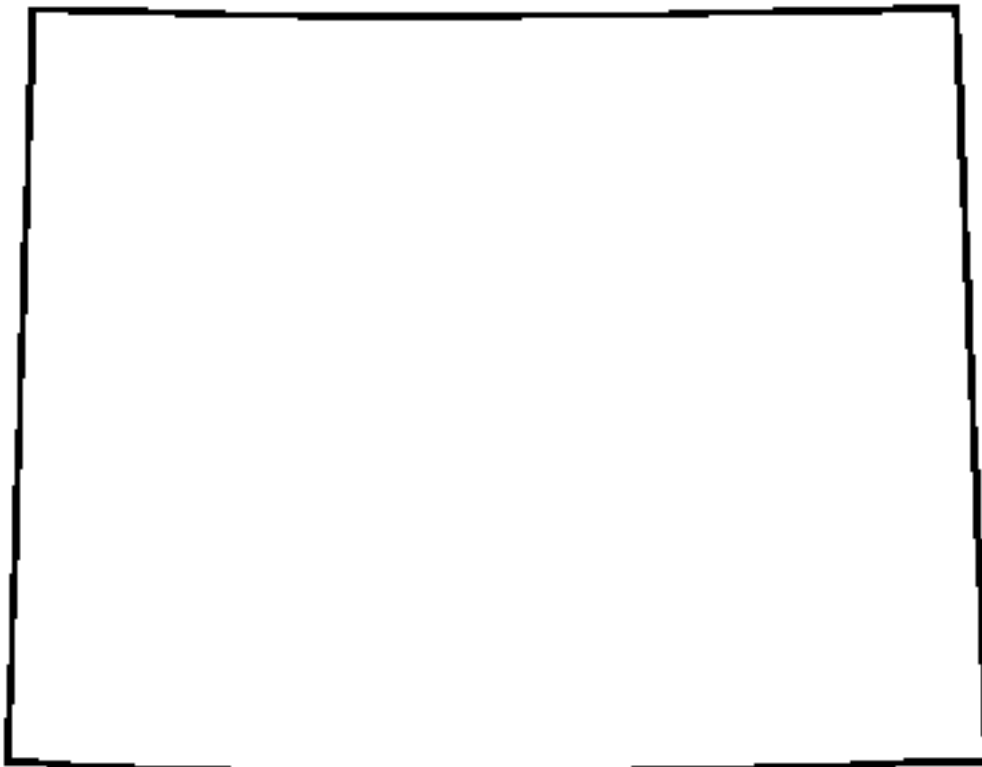
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Wyoming Water Year 2000

Volume 2. GroundWater

By J.P. Mason, R.B. Swanson, S.C. Roberts

Water-Data Report WY-00-2



Prepared in cooperation with the Wyoming State Engineer
and with other State and local agencies



UNITED STATES DEPARTMENT OF THE INTERIOR

GALE A. NORTON, Secretary

GEOLOGICAL SURVEY

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For information on the water program in Wyoming, write to:
District Chief, Water Resources Division
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Cheyenne, Wyoming 82001-5662

PREFACE

This annual hydrologic data report of Wyoming is one of a series of annual reports that documents hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and the quality of water provide the hydrologic information needed by Federal, State, and local agencies, and the private sector for administrating, developing, and managing our Nation's land and water resources. These records are contained in 2 volumes:

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

These reports are the culmination of a concerted effort by personnel of the U.S. Geological Survey of the Wyoming District who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. Geological Survey policies and guidelines.

Most of the data were collected by personnel from the Wyoming State Engineer's Office, and computed, and processed by personnel from the Wyoming District. The following personnel are recognized for their significant contributions to this report:

T.T. Bartos	L. Gianakos	C.E. Miller	M.L. Smalley	R. Woodruff
M.L. Clark	L. Hallberg	J.R. Norris	K.R. Watson	

S.C. Roberts and K.R. Watson typed and assembled the report; S.C. Roberts provided the illustrations.

This report was prepared under the general supervision of Myron H. Brooks, District Chief, Wyoming, and in cooperation Patrick T. Tyrrell, the Wyoming State Engineer.

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GROUND-WATER LEVELS

<u>ALBANY COUNTY</u>			
Station number, 411751105312701.	Local number, 15-073-01dba01.	Local name, Huntoon #1.	18
Station number, 411703105314001.	Local number, 15-073-12dbb01.	Local name, Huntoon #2.	19
<u>BIG HORN COUNTY</u>			
Station number, 441351107434701.	Local number, 49-091-12dba01.	Local name, Worland-1.	21
<u>CAMPBELL COUNTY</u>			
Station number, 433438105225401.	Local number, 42-071-35aaa01.	Local name, Ech-8.	23
Station number, 441117105192901.	Local number, 49-070-31bbb01.	Local name, Hampshire-1.	24
Station number, 441819105305701.	Local number, 50-072-21aba01.	Local name, Gillette H-13.	25
<u>CARBON COUNTY</u>			
Station number, 411234106424601.	Local number, 14-083-03cab01.	Local name, Helmer South.	27
Station number, 422338107145001.	Local number, 28-087-16cca01.	Local name, Split Rock #2.	28
<u>CONVERSE COUNTY</u>			
Station number, 424420105364201.	Local number, 32-073-16cdb01.	Local name, Natural Bridge East.	30
Station number, 431140105151901.	Local number, 37-070-10cbb01.	Local name, Bill #6.	31
<u>CROOK COUNTY</u>			
Station number, 441113104151001.	Local number, 49-062-36cbb01.	Local name, Inyan Kara Mountain CCMOW6. .	33
Station number, 441113104151002.	Local number, 49-062-36cbb02.	Local name, Inyan Kara Mountain CCMOW6A. .	34
Station number, 442739104214601.	Local number, 52-063-25dcc01.	Local name, Cole #3A.	35
Station number, 443453104425602.	Local number, 53-065-18bbd02.	Local name, Park Service.	36
Station number, 444854104534502.	Local number, 56-067-28aab02.	Local name, Cole #41 Minnelusa.	37
<u>FREMONT COUNTY</u>			
Station number, 430205108243201.	Local number, 1N-4E-28acc01.	Local name, Brentwood.	39
<u>GOSHEN COUNTY</u>			
Station number, 414049104074501.	Local number, 20-060-30bbb01.	Local name, LaGrange #2.	41
Station number, 414051104100701.	Local number, 20-061-23ccc01.	Local name, Curt Meier.	42
Station number, 422519104095101.	Local number, 28-061-02ccd01.	Local name, Prairie Center #6.	43
Station number, 422512104135501.	Local number, 28-061-06aba01.	Local name, Goshen County #2.	44
Station number, 422928104121401.	Local number, 29-061-17aad01.	Local name, Prairie Center #4.	45
Station number, 422849104090801.	Local number, 29-061-23abb01.	Local name, Goshen County #1.	46
Station number, 422730104094801.	Local number, 29-061-26cbb01.	Local name, Prairie Center #3.	47
Station number, 423549104120901.	Local number, 30-061-09bbb01.	Local name, Prairie Center #5.	48
<u>HOT SPRINGS COUNTY</u>			
Station number, 434136108183301.	Local number, 43-095-18cab01.	Local name, Thermopolis GTW-1.	50
Station number, 433933108121901.	Local number, 43-095-25cdc01.	Local name, Thermopolis GTW-3.	51
<u>LARAMIE COUNTY</u>			
Station number, 410059104072401.	Local number, 12-060-07ddd01.	Local name, Laramie County #1.	53
Station number, 410100104160301.	Local number, 12-062-13baa01.	Local name, USGS southeast of Carpenter. .	54
Station number, 410111104223102.	Local number, 12-063-15aaa02.	Local name, USGS southwest of Carpenter. .	55
Station number, 410703104071201.	Local number, 13-060-05ccb01.	Local name, Elmer Glantz.	56
Station number, 410324104481701.	Local number, 13-066-32bbd01.	Local name, Laramie County #14.	57
Station number, 410530104574001.	Local number, 13-068-13ccc01.	Local name, Borie.	58
Station number, 411238104070801.	Local number, 14-060-05bcb01.	Local name, C.C. Gross.	59
Station number, 411022104141201.	Local number, 14-061-18ddd01.	Local name, Laramie County #2.	60
Station number, 411141104242501.	Local number, 14-063-15aaa01.	Local name, Laramie County #3.	61
Station number, 411005104355001.	Local number, 14-064-19bcc01.	Local name, Laramie County #9.	62
Station number, 411147104490501.	Local number, 14-066-07add01.	Local name, National Land #1.	63
Station number, 411210104452001.	Local number, 14-066-10aba01.	Local name, Laramie County #8.	64
Station number, 410940104435701.	Local number, 14-066-23ddd01.	Local name, Laramie County #15.	65
Station number, 411213104501401.	Local number, 14-067-12abb01.	Local name, Laramie County #10.	66
Station number, 411034104554001.	Local number, 14-067-18ddc01.	Local name, Bell #14.	67
Station number, 410930104524701.	Local number, 14-067-27bac01.	Local name, Laramie County #13.	68
Station number, 410838104530401.	Local number, 14-067-34bbc01.	Local name, Laramie County #11.	69
Station number, 410827104501601.	Local number, 14-067-36acb01.	Local name, Pioneer Park.	70
Station number, 410757104582302.	Local number, 14-068-35ddc02.	Local name, King #3.	71
Station number, 411531104194701.	Local number, 15-062-20aaa01.	Local name, Laramie County #4.	72
Station number, 412227104081402.	Local number, 16-060-07bbb02.	Local name, USGS southwest of Albin.	73
Station number, 411136104125301.	Local number, 16-061-17aaa01.	Local name, Laramie County #5.	74
Station number, 412343104053101.	Local number, 17-060-33cbb01.	Local name, USGS south of Albin.	75
Station number, 412605104203001.	Local number, 17-062-17ccc01.	Local name, Laramie County #6A.	76
Station number, 412400104533901.	Local number, 17-067-33baa01.	Local name, MX-North.	77
<u>NIOBRARA COUNTY</u>			
Station number, 424709104194101.	Local number, 32-062-05baa01.	Local name, Niobrara County #1.	79
Station number, 424244104202001.	Local number, 32-062-32bbb01.	Local name, Node Well.	80
Station number, 430422104183201.	Local number, 36-062-28ab01.	Local name, ETSI T-2.	81
Station number, 430422104183202.	Local number, 36-062-28ab02.	Local name, ETSI O-2.	82
Station number, 430421104200701.	Local number, 36-062-28bbd01.	Local name, ETSI T-1.	83

GROUND-WATER LEVELS--Continued

PLATTE COUNTY

Station number, 420246104590302.	Local number, 24-068-22aab02.	Local name, Platte County #1A.	85
Station number, 420718104553901.	Local number, 25-067-19dda01.	Local name, Ed Wilhelm.	86
Station number, 420524104530201.	Local number, 25-067-34ccd01.	Local name, Platte County #2.	87
Station number, 420859104565001.	Local number, 25-068-12dda01.	Local name, Platte County #4.	88
Station number, 420840105000401.	Local number, 25-068-15bbd01.	Local name, Platte County #6.	89
Station number, 420748104565001.	Local number, 25-068-24aad01.	Local name, Platte County #3.	90
Station number, 420613105024401.	Local number, 25-068-31aaa01.	Local name, Platte County #7.	91
Station number, 421443104574601.	Local number, 26-068-12cbd01.	Local name, E. Rutherford.	92
Station number, 421128104575801.	Local number, 26-068-36bbb01.	Local name, Platte County #5.	93

SWEETWATER COUNTY

Station number, 413850109150601.	Local number, 19-105-10bbb01.	Local name, Rock Springs Golf Course. ...	95
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WASHAKIE COUNTY

Station number, 440621107273801.	Local number, 48-089-25ada01.	Local name, Mills.	97
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WESTON COUNTY

Station number, 434539104233401.	Local number, 44-063-26cac01.	Local name, Townsend Well.	99
Station number, 435610104433001.	Local number, 46-066-25dab01.	Local name, Terra Resources.	100
Station number, 440530104381001.	Local number, 48-065-35ccb01.	Local name, Town of Upton #4.	101

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, county, municipal, and other Federal agencies, obtains a large amount of data pertaining to the water resources of Wyoming each water year. These data, accumulated through many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled, "Water Resources Data for Wyoming".

Water resources data for Wyoming in this volume consists of records of ground-water levels and water quality of ground water for water year 2000, which began October 1, 1999, and ended September 30, 2000. This report contains historic water levels from 70 observation wells in the form of tables and hydrographs. The locations of counties in Wyoming with the number of observation wells listed in this report are shown in figure 1. Additional ground-water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements.

Since 1940, the U.S. Geological Survey, in cooperation with State, county, municipal, and other Federal agencies, periodically has measured ground-water levels in a large number of wells in Wyoming. Ground-water levels were systematically measured in 70 observation wells in 15 counties in Wyoming, as of September 2000. The observation-well program is conducted by the U.S. Geological Survey in cooperation with the Wyoming State Engineer's Office. Water-level data were collected at 62 of the 70 observation wells by Wyoming State Engineer personnel; data at the remaining eight wells were collected by U.S. Geological Survey personnel. The wells are located primarily in areas where ground water is used in large quantities for irrigation or municipal purposes.

Prior to 1997 only miscellaneous ground-water data were published in this report. In the past the majority of ground-water level data collected in Wyoming was published in other report series of the U.S. Geological Survey. Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities of the United States or may be purchased from U.S. Geological Survey, Earth Science Information Center, Federal Center, Building 810, Box 25425, Denver, Colorado 80225. Wyoming ground water level data and hydrographs can be found in a series of 14 open-file reports published by the U.S. Geological Survey between 1973 and 1995.

Beginning with the 1971 water year, streamflow, water quality, and ground-water data were published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report WY-00-2." These water-data reports are for sale, in paper copy or on microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page, by telephone at (307) 778-2931, or by email at state_rep_wy@usgs.gov. Hydrologic data for Wyoming is available on the World Wide Web at:

<http://wy.water.usgs.gov/>

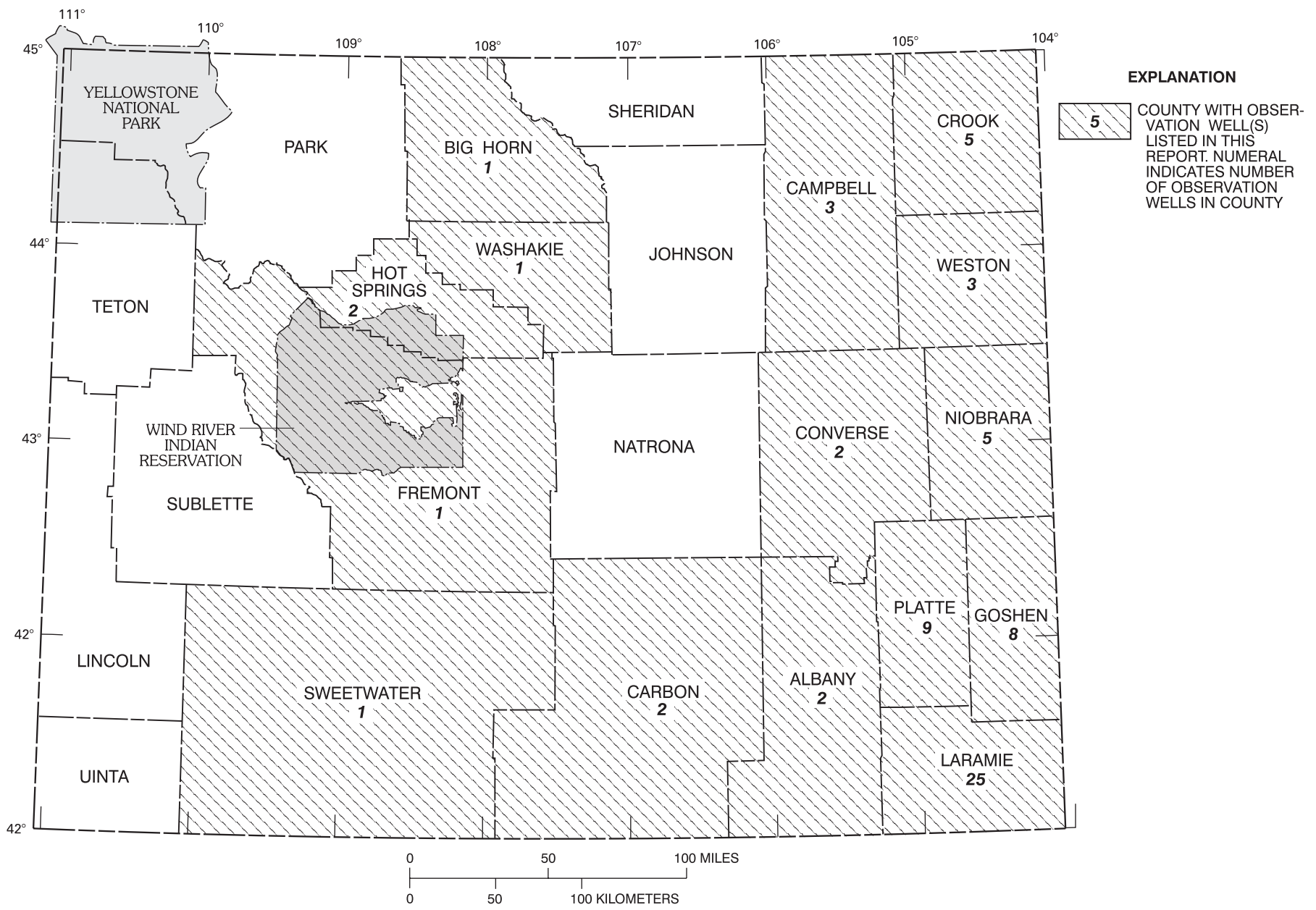


Figure 1. Location of counties in Wyoming with observation wells, as of September 2000.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the U.S. Geological Survey are:

Wyoming State Engineer's Office, Patrick T. Tyrrell, State Engineer

Wyoming Department of Agriculture, Ronald Micheli, Commissioner

Wyoming Department of Environmental Quality, Dennis Hemmer, Director

The following Federal agencies assisted in the data collection program by providing funds or services:

Grand Teton National Park, National Park Service, U.S. Department of the Interior

SUMMARY OF HYDROLOGIC CONDITIONS

Ground-Water Levels

Ground-water levels in observation wells throughout the state showed little overall change in water year 2000 when compared to 1999 water levels. The average water level measured in observation wells screened in the High Plains aquifer in southeastern Wyoming fell by 0.16 feet while the average water level measured in observation wells in the rest of the state rose by 0.17 feet

Ground-water levels were monitored in a statewide network of 70 observation wells. Wells completed in the High Plains aquifer and located in areas of ground-water withdrawal in southeastern Wyoming constitute 60 percent of the observation-well network. Ground water is withdrawn from the High Plains aquifer for irrigation in Niobrara County, Platte County, Goshen County, and the eastern part of Laramie County. Substantial ground-water withdrawals from the High Plains aquifer for municipal and domestic use occur in central Laramie County.

Water levels were measured in at least one observation well in 15 of the 23 counties in Wyoming. During 2000, a continuous record of water levels was collected from 53 wells equipped with float-driven digital water-level recorders or electronic data recorders, two wells equipped with pressure-sensing transducers and electronic data recorders, and a continuous record of hydraulic heads above land surface was obtained from two flowing wells equipped with pressure-sensing transducers and electronic data recorders. The remaining 13 wells periodically were measured by hand using a steel tape, electric tape, or an air line.

Changes in water levels for the statewide observation-well network and for wells specifically completed in the High Plains aquifer are summarized in table 1. Many of the observation wells in these networks are located in areas of extensive ground-water use. Water levels from some of these wells may reflect local ground-water conditions, rather than regional ground-water conditions. The changes in water levels from water year 1999 to water year 2000 were determined from the difference between the highest water levels measured each year. Some wells in the network were not included in the comparison of water-level changes between years because insufficient data were collected at the wells to make accurate comparisons. Many of the wells that were not included in the comparison of water-level changes between years were hand-measured wells, where only two or three measurements per year were collected.

Table 1.--Changes in ground-water levels in statewide observation-well network and wells completed in the High Plains aquifer.

[Hydrographs for five representative observation wells in southeast Wyoming are shown in figure 2.]

Observation-well networks	Water years ¹	Number of wells	Increase in water level (number of wells)	Average increase (in feet)	Decrease in water level (number of wells)	Average decrease (in feet)	No change in water level (number of wells)	Insufficient data for comparison (number of wells)
Statewide network	1999-2000	70	27	0.65	29	-0.72	1	13
High Plains aquifer	1999-2000	44	16	0.47	24	-0.57	0	4

¹ Water year is from October 1 to September 30 of the following year.

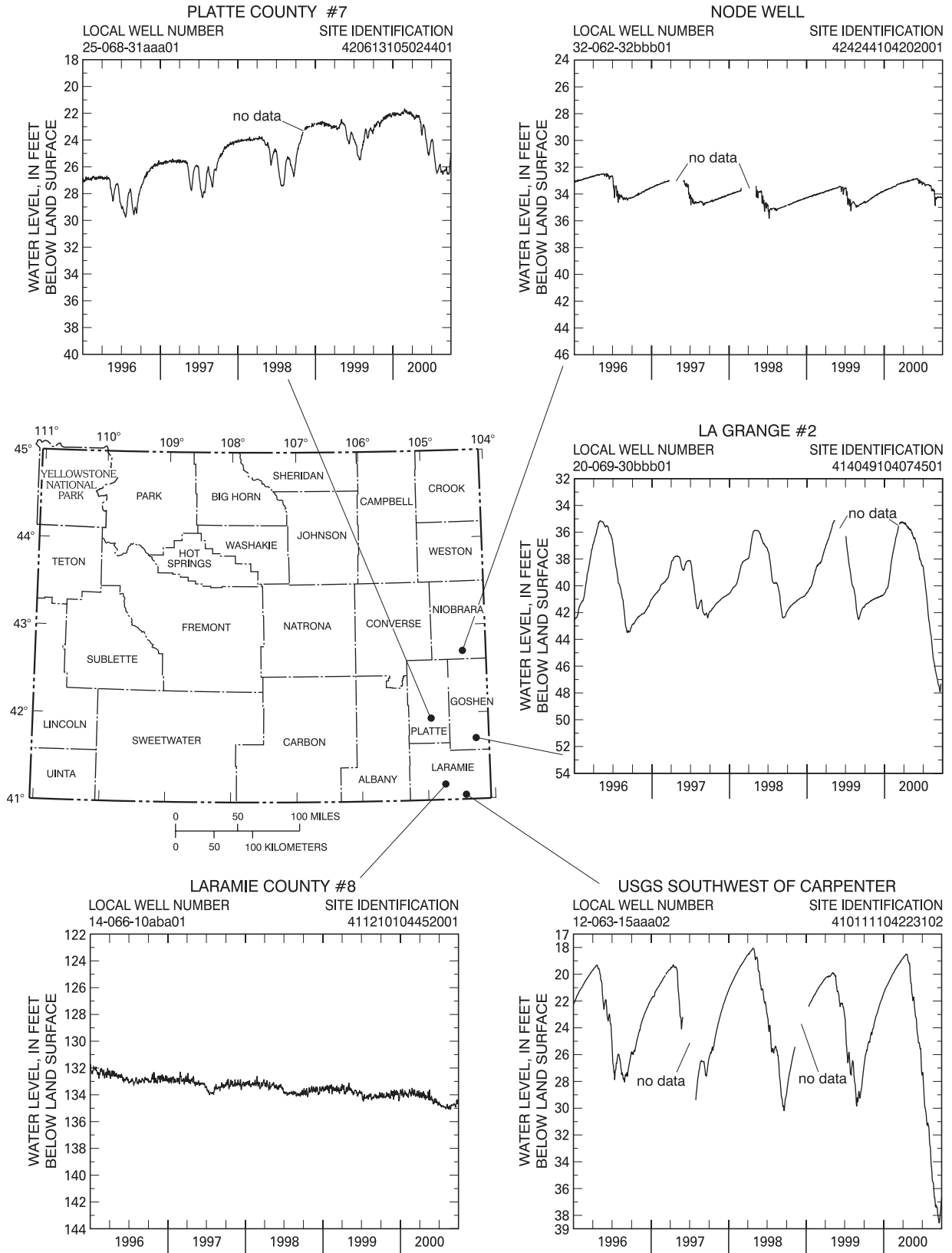


Figure 2. Water-level hydrographs for observation wells in areas of extensive ground-water withdrawals, calendar year 1996 through September 30, 2000.

EXPLANATION OF THE RECORDS

Numbering System for Wells

All wells listed in this report, except for one well located on the Wind River Indian Reservation, are identified according to the Federal township-range system of land subdivision, and also are assigned a local number. An example of a local number in this report is 14-063-15aaa01 (fig. 3). The first number (14) denotes the township, the second number (063) denotes the range, and the third number (15) denotes the section. The first letter following the section number denotes the quarter section (160-acre tract); the second letter, the quarter-quarter section (40-acre tract); and the third letter, if shown, the quarter-quarter-quarter section (10-acre tract). These subsections are designated a, b, c, and d in a counter-clockwise direction, beginning in the northeastern quadrant. The last two numbers in the local number are a sequence number indicating the order of inventory. For example, in figure 3, observation well 14-063-15aaa01 is the first well inventoried in the northeastern quarter of the northeastern quarter of the northeastern quarter of section 15, township 14 north (T. 14 N.), range 63 west (R. 63 W.). All wells in the counties have ranges west of the Sixth Principal Meridian, and townships north of the 40th Parallel Base Line.

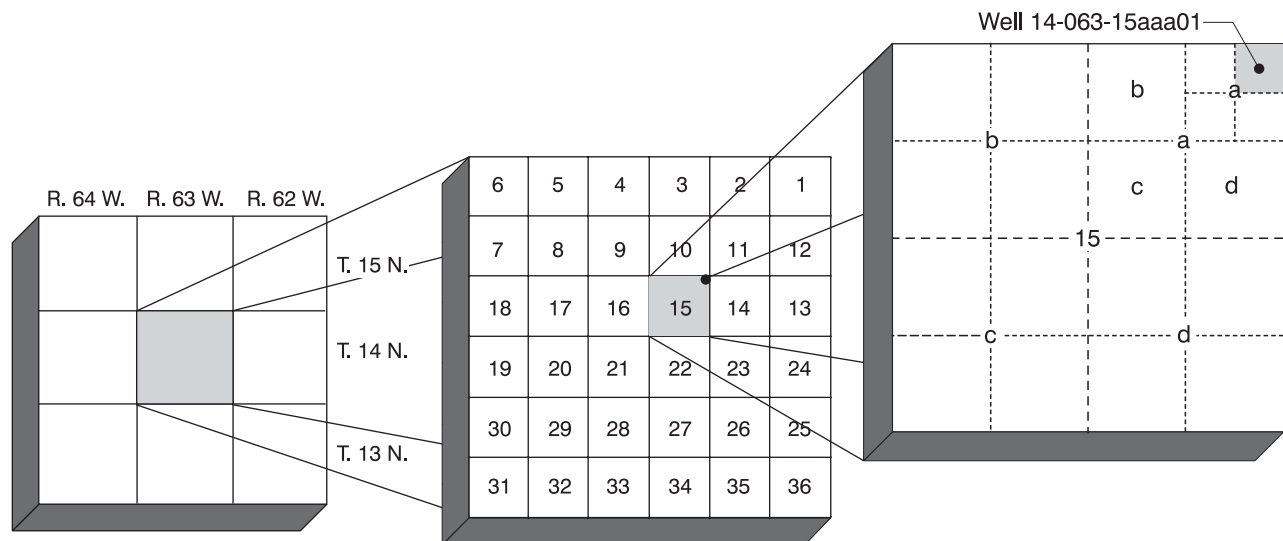


Figure 3. Federal township-range system for numbering wells.

On the Wind River Indian Reservation, the township-range system is based on the Wind River Meridian and Base Line system. Townships are denoted as north or south of the base line and ranges are denoted as east or west of the meridian. Wells may be located in the northeastern, northwestern, southwestern, or southeastern quadrants of this base-line and meridian net. For example, in figure 4, observation well 1N-4E-28acc01 is the first well inventoried in the southwestern quarter of the southwestern quarter of the northeastern quarter of section 28, township 1 north, range 4 east, in the northeastern quadrant of the Wind River Indian Reservation.

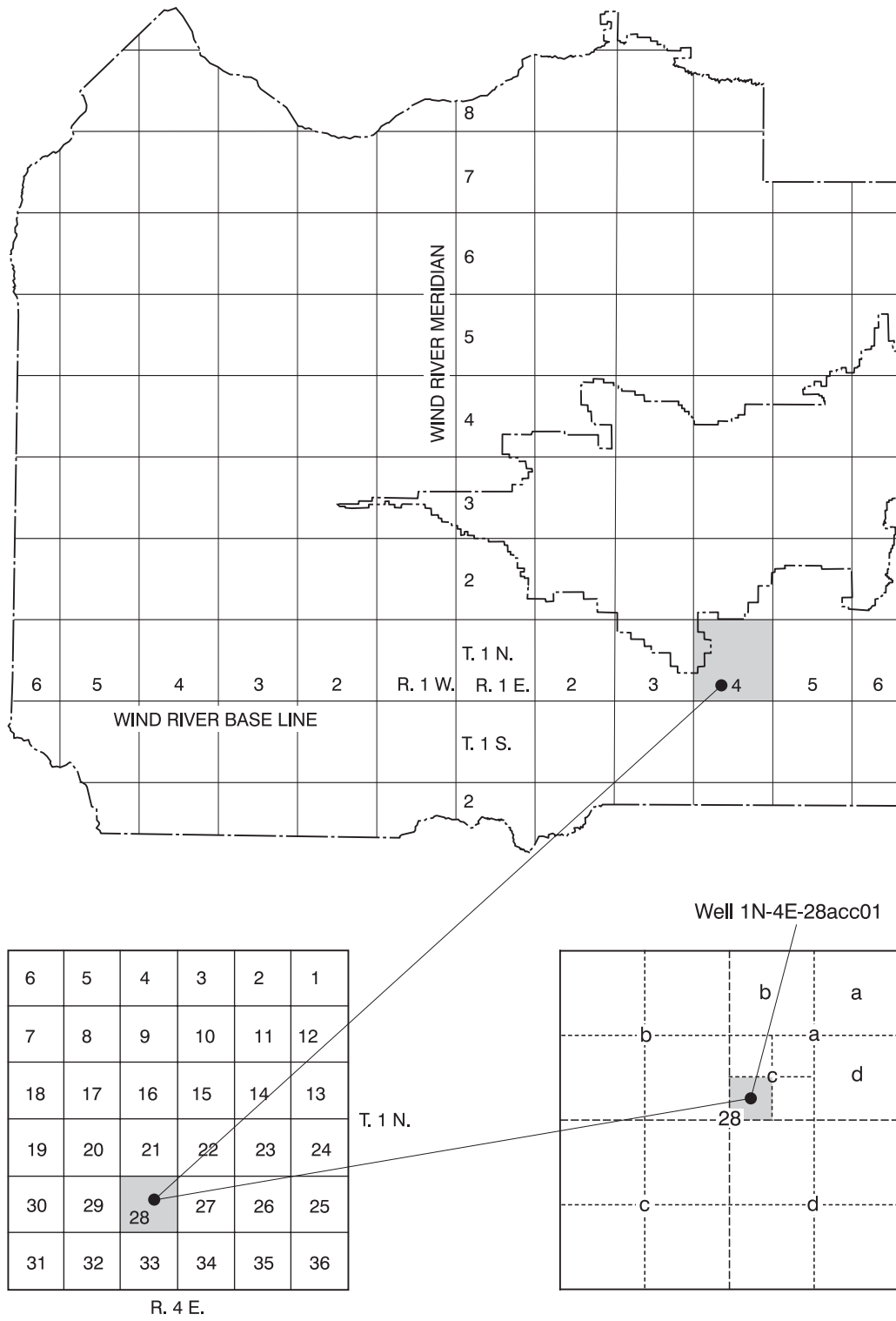


Figure 4. System for numbering wells on the Wind River Indian Reservation.

Latitude-Longitude System

Identification numbers also are assigned to wells according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of north latitude, the next seven digits denote degrees, minutes, and seconds of west longitude, and the last two digits (assigned sequentially) identify the order of inventory of sites if more than one site lies within a 1-second grid (fig. 5). The identification number, once assigned, has no locational significance. If the initial determination of latitude and longitude is found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

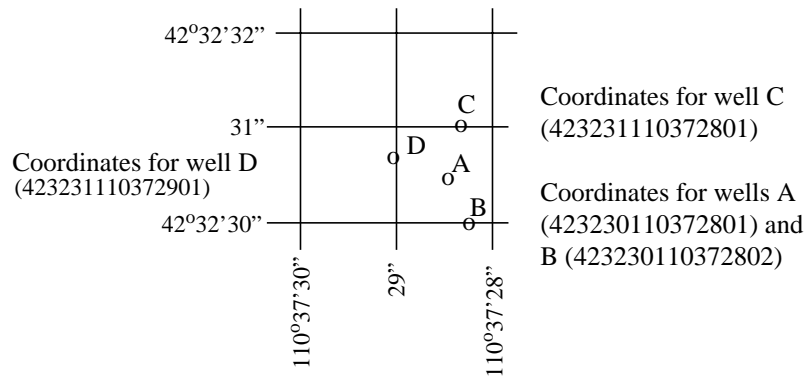


Figure 5. System for assigning identification numbers to wells (latitude and longitude).

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and precision.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Presentation of Data

Water-level data are presented by county; the counties for which water-level data are available are listed alphabetically. Records of observation wells for each county are preceded by a map showing the location of the wells in that county (figs. 6-20). Water-level hydrographs or hydraulic-head hydrographs for the period of record for each well follow the map for each county. A table above each hydrograph lists water-level measurements taken during water year 2000. For wells equipped with continuous water-level recorders, the table lists the daily maximum recorded water level for every fifth day and the end of the month (EOM). The daily maximum recorded water level in a well is the water level recorded for the day with the minimum distance from the land surface to the water level in the well. Data for artesian wells are listed as daily maximum in feet of hydraulic head and are the maximum difference in the water surface to the land surface at the well. For hand-measured wells, the table lists all water-level measurements obtained during water year 2000.

The hydrographs for the 70 observation wells were plotted using data from either continuous water-level records or periodic water-level measurements. The daily maximum water level was used for plotting hydrographs for wells equipped with continuous recorders. The hydrographs show water-level fluctuations and water-level trends. If more precise water levels are needed, tabulations of actual water-level measurements are available from the U.S. Geological Survey, 2617 East Lincolnway, Suite B, Cheyenne, Wyoming 82001-5662 (telephone (307) 778-2931).

Miscellaneous ground-water-level measurements and ground-water quality data are listed at the end of the volume. These data are from wells that are not part of a systematic observation network. Both miscellaneous water-level and water-quality data are presented in tabular form.

Station manuscript

Station number: See text description of latitude-longitude system (pg. 8).

Local number: See text description of numbering system for wells (pg. 6).

Local name: Local reference name of observation well.

Location: Latitude, longitude, and legal description of well.

Hydrologic unit: Geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight digit number.

Aquifer: The geologic formation, group of formations, or part of a formation that the well is completed in.

Well characteristics: Depth of well, in feet below land surface.

Datum: Elevation of land surface in feet above sea level. Water levels are given in feet below or above this datum plane.

Measuring point: Arbitrary permanent reference point from which the distance to the water surface is measured to obtain the water level. The height of the measuring point above or below the land surface is subtracted or added to the water-level measurement to give the depth to water below the land surface or feet of head above the land surface.

Period of record: Years for which water-level measurements are available.

Extremes for period of record: The highest and lowest water levels or hydraulic heads recorded for the period of record which represent the static water levels, in feet below land surface, or hydraulic heads, in feet above land surface, unless otherwise footnoted.

Explanation of Hydrographs

- Water-level or hydraulic-head data collected by digital or electronic data recorders. Missing sections of lines indicate periods of no data. Typically, intermittent periods of no data are the result of recording equipment malfunctions.
- Individual water-level measurements. Dashed line represents periods of no data between measurements.

Ground-Water Quality

Records of ground-water quality in this report differ from records of ground-water levels because for most sampling sites they consist of only one or two sets of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, one annual sampling, or a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurements of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where ground-water quality may change more rapidly, samples maybe collected more frequently to identify the nature of the changes.

Data Collection

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties, but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Procedures for on-site measurements and for collecting, treating, and shipping ground-water samples as well as methods used by the U.S. Geological Survey laboratories are given in the publication "Techniques of Water-Resources Investigations" (TWRI), Book 1, Chapter D2. The values included in this report represent water-quality conditions at the time of sampling, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped for a sufficient time period to assure that the water collected came directly from the aquifer and to minimize exposure to the atmosphere and to the materials comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-levels records. Data for quality of ground water are grouped by special study and then listed alphabetically by county, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

Precision varies for different analytical methods used to determine the same constituent. The presence of trailing zeroes after the decimal in values printed in this report does not necessarily indicate that the method used for the determination is as precise as the level implied by the rightmost zero.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
M	Presence of material verified, but not quantified
ND	Not detected

ACCESS TO WATER DATA

The U.S. Geological Survey provides some water-quality and ground-water data through the World Wide Web (WWW). These data may be accessed at:

<http://water.usgs.gov/nwis/>

In addition, data can be provided in various machine-readable formats. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District offices (See address on the back of the title page.)

DEFINITION OF TERMS

Terms related to ground water, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian well is one in which the water is under sufficient hydrostatic pressure to rise above the top of the aquifer. A flowing artesian well is one in which the water rises above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases the water level can rise above the ground surface, yielding a flowing well.

Continuous-record station is a site that meets the following conditions:

Groundwater levels or pressure head are recorded at some interval on a continuous basis. The recording interval is usually 60 minutes, but may be less or more frequent.

Datum used in this report is land surface and all ground-water levels are referenced to land surface. The land surface elevation, source for the elevation data, and measuring point are also listed.

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of “dissolved” constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) content of water in equilibrium with air is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration of water is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During that analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic head as used in this report, is the height above land surface of the column of water that can be supported by the hydraulic pressure at a well.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the U.S. Geological Survey. Each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

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 the United States and Canada, formerly called Sea Level Datum of 1929. *See: http://www.co-ops.nos.noaa.gov/glossary/gloss_n.html#NGVD*

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any dissolved substance.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from well to well, and it may vary in the same source with changes in the composition of the water.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of “suspended, recoverable” constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.”

Determinations of “suspended, total” constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Total is the total amount of a given constituent in a representative suspended-sediment sample, regardless of the constituent’s physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total.” (Note that the word “total” does double duty here, indicating both that the sample consists of a suspended-sediment mixture and that the analytical method determined all of the constituent in the sample.)

Turbidity is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.

Water level is the water-surface elevation of the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

Water table is the surface of a ground-water body at which the water is at atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which is found the water table.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2000, is called the “2000 water year.”

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S.G.S. publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, section B of book 3 (Applications of Hydraulics) pertains to ground water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the “U.S. Geological Survey.” Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the “U.S. Geological Survey Techniques of Water-Resources Investigations.”

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J.F. Ficke, and G. F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 pages.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 pages.

Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 pages.

Book 3. Applications of Hydraulics**Section B. Ground-Water Techniques**

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 pages.
- 3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 pages.

Book 4. Hydrologic Analysis and Interpretation**Section A. Statistical Analysis**

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 pages.

Section D. Interrelated Phases of the Hydrologic Cycle

- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 pages.

Book 5. Laboratory Analysis**Section A. Water Analysis**

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 pages.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY--**Continued****Book 6. Modeling Techniques****Section A. Ground Water**

- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 pages.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI book 6, chap. A5, 1993. 243 pages.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1996. 125 pages.

Book 7. Automated Data Processing and Computations**Section C. Computer Programs**

- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 pages.

Book 8. Instrumentation**Section A. Instruments for Measurement of Water Level**

- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 pages.

Book 9. Handbooks for Water-Resources Investigations**Section A. National Field Manual for the Collection of Water-Quality Data**

- 9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
- 9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.
- 9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.
- 9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.
- 9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.
- 9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

- 9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS-TWRI book 9, chap. A8. 1998. 48 pages.
- 9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS-TWRI book 9, chap. A9. 1998. 60 pages.

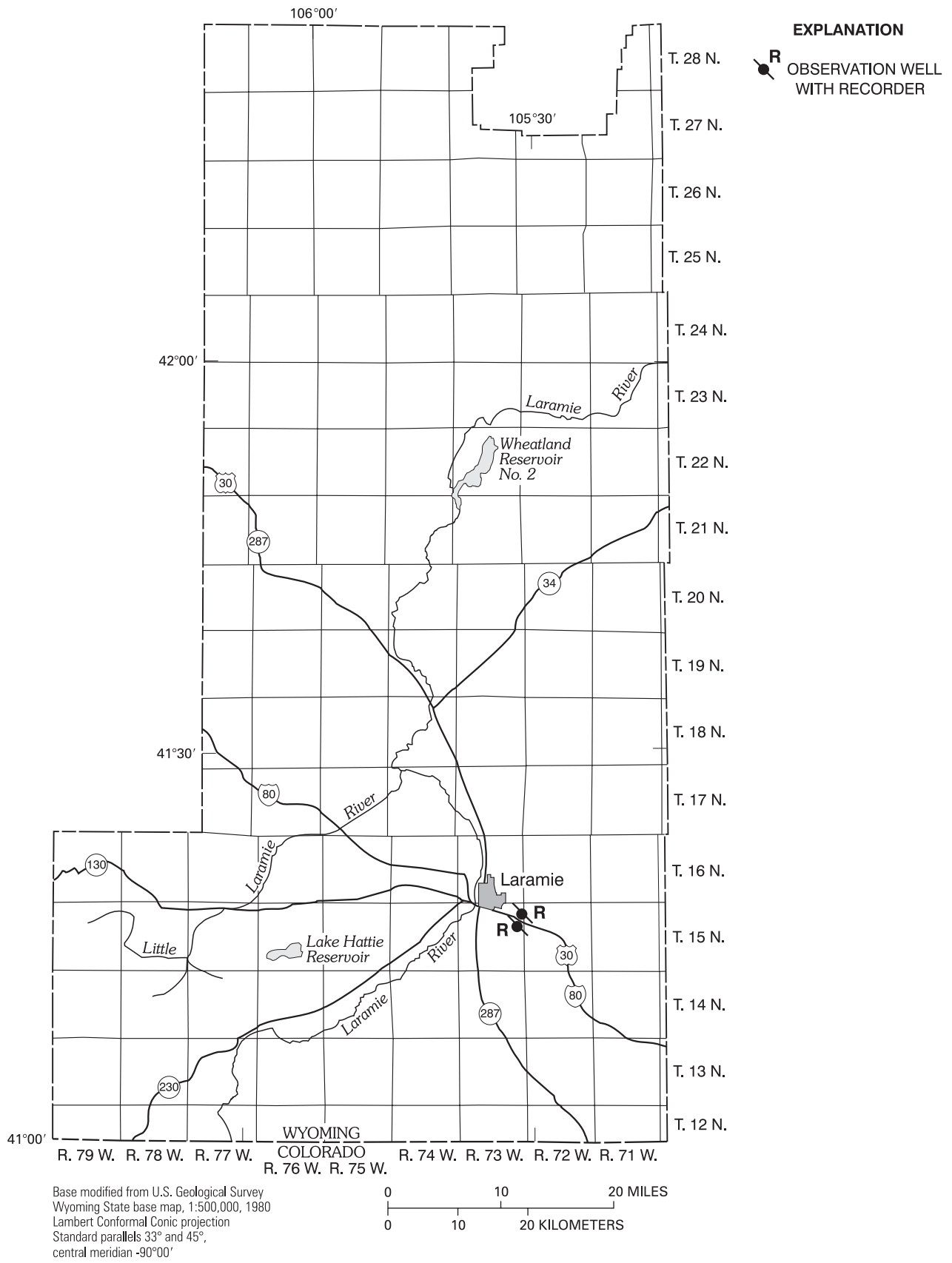


Figure 6. Location of observation wells in Albany County, Wyoming.

GROUND-WATER LEVELS

ALBANY COUNTY

IDENTIFICATION.--Station number, 411751105312701. Local number, 15-073-01dba01. Local name, Huntoon #1.

Location.--Lat 41°17'51", long 105°31'27", in NE 1/4 NW 1/4 SE 1/4 sec.1, T.15 N., R.73 W., Hydrologic Unit 10180010.

Aquifer.--Casper Formation.

WELL CHARACTERISTICS.--Depth of well, 182 ft below land surface.

DATUM.--Elevation of land surface is 6,500 ft above sea level, from topographic map. Measuring point: top of casing, 0.9 ft above land surface.

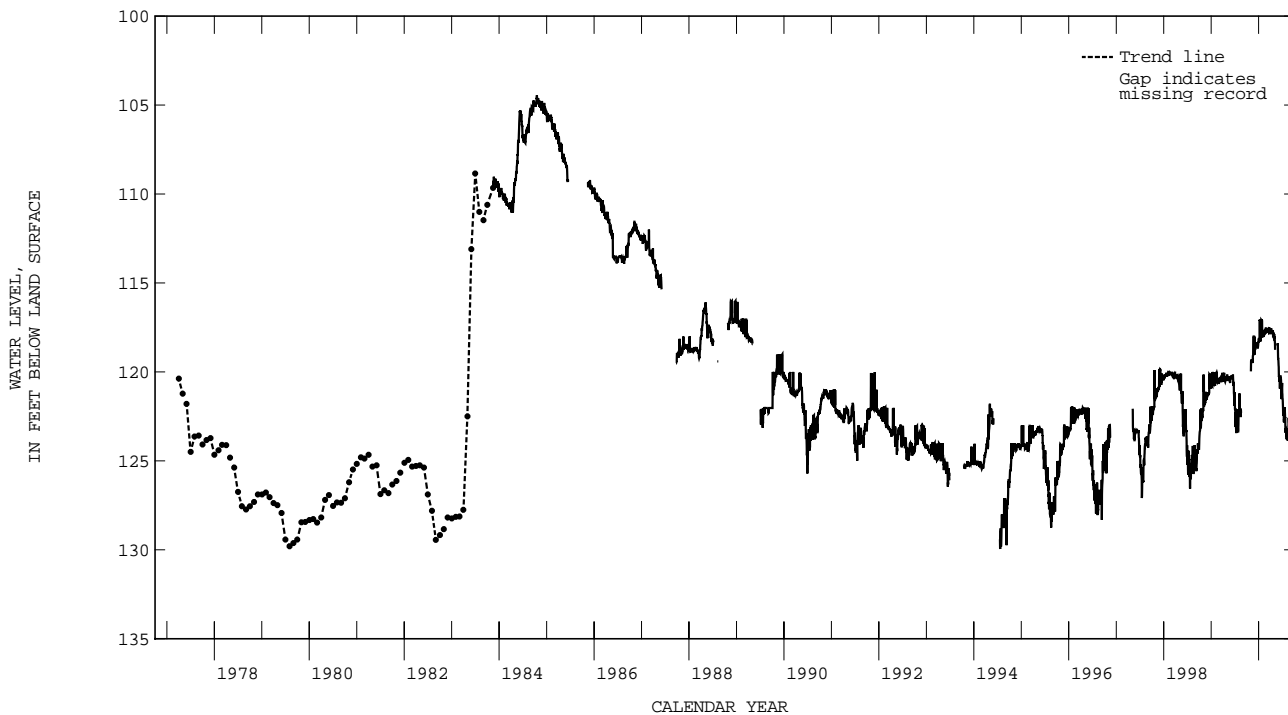
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.45 ft below land surface, Oct. 17, 1984; lowest, 129.95 ft below land surface, July 22, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	119.33	118.69	118.15	117.91	117.66	117.59	118.39	120.22	121.85	123.64	122.83
10	---	119.31	118.51	117.07	117.77	117.73	117.78	---	120.34	122.30	123.61	122.93
15	---	119.44	118.50	118.21	117.72	117.68	117.69	---	120.30	122.64	123.82	123.34
20	---	118.07	118.39	118.09	117.84	117.48	117.91	---	120.39	122.19	122.68	122.72
25	---	118.04	118.64	117.09	117.51	117.78	117.94	118.52	121.53	123.42	122.89	122.04
EOM	---	118.03	118.24	117.93	117.66	117.78	118.09	119.27	121.18	123.35	122.92	121.60
MAX	---	118.02	118.24	117.07	117.51	117.48	117.55	118.01	119.44	121.25	122.58	121.60
MIN	---	119.97	118.77	118.30	118.04	117.88	118.09	119.27	121.53	123.42	123.87	123.72



GROUND-WATER LEVELS

ALBANY COUNTY--Continued

IDENTIFICATION.--Station number, 411703105314001. Local number, 15-073-12dbb01. Local name, Huntoon #2.

LOCATION.--Lat 41°17'03", long 105°31'40", in NW 1/4 NW 1/4 SE 1/4 sec.12, T.15 N., R.73 W., Hydrologic Unit 10180010.

AQUIFER.--Casper Formation.

WELL CHARACTERISTICS.--Depth of well, 243 ft below land surface.

DATUM.--Elevation of land surface is 6,500 ft above sea level, from topographic map. Measuring point: top of casing, 1.30 ft above land surface.

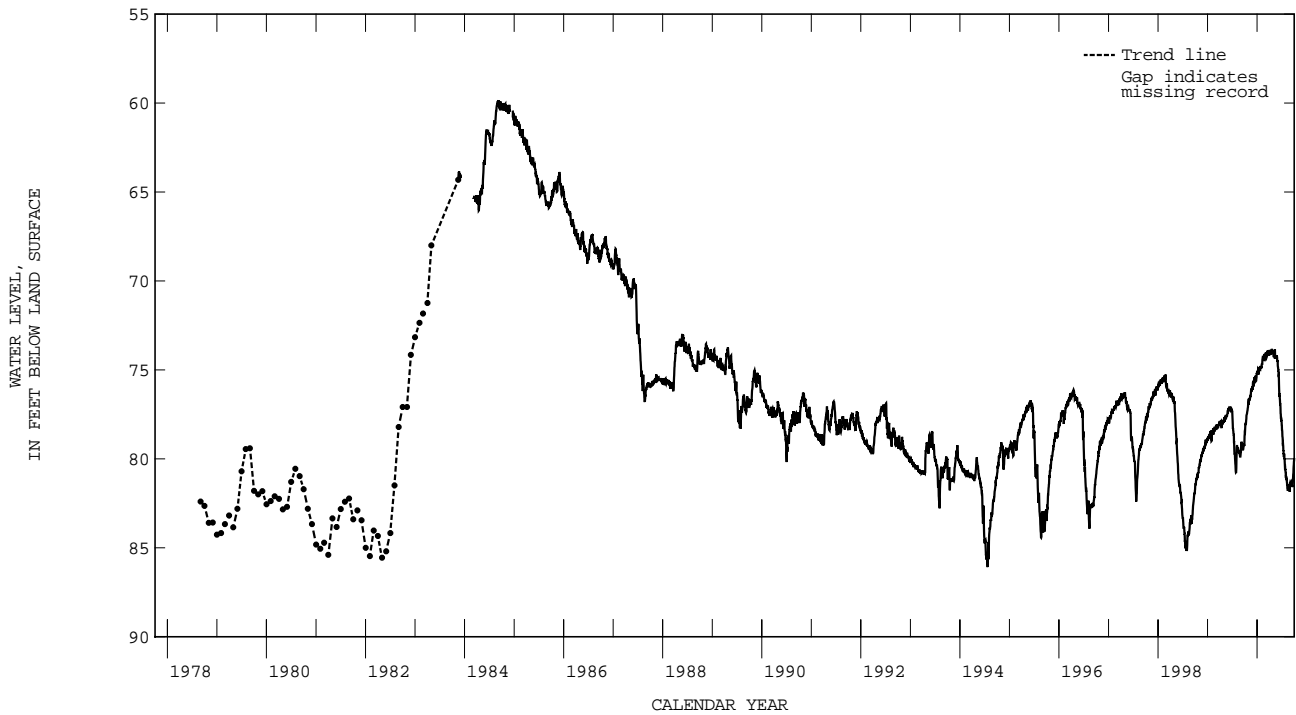
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.84 ft below land surface, Sept. 7, 1984; lowest, 86.08 ft below land surface, July 24, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	78.21	76.67	75.78	75.11	74.65	74.02	73.94	74.12	75.03	78.75	81.20	81.40
10	78.01	76.55	75.55	74.88	74.37	74.26	74.02	73.89	75.80	79.22	81.49	81.37
15	77.53	76.39	75.60	75.07	74.34	74.10	73.87	74.37	76.42	79.69	81.76	81.53
20	77.35	76.13	75.45	75.01	74.43	73.90	74.11	74.31	76.94	80.02	81.52	81.30
25	77.10	75.97	75.56	74.82	74.13	74.18	74.07	74.25	77.75	80.47	81.75	80.54
EOM	76.86	75.86	75.15	74.79	74.31	74.17	74.12	74.50	78.10	80.91	81.35	79.95
MAX	76.78	75.86	75.15	74.78	74.10	73.88	73.87	73.89	74.78	78.11	80.99	79.95
MIN	78.63	76.85	75.94	75.26	74.91	74.35	74.14	74.55	78.10	80.92	81.85	81.59



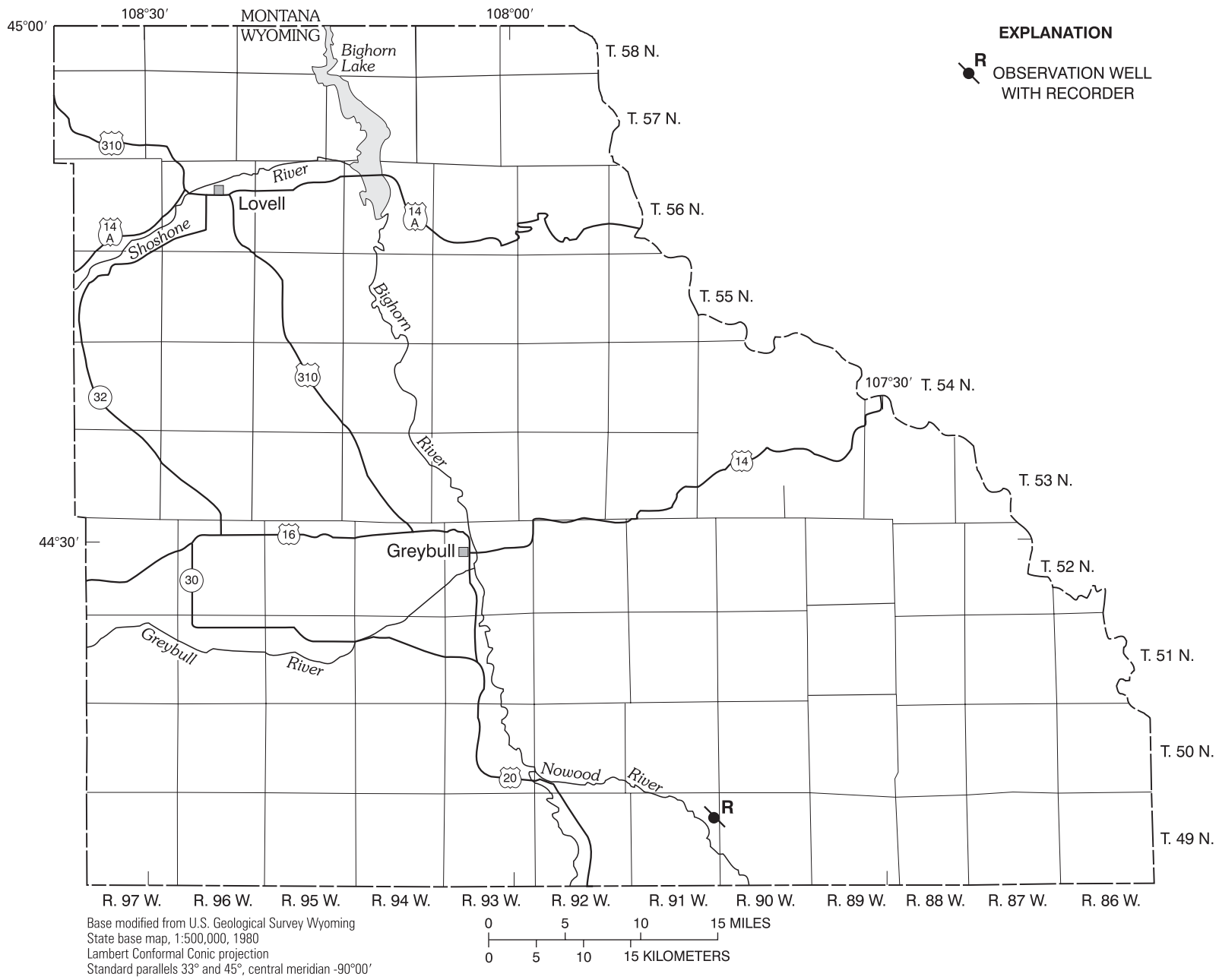


Figure 7. Location of observation well in Big Horn County, Wyoming.

GROUND-WATER LEVELS

BIG HORN COUNTY

IDENTIFICATION.--Station number, 441351107434701. Local number, 49-091-12dba01. Local name, Worland-1.

LOCATION.--Lat 44°13'53", long 107°43'41", in NE 1/4 NW 1/4 SE 1/4 sec.12, T.49 N., R.91 W., Hydrologic Unit 10080008.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 2,730 ft below land surface.

DATUM.--Elevation of land surface is 4,421.7 ft above sea level, from levels.

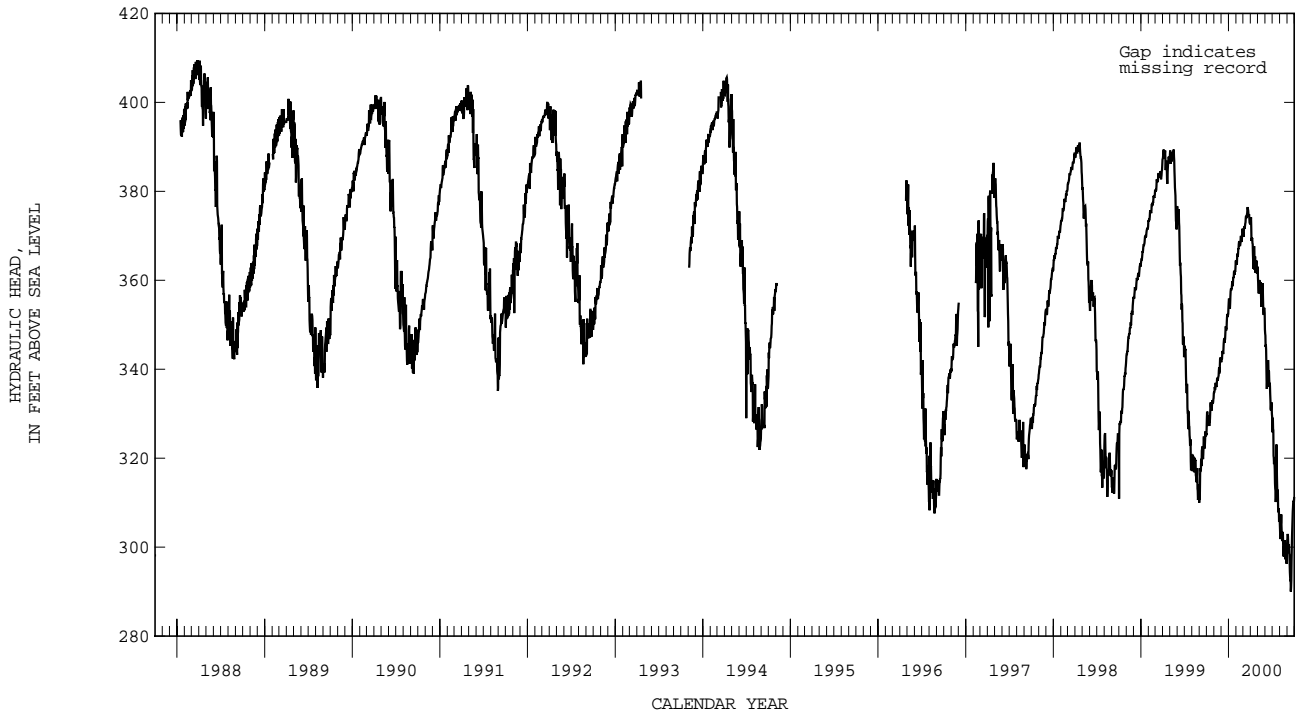
REMARKS.--Shut-in pressure was measured by pressure transducer and converted to hydraulic head above land surface for illustration purposes. Hydraulic head, in feet above land surface, was calculated by multiplying the shut-in pressure in pounds per square inch times 2.31. The accuracy of the hydraulic head measurements is ±5.0 ft. Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest hydraulic head, 409.50 ft above land surface, Mar. 26, 1988; lowest, 290.01 ft above land surface, Sept. 16, 2000.

HYDRAULIC HEAD, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	329.09	335.56	343.41	354.97	364.91	371.84	368.84	357.04	344.34	326.31	304.81	300.89
10	329.55	336.02	344.34	357.97	367.22	372.76	368.14	359.82	338.10	318.92	302.05	298.35
15	328.86	337.87	345.96	359.13	367.91	374.38	366.75	356.13	338.79	310.14	300.43	292.80
20	331.63	338.56	349.65	360.75	369.53	376.46	365.37	358.89	336.94	316.14	300.89	299.96
25	333.02	340.64	351.73	361.21	369.30	374.61	364.21	352.66	330.92	308.75	298.12	308.98
EOM	334.63	342.03	353.81	364.44	370.92	372.53	363.06	348.96	329.32	306.21	299.97	311.29
MIN	326.54	334.86	341.57	353.58	363.52	369.76	361.44	348.96	329.32	305.75	296.27	290.01
MAX	334.63	342.49	353.81	364.44	371.61	376.46	374.15	362.83	348.04	329.09	307.36	311.29



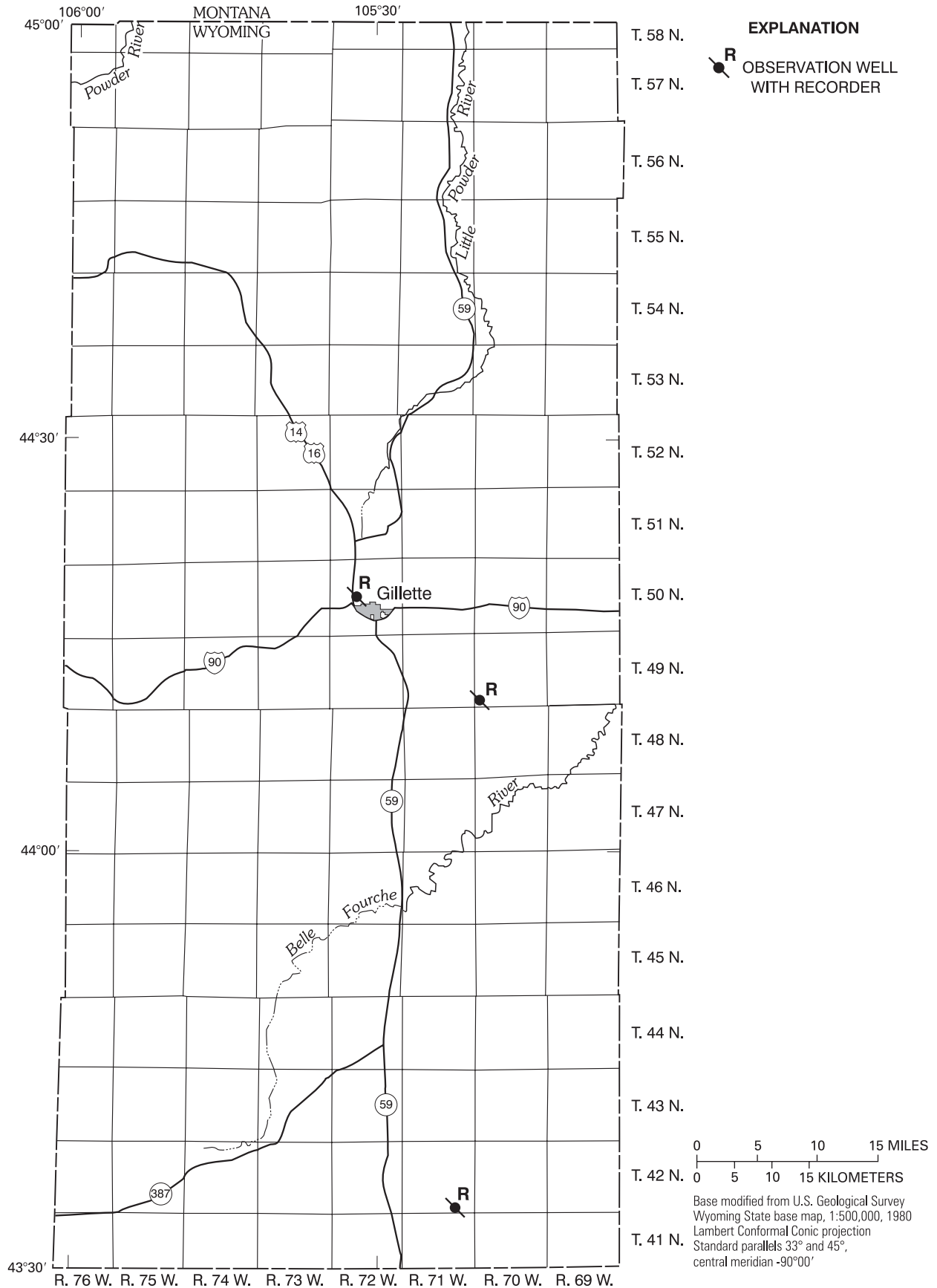


Figure 8. Location of observation wells in Campbell County, Wyoming.

GROUND-WATER LEVELS

CAMPBELL COUNTY

IDENTIFICATION.--Station number, 433438105225401. Local number, 42-071-35aaa01. Local name, Ech-8.

LOCATION.--Lat 43°34'38", long 105°22'54", in NE¹/₄ NE¹/₄ NE¹/₄ sec.35, T.42 N., R.71 W., Hydrologic Unit 10120101.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Depth of well, 399 ft below land surface.

DATUM.--Elevation of land surface is 4,732 ft above sea level, from topographic map. Measuring point: top of casing, 1.15 ft above land surface.

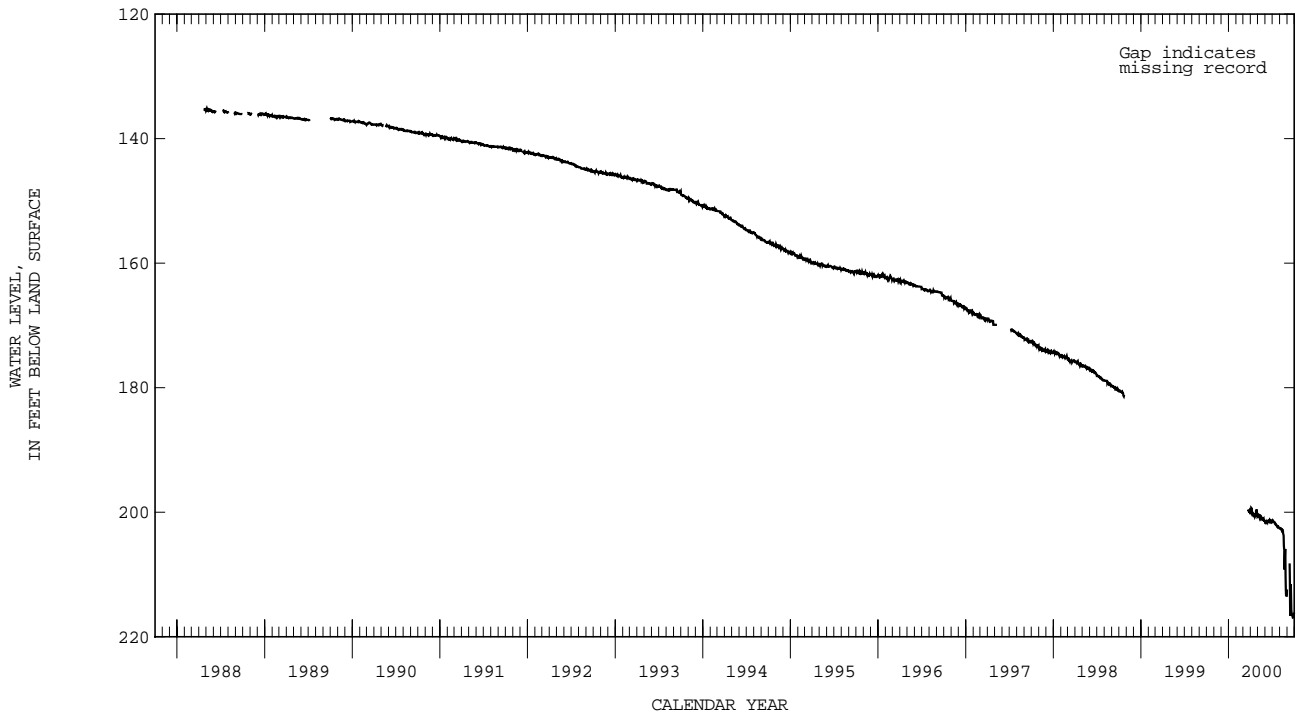
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 135.13 ft below land surface, May 3, 1988; lowest, 216.87 ft below land surface, Sept. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	199.34	200.52	201.76	201.49	202.67	---
10	---	---	---	---	---	---	200.11	200.52	201.51	201.61	202.78	---
15	---	---	---	---	---	---	200.39	200.94	201.23	201.86	203.46	213.00
20	---	---	---	---	---	---	200.70	201.22	201.34	202.24	206.06	216.41
25	---	---	---	---	---	199.88	200.32	201.18	201.41	202.27	210.08	216.84
EOM	---	---	---	---	---	200.31	200.76	201.43	201.37	202.60	212.40	216.12
MAX	---	---	---	---	---	199.60	199.30	200.52	201.23	201.32	202.55	208.22
MIN	---	---	---	---	---	200.31	200.76	201.43	201.90	202.60	213.42	216.87



CAMPBELL COUNTY--Continued

IDENTIFICATION.-- Station number, 441117105192901. Local number, 49-070-31bbb01. Local name, Hampshire-1.

LOCATION.--Lat 44°11'17", long 105°19'29", in NW¹/₄ NW¹/₄ NW¹/₄ sec.31, T.49 N., R.70 W., Hydrologic Unit 10120201.

AQUIFER.--Fox Hills Formation.

WELL CHARACTERISTICS.--Depth of well, 3,750 ft below land surface.

DATUM.--Elevation of land surface is 4,620 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

REMARKS.--Because of the extreme depths to water and well construction, the accuracy of water-level measurements is ±4.0 ft.

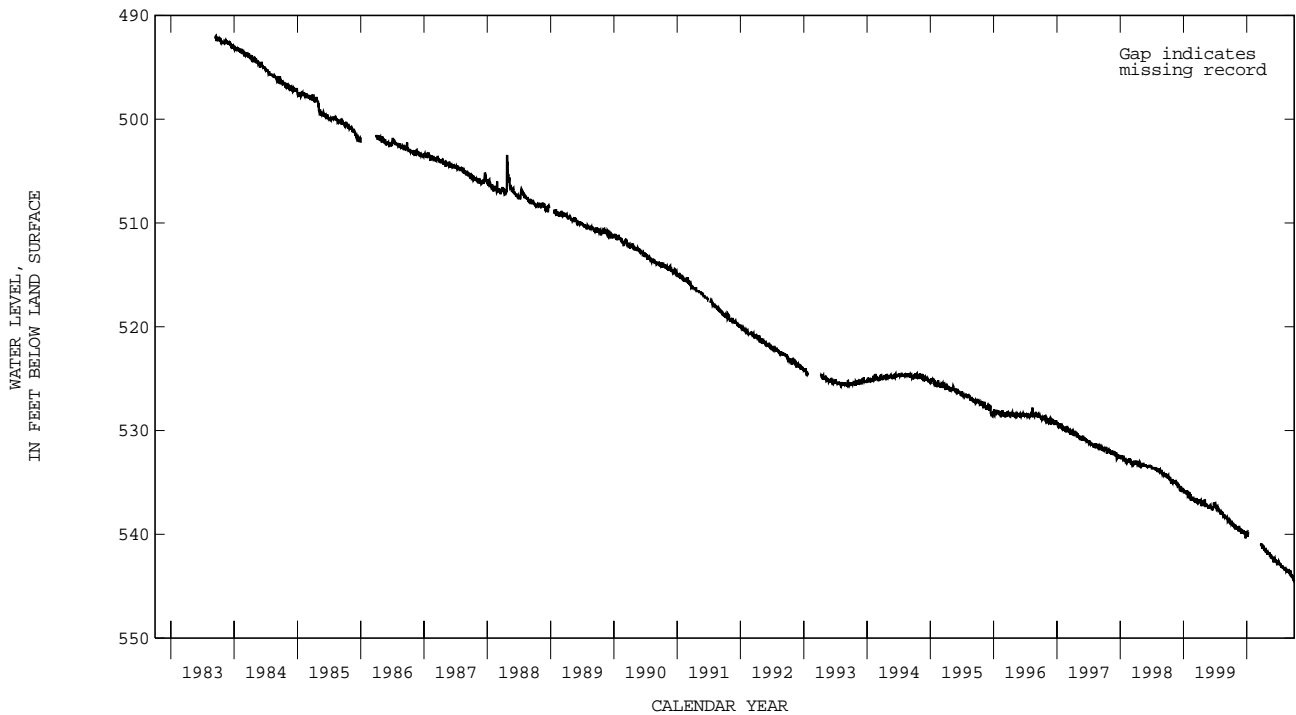
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 491.98 ft below land surface, Sept. 17, 1983; lowest, 544.48 ft below land surface, Sept. 28, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	538.88	539.45	539.76	539.99	---	---	541.11	541.78	542.54	542.77	543.32	543.73
10	539.12	539.51	539.79	539.74	---	---	541.39	541.77	542.50	542.83	543.34	543.69
15	539.06	539.61	539.87	---	---	---	541.49	542.06	542.41	542.94	543.55	544.07
20	539.24	539.41	539.99	---	---	---	541.76	542.25	542.62	543.16	543.49	544.08
25	539.28	539.47	540.39	---	---	541.08	541.77	542.16	542.72	543.15	543.66	544.42
EOM	539.26	539.70	539.96	---	---	541.40	541.98	542.31	542.69	543.30	543.65	544.38
MAX	538.70	539.24	539.50	539.73	---	540.88	541.11	541.71	542.31	542.62	543.25	543.54
MIN	539.48	539.92	540.39	540.22	---	541.40	541.98	542.37	542.89	543.30	543.66	544.48



GROUND-WATER LEVELS

CAMPBELL COUNTY--Continued

IDENTIFICATION.--Station number, 441819105305701. Local number, 50-072-21aba01. Local name, Gillette H-13.

LOCATION.--Lat 44°18'19", long 105°30'57", in NE¹/₄ NW¹/₄ NE¹/₄ sec.21, T.50 N., R.72 W., Hydrologic Unit 10120201.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Depth of well, 320 ft below land surface.

DATUM.--Elevation of land surface is 4,500 ft above sea level, from topographic map. Measuring point: top of casing, 6.35 ft below land surface.

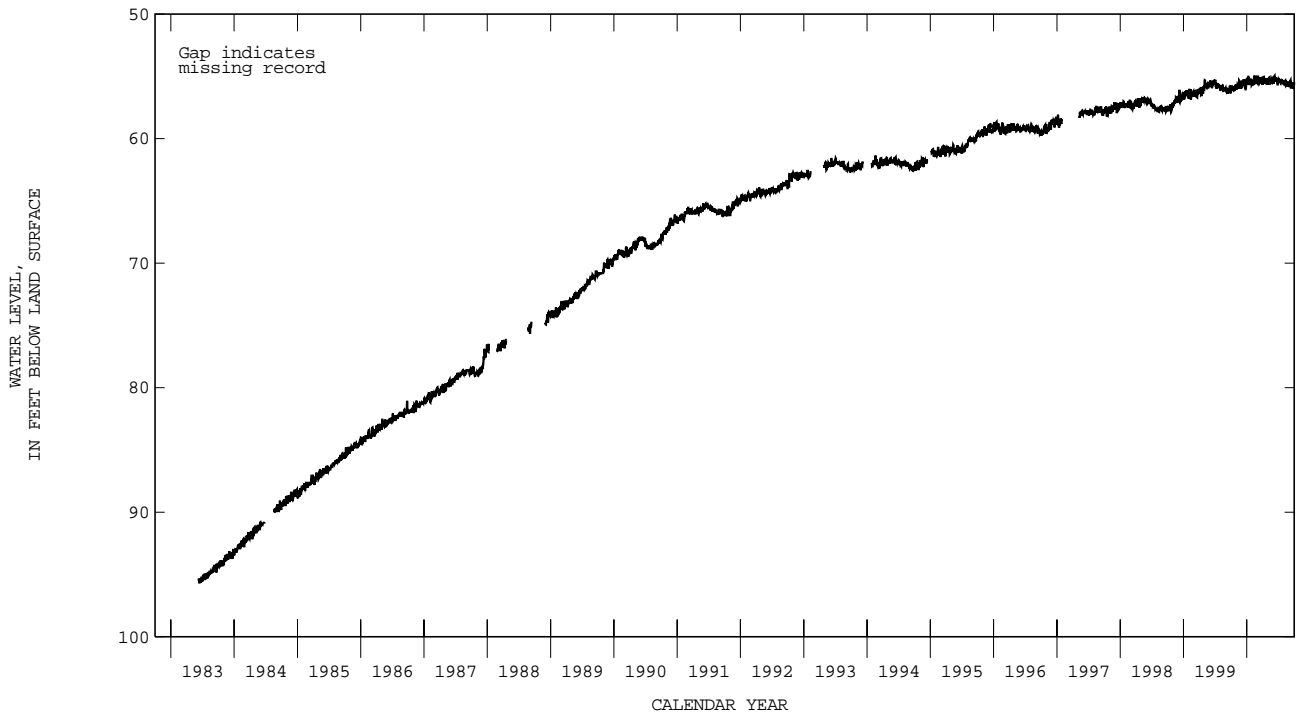
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.95 ft below land surface, June 9, 2000; lowest, 95.71 ft below land surface, June 14, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	55.93	55.91	55.69	55.37	55.51	55.06	55.08	55.22	55.32	55.30	55.48	55.64
10	56.13	55.83	55.62	55.03	55.32	55.50	55.32	55.08	55.10	55.35	55.45	55.50
15	55.91	55.82	55.57	55.52	55.00	55.35	55.36	55.37	55.09	55.40	55.72	55.81
20	56.06	55.55	55.61	55.47	55.41	55.24	55.57	55.48	55.25	55.54	55.58	55.65
25	55.98	55.47	56.04	55.41	55.04	55.33	55.51	55.16	55.37	55.43	55.78	55.88
EOM	55.82	55.69	55.35	55.49	55.29	55.68	55.69	55.20	55.32	55.55	55.67	55.48
MAX	55.66	55.33	55.24	55.03	55.00	55.04	55.07	55.07	54.95	55.15	55.37	55.31
MIN	56.19	56.08	56.04	55.71	55.71	55.68	55.69	55.65	55.65	55.58	55.80	55.99



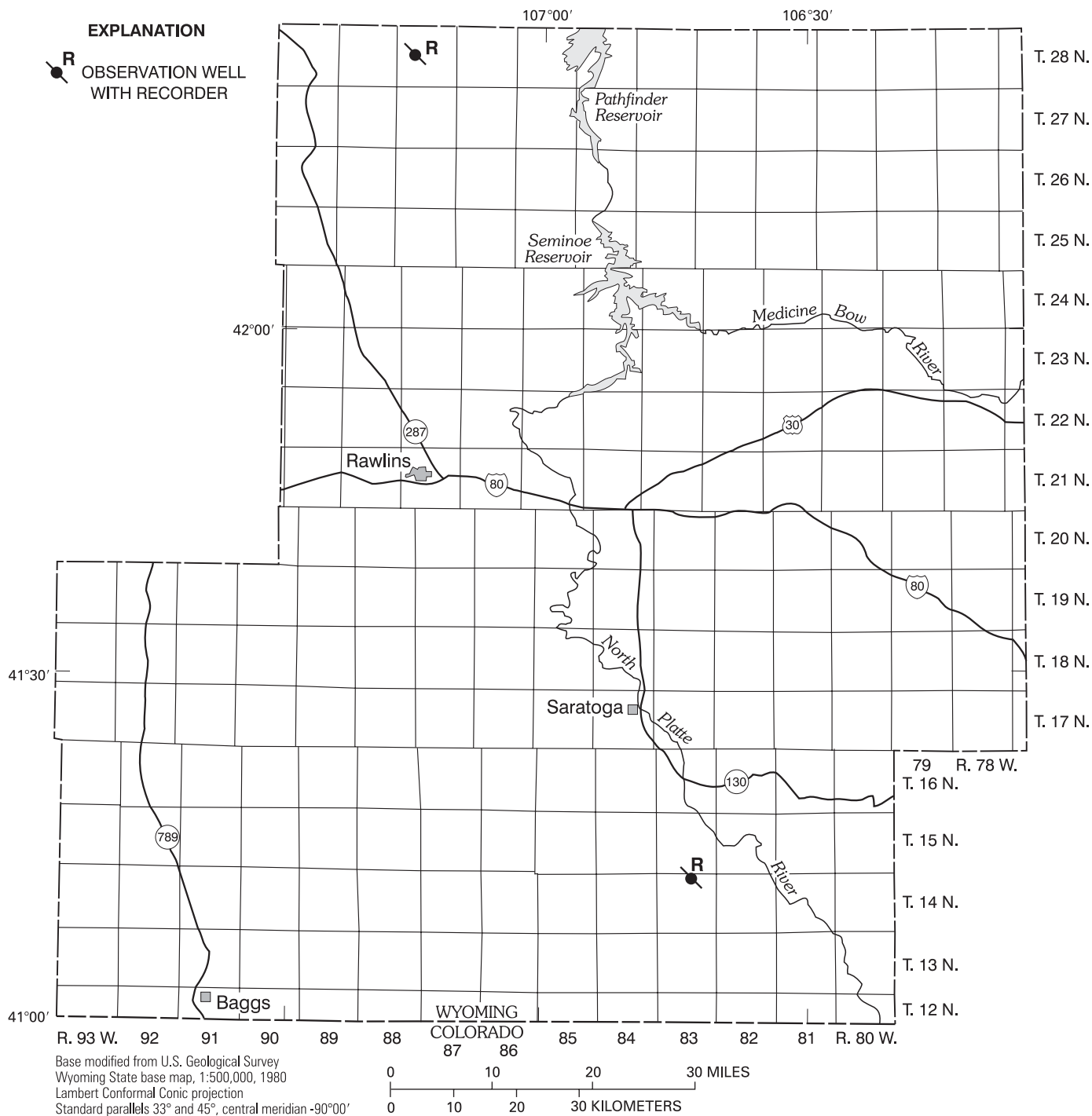


Figure 9. Location of observation wells in Carbon County, Wyoming.

GROUND-WATER LEVELS

CARBON COUNTY

IDENTIFICATION.--Station number, 411234106424601. Local number, 14-083-03cab01. Local name, Helmer South.

LOCATION.--Lat 41°12'34", long 106°42'46", in NW¹/₄ NE¹/₄ SW¹/₄ sec.3, T.14 N., R.83 W., Hydrologic Unit 10180002.

AQUIFER.--North Park Formation.

WELL CHARACTERISTICS.--Depth of well, 58 ft below land surface.

DATUM.--Elevation of land surface is 7,245 ft above sea level, from topographic map. Measuring point: top of casing, 5.40 ft below land surface.

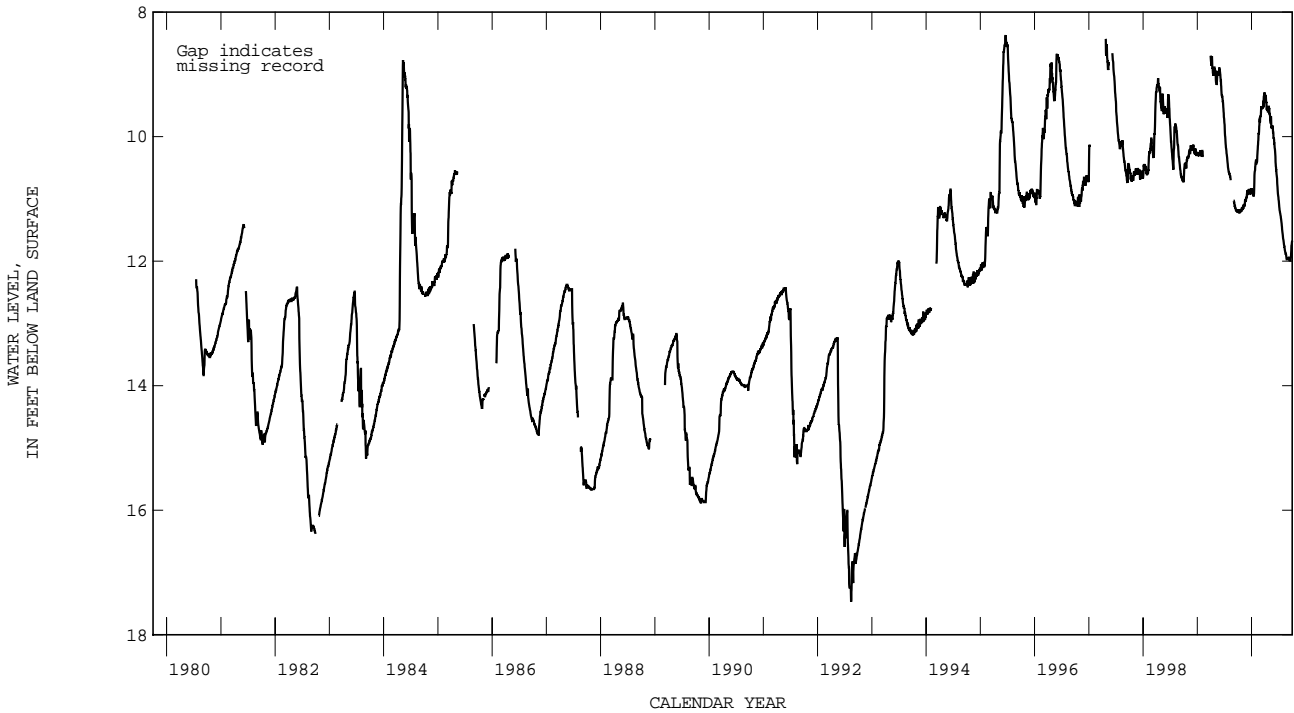
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.37 ft below land surface, June 20, 1995; lowest, 17.47 ft below land surface, Aug. 13, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.20	11.15	10.90	10.87	10.40	9.54	9.34	9.71	10.19	11.13	11.72	11.96
10	11.22	11.10	10.87	10.87	10.23	9.55	9.50	9.67	10.41	11.22	11.79	11.97
15	11.18	11.09	10.89	10.94	10.06	9.54	9.56	9.86	10.54	11.28	11.87	11.99
20	11.20	11.03	10.86	10.62	9.91	9.44	9.61	9.83	10.67	11.38	11.90	11.95
25	11.19	10.99	10.90	10.48	9.71	9.36	9.52	9.93	10.89	11.51	11.97	11.75
EOM	11.16	10.93	10.84	10.37	9.68	9.40	9.63	10.05	11.01	11.64	11.95	11.67
MAX	11.14	10.93	10.84	10.37	9.67	9.29	9.34	9.62	10.11	11.02	11.65	11.67
MIN	11.22	11.16	10.94	10.96	10.43	9.67	9.63	10.05	11.01	11.64	11.97	11.99



CARBON COUNTY--Continued

IDENTIFICATION.--Station number, 422338107145001. Local number, 28-087-16cca01. Local name, Split Rock #2.

LOCATION.--Lat 42°23'38", long 107°14'50", in NE¹/₄ SW¹/₄ SW¹/₄ sec.16, T.28 N, R.87 W., Hydrologic Unit 10180006.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 812 ft below land surface.

DATUM.--Elevation of land surface is 6,000 ft above sea level, from topographic map. Measuring point: top of casing, 1.95 ft above land surface.

REMARKS.--The record from a twenty-day pumping test conducted in September and October 1981 is not shown on the hydrograph.

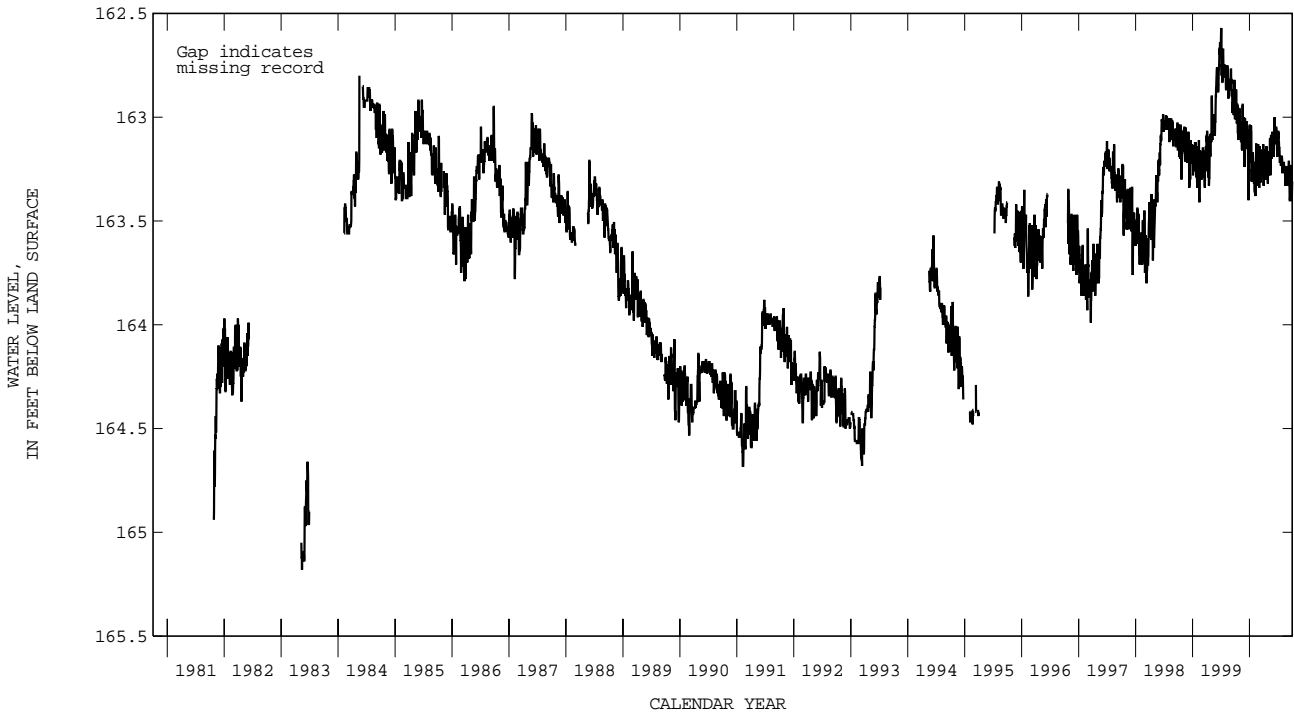
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 162.57 ft below land surface, July 3, 1999; lowest, 182.66 ft below land surface, Oct. 16, 1981, affected by pumping test.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	162.97	163.03	163.15	163.16	163.31	163.14	163.20	163.17	163.16	163.11	163.25	163.29
10	163.01	163.08	163.10	163.04	163.23	163.24	163.21	163.11	163.03	163.15	163.26	163.24
15	162.94	163.13	163.14	163.29	163.15	163.25	163.16	163.22	163.06	163.19	163.27	163.40
20	163.09	163.03	163.15	163.24	163.33	163.16	163.22	163.18	163.05	163.23	163.27	163.30
25	163.07	163.03	163.40	163.23	163.13	163.27	163.27	163.10	163.12	163.19	163.32	163.40
EOM	163.08	163.16	163.11	163.26	163.23	163.33	163.26	163.09	163.12	163.27	163.25	163.31
MAX	162.87	162.94	163.01	163.04	163.13	163.13	163.14	163.07	163.00	163.07	163.22	163.21
MIN	163.11	163.24	163.40	163.32	163.38	163.34	163.32	163.28	163.19	163.27	163.33	163.40



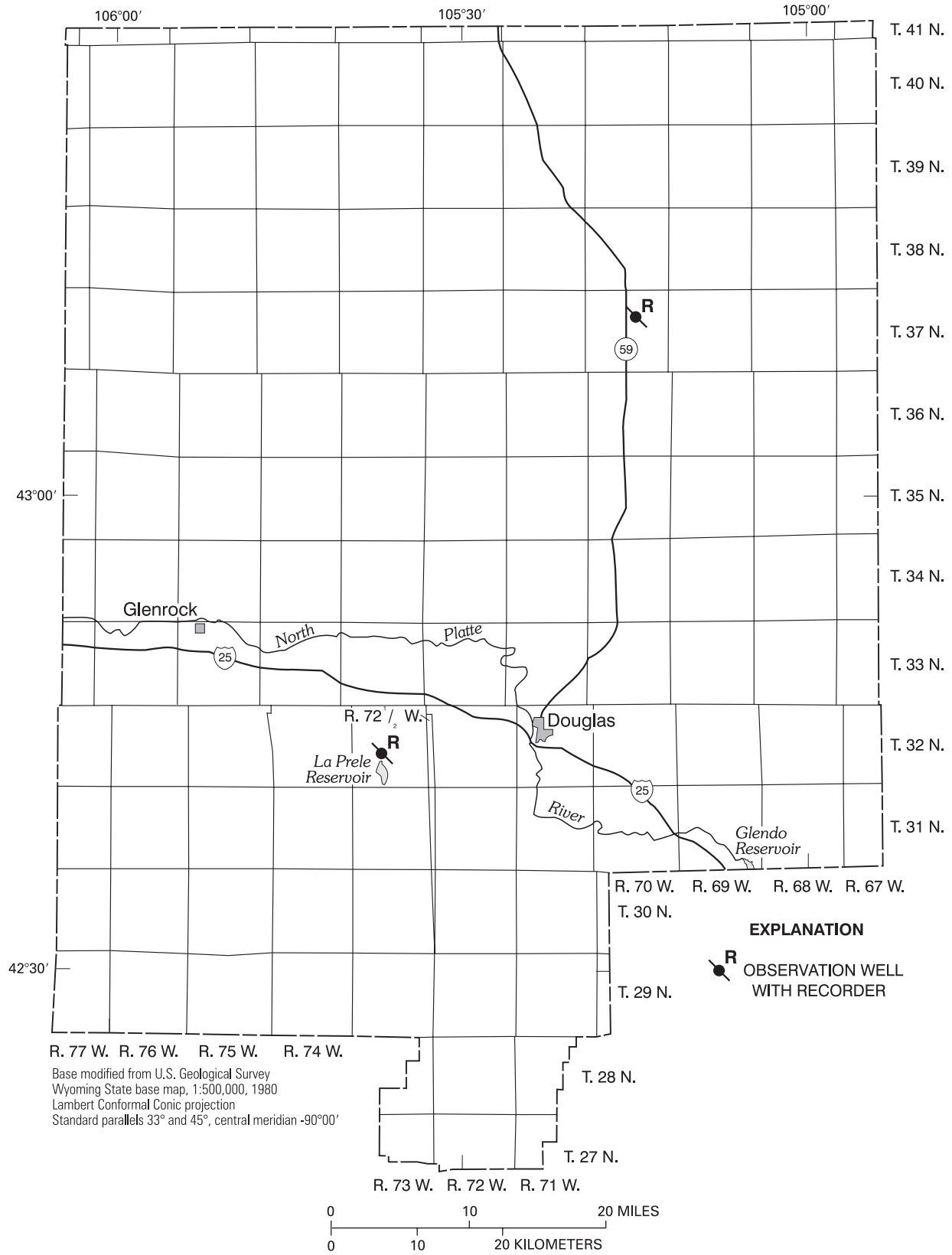


Figure 10. Location of observation wells in Converse County, Wyoming.

CONVERSE COUNTY

IDENTIFICATION.-- Station number, 424420105364201. Local number, 32-073-16cdb01. Local name, Natural Bridge East.

LOCATION.--Lat 42°44'20", long 105°36'42", in NW¹/₄ SE¹/₄ SW¹/₄ sec.16, T.32 N., R.73 W., Hydrologic Unit 10180007.

AQUIFER.--Casper Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 5,316.4 ft above sea level, from levels. Measuring point: top of casing, 1.70 ft above land surface.

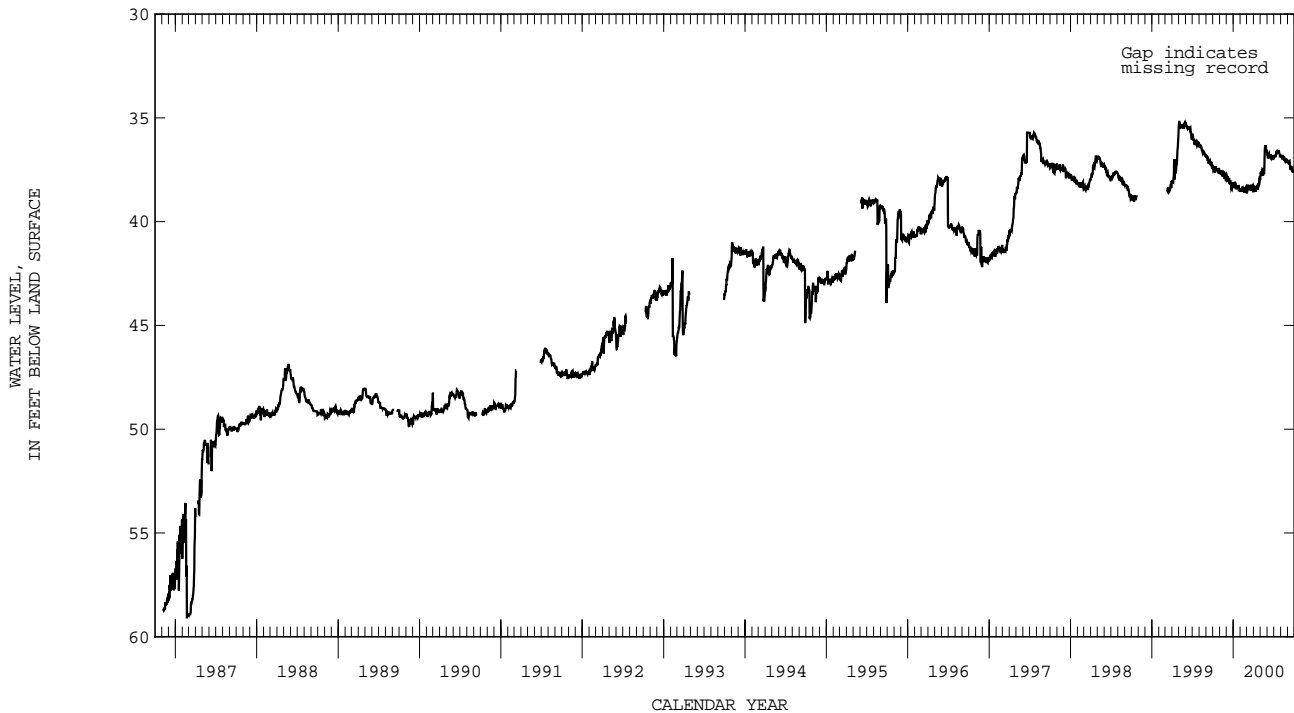
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.19 ft below land surface, May 3, 4, 1999; lowest, 59.12 ft below land surface, Feb. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.46	37.69	37.90	38.23	38.39	38.22	38.33	37.59	36.84	36.85	36.87	37.20
10	37.63	37.73	37.96	38.13	38.36	38.41	38.42	37.47	36.88	36.74	36.91	37.25
15	37.38	37.76	38.17	38.35	38.42	38.37	38.39	37.67	36.76	36.58	37.04	37.44
20	37.51	37.72	38.24	38.35	38.50	38.34	38.47	36.90	36.89	36.62	36.98	37.42
25	37.55	37.72	38.42	38.33	38.35	38.39	38.10	36.36	36.89	36.71	37.06	37.56
EOM	37.53	37.85	38.16	38.39	38.56	38.54	38.00	36.61	36.86	36.85	37.12	37.48
MAX	37.30	37.51	37.75	38.09	38.34	38.22	37.86	36.33	36.73	36.58	36.83	37.08
MIN	37.69	38.02	38.42	38.52	38.61	38.60	38.56	37.85	36.98	36.88	37.12	37.63



GROUND-WATER LEVELS

CONVERSE COUNTY--Continued

IDENTIFICATION.--Station number, 431140105151901. Local number, 37-070-10cbb01. Local name, Bill #6.

LOCATION.--Lat 43°11'40", long 105°15'19", in NW¹/₄ NW¹/₄ SW¹/₄ sec.10, T.37 N., R.70 W., Hydrologic Unit 10120105.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Depth of well, 268 ft below land surface.

DATUM.--Elevation of land surface is 4,720 ft above sea level, from topographic map. Measuring point: top of casing, 0.40 ft above land surface.

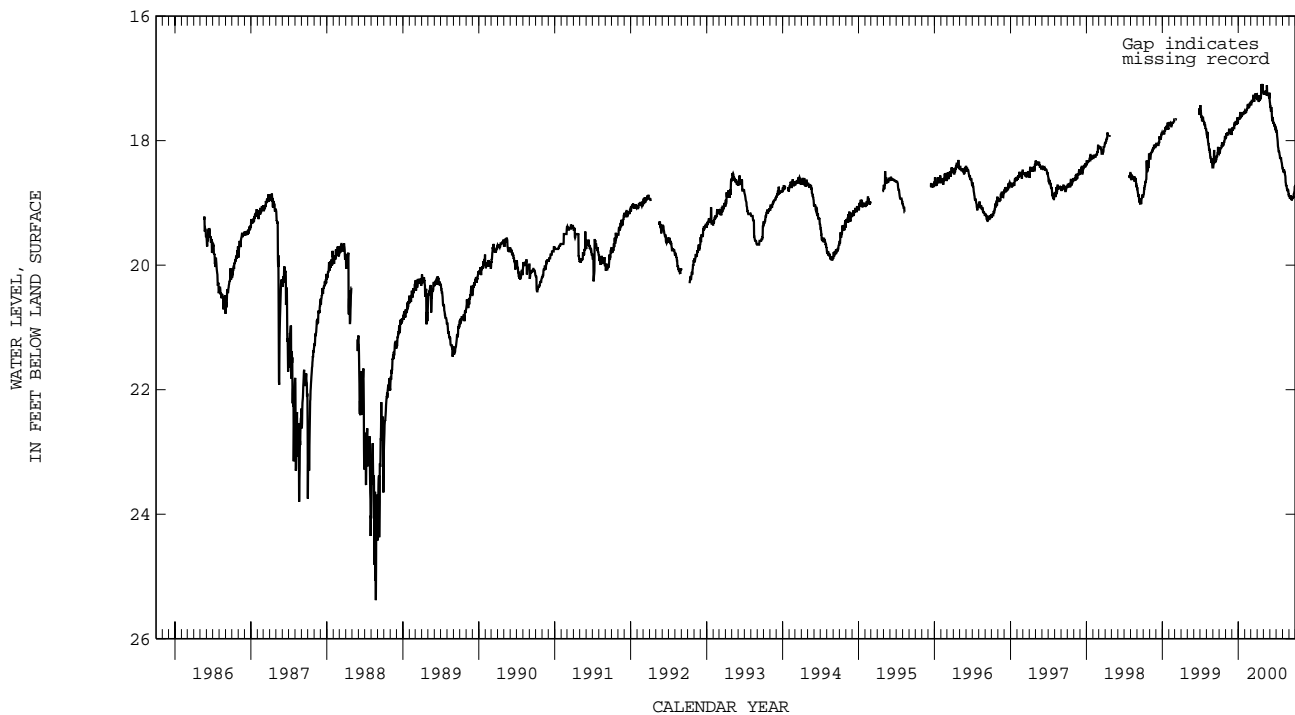
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.09 ft below land surface, Apr. 23, 25, 2000; lowest, 25.38 ft below land surface, Aug. 31, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.15	17.90	17.82	17.65	17.53	17.36	17.27	17.23	17.52	17.92	18.51	18.92
10	18.12	17.88	17.80	17.58	17.50	17.37	17.31	17.23	17.61	18.11	18.51	18.91
15	18.04	17.89	17.74	17.60	17.44	17.33	17.32	17.26	17.66	18.18	18.67	18.93
20	18.06	17.83	17.71	17.59	17.48	17.29	17.10	17.26	17.73	18.28	18.74	18.92
25	18.02	17.84	17.73	17.55	17.41	17.31	17.09	17.27	17.77	18.32	18.80	18.84
EOM	17.96	17.87	17.66	17.53	17.39	17.35	17.21	17.38	17.81	18.44	18.90	18.71
MAX	17.94	17.81	17.63	17.53	17.39	17.24	17.09	17.11	17.40	17.82	18.44	18.71
MIN	18.20	17.96	17.84	17.65	17.55	17.42	17.38	17.38	17.82	18.44	18.90	18.96



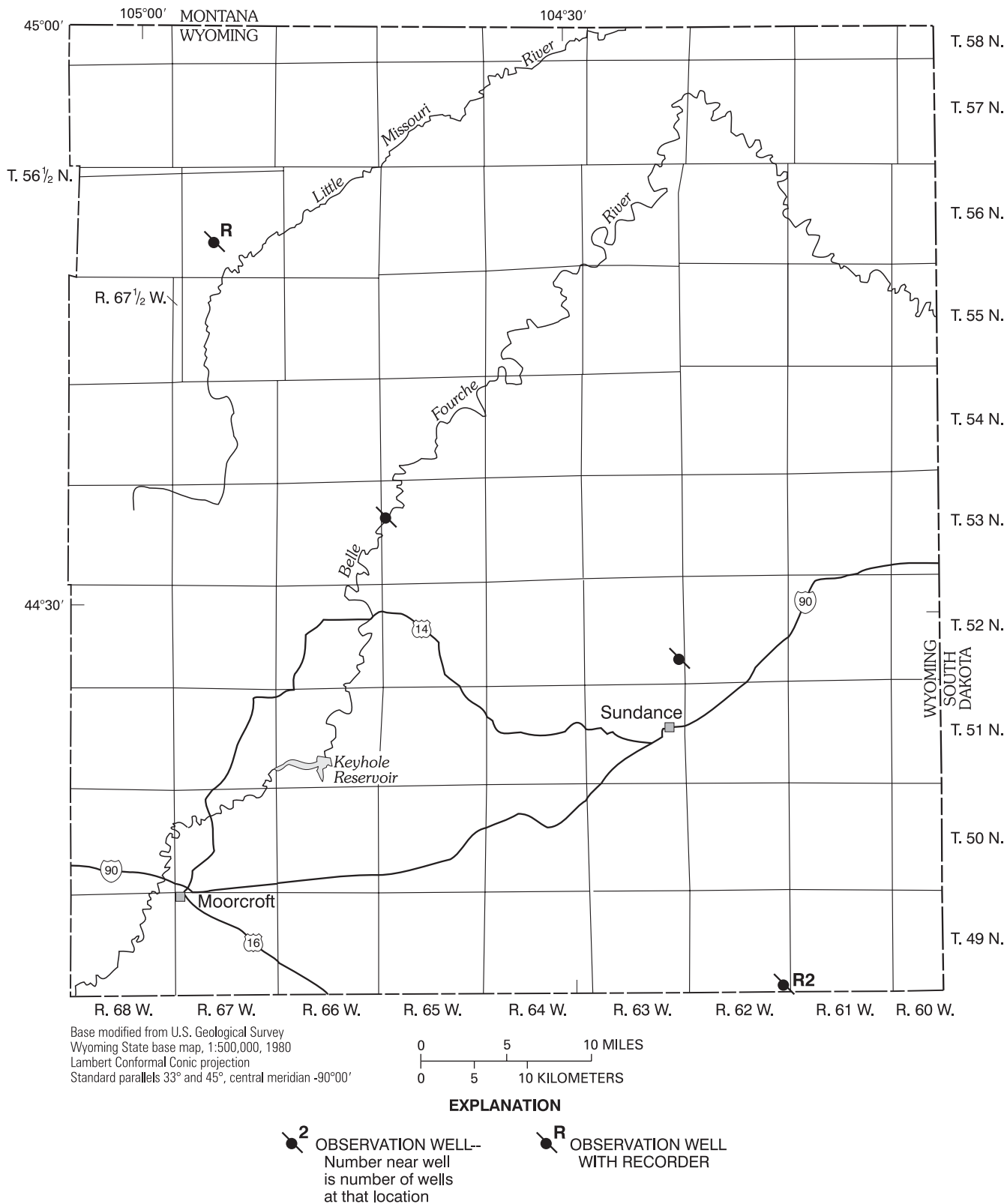


Figure 11. Location of observation wells in Crook County, Wyoming.

GROUND-WATER LEVELS

CROOK COUNTY

IDENTIFICATION.--Station number, 441113104151001. Local number, 49-062-36cbb01. Local name, Inyan Kara Mountain CCMOW6.

LOCATION.--Lat 44°11'13", long 104°15'10", in NW¹/₄ NW¹/₄ SW¹/₄ sec.36, T.49 N., R.62 W., Hydrologic Unit 10120201.

AQUIFER.--Madison Formation.

WELL CHARACTERISTICS.--Depth of well, 1,280 ft below land surface.

DATUM.--Elevation of land surface is 5,403 ft above sea level, from topographic map. Measuring point: top of casing, 0.60 ft above land surface.

REMARKS.--This well was included in the Wyoming State Engineer's Office U.S. Geological Survey cooperative program on Oct. 1, 1997. Data prior to Oct. 1, 1998 is available from the Office of the Wyoming State Engineer.

COOPERATION.--Data collected by the Wyoming State Engineer's Office and compiled and reviewed by U.S. Geological Survey.

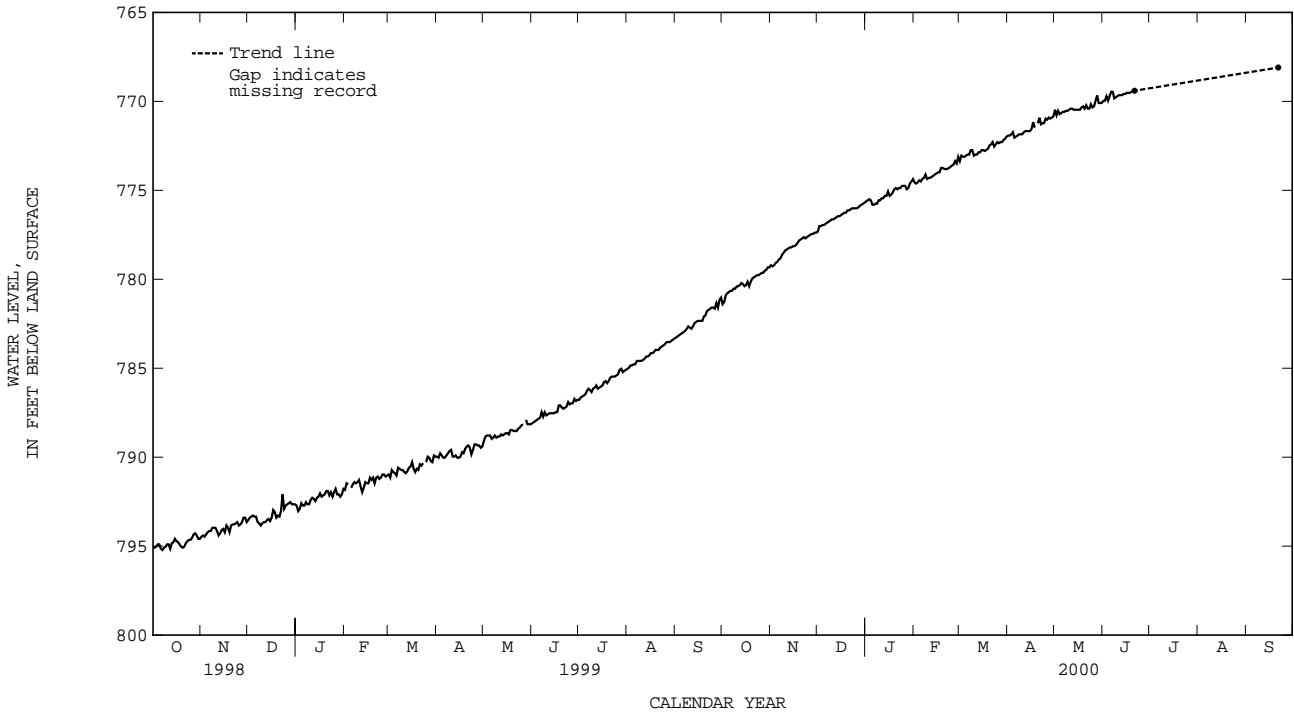
PERIOD OF RECORD.--1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 768.10 ft below land surface, from hand-measured data, Sept. 21, 2000; lowest, 840.05* ft below land surface, Apr. 22, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	780.72	779.02	776.95	775.81	774.50	773.05	772.04	770.66	769.71	---	---	---
10	780.40	778.39	776.63	775.56	774.30	773.05	771.85	770.47	769.71	---	---	---
15	780.39	778.14	776.45	775.06	774.05	772.74	771.67	770.47	769.58	---	---	---
20	779.96	777.76	776.13	774.87	773.80	772.48	771.23	770.41	769.46	---	---	---
25	779.71	777.57	776.01	774.75	773.61	772.29	770.97	770.34	---	---	---	---
EOM	779.33	777.38	775.69	774.37	773.11	771.98	770.84	770.09	---	---	---	---
MAX	779.33	777.38	775.69	774.37	773.11	771.98	770.84	769.66	769.40	---	---	---
MIN	781.40	779.27	777.32	775.81	774.62	773.36	772.04	770.78	769.97	---	---	---

*Data from the Wyoming State Engineer's Office prior to the wells inclusion in the U.S. Geological Survey's cooperative program.



CROOK COUNTY--Continued

IDENTIFICATION.--Station number, 441113104151002. Local number, 49-062-36cbb02. Local name, Inyan Kara Mountain CCMOW6A.

LOCATION.--Lat 44°11'13", long 104°15'10", in NW¹/₄ NW¹/₄ SW¹/₄ sec.36, T.49 N., R.62 W., Hydrologic Unit 10120201.

AQUIFER.--Minnelusa Formation.

WELL CHARACTERISTICS.--Depth of well, 500 ft below land surface.

DATUM.--Elevation of land surface is 5,403 ft above sea level, from topographic map. Measuring point: top of casing, 0.90 ft above land surface.

REMARKS.--This well was included in the Wyoming State Engineer's Office/U.S. Geological Survey cooperative program on Oct. 1, 1997. Data prior to Oct. 1, 1998 is available from the Wyoming State Engineer's Office.

COOPERATION.--Data collected by the Wyoming State Engineer's Office and compiled and reviewed by U.S. Geological Survey.

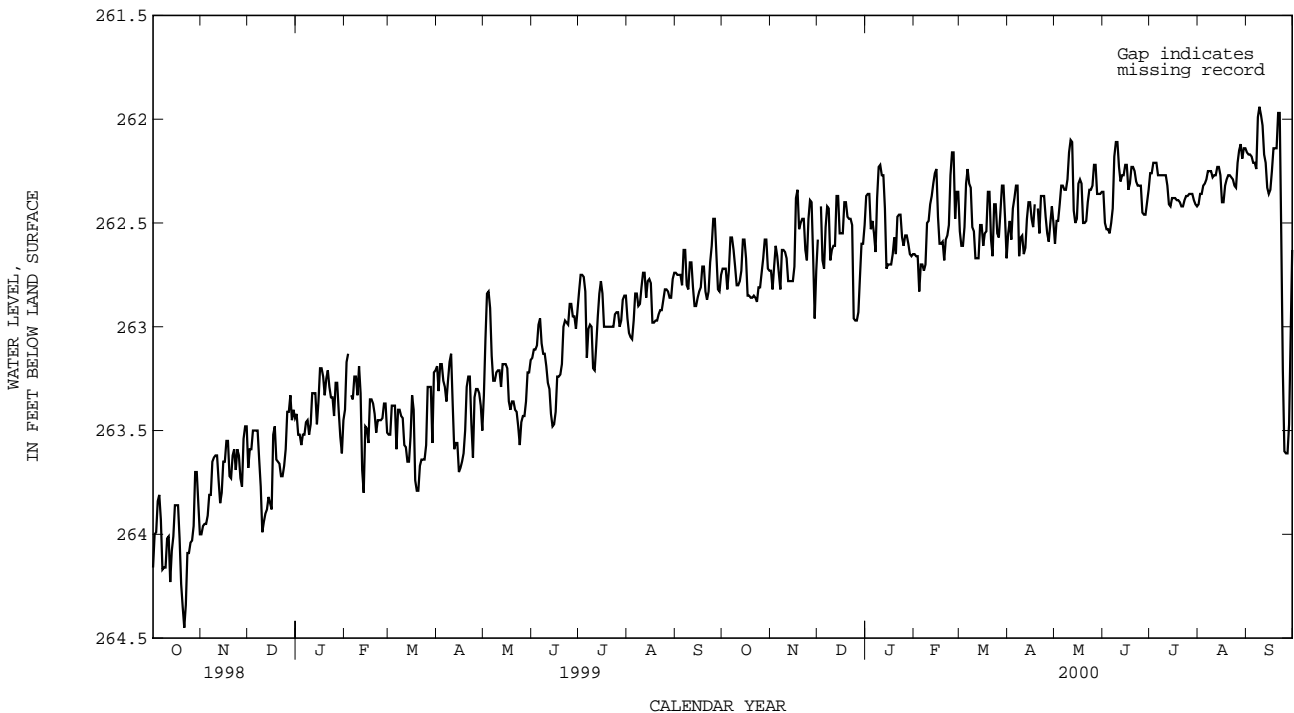
PERIOD OF RECORD.--1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 261.94 ft below land surface, Sept. 9, 2000; lowest, 267.30* ft below land surface, Mar. 1, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	262.73	262.66	262.72	262.49	262.70	262.31	262.38	262.32	262.55	262.21	262.31	262.21
10	262.80	262.64	262.63	262.22	262.49	262.54	262.56	262.16	262.11	262.27	262.28	261.98
15	262.58	262.78	262.55	262.70	262.24	262.51	262.40	262.48	262.22	262.38	262.27	262.36
20	262.86	262.50	262.47	262.65	262.68	262.35	262.43	262.50	262.23	262.40	262.27	262.14
25	262.81	262.48	262.97	262.61	262.16	262.55	262.47	262.32	262.32	262.37	262.33	263.60
EOM	262.73	262.73	262.51	262.65	262.35	262.67	262.50	262.35	262.34	262.42	262.14	262.63
MAX	262.57	262.34	262.37	262.22	262.16	262.24	262.32	262.10	262.11	262.21	262.12	261.94
MIN	262.88	262.96	262.97	262.72	262.83	262.67	262.66	262.60	262.55	262.42	262.41	263.61

*Data from the Wyoming State Engineer's Office prior to the wells inclusion in the U.S. Geological Survey's cooperative program.



GROUND-WATER LEVELS

CROOK COUNTY--Continued

IDENTIFICATION.--Station number, 442739104214601. Local number, 52-063-25dcd01. Local name, Cole #3A.

LOCATION.--Lat 44°27'39", long 104°21'46", in SE¹/₄ SW¹/₄ SE¹/₄ sec. 25, T.52 N., R.63 W., Hydrologic Unit 10120203.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 1,120 ft below land surface.

DATUM.--Elevation of land surface is 4,740 ft above sea level, from topographic map. Measuring point: top of casing, 2.0 ft above land surface.

REMARKS.--Data reflect static and pumping water levels.

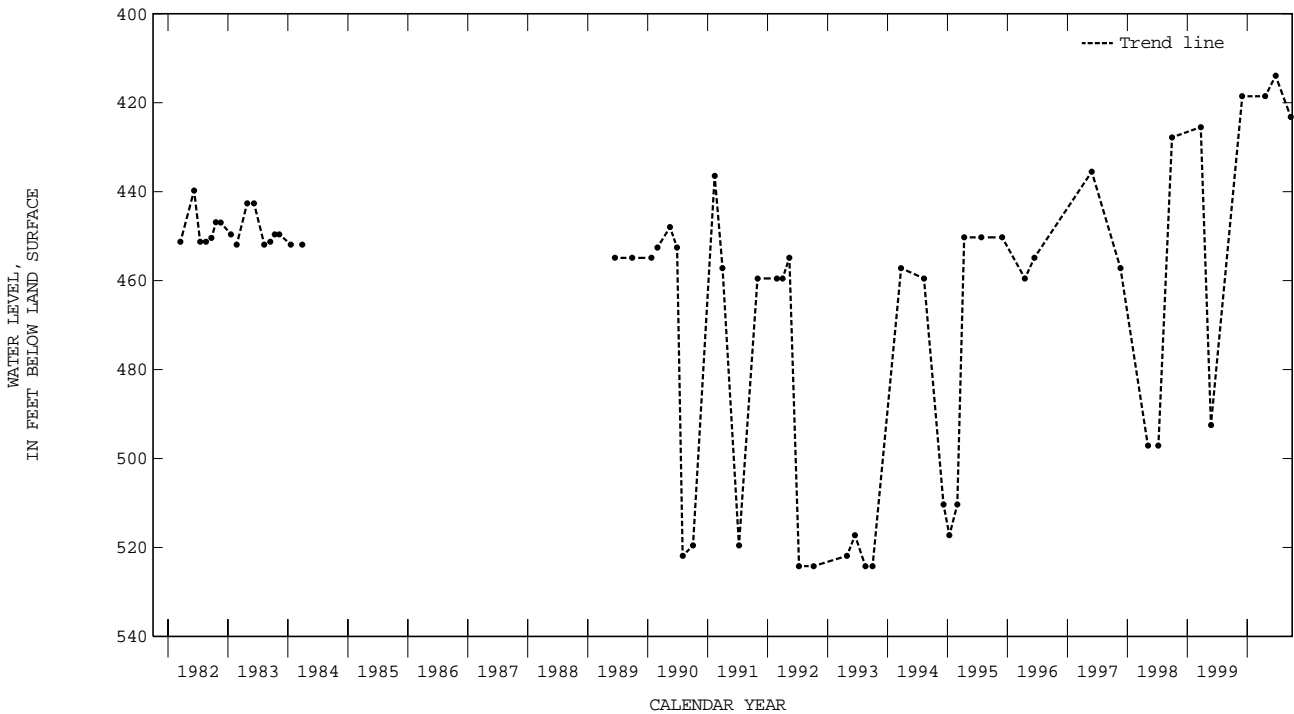
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to 1984, 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 413.93 ft below land surface, June 21, 2000; lowest, 524.19 ft below land surface, July 10, Oct. 7, 1992, Aug. 18, Oct. 1, 1993.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 01	418.55	APR 19	418.55	JUN 21	413.93	SEP 21	423.17
WATER YEAR 2000		HIGHEST	413.93	JUN 21, 2000		LOWEST	423.17
							SEP 21, 2000



CROOK COUNTY--Continued

IDENTIFICATION.--Station number, 443453104425602. Local number, 53-065-18bbd02. Local name, Park Service.

LOCATION.--44°34'53", long 104°42'56", in SE¹/₄ NW¹/₄ NW¹/₄ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.

AQUIFER.--Madison Limestone. Labeled as Pahasapa Limestone, which is equivalent, in some previous reports.

WELL CHARACTERISTICS.--Depth of well, 1,340 ft below land surface.

DATUM.--Elevation of land surface is 3,865 ft above sea level, from topographic map. Measuring point: top of casing, 2.3 ft above land surface.

REMARKS.--After 1982 some water-level measurements were taken while well was being pumped or recently after the well was pumped.

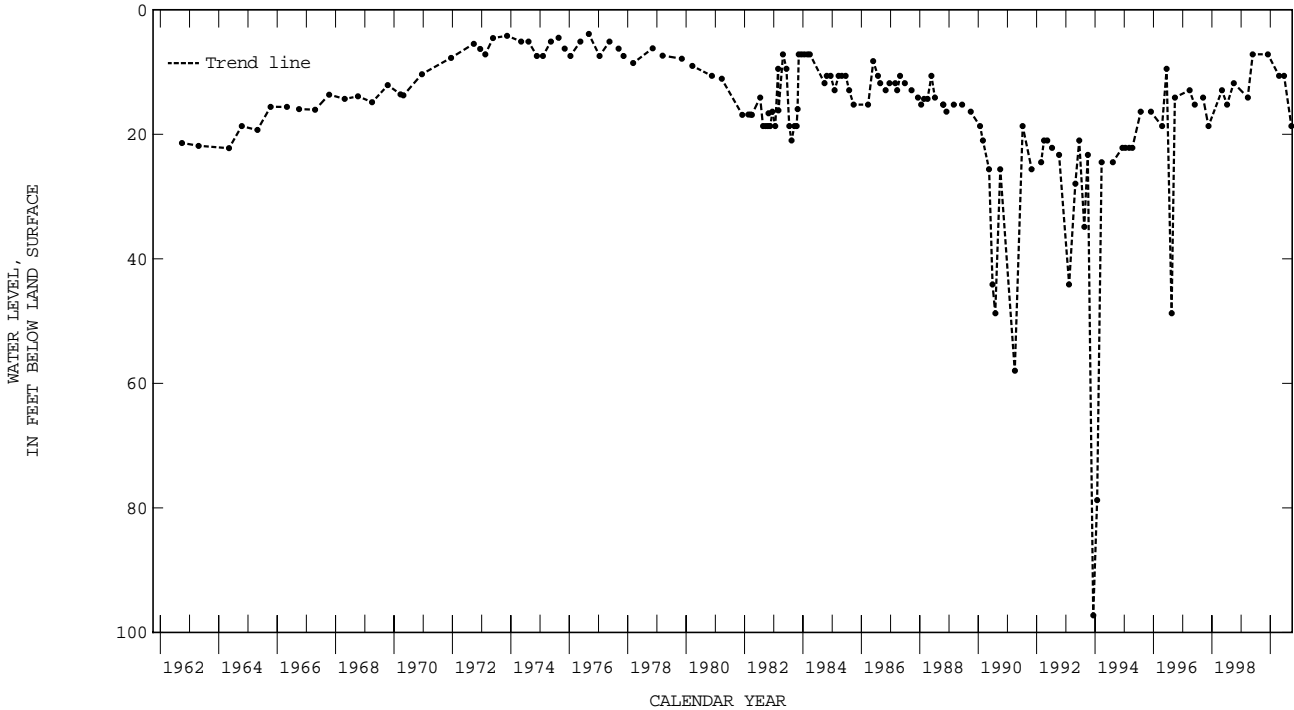
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.90 ft below land surface, Sept. 1, 1976; lowest, 97.24 ft below land surface (well being pumped), Dec. 8, 1993.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 01	7.15	APR 19	10.62	JUN 21	10.62	SEP 20	18.70
WATER YEAR 2000		HIGHEST	7.15	DEC 01, 1999	LOWEST	18.70	SEP 20, 2000



GROUND-WATER LEVELS

CROOK COUNTY--Continued

IDENTIFICATION.--Station number, 444854104534502. Local number, 56-067-28aab02. Local name, Cole #41 Minnelusa.

LOCATION.--Lat 44°48'54", long 104°53'45", in NW¹/₄ NE¹/₄ NE¹/₄ sec.28 T.56 N., R.67 W., Hydrologic Unit 10110201.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 2,240 ft below land surface.

DATUM.--Elevation of land surface is 4,500 ft above sea level, from topographic map. Measuring point: top of casing, 1.20 ft above land surface.

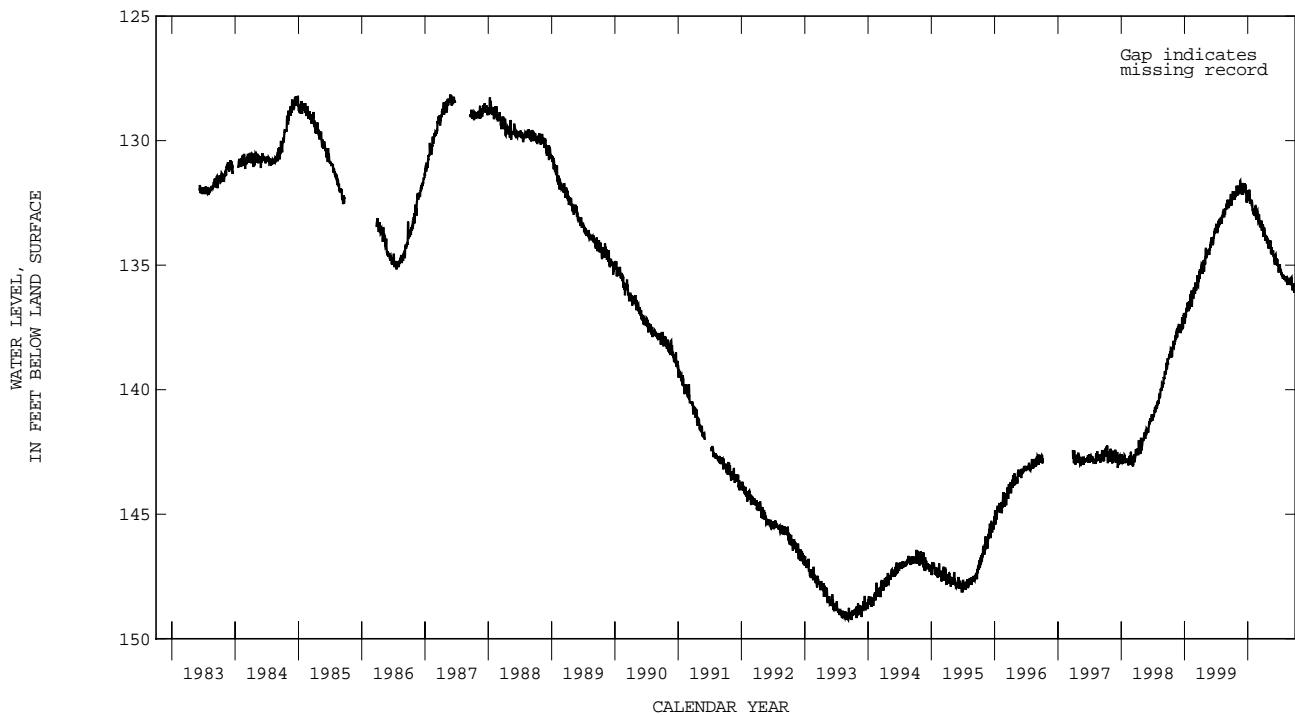
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

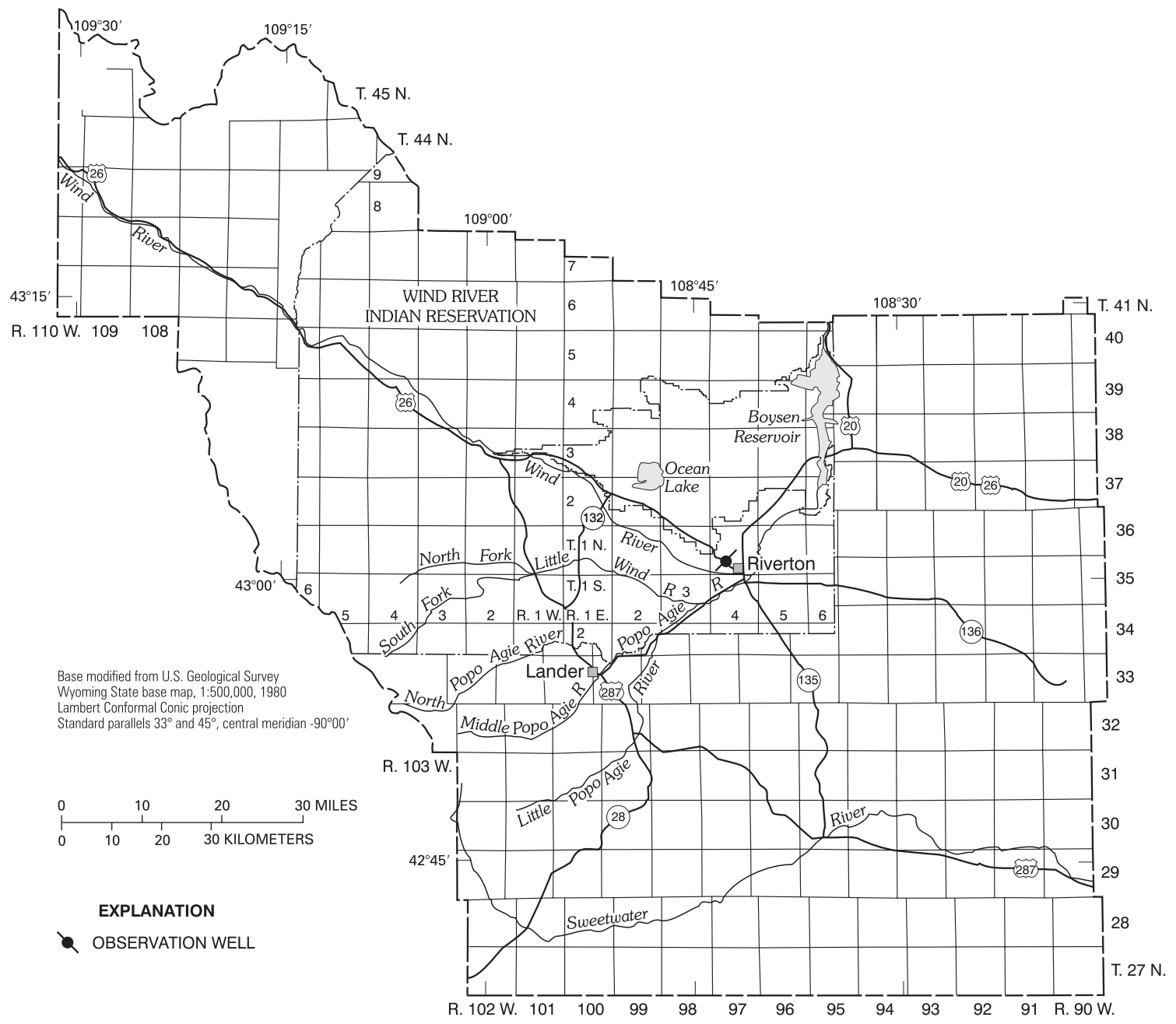
PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 128.18 ft below land surface, May 25-28, 31, 1987; lowest, 149.25 ft below land surface, Sept. 28, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.22	132.05	131.93	132.17	132.84	132.96	133.51	134.09	134.80	135.14	135.57	135.72
10	132.38	131.98	131.95	132.01	132.86	133.41	133.80	134.07	134.76	135.21	135.53	135.65
15	132.18	132.00	131.97	132.42	132.62	133.40	133.94	134.35	134.72	135.30	135.73	135.87
20	132.19	131.75	132.11	132.53	133.02	133.43	134.12	134.55	134.93	135.50	135.66	135.80
25	132.18	131.74	132.49	132.57	132.80	133.51	134.13	134.46	135.10	135.48	135.77	135.98
EOM	131.91	131.85	132.10	132.72	133.11	133.86	134.34	134.61	135.04	135.57	135.72	135.78
MAX	131.81	131.61	131.70	131.97	132.62	132.96	133.51	134.00	134.56	134.96	135.45	135.48
MIN	132.39	132.21	132.49	132.82	133.18	133.86	134.34	134.69	135.27	135.57	135.80	136.10





Base modified from U.S. Geological Survey
 Wyoming State base map, 1:500,000, 1980
 Lambert Conformal Conic projection
 Standard parallels 33° and 45°, central meridian -90°00'

0 10 20 30 MILES
 0 10 20 30 KILOMETERS

Figure 12. Location of observation well in Fremont County, Wyoming.

GROUND-WATER LEVELS

FREMONT COUNTY

IDENTIFICATION.--Station number, 430205108243201. Local number, 1N-4E-28acc01. Local name, Brentwood.

LOCATION.--Lat 43°02'05", long 108°24'32", in SW¹/₄ SW¹/₄ NE¹/₄ sec.28, T.1 N., R.4 E., Hydrologic Unit 10080001.

AQUIFER.--Wind River formation.

WELL CHARACTERISTICS.--Depth of well, 440 ft below land surface.

DATUM.--Elevation of land surface is 5,050 ft above sea level, from topographic map. Measuring point: top of casing, 1.0 ft above land surface.

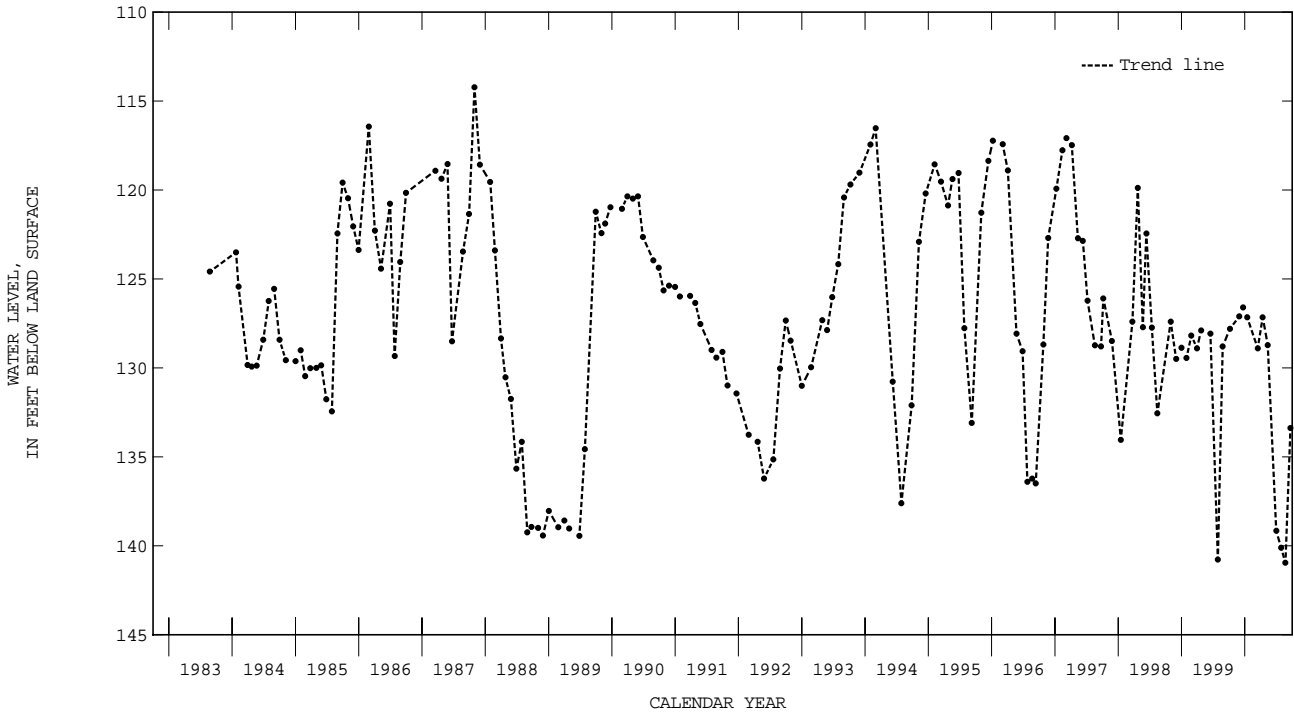
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 114.22 ft below land surface, Oct. 30, 1987; lowest, 140.96 ft below land-surface, Aug. 22, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	127.80	DEC 21	126.60	MAR 15	128.90	MAY 12	128.72	JUL 28	140.11	SEP 20	133.38
NOV 30	127.11	JAN 14	127.15	APR 13	127.15	JUN 30	139.16	AUG 22	140.96		
WATER YEAR 2000		HIGHEST	126.60	DEC 21, 1999		LOWEST	140.96	AUG 22, 2000			



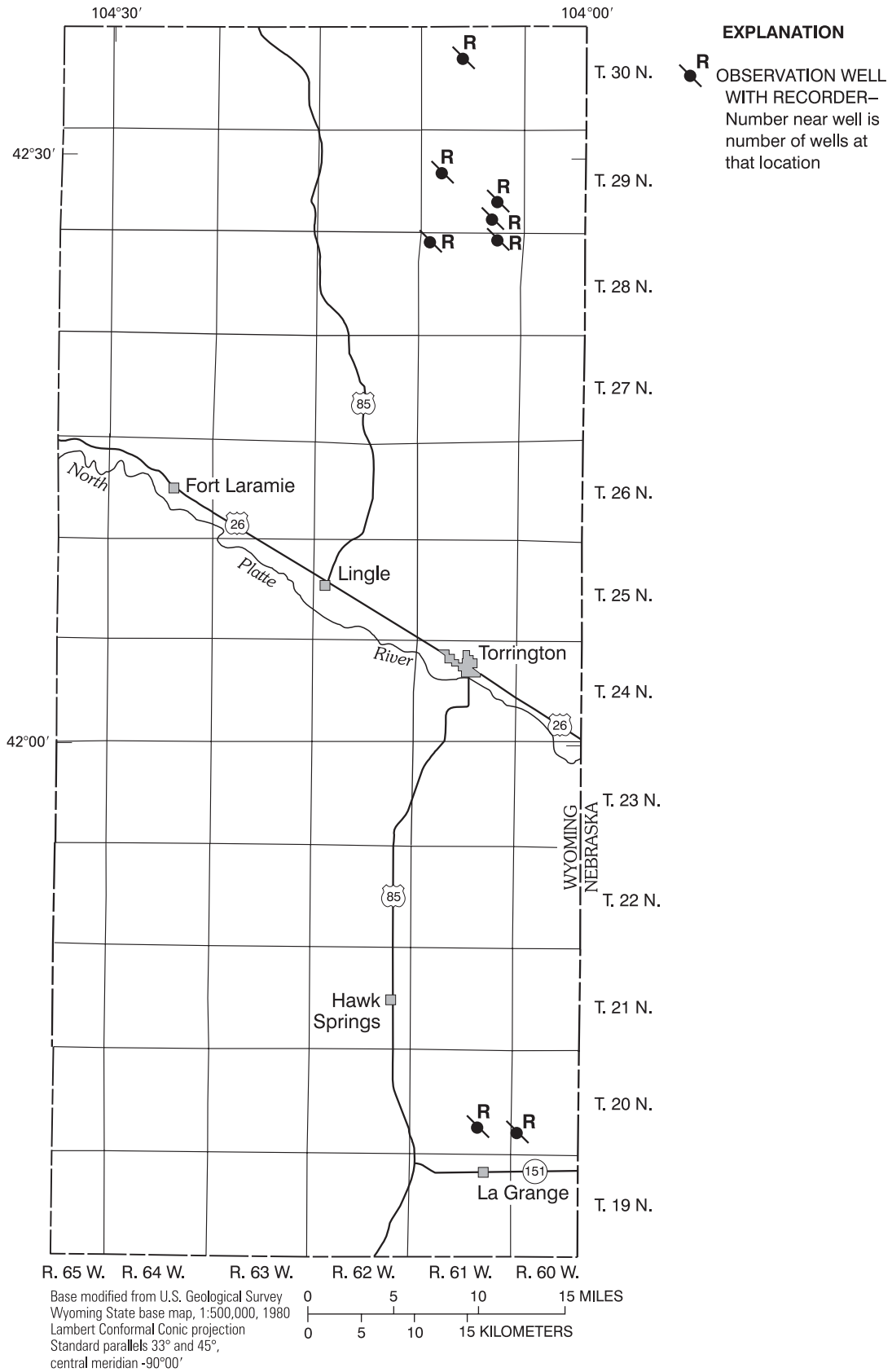


Figure 13. Location of observation wells in Goshen County, Wyoming.

GROUND-WATER LEVELS

GOSHEN COUNTY

IDENTIFICATION.--Station number, 414049104074501. Local number, 20-060-30bbb01. Local name, LaGrange #2.

LOCATION.--Lat 41°40'49', long 104°07'45", in NW¹/₄ NW¹/₄ NW¹/₄ sec.30, T.20 N., R.60 W., Hydrologic Unit 10180012.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 70 ft below land surface.

DATUM.--Elevation of land surface is 4,530 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

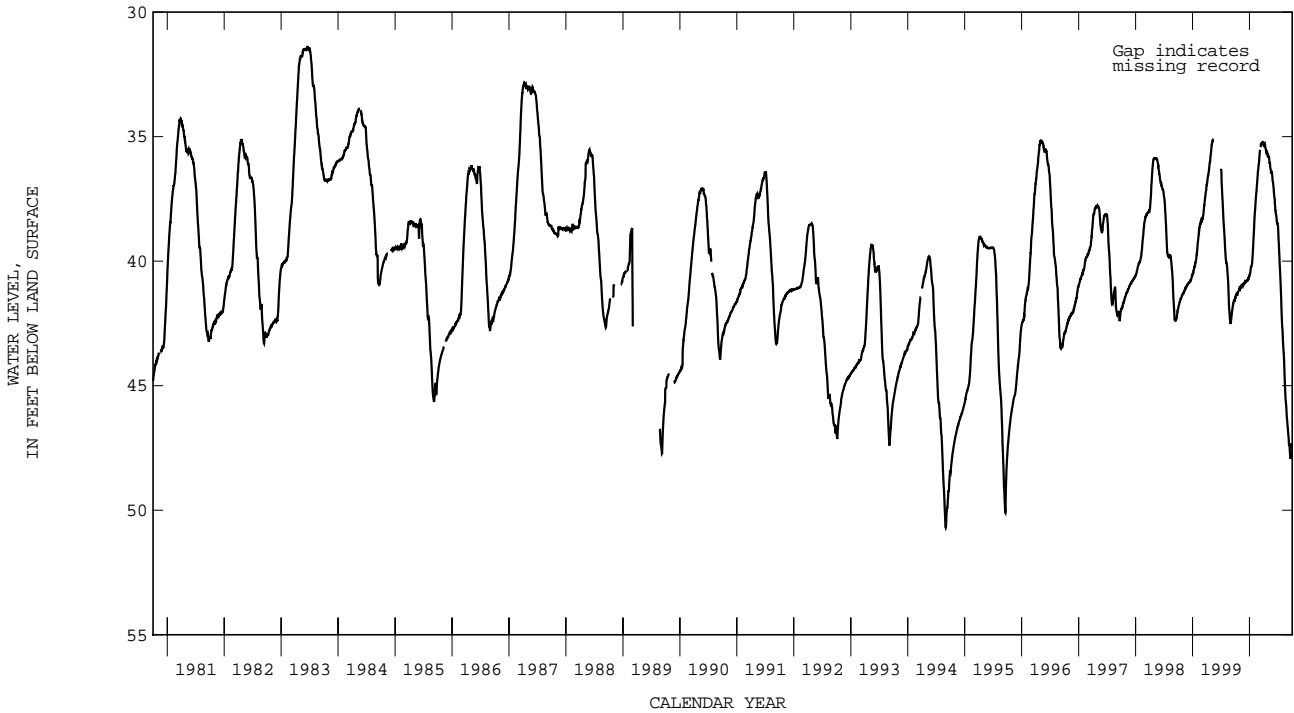
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.40 ft below land surface, June 18-21, 1983; lowest, 50.70 ft below land surface, Sept. 1, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.39	41.06	40.84	40.46	37.95	35.74	35.31	35.85	37.25	39.18	43.55	46.95
10	41.33	41.01	40.81	40.25	37.48	---	35.41	36.04	37.56	39.77	44.21	47.38
15	41.29	40.98	40.78	40.16	37.10	35.33	35.57	36.33	37.96	40.51	45.06	47.63
20	41.23	40.92	40.74	39.81	36.69	35.26	35.72	36.42	38.18	41.29	45.63	47.70
25	41.16	40.88	40.71	39.20	36.34	35.25	35.71	36.57	38.46	42.23	46.09	---
EOM	41.09	40.87	40.58	38.42	36.09	35.34	35.84	36.89	38.55	42.95	46.60	---
MAX	41.09	40.87	40.58	38.42	36.09	35.22	35.29	35.77	36.96	38.60	43.10	46.64
MIN	41.49	41.10	40.87	40.54	38.31	36.05	35.84	36.89	38.55	42.95	46.60	47.93



GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 414051104100701. Local number, 20-061-23ccc01. Local name, Curt Meier.

LOCATION.--Lat 41°40'51", long 104°10'07", in SW¹/₄ SW¹/₄ SW¹/₄ sec. 23, T.20 N., R.61 W., Hydrologic Unit 10180012.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Depth of well, 82.0 ft below land surface.

DATUM.--Elevation of land surface is 4,506 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

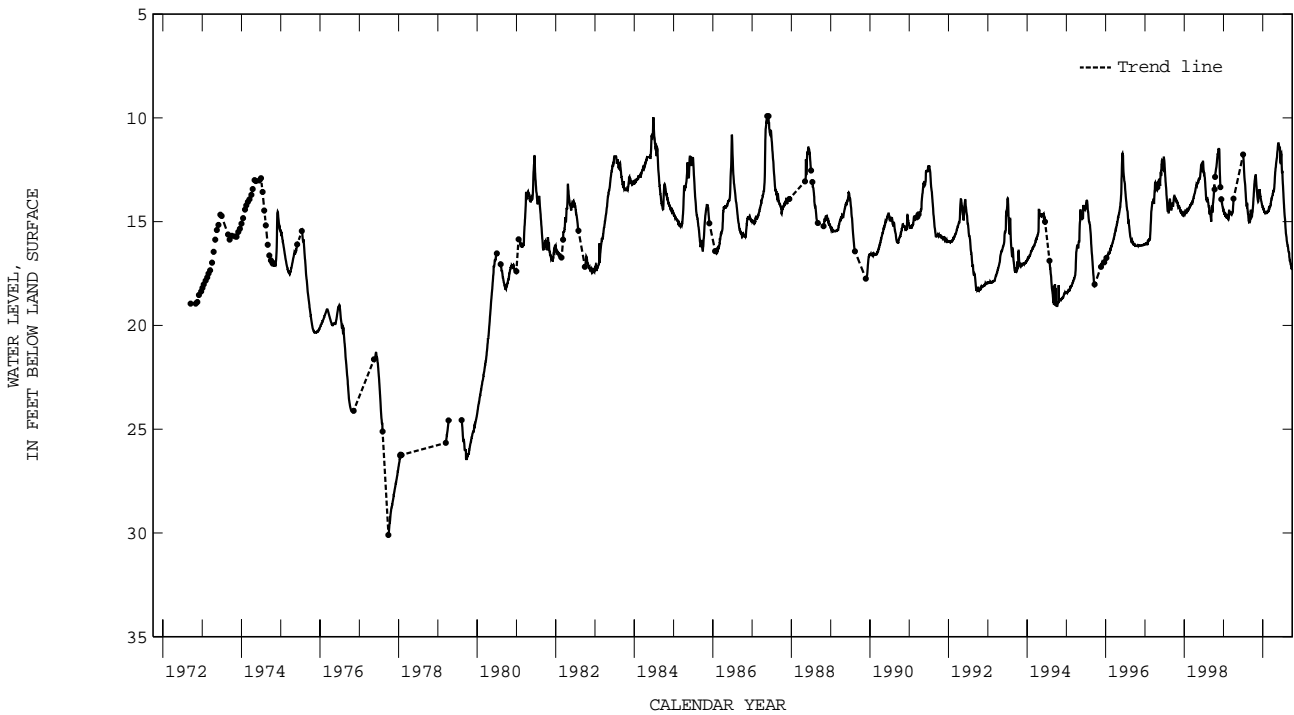
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.89 ft below land surface, May 19, 1987; lowest, 32.59 ft below land surface, from hand-measured data, Sept. 18, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.99	13.40	13.62	14.36	14.58	14.29	13.59	12.13	11.46	13.17	15.64	16.75
10	13.58	13.71	13.81	14.41	14.55	14.25	13.52	11.94	11.73	13.62	15.89	16.89
15	13.16	13.95	13.96	14.51	14.50	14.16	13.44	11.66	12.18	14.13	16.06	17.02
20	12.92	13.91	14.08	14.55	14.49	13.94	13.09	11.36	11.72	14.58	16.18	17.16
25	12.79	13.60	14.21	14.57	14.39	13.86	12.60	11.24	12.37	14.87	16.38	17.27
EOM	13.06	13.46	14.30	14.59	14.39	13.74	12.40	11.36	12.57	15.36	16.50	17.32
MAX	12.76	13.13	13.44	14.30	14.39	13.74	12.40	11.23	11.38	12.65	15.43	16.50
MIN	14.30	14.04	14.30	14.59	14.59	14.39	13.70	12.35	12.66	15.36	16.50	17.32



GROUND-WATER LEVELS

GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 422519104095101. Local number, 28-061-02ccd01. Local name, Prairie Center #6.

LOCATION.--Lat 42°25'19", long 104°09'51", in SE¹/₄ SW¹/₄ SW¹/₄ sec. 2, T.28 N., R.61 W., Hydrologic Unit 10180009.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 255 ft below land surface.

DATUM.--Elevation of land surface is 4,795 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

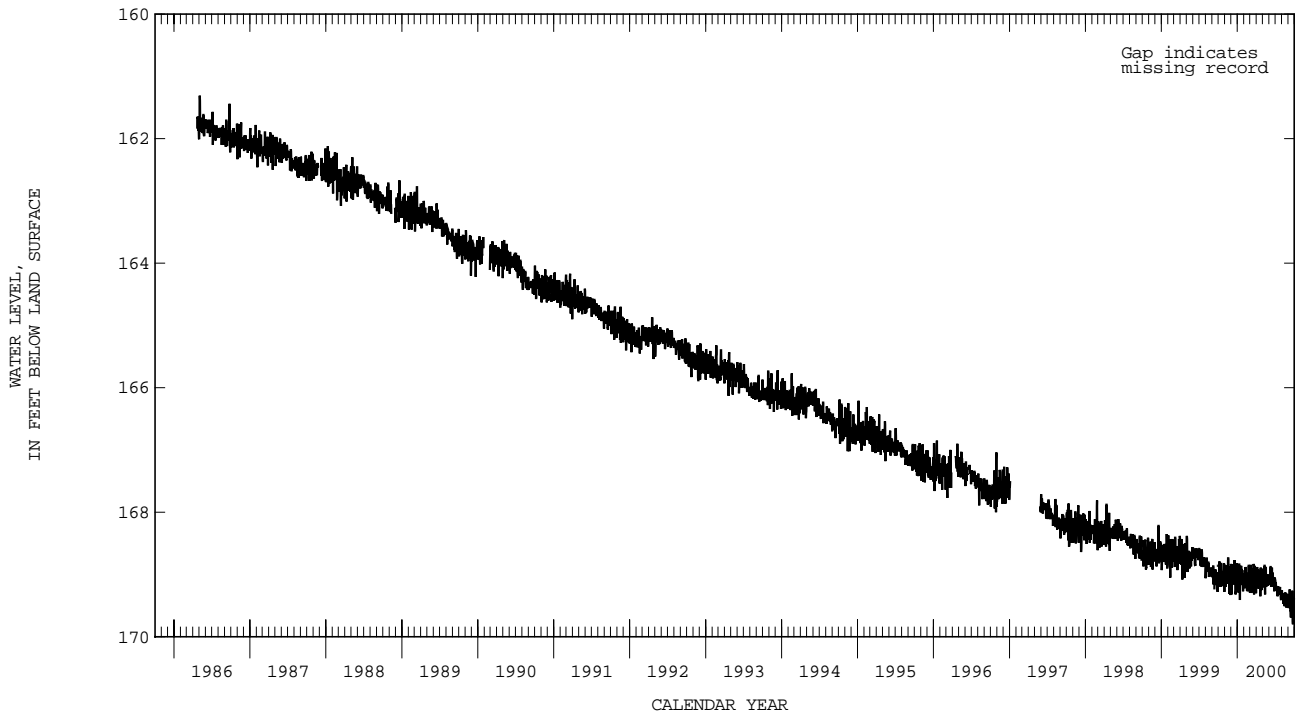
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 161.31 ft below land surface, May 4, 1986; lowest, 169.80 ft below land surface, Sept. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	168.93	169.05	169.04	169.03	168.93	168.86	168.88	168.98	169.04	169.24	169.31	169.46
10	169.20	169.14	169.02	168.84	168.90	169.28	168.94	168.86	169.09	169.27	169.38	169.48
15	168.83	169.03	169.16	169.09	169.05	168.95	169.13	169.02	168.89	169.19	169.51	169.43
20	169.05	169.01	169.13	169.08	169.08	168.87	169.35	169.17	169.05	169.31	169.36	169.51
25	169.03	168.88	169.25	169.04	168.86	169.14	169.25	169.03	169.14	169.29	169.44	169.54
EOM	169.00	168.90	169.01	169.08	169.09	169.29	169.21	169.10	169.08	169.33	169.50	169.38
MAX	168.79	168.74	168.77	168.84	168.86	168.83	168.88	168.86	168.88	169.09	169.25	169.24
MIN	169.28	169.33	169.32	169.41	169.27	169.32	169.35	169.32	169.27	169.41	169.53	169.80



GROUND-WATER LEVELS

GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 422512104135501. Local number, 28-061-06aba01. Local name, Goshen County #2.

LOCATION.--Lat 42°25'12", long 104°13'55", in NE¹/₄ NW¹/₄ NE¹/₄ sec. 6, T.28 N., R.61 W., Hydrologic Unit 10180009.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,765 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

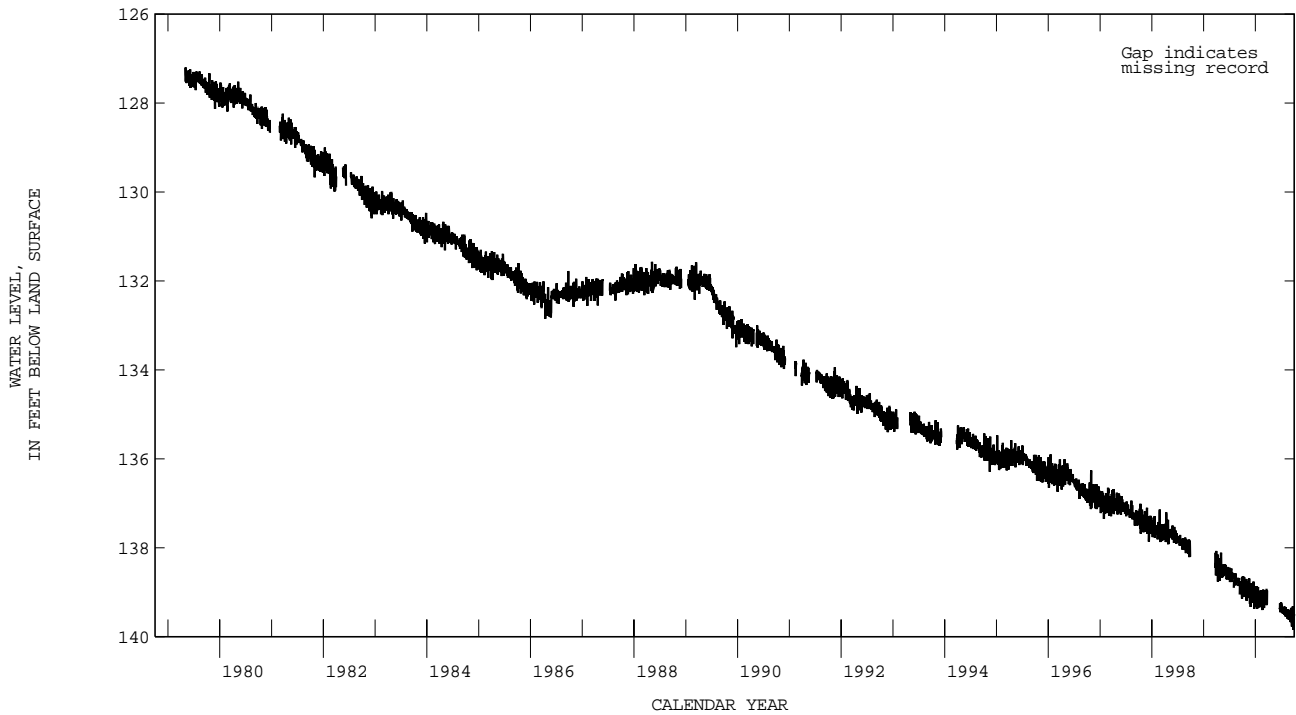
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 127.23 ft below land surface, May 4, 1979; lowest, 139.84 ft below land surface, Sept. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	138.79	139.02	139.00	139.04	139.00	138.95	---	---	---	139.40	139.45	139.55
10	139.06	139.08	138.99	138.87	139.03	---	---	---	---	139.40	139.49	139.56
15	138.66	138.97	139.12	139.15	139.11	139.11	---	---	---	139.35	139.60	139.54
20	138.95	138.94	139.12	139.13	139.16	---	---	---	139.35	139.42	139.46	139.48
25	138.96	138.81	139.26	139.07	138.99	---	---	---	139.35	139.41	139.53	139.62
EOM	138.88	138.88	139.01	139.16	139.26	---	---	---	139.25	139.45	139.62	139.52
MAX	138.64	138.69	138.76	138.87	138.94	138.92	---	---	139.23	139.24	139.34	139.31
MIN	139.19	139.33	139.37	139.37	139.40	139.35	---	---	139.45	139.54	139.62	139.84



GROUND-WATER LEVELS

GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 422928104121401. Local number, 29-061-17aad01. Local name, Prairie Center #4.

LOCATION.--Lat 42°29'28", long 104°12'14", in SE¹/₄ NE¹/₄ NE¹/₄ Sec. 17, T.29 N., R.61 W., Hydrologic Unit 10180009.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,790 ft above sea level, from topographic map. Measuring point: top of casing, 1.90 ft above land surface.

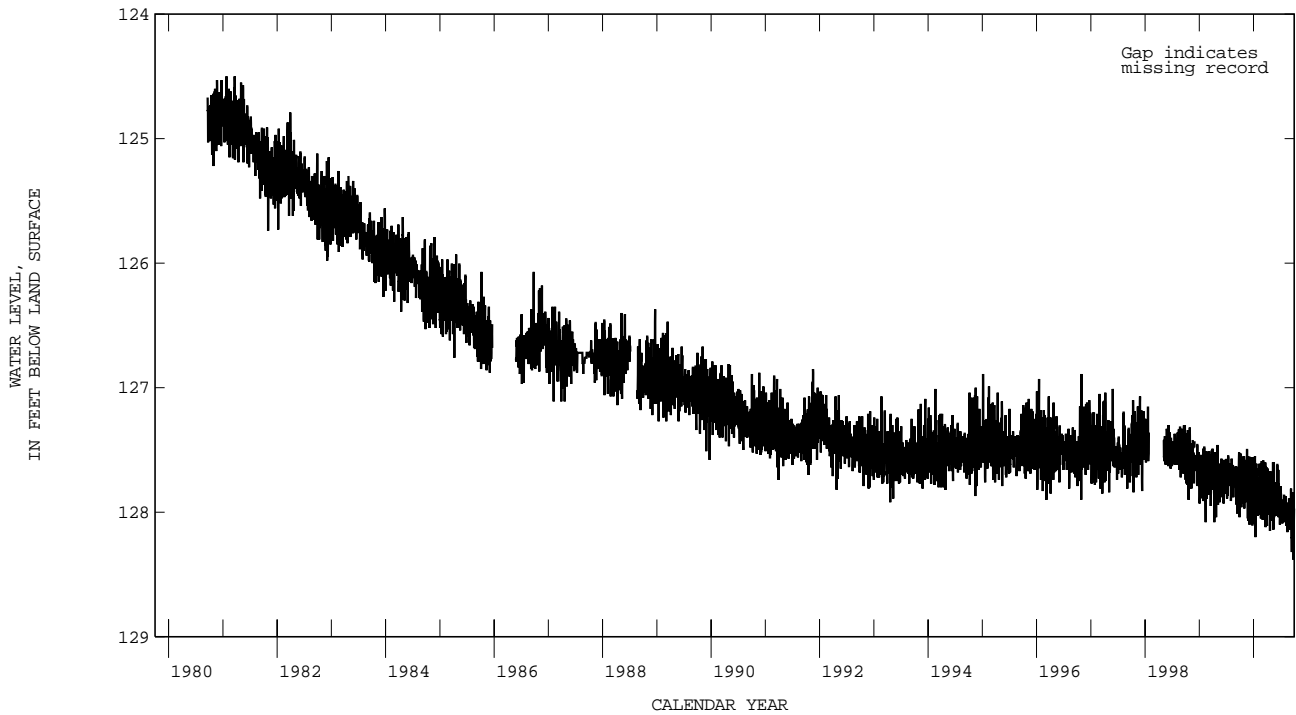
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 124.50 ft below land surface, Jan. 24, Mar. 20, 1981; lowest, 128.38 ft below land surface, Sept. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	127.69	127.78	127.78	127.75	127.72	127.59	127.65	127.73	127.86	127.98	127.96	128.06
10	127.96	127.86	127.75	127.55	127.62	128.05	127.75	127.60	127.86	128.00	128.05	128.03
15	127.56	127.78	127.91	127.91	127.74	127.77	127.91	127.81	127.66	127.90	128.16	128.06
20	127.82	127.71	127.90	127.83	127.86	127.66	128.15	127.97	127.88	127.99	127.96	128.07
25	127.76	127.62	128.06	127.79	127.60	127.90	128.05	127.79	127.95	127.93	128.05	128.19
EOM	127.74	127.69	127.68	127.85	127.89	128.11	128.03	127.88	127.82	128.00	128.08	127.97
MAX	127.53	127.50	127.56	127.55	127.59	127.59	127.65	127.60	127.62	127.79	127.87	127.81
MIN	127.97	128.07	128.10	128.20	128.05	128.12	128.15	128.14	128.10	128.09	128.16	128.38



GROUND-WATER LEVELS

GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 422849104090801. Local number, 29-061-23abb01. Local name, Goshen County #1.

LOCATION.--Lat 42°28'49", long 104°09'08", in NW¹/₄ NW¹/₄ NE¹/₄ sec. 23, T.29 N., R.61 W., Hydrologic Unit 10180009.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 300 ft below land surface.

DATUM.--Elevation of land surface is 4,870 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

REMARKS.--Well was slug tested by instantaneous recharge on June 12, 1987 to test well's connection with aquifer. Water level did not recover properly, so it was flushed in March 1991.

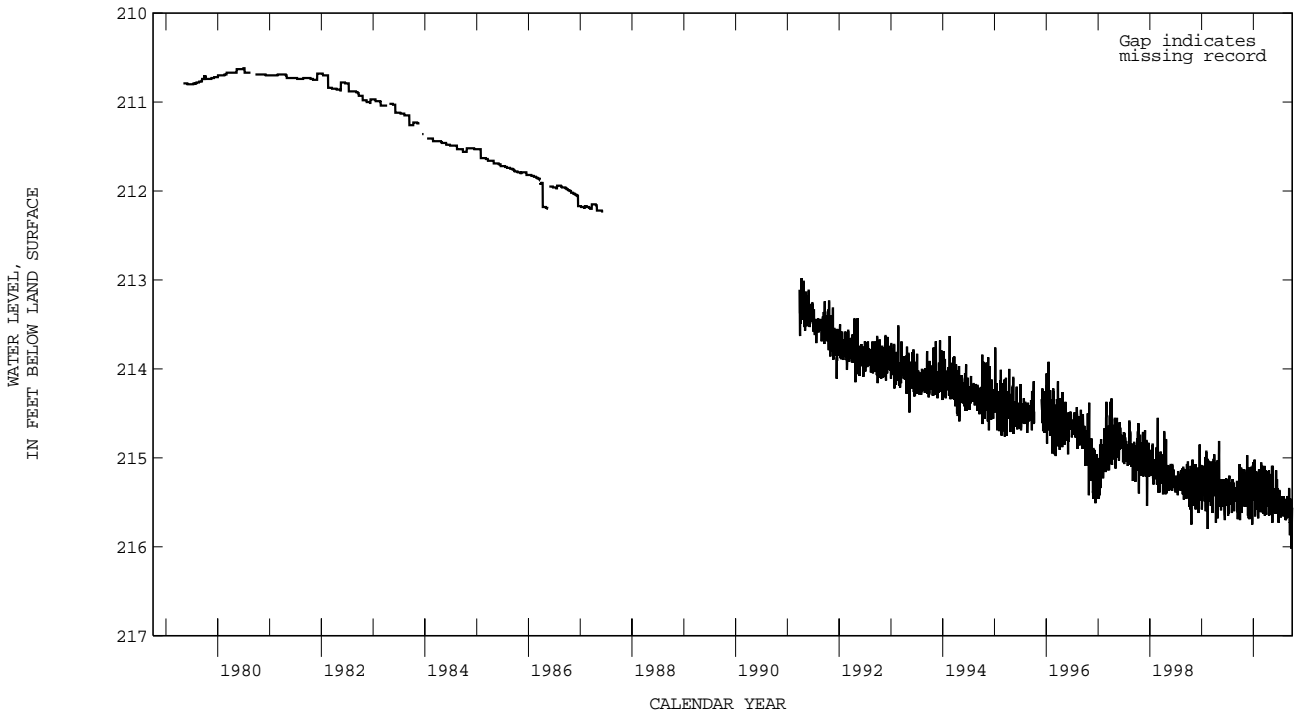
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 198.29 ft below land surface, affected by slug test; lowest, 216.02 ft below land surface, Sept. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	215.32	215.42	215.21	215.48	215.36	215.09	215.15	215.25	215.47	215.53	215.50	215.61
10	215.62	215.47	215.40	215.27	215.32	215.63	215.31	215.10	215.36	215.54	215.61	215.54
15	215.14	215.39	215.37	215.50	215.41	215.40	215.40	215.40	215.24	215.47	215.70	215.61
20	215.46	215.31	215.44	215.16	215.38	215.22	215.65	215.60	215.37	215.56	215.51	215.68
25	215.40	215.20	215.49	215.32	215.06	215.40	215.61	215.37	215.54	215.49	215.59	215.86
EOM	215.37	215.17	215.05	215.41	215.55	215.64	215.57	215.47	215.40	215.58	215.59	215.56
MAX	215.11	214.97	215.05	215.02	215.06	215.09	215.14	215.09	215.14	215.36	215.43	215.35
MIN	215.62	215.68	215.75	215.65	215.68	215.65	215.65	215.73	215.73	215.67	215.70	216.02



GROUND-WATER LEVELS

GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 422730104094801. Local number, 29-061-26cbb01. Local name, Prairie Center #3.

LOCATION.--Lat 42°27'30", long 104°09'48", in NW¹/₄ NW¹/₄ SW¹/₄ sec. 26, T.29 N., R.61 W., Hydrologic Unit 10180009.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 4,770 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

REMARKS.--Considerable seepage of sediment into the well in combination with a falling water level caused the well to go dry in April 2000.

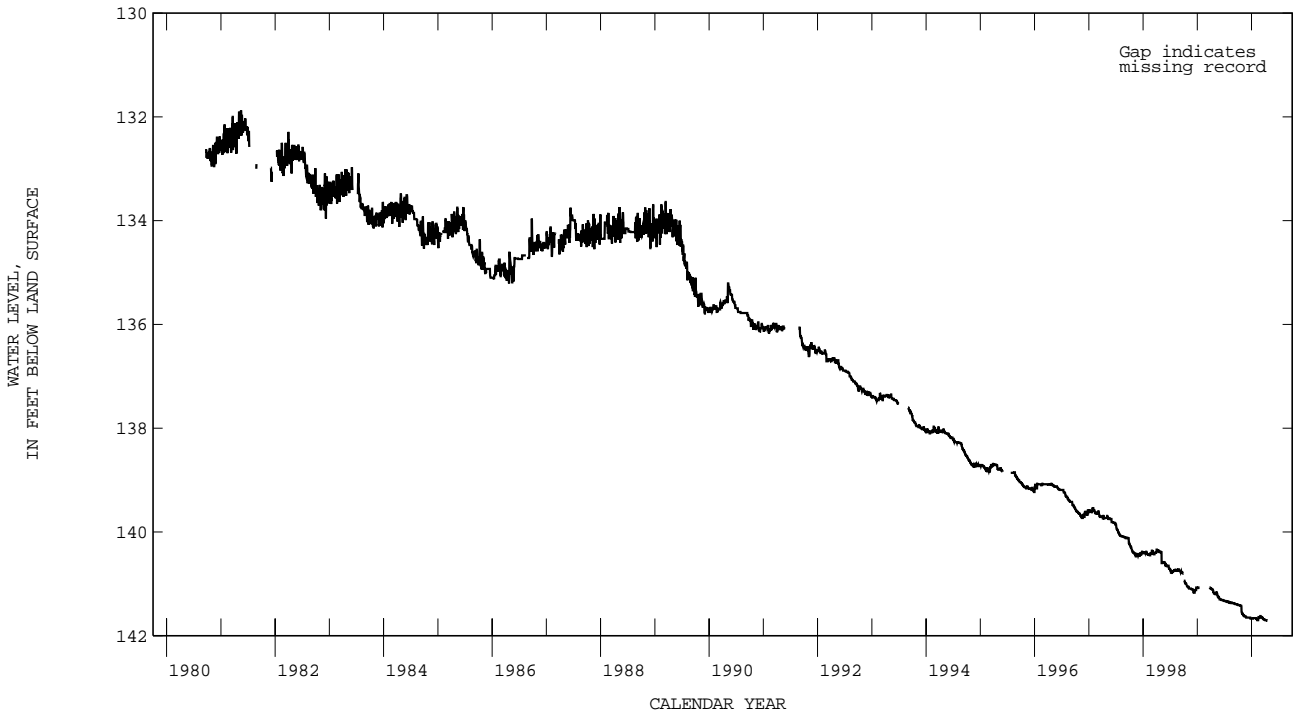
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.89 ft below land surface, May 15, 16, 1981; lowest, 141.71 ft below land surface, Apr. 12-16, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	141.41	141.60	141.65	141.67	141.68	141.64	141.70	---	---	---	---	---
10	141.41	141.61	141.65	141.66	141.70	141.64	141.70	---	---	---	---	---
15	141.42	141.63	141.65	141.66	141.68	141.66	141.71	---	---	---	---	---
20	141.42	141.63	141.65	141.66	141.64	141.68	---	---	---	---	---	---
25	141.54	141.65	141.67	141.66	141.65	141.68	---	---	---	---	---	---
EOM	141.57	141.65	141.67	141.67	141.62	141.70	---	---	---	---	---	---
MAX	141.40	141.58	141.65	141.66	141.62	141.62	141.70	---	---	---	---	---
MIN	141.57	141.65	141.67	141.67	141.70	141.70	141.71	---	---	---	---	---



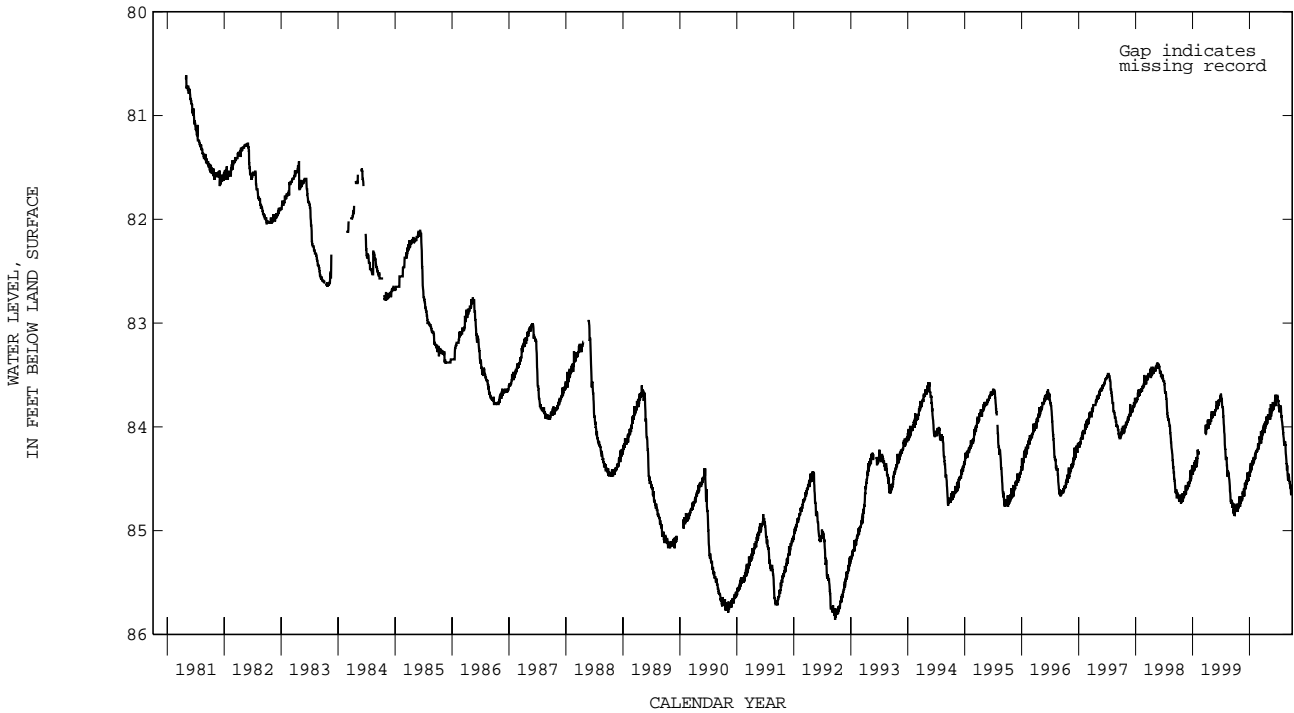
GROUND-WATER LEVELS

GOSHEN COUNTY--Continued

IDENTIFICATION.--Station number, 423549104120901. Local number, 30-061-09bbb01. Local name, Prairie Center #5.
 LOCATION.--Lat 42°35'49", long 104°12'09", in NW¹/₄ NW¹/₄ NW¹/₄ sec. 9, T.30 N., R.61 W., Hydrologic Unit 10180009.
 AQUIFER.--Arikaree Formation.
 WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.
 DATUM.--Elevation of land surface is 4,850 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.
 COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.
 PERIOD OF RECORD.--1981 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.61 ft below land surface, May 1, 1981; lowest, 85.86 ft below land surface, Sept. 21, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.77	84.70	84.57	84.41	84.26	84.09	83.98	83.88	83.79	83.79	84.09	84.50
10	84.80	84.71	84.55	84.37	84.27	84.15	84.02	83.82	83.80	83.82	84.16	84.49
15	84.76	84.68	84.54	84.39	84.25	84.16	83.99	83.86	83.69	83.82	84.15	84.54
20	84.78	84.64	84.52	84.35	84.22	84.12	83.98	83.86	83.76	83.82	84.26	84.59
25	84.73	84.60	84.51	84.30	84.17	84.03	83.93	83.83	83.71	83.93	84.36	84.61
EOM	84.69	84.59	84.44	84.31	84.20	84.02	83.93	83.80	83.74	84.01	84.44	84.61
MAX	84.67	84.59	84.44	84.30	84.16	84.00	83.88	83.76	83.69	83.74	84.02	84.46
MIN	84.82	84.77	84.60	84.48	84.32	84.18	84.06	83.93	83.83	84.01	84.44	84.65



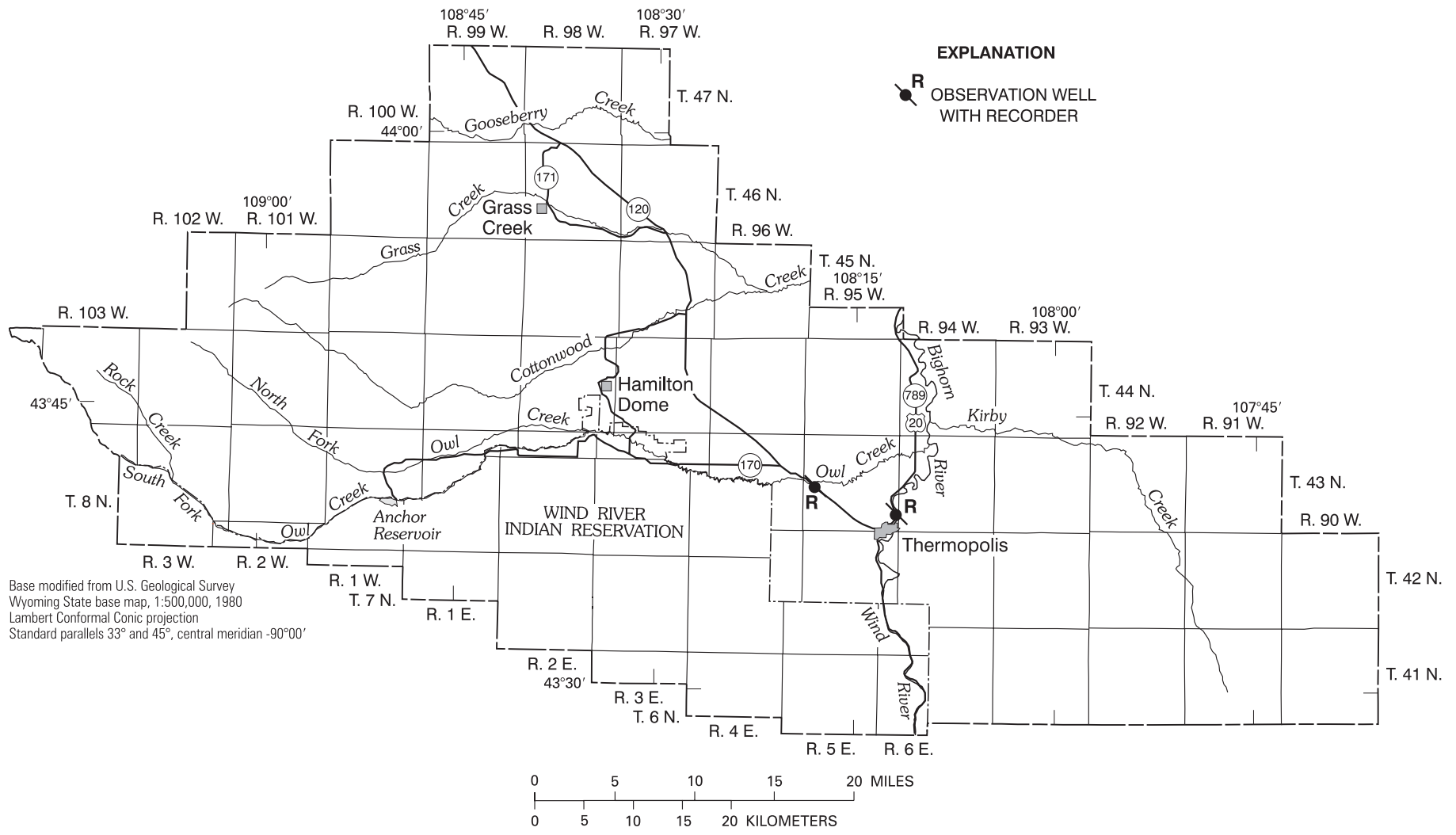


Figure 14. Location of observation wells in Hot Springs County, Wyoming.

GROUND-WATER LEVELS

51

HOT SPRINGS COUNTY

IDENTIFICATION.--Station number, 434136108183301. Local number, 43-095-18cab01. Local name, Thermopolis GTW-1.

LOCATION.--Lat 43°41'36", long 108°18'33", in NW 1/4 NE 1/4 SW 1/4 sec.18, T.43 N., R.95 W., Hydrologic Unit 10080007.

AQUIFER.--Tensleep Sandstone.

WELL CHARACTERISTICS.--Depth of well, 354 ft below land surface.

DATUM.--Elevation of land surface is 4,700 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

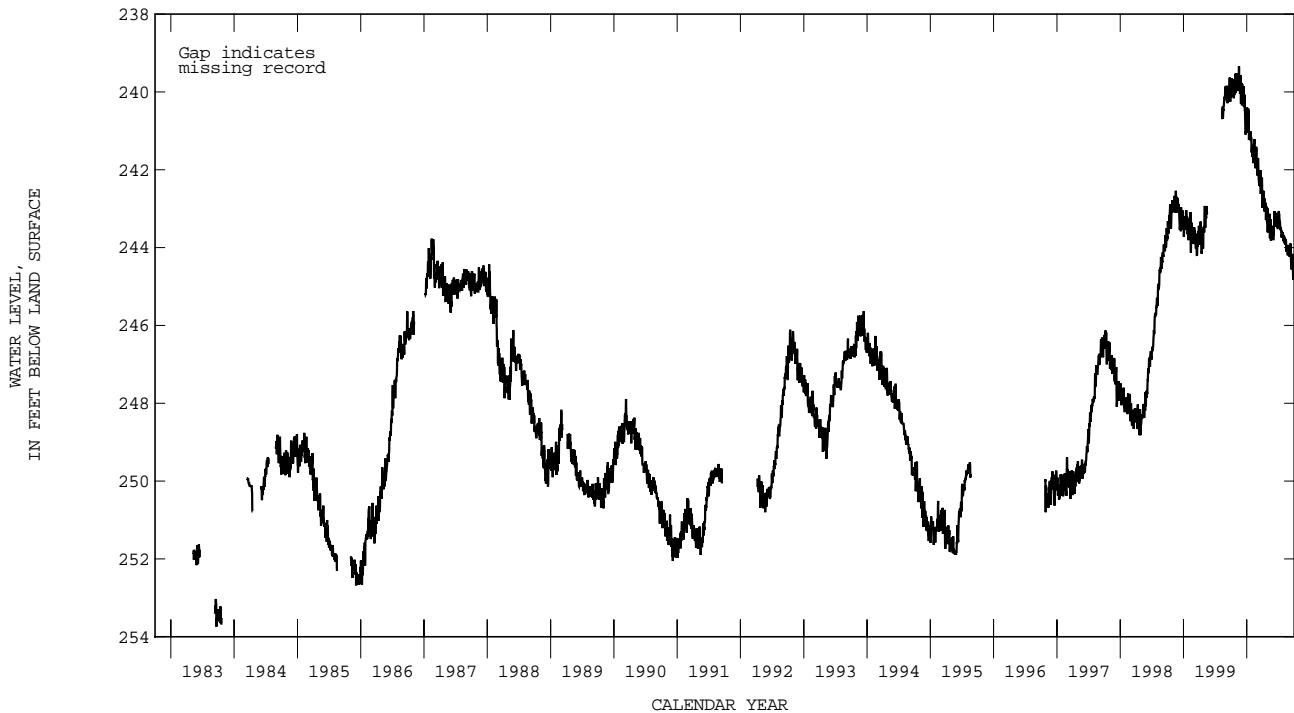
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 239.34 ft below land surface, Nov. 16, 1999; lowest, 253.74 ft below land surface, Sept. 20, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	239.65	239.86	---	240.69	241.57	241.70	242.54	243.24	243.45	243.17	243.87	244.17
10	239.92	239.77	240.14	240.45	241.39	242.28	242.82	243.13	243.33	243.34	243.88	244.12
15	240.09	239.67	240.39	241.05	241.31	242.31	242.95	243.57	243.14	243.47	244.04	244.45
20	240.07	239.63	240.47	241.16	241.80	242.29	243.29	243.78	243.37	243.67	243.97	244.23
25	239.73	239.57	241.08	241.18	241.43	242.53	243.30	243.52	243.27	243.63	244.16	244.71
EOM	239.98	239.91	240.51	241.41	241.93	242.98	243.61	243.44	243.14	243.83	244.10	244.41
MAX	239.53	239.34	239.77	240.40	241.21	241.70	242.54	243.13	243.06	243.06	243.75	243.91
MIN	240.14	240.31	241.08	241.56	241.96	242.98	243.61	243.82	243.81	243.83	244.18	244.82



GROUND-WATER LEVELS

HOT SPRINGS COUNTY--Continued

IDENTIFICATION.--Station number, 433933108121901. Local number, 43-095-25cdc01. Local name, Thermopolis GTW-3.

LOCATION.--Lat 43°39'33", long 108°12'19", in SW 1/4 SE 1/4 SW 1/4 sec.25, T.43 N., R.95 W., Hydrologic Unit 10080007.

AQUIFER.--Phosphoria Formation (formerly labeled Park City Formation).

WELL CHARACTERISTICS.--Depth of well, 228 ft below land surface.

DATUM.--Elevation of land surface is 4,700 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

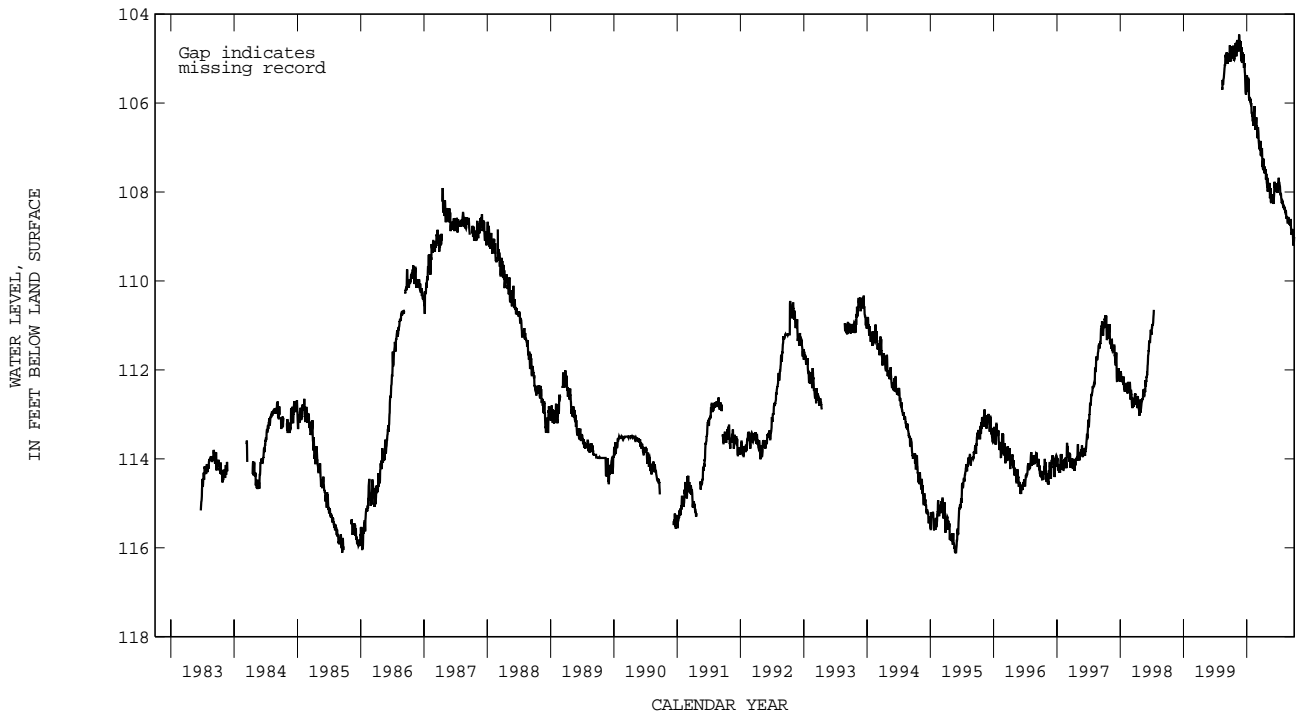
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.46 ft below land surface, Nov. 17, 1999; lowest, 116.11 ft below land surface, Sept. 15, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	104.86	104.67	105.02	105.59	106.38	106.54	107.33	107.80	108.12	107.77	108.37	108.71
10	104.94	104.63	105.06	105.45	106.30	106.89	107.49	107.80	107.87	107.88	108.42	108.65
15	104.82	104.75	105.21	105.87	106.17	107.01	107.53	108.08	107.81	108.02	108.54	108.94
20	104.99	104.60	105.30	105.98	106.57	107.02	107.72	108.24	107.93	108.22	108.57	108.85
25	104.85	104.69	105.78	106.02	106.34	107.17	107.80	108.10	107.92	108.21	108.69	109.17
EOM	104.73	104.93	105.45	106.22	106.62	107.44	107.99	108.05	107.80	108.35	108.65	109.01
MAX	104.65	104.46	104.75	105.38	106.07	106.54	107.25	107.80	107.77	107.68	108.33	108.61
MIN	105.05	105.06	105.81	106.24	106.62	107.44	107.99	108.25	108.27	108.35	108.69	109.21



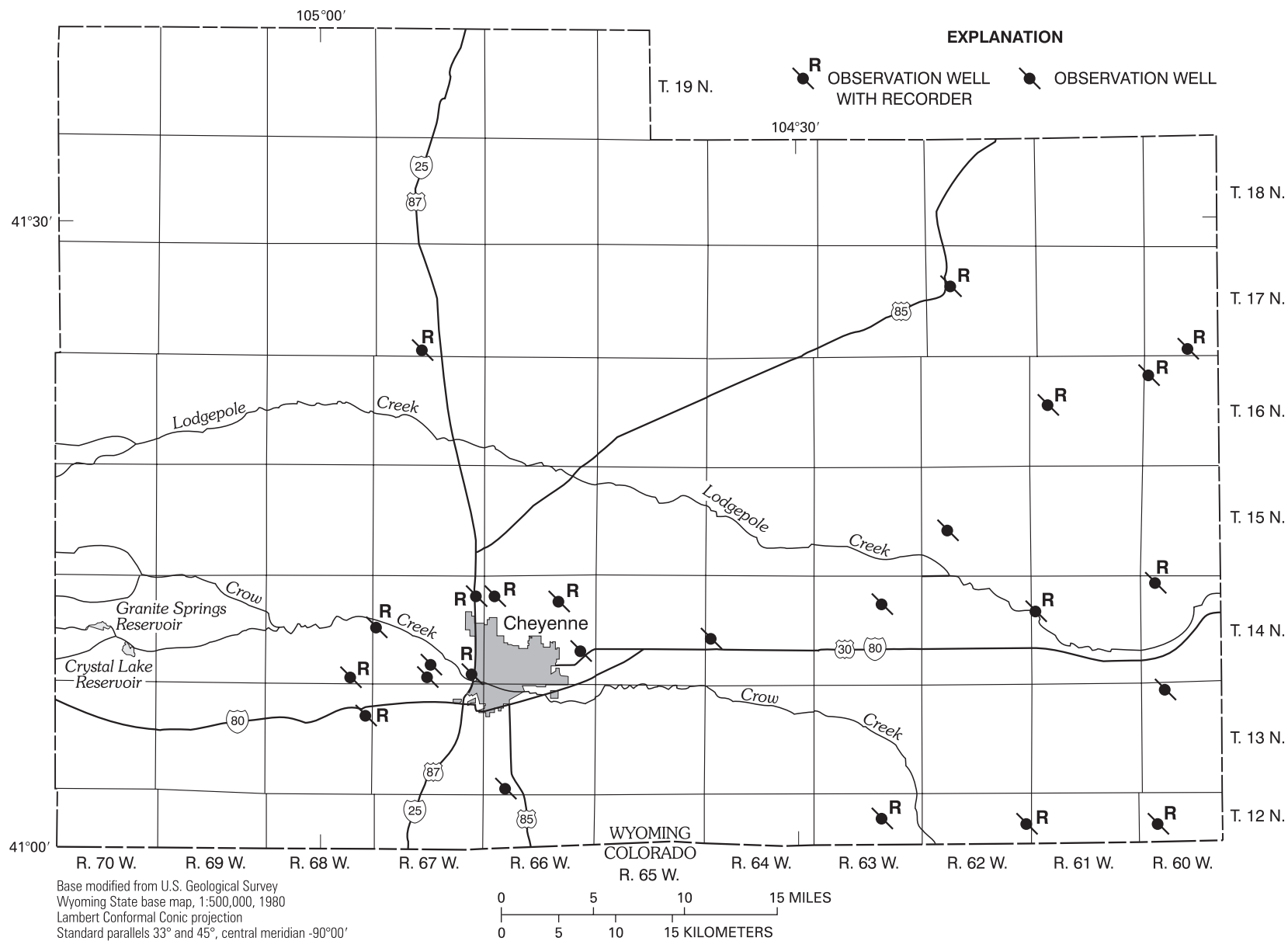


Figure 15. Location of observation wells in Laramie County, Wyoming.

GROUND-WATER LEVELS

LARAMIE COUNTY

IDENTIFICATION.--Station number, 410059104072401. Local number, 12-060-07ddd01. Local name, Laramie County #1.

LOCATION.--Lat 41°00'59", long 104°07'24", in SE¹/₄ SE¹/₄ SE¹/₄ sec.7, T.12 N., R.60 W., Hydrologic Unit 10190015.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 120 ft below land surface.

DATUM.--Elevation of land surface is 5,176 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

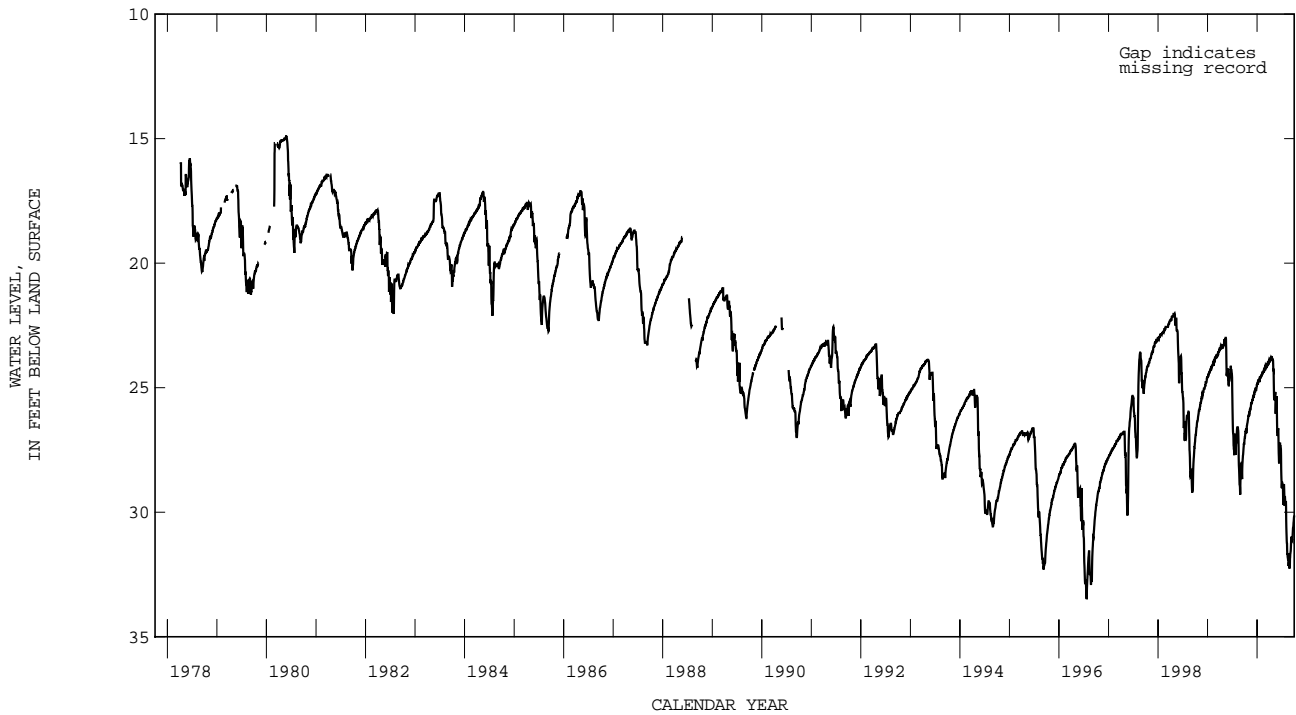
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.90 ft below land surface, May 24, 25, 1980; lowest, 33.49 ft below land surface, July 22, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.87	25.99	25.37	24.82	24.46	24.11	23.87	25.45	26.63	28.90	30.96	31.49
10	26.73	25.89	25.24	24.70	24.39	24.18	23.82	25.29	27.98	29.33	31.70	30.98
15	26.65	25.77	25.18	24.74	24.37	24.08	23.79	25.61	27.40	28.92	31.86	31.12
20	26.44	25.61	25.10	24.64	24.35	24.00	23.86	25.56	27.36	29.41	32.16	30.76
25	26.28	25.51	25.09	24.57	24.20	24.03	23.93	25.82	27.74	29.49	32.20	30.42
EOM	26.11	25.45	24.89	24.51	24.22	24.00	24.31	26.94	29.00	29.56	31.82	30.13
MAX	26.11	25.45	24.89	24.51	24.20	23.90	23.73	24.24	26.63	28.82	29.80	30.13
MIN	27.03	26.11	25.40	24.86	24.53	24.26	24.31	26.94	29.00	29.75	32.26	31.69



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410100104160301. Local number, 12-062-13baa01. Local name, USGS southeast of Carpenter.

LOCATION.--Lat 41°01'00", long 104°16'03", in NE¹/₄ NE¹/₄ NW¹/₄ sec.13, T.12 N., R.62 W., Hydrologic Unit 10190009.

AQUIFER.--Terrace Deposits.

WELL CHARACTERISTICS.--Depth of well, 198 ft below land surface datum.

DATUM.--Elevation of land surface is 5,315 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

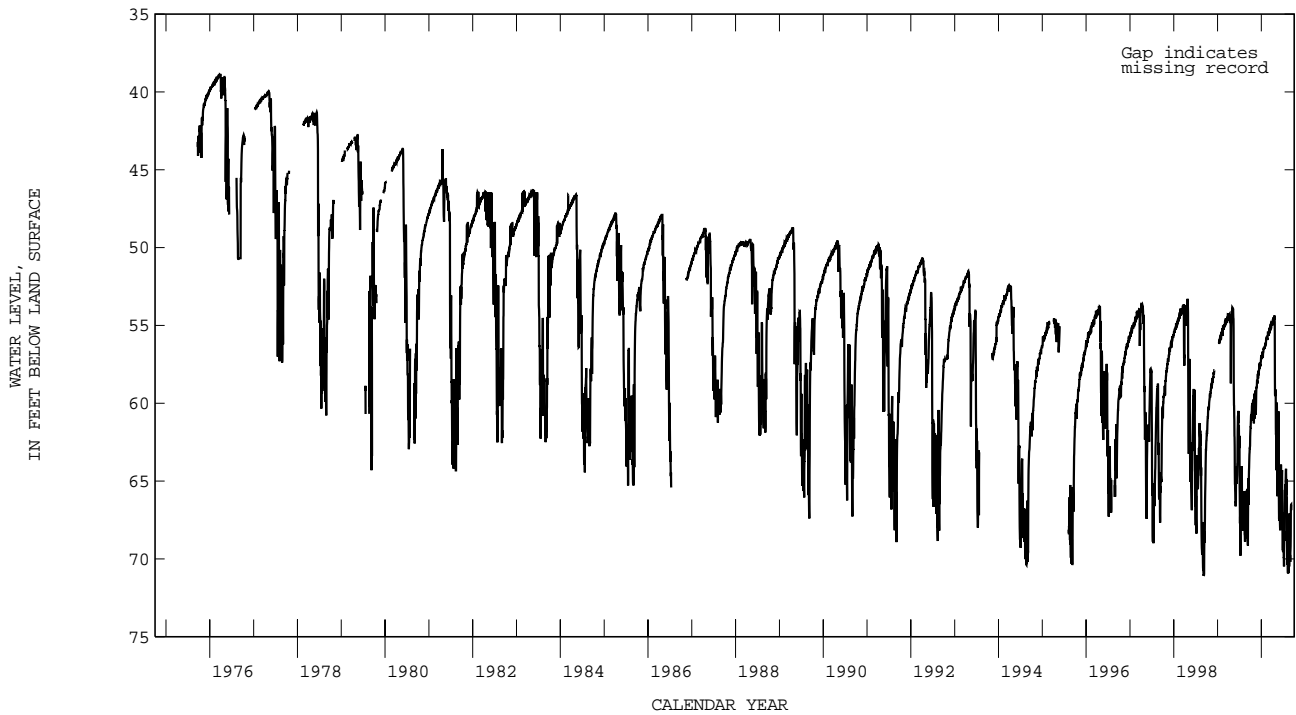
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.53 ft below land surface, from hand-measured data, May 19, 1975; lowest, 71.09 ft below land surface, Sept. 6, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.10	60.76	58.17	56.98	56.10	55.22	54.63	62.89	68.16	69.95	68.71	66.50
10	60.80	59.55	57.86	56.69	55.87	55.45	54.55	61.90	65.01	68.22	69.84	---
15	60.16	60.56	57.81	56.77	55.83	55.16	54.52	64.96	65.07	65.56	70.54	---
20	59.98	58.98	57.58	56.56	55.79	54.90	54.68	60.81	64.41	65.64	67.85	---
25	61.13	58.56	57.53	56.43	55.45	55.03	59.20	65.78	69.29	64.90	70.09	---
EOM	59.92	58.33	57.06	56.27	55.52	55.01	61.59	67.55	68.61	66.04	69.21	---
MAX	59.77	58.33	57.04	56.27	55.45	54.77	54.36	59.95	63.94	64.21	67.07	66.50
MIN	61.73	60.98	58.41	57.11	56.33	55.66	61.59	67.55	69.50	70.48	70.92	68.53



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410111104223102. Local number, 12-063-15aaa02. Local name, USGS southwest of Carpenter.

LOCATION.--Lat 41°00'59', long 104°24'32", in NE¹/₄ NE¹/₄ NE¹/₄ sec.15, T.12 N., R.63 W., Hydrologic Unit 10190009.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 110 ft below land surface.

DATUM.--Elevation of land surface is 5,385 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

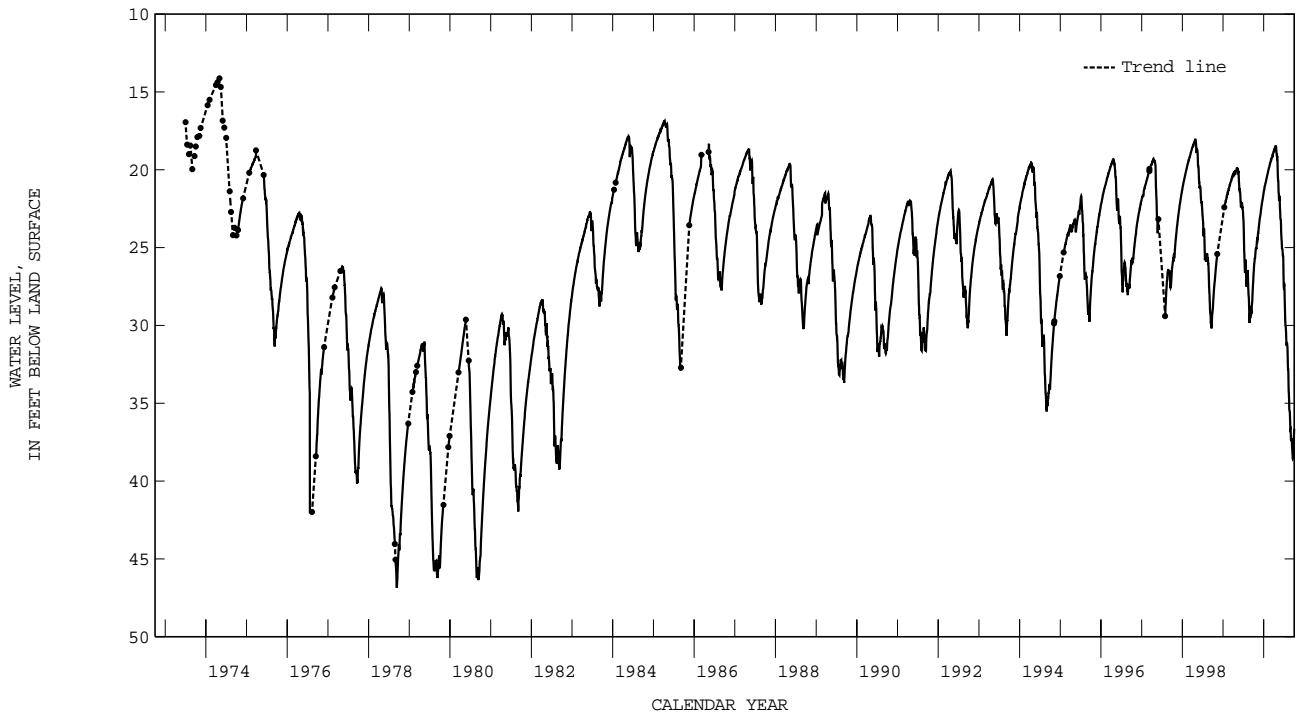
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.12 ft below land surface, May 1, 2, 1974; lowest, 46.86 ft below land surface, Sept. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.27	24.49	22.71	21.27	20.23	19.39	18.69	20.08	24.00	27.77	32.70	37.33
10	25.90	24.13	22.41	21.06	20.06	19.32	18.62	20.69	24.60	29.26	33.67	37.60
15	25.63	23.87	22.17	20.90	19.92	19.19	18.51	21.57	25.10	30.01	34.72	38.24
20	25.16	23.50	21.94	20.77	19.80	19.05	18.51	21.73	25.52	30.68	35.52	38.45
25	25.06	23.16	21.75	20.58	19.62	18.95	18.99	22.47	26.26	31.30	36.29	37.56
EOM	24.60	22.97	21.46	20.39	19.54	18.83	19.20	23.18	27.52	31.37	37.16	36.64
MAX	24.60	22.97	21.46	20.39	19.54	18.83	18.50	19.18	23.20	27.33	31.48	36.64
MIN	26.76	24.55	22.93	21.40	20.38	19.51	19.20	23.18	27.53	31.37	37.16	38.57



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410703104071201. Local number, 13-060-05ccb01. Local name, Elmer Glantz.

LOCATION.--Lat 41°07'03", long 104°07'12", in NW¹/₄ SW¹/₄ SW¹/₄ sec.5, T.13 N., R.60 W., Hydrologic Unit 10190015.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 100 ft below land surface.

DATUM.--Elevation of land surface is 5,125 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

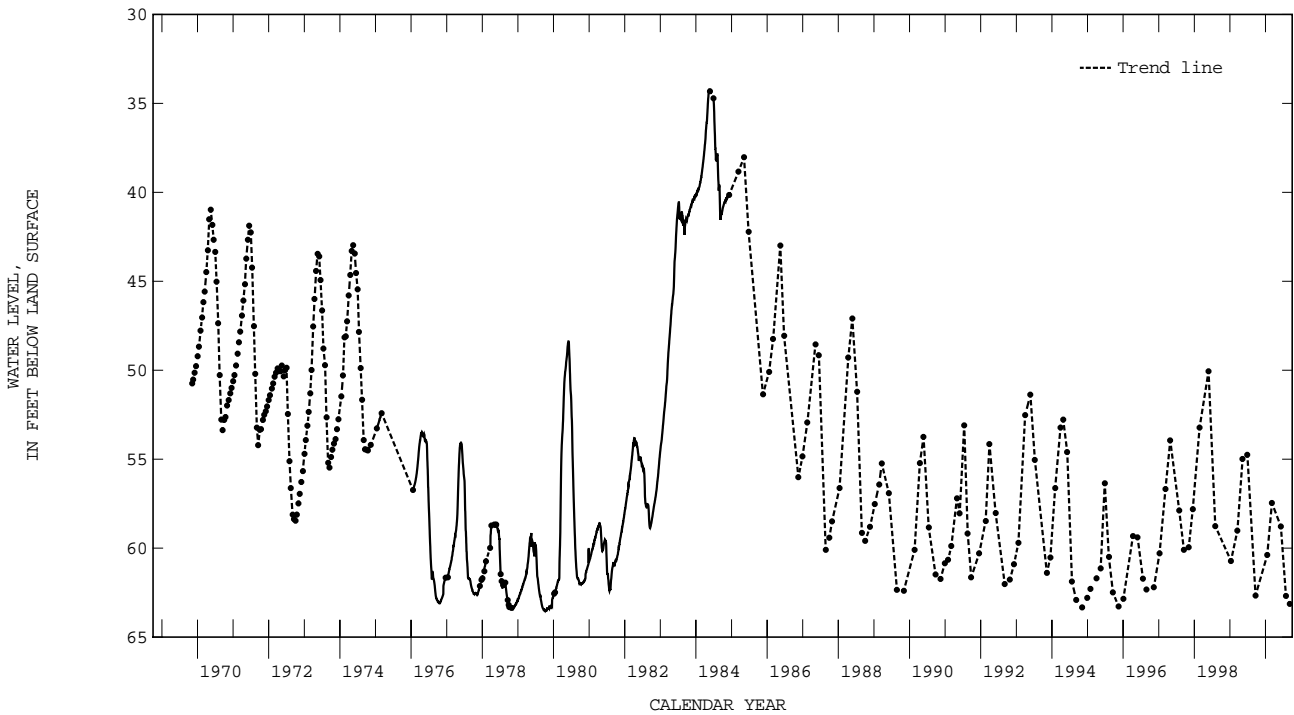
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.18 ft below land surface, May 20, 1984; lowest, 63.52 ft below land surface, Oct. 9, 12, 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 18	60.39	MAR 06	57.46	JUN 06	58.78	JUL 28	62.69	SEP 07	63.13
WATER YEAR 2000		HIGHEST	57.46	MAR 06, 2000		LOWEST	63.13	SEP 07, 2000	



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410324104481701. Local number, 13-066-32bbd01. Local name, Laramie County #14.

LOCATION.--Lat 41°03'24", long 104°48'17", in SE¹/₄ NW¹/₄ NW¹/₄ sec.32, T.13 N., R.66 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 160 ft below land surface.

DATUM.--Elevation of land surface is 6,180 ft above sea level, from topographic map. Measuring point: top of casing, 1.3 ft above land surface.

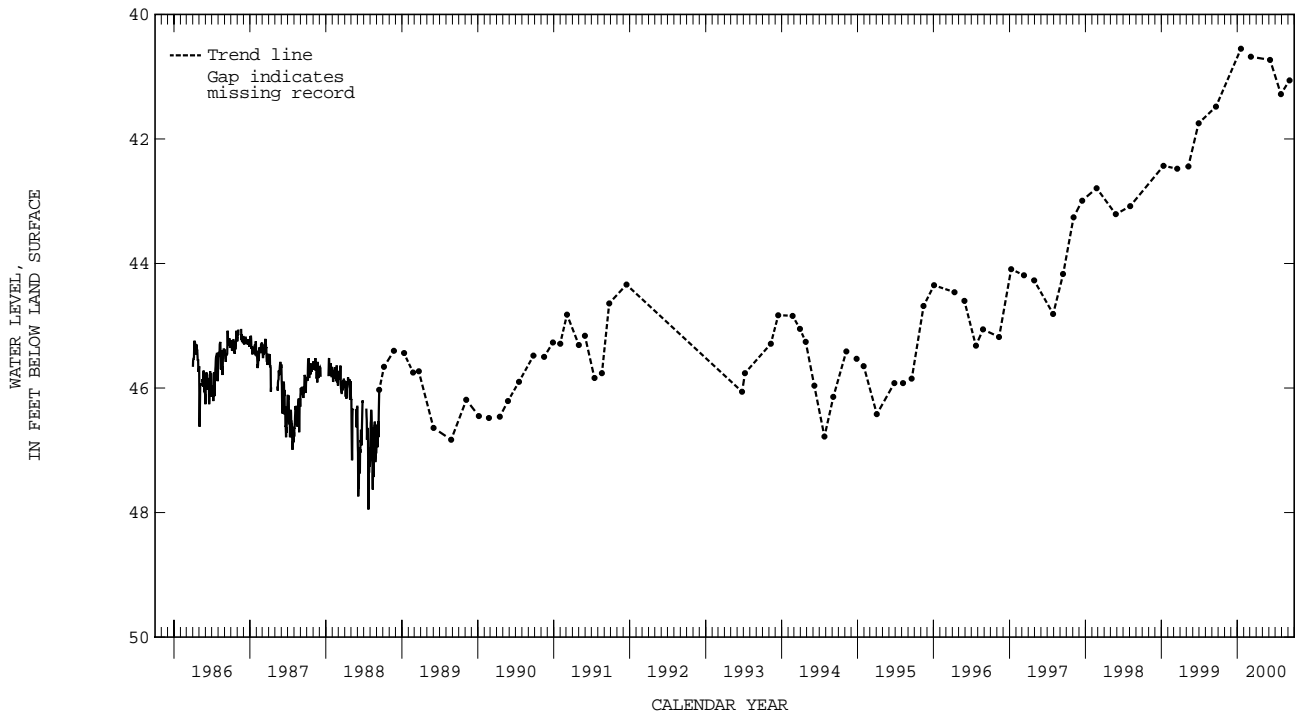
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.55 ft below land surface, from hand-measured data, Jan. 18, 2000; lowest, 47.95 ft below land surface, July 23, 1988.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 18	40.55	MAR 06	40.68	JUN 06	40.73	JUL 28	41.28	SEP 07	41.06
WATER YEAR 2000		HIGHEST	40.55	JAN 18, 2000		LOWEST	41.28	JUL 28, 2000	



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410530104574001. Local number, 13-068-13ccc01. Local name, Borie.

LOCATION.--Lat 41°05'30", long 104°57'40", in SW¹/₄ SW¹/₄ SW¹/₄ sec.13, T.13 N., R.68 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, unknown.

DATUM.--Elevation of land surface is 6,528 ft above sea level, from topographic map. Measuring point: top of casing, 0.80 ft above land surface.

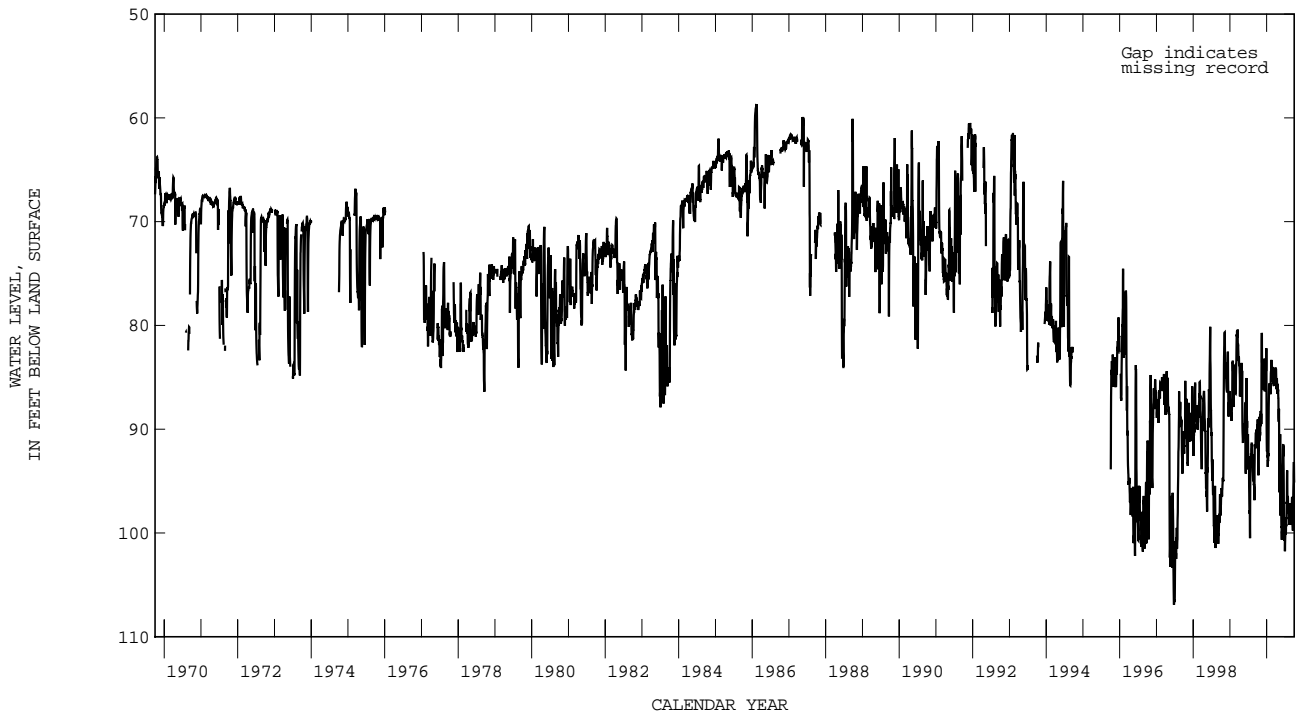
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1942 to 1950, 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.78 ft below land surface, from hand-measured data, Mar. 23, 1945; lowest, 106.91 ft below land surface, June 23, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	89.71	88.62	84.96	91.94	85.72	84.94	85.14	94.75	97.52	100.00	97.76	98.43
10	94.44	84.09	83.20	92.87	85.09	85.51	85.25	93.87	91.98	99.83	99.17	96.56
15	91.58	83.48	85.25	93.08	84.98	84.93	86.52	90.91	91.55	98.66	99.17	99.36
20	88.86	84.98	85.55	88.80	84.97	84.69	85.71	95.45	98.64	95.14	97.79	96.91
25	90.56	84.96	84.40	85.64	84.63	84.72	87.02	98.82	99.84	97.14	98.32	93.98
EOM	89.71	85.77	89.74	85.55	84.66	84.48	89.29	99.89	101.76	97.43	98.62	95.14
MAX	88.61	80.72	82.20	85.55	83.32	84.00	84.18	88.04	91.55	93.97	97.15	93.16
MIN	94.44	89.53	89.74	93.63	86.63	85.83	89.29	100.66	101.76	101.12	99.17	99.77



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411238104070801. Local number, 14-060-05bcb01. Local name, C.C. Gross.

LOCATION.--Lat 41°12'38", long 104°07'08", in NW¹/₄ SW¹/₄ NW¹/₄ sec.5, T.14 N., R.60 W., Hydrologic Unit 10190015.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 100 ft below land surface.

DATUM.--Elevation of land-surface is 5,082 ft above sea level, from topographic map. Measuring point: bottom of shelf, 3.35 ft above land surface.

REMARKS.--The hydrograph for the period November 1957 to August 1962 was plotted using intermittent hand measurements, the period from September 1962 to December 1973 was plotted using one measurement for every 15 days, the period from January 1974 to September 30, 2000 was plotted using continuous data. Continuous data for the period from September 1962 to December 1973 is available in hard copy form.

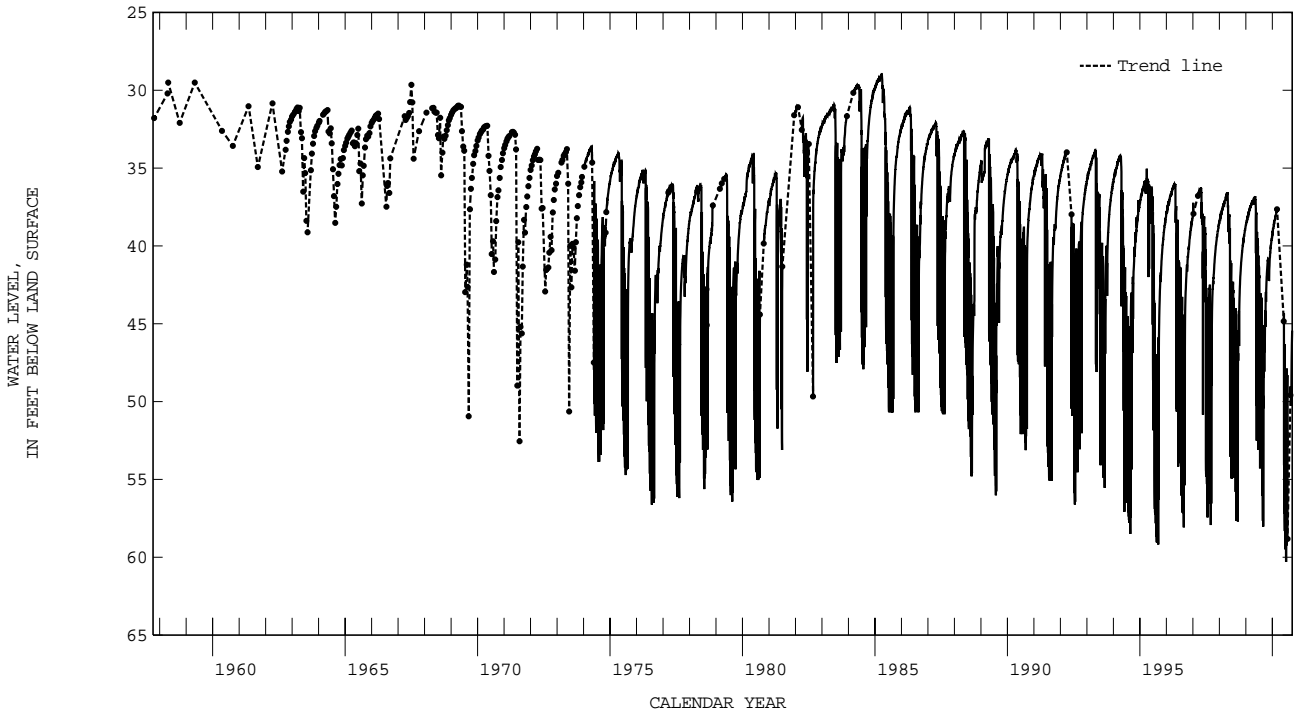
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.96 ft below land surface, Apr. 3, 4, 1985; lowest, 60.30 ft below land surface, July 8, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.52	40.93	40.31	39.09	38.30	37.65	---	---	---	59.12	---	---
10	42.51	41.50	40.04	38.91	38.18	---	---	---	54.09	49.97	---	49.39
15	41.93	42.23	39.82	38.83	38.06	---	---	---	46.31	48.88	---	49.92
20	41.53	41.44	39.61	38.68	37.98	---	---	---	57.97	51.96	---	48.37
25	41.20	40.86	39.51	38.54	37.81	---	---	---	49.37	48.30	---	46.41
EOM	40.95	40.54	39.22	38.41	37.81	---	---	---	50.03	---	---	45.44
MAX	40.94	40.54	39.22	38.41	37.77	37.65	---	---	44.34	47.88	---	45.44
MIN	43.59	42.24	40.48	39.17	38.40	37.79	---	---	59.49	60.30	---	50.26



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411022104141201. Local number, 14-061-18ddd01. Local name, Laramie County #2.

LOCATION.--Lat 41°10'22", long 104°14'12", in SE¹/₄ SE¹/₄ SE¹/₄ sec.18, T.14 N., R.61 W., Hydrologic Unit 10190015.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 90.0 ft below land surface.

DATUM.--Elevation of land surface is 5,264 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

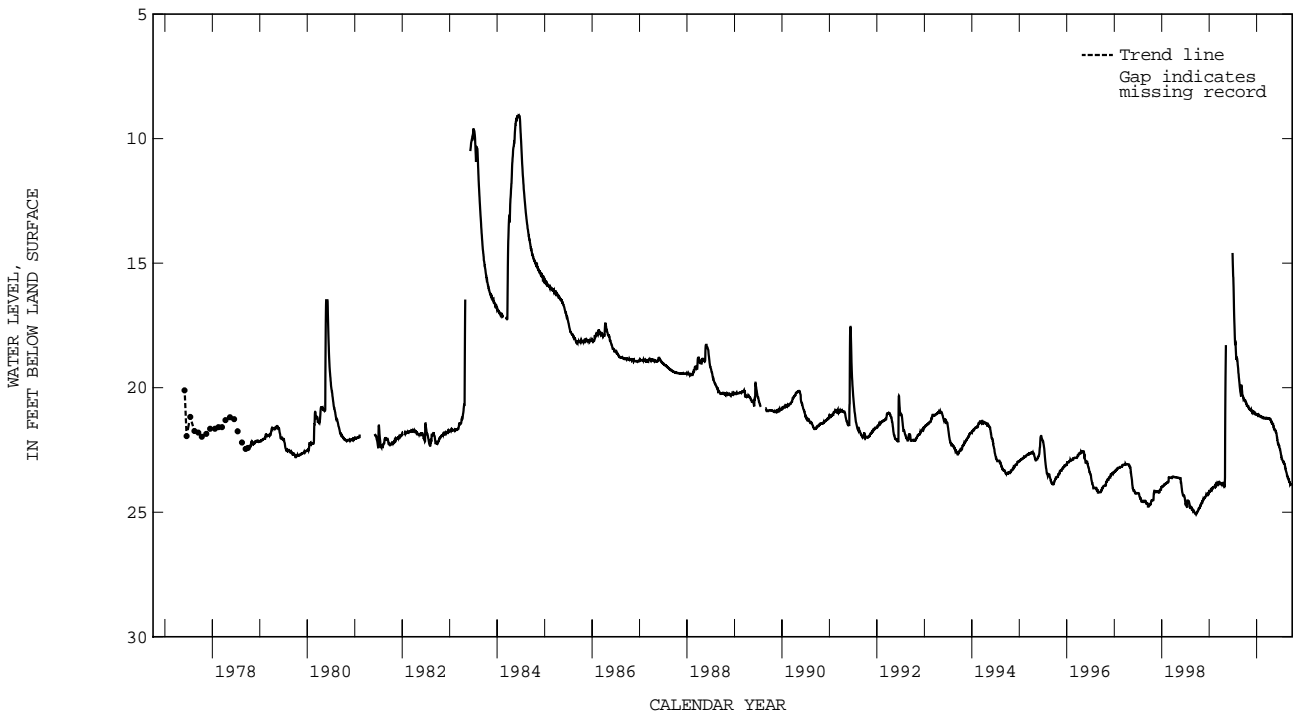
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.08 ft below land surface, June 18, 1984; lowest, 25.09 ft below land surface, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.54	20.84	21.02	21.07	21.18	21.22	21.23	21.46	22.01	22.66	23.11	23.69
10	20.61	20.86	21.03	21.07	21.17	21.22	21.25	21.56	22.16	22.80	23.26	23.79
15	20.65	20.90	21.03	21.14	21.18	21.21	21.27	21.66	22.24	22.88	23.38	23.87
20	20.72	20.91	21.04	21.12	21.22	21.22	21.35	21.70	22.34	22.95	23.47	23.89
25	20.73	20.95	21.08	21.14	21.17	21.22	21.39	21.73	22.42	22.99	23.56	23.89
EOM	20.82	20.98	21.07	21.15	21.23	21.24	21.45	21.81	22.52	23.06	23.66	23.88
MAX	20.52	20.82	20.95	21.07	21.15	21.18	21.23	21.45	21.82	22.54	23.06	23.67
MIN	20.82	20.99	21.08	21.15	21.23	21.24	21.45	21.81	22.52	23.06	23.66	23.89



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411114104242501. Local number, 14-063-15aaa01. Local name, Laramie County #3.

LOCATION.--Lat 41°11'14", long 104°24'25", in NE¹/₄ NE¹/₄ NE¹/₄ sec.15, T.14 N., R.63 W., Hydrologic Unit 10190015.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 165 ft below land surface.

DATUM.--Elevation of land surface is 5,489 ft above sea level, from topographic map. Measuring point: top of casing, 1.3 ft above land surface.

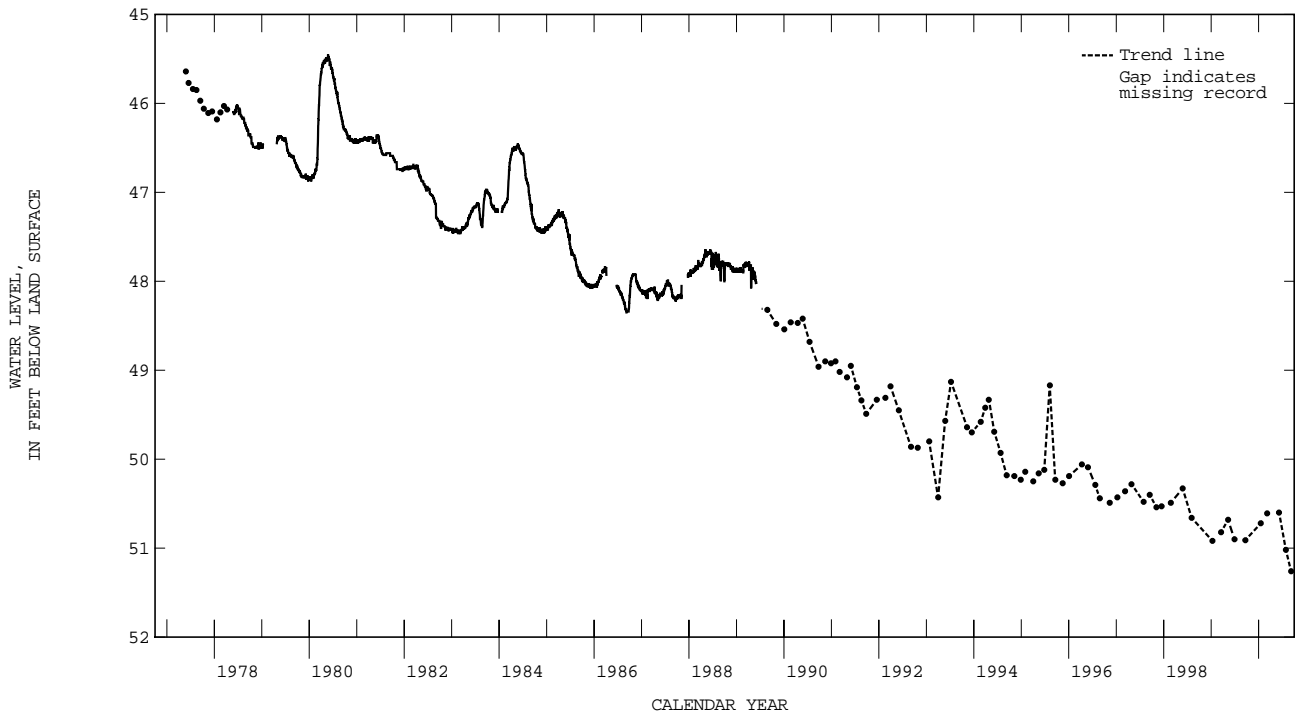
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.45 ft below land surface, May 24, 1980; lowest, 51.26 ft below land surface, from hand-measured data, Sept. 6, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 18	50.72	MAR 06	50.61	JUN 06	50.60	JUL 28	51.02	SEP 06	51.26
WATER YEAR 2000		HIGHEST	50.60	JUN 06, 2000		LOWEST	51.26	SEP 06, 2000	



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411005104355001. Local number, 14-064-19bcc01. Local name, Laramie County #9.

LOCATION.--Lat 41°10'05", long 104°35'50", in SW¹/₄ SW¹/₄ NW¹/₄ sec.19, T.14 N., R.64 W., Hydrologic Unit 10190015.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 180 ft below land surface.

DATUM.--Elevation of land surface is 5,880 ft above sea level, from topographic map. Measuring point: top of casing, 1.5 ft above land surface.

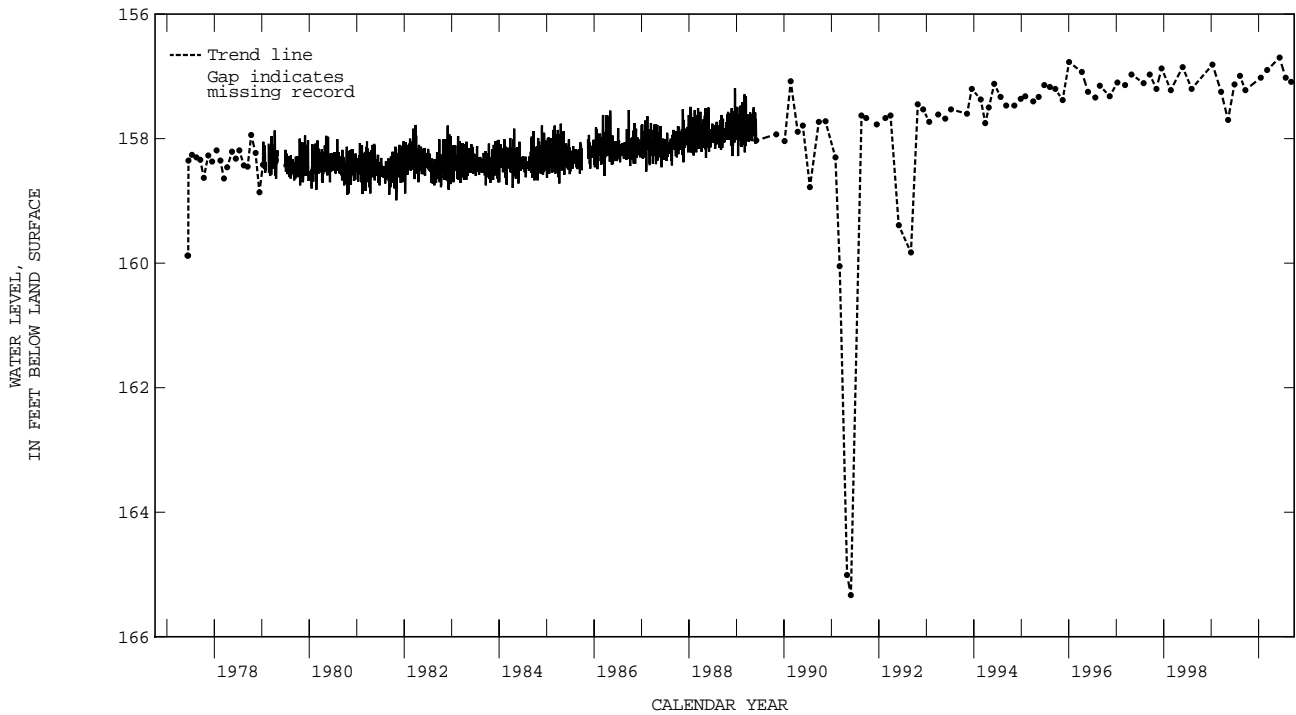
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 156.70 ft below land surface, from hand-measured data, June 9, 2000; lowest, 165.33 ft below land surface, from hand-measured data, May 30, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 18	157.02	MAR 06	156.90	JUN 09	156.70	JUL 26	157.02	SEP 06	157.09
WATER YEAR 2000		HIGHEST	156.70	JUN 09, 2000		LOWEST	157.09	SEP 06, 2000	



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411147104490501. Local number, 14-066-07add01. Local name, National Land #1.

LOCATION.--Lat 41°11'47", long 104°49'05", in SE¹/₄ SE¹/₄ NE¹/₄ sec.7, T.14 N., R.66 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 350 ft below land surface.

DATUM.--Elevation of land surface is 6,170 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

REMARKS.--Well was discontinued on Sept. 1, 2000.

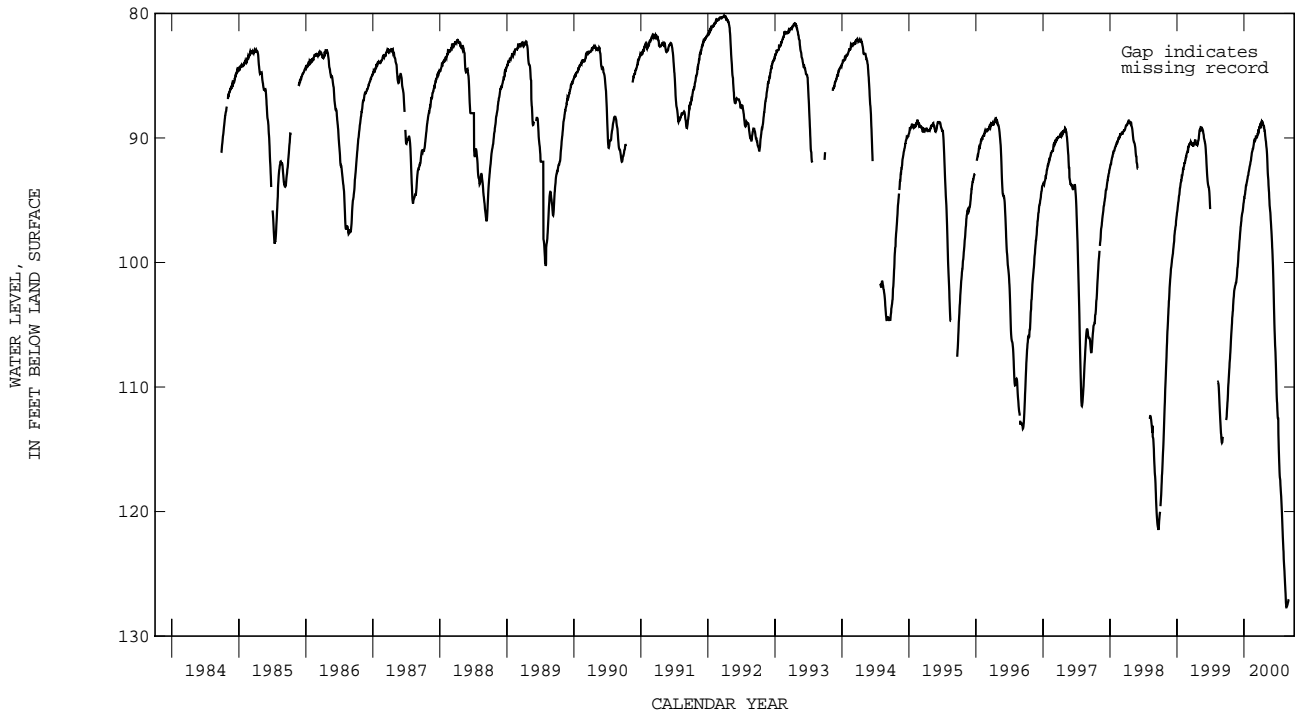
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.18 ft below land surface, Mar. 28, 1992; lowest, 127.69 ft below land surface, Aug. 18, 19, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	110.55	102.84	98.71	94.57	91.92	89.92	88.75	91.32	99.81	112.54	124.08	---
10	109.11	102.10	97.71	93.97	91.47	89.97	88.70	93.03	102.29	115.95	125.43	---
15	107.88	101.79	96.91	93.62	91.05	89.71	88.96	94.23	105.41	117.37	126.94	---
20	106.61	101.44	96.19	93.23	90.75	89.37	89.29	95.56	107.22	118.58	127.65	---
25	105.33	100.53	95.80	92.79	90.26	89.21	89.83	96.55	109.76	120.06	127.44	---
EOM	103.95	99.71	95.02	92.31	90.21	89.06	90.45	98.10	111.77	122.35	127.04	---
MAX	103.95	99.71	95.02	92.31	90.19	88.98	88.68	90.64	98.39	112.06	122.68	---
MIN	111.57	103.88	99.41	94.90	92.26	90.21	90.45	98.10	111.77	122.35	127.69	---



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411210104452001. Local number, 14-066-10aba01. Local name, Laramie County #8.

LOCATION.--Lat 41°12'10", long 104°45'20", in NE¹/₄ NW¹/₄ NE¹/₄ sec.10, T.14 N., R.66 W., Hydrologic Unit 10190015.

AQUIFER.--Ogalalla Formation.

WELL CHARACTERISTICS.--Depth of well, 190 ft below land surface.

DATUM.--Elevation of land surface is 6,090 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

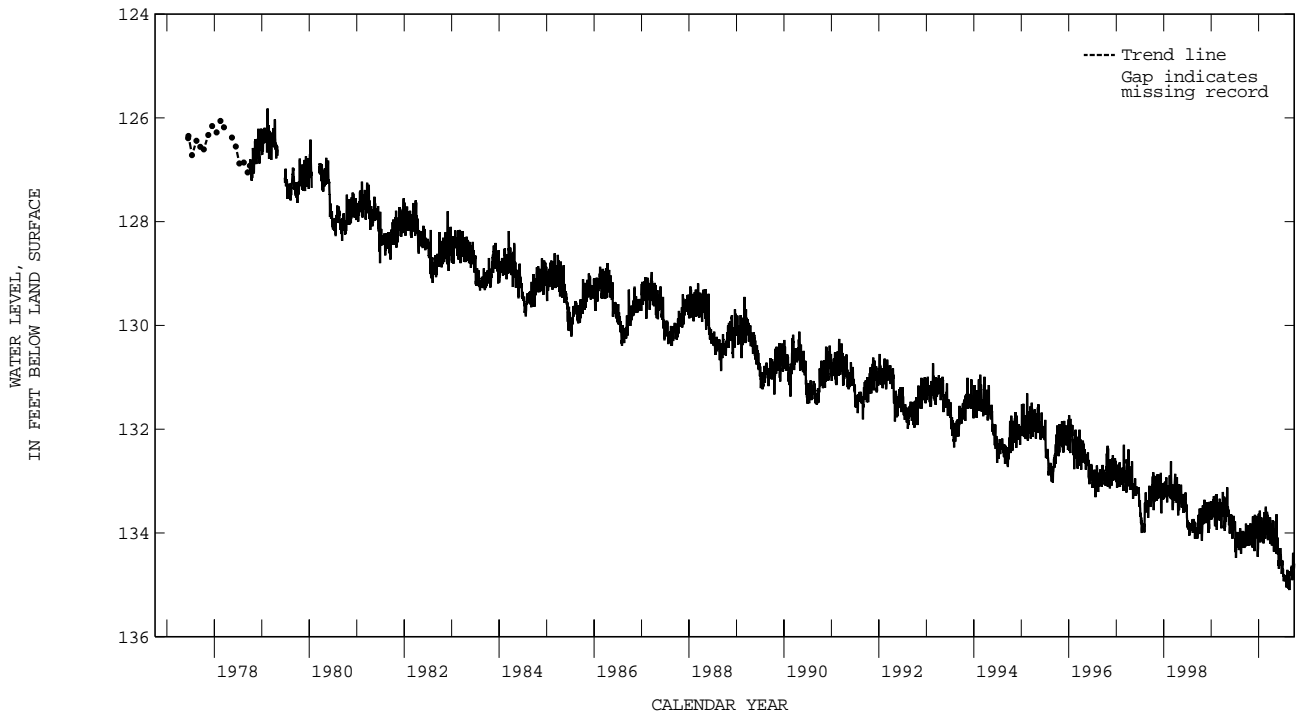
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 125.82 ft below land surface, Feb. 14, 1979; lowest, 135.10 ft below land surface, Aug. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.18	134.01	134.00	133.83	134.00	133.61	133.87	134.18	134.67	134.75	134.88	134.81
10	134.25	134.07	133.85	133.57	133.81	134.01	133.95	133.78	134.34	134.82	135.02	134.65
15	133.91	134.21	134.00	134.11	133.71	133.93	133.86	134.32	134.29	134.82	135.07	134.88
20	134.19	133.86	133.94	133.99	134.08	133.72	134.09	134.37	134.45	134.87	134.82	134.67
25	134.15	133.85	134.45	133.90	133.51	134.09	134.24	134.16	134.62	134.93	134.95	134.38
EOM	134.10	134.08	133.83	133.90	133.83	134.21	134.23	134.34	134.62	135.01	134.76	134.59
MAX	133.83	133.68	133.65	133.57	133.51	133.61	133.75	133.64	134.29	134.53	134.71	134.38
MIN	134.25	134.35	134.46	134.18	134.20	134.21	134.36	134.42	134.79	135.01	135.10	134.91



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410940104435701. Local number, 14-066-23ddd01. Local name, Laramie County #15.

LOCATION.--Lat 41°09'40", long 104°43'57", in SE¹/₄ SE¹/₄ SE¹/₄ sec.23, T.14 N., R.66 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 216 ft below land surface.

DATUM.--Elevation of land surface is 6,043 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

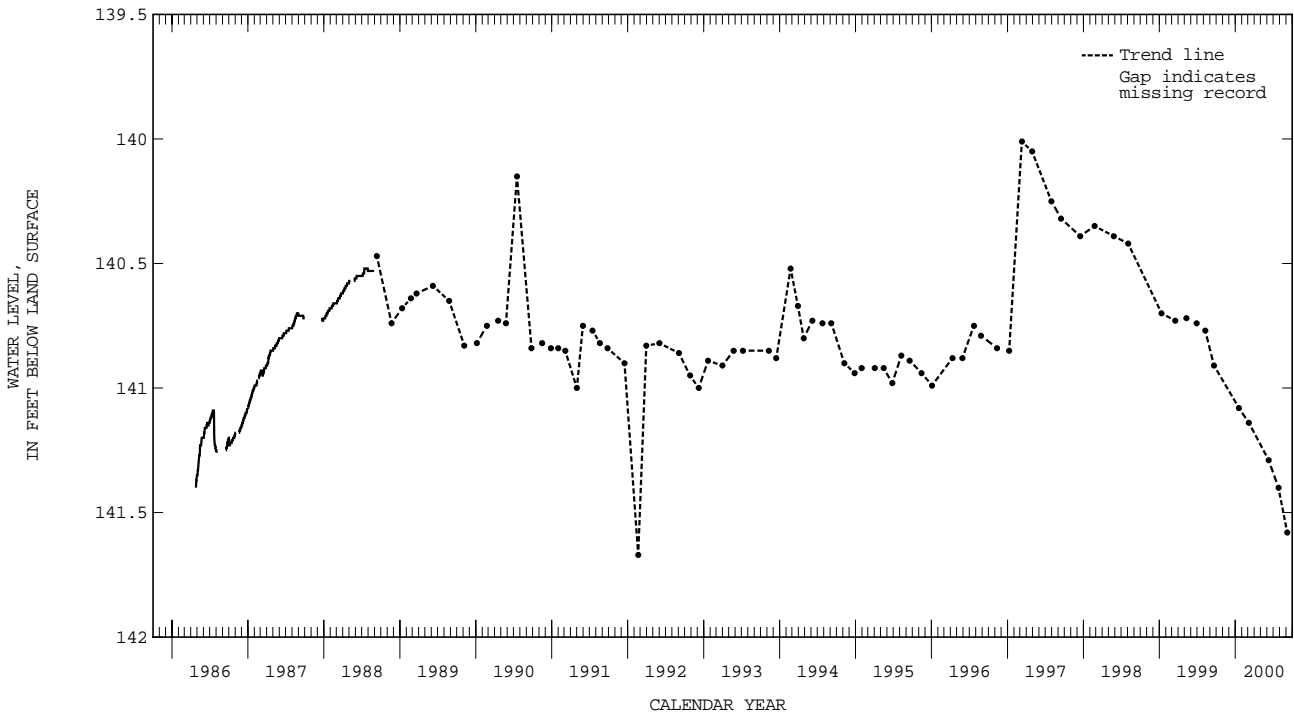
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 140.01 ft below land surface, Mar. 10, 1997; lowest, 141.67 ft below land surface, Feb. 20, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 18	141.08	MAR 06	141.14	JUN 09	141.29	JUL 26	141.40	SEP 06	141.58
WATER YEAR 2000		HIGHEST	141.08	JAN 18, 2000		LOWEST	141.58	SEP 06, 2000	



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411213104501401. Local number, 14-067-12abb01. Local name, Laramie County #10.

LOCATION.--Lat 41°12'13", long 104°50'14", in NW¹/₄ NW¹/₄ NE¹/₄ sec.12, T.14 N., R.67 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 6,230 ft above sea level, from topographic map. Measuring point: top of casing, 1.25 ft above land surface.

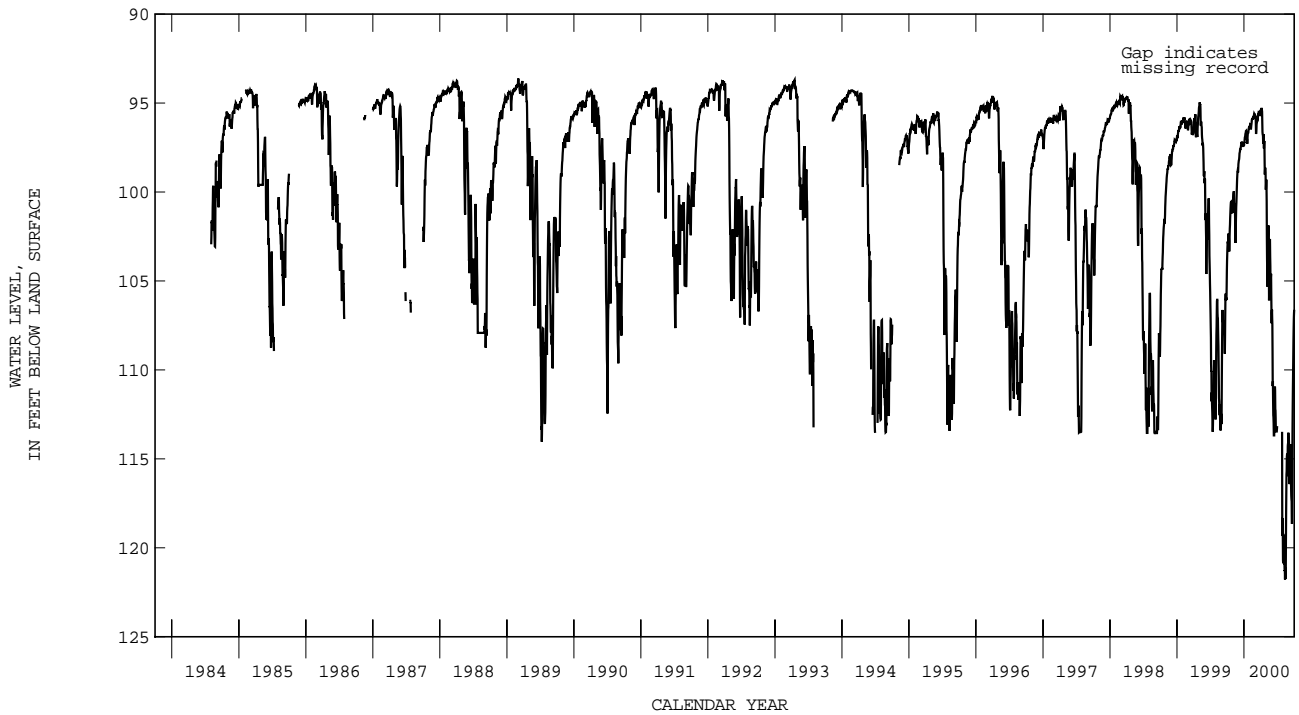
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 93.62 ft below land surface, Mar. 3, 1989; lowest, 121.78 ft below land surface, Aug. 11, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.89	100.02	98.14	96.95	96.17	96.18	95.27	103.73	110.91	---	119.31	116.42
10	102.56	100.67	97.62	96.66	96.19	96.12	96.61	103.04	112.99	---	121.26	114.40
15	102.05	102.86	97.41	96.76	95.87	95.78	96.98	104.50	111.94	---	121.66	117.28
20	100.70	100.58	97.28	96.89	95.90	95.63	97.13	102.70	112.27	---	115.69	114.88
25	100.95	99.04	97.39	96.54	95.60	95.51	98.63	105.60	113.46	---	115.33	109.23
EOM	100.54	98.67	97.41	96.36	95.75	95.68	99.53	106.81	---	120.69	113.91	106.62
MAX	100.54	98.67	97.18	96.29	95.60	95.49	95.27	99.30	106.62	113.48	113.53	106.62
MIN	103.50	102.86	98.43	97.34	96.48	96.74	99.87	107.38	113.68	120.69	121.78	118.66



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411034104554001. Local number, 14-067-18ddc01. Local name, Bell #14.

LOCATION.--Lat 41°10'34", long 104°55'40", in SW 1/4 SE 1/4 SE 1/4 sec.18, T.14 N., R.67 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 229 ft below land surface.

DATUM.--Elevation of land surface is 6,248 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

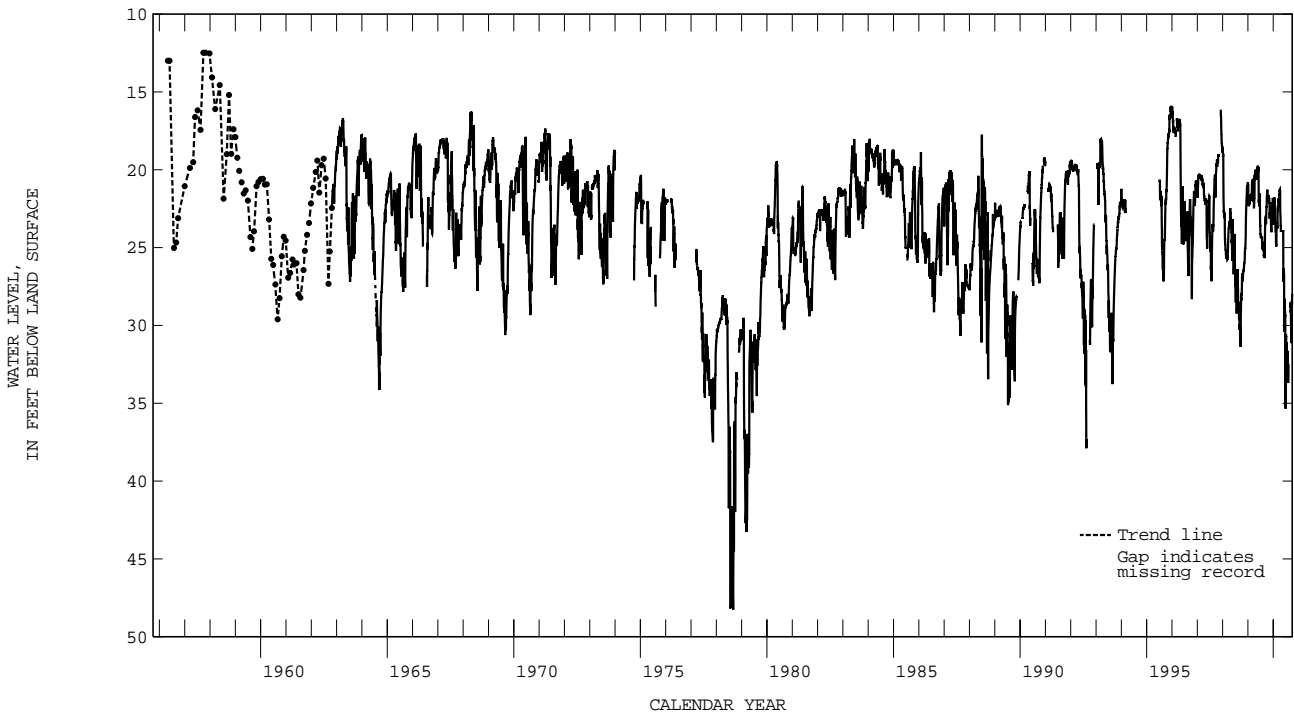
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.48 ft below land surface, from hand measured data, Sept. 26, Oct. 28, 1957; lowest, 48.25 ft below land surface, Aug. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.39	22.06	23.39	23.29	---	22.56	21.25	---	26.79	30.68	32.94	28.62
10	21.69	23.07	22.49	23.38	24.69	22.41	22.17	---	28.28	31.08	---	28.98
15	21.78	22.76	22.33	22.21	24.49	22.09	23.17	---	30.37	33.07	---	29.95
20	21.95	22.64	22.21	21.95	23.63	21.87	24.00	---	29.43	31.93	---	31.04
25	21.83	22.49	22.03	22.30	23.41	21.84	---	26.65	33.98	31.63	---	28.89
EOM	21.80	23.59	22.90	23.51	23.78	21.57	---	26.34	31.93	32.40	28.70	27.97
MAX	21.28	21.80	21.81	21.78	23.35	21.53	21.24	23.88	26.55	30.56	28.70	27.97
MIN	21.95	23.59	24.01	23.54	24.93	23.50	24.00	27.21	35.35	33.56	33.70	31.14



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410930104524701. Local number, 14-067-27bac01. Local name, Laramie County #13.

LOCATION.--Lat 41°09'30", long 104°52'47", in SW¹/₄ NE¹/₄ NW¹/₄ sec.27, T.14 N., R.67 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 140 ft below land surface.

DATUM.--Elevation of land surface is 6,180 ft above sea level, from topographic map. Measuring point: top of casing, 1.8 ft above land surface.

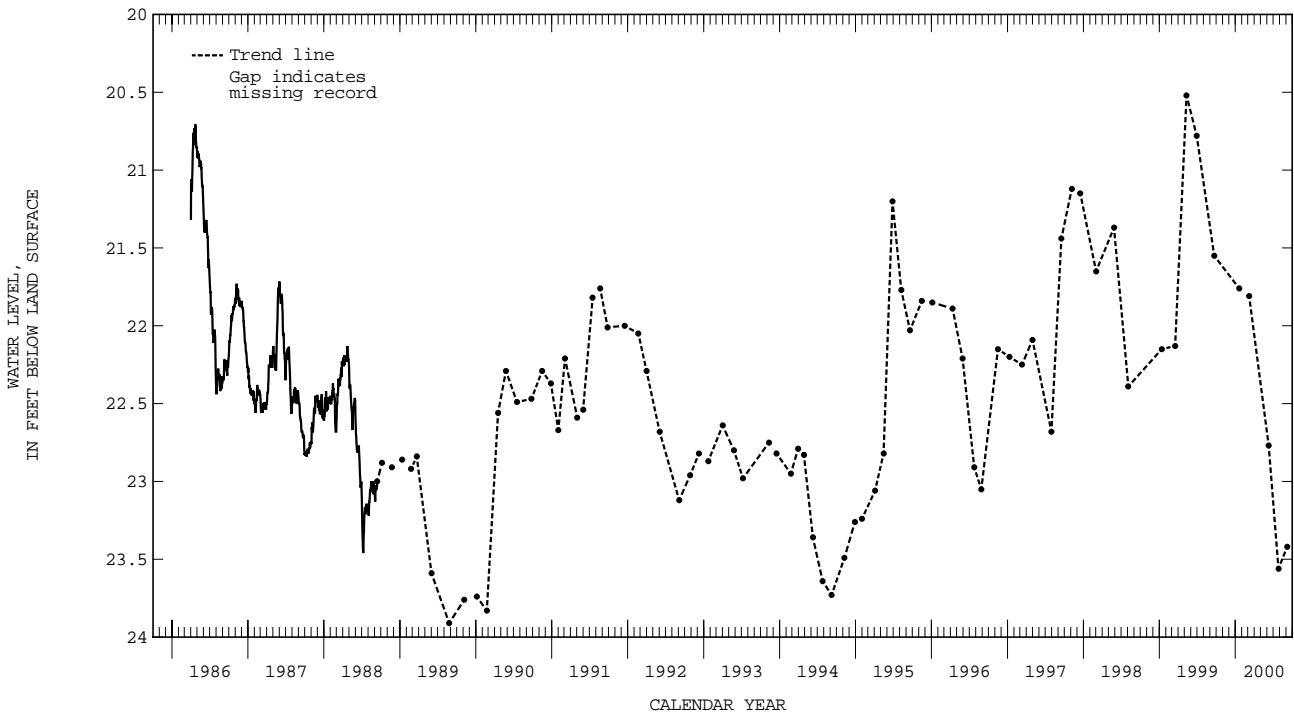
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.52 ft below land surface, from hand-measured data, May 11, 1999; lowest, 23.91 ft below land surface, Aug. 25, 1989.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 19	21.76	MAR 07	21.81	JUN 09	22.77	JUL 26	23.56	SEP 06	23.42
WATER YEAR 2000		HIGHEST	21.76	JAN 19, 2000		LOWEST	23.56	JUL 26, 2000	



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410838104530401. Local number, 14-067-34bbc01. Local name, Laramie County #11.

LOCATION.--Lat 41°08'38", long 104°53'04", in SW 1/4 NW 1/4 NW 1/4 sec.34, T.14 N., R.67 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 162 ft below land surface.

DATUM.--Elevation of land surface is 6,210 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

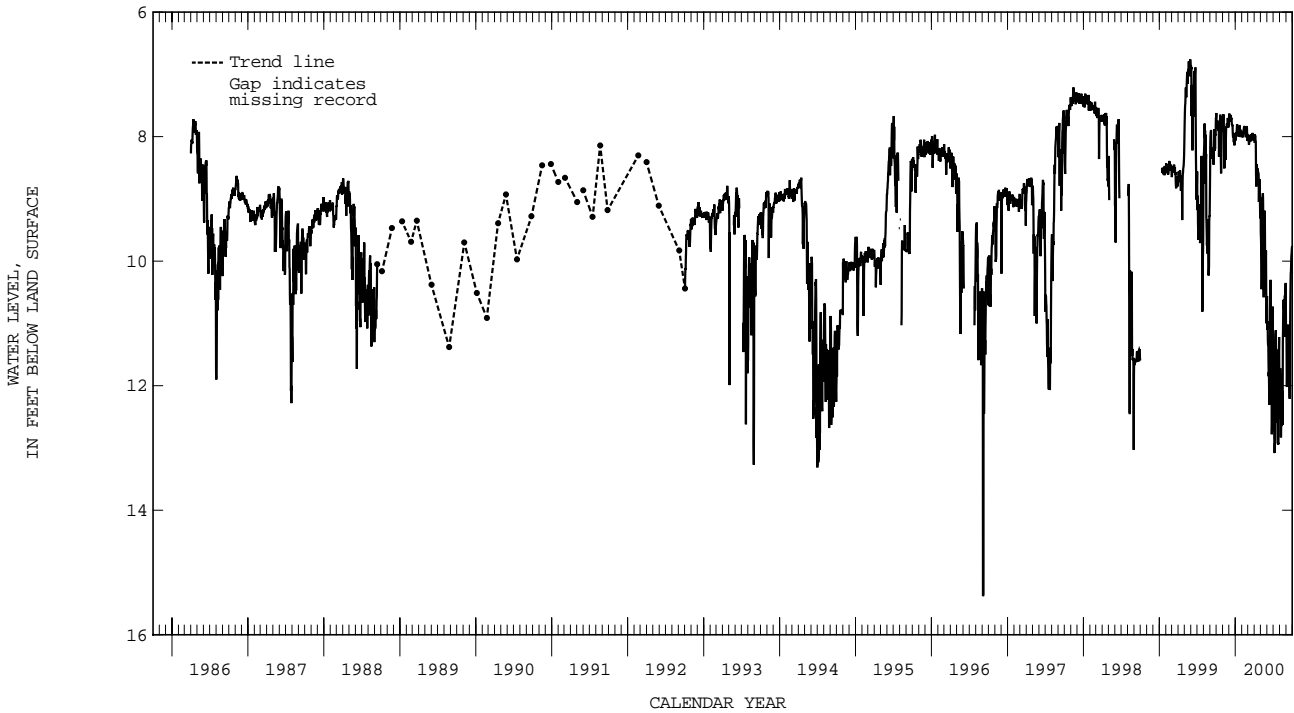
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.76 ft below land surface, May 29, 1999; lowest, 15.38 ft below land surface, Sept. 4, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.80	7.70	7.71	7.93	7.93	8.08	7.98	10.04	11.28	12.67	11.84	12.02
10	7.91	8.48	7.66	7.87	7.88	8.03	8.80	9.15	11.78	12.92	12.55	11.02
15	8.12	8.37	7.81	7.94	7.88	8.04	8.64	10.15	11.72	12.21	12.63	11.49
20	7.66	7.83	7.99	7.87	7.95	8.04	8.58	9.30	12.07	11.94	10.70	11.10
25	8.43	7.70	8.07	7.92	7.83	8.00	8.68	10.54	12.61	12.93	10.69	10.04
EOM	7.78	7.82	7.97	8.01	8.05	8.05	9.11	10.72	11.43	12.38	10.99	9.76
MAX	7.62	7.64	7.63	7.80	7.83	7.94	7.96	8.91	10.30	11.11	10.35	9.76
MIN	8.59	8.51	8.14	8.06	8.07	8.13	9.31	11.00	12.78	13.08	12.83	12.21



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410827104501601. Local number, 14-067-36acb01. Local name, Pioneer Park.

LOCATION.--Lat 41°08'27", long 104°50'16", in NW¹/₄ SW¹/₄ NE¹/₄ sec.36, T.14 N., R.67 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 24 ft below land surface.

DATUM.--Elevation of land surface is 6,099 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

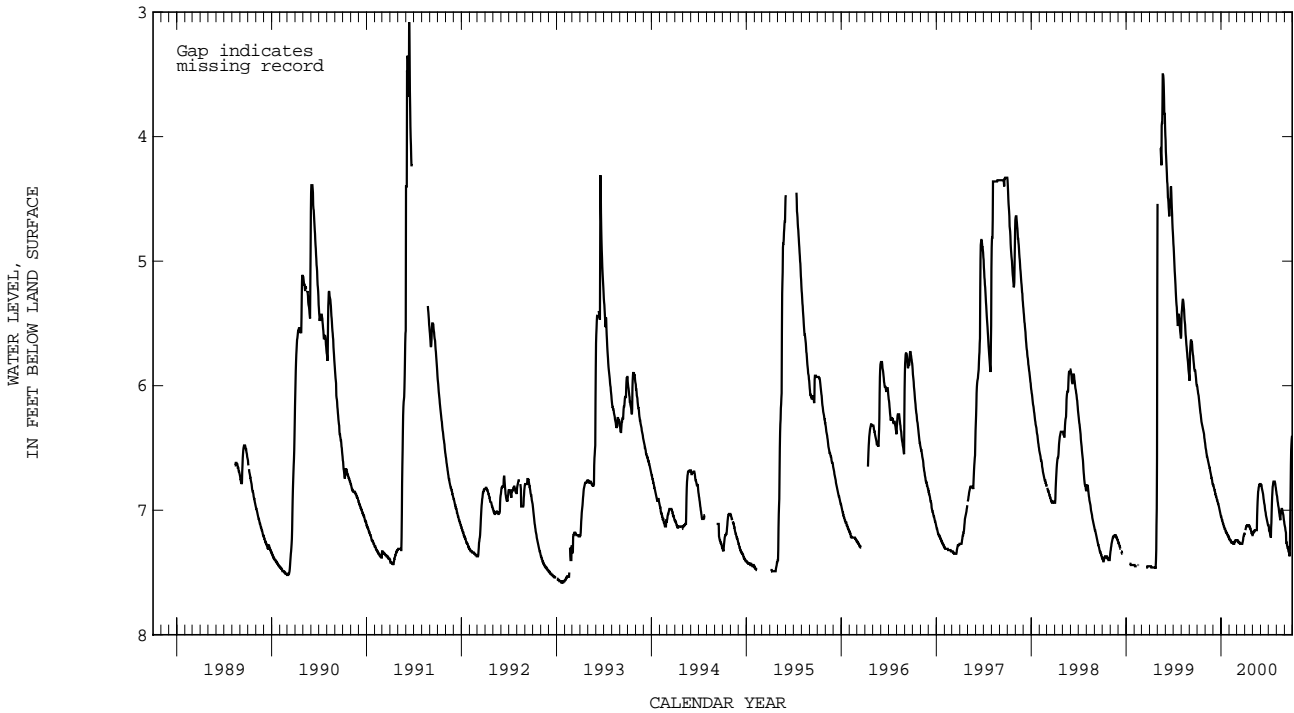
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.08 ft below land surface, June 13, 1991; lowest, 7.58 ft below land surface, Jan. 18-20, 23-26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.07	6.54	6.83	7.08	7.24	7.25	7.14	7.17	6.82	7.17	6.93	7.17
10	6.16	6.59	6.87	7.12	7.26	7.26	7.12	7.16	6.87	7.22	7.00	7.28
15	6.25	6.64	6.91	7.15	7.26	7.27	7.12	7.16	6.95	6.89	7.08	7.32
20	6.32	6.69	6.95	7.18	7.27	7.27	7.14	6.93	7.02	6.77	6.99	7.37
25	6.37	6.74	6.99	7.20	7.24	7.24	7.17	6.81	7.08	6.77	7.02	6.64
EOM	6.46	6.79	7.05	7.22	7.24	7.19	7.20	6.79	7.12	6.85	7.11	6.41
MAX	6.01	6.48	6.80	7.05	7.23	7.19	7.12	6.79	6.79	6.77	6.87	6.41
MIN	6.46	6.79	7.05	7.22	7.27	7.27	7.20	7.20	7.12	7.22	7.11	7.37



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 410757104582302. Local number, 14-068-35ddc02. Local name, King #3.

LOCATION.--Lat 41°07'57", long 104°58'23", in SW¹/₄ SE¹/₄ SE¹/₄ sec.35, T.14 N., R.68 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 230 ft below land surface.

DATUM.--Elevation of land surface is 6,520 ft above sea level, from levels. Measuring point: top of casing, at land surface.

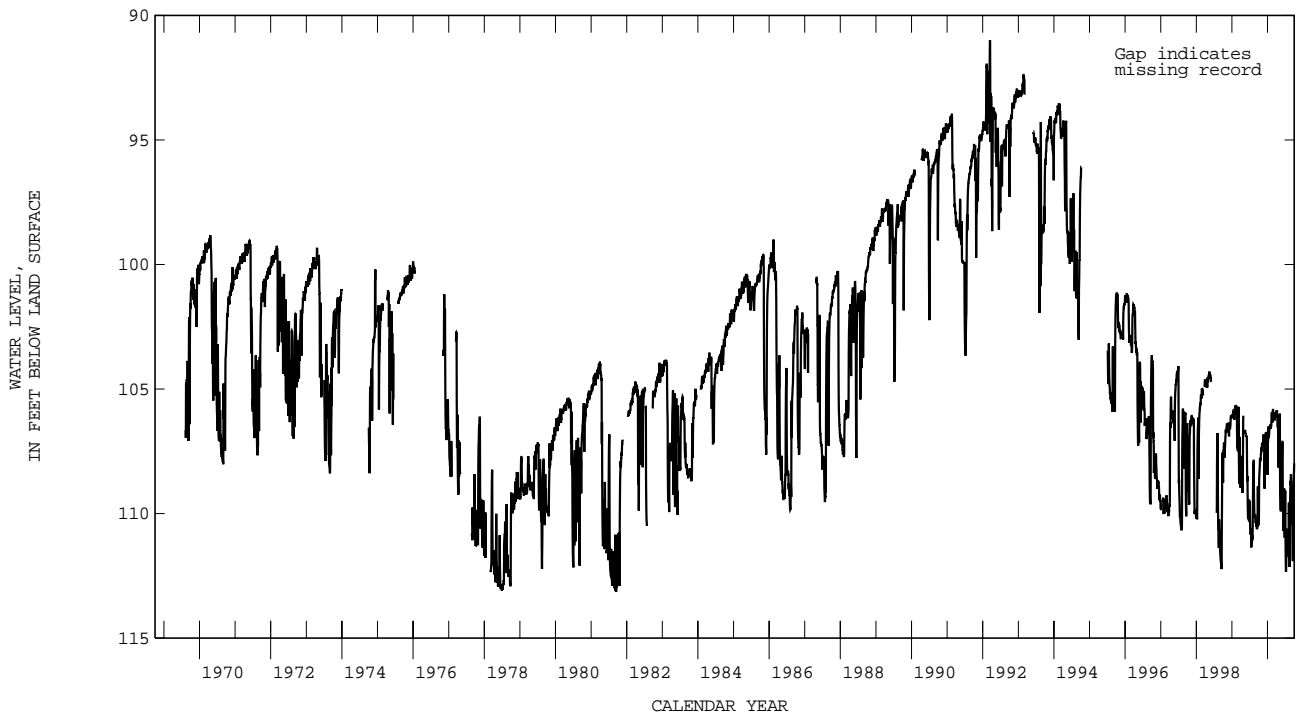
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 91.00 ft below land surface, Mar. 15, 1992; lowest, 113.15 ft below land surface, Sept. 13, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	109.48	107.27	107.63	107.05	106.48	106.02	105.96	106.02	109.33	111.83	110.09	110.28
10	108.36	107.17	106.98	106.53	106.20	106.08	106.09	109.30	110.15	112.11	111.32	110.22
15	107.81	107.25	106.83	106.90	106.00	106.15	106.52	109.88	109.77	110.80	110.22	111.80
20	107.83	106.93	106.75	106.64	106.34	105.97	107.21	108.25	109.23	110.66	109.26	109.83
25	107.62	106.94	107.09	106.55	105.84	106.09	106.57	108.85	110.97	111.13	108.75	108.56
EOM	107.48	108.76	108.41	106.47	106.02	106.06	106.14	107.12	109.08	111.27	109.62	107.98
MAX	107.35	106.84	106.73	106.47	105.84	105.88	105.89	106.02	107.12	109.44	108.43	107.98
MIN	110.31	108.76	109.00	108.44	106.58	106.26	108.15	109.88	110.97	112.34	112.14	111.91



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411531104194701. Local number, 15-062-20aaa01. Local name, Laramie County #4.

LOCATION.--Lat 41°15'31", long 104°19'47", in NE¹/₄ NE¹/₄ NE¹/₄ sec.20, T.15 N., R.62 W., Hydrologic Unit 10190015.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 165 ft below land surface.

DATUM.--Elevation of land surface is 5,510 ft above sea level, from topographic map. Measuring point: top of casing, 1.0 ft above land surface.

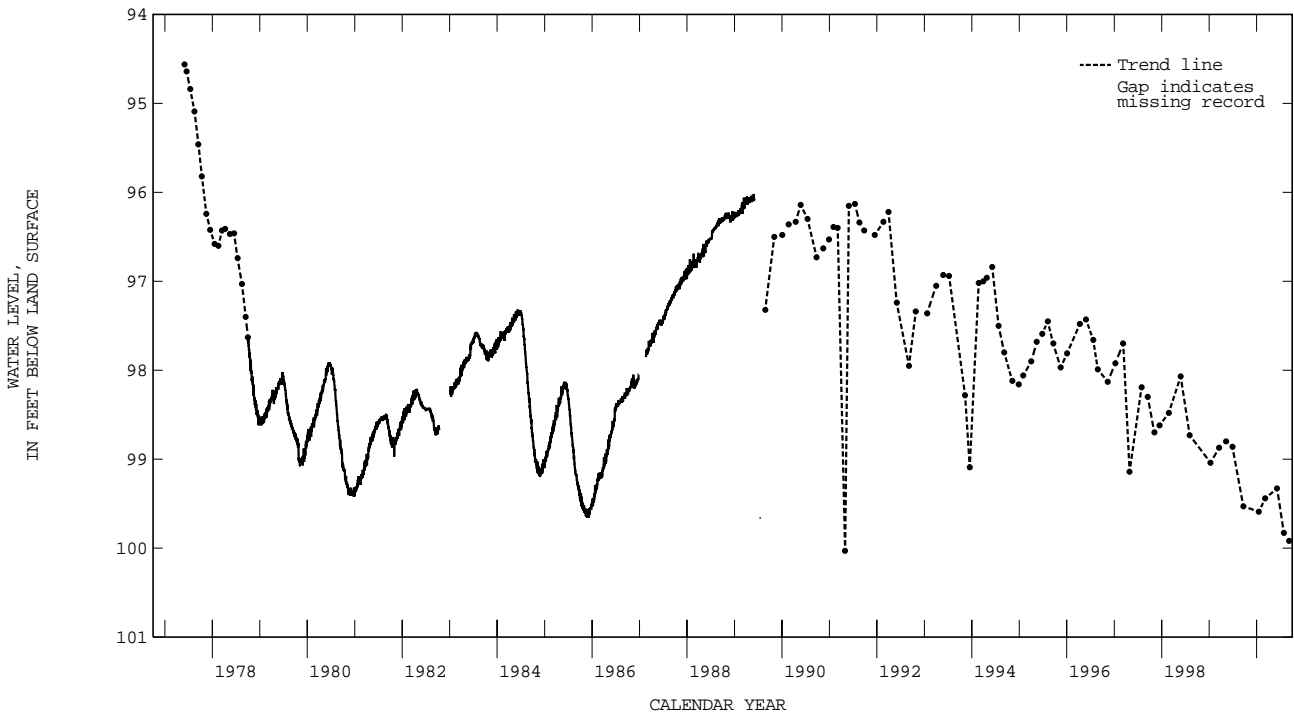
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.56 ft below land surface, from hand-measured data, June 1, 1977; lowest, 100.03 ft below land surface, from hand-measured data, May 1, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 18	99.59	MAR 06	99.44	JUN 06	99.33	JUL 28	99.83	SEP 07	99.92
WATER YEAR 2000		HIGHEST	99.33	JUN 06, 2000		LOWEST	99.92	SEP 07, 2000	



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 412227104081402. Local number, 16-060-07bbb02. Local name, USGS southwest of Albin.

LOCATION.--Lat 41°22'27", long 104°08'14", in NW¹/₄ NW¹/₄ NW¹/₄ sec.7, T.16 N., R.60 W., Hydrologic Unit 10190016.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 215 ft below land surface.

DATUM.--Elevation of land surface is 5,310 ft above sea level, from topographic map. Measuring point: top of casing, 1.10 ft above land surface.

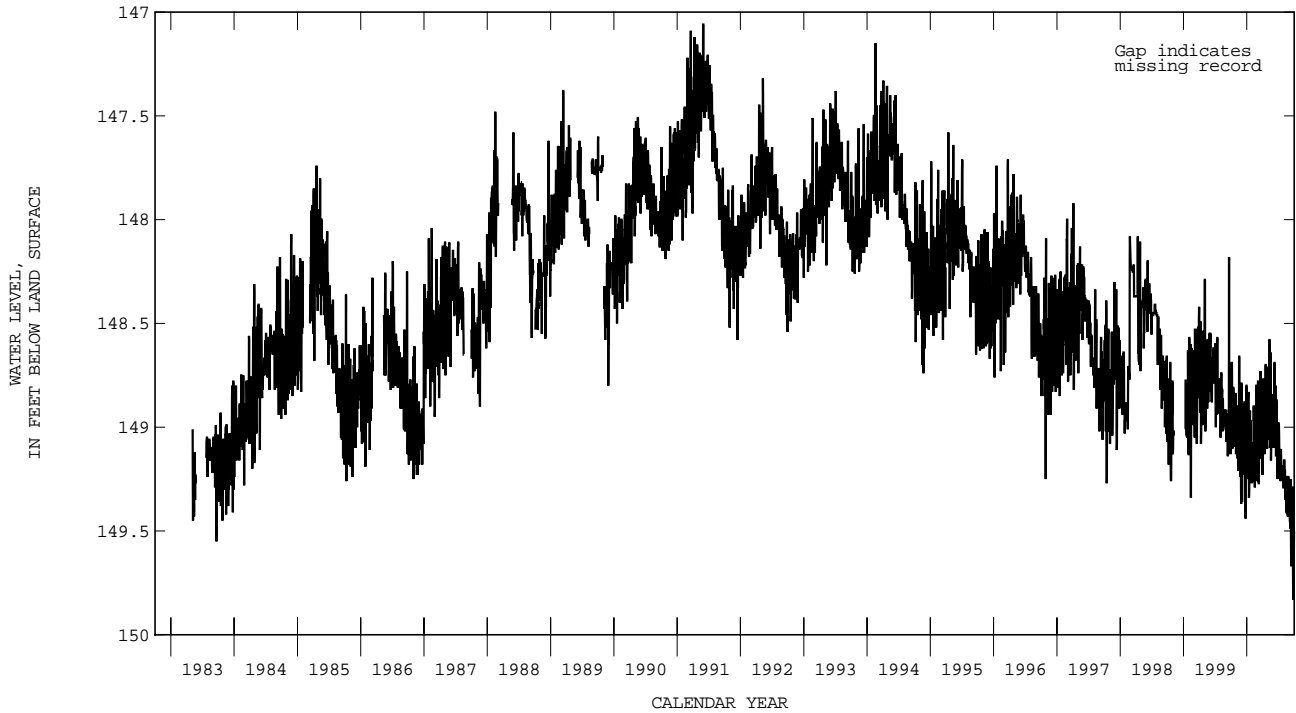
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 147.06 ft below land surface, May 30, 31, 1991; lowest, 149.83 ft below land surface, Sept. 24, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	148.93	148.92	149.14	149.16	149.08	148.78	148.79	148.84	148.95	149.04	149.16	149.45
10	149.10	148.99	149.03	148.83	148.90	149.27	148.77	148.58	148.83	149.14	149.35	149.39
15	148.81	149.09	149.23	149.26	149.06	148.86	148.79	148.90	148.80	149.11	149.33	149.53
20	149.09	148.99	149.17	149.15	149.16	148.73	149.06	149.10	148.87	149.22	149.24	149.51
25	148.99	148.91	149.39	149.13	148.80	149.02	149.09	148.86	149.03	149.19	149.38	149.76
EOM	149.10	148.96	149.02	149.15	148.99	149.23	148.90	148.87	148.98	149.29	149.32	149.50
MAX	148.69	148.66	148.79	148.83	148.80	148.73	148.70	148.58	148.69	148.98	149.16	149.25
MIN	149.13	149.37	149.44	149.34	149.29	149.27	149.13	149.16	149.25	149.29	149.43	149.83



LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 411136104125301. Local number, 16-061-17aaa01. Local name, Laramie County #5.

LOCATION.--Lat 41°11'36", long 104°12'53", in NE¹/₄ NE¹/₄ NE¹/₄ sec.17, T.16 N., R.61 W., Hydrologic Unit 10190016.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 285 ft below land surface.

DATUM.--Elevation of land surface is 5,451 ft above sea level, from topographic map. Measuring point: top of casing, 1.30 ft above land surface.

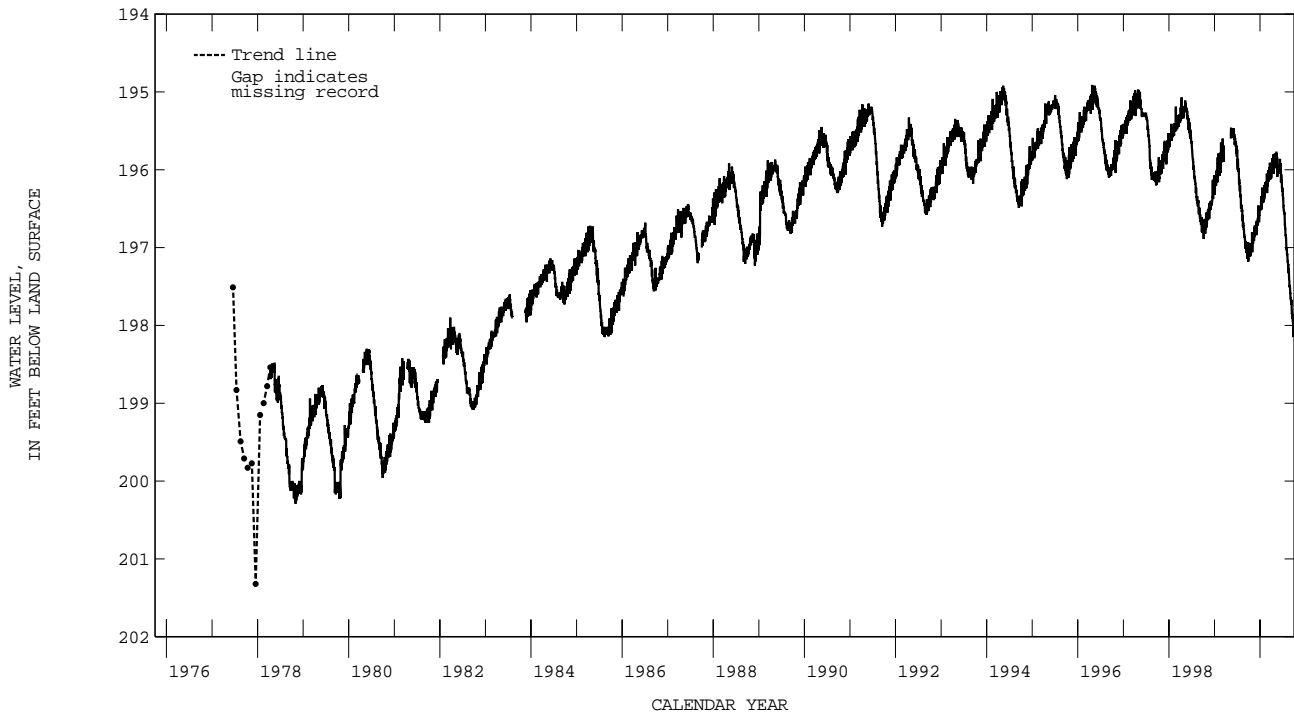
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 194.91 ft below land surface, Apr. 24, 1996; lowest, 201.32 ft below land surface, from hand-measured data, Dec. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	196.99	196.94	196.73	196.51	196.20	196.01	195.93	195.89	195.99	196.44	197.09	197.69
10	197.08	196.90	196.70	196.35	196.25	196.15	195.91	195.78	196.04	196.52	197.19	197.78
15	196.98	196.87	196.69	196.45	196.21	196.04	195.93	195.94	195.92	196.55	197.31	197.85
20	197.03	196.81	196.66	196.38	196.17	195.94	196.05	195.98	196.17	196.76	197.40	197.96
25	197.00	196.73	196.66	196.30	196.10	196.03	195.95	195.94	196.24	196.85	197.50	198.05
EOM	196.89	196.71	196.51	196.33	196.22	196.05	195.98	195.97	196.32	197.02	197.65	198.08
MAX	196.80	196.71	196.46	196.24	196.05	195.91	195.80	195.78	195.86	196.32	197.00	197.65
MIN	197.12	196.94	196.84	196.51	196.38	196.18	196.05	196.09	196.32	197.02	197.65	198.15



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 412343104053101. Local number, 17-060-33cbb01. Local name, USGS south of Albin.

LOCATION.--Lat 41°23'43", long 104°05'31", in NW¹/₄ NW¹/₄ SW¹/₄ sec.33, T.17 N., R.60 W., Hydrologic Unit 10190016.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 275 ft below land surface.

DATUM.--Elevation of land surface is 5,280 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

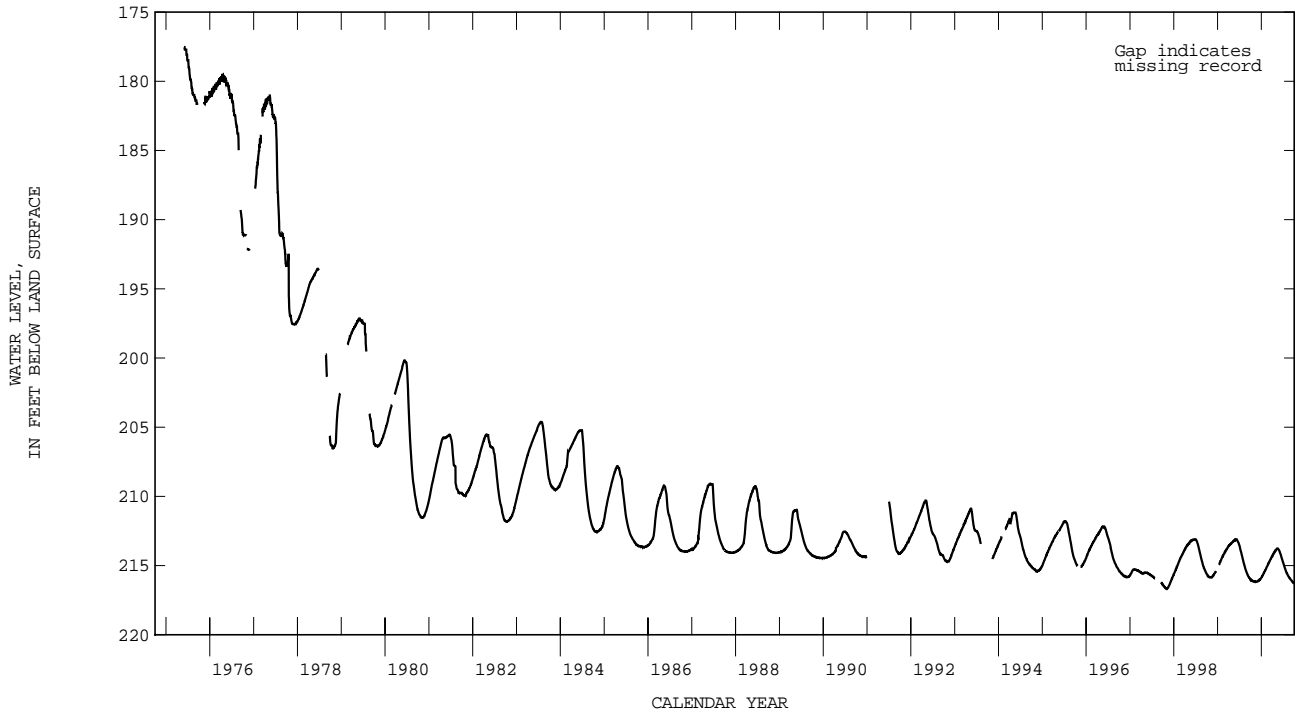
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 177.52 ft below land surface, May 30, 31, 1975; lowest, 216.70 ft below land surface, Nov. 3, 4, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	216.03	216.15	216.11	215.80	215.29	214.73	214.23	213.82	214.11	214.92	215.64	216.05
10	216.05	216.17	216.07	215.72	215.20	214.69	214.15	213.78	214.21	215.06	215.73	216.11
15	216.09	216.17	216.04	215.65	215.09	214.57	214.08	213.78	214.37	215.20	215.80	216.18
20	216.13	216.16	216.00	215.54	215.02	214.49	214.02	213.81	214.51	215.32	215.87	216.21
25	216.13	216.15	215.97	215.47	214.89	214.41	213.95	213.87	214.65	215.45	215.93	216.27
EOM	216.16	216.14	215.88	215.36	214.84	214.33	213.88	213.97	214.79	215.55	216.00	216.31
MAX	216.00	216.14	215.88	215.36	214.84	214.33	213.88	213.77	213.99	214.81	215.57	216.01
MIN	216.16	216.18	216.13	215.86	215.36	214.83	214.30	213.97	214.79	215.55	216.00	216.31



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 412605104203001. Local number, 17-062-17ccc01. Local name, Laramie County #6A.

LOCATION.--Lat 41°26'05", long 104°20'30", in SW¹/₄ SW¹/₄ SW¹/₄ sec.17, T.17 N., R.62 W., Hydrologic Unit 10190016.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 360 ft below land surface.

DATUM.--Elevation of land surface is 5,570 ft above sea level, from topographic map. Measuring point: top of casing, 1.80 ft above land surface.

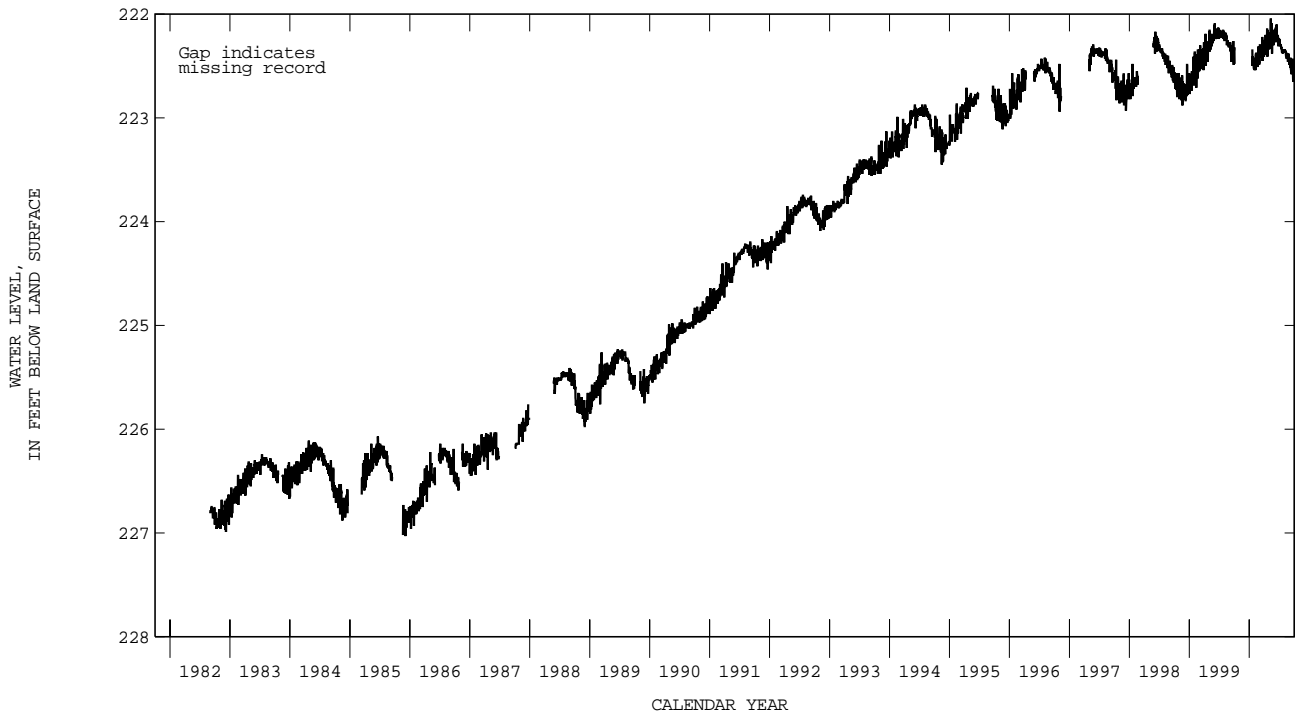
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 222.05 ft below land surface, May 10, 11, 2000; lowest, 227.03 ft below land surface, Dec. 4, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	222.43	222.30	222.26	222.21	222.18	222.28	222.35	222.47
10	---	---	---	---	222.39	222.41	222.28	222.05	222.23	222.30	222.38	222.53
15	---	---	---	---	222.41	222.34	222.32	222.22	222.10	222.33	222.43	222.54
20	---	---	---	222.50	222.47	222.25	222.41	222.24	222.22	222.35	222.39	222.52
25	---	---	---	222.43	222.32	222.36	222.31	222.17	222.26	222.35	222.44	222.60
EOM	---	---	---	222.51	222.45	222.39	222.34	222.20	222.26	222.36	222.49	222.60
MAX	222.32	---	---	222.34	222.32	222.22	222.14	222.05	222.10	222.25	222.34	222.43
MIN	222.48	---	---	222.52	222.54	222.48	222.41	222.38	222.31	222.38	222.49	222.65



GROUND-WATER LEVELS

LARAMIE COUNTY--Continued

IDENTIFICATION.--Station number, 412400104533901. Local number, 17-067-33baa01. Local name, MX-North.

LOCATION.--Lat 41°24'00", long 104°53'39", in NE¹/₄ NE¹/₄ NW¹/₄ sec.33, T.17 N., R.67 W., Hydrologic Unit 10190009.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 6,425 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

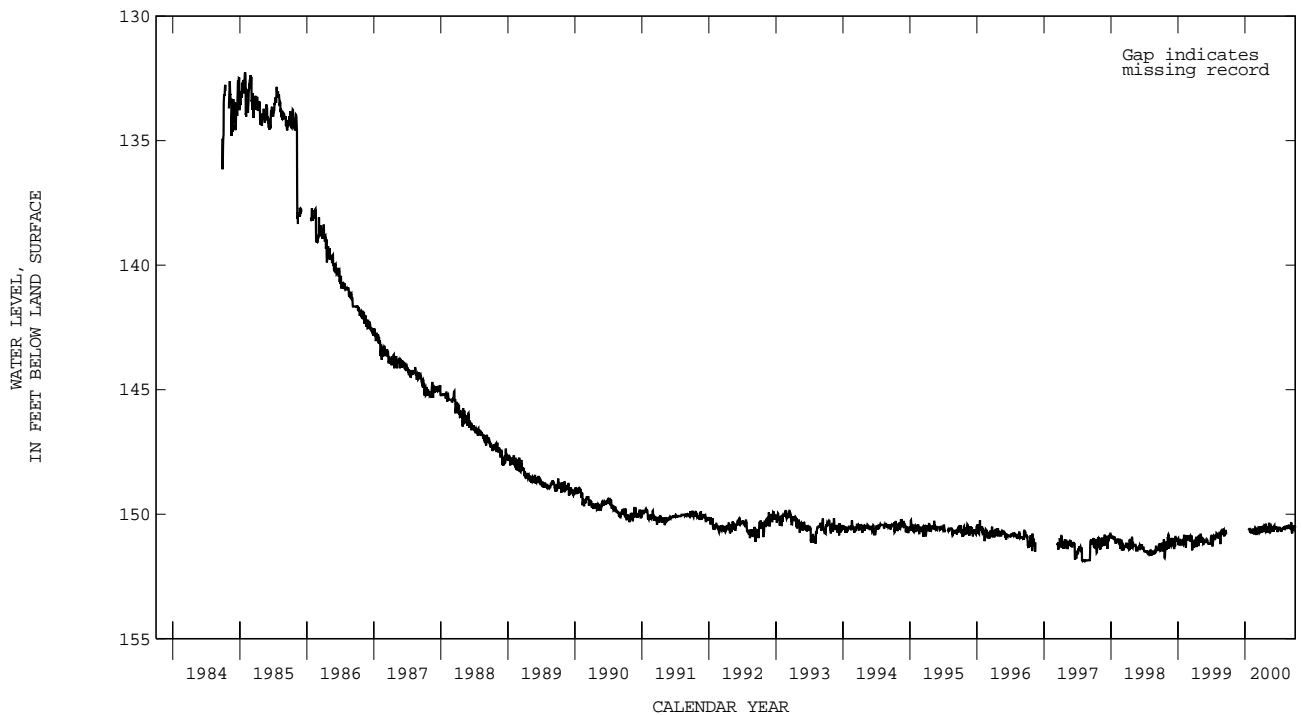
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

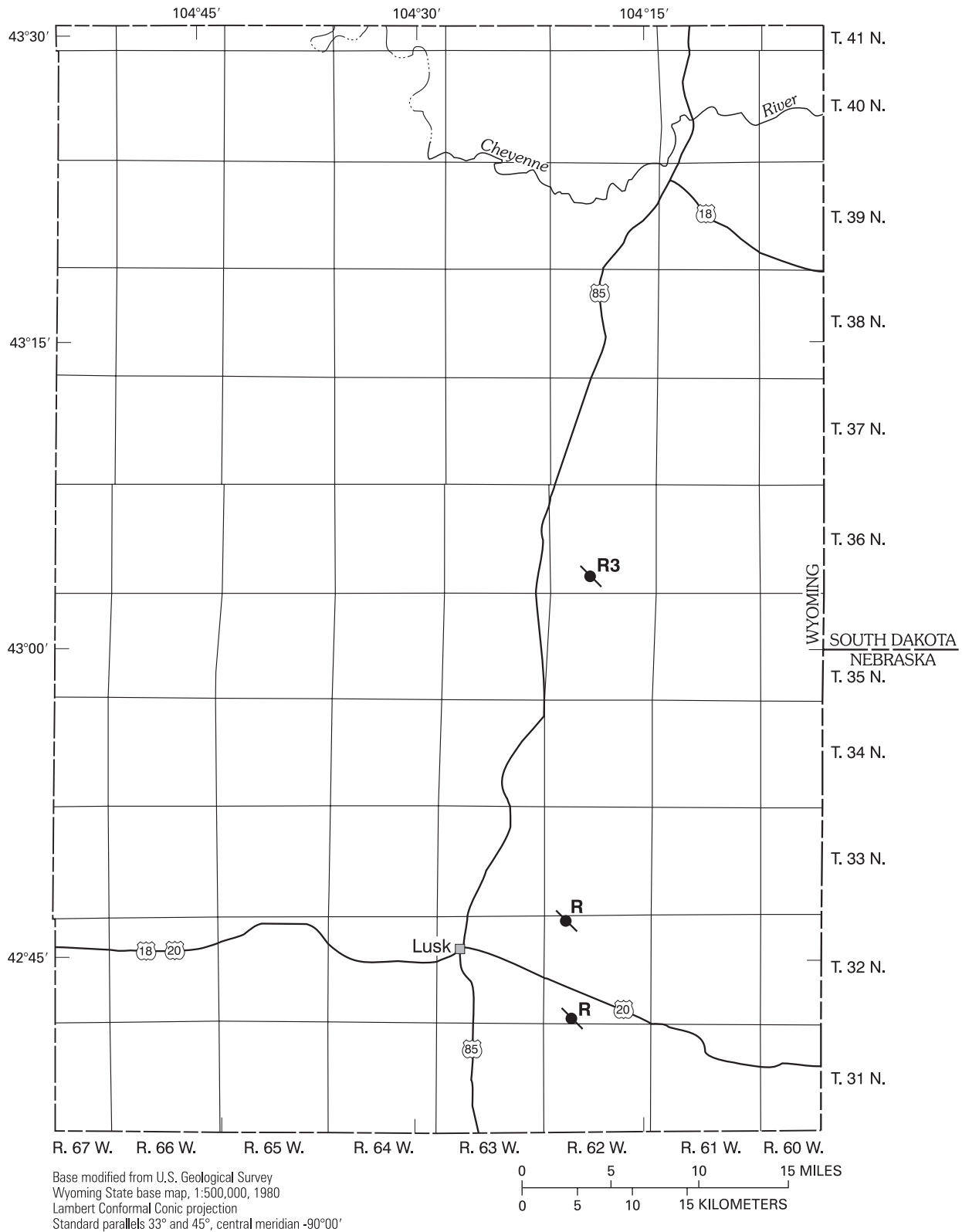
PERIOD OF RECORD.--1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.26 ft below land surface, Jan. 28, 1985; lowest, 151.87 ft below land surface, July 29, Aug 8, 11, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	150.64	150.61	150.50	150.56	150.58	150.60	150.52	150.49
10	---	---	---	---	150.62	150.73	150.54	150.38	150.52	150.58	150.56	150.61
15	---	---	---	---	150.61	150.59	150.49	150.62	150.48	150.67	150.58	150.64
20	---	---	---	150.64	150.77	150.52	150.69	150.69	150.52	150.59	150.48	150.54
25	---	---	---	150.62	150.53	150.70	150.70	150.50	150.61	150.55	150.51	150.67
EOM	---	---	---	150.65	150.62	150.75	150.62	150.53	150.55	150.58	150.48	150.47
MAX	---	---	---	150.59	150.53	150.52	150.38	150.38	150.45	150.52	150.44	150.33
MIN	---	---	---	150.74	150.81	150.83	150.74	150.76	150.72	150.67	150.58	150.77





EXPLANATION

R3 OBSERVATION WELL WITH RECORDER--Number near well is number of wells at that location

Figure 16. Location of observation wells in Niobrara County, Wyoming.

GROUND-WATER LEVELS

NIOBRARA COUNTY

IDENTIFICATION.--Station number, 424709104194101. Local number, 32-062-05baa01. Local name, Niobrara County #1.

LOCATION.--Lat 42°47'09", long 104°19'41", in NE 1/4 NE 1/4 NW 1/4 sec.5, T.32 N., R.62 W., Hydrologic Unit 10150002.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 177 ft below land surface.

DATUM.--Elevation of land surface is 4,970 ft above sea level, from topographic map. Measuring point: top of casing, 1.20 ft above land surface.

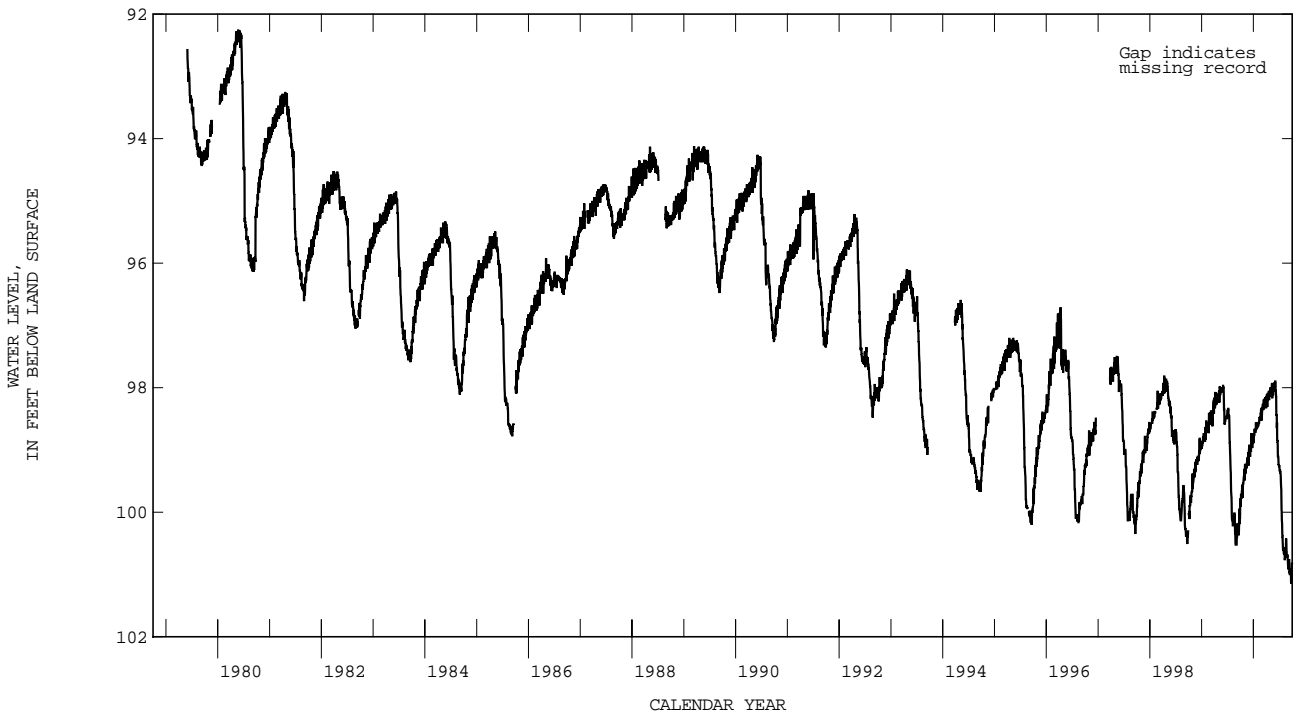
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 92.26 ft below land surface, June 1, 1980; lowest, 101.15 ft below land surface, Sept. 23, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	99.72	99.34	99.07	98.77	98.57	98.32	98.12	98.06	98.04	99.33	100.66	100.88
10	99.74	99.29	99.02	98.66	98.56	98.36	98.10	97.94	98.43	99.38	100.74	100.88
15	99.57	99.22	98.94	98.71	98.48	98.33	98.15	97.98	98.56	99.63	100.69	100.90
20	99.54	99.13	98.91	98.66	98.42	98.19	98.20	98.01	98.93	100.15	100.53	100.95
25	99.43	99.05	98.89	98.59	98.34	98.18	98.10	97.93	99.17	100.48	100.72	100.94
EOM	99.34	99.00	98.76	98.60	98.48	98.19	98.11	97.97	99.26	100.59	100.81	100.83
MAX	99.32	99.00	98.73	98.57	98.34	98.17	98.01	97.93	97.90	99.26	100.42	100.76
MIN	99.91	99.38	99.11	98.89	98.62	98.40	98.31	98.17	99.26	100.60	100.81	101.15



NIOBRARA COUNTY--Continued

IDENTIFICATION.--Station number, 424244104202001. Local number, 32-062-32bbb01. Local name, Node Well.

LOCATION.--Lat 42°42'44", long 104°20'20", in NW 1/4 NW 1/4 NW 1/4 sec.32, T.32 N., R.62 W., Hydrologic Unit 10150002.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 485 ft below land surface.

DATUM.--Elevation of land surface is 4,898 ft above sea level, from topographic map. Measuring point: bottom of shelf, 3.00 ft above land surface.

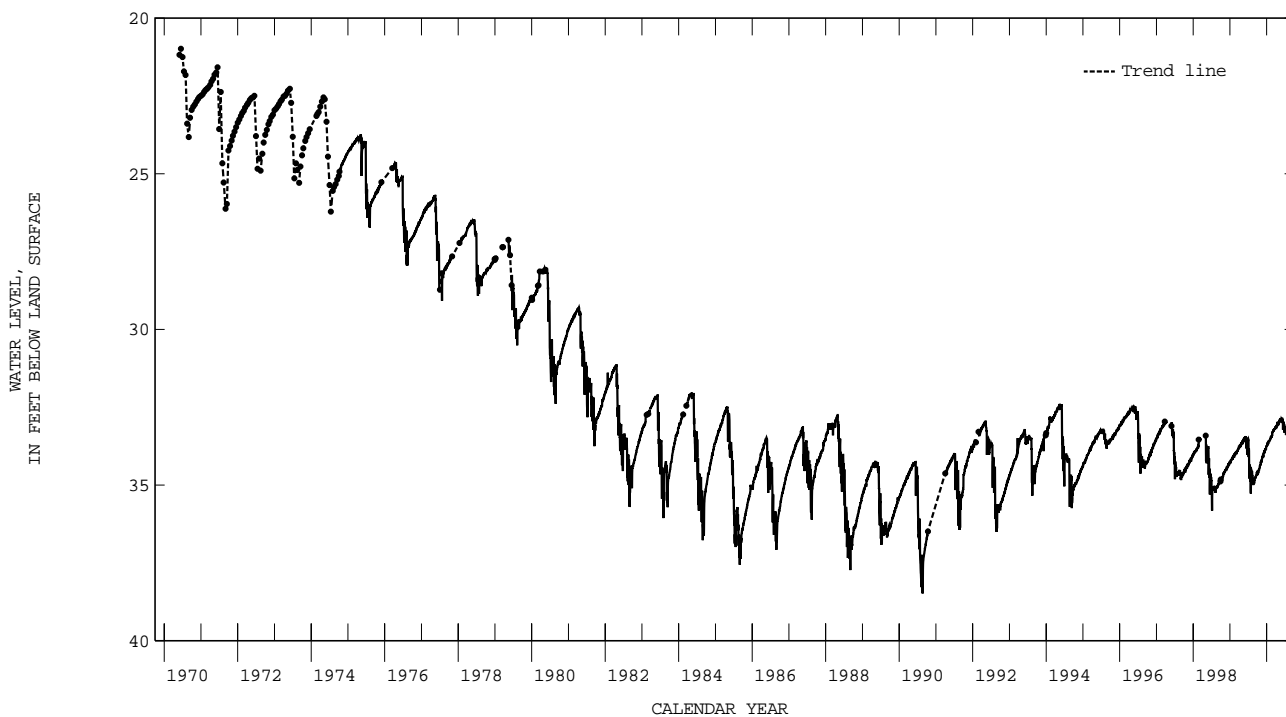
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.93 ft below land surface, June 23, 1970; lowest, 38.48 ft below land surface, Aug. 19, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.61	34.28	33.96	33.72	33.49	33.24	33.10	32.96	32.87	33.17	33.38	34.26
10	34.59	34.24	33.92	33.65	33.48	33.27	33.10	32.91	33.12	33.38	33.75	34.23
15	34.51	34.16	33.88	33.66	33.44	33.23	33.08	32.91	32.96	33.31	33.63	34.24
20	34.47	34.09	33.86	33.61	33.43	33.20	33.08	32.92	33.13	33.30	33.75	34.23
25	34.40	34.03	33.84	33.59	33.38	33.17	33.04	32.88	33.13	33.29	34.74	34.26
EOM	34.32	34.00	33.74	33.55	33.31	33.17	33.02	32.85	33.15	33.39	34.39	34.25
MAX	34.32	34.00	33.74	33.55	33.28	33.12	32.97	32.85	32.86	33.15	33.36	34.19
MIN	34.68	34.34	34.00	33.76	33.56	33.30	33.14	33.00	33.32	33.40	34.87	34.36



GROUND-WATER LEVELS

NIOBRARA COUNTY--Continued

IDENTIFICATION.--Station number, 430422104183201. Local number, 36-062-28ab01. Local name, ETSI T-2.

LOCATION.--Lat 43°04'22", long 104°18'32", in NW 1/4 NE 1/4 sec.28, T.36 N., R.62 W., Hydrologic Unit 10120104.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 3,120 ft below land surface.

DATUM.--Elevation of land surface is 4,244 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

REMARKS.--Data from 1974 through March 1980 are unavailable electronically. Data available in reports in the District office. Water levels from Apr. 18 through Sept. 30 not available at time of publication.

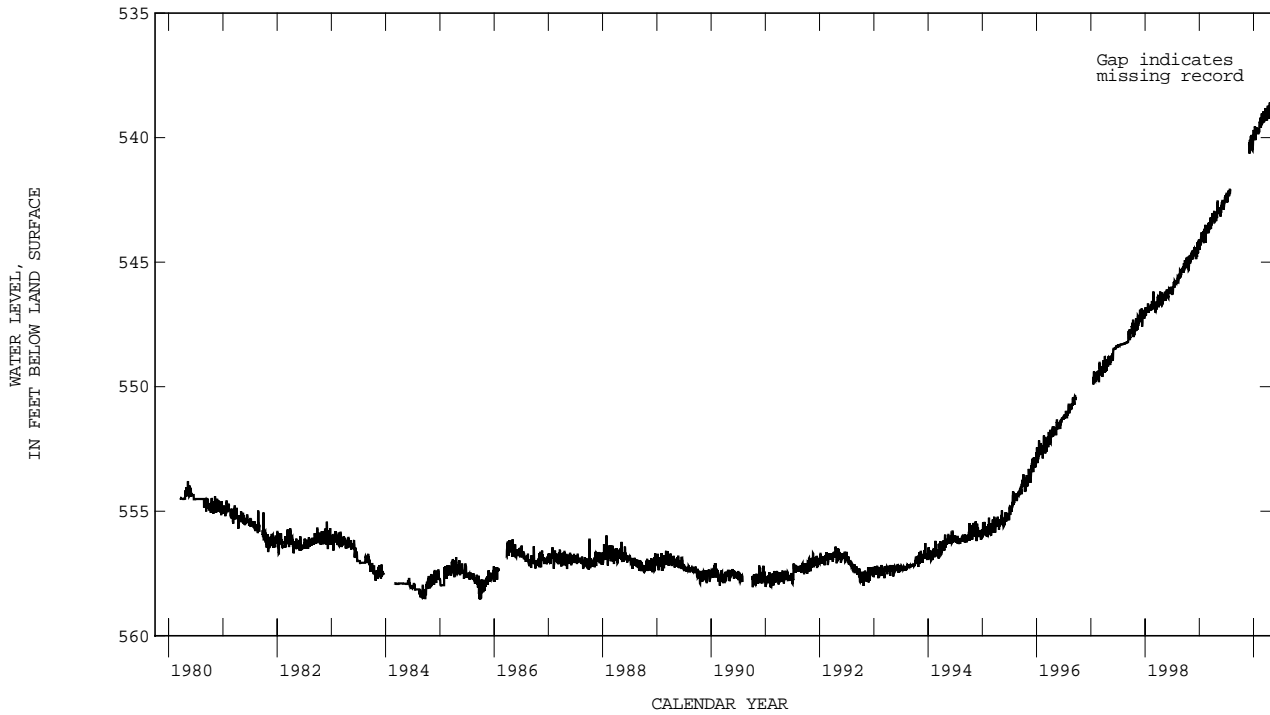
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 538.72 ft below land surface, Apr. 6, 2000; lowest, 558.54 ft below land surface, Sept. 29, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	540.37	539.83	539.62	538.95	538.74	---	---	---	---	---
10	---	---	540.27	539.60	539.43	539.35	538.95	---	---	---	---	---
15	---	---	540.24	539.87	539.20	539.18	538.89	---	---	---	---	---
20	---	---	540.19	539.78	539.43	539.02	---	---	---	---	---	---
25	---	---	540.52	539.71	539.03	539.06	---	---	---	---	---	---
EOM	---	---	539.87	539.68	539.35	539.31	---	---	---	---	---	---
MAX	---	---	539.87	539.55	539.03	538.81	---	---	---	---	---	---
MIN	---	---	540.64	540.10	539.82	539.41	---	---	---	---	---	---



NIOBRARA COUNTY--Continued

IDENTIFICATION.--Station number, 430422104183202. Local number, 36-062-28ab02. Local name, ETSI O-2.

LOCATION.--Lat 43°04'22", long 104°18'32", in NW 1/4 NE 1/4 sec.28, T.36 N., R.62 W., Hydrologic Unit 10120104.

AQUIFER.--Lakota Formation.

WELL CHARACTERISTICS.--Depth of well, 505 ft below land surface.

DATUM.--Elevation of land surface is 4,247 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

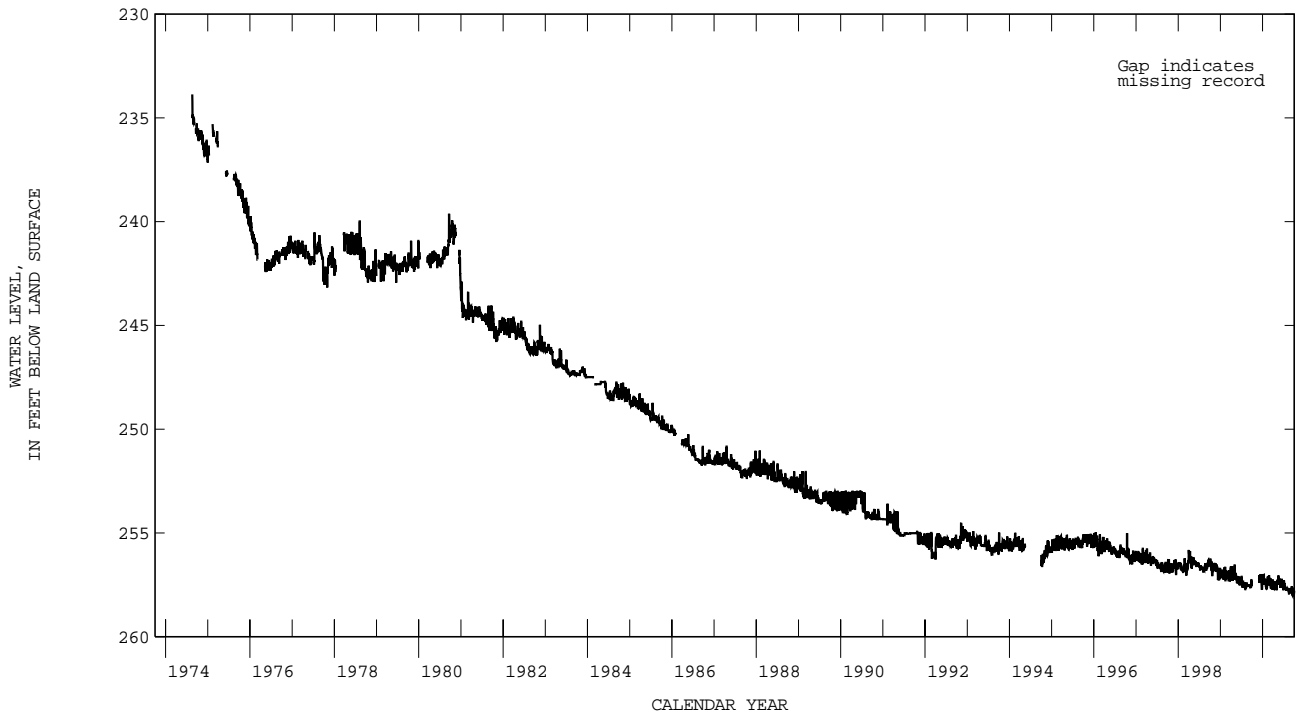
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 233.87 ft below land surface, Aug. 19, 1974; lowest, 258.04 ft below land surface, Sept. 25, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	257.29	257.24	257.56	257.19	257.35	257.35	257.63	257.37	257.71	257.80
10	---	---	257.19	256.98	257.32	257.52	257.56	257.27	257.23	257.46	257.75	257.67
15	---	---	257.25	257.40	257.10	257.43	257.55	257.25	257.28	257.61	257.79	258.00
20	---	---	257.33	257.45	257.51	257.33	257.52	257.42	257.37	257.72	257.85	257.84
25	---	---	257.71	257.45	257.04	257.61	257.57	257.30	257.50	257.70	257.86	258.04
EOM	---	---	257.26	257.55	257.22	257.71	257.66	257.43	257.50	257.74	257.71	257.78
MAX	---	---	256.99	256.98	257.04	257.17	257.32	257.08	257.21	257.32	257.70	257.57
MIN	---	---	257.74	257.60	257.72	257.72	257.75	257.76	257.72	257.74	257.92	258.04



GROUND-WATER LEVELS

NIOBRARA COUNTY--Continued

IDENTIFICATION.--Station number, 430421104200701. Local number, 36-062-28bbd01. Local name, ETSI T-1.

LOCATION.--Lat 43°04'21", long 104°20'07", in SE 1/4 NW 1/4 NW 1/4 sec.28, T.36 N., R.62 W., Hydrologic Unit 10120104.

AQUIFER.--Minnelusa Formation.

WELL CHARACTERISTICS.--Depth of well, 1,510 ft below land surface.

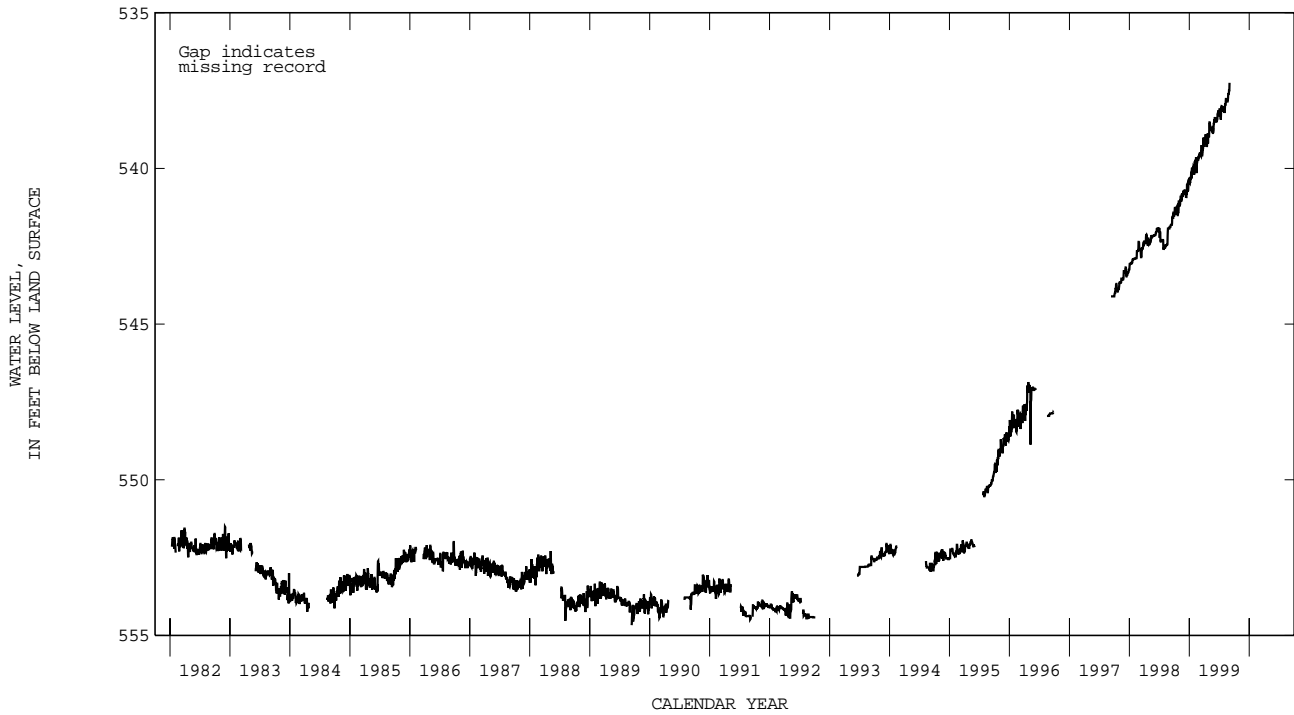
DATUM.--Elevation of land surface is 5,200 ft above sea level, from topographic map. Measuring point: top of casing, 0.45 ft above land surface.

REMARKS.--Water levels for 2000 water year not available at time of publication.

COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 537.25 ft below land surface, Sept. 2, 1999; lowest, 554.67 ft below land surface, Sept. 12, 1989.



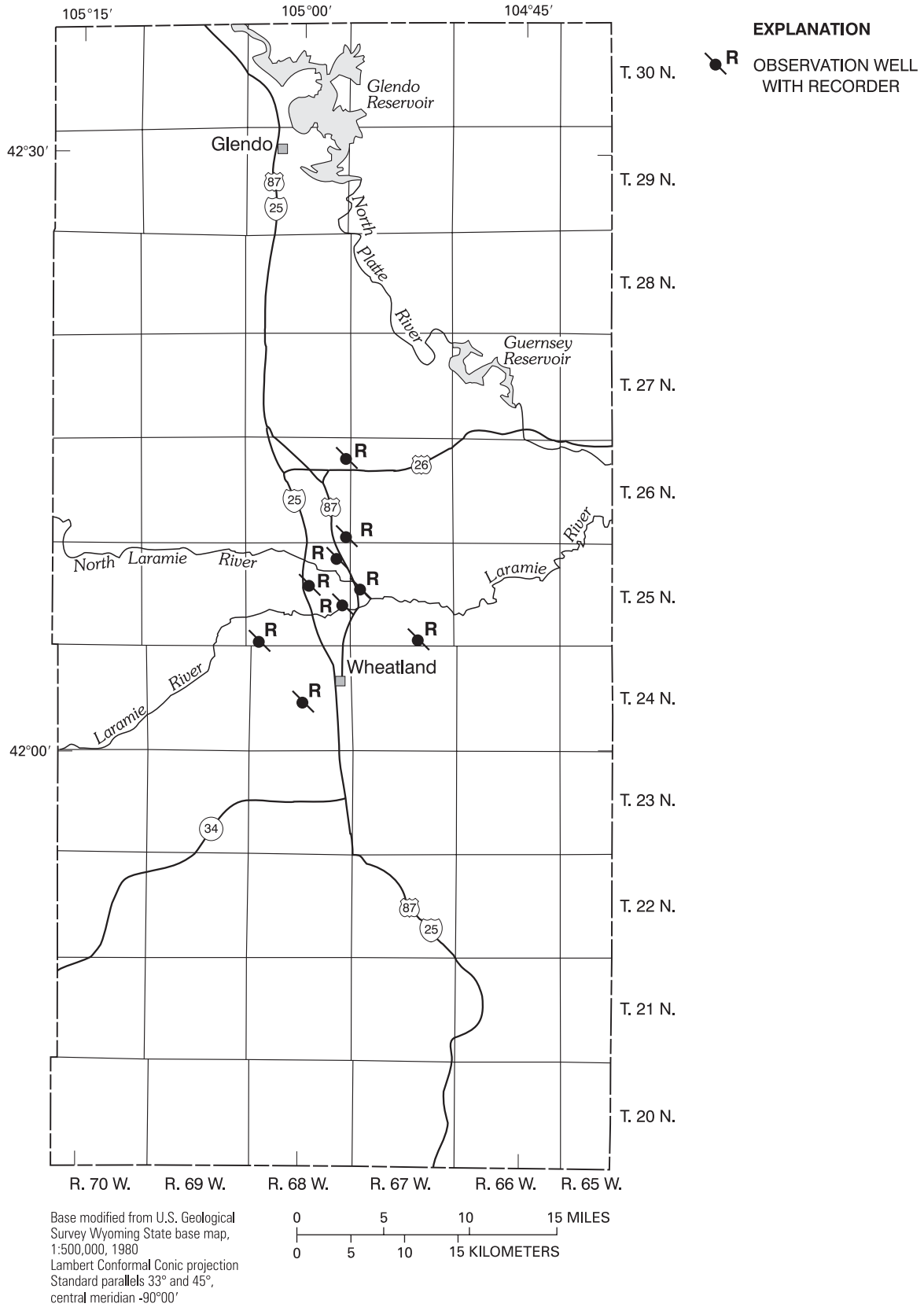


Figure 17. Location of observation wells in Platte County, Wyoming.

GROUND-WATER LEVELS

PLATTE COUNTY

IDENTIFICATION.--Station number, 420246104590302. Local number, 24-068-22aab02. Local name, Platte County #1A.

LOCATION.--Lat 42°02'46", long 104°59'03", in NW 1/4 NE 1/4 NE 1/4 sec.22, T.24 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 4,860 ft above sea level, from topographic map. Measuring point: top of casing, 1.35 ft above land surface.

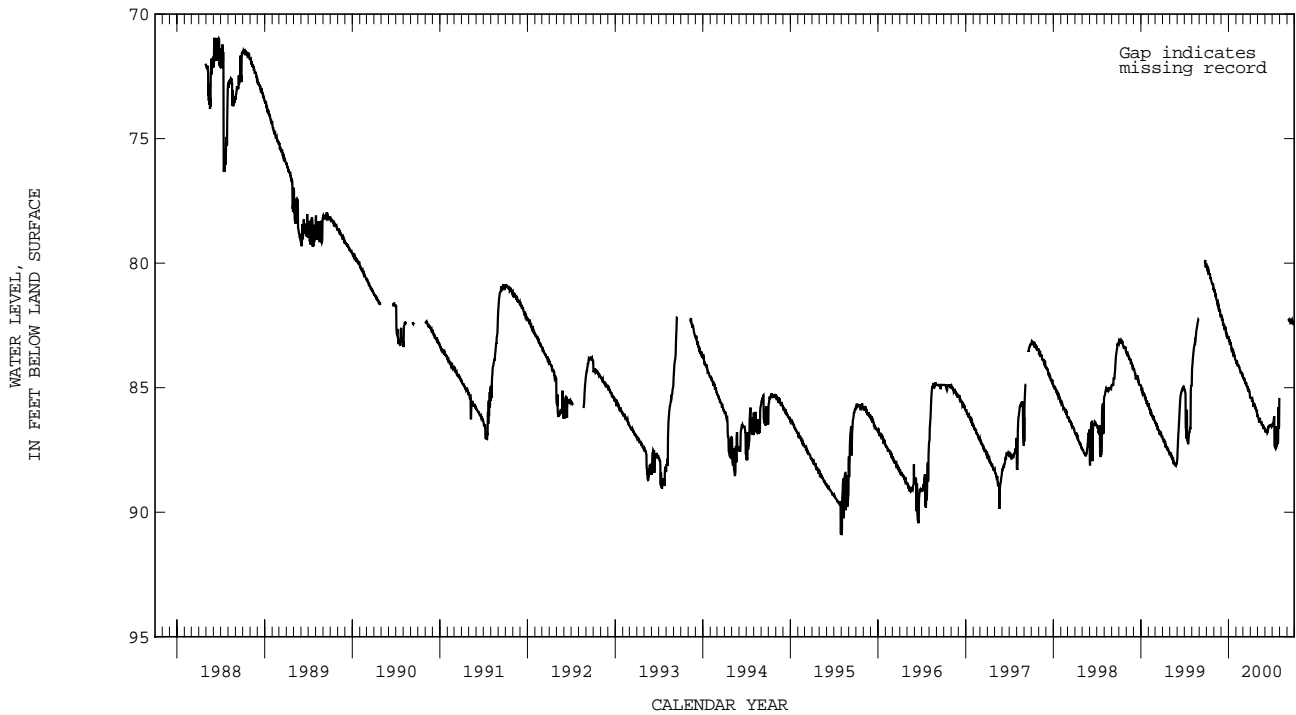
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.95 ft below land surface, June 5, 1988; lowest, 90.92 ft below land surface, Aug. 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	80.19	81.22	82.27	83.15	83.97	84.59	85.40	86.24	86.73	86.43	---	82.32
10	80.40	81.42	82.42	83.25	84.11	84.84	85.55	86.21	86.81	87.32	---	82.25
15	80.46	81.57	82.60	83.49	84.24	84.90	85.66	86.39	86.53	87.40	---	82.38
20	80.69	81.72	82.77	83.63	84.36	85.03	85.83	86.49	86.54	87.30	---	82.28
25	80.85	81.84	82.96	83.72	84.41	85.14	85.90	86.56	86.51	87.13	---	82.36
EOM	80.99	82.08	82.98	83.91	84.58	85.40	86.09	86.63	86.52	---	---	82.39
MAX	80.05	81.04	82.08	82.98	83.95	84.59	85.40	86.10	86.51	85.41	---	82.25
MIN	81.08	82.14	83.01	83.91	84.58	85.40	86.18	86.66	86.81	87.44	---	82.40



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 420718104553901. Local number, 25-067-19dda01. Local name, Ed Wilhelm.

LOCATION.--Lat 42°07'18", long 104°55'39", in NE 1/4 SE 1/4 SE 1/4 sec.19, T.25 N., R.67 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 760 ft below land surface.

DATUM.--Elevation of land surface is 4,540 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

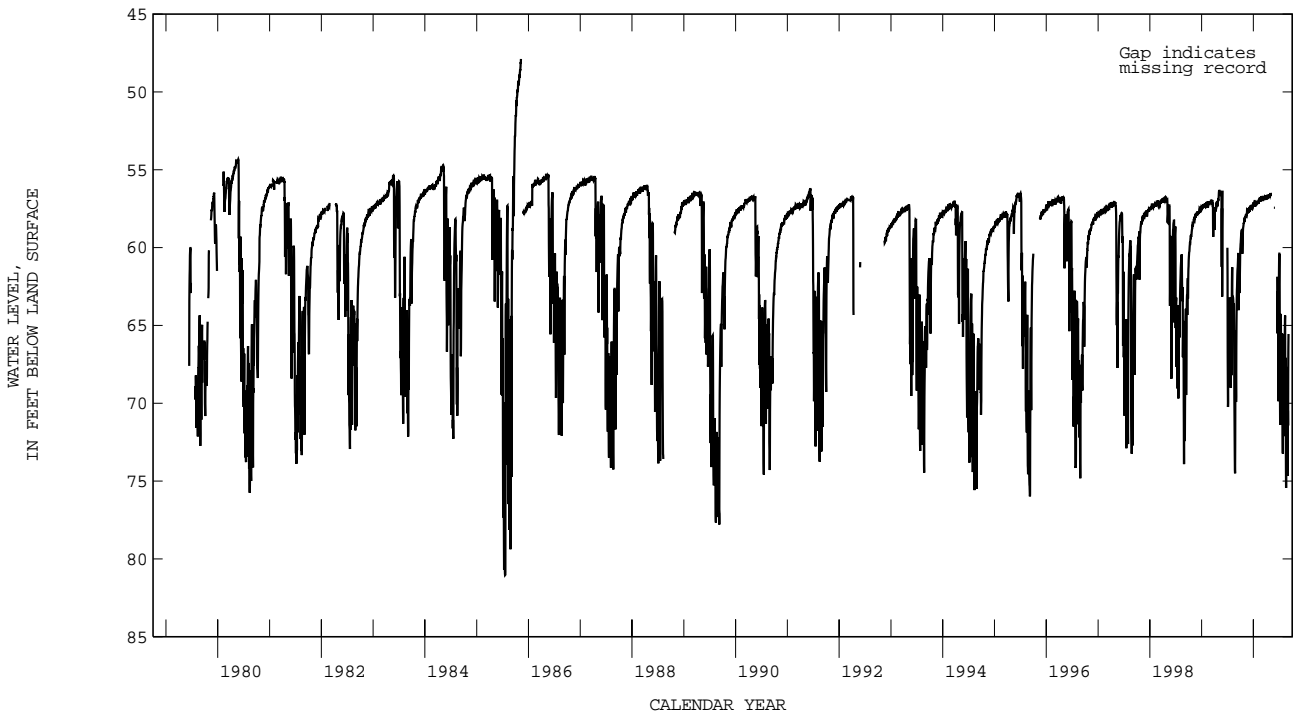
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.88 ft below land surface, Nov. 8, 1985; lowest, 81.04 ft below land surface, July 19, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.33	58.08	57.55	57.21	57.03	56.68	56.67	---	---	67.76	71.51	---
10	59.03	57.93	57.45	57.01	56.92	56.92	56.72	---	---	66.21	64.60	---
15	59.97	57.81	57.44	57.22	56.90	56.82	56.74	---	---	66.80	67.24	---
20	58.72	57.65	57.42	57.13	56.95	56.73	56.80	---	62.80	65.49	69.98	---
25	58.45	57.54	57.51	57.09	56.70	56.84	56.69	---	69.87	71.97	69.95	---
EOM	58.18	57.59	57.18	57.07	56.86	56.94	56.67	---	60.58	65.55	70.47	---
MAX	58.18	57.49	57.16	57.01	56.70	56.65	56.51	56.50	60.58	60.39	64.36	65.55
MIN	60.40	58.22	57.71	57.36	57.16	56.95	56.88	57.44	69.87	73.23	75.44	71.43



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 420524104530201. Local number, 25-067-34ccd01. Local name, Platte County #2.

LOCATION.--Lat 42°05'24", long 104°53'02", in SE 1/4 SW 1/4 SW 1/4 sec.34, T.25 N., R.67 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 380 ft below land surface.

DATUM.--Elevation of land surface is 4,620 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

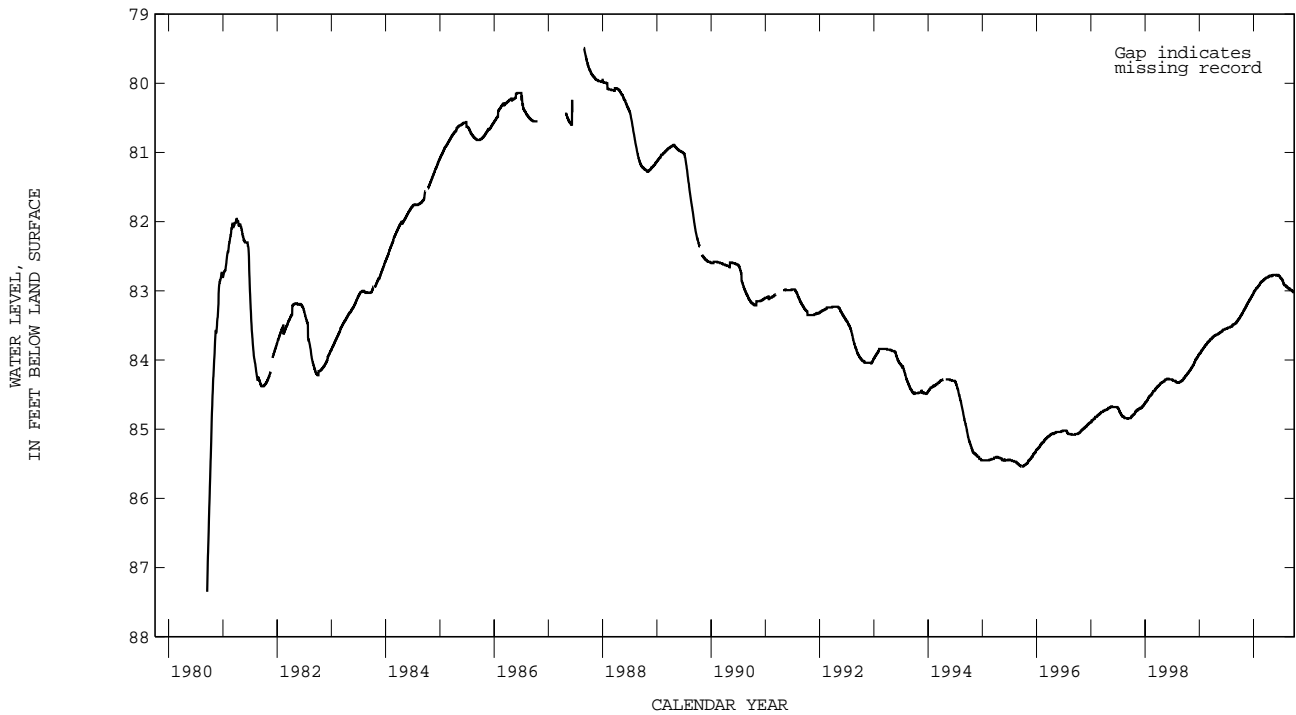
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.49 ft below land surface, Aug. 27, 28, 29, 1987; lowest, 87.35 ft below land surface, Sept. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	83.37	83.25	83.13	83.01	82.93	82.85	82.80	82.78	82.78	82.82	82.93	82.98
10	83.35	83.23	83.12	82.99	82.91	82.84	82.80	82.78	82.77	82.83	82.95	82.99
15	83.33	83.21	83.09	82.98	82.89	82.83	82.79	82.77	82.77	82.86	82.95	82.99
20	83.32	83.19	83.08	82.96	82.88	82.82	82.78	82.77	82.78	82.89	82.96	83.01
25	83.29	83.17	83.06	82.95	82.86	82.81	82.78	82.77	82.79	82.91	82.97	83.02
EOM	83.27	83.15	83.03	82.94	82.86	82.81	82.79	82.78	82.81	82.92	82.97	83.02
MAX	83.27	83.15	83.03	82.94	82.86	82.81	82.78	82.77	82.77	82.81	82.92	82.97
MIN	83.38	83.27	83.15	83.03	82.93	82.86	82.81	82.79	82.81	82.92	82.98	83.02



PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 420859104565001. Local number, 25-068-12dda01. Local name, Platte County #4.

LOCATION.--Lat 42°08'59", long 104°56'50", in NE 1/4 SE 1/4 SE 1/4 sec.12, T.25 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 100 ft below land surface.

DATUM.--Elevation of land surface is 4,510 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

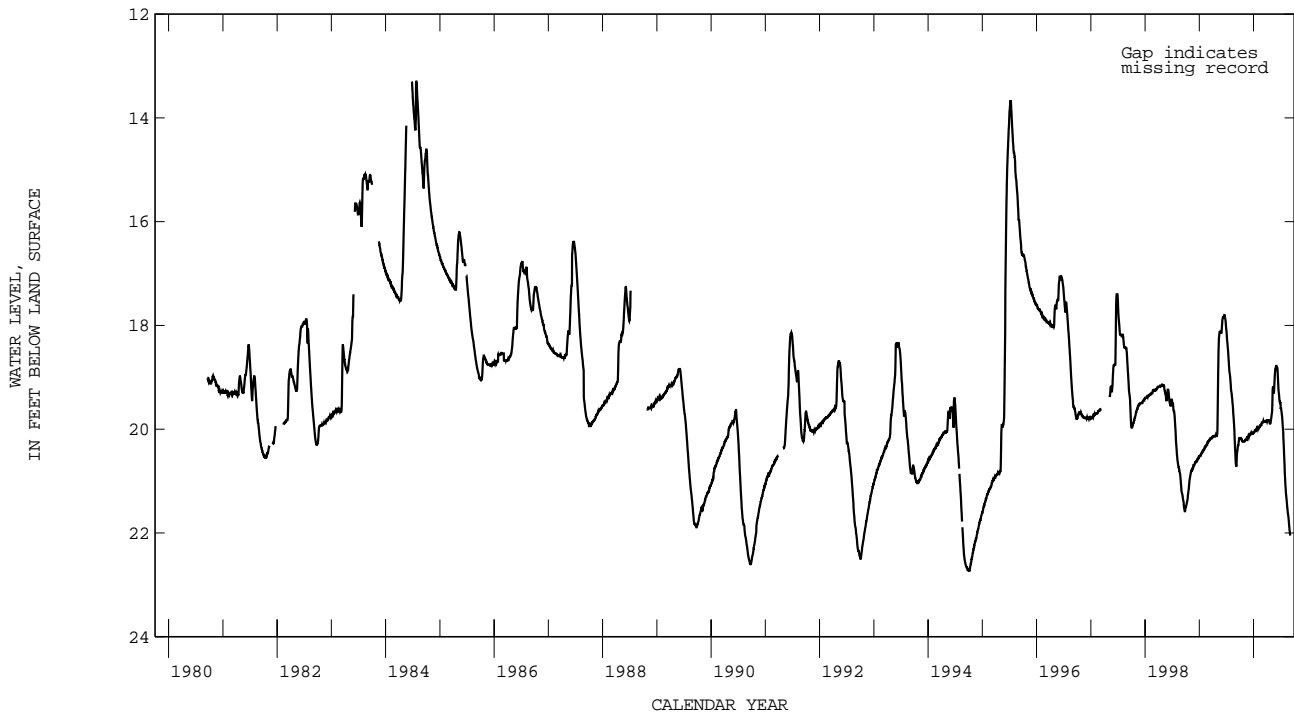
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.30 ft below land surface, June 25, July 25, 26, 1984; lowest, 22.73 ft below land surface, Oct. 3-5, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.17	20.21	20.12	20.05	19.97	19.85	19.83	19.60	18.80	19.63	21.22	---
10	20.19	20.20	20.10	20.02	19.95	19.85	19.83	19.19	18.87	19.74	21.36	---
15	20.21	20.19	20.09	20.03	19.93	19.86	19.84	19.31	19.16	19.94	21.52	---
20	20.24	20.16	20.08	20.02	19.92	19.85	19.89	19.11	19.34	20.21	21.65	---
25	20.24	20.14	20.09	20.00	19.87	19.84	19.85	18.86	19.46	20.55	21.78	---
EOM	20.23	20.15	20.06	19.98	19.87	19.85	19.76	18.79	19.50	20.97	21.97	---
MAX	20.17	20.13	20.06	19.98	19.87	19.84	19.76	18.79	18.78	19.60	21.03	22.01
MIN	20.24	20.23	20.13	20.06	19.98	19.87	19.89	19.73	19.50	20.97	21.97	22.05



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 420840105000401. Local number, 25-068-15bbd01. Local name, Platte County #6.

LOCATION.--Lat 42°08'40", long 105°00'04", in SE 1/4 NW 1/4 NW 1/4 sec.15, T.25 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,640 ft above sea level, from topographic map. Measuring point: top of casing, 1.30 ft above land surface.

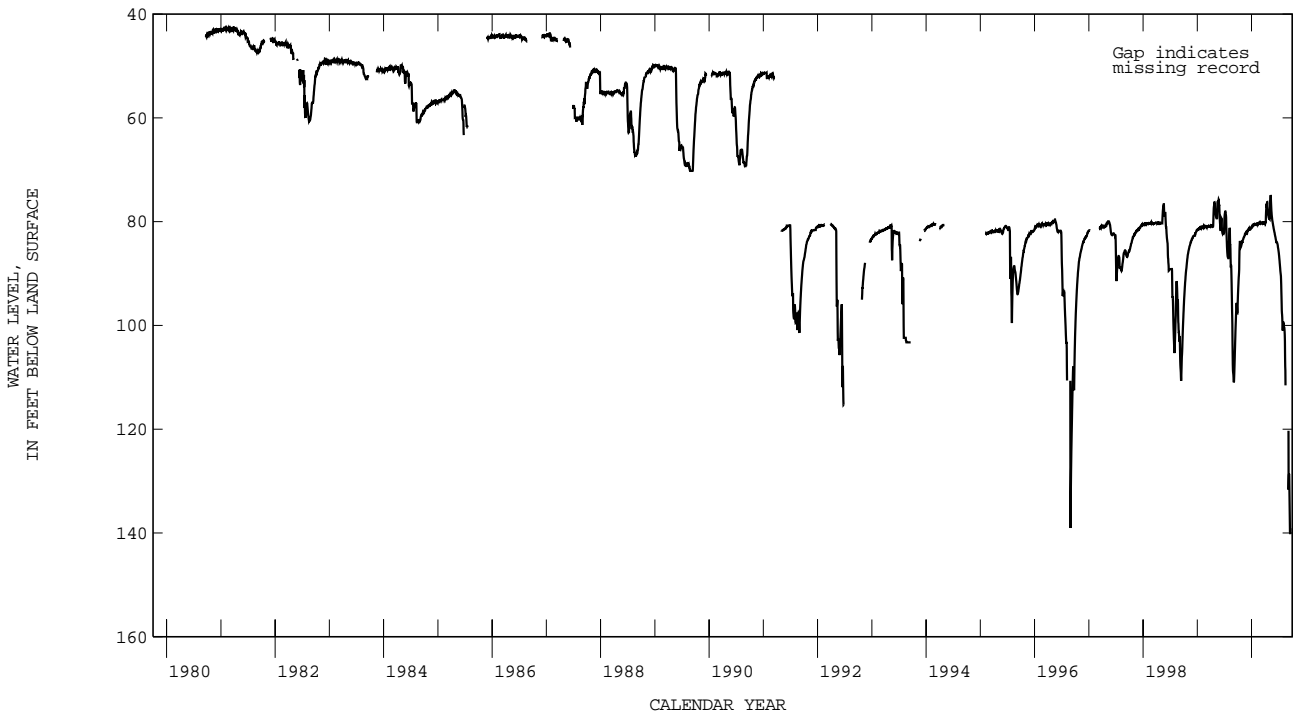
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.50 ft below land surface, Feb. 9, Mar. 30, 1981; lowest, 140.22 ft below land surface, Sept. 16, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	91.35	83.37	81.78	80.83	80.46	80.15	80.14	76.16	82.45	86.96	100.18	120.30
10	87.18	82.97	81.60	80.56	80.37	80.29	76.54	75.99	83.13	88.63	101.24	129.06
15	83.85	82.65	81.48	80.64	80.27	80.24	76.23	78.66	83.89	90.20	108.71	139.75
20	84.90	82.28	81.39	80.56	80.34	80.16	78.41	79.88	84.03	94.53	---	---
25	84.42	82.01	81.45	80.48	80.14	80.24	79.26	80.80	84.64	98.53	---	---
EOM	83.81	81.96	81.09	80.47	80.24	80.29	79.49	81.74	85.66	99.67	---	---
MAX	83.72	81.96	81.09	80.47	80.14	80.13	76.23	74.88	81.83	85.85	99.46	120.30
MIN	94.01	83.82	81.89	80.99	80.54	80.32	80.26	81.74	85.66	100.99	111.55	140.22



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 420748104565001. Local number, 25-068-24aad01. Local name, Platte County #3.

LOCATION.--Lat 42°07'48", long 104°56'50", in SE 1/4 NE 1/4 NE 1/4 sec.24, T.25 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 240 ft below land surface.

DATUM.--Elevation of land surface is 4,560 ft above sea level, from topographic map. Measuring point: top of casing, 0.55 ft above land surface.

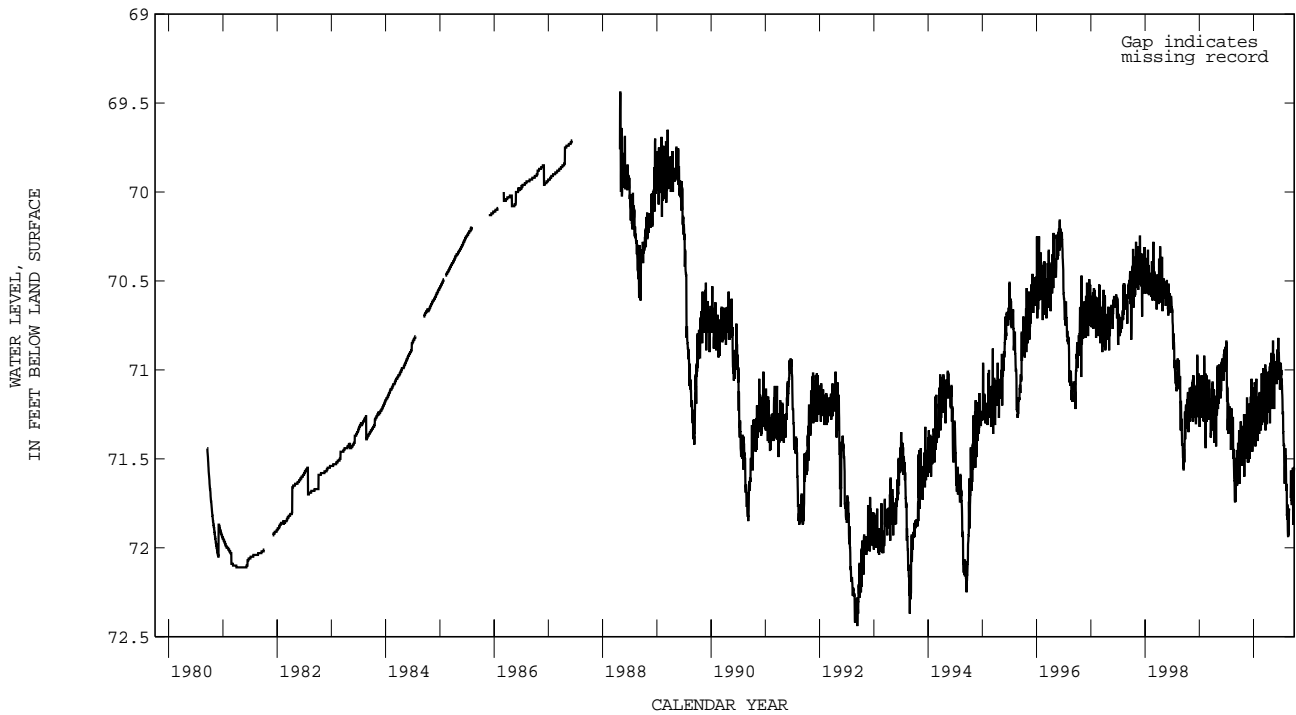
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.44 ft below land surface, Apr. 28, 29, 1988; lowest, 72.44 ft below land surface, Sept. 10, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.40	71.46	71.30	71.21	71.15	70.99	71.03	70.99	70.97	71.00	71.53	---
10	71.54	71.46	71.28	71.09	71.13	71.27	71.05	70.84	71.05	71.09	71.66	71.69
15	71.32	71.36	71.35	71.28	71.18	71.10	71.20	71.01	70.82	71.25	71.76	71.68
20	71.44	71.31	71.35	71.24	71.23	71.04	71.30	71.06	70.95	71.40	71.94	71.70
25	71.42	71.20	71.41	71.23	71.03	71.21	71.13	70.97	71.04	71.52	71.87	71.66
EOM	71.33	71.25	71.22	71.26	71.22	71.30	71.22	70.98	70.96	71.53	---	71.55
MAX	71.25	71.16	71.05	71.05	71.02	70.97	70.91	70.84	70.82	70.97	71.44	71.55
MIN	71.60	71.52	71.50	71.43	71.36	71.34	71.30	71.22	71.11	71.64	71.94	71.87



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 420613105024401. Local number, 25-068-31aaa01. Local name, Platte County #7.

LOCATION.--Lat 42°06'13", long 105°02'44", in NE 1/4 NE 1/4 NE 1/4 sec.31, T.25 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 400 ft below land surface.

DATUM.--Elevation of land surface is 4,633 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

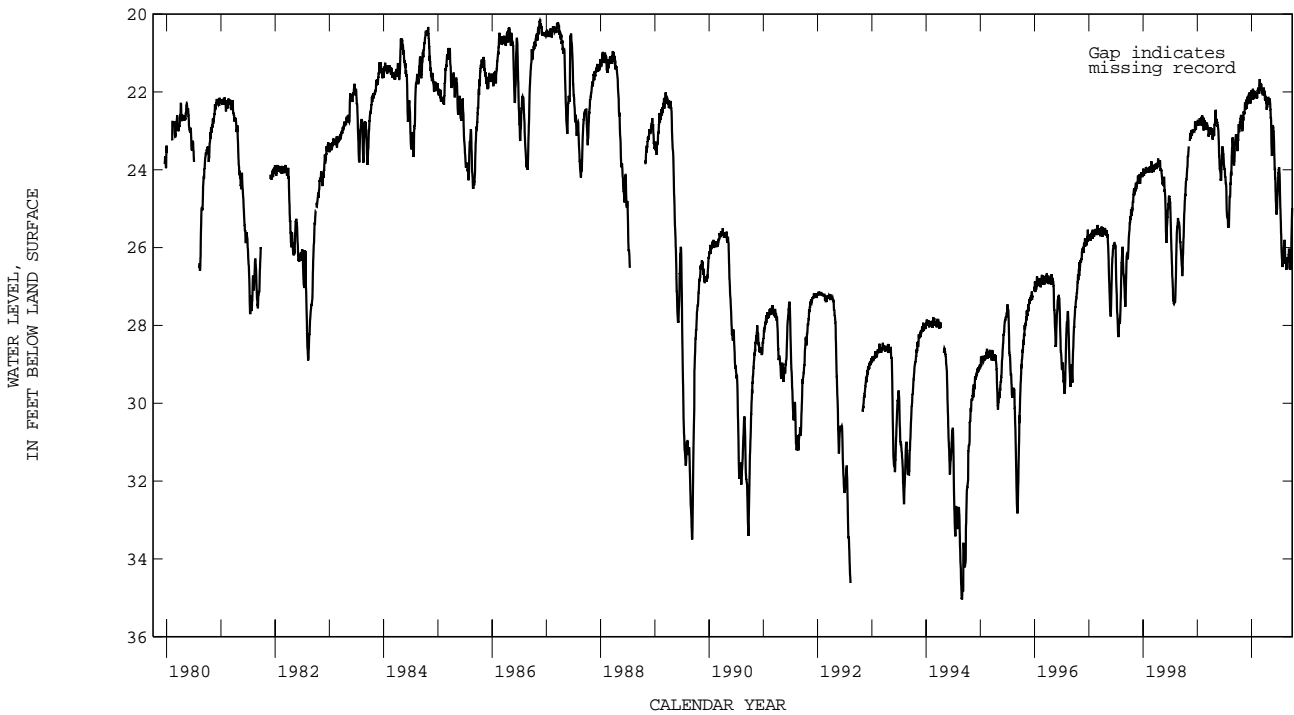
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.13 ft below land surface, Nov. 19, 1986; lowest, 35.04 ft below land surface, Aug. 30, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.95	22.71	22.21	22.05	22.04	21.79	22.12	22.31	23.98	23.97	26.02	26.23
10	23.02	22.55	22.17	21.94	21.99	22.04	22.28	22.65	24.55	24.65	25.80	26.24
15	22.78	22.47	22.20	22.08	21.92	21.98	22.40	23.45	24.95	25.29	26.42	26.45
20	22.63	22.34	22.19	22.05	21.95	21.98	22.31	23.11	25.01	26.05	26.34	26.55
25	22.67	22.23	22.27	22.03	21.67	22.06	22.22	22.92	24.54	26.43	26.47	25.78
EOM	22.87	22.26	22.02	22.07	21.88	22.21	22.29	23.33	24.10	26.29	26.31	24.98
MAX	22.59	22.20	22.00	21.94	21.67	21.79	22.10	22.17	23.53	23.94	25.80	24.98
MIN	23.26	22.94	22.32	22.20	22.17	22.21	22.46	23.64	25.15	26.50	26.57	26.56



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 421443104574601. Local number, 26-068-12cbd01. Local name, E. Rutherford.

LOCATION.--Lat 42°14'43", long 104°57'46", in SE 1/4 NW 1/4 SW 1/4 sec.12, T.26 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 320 ft below land surface.

DATUM.--Elevation of land surface is 4,860 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

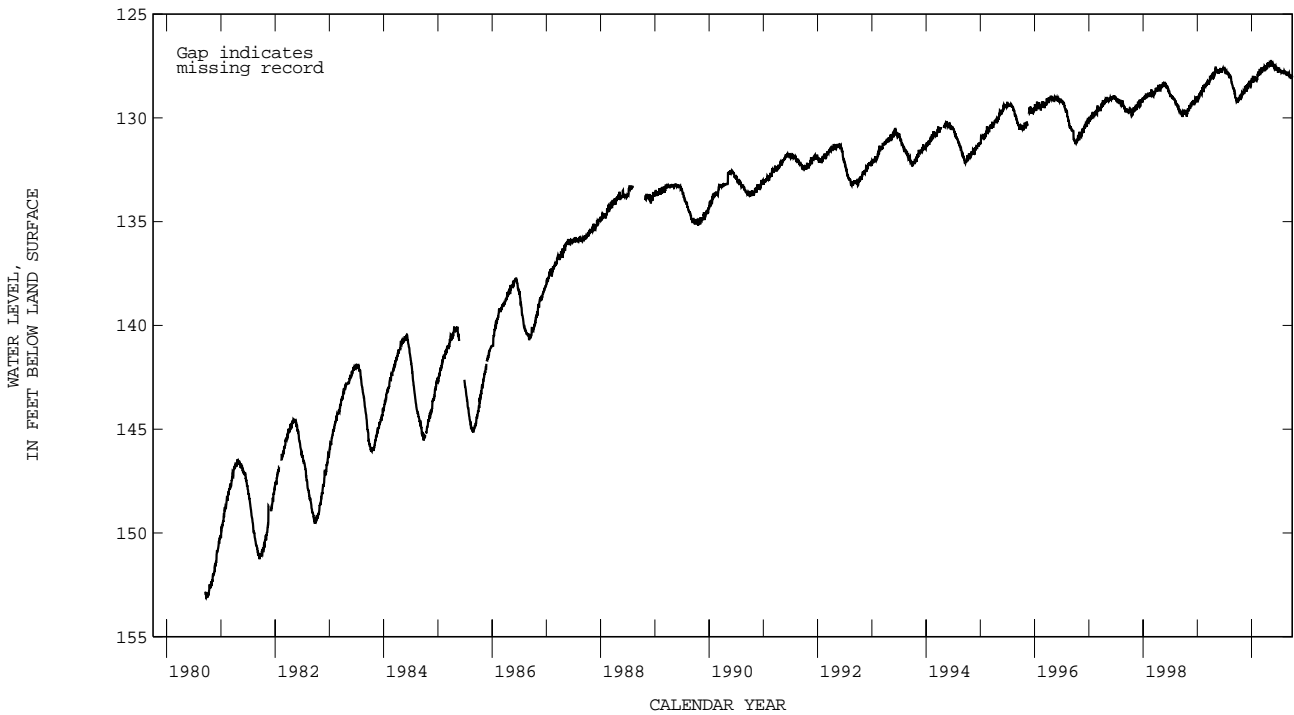
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 127.26 ft below land surface, May 10, 11, 2000; lowest, 153.11 ft below land-surface, Oct. 2, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	129.15	128.82	128.51	128.19	128.09	127.61	127.51	127.33	127.63	127.70	127.77	127.94
10	129.14	128.78	128.43	128.02	127.96	127.76	127.53	127.26	127.59	127.71	127.79	127.90
15	128.93	128.75	128.41	128.22	127.80	127.68	127.49	127.42	127.56	127.74	127.84	128.07
20	129.03	128.56	128.38	128.14	127.92	127.58	127.47	127.45	127.64	127.81	127.85	128.01
25	128.95	128.46	128.53	128.10	127.64	127.68	127.50	127.42	127.71	127.76	127.92	128.09
EOM	128.85	128.58	128.23	128.08	127.76	127.75	127.49	127.47	127.65	127.80	127.88	127.97
MAX	128.77	128.43	128.21	128.02	127.64	127.50	127.34	127.26	127.49	127.62	127.74	127.85
MIN	129.21	128.88	128.62	128.29	128.18	127.85	127.70	127.52	127.82	127.82	127.93	128.11



GROUND-WATER LEVELS

PLATTE COUNTY--Continued

IDENTIFICATION.--Station number, 421128104575801. Local number, 26-068-36bbb01. Local name, Platte County #5.

LOCATION.--Lat 42°11'28", long 104°57'58", in NW 1/4 NW 1/4 NW 1/4 sec.36, T.26 N., R.68 W., Hydrologic Unit 10180011.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 4,670 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

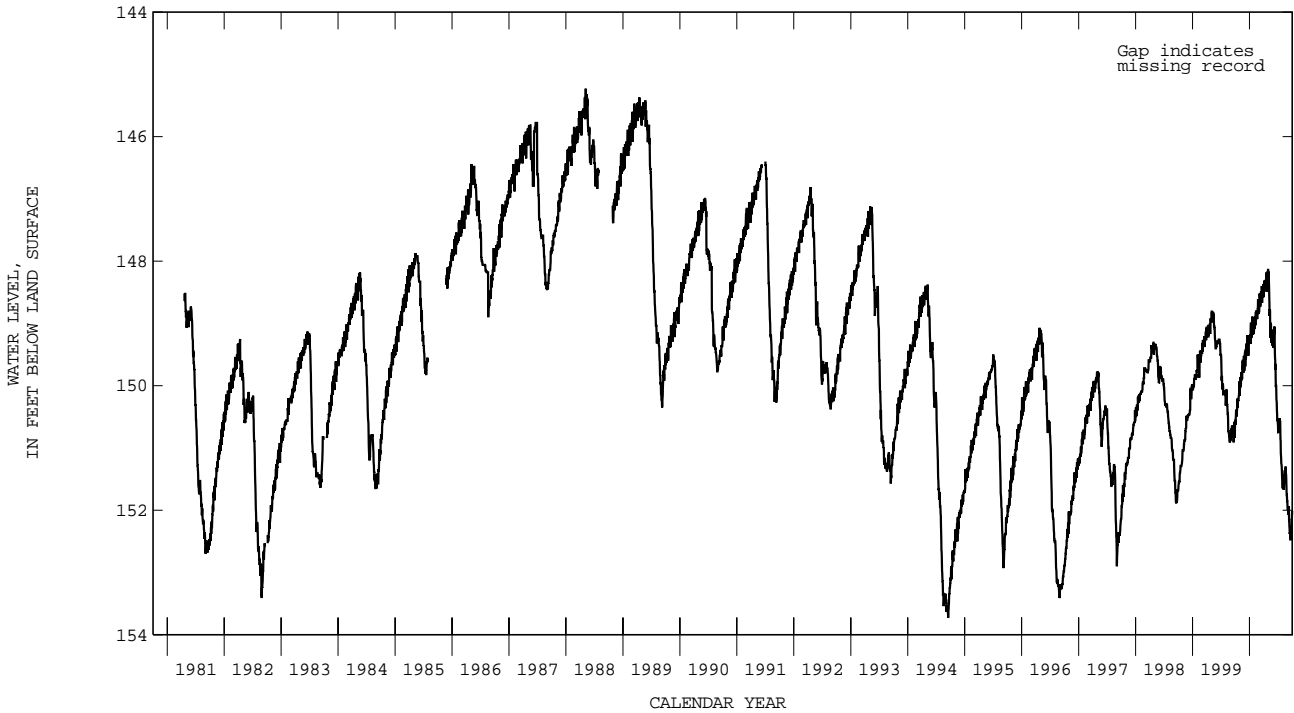
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 145.23 ft below land surface, May 7, 1988; lowest, 153.73 ft below land surface, Sept. 16, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	150.49	150.00	149.54	149.19	148.89	148.52	148.32	148.43	149.19	150.72	151.61	152.07
10	150.48	149.90	149.50	149.00	148.83	148.72	148.33	148.77	149.32	150.52	151.47	152.16
15	150.22	149.78	149.45	149.10	148.81	148.55	148.38	149.07	149.65	150.58	151.47	152.36
20	150.23	149.68	149.39	149.03	148.82	148.47	148.49	149.25	150.08	151.12	151.33	152.41
25	150.14	149.52	149.48	149.05	148.63	148.54	148.33	149.21	150.44	151.31	151.71	152.27
EOM	149.96	149.56	149.21	149.02	148.78	148.58	148.40	149.26	150.62	151.65	151.96	152.01
MAX	149.93	149.52	149.19	148.89	148.61	148.37	148.14	148.17	149.05	150.52	151.31	151.95
MIN	150.63	150.04	149.69	149.33	149.09	148.82	148.49	149.36	150.62	151.65	151.96	152.47



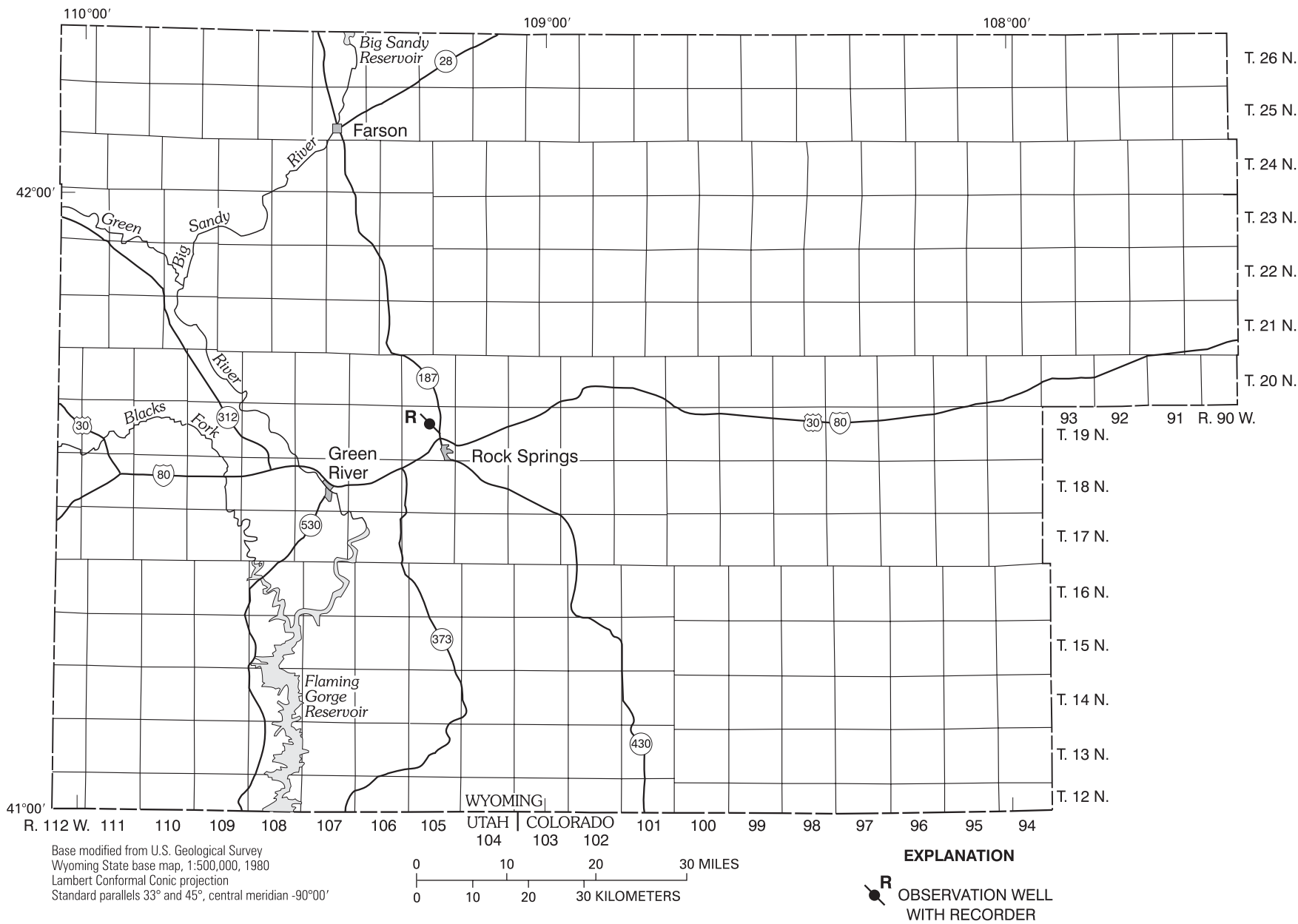


Figure 18. Location of observation well in Sweetwater County, Wyoming.

GROUND-WATER LEVELS

SWEETWATER COUNTY

IDENTIFICATION.--Station number, 413850109150601. Local number, 19-105-10bbb01. Local name, Rock Springs Golf Course.

LOCATION.--Lat 41°38'50", long 109°15'06", in NW 1/4 NW 1/4 NW 1/4 sec.10, T.19 N., R.105 W., Hydrologic Unit 14040105.

AQUIFER.--Fort Union Formation.

WELL CHARACTERISTICS.--Depth of well, 240 ft below land surface.

DATUM.--Elevation of land surface is 6,430 ft above sea level, from topographic map. Measuring point: top of casing, 0.60 ft above land surface.

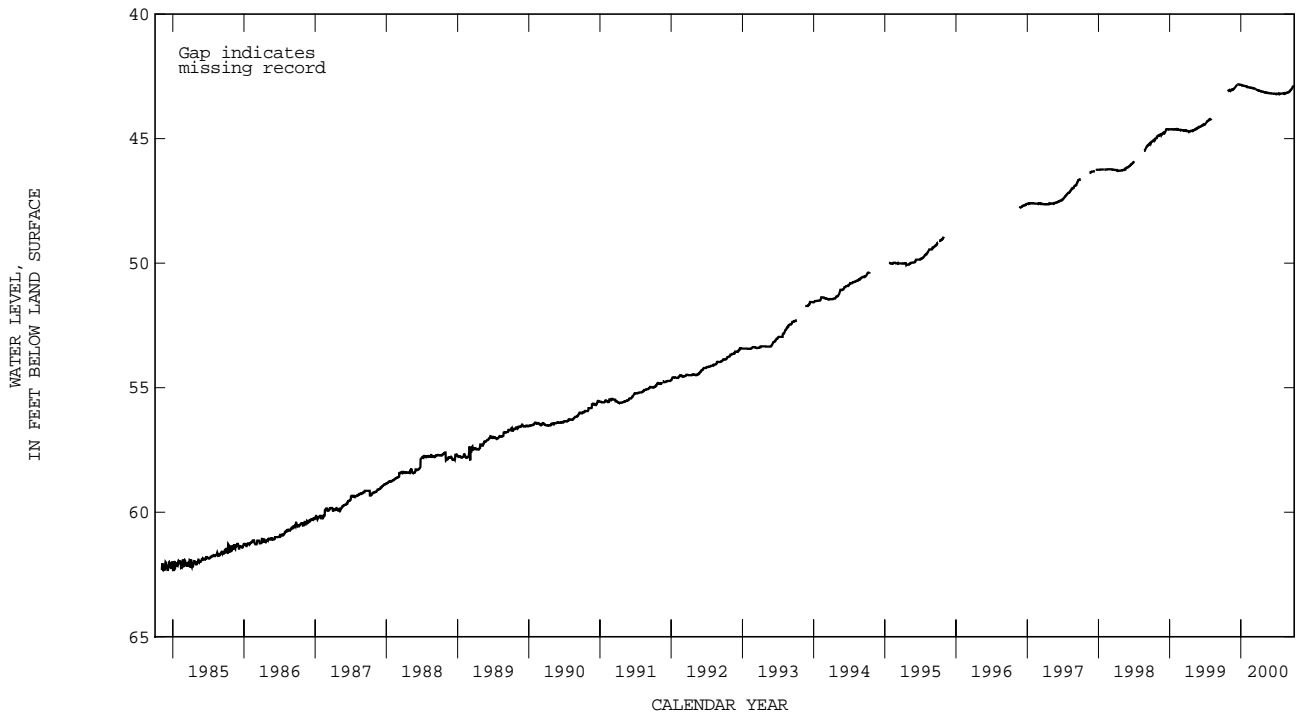
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1984-1995; 1997 to curent year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.82 ft below land surface, Dec. 16-20, 2000; lowest, 62.36 ft below land surface, Dec. 6, 1984, Jan. 3, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	43.06	42.91	42.85	42.93	42.98	43.08	43.14	43.19	43.21	43.18	43.11
10	---	43.06	42.86	42.87	42.94	42.99	43.09	43.15	43.19	43.21	43.18	43.06
15	---	43.02	42.83	42.88	42.95	43.04	43.11	43.16	43.19	43.20	43.18	43.03
20	---	43.04	42.82	42.89	42.95	43.04	43.11	43.17	43.20	43.20	43.17	42.97
25	43.09	43.00	42.83	42.89	42.96	43.05	43.12	43.18	43.20	43.19	43.16	42.91
EOM	43.08	42.96	42.84	42.90	42.97	43.06	43.13	43.18	43.20	43.19	43.14	42.86
MAX	43.08	42.96	42.82	42.84	42.93	42.97	43.07	43.14	43.18	43.19	43.14	42.86
MIN	43.09	43.07	42.95	42.90	42.97	43.06	43.13	43.18	43.21	43.21	43.19	43.14



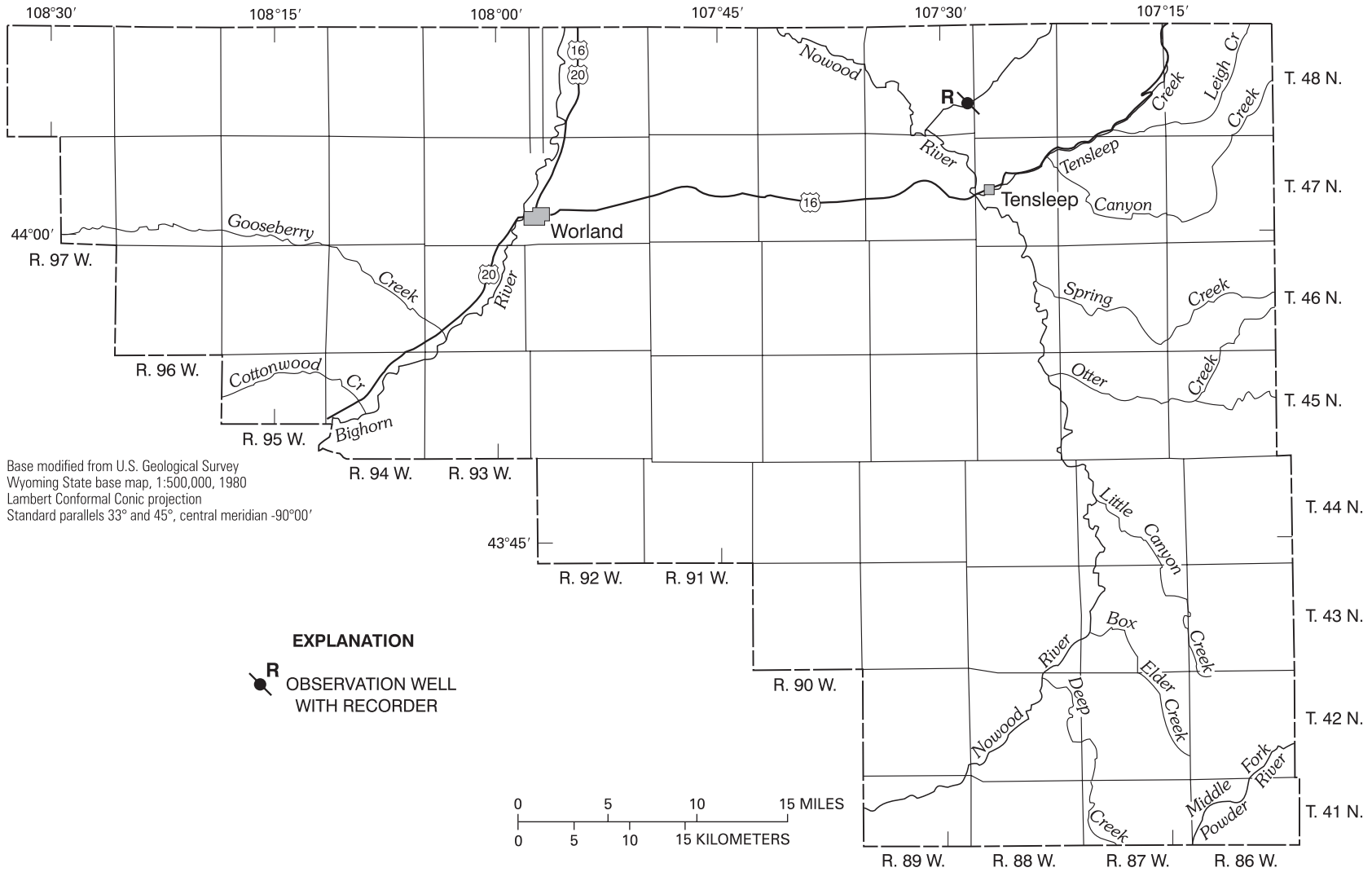


Figure 19. Location of observation well in Washakie County, Wyoming.

GROUND-WATER LEVELS

WASHAKIE COUNTY

IDENTIFICATION.--Station number, 440621107273801. Local number, 48-089-25ada01. Local name, Mills.

LOCATION.--Lat 44°06'21", long 107°27'38", in NE 1/4 SE 1/4 NE 1/4 sec.25, T.48 N., R.89 W., Hydrologic Unit 10080008.

AQUIFER.--Flathead Sandstone.

WELL CHARACTERISTICS.--Depth of well, 2,290 ft below land surface.

DATUM.--Elevation of land surface is 4,560 ft above sea level, from topographic map.

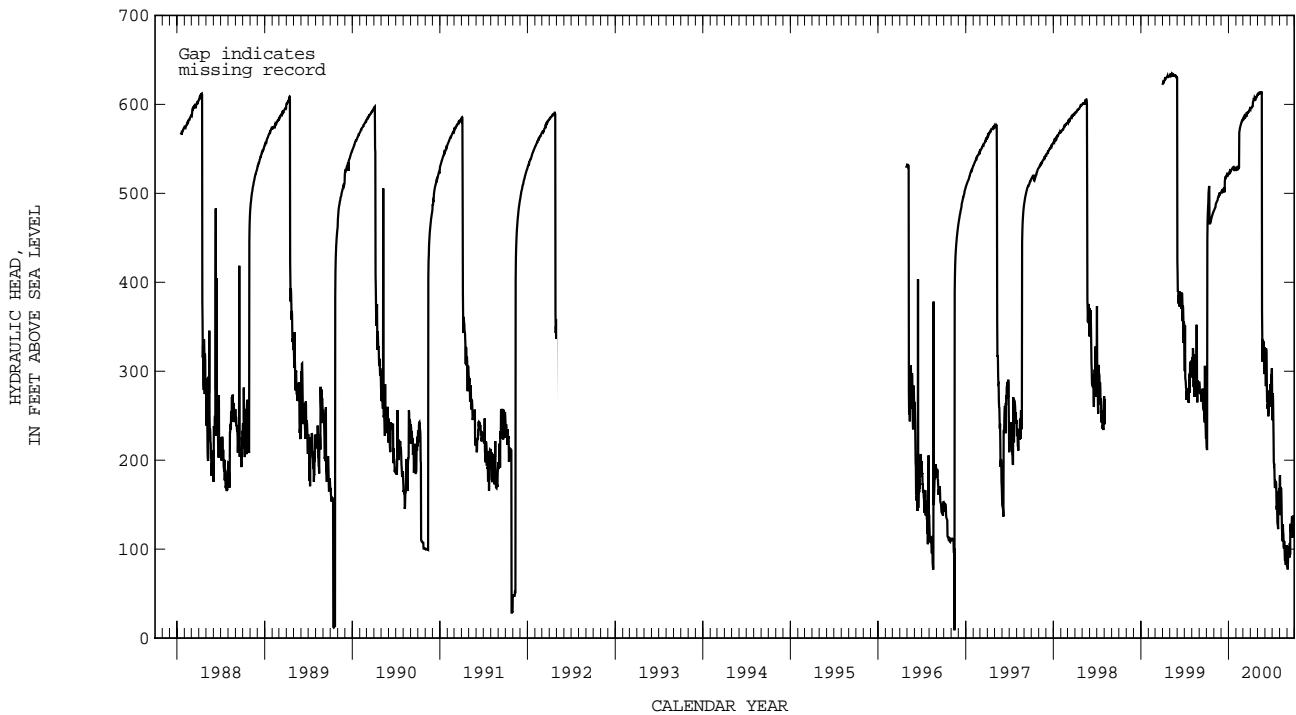
REMARKS.--Shut-in pressure was measured by pressure transducer and converted to hydraulic head above land surface for illustration purposes. Hydraulic head, in feet above land surface, was calculated by multiplying the shut-in pressure in pounds per square inch by 2.307. Hydraulic head data from May 13, 1992 to Mar. 24, 1995 were not plotted on the hydrograph because the monitoring equipment was out of calibration during this time. The data, and a more detailed explanation of the data, were published in Open-File report 96-648 "Ground-Water Levels in Wyoming, January 1986 through September 1995." Hydraulic head data from Mar. 24, 1995 to Apr. 25, 1996 were not collected. The accuracy of the hydraulic head measurements is ±5.0 ft. Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest hydraulic head, 633.67 ft above land surface, May 5, 6, 8, 11, 1999; lowest, 8.78 ft above land surface, Nov. 14, 1996.

HYDRAULIC HEAD, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	469.31	483.67	502.99	522.54	527.05	583.87	596.21	611.98	325.60	246.22	167.71	94.29
10	503.82	489.26	503.94	526.98	529.20	586.72	597.74	613.32	267.41	183.86	123.43	90.50
15	467.42	492.10	501.09	527.86	570.03	588.94	606.11	612.67	252.20	175.96	119.29	124.68
20	470.59	497.49	517.87	529.52	576.99	591.87	606.43	338.98	276.90	149.04	107.90	131.33
25	475.65	498.81	519.33	526.03	581.42	592.17	607.61	333.52	261.07	122.48	84.81	137.69
EOM	480.39	500.96	521.59	527.74	583.55	595.11	611.10	318.36	274.03	157.59	80.70	128.47
MIN	211.39	480.76	501.09	522.54	526.79	583.87	594.64	296.83	249.33	122.48	80.70	77.21
MAX	508.24	500.96	521.59	529.82	583.55	595.34	611.10	614.49	325.97	275.29	182.89	137.69



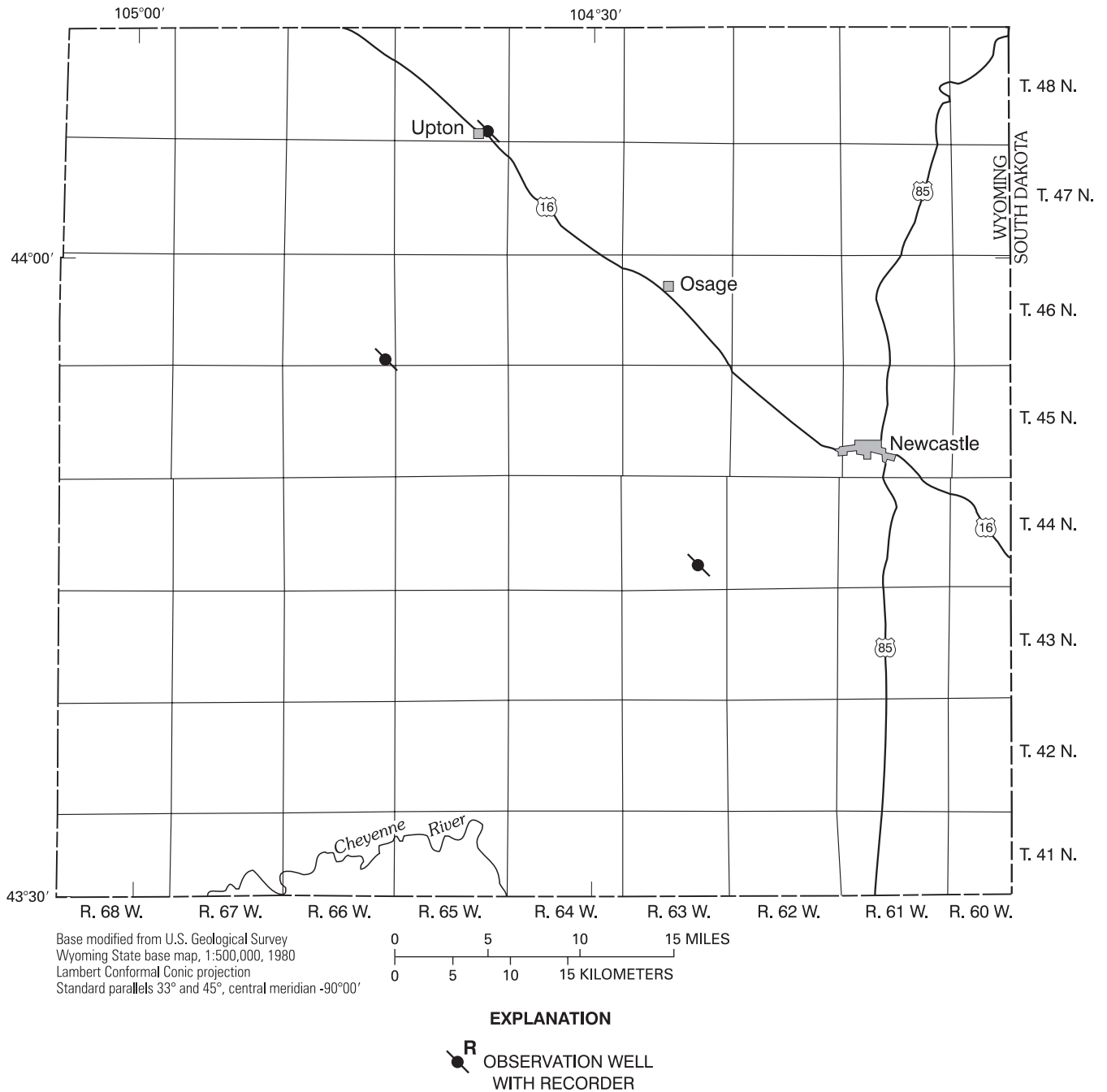


Figure 20. Location of observation wells in Weston County, Wyoming.

GROUND-WATER LEVELS

WESTON COUNTY

IDENTIFICATION.--Station number, 434539104233401. Local number, 44-063-26cac01. Local name, Townsend Well.

LOCATION.--Lat 43°45'39", long 104°23'34", in SW 1/4 NE 1/4 SW 1/4 sec.26, T.44 N., R.63 W., Hydrologic Unit 10120107.

AQUIFER.--Madison Limestone (Pahasapa Limestone).

WELL CHARACTERISTICS.--Depth of well, 6,880 ft below land surface.

DATUM.--Elevation of land surface is 3,990 ft above sea level, from topographic map. Measuring point: top of casing, 1.5 ft above land surface.

REMARKS.--Data reflects static and pumping water levels.

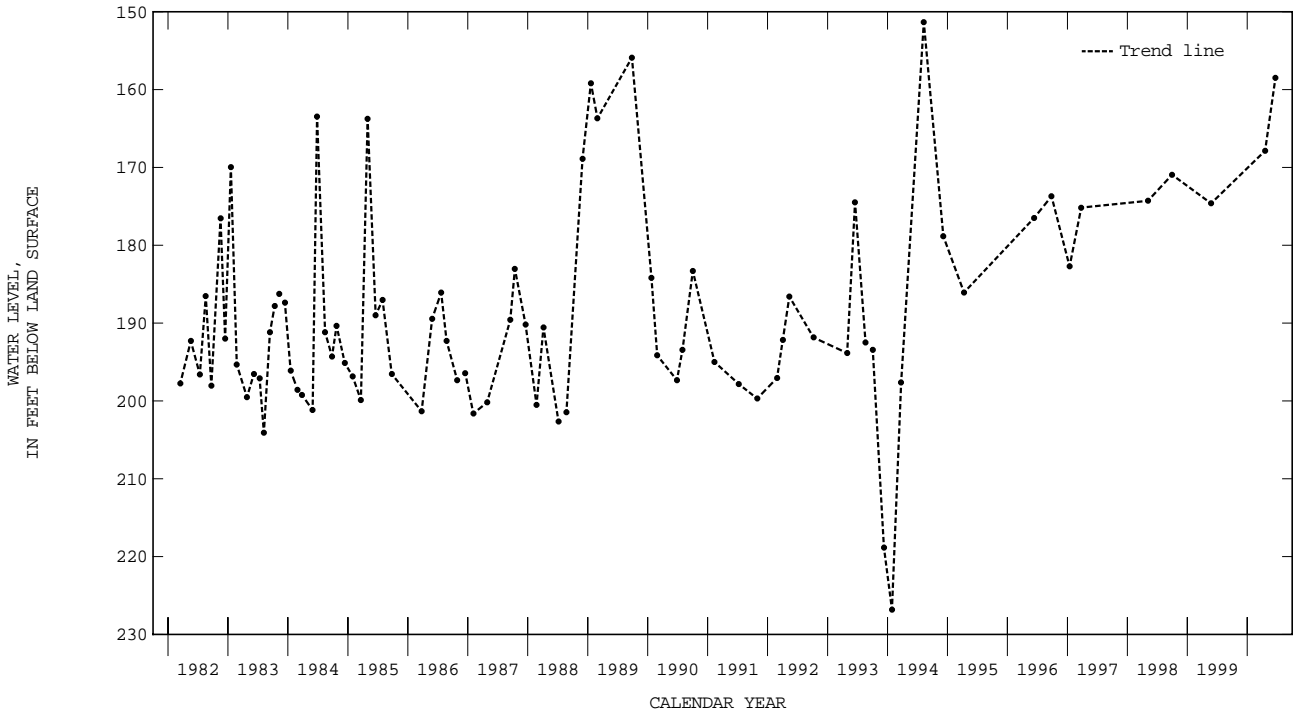
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.35 ft below land surface, from hand-measured data, Aug. 9, 1994; lowest, 226.80 ft below land surface, from hand-measured data, Jan. 27, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	167.86	JUN 20	158.48
WATER YEAR 2000		HIGHEST	158.48 JUN 20, 2000
		LOWEST	167.86 APR 18, 2000



WESTON COUNTY--Continued

IDENTIFICATION.--Station number, 435610104433001. Local number, 46-066-25dbb01. Local name, Terra Resources.

LOCATION.--Lat 43°56'10", long 104°43'30", in NW 1/4 NW 1/4 SE 1/4 sec.25, T.46 N., R.66 W., Hydrologic Unit 10120103.

AQUIFER.--Madison Limestone (Pahasapa Limestone).

WELL CHARACTERISTICS.--Depth of well, 8,780 ft below land surface.

DATUM.--Elevation of land surface is 4,200 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

REMARKS.--Data reflects static conditions and pumping of nearby oil field water flood system.

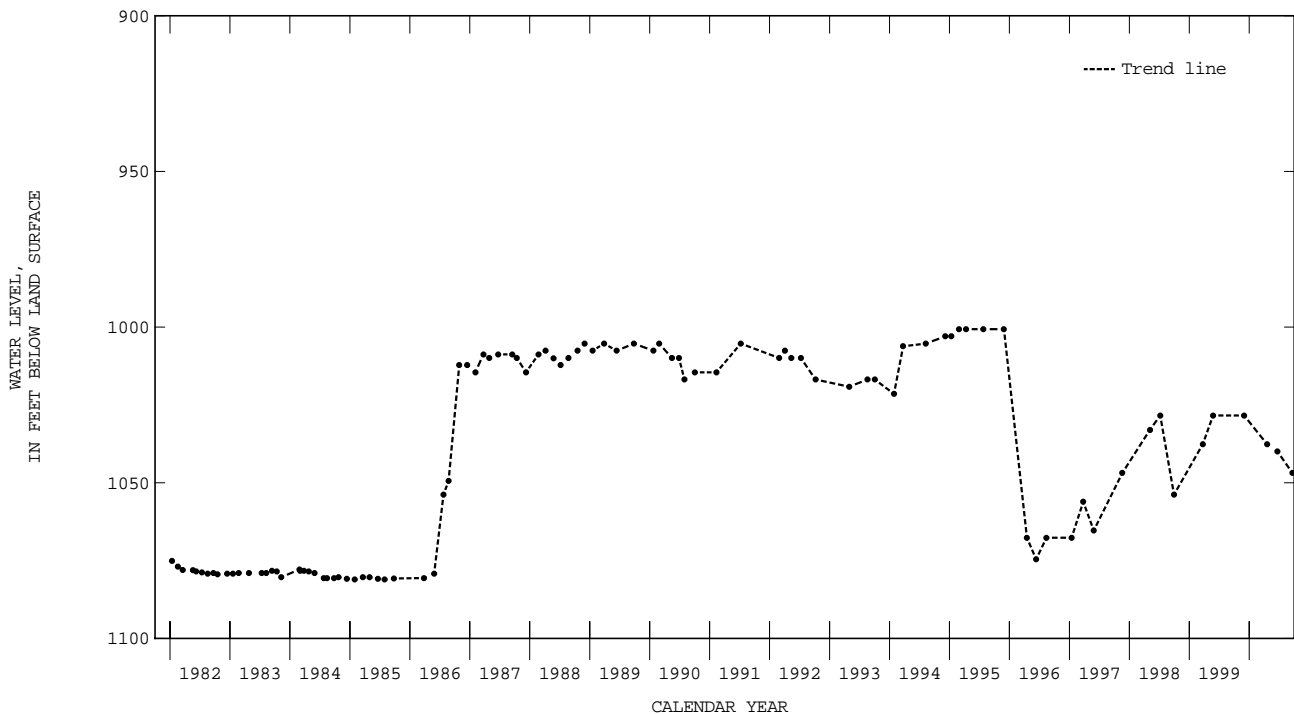
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1,000.67 ft below land surface, from hand-measured data, Feb. 28, Apr. 11, July 25, and Nov. 28, 1995; lowest, 1,081.06 ft below land surface, from-hand measured data, July 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 30	1028.39	APR 18	1037.63	JUN 20	1039.94	SEP 19	1046.87
WATER YEAR 2000		HIGHEST 1028.39		NOV 30, 1999		LOWEST 1046.87	
						SEP 19, 2000	



GROUND-WATER LEVELS

WESTON COUNTY--Continued

IDENTIFICATION.--Station number, 440530104381001. Local number, 48-065-35ccb01. Local name, Town of Upton #4.

LOCATION.--Lat 44°05'30", long 104°38'10", in NW 1/4 SW 1/4 SW 1/4 sec.35, T.48 N., R.65 W., Hydrologic Unit 10120107.

AQUIFER.--Madison Limestone (Pahasapa Limestone).

WELL CHARACTERISTICS.--Depth of well, 3,190 ft below land surface.

DATUM.--Elevation of land surface is 4,220 ft above sea level, from topographic map. Measuring point: top of casing, 0.70 ft above land surface.

REMARKS.--Data reflects static and pumping water levels.

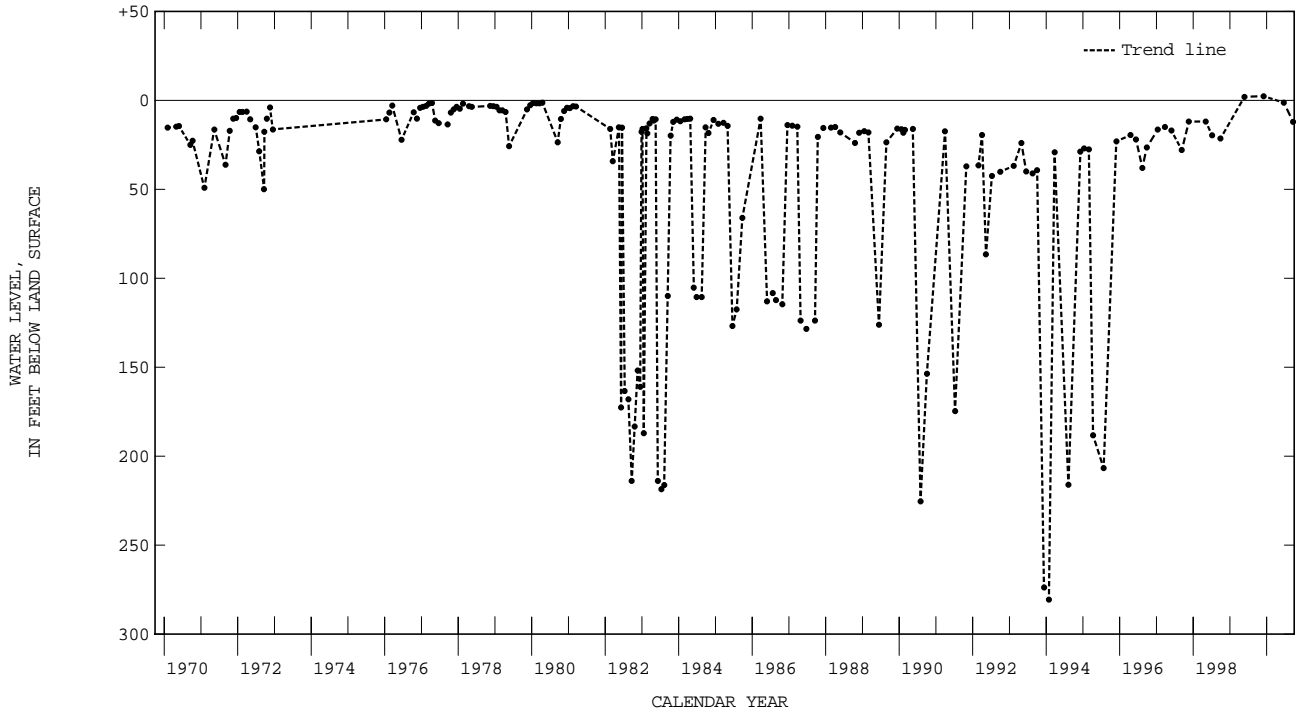
COOPERATION.--Data collected and records provided by the Wyoming State Engineer's Office and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.40 ft above land surface, from hand-measured data, Nov. 30, 1999; lowest, 280.67 ft below land surface, from hand-measured data, Jan. 27, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 30	+2.40	JUN 20	1.33	SEP 19	12.09
WATER YEAR 2000 HIGHEST +2.40		NOV 30, 1999		LOWEST 12.09 SEP 19, 2000	



QUALITY OF GROUND WATER

HIGH PLAINS STUDY

GOSHEN COUNTY

STATION NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL IN FEET BELOW LAND SURFACE
413716104203401	413716	1042034	19-062-17bbb01	4940	06-05-00	22.76
413400104382701	413400	1043827	19-065-34dcc01	5520	06-05-00	69.20
415539104033501	415539	1040335	23-060-34abb01	4070	06-06-00	1.18
415925104310801	415925	1043108	23-064-03dda01	4275	06-06-00	30.34
420303104315401	420303	1043154	24-064-15cac01	4398	06-06-00	37.83
420845104122301	420845	1041223	25-061-17aaa01	4310	06-07-00	53.47
421328104205401	421328	1042054	26-062-18dbd01	4500	06-07-00	61.83
421244104175501	421244	1041755	26-062-22bcd01	4290	06-07-00	42.84
422347104212001	422347	1042120	28-062-18cac01	4470	06-07-00	12.78
423056104212701	423056	1042127	29-062-06cba01	4700	06-07-00	28.52
423057104212701	423057	1042127	29-062-06cba02	4700	06-07-00	29.00

LARAMIE COUNTY

STATION NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL IN FEET BELOW LAND SURFACE
412304104311001	412304	1043110	16-064-02bcb01	5778	06-05-00	233.32
413116104264901	413116	1042949	18-063-17dcd01	5320	06-05-00	137.70
412938104460601	412938	1044606	18-066-28ddd01	5827	06-05-00	107.82

NIOBRARA COUNTY

STATION NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL IN FEET BELOW LAND SURFACE
423940104031201	423939	1040310	31-060-15dbc01	4730	06-07-00	35.34
424207104062301	424207	1040623	32-060-31ddb01	4945	06-07-00	177.82
424908104085901	424908	1040859	33-061-23dcb01	5155	06-07-00	262.58

PLATTE COUNTY

STATION NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL IN FEET BELOW LAND SURFACE
414206104500101	414206	1045001	20-067-13dbd01	5490	06-05-00	40.47
414755104391101	414752	1043914	21-065-16aaa01	5294	06-06-00	74.08
420452104413801	420452	1044138	24-065-06daa02	5070	06-06-00	267.44
422355105023401	422355	1050238	28-068-17cbc01	4918	06-06-00	57.53GEOLOGIC UNIT (Aquifer):

GEOLOGIC UNIT (Aquifer):

111ALVM HOLOCENE ALLUVIUM
111TRRC TERRANCE DEPOSITS
124WSTC WASATCH FORMATION
122MOCN MIOCENE ROCKS

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM
(Water levels are at depth below land surface, in feet)

BIG HORN COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	LOCAL WELL NUMBER	DATE	TIME	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
EPA DRINKING WATER STANDARD						--	--	--	--	10
B10	441239107554101	111ALVM	49-092-21bbb01	04-11-00	1530	7.3	3230	8.0	<.020	3.09
B9	441612108000101	111ALVM	50-093-26cdd01	04-11-00	1400	7.1	2010	10.5	<.020	8.51
B13	441821108014701	111ALVM	50-093-15bcc01	10-21-99	1000	7.0	2500	10.0	.034	2.05
		111ALVM		04-12-00	0930	7.1	2690	8.0	<.020	1.08
B8	442102108022601	111TRRC	51-093-33bdd01	04-11-00	1700	7.1	1540	13.0	.021	1.32
B14	442354108255801	111ALVM	51-096-18aaa01	01-11-00	1100	7.7	738	8.0	.020	<.050
		111ALVM		04-12-00	1440	7.6	780	9.0	.025	<.050
B7	442405108162501	111ALVM	51-095-09ddc01	04-10-00	1610	7.3	2630	8.0	<.020	4.11
B6	442650108251501	111TRRC	52-096-29dcb01	04-11-00	0910	7.3	793	8.0	<.020	6.03
B5	442912108240601	111TRRC	52-096-16abb01	04-11-00	1050	7.2	1750	10.0	<.020	4.61
B4	442931108030601	111ALVM	52-093-08dad01	04-12-00	1130	7.3	1540	11.5	<.020	1.51
B1	444914108214101	111TRRC	56-096-24bda01	04-11-00	1110	7.3	2220	11.0	<.020	1.21
B15	445014108224301	111TRRC	56-096-14abc01	11-03-99	1100	7.1	2900	13.5	<.020	4.65
		111TRRC		04-11-00	1310	7.1	3210	13.5	<.020	3.04
		111ALVM		05-08-00	1800	7.1	2710	12.0	--	--
B2	445022108233701	111ALVM	56-096-15abb01	04-10-00	1710	7.1	2240	11.0	<.020	7.59
B11	445135108145201	111TRRC	56-095-02dad01	04-11-00	0930	7.4	985	10.0	<.020	3.30
		111ALVM		05-08-00	1530	6.9	2030	10.5	--	--
B12	445324108310601	111TRRC	57-097-26dad01	04-11-00	1800	7.2	2560	7.0	<.020	1.99
		111ALVM		05-08-00	1650	7.2	2420	8.0	--	--
B3	445914108371001	111ALVM	58-097-30bbb01	04-11-00	1530	7.2	4390	12.5	<.020	5.59

STATION NUMBER	DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)
EPA DRINKING WATER STANDARD		1	--	--	--	--	70	--	2	35
441239107554101	04-11-00	.032	.019	12.00	30.00	3928	<.11	<.10	<.002	<.10
441612108000101	04-11-00	<.010	.011	9.16	22.00	3972	<.11	<.10	<.002	<.10
441821108014701	10-21-99	<.010	.015	8.97	20.00	3900	--	--	<.002	--
	04-12-00	<.010	<.010	7.22	20.00	3900	<.11	<.10	<.002	<.10
442102108022601	04-11-00	<.010	.017	18.90	45.00	3940	<.11	<.10	<.002	<.10
442354108255801	01-11-00	<.010	.022	4.26	15.00	4390	--	--	<.002	--
	04-12-00	<.010	.016	5.27	15.00	4390	<.11	<.10	<.002	<.10
442405108162501	04-10-00	<.010	<.010	12.06	22.00	4156	<.11	<.10	<.002	<.10
442650108251501	04-11-00	<.010	.032	7.72	23.00	4410	<.11	<.10	<.002	<.10
442912108240601	04-11-00	.024	.017	7.78	27.00	4465	<.11	<.10	<.002	<.10
442931108030601	04-12-00	1.50	1.60	8.22	13.00	3810	<.11	<.10	<.002	<.10
444914108214101	04-11-00	<.010	.030	11.70	22.00	3878	<.11	<.10	<.002	<.10
445014108224301	11-03-99	.011	.022	8.05	22.00	3815	--	--	<.002	--
	04-11-00	<.010	.022	8.52	22.00	3815	<.11	<.10	<.002	<.10
	05-08-00	--	--	7.40	22.00	3815	--	--	--	--
445022108233701	04-10-00	.016	.018	--	16.00	3830	<.11	<.10	<.002	<.10
445135108145201	04-11-00	<.010	.014	15.49	34.00	3740	<.11	<.10	<.002	<.10
	05-08-00	--	--	8.66	34.00	3740	--	--	--	--
445324108310601	04-11-00	<.010	.011	5.69	7.00	4030	<.11	<.10	<.002	<.10
	05-08-00	--	--	4.06	7.00	4030	--	--	--	--
445914108371001	04-11-00	<.010	<.010	--	16.00	4240	<.11	<.10	<.002	<.10

< - A < indicates compound not detected. Value behind < is the method reporting limit.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued
(Water levels are at depth below land surface, in feet)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	ALDICA-	ALDI-	ATRA-	BRO-	CLOPYR-	CYANA-	DCPA	DEETHYL	DI-
		RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ZINE, WATER, DISS, REC (UG/L) (39632)	MACIL, WATER, DISS, REC (UG/L) (04029)	ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	ZINE, WATER, DISS, REC (UG/L) (04041)	WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD		35	35	3	90	--	1	16	--	--
441239107554101	04-11-00	<.02	<.21	.007	<.06	<.23	<.004	<.002	<.002	<.002
441612108000101	04-11-00	<.02	<.21	.007	<.06	<.23	<.004	<.002	E.007	<.002
441821108014701	10-21-99	--	--	.016	--	<.04	<.004	E.002	E.008	<.002
	04-12-00	<.02	<.21	.015	<.06	<.23	<.004	<.002	E.008	<.002
442102108022601	04-11-00	<.02	<.21	E.002	<.06	<.23	<.004	<.002	E.002	<.002
442354108255801	01-11-00	--	--	E.003	--	--	<.004	<.002	E.004	<.002
	04-12-00	<.02	<.21	E.004	<.06	<.23	<.004	<.002	E.004	<.002
442405108162501	04-10-00	<.02	<.21	.012	<.16	<.23	<.004	<.002	E.012	<.002
442650108251501	04-11-00	<.02	<.21	E.003	<.06	<.23	<.004	<.002	E.003	<.002
442912108240601	04-11-00	<.02	<.21	.006	<.06	<.23	<.004	<.002	E.004	<.002
442931108030601	04-12-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444914108214101	04-11-00	<.02	<.25	.007	<.06	<.23	<.004	<.002	E.004	<.002
445014108224301	11-03-99	--	--	.011	--	--	<.004	<.002	E.015	<.002
	04-11-00	<.02	<.21	.016	.14	<.23	<.004	<.002	E.025	<.002
	05-08-00	--	--	--	--	--	--	--	--	--
445022108233701	04-10-00	<.02	<.21	.007	<.06	<.23	<.004	<.002	E.005	<.002
445135108145201	04-11-00	<.02	<.21	.009	<.06	<.23	<.004	<.002	E.006	<.002
	05-08-00	--	--	--	--	--	--	--	--	--
445324108310601	04-11-00	<.02	<.21	.008	<.06	<.23	<.004	<.002	E.005	<.002
	05-08-00	--	--	--	--	--	--	--	--	--
445914108371001	04-11-00	<.02	<.21	.007	<.06	<.23	<.004	<.002	E.004	<.002
STATION NUMBER	DATE	DICAMBA	METO-	METRI-	PIC-	PRO-	SI-	TEBU-	CIS	TRANS-
		WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	WATER, LACHLOR DISSOLV (UG/L) (39415)	WATER SENCOR DISSOLV (UG/L) (82630)	LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	METON, WATER, DISS, REC (UG/L) (04037)	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)
EPA DRINKING WATER STANDARDS		200	70	100	500	--	4	500	10	10
441239107554101	04-11-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
441612108000101	04-11-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
441821108014701	10-21-99	<.10	<.002	<.004	--	<.018	<.005	<.010	<.09	<.09
	04-12-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442102108022601	04-11-00	<.04	E.003	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442354108255801	01-11-00	<.10	<.002	<.004	--	<.018	<.005	<.010	<.09	<.09
	04-12-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442405108162501	04-10-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442650108251501	04-11-00	<.04	<.002	<.004	<.05	.025	E.002	<.010	<1.00	<1.00
442912108240601	04-11-00	<.04	<.002	.007	<.05	<.018	<.005	<.010	<1.00	<1.00
442931108030601	04-12-00	<.04	<.002	<.004	<.05	.035	<.005	<.010	<1.00	<1.00
444914108214101	04-11-00	<.04	.006	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
445014108224301	11-03-99	<.10	<.002	<.004	--	.326	.011	.214	<.09	<.09
	04-11-00	<.04	.007	<.004	<.05	.271	.014	E.208	--	--
	05-08-00	--	--	--	--	--	--	--	<1.00	<1.00
445022108233701	04-10-00	<.04	<.002	<.004	<.05	.116	<.005	<.010	<1.00	<1.00
445135108145201	04-11-00	<.04	<.002	<.004	<.05	E.006	<.005	<.010	--	--
	05-08-00	--	--	--	--	--	--	--	<1.00	<1.00
445324108310601	04-11-00	<.04	.005	<.004	<.05	.021	<.005	<.010	--	--
	05-08-00	--	--	--	--	--	--	--	<1.00	<1.00
445914108371001	04-11-00	<.04	<.002	<.004	.25	<.018	<.005	<.010	<1.00	<1.00

< - A < indicates compound not detected. Value behind < is the method reporting limit.
E - Estimated.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM
(Water levels are at depth below land surface, in feet)

CROOK COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	LOCAL WELL NUMBER	DATE	TIME	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
EPA DRINKING WATER STANDARD						--	--	--	--	10
C1	442423104223501	111ALVM	51-063-14dad02	08-18-00	1200	7.1	1360	13.5	<.020	.575
C7	442724104441301	111ALVM	52-066-25ccc01	08-15-00	1830	7.2	2160	13.5	<.020	.072
C2	443241104052301	111ALVM	53-060-31aad01	08-18-00	1435	7.1	2290	13.0	<.020	.875
C8	443528104111001	111ALVM	53-061-16bab01	08-16-00	1200	7.3	3530	11.0	<.020	9.70
C10	443903104045701	111ALVM	54-060-20cdb01	08-16-00	0920	7.2	1480	11.5	<.020	<.050
C5	444043104242601	111ALVM	54-063-10dcc01	08-17-00	1130	7.2	744	10.0	<.020	9.35
C3	444052104360401	111ALVM	54-065-12daa01	08-17-00	1430	6.9	2160	13.5	<.020	5.14
C4	444840104273801	111ALVM	56-063-30dac01	08-17-00	0945	7.3	942	11.0	<.020	12.2
C9	445755104220001	111ALVM	57-063-01bac01	08-16-00	1965	7.4	788	11.5	<.020	5.95
C6	445800104470001	111ALVM	57-066-03bca01	08-18-00	1810	7.0	6410	11.0	.026	7.23

STATION NUMBER	DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-ORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB SULFONE, WAT, FLT GF 0.7U REC (UG/L) (49313)
EPA DRINKING WATER STANDARD		1	--	--	--	--	70	--	20	35
442423104223501	08-18-00	<.010	<.010	12.40	16.40	4765	<.11	<.10	<.002	<.10
442724104441301	08-15-00	<.010	<.010	15.38	20.00	3970	<.11	<.10	<.002	<.10
443241104052301	08-18-00	<.010	<.010	7.40	30.00	3510	<.11	<.10	<.002	<.10
443528104111001	08-16-00	<.010	<.010	44.69	65.00	3790	<.11	<.10	<.002	<.10
443903104045701	08-16-00	<.010	<.010	14.70	45.00	3410	<.11	<.10	<.002	<.10
444043104242601	08-17-00	<.010	<.010	--	40.00	4110	<.11	<.10	<.002	<.10
444052104360401	08-17-00	<.010	.012	10.38	18.00	3750	<.11	<.10	<.002	<.10
444840104273801	08-17-00	<.010	<.010	20.81	36.00	3570	<.11	<.10	<.002	<.10
445755104220001	08-16-00	<.010	.042	12.62	40.00	3485	<.11	<.10	<.002	<.10
445800104470001	08-18-00	.042	.015	10.10	40.00	3600	<.11	<.10	<.002	<.10

STATION NUMBER	DATE	ALDICA-RB SULFOXIDE, WAT, FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82682)	DEETHYL, ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD		35	35	3	90	--	1	16	--	--
442423104223501	08-18-00	<.02	<.54	.022	<.06	<.23	<.004	<.002	E.022	<.002
442724104441301	08-15-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
443241104052301	08-18-00	<.19	<.21	.005	<.06	<.23	<.004	<.002	E.007	<.002
443528104111001	08-16-00	<.02	<.21	<.001	<.06	<.23	<.004	E.004	<.002	<.002
443903104045701	08-16-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444043104242601	08-17-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444052104360401	08-17-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444840104273801	08-17-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
445755104220001	08-16-00	<.12	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
445800104470001	08-18-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002

< - A < indicates compound not detected. The value behind the < is the method reporting limit.
E - Estimated.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued
 (Water levels are at depth below land surface, in feet)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)
EPA DRINKING WATER STANDARD		200	70	100	500	--	4	500	10	10
442423104223501	08-18-00	<.04	<.002	<.004	<.05	E.004	<.005	<.010	<1.00	<1.00
442724104441301	08-15-00	<.04	<.002	<.004	<.05	E.004	<.005	<.010	<1.00	<1.00
443241104052301	08-18-00	<.04	<.002	<.004	<.05	E.004	<.005	<.010	<1.00	<1.00
443528104111001	08-16-00	<.04	<.002	<.004	<.05	E.008	<.005	<.010	<1.00	<1.00
443903104045701	08-16-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
444043104242601	08-17-00	<.04	<.002	<.004	<.05	E.003	<.005	<.010	<1.00	<1.00
444052104360401	08-17-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
444840104273801	08-17-00	<.04	<.002	<.004	2.19	<.018	<.005	<.010	<1.00	<1.00
445755104220001	08-16-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
445800104470001	08-18-00	<.04	<.002	<.004	.17	<.018	<.005	<.010	<1.00	<1.00

< - A < indicates compound not detected. The value behind the < is the method reporting limit.
 E - Estimated.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM
(Water levels are at depth below land surface, in feet)

JOHNSON COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	LOCAL WELL NUMBER	DATE	TIME	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
	EPA DRINKING WATER STANDARD					--	--	--	--
J7	433057106383701	111ALVM	41-082-13dcb01	08-31-00	1245	8.9	5440	13.0	1.57
J6	433836106483101	111ALVM	42-083-03bba01	08-31-00	1600	7.1	2000	13.5	<.020
J14	434143106250901	111ALVM	43-080-13cab01	08-31-00	0900	7.6	1130	14.0	<.020
J3	440431106373001	111ALVM	47-081-05bcb01	08-30-00	1620	7.5	2610	14.5	.113
J5	441148106461601	111ALVM	49-082-19cdb01	08-30-00	1845	7.5	544	12.5	<.020
J16	442059106423201	111ALVM	51-082-34bdb01	09-01-00	1020	7.6	1270	11.5	.193
J4	442555106084201	111ALVM	52-077-32ddc01	08-30-00	0950	8.9	760	12.5	.430
J8	442618106350801	111ALVM	52-081-34abc01	08-30-00	1300	7.2	1540	11.5	<.020
J2	442931106473401	124WSTC	52-083-12cab01	08-29-00	1530	8.6	1070	11.0	<.020
J12	443117106460601	111ALVM	53-082-32cbb01	08-29-00	1730	7.3	1200	14.5	<.020

STATION NUMBER	DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-ORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB SULFONE, WAT, FLT GF 0.7U REC (UG/L) (49313)
	EPA DRINKING WATER STANDARD	10	1	--	--	--	70	--	20	35
433057106383701	08-31-00	.064	<.010	.025	80.00	4818	<.11	<.10	<.002	<.11
433836106483101	08-31-00	11.5	<.010	<.010	20.00	4905	<.11	<.10	<.002	<.10
434143106250901	08-31-00	.365	<.010	.014	27.00	4515	<.11	<.10	<.002	<.11
440431106373001	08-30-00	<.050	<.010	<.010	29.00	4575	<.11	<.10	<.002	<.10
441148106461601	08-30-00	<.050	<.010	<.010	13.00	5280	<.11	<.10	<.002	<.10
442059106423201	09-01-00	<.050	<.010	<.010	20.00	4710	<.11	<.10	<.002	<.10
442555106084201	08-30-00	<.050	<.010	.053	34.00	3790	<.11	<.10	<.002	<.10
442618106350801	08-30-00	<.050	<.010	<.010	15.00	4290	<.11	<.10	<.002	<.10
442931106473401	08-29-00	4.68	<.010	<.010	56.00	4685	<.11	<.10	<.002	<.10
443117106460601	08-29-00	<.050	<.010	.012	12.00	4500	<.11	<.10	<.002	<.10

STATION NUMBER	DATE	ALDICA-RB SUL-FOXIDE, WAT, FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (82682)	DEETHYL, ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
	EPA DRINKING WATER STANDARD	35	35	3	90	--	1	16	--	--
433057106383701	08-31-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
433836106483101	08-31-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
434143106250901	08-31-00	<.16	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
440431106373001	08-30-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
441148106461601	08-30-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
442059106423201	09-01-00	<.18	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
442555106084201	08-30-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
442618106350801	08-30-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
442931106473401	08-29-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
443117106460601	08-29-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002

< - A < indicates compound not detected. The value behind the < is the method reporting limit.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued
 (Water levels are at depth below land surface, in feet)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)
EPA DRINKING WATER STANDARD		200	70	100	500	--	4	500	10	10
433057106383701	08-31-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
433836106483101	08-31-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
434143106250901	08-31-00	<.04	<.002	<.004	<.05	E.005	<.005	<.010	<1.00	<1.00
440431106373001	08-30-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
441148106461601	08-30-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442059106423201	09-01-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442555106084201	08-30-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442618106350801	08-30-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
442931106473401	08-29-00	<.04	<.002	<.004	<.05	E.006	<.005	<.010	<1.00	<1.00
443117106460601	08-29-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00

< - A < indicates compound not detected. The value behind the < is the method reporting limit.

E - Estimated.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM
(Water levels are at depth below land surface, in feet)

PLATTE COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	LOCAL WELL NUMBER	DATE	TIME	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	
EPA DRINKING WATER STANDARD						--	--	--	--	10	
T15	414523104482101	122MOCN	21-066-29ccc01	09-28-00	1430	7.0	396	12.5	<.020	4.29	
T4	415733105030901	122MOCN	23-068-18cdc01	09-28-00	1055	7.8	--	13.5	<.020	3.41	
T5	420151105011401	122MOCN	24-068-28bbb01	09-11-00	1630	7.6	900	14.5	<.020	3.95	
T12	421532104441001	111ALVM	26-066-02adb01	09-11-00	1100	7.4	915	15.0	<.020	5.25	
STATION NUMBER	NUMBER	DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	DEPTH BELOW LAND SURFACE (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	2,4-DB WATER, FLTRD, GF 0.7U (UG/L) (39732)	ALA-CHLOR, WATER, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT, FLT REC (UG/L) (49313)	
EPA DRINKING WATER STANDARD			1	--	--	--	10	--	20	35	
414523104482101	09-28-00	<.010	.013	--	30.00	5260	<.11	<.10	<.002	<.26	
415733105030901	09-28-00	<.010	<.010	--	65.00	5080	<.11	<.10	<.002	<.26	
420151105011401	09-11-00	<.010	<.010	28.70	100.00	4850	<.11	<.10	<.002	<.10	
421532104441001	09-11-00	<.010	<.010	12.80	25.00	4320	<.11	<.10	<.002	<.10	
STATION NUMBER	NUMBER	DATE	ALDICA-RB SUL-FOXIDE, WAT, FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR-ALID, WATER, REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER, FLTRD, GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD			35	35	3	90	--	1	16	--	--
414523104482101	09-28-00	<.02	<.21	<.007	<.09	<.42	<.018	<.003	<.006	<.005	
415733105030901	09-28-00	<.02	<.21	.028	<.09	<.42	<.004	<.002	E.025	<.002	
420151105011401	09-11-00	<.02	<.21	E.004	<.06	<.23	<.004	<.002	E.002	<.002	
421532104441001	09-11-00	<.02	<.21	<.001	1.18	<.23	<.004	<.002	E.023	<.002	
STATION NUMBER	NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER, FLTRD, GF, REC (UG/L) (82670)	CIS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)
EPA DRINKING WATER STANDARD			200	70	100	500	--	4	500	10	10
414523104482101	09-28-00	<.04	<.013	<.006	<.09	<.015	<.011	<.016	<1.00	<1.00	
415733105030901	09-28-00	<.04	<.002	<.004	<.09	<.018	<.005	<.010	<1.00	<1.00	
420151105011401	09-11-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00	
421532104441001	09-11-00	<.04	<.002	<.004	2.94	E.005	<.005	.073	<1.00	<1.00	

< - A < indicates compound not detected. The value behind the < is the method reporting limit.
E - Estimated.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM
(Water levels are at depth below land surface, in feet)

SHERIDAN COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	LOCAL WELL NUMBER	DATE	TIME	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
EPA DRINKING WATER STANDARD						--	--	--	--	10
S10	443428106300901	111ALVM	53-080-09bac01	04-13-00	1220	8.5	970	11.5	2.10	.074
S8	443438106530601	111ALVM	53-083-08ca 01	04-12-00	1200	7.7	384	9.0	<.020	.098
S14	443940107014001	111TRRC	54-084-18bba01	04-13-00	1400	7.1	1080	11.0	1.27	<.050
S12	444116106503501	111ALVM	54-083-03cab01	04-13-00	1700	7.4	1270	7.5	.424	.182
S2	444218106592201	111ALVM	55-084-28ccd01	04-13-00	0925	7.4	1120	8.0	<.020	6.49
S3	444338106161001	111ALVM	55-078-20dba01	04-13-00	1420	7.7	1230	8.5	.851	<.050
S7	444349106593601	111ALVM	55-084-21bcb01	04-13-00	1200	7.3	903	11.0	<.020	2.27
S6	444618106562501	111ALVM	55-084-02acc01	05-09-00	1400	7.2	1780	11.5	<.020	.769
S5	444645106574001	111ALVM	56-084-34dcc01	04-12-00	1400	7.3	663	12.0	<.020	1.31
S11	444738106581601	111ALVM	56-084-27ccb01	05-09-00	1200	7.4	850	8.0	.266	.169
S4	444910106584701	111ALVM	56-084-21aba01	04-12-00	1700	7.1	1170	10.0	<.020	.733
S9	444918107120101	111ALVM	56-086-15ddd01	04-13-00	1620	7.4	692	9.0	<.020	.352
S15	445014106490701	111ALVM	56-083-11dcb01	04-13-00	0910	7.1	4000	9.5	.416	<.050
S13	445300107101201	111ALVM	57-085-30bbd01	04-14-00	1000	7.3	843	7.0	<.020	.182
S1	445312107134801	111ALVM	57-086-27bdc01	04-13-00	1750	7.5	462	8.0	<.020	.103

STATION NUMBER	DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-ORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB SULFONE, WAT, FLT REC (UG/L) (49313)
EPA DRINKING WATER STANDARD		1	--	--	--	--	70	--	20	35
443428106300901	04-13-00	.020	.144	37.83	60.00	4040	<.11	<.10	<.002	<.10
443438106530601	04-12-00	<.010	<.010	21.11	56.00	5010	<.11	<.10	<.002	<.10
443940107014001	04-13-00	<.010	<.010	--	60.00	4370	<.11	<.10	<.002	<.10
444116106503501	04-13-00	<.010	.010	12.98	48.00	4110	<.11	<.10	<.002	<.10
444218106592201	04-13-00	.017	.311	4.35	8.00	4068	<.11	<.10	<.002	<.16
444338106161001	04-13-00	<.010	.010	10.10	30.00	3722	<.11	<.10	<.002	<.10
444349106593601	04-13-00	<.010	<.010	19.30	42.00	4065	<.11	<.10	<.002	<.10
444618106562501	05-09-00	<.010	<.010	15.38	30.00	3818	<.11	<.10	<.002	<.10
444645106574001	04-12-00	<.010	.010	16.93	24.00	3881	<.11	<.10	<.002	<.10
444738106581601	05-09-00	<.010	<.010	7.16	18.00	3760	<.11	<.10	<.002	<.10
444910106584701	04-12-00	<.010	<.010	17.37	22.00	3770	<.11	<.10	<.002	<.10
444918107120101	04-13-00	<.010	<.010	11.29	25.00	4105	<.11	<.10	<.002	<.10
445014106490701	04-13-00	<.010	.055	15.52	50.00	3682	<.11	<.10	<.002	<.10
445300107101201	04-14-00	<.010	<.010	11.55	13.00	3832	<.11	<.10	<.002	<.10
445312107134801	04-13-00	<.010	<.010	8.93	20.00	3860	<.11	<.10	<.002	<.10

STATION NUMBER	DATE	ALDICA-RB SUL-FOXIDE, WAT, FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA, WATER, FLTRD, GF, REC (UG/L) (82682)	DEETHYL, ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD		35	35	3	90	--	1	16	--	--
443428106300901	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
443438106530601	04-12-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
443940107014001	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444116106503501	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444218106592201	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444338106161001	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444349106593601	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444618106562501	05-09-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444645106574001	04-12-00	<.02	<.27	.009	<.06	<.23	<.004	<.002	E.005	<.002
444738106581601	05-09-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
444910106584701	04-12-00	<.02	<.21	E.004	<.06	<.23	<.004	<.002	E.004	<.002
444918107120101	04-13-00	<.02	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
445014106490701	04-13-00	<.02	<.21	<.001	<.37	<.23	<.004	<.002	<.002	<.002
445300107101201	04-14-00	<.10	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002
445312107134801	04-13-00	<.11	<.21	<.001	<.06	<.23	<.004	<.002	<.002	<.002

< A < indicates compound not detected. The value behind the < is the method reporting limit.
E Estimated.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued
 (Water levels are at depth below land surface, in feet)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER 0.7 U GF, REC (UG/L) (82670)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)
EPA DRINKING WATER STANDARD		200	70	100	500	--	4	500	10	10
443428106300901	04-13-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
443438106530601	04-12-00	<.04	<.002	<.004	<.05	E.012	<.005	<.010	<1.00	<1.00
443940107014001	04-13-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
444116106503501	04-13-00	<.04	<.002	<.004	<.05	E.007	<.005	<.010	<1.00	<1.00
444218106592201	04-13-00	1.11	<.002	<.004	.61	<.018	<.005	<.010	<1.00	<1.00
444338106161001	04-13-00	<.04	<.002	<.004	<.05	E.008	<.005	<.010	<1.00	<1.00
444349106593601	04-13-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
444618106562501	05-09-00	<.04	<.002	<.004	<.05	E.002	<.005	<.010	<1.00	<1.00
444645106574001	04-12-00	<.04	<.002	<.004	12.2	.061	.006	.011	<1.00	<1.00
444738106581601	05-09-00	<.04	<.002	<.004	<.05	E.017	<.005	<.010	<1.00	<1.00
444910106584701	04-12-00	<.04	<.002	<.004	<.05	.033	<.005	<.010	<1.00	<1.00
444918107120101	04-13-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
445014106490701	04-13-00	<.04	<.002	<.004	<.05	<.018	.069	<.010	<1.00	<1.00
445300107101201	04-14-00	<.04	<.002	<.004	<.05	<.018	<.005	<.010	<1.00	<1.00
445312107134801	04-13-00	<.04	<.002	<.004	<.05	E.005	<.005	<.010	<1.00	<1.00

< A < indicates compound not detected. The value behind the < is the method reporting limit.
 E Estimated.

SUPPLEMENTARY DATA FOR PESTICIDE AND NUTRIENT SAMPLING PROGRAM

These pesticides are not pesticides of focus for the Pesticide and Nutrient Sampling Program (tabled on pages 104-112), but are included in the analytical methods employed by the program. No detections of these pesticides were found in the counties sampled in Water Year 2000.

PARAMETER LIST

PARAMETER CODE	COMPOUND NAME	MINIMUM REPORTING LEVELS ¹
49260	ACETOCHLOR	0.002
49315	ACIFLUORFEN	0.09
82673	BENFLURALIN	0.002
38711	BENTAZON	0.04
34253	ALPHA BHC	0.002
49311	BROMOXYNIL	0.04
04028	BUTYLATE	0.002
49307	CHLORAMBEN	0.1
49306	CHLOROTHALONIL	0.5
38933	CHLORPYRIFOS DISSOLVED	0.004
49304	DACTHAL, MONO-ACID	0.04
49303	DICHLOBENIL	0.07
49302	DICHLORPROP	0.03
39381	DIELDRIN, DISSOLVED	0.001
82660	2,6-DIETHYLANILINE	0.003
82677	DISULFOTON	0.02
49299	DNOC	0.4
82668	EPTC	0.002
82663	ETHALFLURALIN	0.004
82672	ETHOPROP	0.003
49297	FENURON	0.07
38811	FLUOMETURON	0.06
04095	FONOFOS	0.003
49308	3-HYDROXYCARBOFURAN	0.1
39341	LINDANE, DISSOLVED	0.004
38478	LINURON	0.09
39532	MALATHION, DISSOLVED	0.005
38482	MCPA	0.2
38487	MCPB	0.1
38501	METHIOCARB	0.03
49296	METHOMYL	0.02
82686	METHYL AZINPHOS	0.001
82667	METHYL PARATHION	0.006
82671	MOLINATE	0.004
82684	NAPROPAMIDE	0.003
49294	NEBURON	0.07
49293	NORFLURAZON	0.04
49292	ORYZALIN	0.3
38866	OXAMYL	0.02
39542	PARATHION, DISSOLVED	0.004
82669	PEBULATE	0.004
82683	PENDIMETHALIN	0.004
82687	PERMETHRIN, CIS	0.005
82664	PHORATE	0.002
82676	PRONAMIDE	0.003
04024	PROPACHLOR	0.007
82679	PROPANIL	0.004
82685	PROPARGITE	0.01
49236	PROPHAM	0.04
38538	PROPOXUR	0.08
39762	SILVEX, DISSOLVED	0.04
39742	2,4,5-T, DISSOLVED	0.04
82665	TERBACIL	0.007
82675	TERBUFOS	0.01
82681	THIOBENCARB	0.002
49235	TRICLOPYR	0.3
82661	TRIFLURALIN	0.002

¹The minimum reporting level (MRL) is the lowest concentration for which a chemical can be quantified by the analytical method. In practice, the MRL is affected by many variables associated with the sample, sampling, preservation, shipping, and laboratory conditions. Actual MRL values can and do vary from sample to sample.

GROUND-WATER QUALITY NEAR WASTEWATER-TREATMENT FACILITIES, GRAND TETON NATIONAL PARK

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	GEOLOGIC UNIT	LOCAL WELL NUMBER	DATE	TIME	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)
433932110430801	111ALVM	43-116-25cca01	09-06-00	1400	608	3.7	8.8	91
433939110424001	111ALVM	43-116-25dbd01	09-06-00	1140	606	2.2	8.3	159
433939110425601	111ALVM	43-116-25caa01	09-05-00	1530	604	2.7	8.1	133
434920110370801	111ALVM	45-115-36bcc01	09-06-00	1855	600	8.7	7.7	289
434927110370801	111ALVM	45-115-36bcb01	09-09-00	1125	592	4.2	7.1	653
435357110374102	111ALVM	45-115-02abc02	09-10-00	1000	596	<1.0	6.5	540
435357110374103	111ALVM	45-115-02abc03	09-09-00	1915	596	--	7.5	607
435357110374104	111ALVM	45-115-02abc04	09-09-00	1745	596	<1.0	7.2	542
435357110374105	111ALVM	45-115-02abc05	09-10-00	1230	596	<1.0	6.8	503
435358110374201	111ALVM	45-115-02abc06	09-09-00	1540	596	<1.0	6.2	449
440640110401001	111alvm	48-115-21bca01	09-08-00	1635	590	7.5	7.9	275
440643110400101	111alvm	48-115-21bdb01	09-08-00	1755	590	6.3	8.2	243
440645110401101	111alvm	48-115-21bc 02	09-08-00	1500	590	6.5	8.0	271
440645110402001	111ALVM	48-115-21bc 01	09-07-00	1100	602	6.2	7.3	337

STATION NUMBER	DATE	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)
433932110430801	09-06-00	7.5	47	14.3	2.66	.7	.1	1.1	5	47
433939110424001	09-06-00	9.0	87	26.9	4.78	.9	.0	1.1	3	87
433939110425601	09-05-00	10.5	70	21.3	4.08	.8	.0	.9	3	71
434920110370801	09-06-00	8.0	130	38.3	7.62	1.7	.4	10.4	15	127
434927110370801	09-09-00	11.0	230	78.1	8.45	5.2	1	42.0	28	210
435357110374102	09-10-00	9.0	91	27.1	5.57	7.8	3	54.9	54	130
435357110374103	09-09-00	--	200	59.7	12.5	3.5	1	42.2	31	219
435357110374104	09-09-00	7.5	99	30.1	5.66	7.1	2	53.8	52	138
435357110374105	09-10-00	10.0	86	25.6	5.27	7.0	2	52.0	54	125
435358110374201	09-09-00	9.0	83	24.9	5.17	6.0	2	45.9	52	116
440640110401001	09-08-00	5.5	110	33.9	7.34	2.5	.5	12.1	18	124
440643110400101	09-08-00	6.0	87	25.2	5.76	2.5	.7	15.6	28	104
440645110401101	09-08-00	6.0	120	35.1	8.09	2.1	.3	8.7	13	140
440645110402001	09-07-00	9.0	130	40.0	7.92	3.2	.7	17.6	22	157

STATION NUMBER	DATE	ALKA-LINITY WAT DIS-TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
433932110430801	09-06-00	41	26	.3	<.1	7.1	1.3	<.020	.167
433939110424001	09-06-00	76	92	.3	<.1	7.3	1.5	<.020	.092
433939110425601	09-05-00	60	73	.3	<.1	8.0	1.4	<.020	.079
434920110370801	09-06-00	121	148	8.3	.4	26.1	7.2	<.020	1.03
434927110370801	09-09-00	211	257	57.1	.2	27.0	15.2	<.020	7.35
435357110374102	09-10-00	178	217	61.6	.3	22.9	.4	5.38	<.050
435357110374103	09-09-00	213	260	68.2	.1	23.1	1.7	.174	<.050
435357110374104	09-09-00	177	215	56.7	.3	23.6	1.1	4.90	<.050
435357110374105	09-10-00	162	197	58.3	.3	22.8	.8	4.25	<.050
435358110374201	09-09-00	146	178	53.2	.3	21.9	1.1	2.28	<.050
440640110401001	09-08-00	118	144	6.6	.9	26.1	9.1	<.020	.404
440643110400101	09-08-00	101	124	7.3	1.2	26.8	9.8	<.020	.093
440645110401101	09-08-00	131	160	3.5	.6	23.9	2.4	<.020	.171
440645110402001	09-07-00	142	173	3.7	.8	27.9	2.7	<.020	4.08

QUALITY OF GROUND WATER

GROUND-WATER QUALITY NEAR WASTEWATER-TREATMENT FACILITIES, GRAND TETON NATIONAL PARK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR PER (COLS. 100 ML) (31673)
433932110430801	09-06-00	<.010	.010	49.00	6455	41	<1	<1	<1
433939110424001	09-06-00	<.010	.012	48.60	6460	89	<1	<1	<1
433939110425601	09-05-00	<.010	.012	42.80	6462	73	<1	<1	<1
434920110370801	09-06-00	<.010	.040	118.00	6860	178	<1	<1	<1
434927110370801	09-09-00	<.010	.785	120.00	6889	395	<1	<1	<1
435357110374102	09-10-00	<.010	1.08	15.00	6810	298	<1	<1	<1
435357110374103	09-09-00	<.010	.037	28.00	6810	339	K2	K19	<1
435357110374104	09-09-00	<.010	1.30	45.00	6810	294	<1	<1	<1
435357110374105	09-10-00	<.010	.950	12.50	6810	277	<1	<1	<1
435358110374201	09-09-00	<.010	.635	13.00	6810	251	<1	<1	<1
440640110401001	09-08-00	<.010	.017	47.30	6838	171	<1	<1	<1
440643110400101	09-08-00	<.010	.013	48.00	6845	155	<1	<1	<1
440645110401101	09-08-00	<.010	<.010	--	6837	164	<1	<1	<1
440645110402001	09-07-00	<.010	.358	37.30	6834	208	<1	<1	<1

K Results based on colony count outside the acceptable range (non-ideal colony count).

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

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 for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.