

Prepared in cooperation with the Albuquerque Bernalillo County Water Utility Authority

Water-Level Data for the Albuquerque Basin and Adjacent Areas, Central New Mexico, Period of Record Through September 30, 2018

Data Series 1116
Version 1.1, August 2021

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By Andre B. Ritchie and Amy E. Galanter

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Conversion Factors

Multiply	By	To obtain
Length		
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Area		
acre	4,047	square meter (m ²)

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88).

Water year is defined as beginning on October 1 and continuing through September 30 of the following year and designated by the calendar year in which it ends.

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Abstract

The Albuquerque Basin, located in central New Mexico, is about 100 miles long and 25–40 miles wide. The basin is hydrologically defined as the extent of consolidated and unconsolidated deposits of Tertiary and Quaternary age that encompasses the structural Rio Grande Rift between San Acacia to the south and Cochiti Lake to the north. A 20-percent population increase in the basin from 1990 to 2000 and a 22-percent population increase from 2000 to 2010 resulted in an increased demand for water in areas within the basin. Drinking-water supplies throughout the basin were obtained solely from groundwater resources until December 2008, when the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) began treatment and distribution of surface water from the Rio Grande through the San Juan-Chama Drinking Water Project.

An initial network of wells was established by the U.S. Geological Survey (USGS) in cooperation with the City of Albuquerque from April 1982 through September 1983 to monitor changes in groundwater levels throughout the Albuquerque Basin. In 1983, this network consisted of 6 wells with analog-to-digital recorders and 27 wells where water levels were measured monthly. As of 2018, the network consisted of 120 wells and piezometers. (A piezometer is a specialized well open to a specific depth in the aquifer, often of small diameter and nested with other piezometers open to different depths.) The USGS, in cooperation with the ABCWUA, the New Mexico Office of the State Engineer, and Bernalillo County, measures water levels from the 120 wells and piezometers in the network; this report, prepared in cooperation with the ABCWUA, presents water-level data collected by USGS personnel at those 120 sites through water year 2018 (October 1, 2017, through September 30, 2018). Water levels that were collected from wells in previous water years were published in previous USGS reports.

Introduction

The Albuquerque Basin, located in central New Mexico, is about 100 miles long and 25–40 miles wide (fig. 1). The basin is defined as the extent of consolidated and unconsolidated deposits of Tertiary and Quaternary age that encompasses the structural Rio Grande Rift within the basin (Thorn and others, 1993). The basin is approximately bisected by the southward-flowing Rio Grande, the only perennial stream extending through the length of it. The study area, which includes the Albuquerque Basin and adjacent areas, extends from just upstream of Cochiti Lake south to San Acacia and from near Tijeras Canyon west to near the intersection of Interstate 40 and the Bernalillo-Cibola County line.

In 2000, the population of the Albuquerque Basin was about 690,000 (Bartolino and Cole, 2002). According to 2010 U.S. Census Bureau data, the 2010 population was about 840,000 (U.S. Census Bureau, 2019; calculated as the sum of population for census tract centers within the basin). The basin population increased about 20 percent from 1990 to 2000 (Thorn and others, 1993; Bartolino and Cole, 2002) and about 22 percent from 2000 to 2010 (U.S. Census Bureau, 2019). The majority of the population is concentrated within the city limits of Albuquerque, which had a population of 448,607 in 2000 and 545,852 in 2010 (U.S. Census Bureau, 2012). Prior to 2008, demand for groundwater increased as population increased because drinking-water supplies throughout the Albuquerque Basin were obtained solely from groundwater sources. In December 2008, the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) began treatment and distribution of surface water from the Rio Grande to their customers through the San Juan-Chama Drinking Water Project.

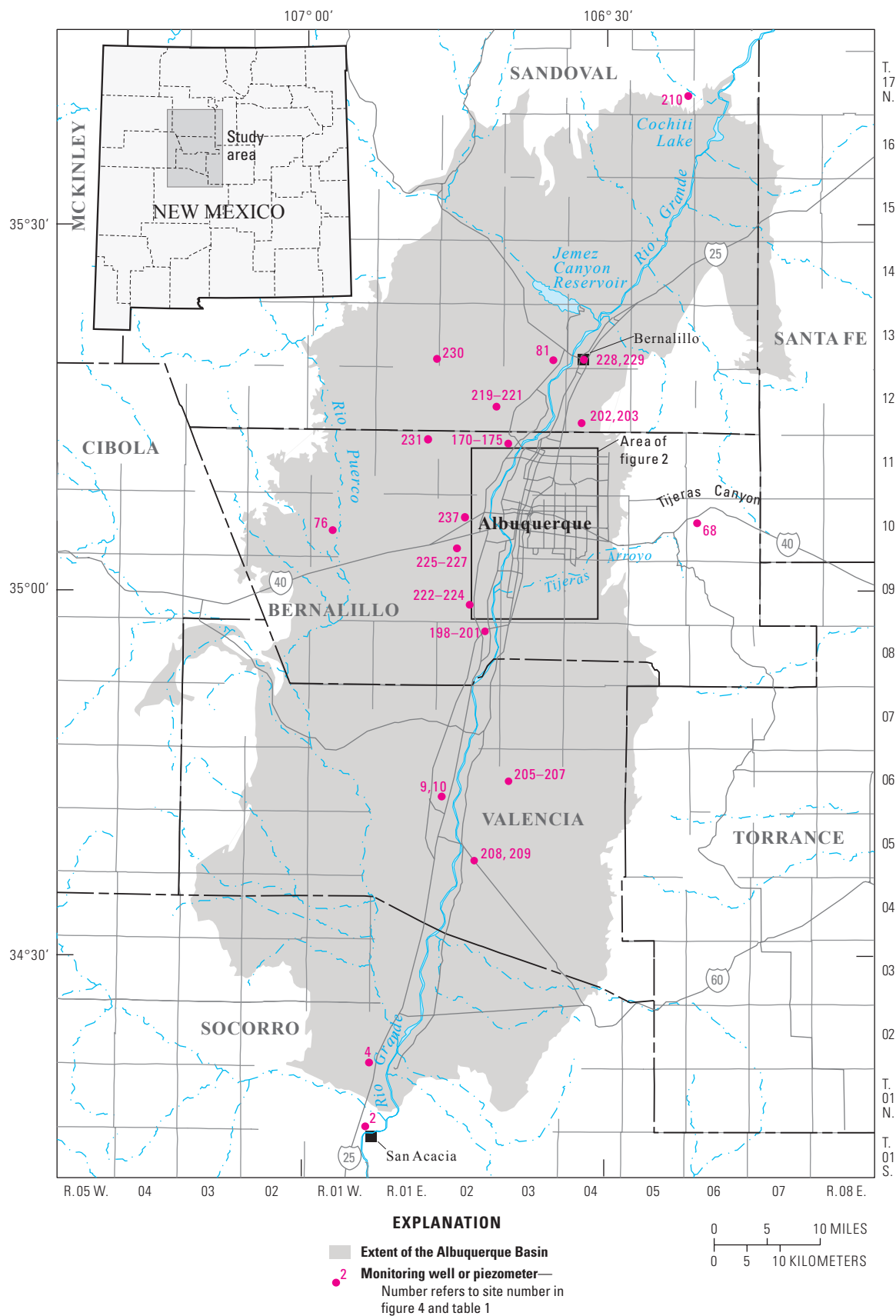


Figure 1. Location of the study area and selected monitoring wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico.

An initial network of wells was established by the U.S. Geological Survey (USGS) in cooperation with the City of Albuquerque from April 1982 through September 1983 to monitor changes in groundwater levels throughout the Albuquerque Basin. In 1983, this network consisted of 6 wells with analog-to-digital recorders and 27 wells where water levels were measured monthly. Since the initial installation, additional wells and piezometers have been added to the network, and as of 2018 the network consisted of 120 wells and piezometers (table 1). (A piezometer is a specialized well open to a specific depth in the aquifer, often of small diameter and nested with other piezometers open to different depths.) Of these wells and piezometers, 66 are equipped with continuously recording data loggers, and 54 are measured discretely (semiannually, quarterly, or irregularly) with a steel or electric tape. Discrete measurements are also collected at sites with data loggers but are not shown in this report with the exception of sites 42–45 (table 1), which have more than 10 years of discrete measurements prior to the installation of continuously recording data loggers.

The USGS, in cooperation with the ABCWUA, the New Mexico Office of the State Engineer (NMOSE), and Bernalillo County, measures water levels from the 120 wells and piezometers in the network (table 1). Monitoring-well locations within the basin and adjacent areas are shown in figure 1, and those within the Albuquerque metropolitan area are shown in figure 2. Data generated for this report are available in the USGS National Water Information System (U.S. Geological Survey, 2019).

Purpose and Scope

The purpose of this report, prepared in cooperation with the ABCWUA, is to present water-level data collected from the Albuquerque Basin well network during the 2018 water year (October 1, 2017, through September 30, 2018). Water-level data collected from the Albuquerque Basin and adjacent areas for the period of record through September 30, 2018, are presented. Water-level data that were collected from wells in previous water years can be found in previous USGS reports (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019). A water year is the 12-month period October 1 through September 30 designated by the calendar year in which it ends.

Well-Numbering System

The system of numbering wells and piezometers in New Mexico is based on the common subdivision of public lands into sections (fig. 3). Each well number, in addition to designating the well, locates the position to the nearest 10-acre tract in the public land survey system. This number (referred to as “local identifier” in table 1) is divided into four segments.

The first segment denotes the township (“T.”) north or south of the New Mexico base line, the second denotes the range (“R.”) east or west of the New Mexico principal meridian, and the third denotes the section. The fourth segment of the well number, which consists of three digits, denotes the 160-, 40-, and 10-acre tracts in which the well is located. Each section is divided into quarters—numbered 1, 2, 3, and 4—for the northwest, northeast, southwest, and southeast quarters, respectively. The first digit of the fourth segment gives the quarter section, which is a tract of 160 acres. Each quarter section is then subdivided into four 40-acre tracts numbered in the same manner, and the second digit denotes the 40-acre tract. Finally, each 40-acre tract is further subdivided into four 10-acre tracts, and the third digit denotes the 10-acre tract. The fourth segment of the well number can further denote subdivisions of the 10-acre tract by including more than three digits; each additional digit further subdivides the tract by quarters in the same manner as shown in figure 3. Letters A, B, C, and so on are added to the end of the last segment of the well number to designate the second, third, fourth, and succeeding wells in the same tract. For example, well 09N.03E.07.131A is the first subsequent well in the northwest quarter (NW 1/4) of the southwest quarter (SW 1/4) of the northwest quarter (NW 1/4) of section 7, T. 09 N., R. 03 E. (fig. 3).

Methods

Water-level measurements at 120 wells and piezometers in the network were collected during the 2018 water year by following standard USGS protocols for discrete and continuous water-level measurements using electric and steel tapes and continuously recording data loggers (Cunningham and Schalk, 2011). Discrete measurements are collected at 54 of the sites (table 1); 49 sites (2, 4, 9, 10, 12–20, 24–30, 32–41, 46–51, 53–55, 68, 70–73, 76, 81, 83, 87, and 237) are monitored semiannually, two sites (230 and 231) are monitored quarterly, and three sites (222–224) are monitored every 2 to 3 months. At 66 of the sites (42–45, 64, 165–184, 189–194, 196–203, 205–221, 225–229, and 232–236; table 1), pressure transducers and data loggers are used to collect continuous (hourly) water-level data.

Water-Level Data

Data for the 120 wells and piezometers in the network include site number, number of the figure on which the well location is shown, USGS site number, local identifier, other identifier (if applicable), latitude and longitude, well depth, screened interval, and method of water-level measurement shown in figure 4 (table 1). Hydrographs presenting water-level data collected by the USGS include water level in feet below land surface and water level in feet above the North American Vertical Datum of 1988 (NAVD 88) (fig. 4).

Table 1. Data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico.

[USGS, U.S. Geological Survey; --, no data or not applicable; C, continuous measurement; D, discrete measurement. Latitude and longitude are in decimal degrees and in conformance with the North American Datum of 1983. Discontinuity in numbering sequence is due to wells omitted from this report because of lack of recent data collection. Data from discontinued wells can be seen in previous USGS open-file reports and data series (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019)]

Site number	Figure number	USGS site number	Local identifier	Other identifier	Latitude	Longitude	Well depth (feet below land surface)	Screened interval (feet below land surface)	Method of water-level measurement shown in figure 4
2	1	341528106533301	01S.01W.01.213	--	34.25784459	-106.89308333	38	--	D
4	1	342107106530401	02N.01E.31.313	Sevilleta Refuge Headquarters	34.35200976	-106.88502789	223	210–220	D
9	1	344258106460901	06N.02E.30.412A	Estes 1	34.71616861	-106.76974946	135	125–130	D
10	1	344258106460902	06N.02E.30.412B	Estes 5	34.71616861	-106.76974946	300	265–270	D
12	2	350137106410501	09N.02E.12.214A	Rio Bravo Nest 1	35.02699256	-106.68530346	149	139–144	D
13	2	350137106410502	09N.02E.12.214B	Rio Bravo Nest 1	35.02699256	-106.68530346	104	94–99	D
14	2	350137106410503	09N.02E.12.214C	Rio Bravo Nest 1	35.02699256	-106.68530346	38	28–33	D
15	2	350138106395501	09N.03E.07.131A	Rio Bravo Nest 2	35.02727042	-106.66585862	154	144–149	D
16	2	350138106395502	09N.03E.07.131B	Rio Bravo Nest 2	35.02727042	-106.66585862	91	81–86	D
17	2	350138106395503	09N.03E.07.131C	Rio Bravo Nest 2	35.02727042	-106.66585862	49	39–44	D
18	2	350138106393201	09N.03E.07.241A	Rio Bravo Nest 3	35.02727045	-106.65946960	148	138–143	D
19	2	350138106393202	09N.03E.07.241B	Rio Bravo Nest 3	35.02727045	-106.65946960	101	91–96	D
20	2	350138106393203	09N.03E.07.241C	Rio Bravo Nest 3	35.02727045	-106.65946960	49	39–44	D
24	2	350138106401103	09N.03E.07.114B	Rio Bravo Nest 5	35.02780278	-106.67106944	515	500–510	D
25	2	350138106401101	09N.03E.07.114	Rio Bravo Nest 5	35.02781111	-106.67103333	150	135–145	D
26	2	350138106401102	09N.03E.07.114A	Rio Bravo Nest 5	35.02778611	-106.67103611	22	7–17	D
27	2	350854106403701	11N.02E.25.341A	Montaño Nest 1	35.14837767	-106.67752663	152	140–145	D
28	2	350854106403702	11N.02E.25.341B	Montaño Nest 1	35.14837767	-106.67752663	93	83–88	D
29	2	350854106403703	11N.02E.25.341C	Montaño Nest 1	35.14837767	-106.67752663	48	40–45	D
30	2	350836106395601	11N.03E.31.122A	Montaño Nest 2	35.14337788	-106.66613746	147	138–143	D
32	2	350836106395603	11N.03E.31.122C	Montaño Nest 2	35.14337788	-106.66613746	40	30–35	D
33	2	350827106391301	11N.03E.32.132A	Montaño Nest 3	35.14087802	-106.65419275	150	140–145	D
34	2	350827106391302	11N.03E.32.132B	Montaño Nest 3	35.14087802	-106.65419275	99	90–95	D
35	2	350827106391303	11N.03E.32.132C	Montaño Nest 3	35.14087802	-106.65419275	50	40–45	D
36	2	350821106383701	11N.03E.32.234A	Montaño Nest 4	35.13921145	-106.64419253	132	123–128	D
37	2	350821106383702	11N.03E.32.234B	Montaño Nest 4	35.13921145	-106.64419253	94	85–90	D
38	2	350821106383703	11N.03E.32.234C	Montaño Nest 4	35.13937811	-106.64455365	50	40–45	D

Table 1. Data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico.—Continued

[USGS, U.S. Geological Survey; --, no data or not applicable; C, continuous measurement; D, discrete measurement. Latitude and longitude are in decimal degrees and in conformance with the North American Datum of 1983. Discontinuity in numbering sequence is due to wells omitted from this report because of lack of recent data collection. Data from discontinued wells can be seen in previous USGS open-file reports and data series (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019)]

Site number	Figure number	USGS site number	Local identifier	Other identifier	Latitude	Longitude	Well depth (feet below land surface)	Screened interval (feet below land surface)	Method of water-level measurement shown in figure 4
39	2	350859106401601	11N.03E.30.313	Montaño Nest 5	35.14976654	-106.67169319	25	10–20	D
40	2	350859106401602	11N.03E.30.313A	Montaño Nest 5	35.14976654	-106.67169319	75	60–70	D
41	2	350859106401603	11N.03E.30.313B	Montaño Nest 5	35.14976654	-106.67169319	150	135–145	D
42	2	350836106395401	11N.03E.31.21311A	Montaño Nest 6	35.14298611	-106.66544444	983	972–978	C and D
43	2	350836106395402	11N.03E.31.21311B	Montaño Nest 6	35.14298611	-106.66544444	836	826–831	C and D
44	2	350836106395403	11N.03E.31.21311C	Montaño Nest 6	35.14298611	-106.66544444	568	558–563	C and D
45	2	350836106395404	11N.03E.31.21311D	Montaño Nest 6	35.14298611	-106.66544444	182	172–177	C and D
46	2	351059106385903	11N.03E.17.141B	Paseo del Norte Nest 1	35.18289722	-106.65065556	600	545–555	D
47	2	351059106385901	11N.03E.17.141	Paseo del Norte Nest 1	35.18289722	-106.65065556	150	135–145	D
48	2	351059106385902	11N.03E.17.141A	Paseo del Norte Nest 1	35.18289722	-106.65065556	25	10–20	D
49	2	351057106384201	11N.03E.17.233	Paseo del Norte Nest 2	35.18254342	-106.64558184	150	135–145	D
50	2	351057106384202	11N.03E.17.233A	Paseo del Norte Nest 2	35.18254342	-106.64558184	95	80–90	D
51	2	351057106384203	11N.03E.17.233B	Paseo del Norte Nest 2	35.18254342	-106.64558184	45	30–40	D
53	2	351035106364703	11N.03E.15.344C	Paseo del Norte Nest 3	35.17686944	-106.61366667	544	539–544	D
54	2	351035106364702	11N.03E.15.344B	Paseo del Norte Nest 3	35.17686944	-106.61366667	144	139–144	D
55	2	351035106364701	11N.03E.15.344A	Paseo del Norte Nest 3	35.17686944	-106.61366667	69	64–69	D
64	2	350256106390801	10N.03E.32.314	San Jose 9	35.04897222	-106.65331944	765	189–765	C
68	1	350602106210401	10N.05E.12.434	Home Oil	35.10060157	-106.35169117	54	--	D
70	2	350548106383901	10N.03E.17.232	City 1	35.09643056	-106.64495000	149	139–149	D
71	2	350824106375301	11N.03E.33.143	City 2	35.14004482	-106.63197006	150	140–150	D
72	2	350837106393801	11N.03E.31.214	City 3	35.14337791	-106.66113736	152	142–152	D
73	2	350646106403601	10N.02E.12.241	City 4	35.11282323	-106.67724852	150	140–150	D
76	1	350454106570401	10N.01W.21.134	Cañoncito	35.08171142	-106.95170006	117	--	D
81	1	351852106344901	13N.03E.36.132A	San Miguel	35.31473333	-106.58128611	206	--	D
83	2	350829106420401	11N.02E.35.142	La Luz del Sol	35.14341389	-106.70094722	250	230–245	D
87	2	351009106344701	11N.03E.24.142	Pino Yards	35.16921082	-106.58030259	360	320–360	D
165	2	350908106344401	11N.03E.25.322	Sister Cities	35.15256667	-106.57949167	1,308	1,298–1,303	C
166	2	350908106344402	11N.03E.25.322A	Sister Cities	35.15256667	-106.57949167	799	789–794	C

Table 1. Data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico.—Continued

[USGS, U.S. Geological Survey; --, no data or not applicable; C, continuous measurement; D, discrete measurement. Latitude and longitude are in decimal degrees and in conformance with the North American Datum of 1983. Discontinuity in numbering sequence is due to wells omitted from this report because of lack of recent data collection. Data from discontinued wells can be seen in previous USGS open-file reports and data series (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019)]

Site number	Figure number	USGS site number	Local identifier	Other identifier	Latitude	Longitude	Well depth (feet below land surface)	Screened interval (feet below land surface)	Method of water-level measurement shown in figure 4
167	2	350534106354701	10N.03E.14.324	Del Sol Divider	35.09302222	-106.59702778	1,567	1,557–1,562	C
168	2	350534106354702	10N.03E.14.324A	Del Sol Divider	35.09302222	-106.59702778	842	832–837	C
169	2	350534106354703	10N.03E.14.324B	Del Sol Divider	35.09302222	-106.59702778	425	315–415	C
170	1	351201106400501	11N.03E.07.141	Hunters Ridge Nest 1	35.20005278	-106.66900556	1,518	1,508–1,513	C
171	1	351201106400502	11N.03E.07.141A	Hunters Ridge Nest 1	35.20005278	-106.66900556	855	845–850	C
172	1	351201106400503	11N.03E.07.141B	Hunters Ridge Nest 1	35.20005278	-106.66900556	238	148–228	C
173	1	351201106400504	11N.03E.07.141C	Hunters Ridge Nest 2	35.20005278	-106.66900556	359	349–354	C
174	1	351201106400505	11N.03E.07.141D	Hunters Ridge Nest 2	35.20005278	-106.66900556	305	295–300	C
175	1	351201106400506	11N.03E.07.141E	Hunters Ridge Nest 2	35.20005278	-106.66900556	263	238–258	C
176	2	350638106413701	10N.02E.11.244	West Bluff Nest 1	35.11000556	-106.69462222	1,095	1,085–1,090	C
177	2	350638106413702	10N.02E.11.244A	West Bluff Nest 1	35.11000556	-106.69462222	689	679–684	C
178	2	350638106413703	10N.02E.11.244B	West Bluff Nest 1	35.11000556	-106.69462222	433	422–427	C
179	2	350638106413704	10N.02E.11.244C	West Bluff Nest 2	35.11000556	-106.69462222	328	318–323	C
180	2	350638106413705	10N.02E.11.244D	West Bluff Nest 2	35.11000556	-106.69462222	254	244–249	C
181	2	350638106413706	10N.02E.11.244E	West Bluff Nest 2	35.11000556	-106.69462222	173	143–163	C
182	2	350706106390301	10N.03E.05.341	Garfield Park	35.11798611	-106.65127222	1,020	995–1,010	C
183	2	350706106390302	10N.03E.05.341A	Garfield Park	35.11798611	-106.65127222	582	552–572	C
184	2	350706106390303	10N.03E.05.341B	Garfield Park	35.11798611	-106.65127222	93	43–83	C
189	2	351114106330601	11N.04E.18.222	Nor Este	35.18660833	-106.55321111	1,525	1,515–1,520	C
190	2	351114106330602	11N.04E.18.222A	Nor Este	35.18660833	-106.55321111	1,193	1,183–1,188	C
191	2	351114106330603	11N.04E.18.222B	Nor Este	35.18660833	-106.55321111	608	538–598	C
192	2	350910106414801	11N.03E.26.243	Sierra Vista	35.15273889	-106.69651944	1,644	1,634–1,639	C
193	2	350910106414802	11N.03E.26.243A	Sierra Vista	35.15273889	-106.69651944	928	918–923	C
194	2	350910106414803	11N.03E.26.243B	Sierra Vista	35.15273889	-106.69651944	210	140–200	C
196	2	350056106370102	09N.03E.10.334A	Montessa Park	35.01586111	-106.61731667	708	698–703	C
197	2	350056106370103	09N.03E.10.334B	Montessa Park	35.01586111	-106.61731667	330	260–320	C
198	1	345650106415901	08N.02E.02.413	Isleta	34.94729167	-106.69992778	1,340	1,330–1,335	C
199	1	345650106415902	08N.02E.02.413A	Isleta	34.94729167	-106.69992778	815	805–810	C
200	1	345650106415903	08N.02E.02.413B	Isleta	34.94729167	-106.69992778	185	175–180	C
201	1	345650106415904	08N.02E.02.413C	Isleta	34.94729167	-106.69992778	50	10–40	C

Table 1. Data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico.—Continued

[USGS, U.S. Geological Survey; --, no data or not applicable; C, continuous measurement; D, discrete measurement. Latitude and longitude are in decimal degrees and in conformance with the North American Datum of 1983. Discontinuity in numbering sequence is due to wells omitted from this report because of lack of recent data collection. Data from discontinued wells can be seen in previous USGS open-file reports and data series (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019)]

Site number	Figure number	USGS site number	Local identifier	Other identifier	Latitude	Longitude	Well depth (feet below land surface)	Screened interval (feet below land surface)	Method of water-level measurement shown in figure 4
202	1	351357106323001	12N.04E.29.433	Sandia Pueblo	35.23254235	−106.54224682	1,305	1,295–1,300	C
203	1	351357106323002	12N.04E.29.433A	Sandia Pueblo	35.23254235	−106.54224682	1,025	1,015–1,020	C
205	1	344431106393401	06N.03E.18.442	Tomé	34.74185000	−106.66237778	1,200	1,185–1,195	C
206	1	344431106393402	06N.03E.18.442A	Tomé	34.74185000	−106.66237778	710	695–705	C
207	1	344431106393403	06N.03E.18.442B	Tomé	34.74185000	−106.66237778	275	225–265	C
208	1	343753106430601	05N.03E.28.411	Nancy Lopez	34.63138333	−106.71845556	1,186	1,166–1,176	C
209	1	343753106430602	05N.03E.28.411A	Nancy Lopez	34.63138333	−106.71845556	695	675–685	C
210	1	354056106215801	17N.05E.24.344	Dome Road	35.68141751	−106.36669452	1,295	1,280–1,290	C
211	2	350100106405701	09N.02E.12.433	Rio Bravo Park	35.01659444	−106.68274722	595	585–590	C
212	2	350100106405702	09N.02E.12.433A	Rio Bravo Park	35.01659444	−106.68274722	210	200–205	C
213	2	345758106364001	09N.03E.34.231	Mesa del Sol	34.96625833	−106.61168611	1,630	1,580–1,620	C
214	2	345758106364002	09N.03E.34.231A	Mesa del Sol	34.96625833	−106.61168611	1,015	990–1,010	C
215	2	345758106364003	09N.03E.34.231B	Mesa del Sol	34.96625833	−106.61168611	525	420–520	C
216	2	350653106311601	10N.04E.09.214	Matheson Park	35.11477500	−106.52182222	1,520	1,460–1,500	C
217	2	350653106311602	10N.04E.09.214A	Matheson Park	35.11477500	−106.52182222	1,045	1,020–1,040	C
218	2	350653106311603	10N.04E.09.214B	Matheson Park	35.11477500	−106.52182222	705	600–700	C
219	1	351515106410401	12N.02E.24.144	Lincoln Middle School	35.25423056	−106.68513889	1,260	1,200–1,240	C
220	1	351515106410402	12N.02E.24.144A	Lincoln Middle School	35.25423056	−106.68513889	835	810–830	C
221	1	351515106410403	12N.02E.24.144B	Lincoln Middle School	35.25423056	−106.68513889	595	490–590	C
222	1	345842106443101	09N.02E.28.312	Niese Road	34.97850833	−106.74157778	1,455	1,445–1,450	D
223	1	345842106443102	09N.02E.28.312A	Niese Road	34.97850833	−106.74157778	960	950–955	D
224	1	345842106443103	09N.02E.28.312B	Niese Road	34.97850833	−106.74157778	297	242–292	D
225	1	350244106450201	10N.02E.32.433	Westgate Heights Park	35.04563611	−106.75075278	1,290	1,280–1,285	C
226	1	350244106450202	10N.02E.32.433A	Westgate Heights Park	35.04563611	−106.75075278	868	858–863	C
227	1	350244106450203	10N.02E.32.433B	Westgate Heights Park	35.04563611	−106.75075278	370	320–360	C
228	1	351821106333901	13N.04E.31.343	Bernalillo	35.30549722	−106.55992500	1,190	1,175–1,185	C
229	1	351821106333902	13N.04E.31.343A	Bernalillo	35.30549722	−106.55992500	320	300–310	C

Table 1. Data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico.—Continued

[USGS, U.S. Geological Survey; --, no data or not applicable; C, continuous measurement; D, discrete measurement. Latitude and longitude are in decimal degrees and in conformance with the North American Datum of 1983. Discontinuity in numbering sequence is due to wells omitted from this report because of lack of recent data collection. Data from discontinued wells can be seen in previous USGS open-file reports and data series (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019)]

Site number	Figure number	USGS site number	Local identifier	Other identifier	Latitude	Longitude	Well depth (feet below land surface)	Screened interval (feet below land surface)	Method of water-level measurement shown in figure 4
230	1	352019106474801	13N.01E.24.313	Phoenix Road	35.33926111	−106.79660278	1,625	1,600–1,620	D
231	1	351040106482801	11N.01E.14.342	Paradise Road	35.17772222	−106.80766667	1,735	1,720–1,730	D
232	2	350545106335901	10N.04E.18.133A	Jerry Cline Park	35.09531389	−106.56608056	1,455	1,435–1,445	C
233	2	350545106335902	10N.04E.18.133B	Jerry Cline Park	35.09531389	−106.56608056	1,050	1,030–1,040	C
234	2	350545106335903	10N.04E.18.133C	Jerry Cline Park	35.09531389	−106.56608056	510	400–500	C
235	2	350307106410601	10N.02E.36.321A	Armijo	35.05063333	−106.68394722	1,623	1,593–1,613	C
236	2	350307106410602	10N.02E.36.321B	Armijo	35.05063333	−106.68394722	1,025	995–1,015	C
237	1	350552106444601	10N.02E.17.242	Arroyo Vista	35.09775000	−106.74633333	1,424	520–1,424	D

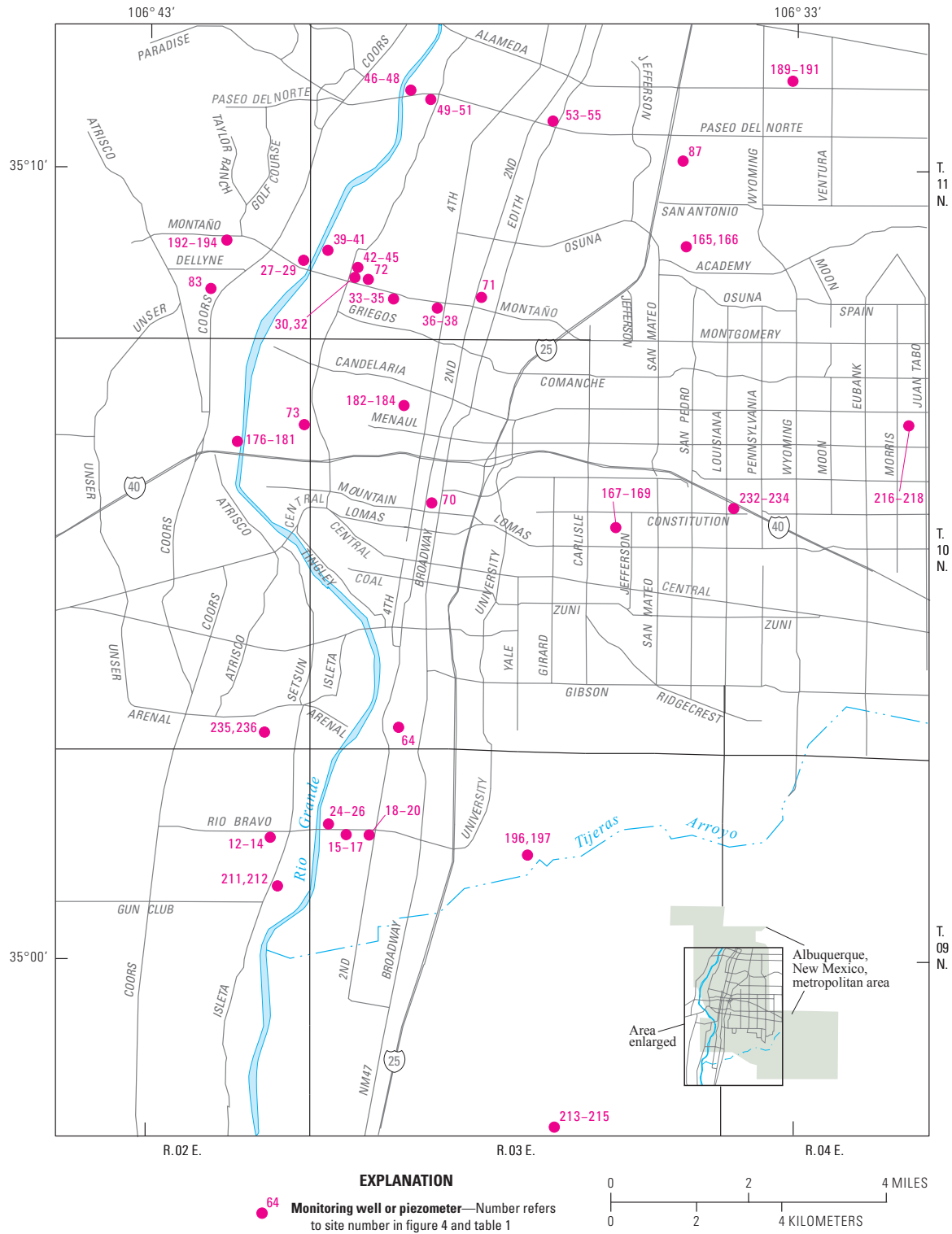


Figure 2. Location of selected monitoring wells and piezometers within the Albuquerque, New Mexico, metropolitan area.

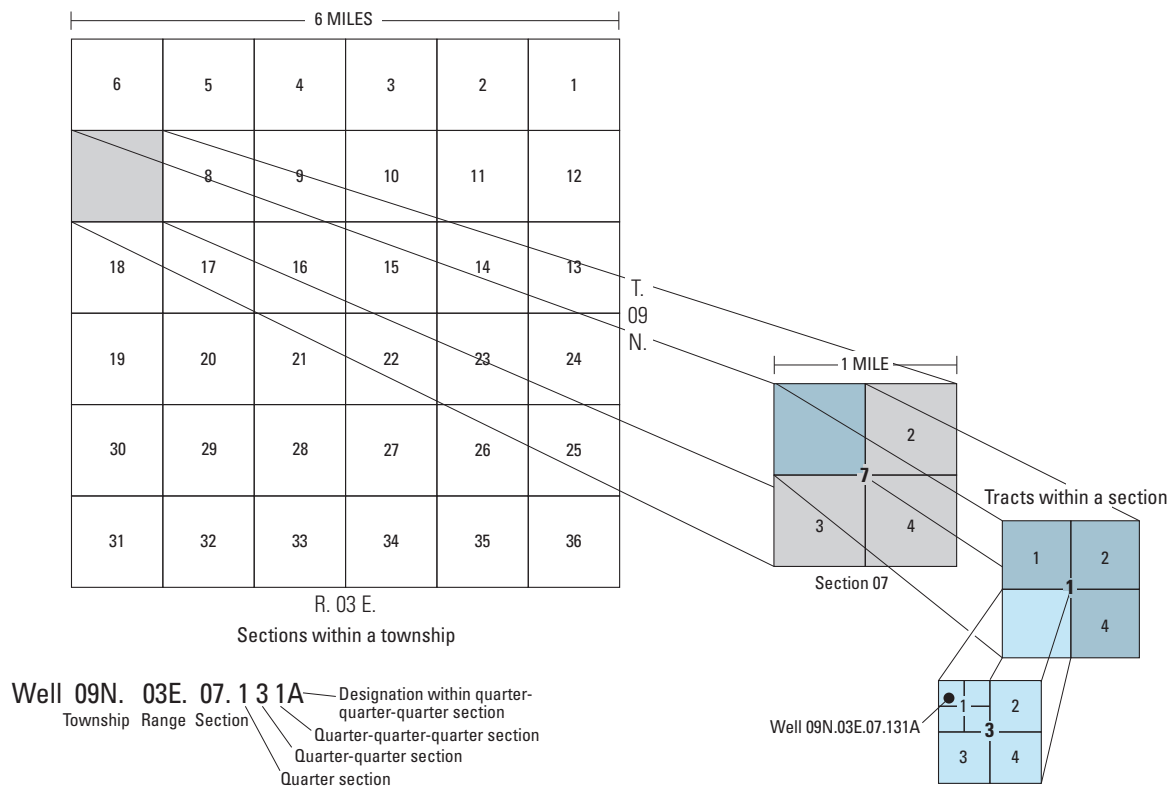


Figure 3. System for numbering wells and piezometers in New Mexico.

Data in hydrographs from wells that have continuous (hourly) recorders are shown by solid lines that represent daily mean water levels (fig. 4). In hydrographs that present data from discretely measured wells, dashed lines connect symbols (“+”) that represent the discrete measurements (fig. 4). In hydrographs showing discretely measured piezometers that are nested (more than one trace per graph), the symbols were removed to make the hydrographs easier to read (fig. 4). There are two hydrographs presenting data for sites 42–45 (table 1): one showing discrete water-level measurements and one showing continuous data (fig. 4). Data gaps are present in some of the continuous hydrographs; these gaps may be caused by equipment malfunction or removal of spurious data during the review and approval process.

A gasoline smell was documented at the well head of the Dead Man’s Curve site (USGS site number 350359106254701; site 66 in Beman and others [2019] and earlier USGS reports) in early 2018 following pumping of the well in 2017 to collect a water sample. Data collection was

suspended at this site because of the fumes at the well head. Because no new data were collected at this site between October 1, 2017, and September 30, 2018, the hydrograph for this site was not included in this report. Continuous data from site 66 can be viewed in the previous USGS reports (Kues, 1987; Rankin, 1994, 1996, 1998, 1999, 2000; DeWees, 2001, 2002, 2003, 2006; Beman, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015; Beman and Torres, 2010; Beman and Bryant, 2016; Beman and others, 2019).

The transducers and data loggers were removed from sites 222–224 in 2014, but discrete measurements have been collected at those sites since that time (table 1). Continuous data from sites 222–224 can be viewed in the previous USGS reports. Discrete measurements were not obtained from site 86 in water year 2018 because of an obstruction in the well; thus, the hydrograph for this site was not included in this report. Discrete data from site 86 can be viewed in the previous USGS reports.

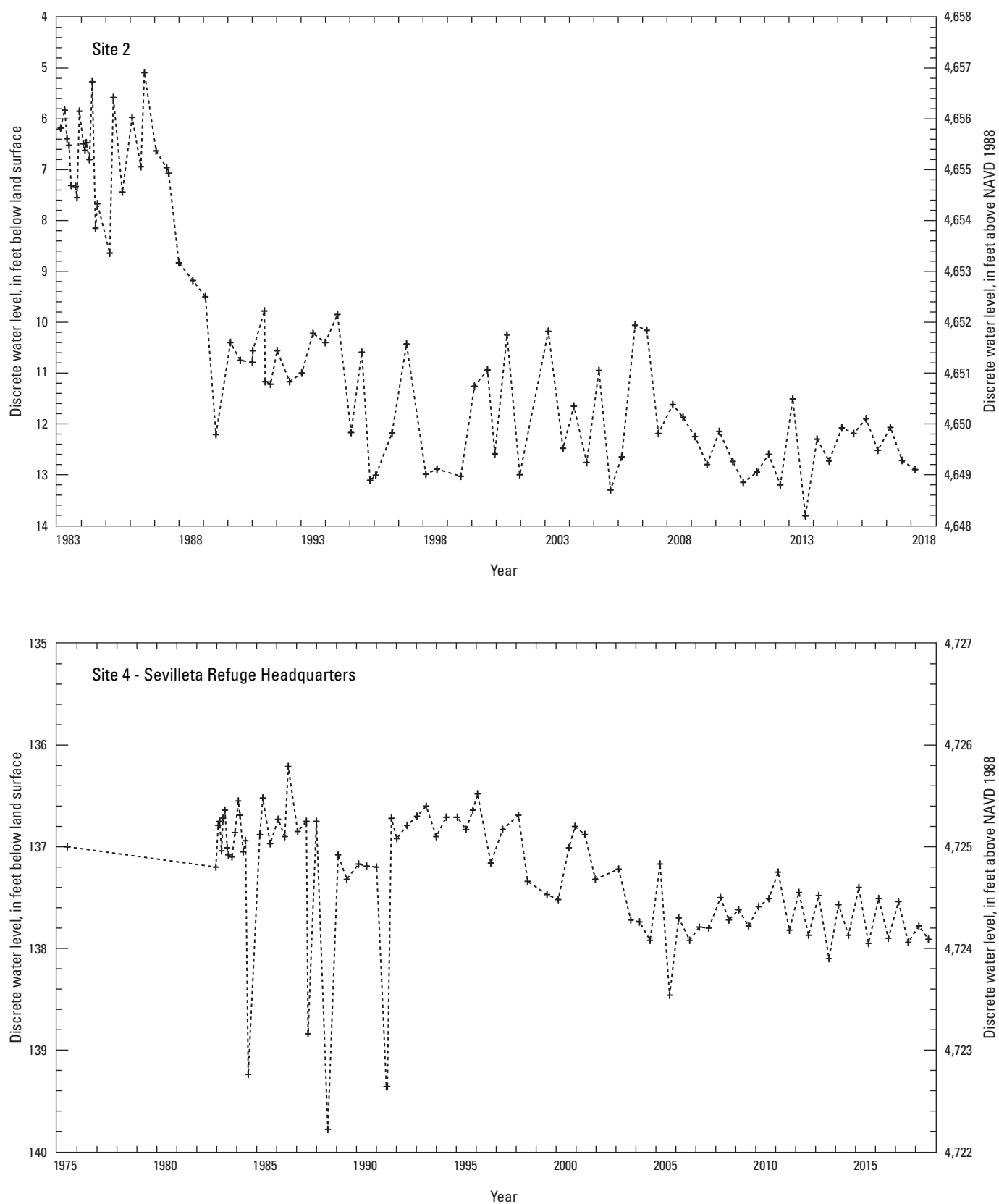


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.

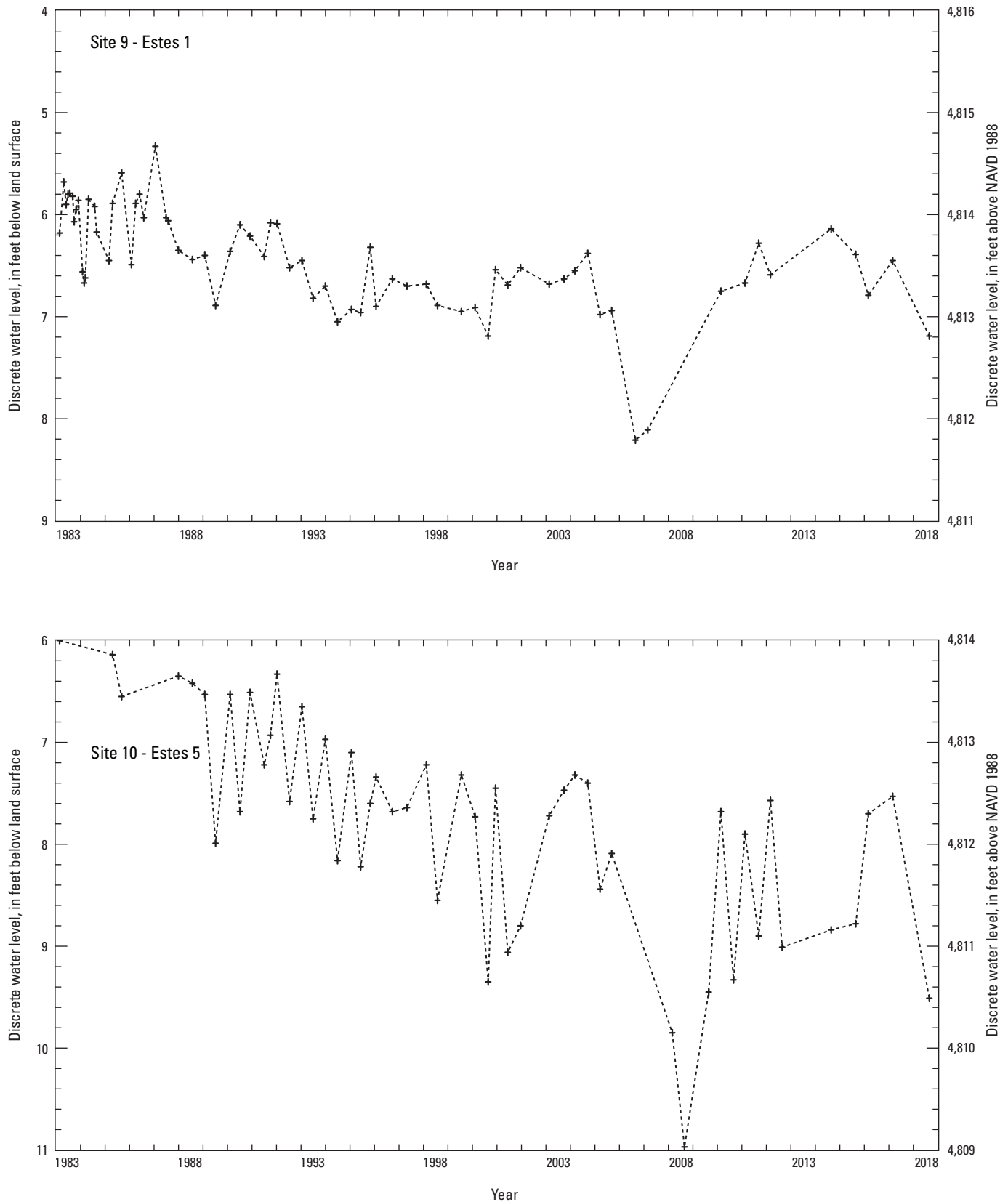


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

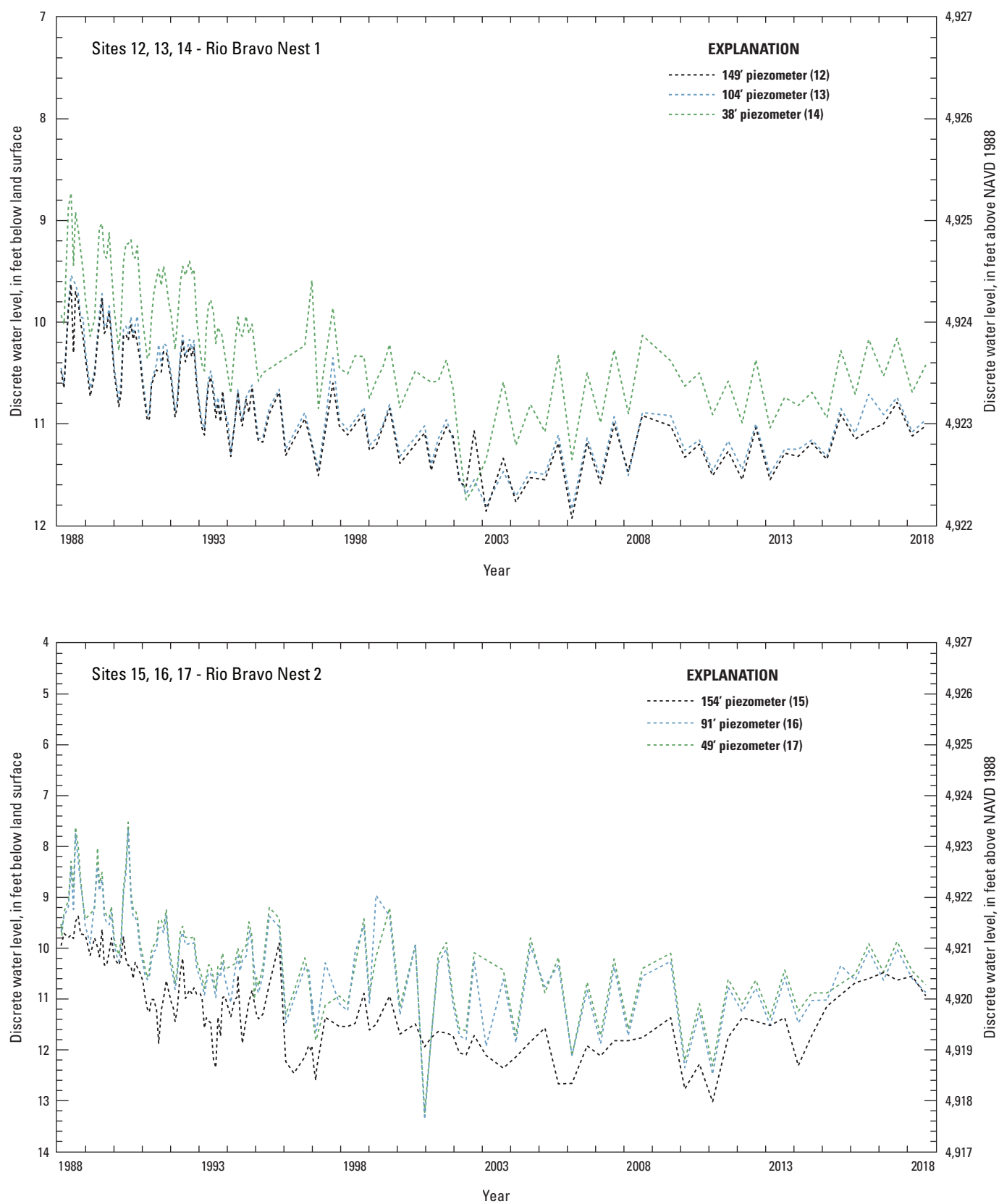


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

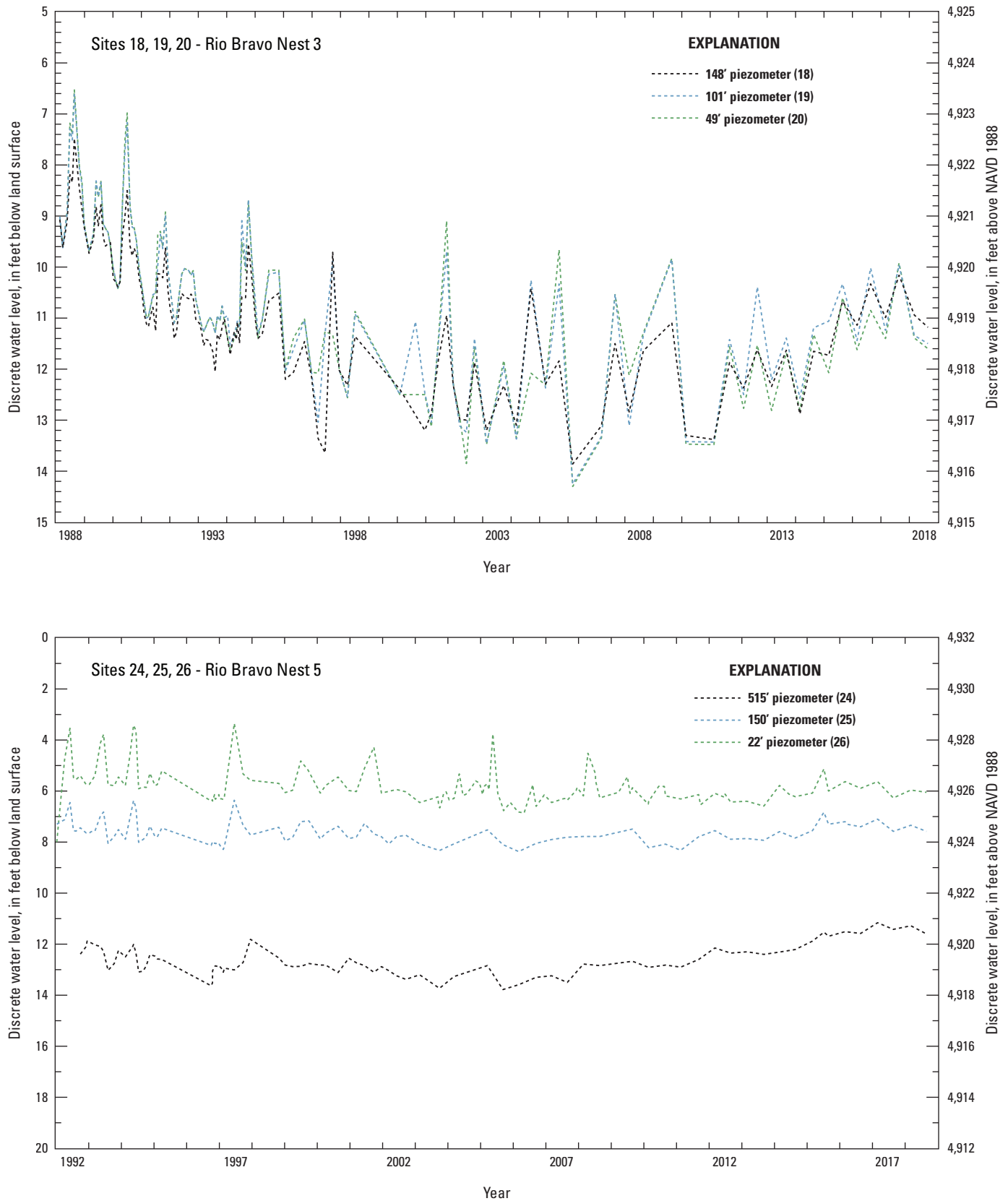


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

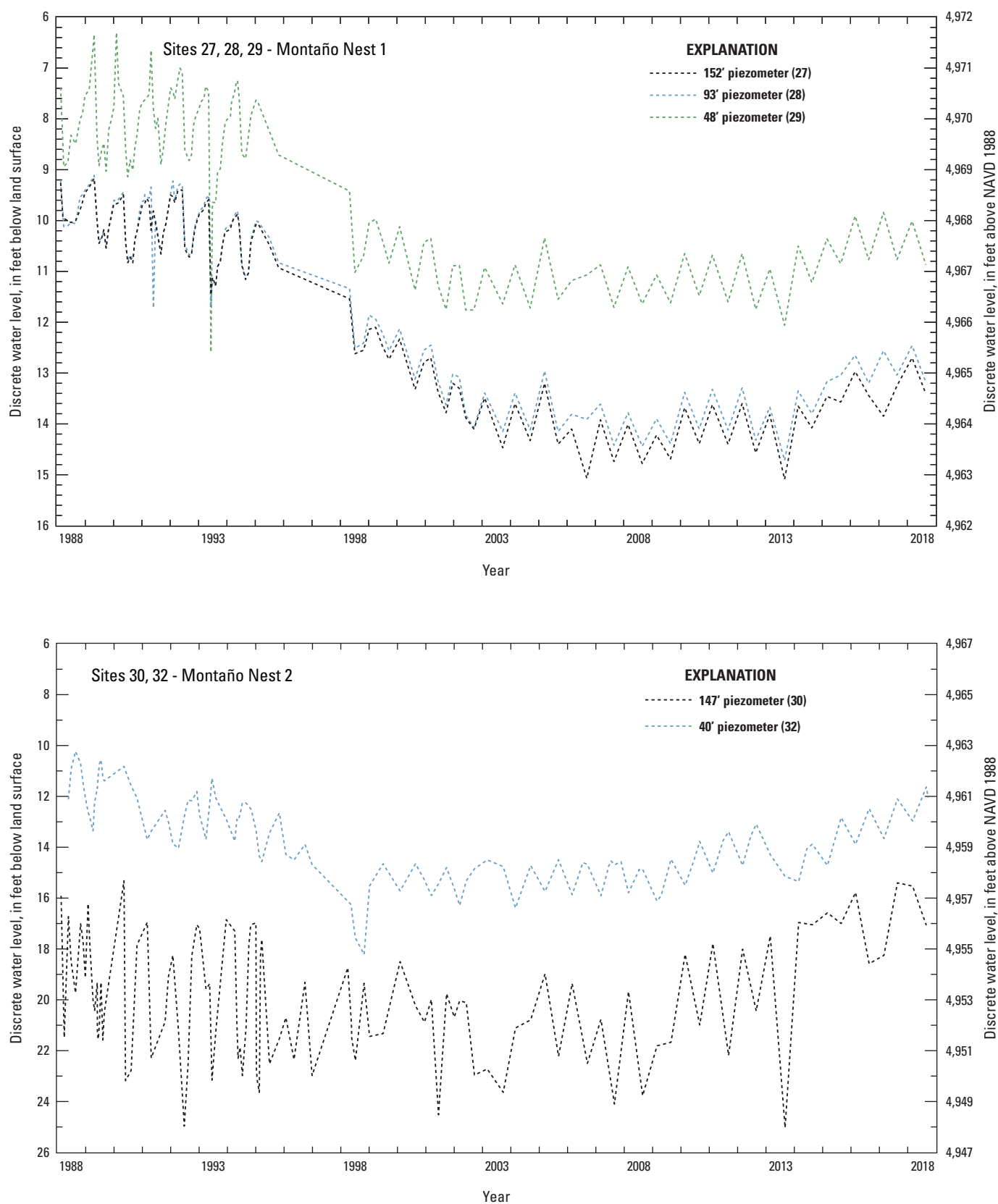


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

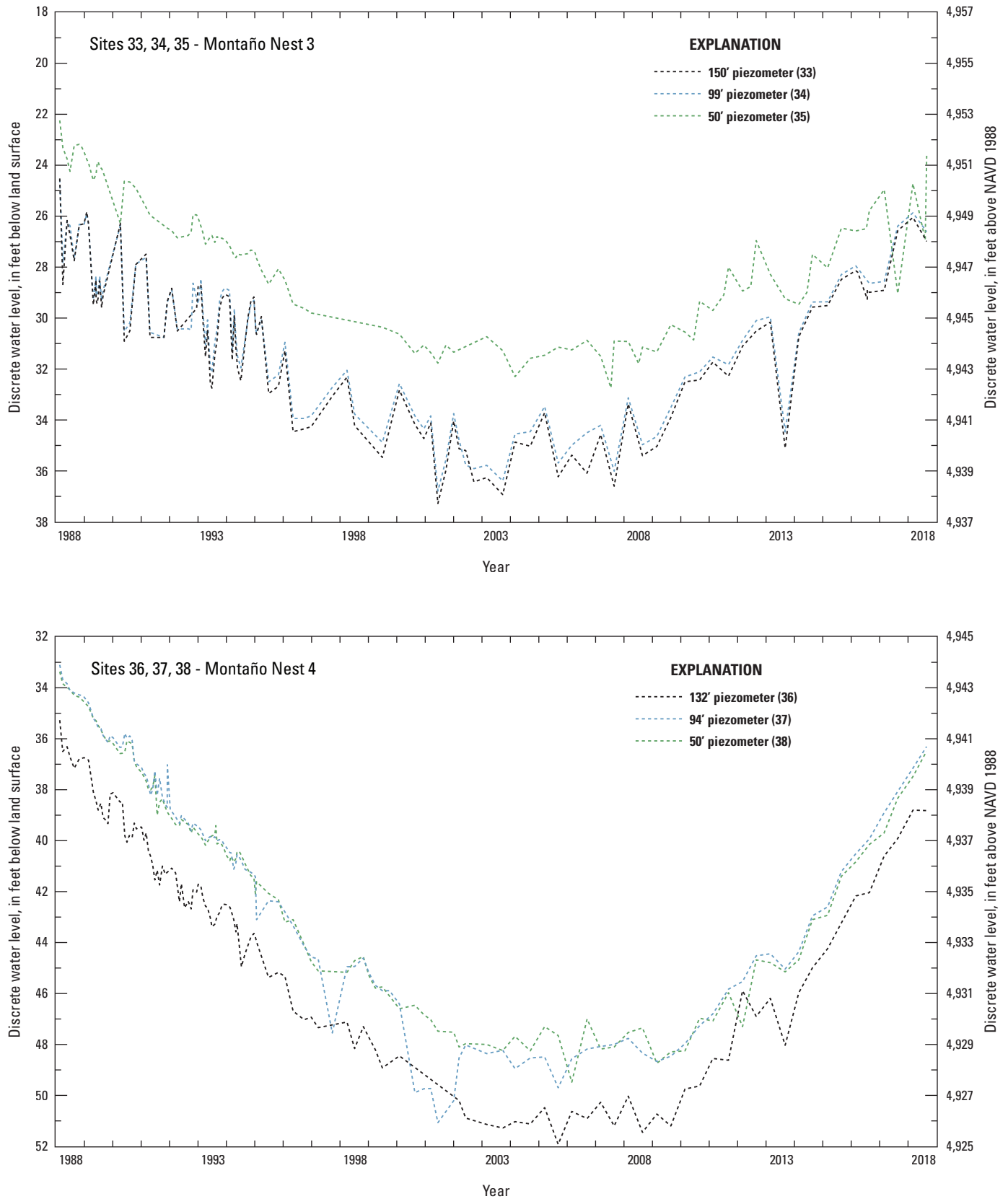


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

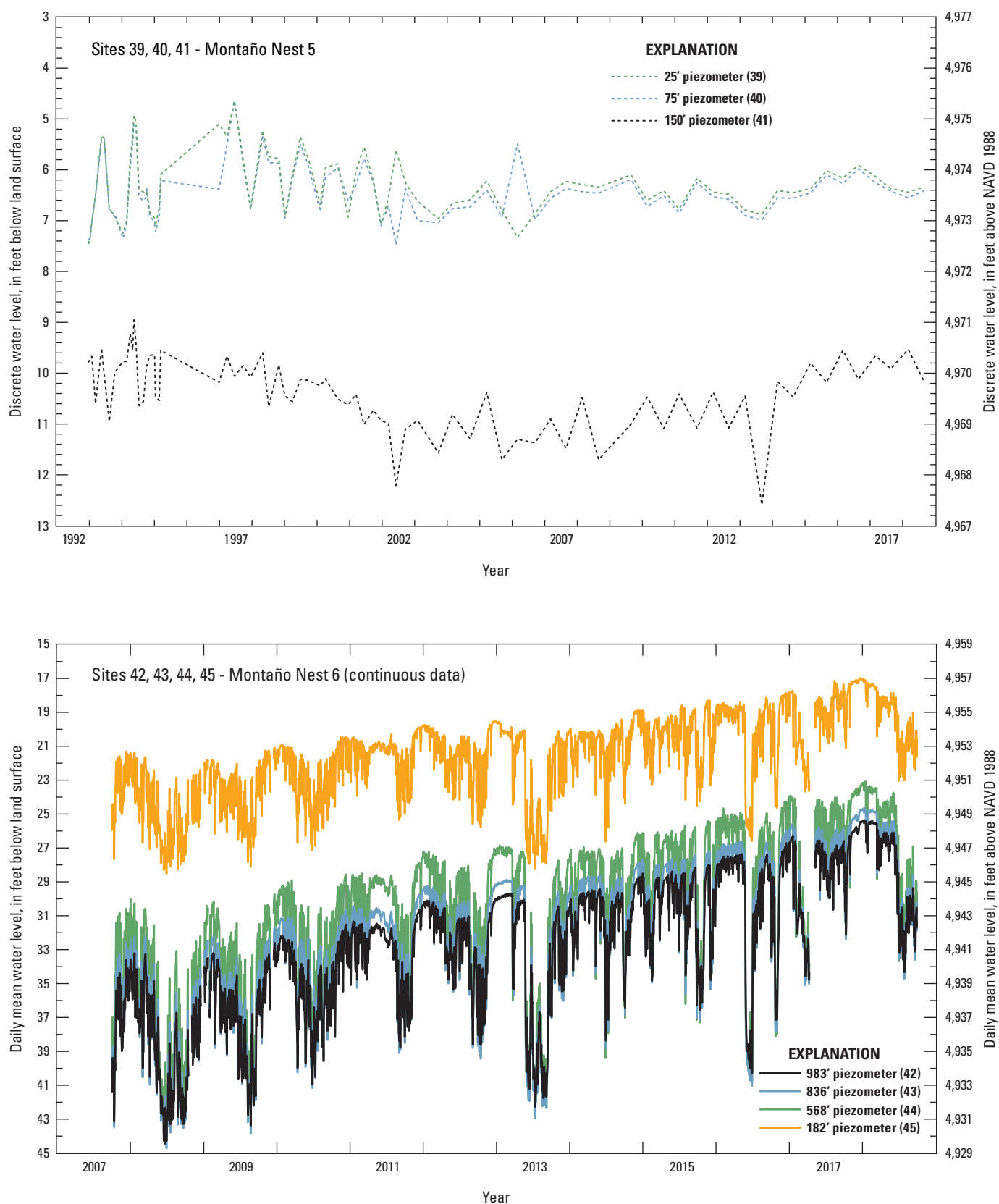


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

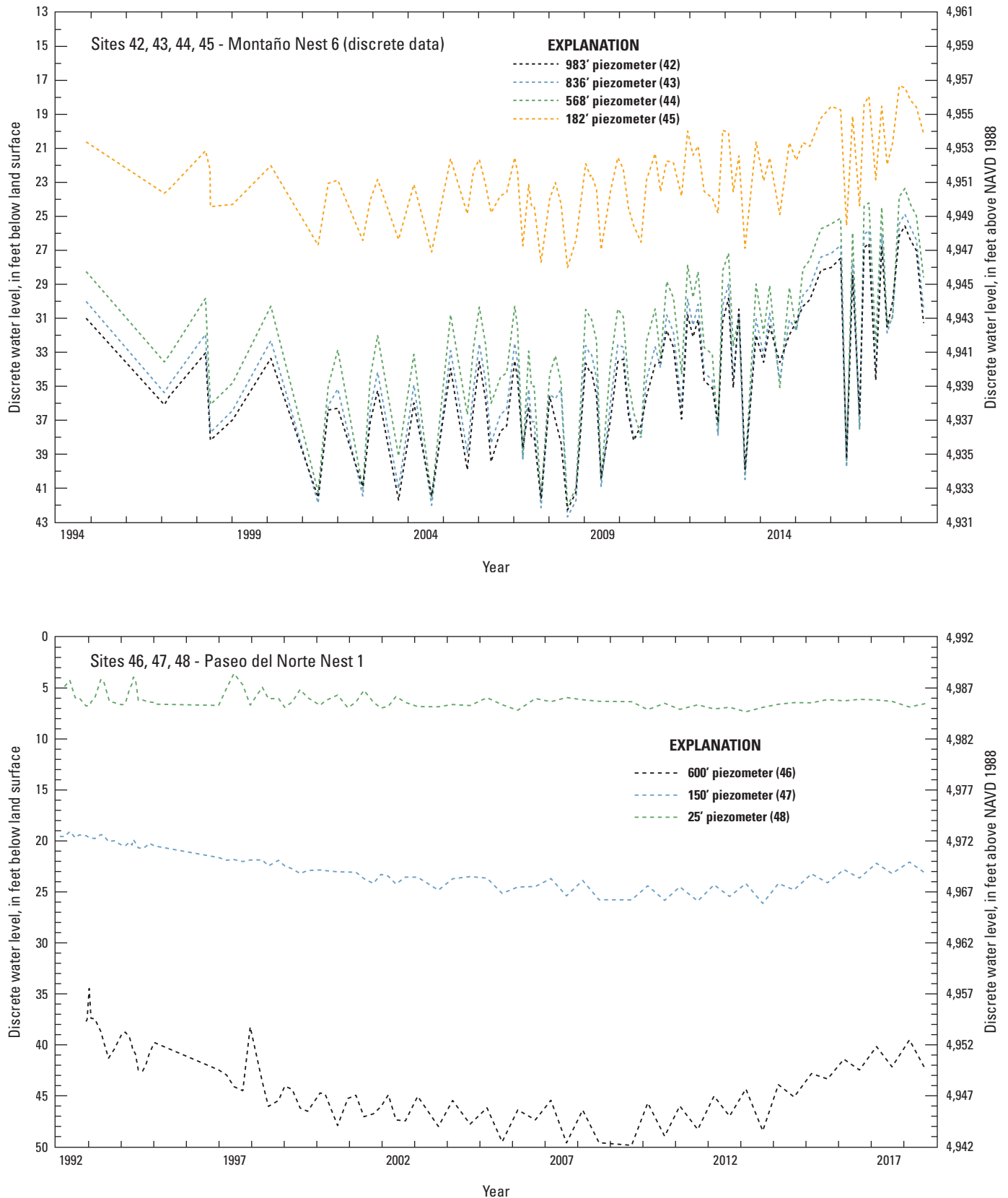


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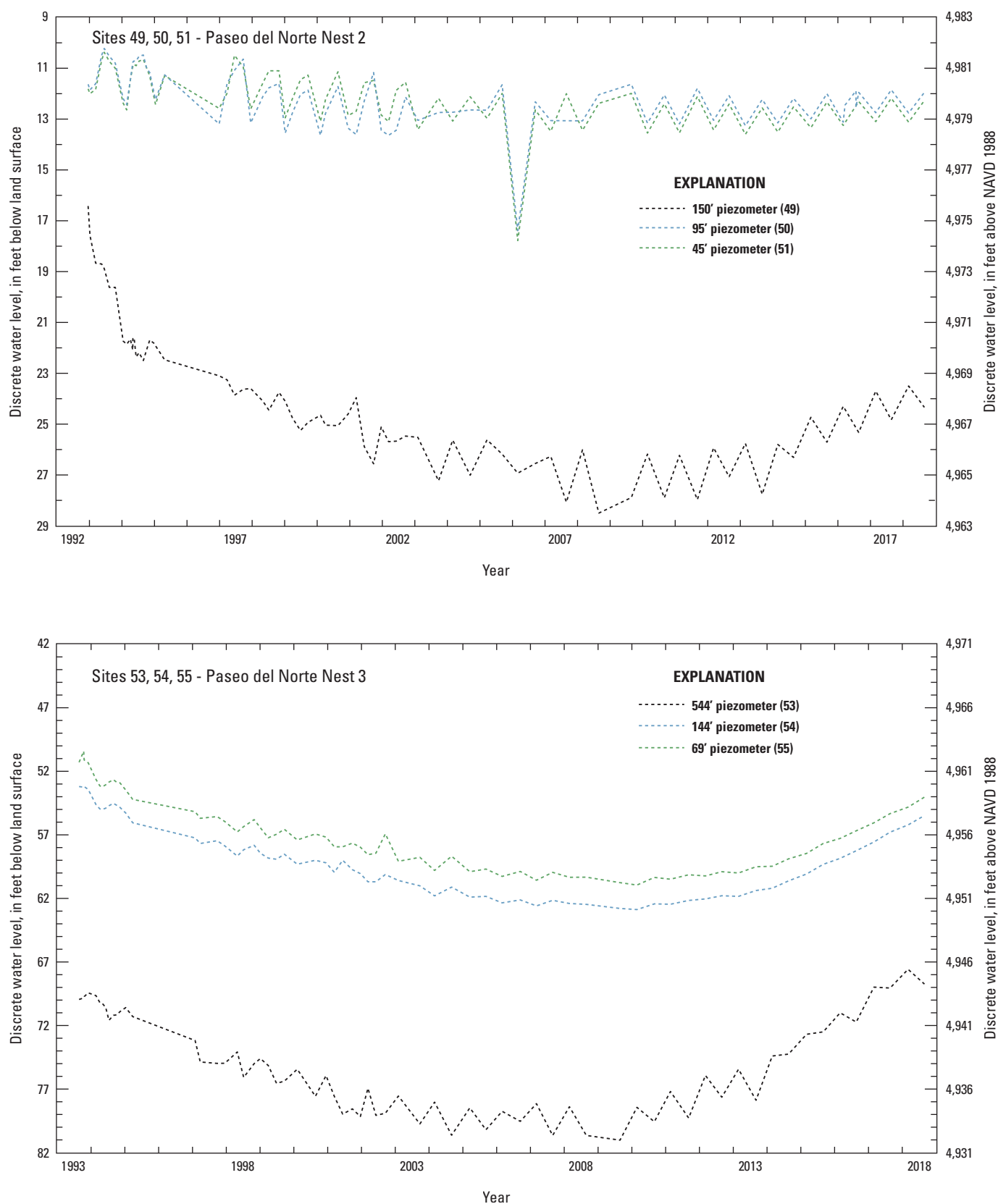


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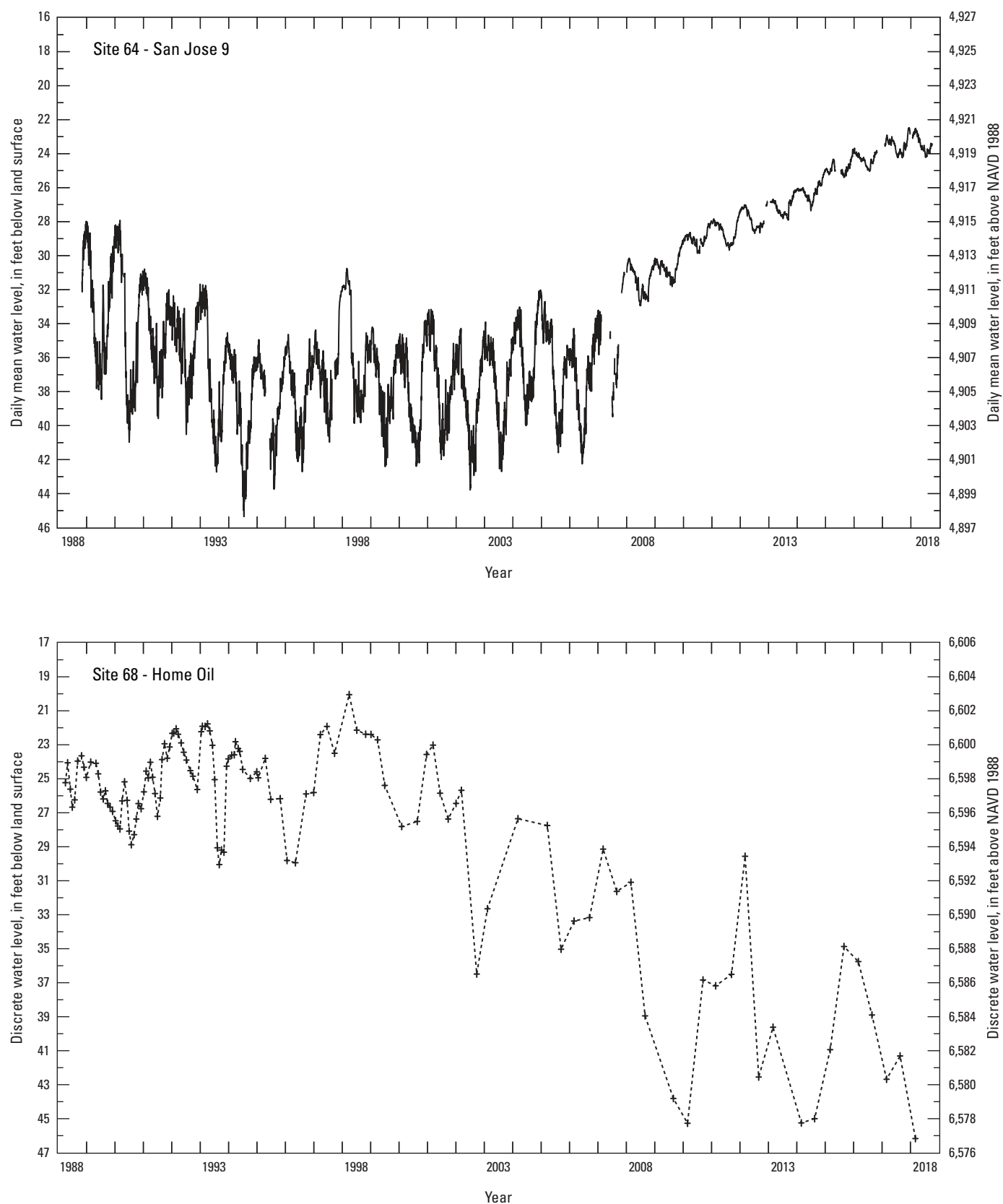


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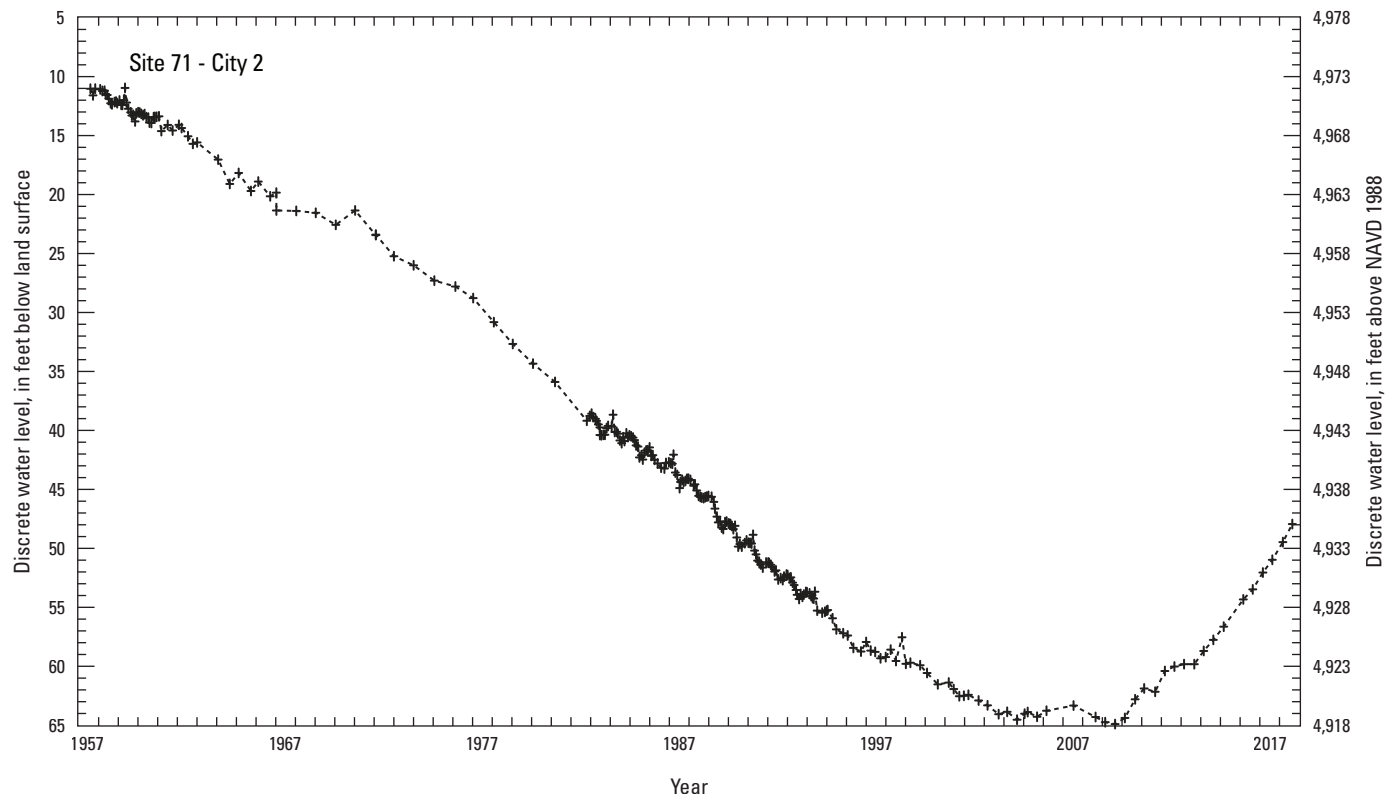
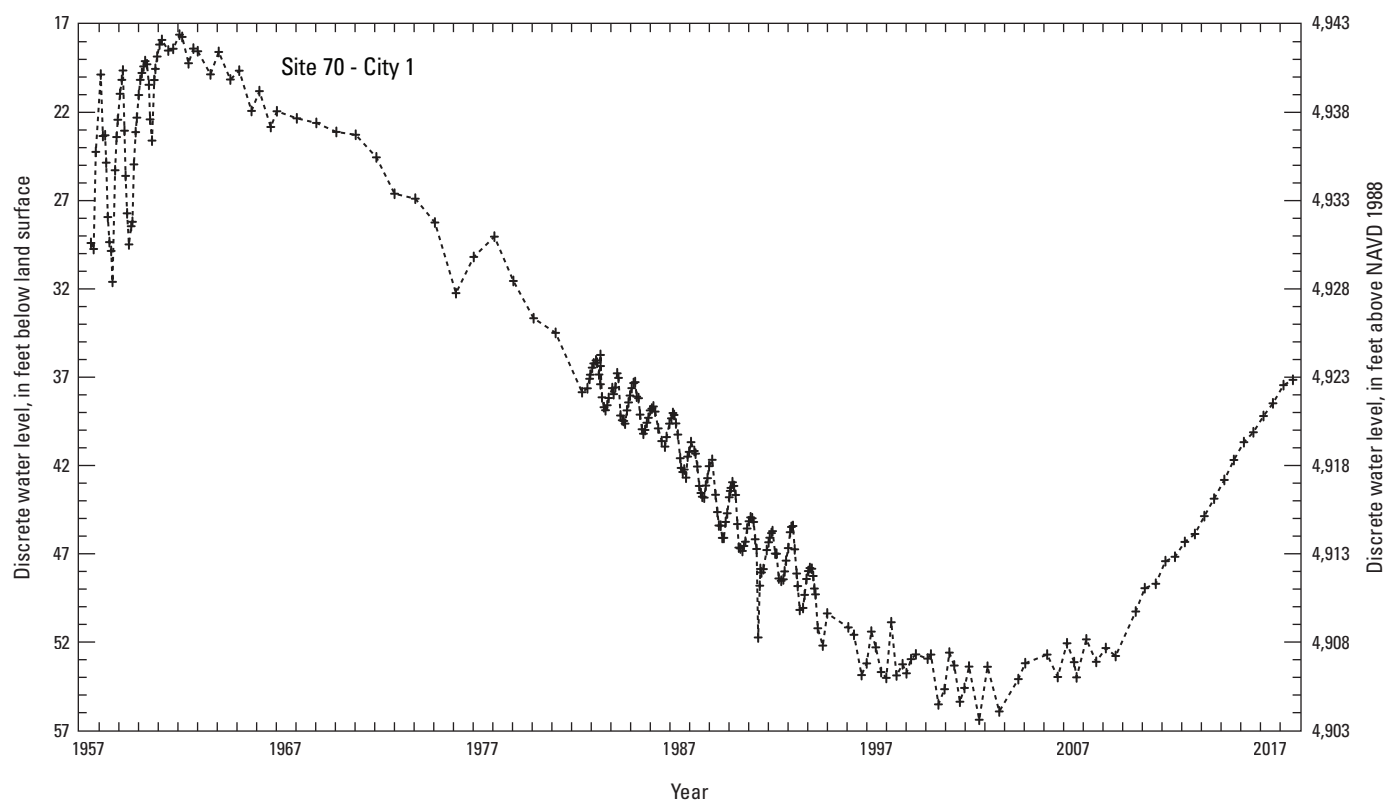


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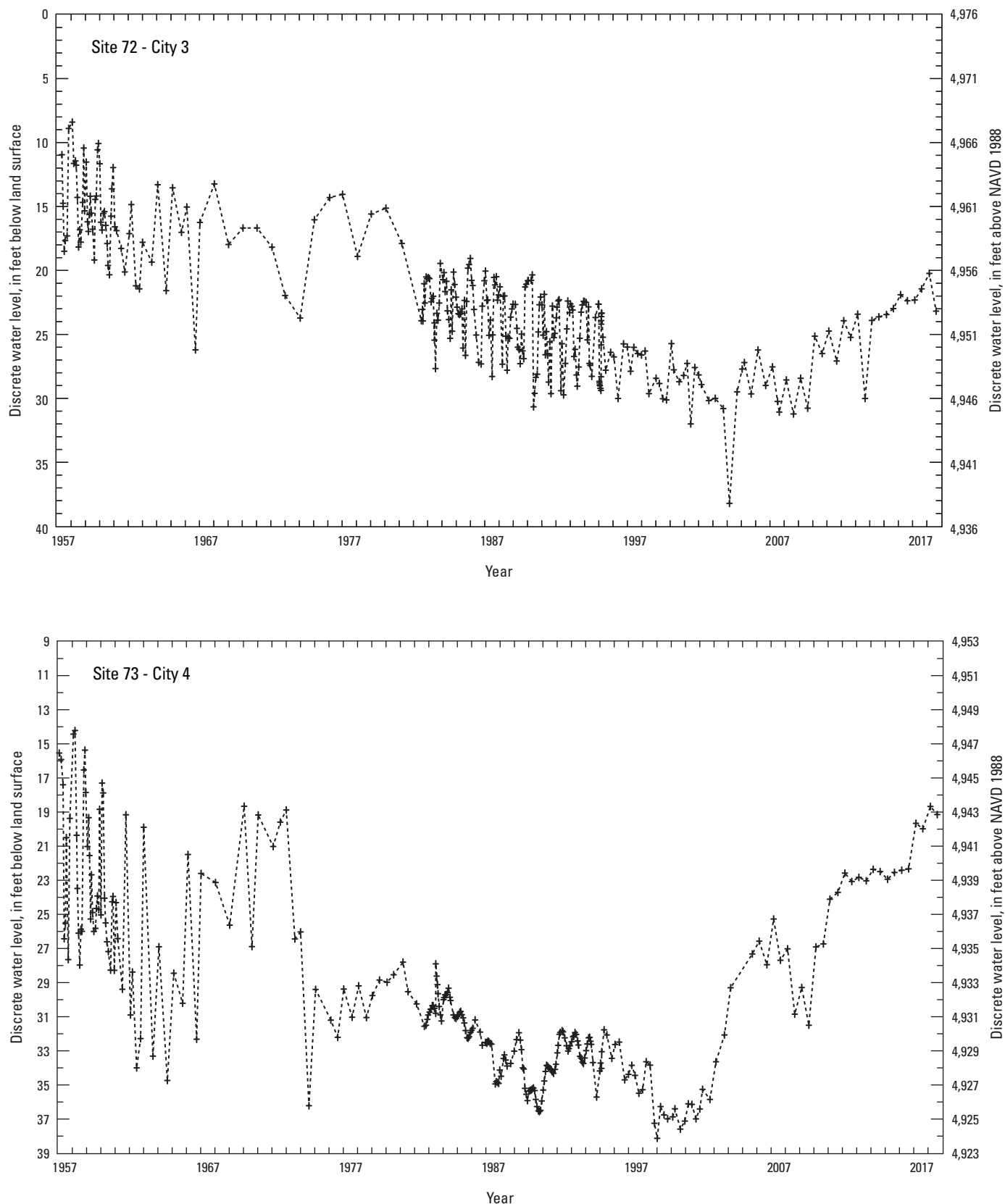


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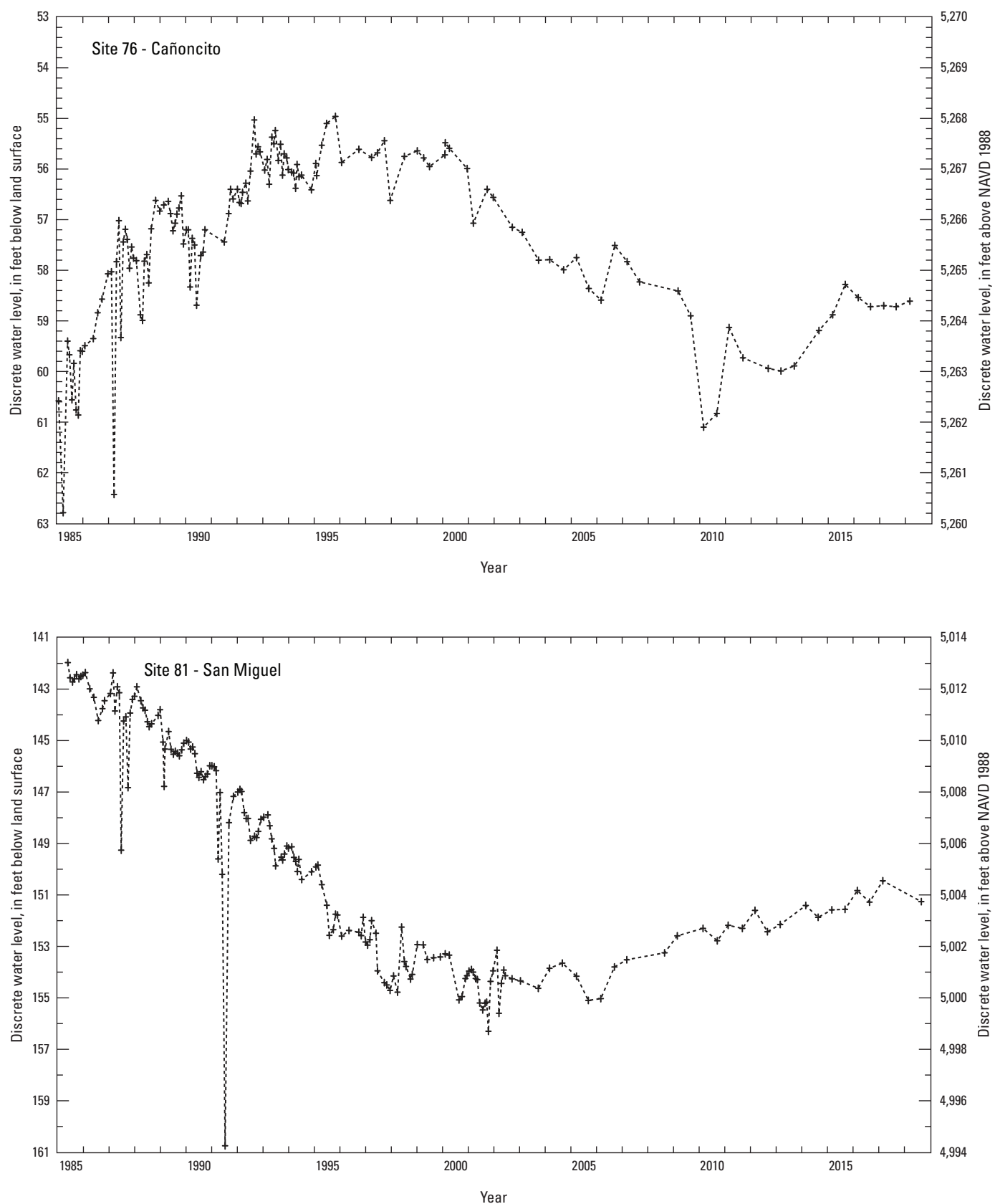


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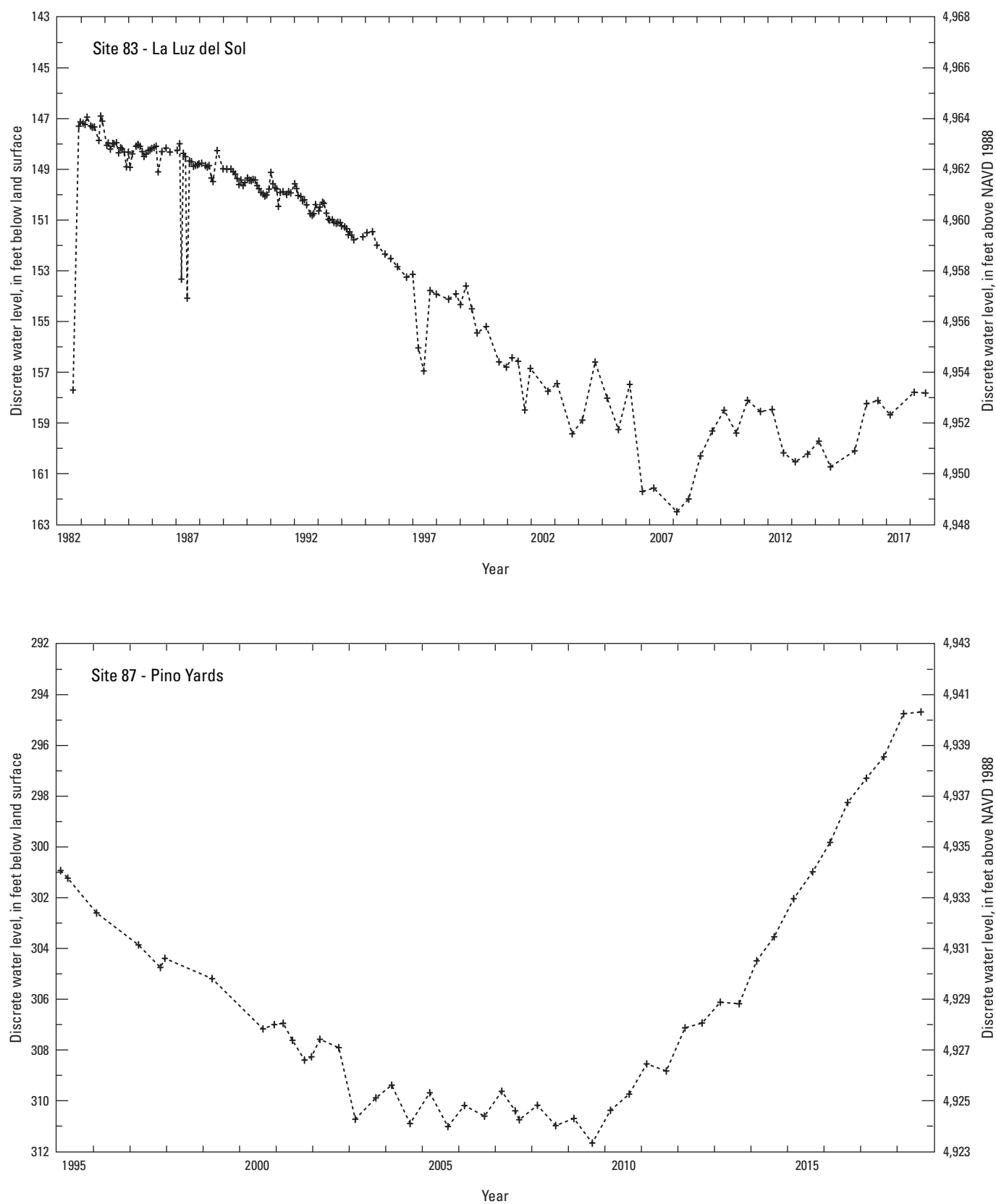


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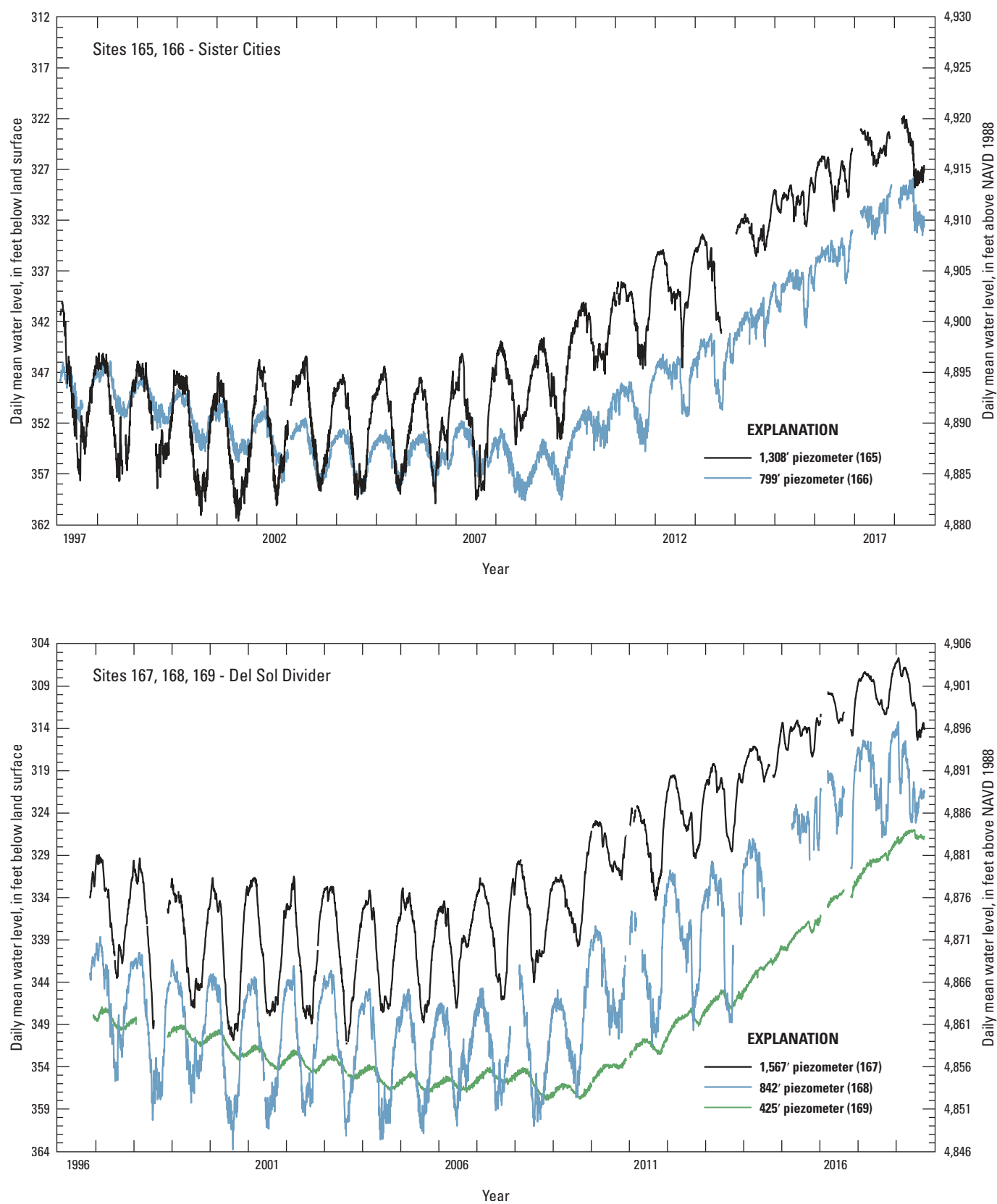


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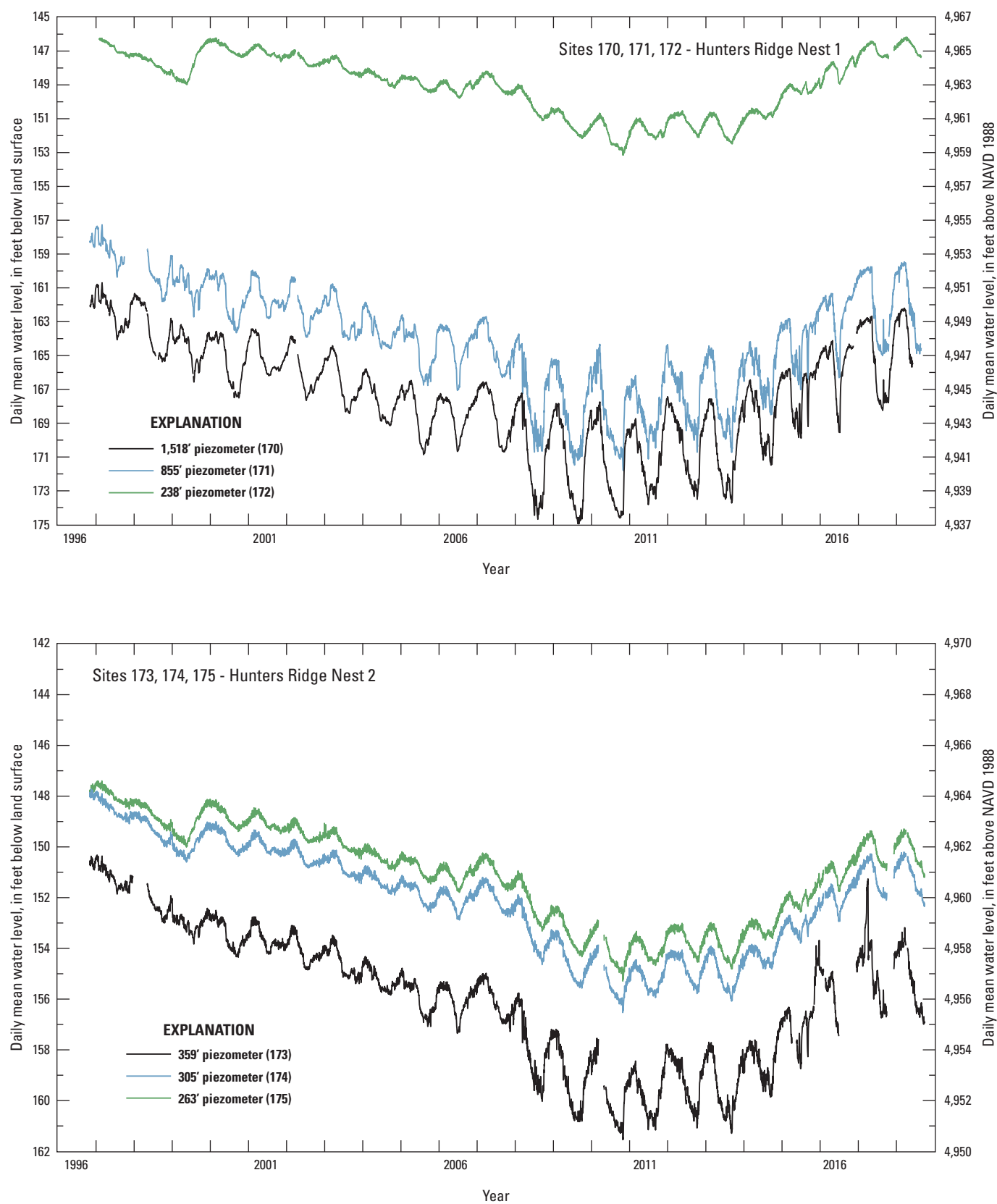


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

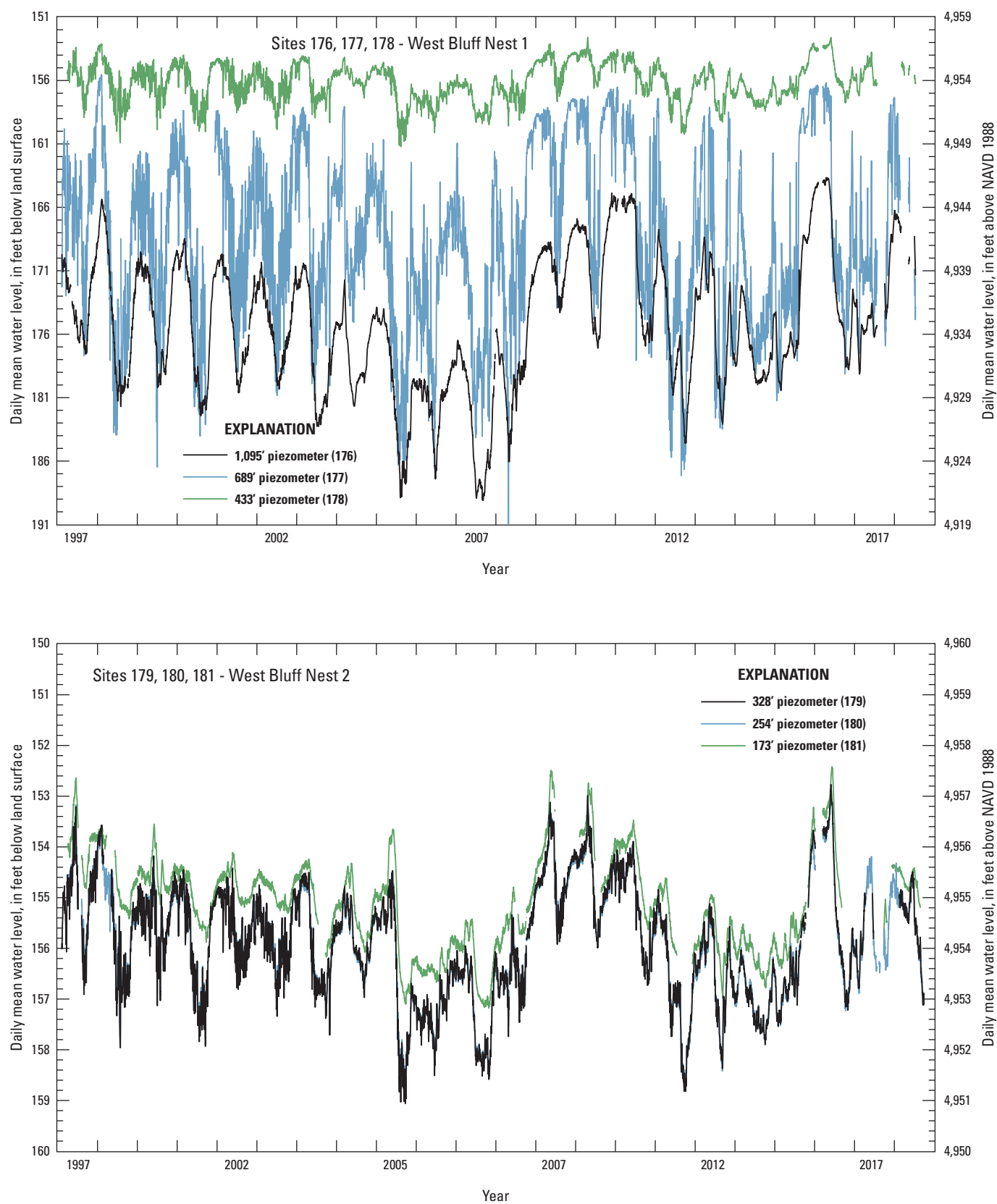


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

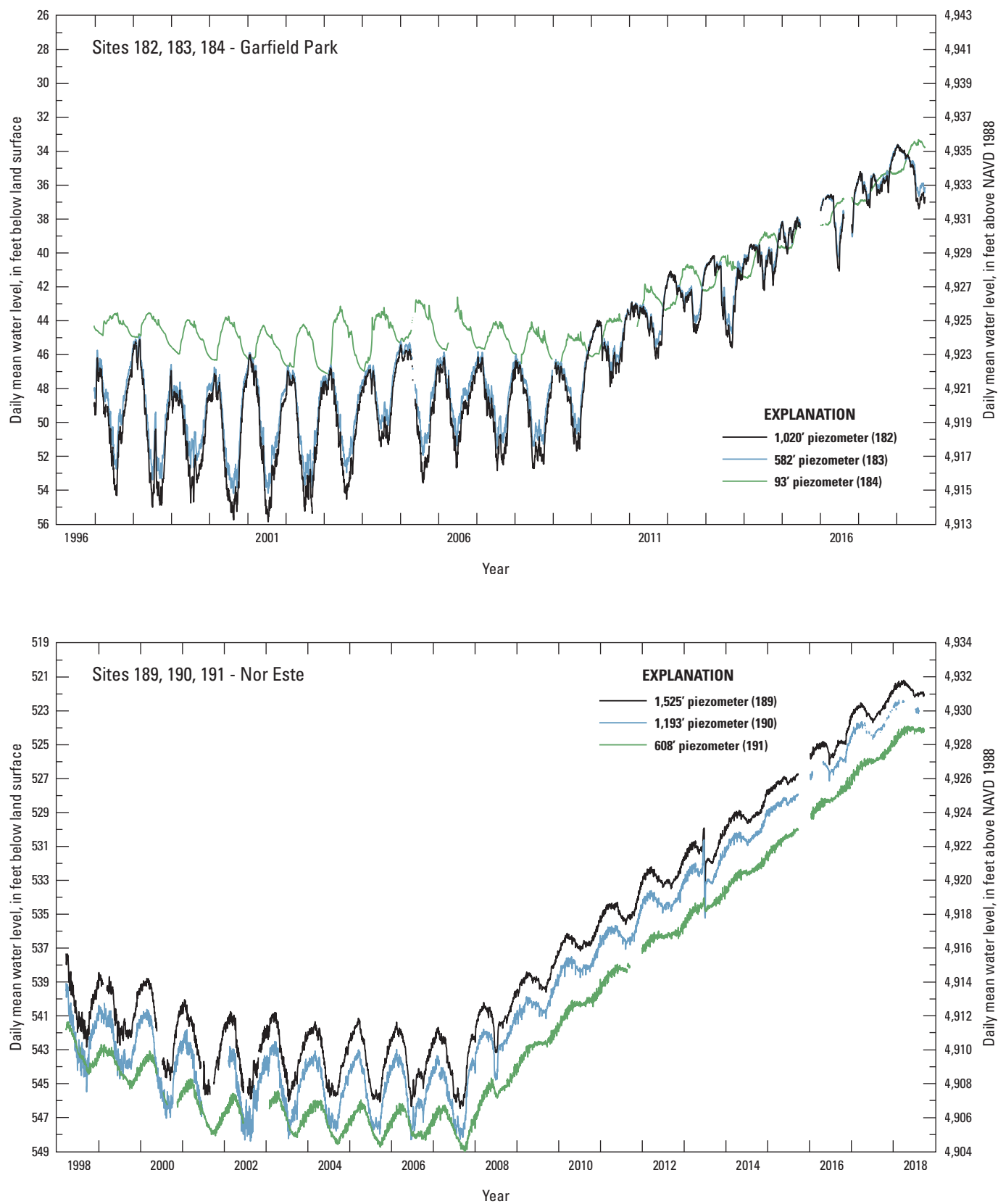


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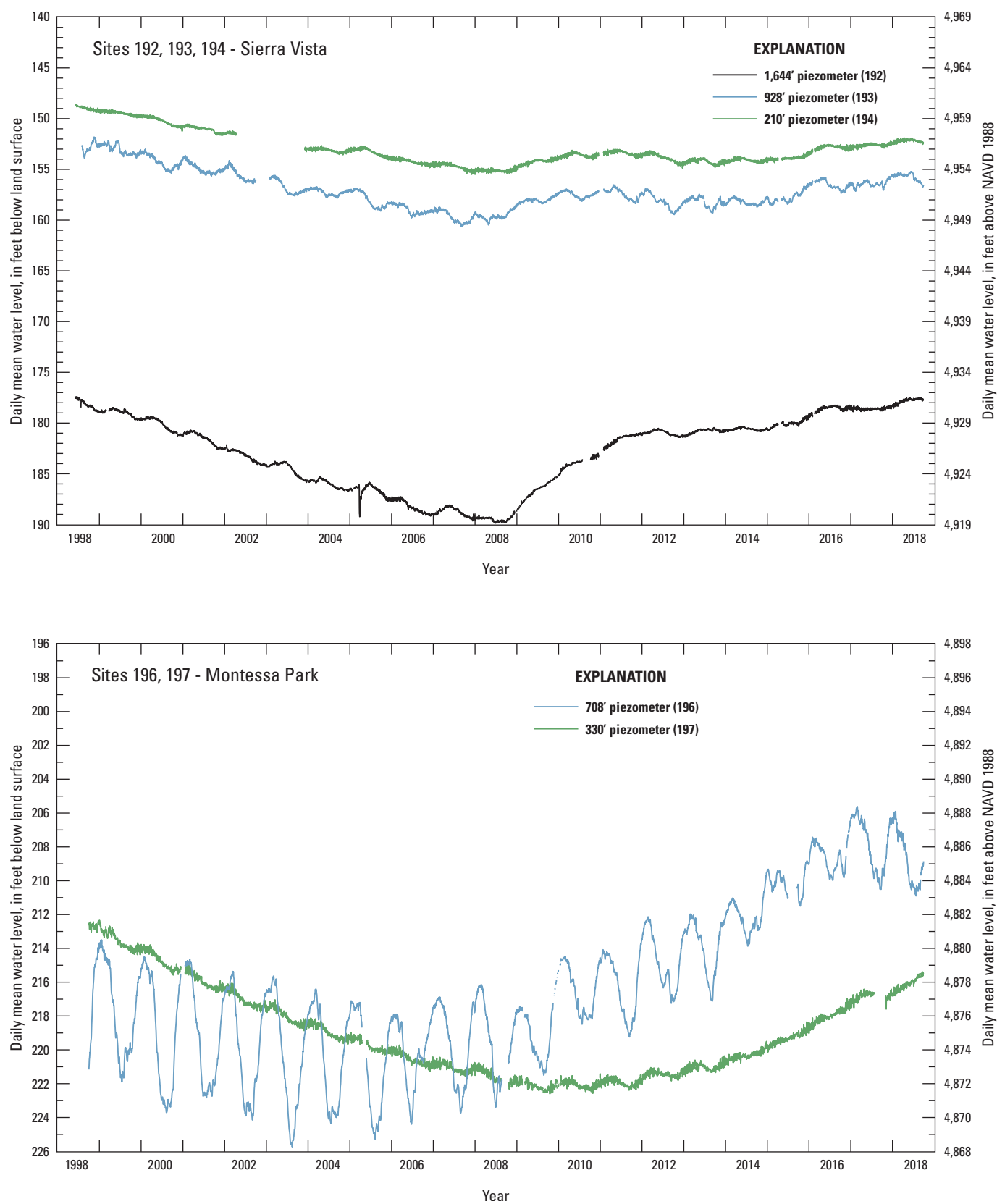


Figure 4. Water-level data for selected wells and piezometers in and adjacent to the Albuquerque Basin, central New Mexico, period of record through September 30, 2018 (NAVD 1988, North American Vertical Datum of 1988). Site numbers correspond to those in table 1.—Continued

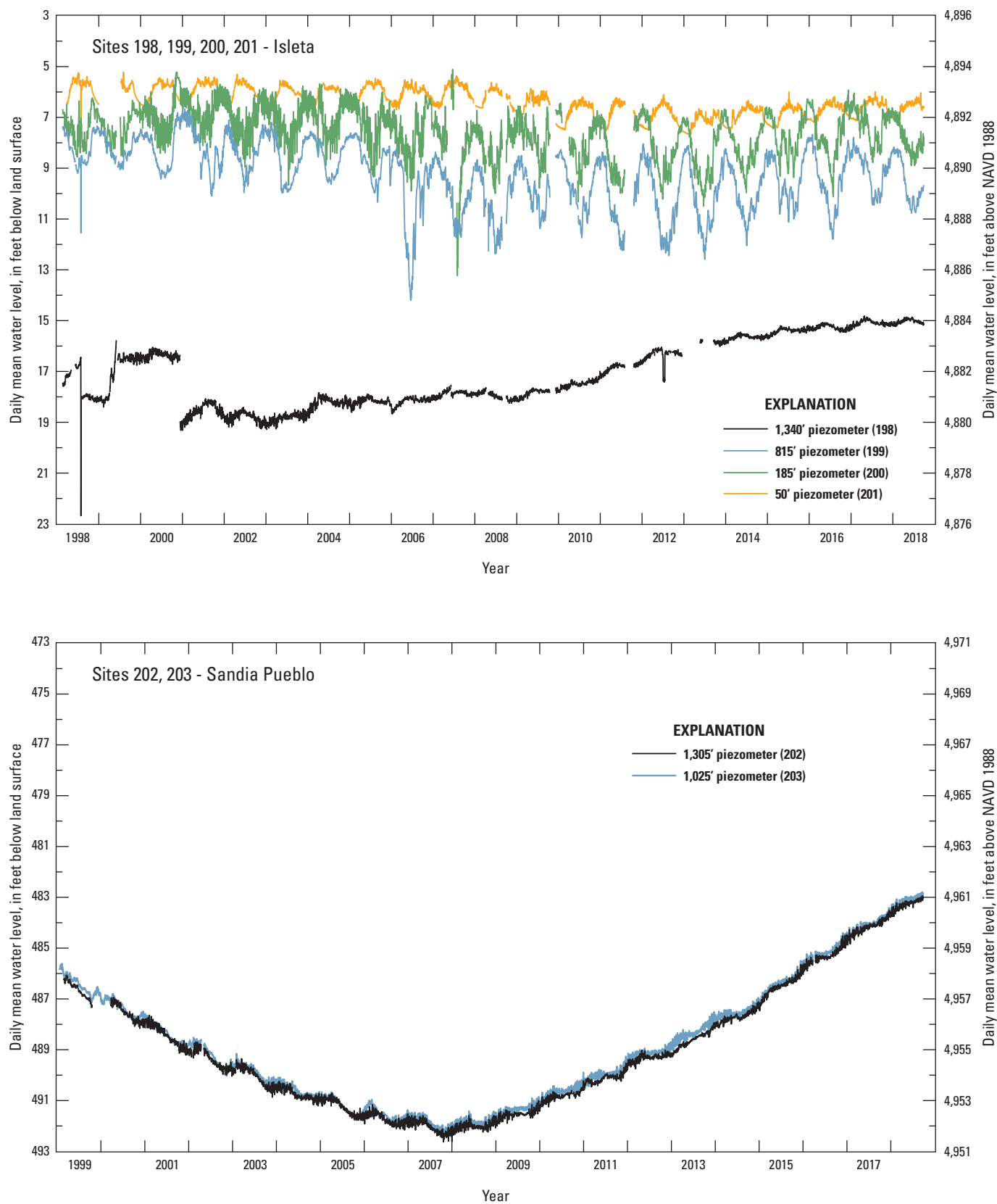


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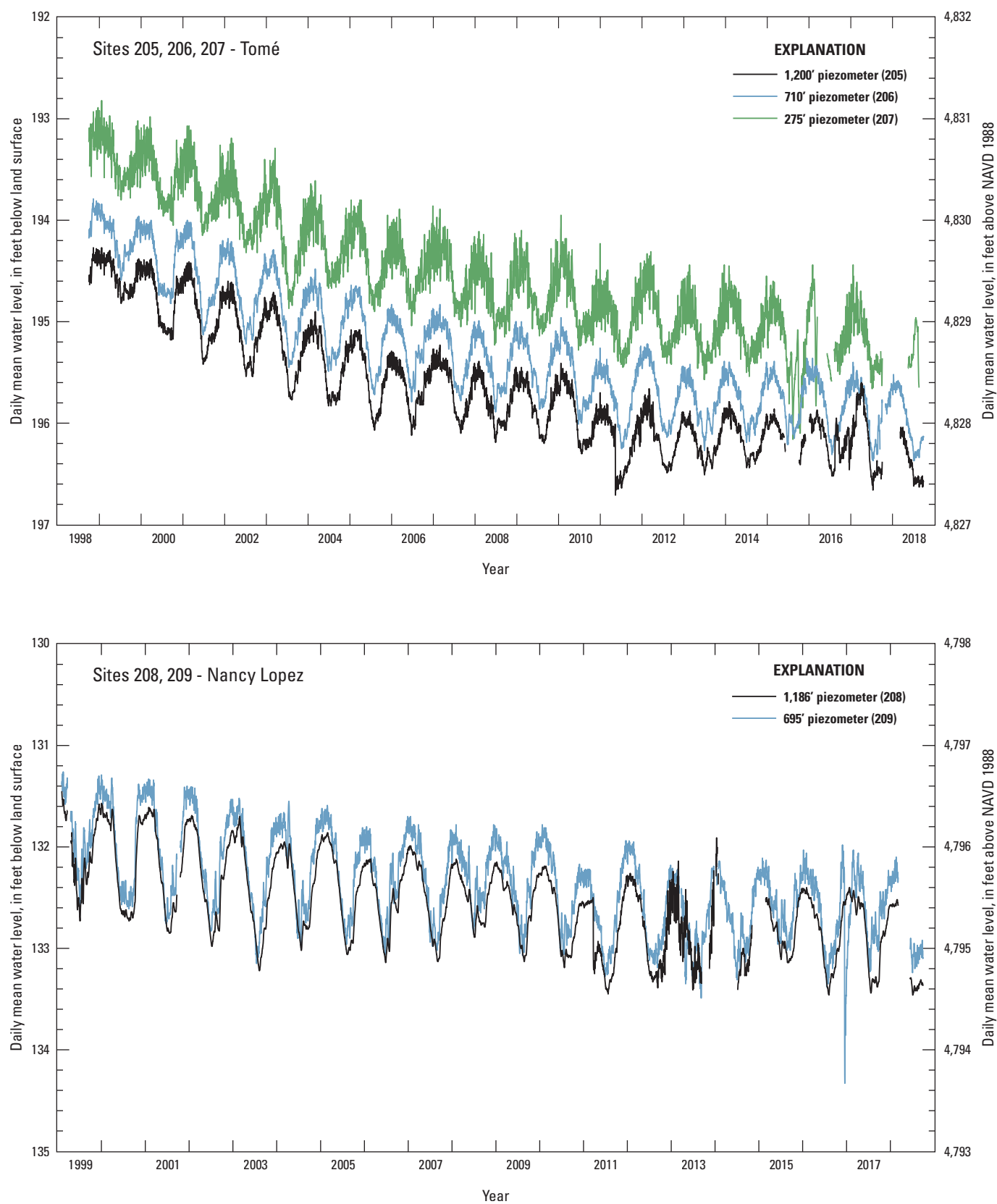


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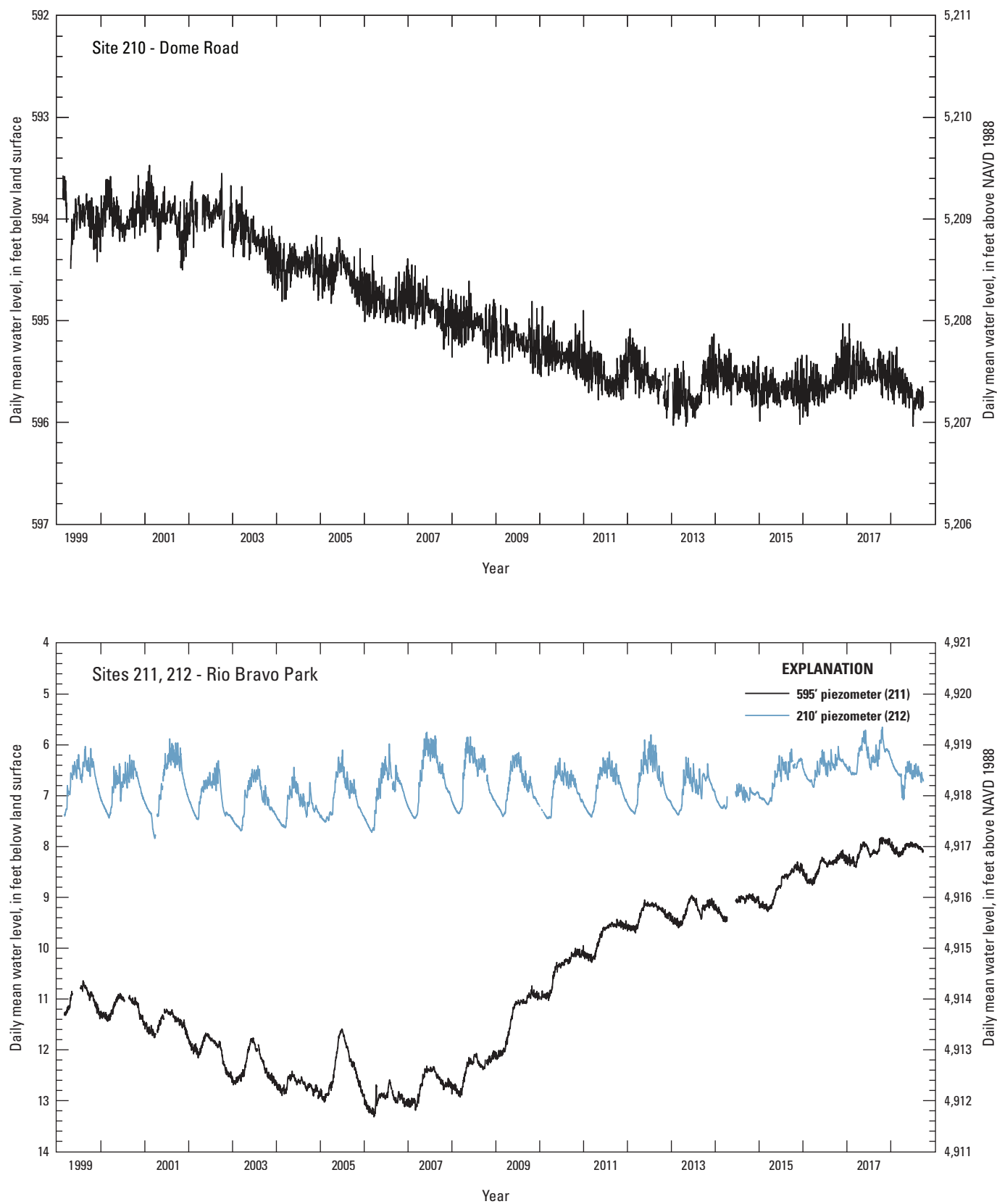


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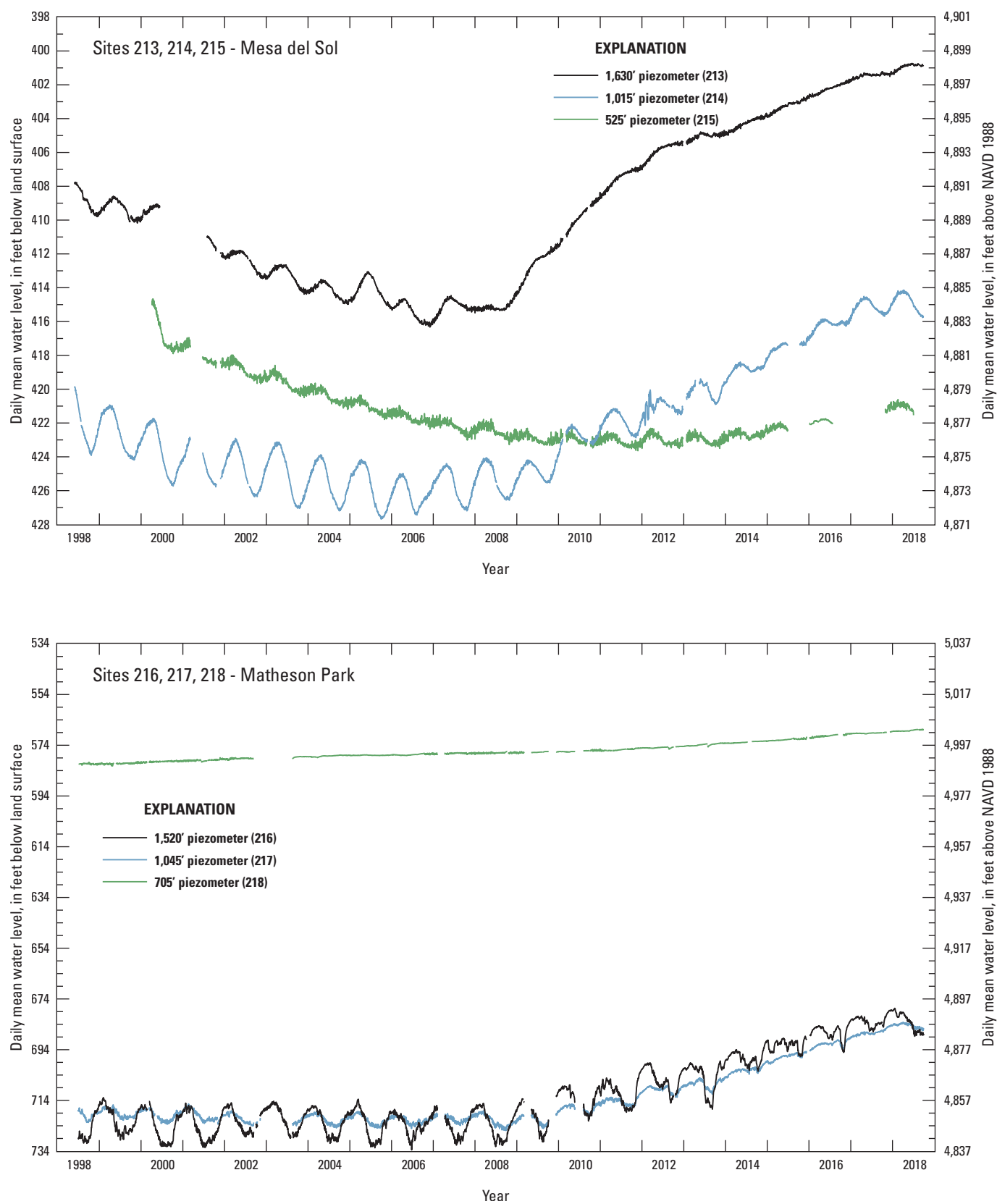


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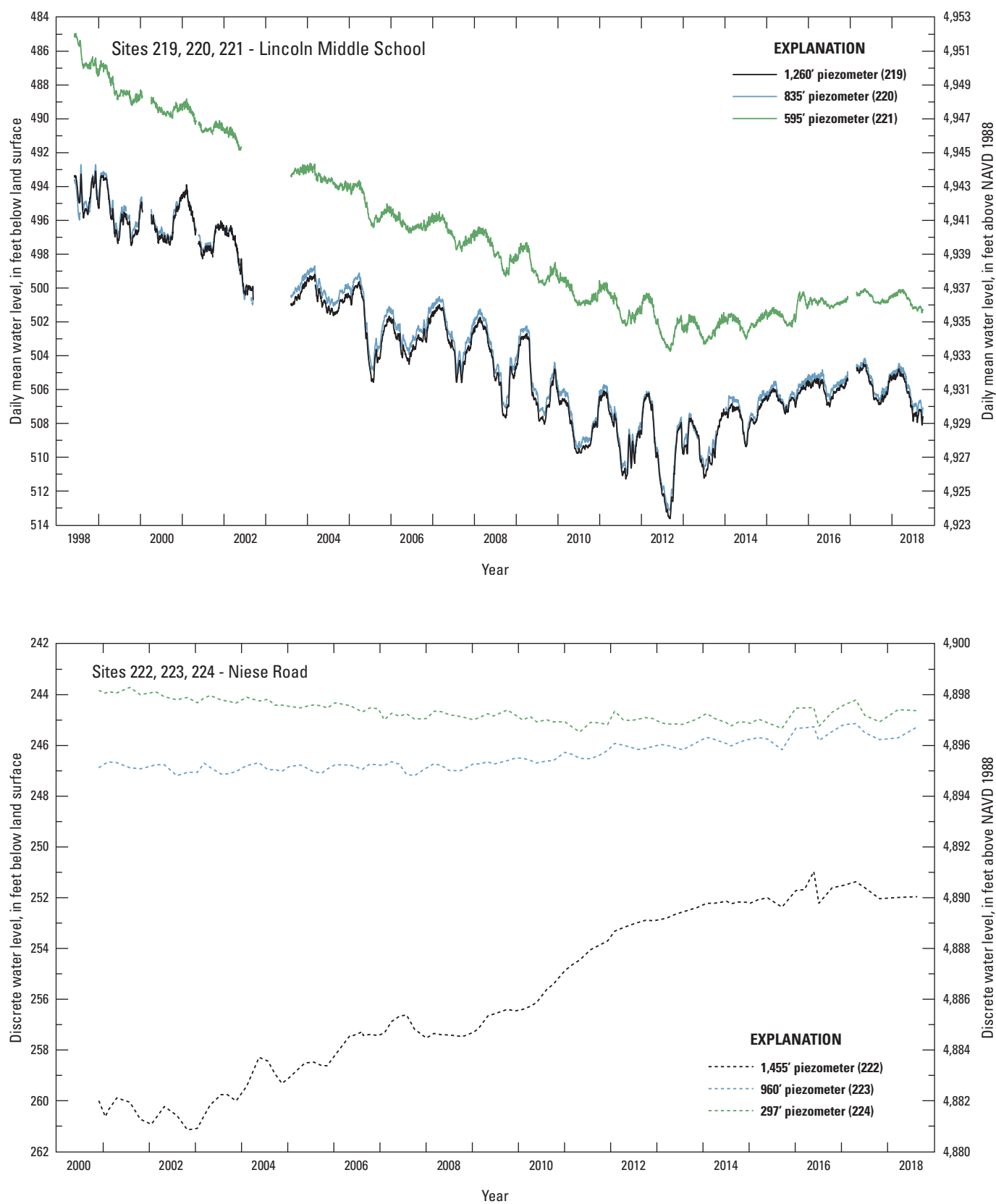


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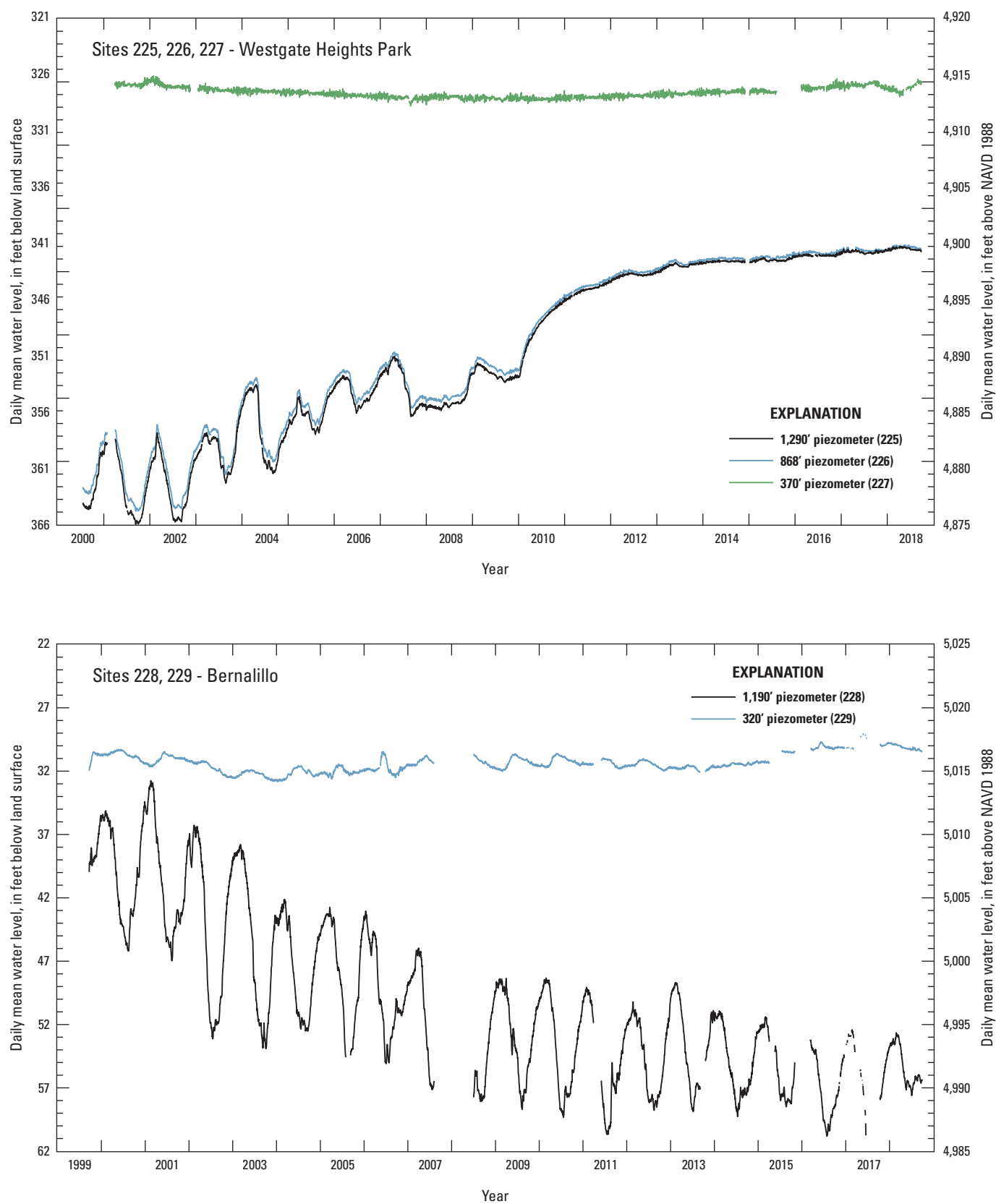


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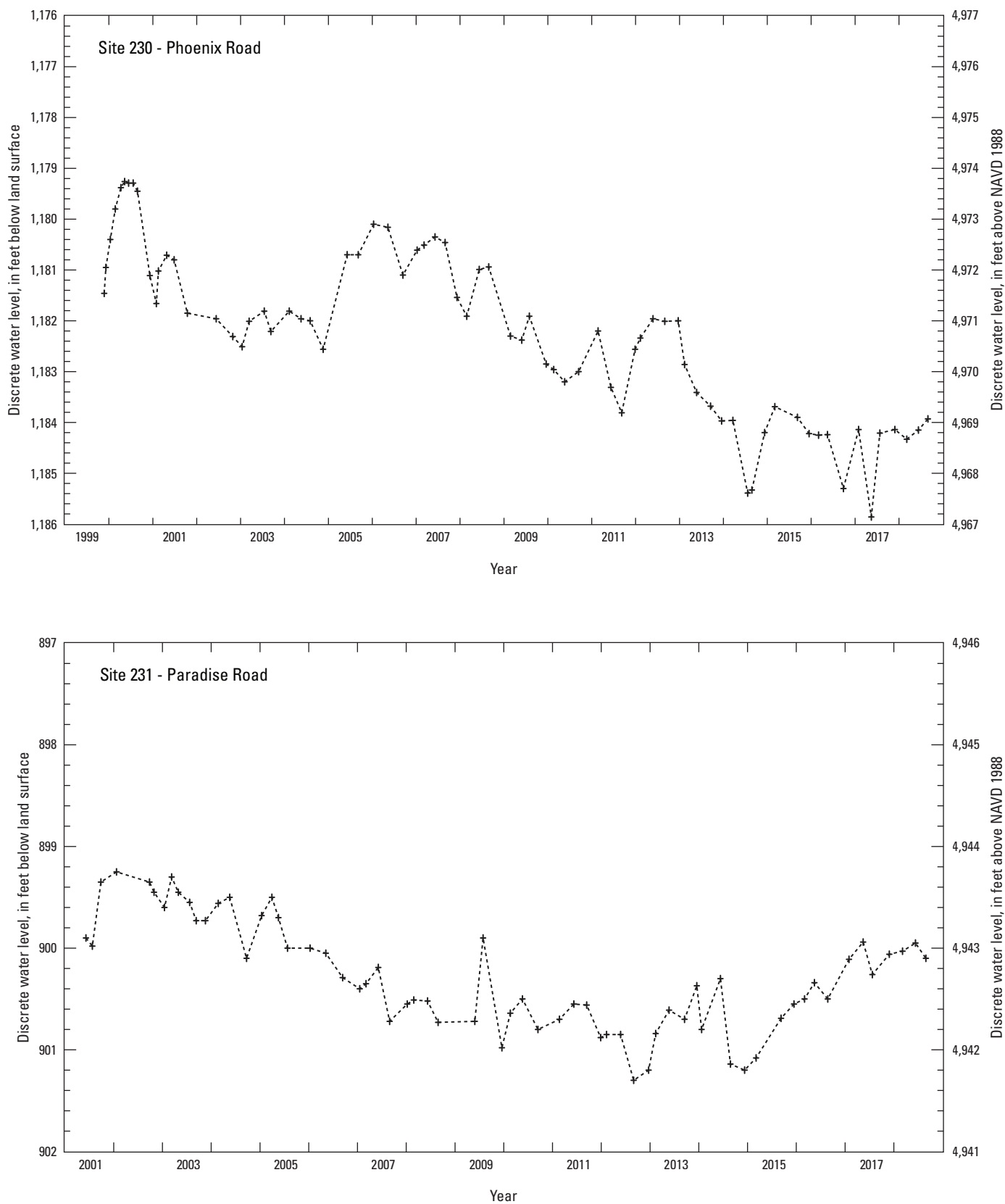


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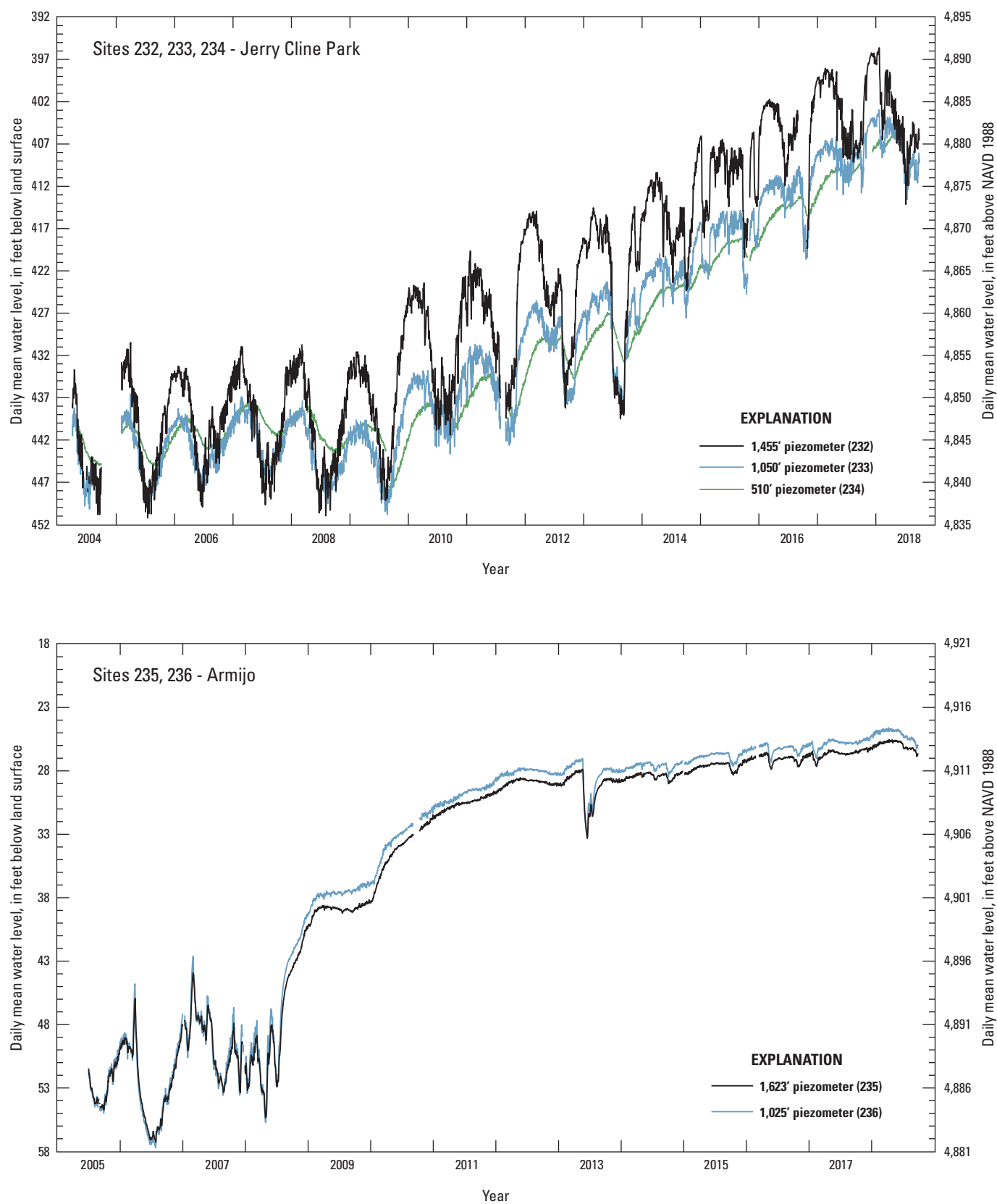


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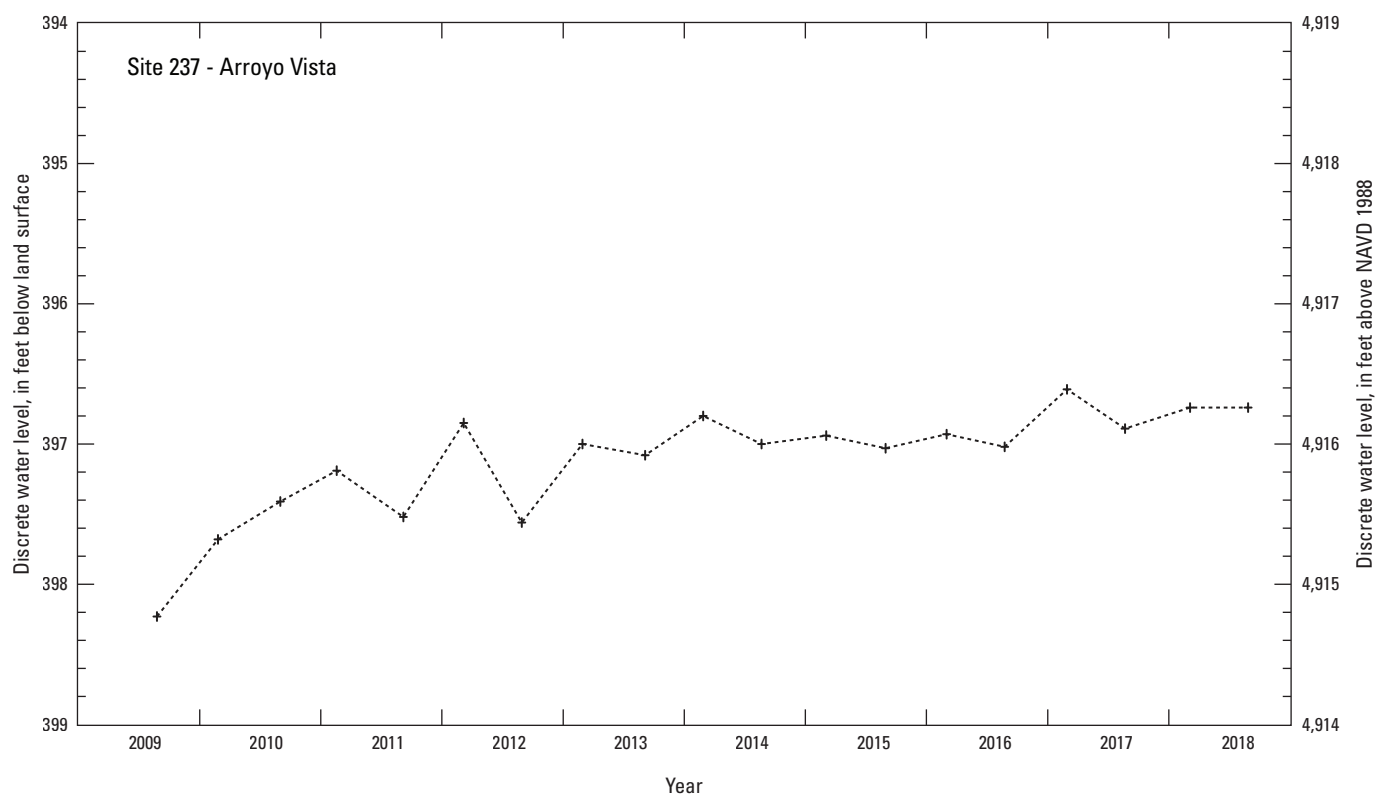


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Acknowledgments

The authors would like to acknowledge the efforts of Joseph E. Beman, who led production of 11 previous USGS reports documenting water-level data at the network described in this report. The authors would like to thank the many USGS staff who have contributed to collecting the water-level measurements used in this report, notably Joseph E. Beman, Christina F. Bryant, and Chris Traft. The authors would also like to thank USGS staff Allison K. Flickinger and Jeff D. Pepin for their assistance in compiling the hydrographs included in this report.

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